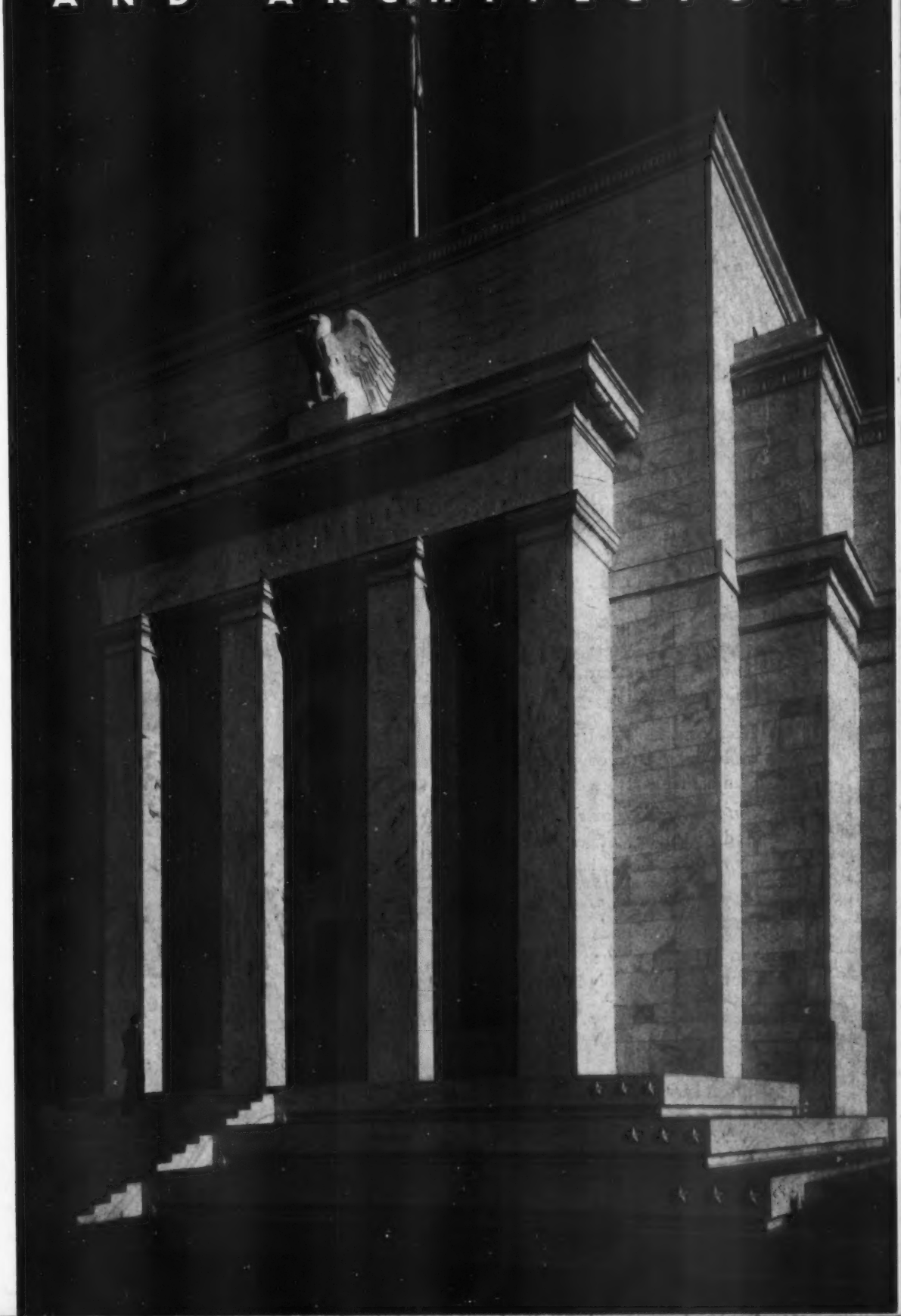
AMERICAN ARCHITECT
AND ARCHITECTURE



NEW BAUHAUS
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SHOPS & STORES

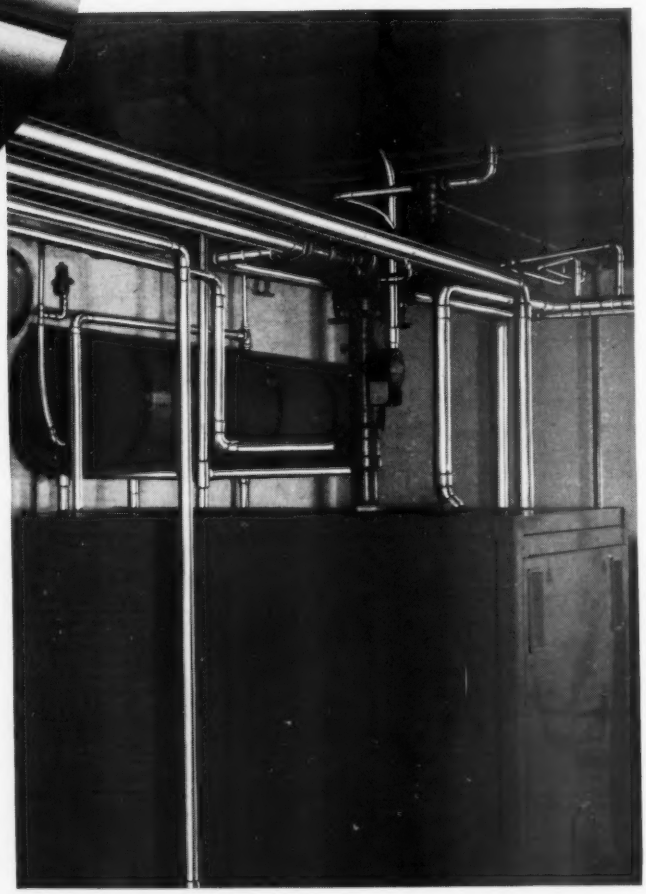
DECEMBER

1937

Four Important Advantages

of Copper Tubes for heating lines

Anaconda Copper Tubes and Fittings offer far better value than rustable piping for hot water heating systems, particularly of the forced circulation type; also for low-pressure steam installations and for oil burner lines.



1 Copper Tubes reduce resistance to flow. Smooth interior surfaces permit 10% to 15% greater velocity of circulation with the same head.

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3 Heat losses are less. Usually, the heat given off by uninsulated copper lines is no more than desirable for heating the basement.

4 *Cost is only a little more than rustable piping!* And Anaconda Copper Tubes and Fittings are *rust-proof*... a "lifetime" investment.

• • •

The complete Anaconda line of tubes and fittings in sizes from ⅛" to 8" is readily obtainable from leading supply houses. 3737A

Anaconda DEOXIDIZED Copper Tubes

ANACONDA from mine to consumer

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Another FINE MODERN SCHOOL gets FITZGIBBONS STEEL BOILER HEAT

Yonkers P. S. No. 26

Engineer in charge: Mr. A. G. Corbin, head of Yonkers Architectural and Engineering Dept.

General Contractor: John W. Ryan Company, New York City

Heating Contractor: John Winkle & Co., Larchmont, N. Y.

LEFT: *The two Fitzgibbons R-Z-U Boilers which comprise its model heating installation.*

YONKERS, a charming residential town on the Hudson, takes particular pride in its excellent educational facilities, such as its new Public School No. 26. Look at the businesslike installation of two Fitzgibbons R-Z-U Steel Boilers, fired with oil burners, and providing heating comfort, and the high degree of fuel economy which school boards demand.

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The choice for schools, colleges and educational buildings

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General Offices and Show Room: **Architects Bldg., 101 Park Ave., New York, N. Y.**

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Use of WROUGHT IRON follows "CORROSION STUDY"

● Genuine Wrought Iron was specified for cold water supply lines over 1", all trap vents, and the heating system of the New boiler room of James Russell Lowell School, Watertown, Massachusetts.

● Genuine Wrought Iron was specified for trap vents over 1¼", underground return lines, heating supplies and returns in buildings of Edith C. Baker School, Brookline, Massachusetts.

● Genuine Wrought Iron was specified for waste and vent lines under 2" and heating return lines in City Hall, Waltham, Massachusetts.

Examples by... KILHAM, HOPKINS & GREELEY... Boston Architects

Corrosion studies in New England not only show what conditions must be met, but also many instances of wrought iron's long, faithful service since this is an old proving ground for pipe material.

Thus it is only natural for wrought iron to be specified for many corrosive services whenever an architect is designing any permanent building.

Note how Kilham, Hopkins & Greeley have specified wrought iron for those services where an analysis of corrosive conditions and a review of wrought iron's service record shows it should be used.

We are always glad to aid you in making a corrosion study that will help you select material best suited for each specific type of service.

For a starter, just write our Engineering Service Department in Pittsburgh, or our nearest Division Office, and tell us the types of services involved and the location of the building. A. M. Byers Company. Established 1864. Pittsburgh, Boston, New York, Philadelphia, Washington, Chicago, St. Louis, Houston, Seattle, San Francisco.

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Tubular and Flat Rolled Products

Specify Byers Genuine Wrought Iron Pipe for corrosive services and Byers Steel Pipe for your other requirements

AMERICAN ARCHITECT AND ARCHITECTURE

CONTENTS
DECEMBER 1937

Vol. CLI No. 2664

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NEXT MONTH

The first of our monthly critical essays written by Dr. Walter Gropius, professor of architecture at Harvard University . . . Six residences of outstanding individuality . . . Miles Colean tells of F H A's new financing plan . . . Rutherford Boyd explores the possibilities of three-dimensional forms based on the parabola . . . A sumptuous photographic survey of new architecture in Palestine . . . The Portfolio, Roof Textures . . . In Time-Saver Standards, reference tables of facts concerning some of the basic building materials . . . Beginning a three-part exhaustive technical treatise on heating and air conditioning, bringing up to date one of the most important technological marches of recent time. . . .

CONSTRUCTION

THE VALUE OF OCTOBER BUILDING PERMITS, as indicated by Messrs. Dun and Bradstreet's 215 selected cities, dropped a notch below that of October, 1936. While the decrease amounted to only .03% for the country as a whole, if New York's whacking 84.6% gain is excluded the other 214 cities show a drop of 18.5%. Compared with September, a gain of 4.5% is indicated if New York is included and a decrease of 16.1% if it is not.

October volume of $90,674,783 brings aggregate permit volume for the first ten months of 1937 to $942,293,071, which is 14.7% above the same period of last year, but 67.5% below a decade ago when the boom of the latter 'twenties was at its height.

BIG NEWS OF THE DAY IN CONSTRUCTION, of course, is Washington's seductive attention to private industry and the conciliatory tone being employed to stimulate a re-entrance of private funds into the building field.

Indeed, the construction industry seems to be the government's current fair-haired boy. Certainly, no other one business activity affects a greater number of people, and its improvement would be felt in all quarters. Just what the nature of government aid will be is not known as we go to press, but it is indicated that some outstanding capitalist will be chosen to administer whatever plan is used to put private funds back to work in the construction field.

THE DOWSERVICE in a recent discussion of the subject gives the following ten suggestions as being indicative of the construction industry's idea of what should be incorporated in any program adopted:

1. Assure general business there will be no new alphabetical agencies launched.
2. Unfreeze private capital by repealing or modifying the corporate undistributed profit tax law and at the same time let business know what to expect in the way of new taxes, if any.
3. Convince the nation that the price of gold is not to be changed.

Come to some understanding with the utility companies as to the limit of contemplated governmental encroachment, if any, upon their usual domain.

5. Sponsor and activate a national low cost housing program.
6. Abandon governmental agencies now in competition with private enterprise.
7. Adopt a more conciliatory middle-of-the-road long-term course with regard to needed social improvements.
8. Declare for observance of commercial and industrial law and order and uphold the inviolability of property rights.
9. Thaw out the anti-trust laws and let it be known that they are still on the statute books for invocation where the public interest is at stake.
10. Discourage price pegging combinations.

Of course, nobody expects wholesale adoption of the points, but you will have a pretty good idea of how well industry is pleased with the Administration's program by how closely it follows the suggestions above.

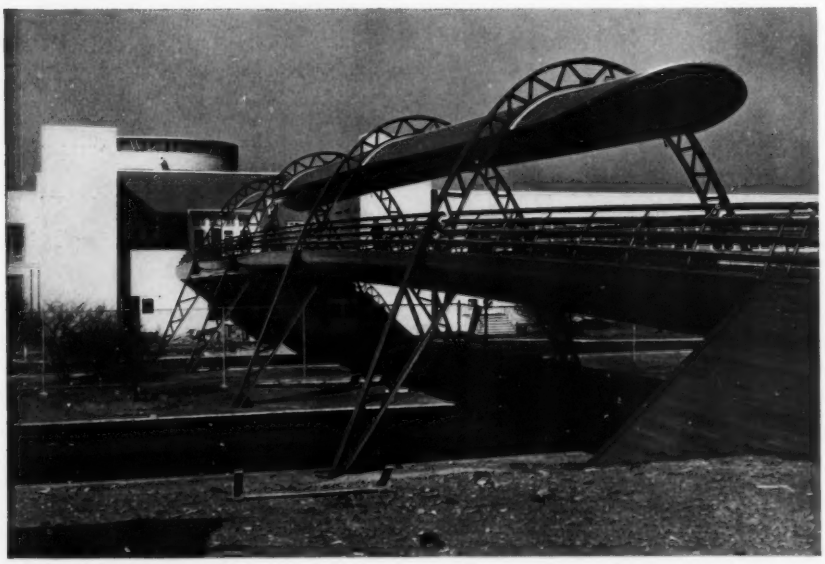


PHOTO: BEN HELLER FROM ATLAS

Small details such as this steel and wood bridge revive fading hopes for the design of the New York 1939 World's Fair

NEW YORKER COLUMNIST HOWARD BRUBAKER, for whose bemused and elfish whimsy we are ever grateful, comments with characteristic incisiveness on our President's concern over construction problems. "Mr. Roosevelt wishes that everybody would start building things. He seems to think more bricks should be laid and fewer thrown," says Mr. Brubaker.

"CONSTRUCTION OUTLOOK 1938" is the title of a booklet recently issued by the F. W. Dodge Corporation. This appraisal, made before announcement of the government's program, estimates that private building for next year will just about equal that of 1937, but further declines in publicly financed work will cause total construction to be moderately less than this year's. Briefly, here is how the Dodge Corporation thinks various types of construction will stack up during 1938:

Commercial: Deferred building in metropolitan areas will be offset by new store and office buildings in rural areas and modernization work in cities.

Industrial: Anticipated to run below 1937 but above 1936.

Institutions, Hospitals, etc.: Less Federal money, therefore due for reduction.

Religious and Memorial: Rising trend may continue.

Apartments and Hotels: Prospect of higher rentals will lead to small increase.

One- and two-family houses: Demand pressure and easily available credit will stimulate an estimated increase in units of 12% over 1937. Heavy engineering projects—government and private: Due for decline.

Of course, a national construction program could easily change this mildly pessimistic prognostication into a very cheerful one—but crystal gazing being the risky business it is, we shall hazard no predictions, because we have heard that predictions, like Banquo's Ghost, are given to rising at subsequent dates and haunting people.

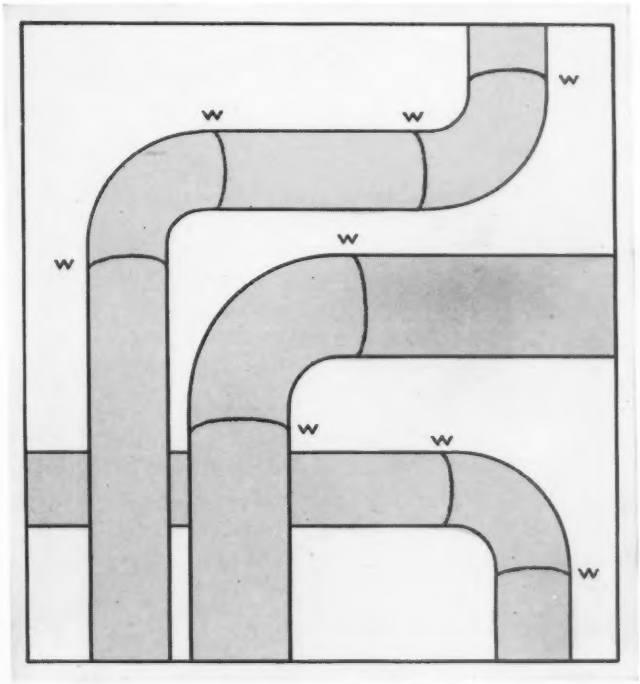
MISTAKEN USE OF THE TERM "AIR-CONDITIONING" is being fought by the National better Business Bureau in order to protect consumers from buying devices which do not perform all the functions such equipment should. Air conditioning is defined as being "the scientific preparation and control of the air within a structure, particularly with reference to temperature, humidity and

Specify Welding

for flexibility of piping design

WELDING permits the free exercise of creative planning in designing industrial piping systems. By the use of oxy-acetylene welding, the ideas behind the specifications are embodied in the piping completely—economically—permanently. Furthermore, the welds, when properly made, are as strong, ductile, tight, corrosion-resistant and leakproof as the pipe itself. All joint maintenance—with its resulting delays and expense—is eliminated.

Linde engineers have assisted many architects in the design and installation of thousands of building and power piping systems. This practical experience is available for your use through the Linde office near you. Write for full information and ask how you may obtain a copy of the useful 200-page book, "Design of Welded Piping." The Linde Air Products Company, Unit of Union Carbide and Carbon Corporation, New York and principal cities.



The welds, "W", are smooth inside, and practically flush with the pipe wall outside. Consider the simplicity of this group of welded connections in comparison with the joints made by any other method.

Everything for Oxy-Acetylene Welding and Cutting

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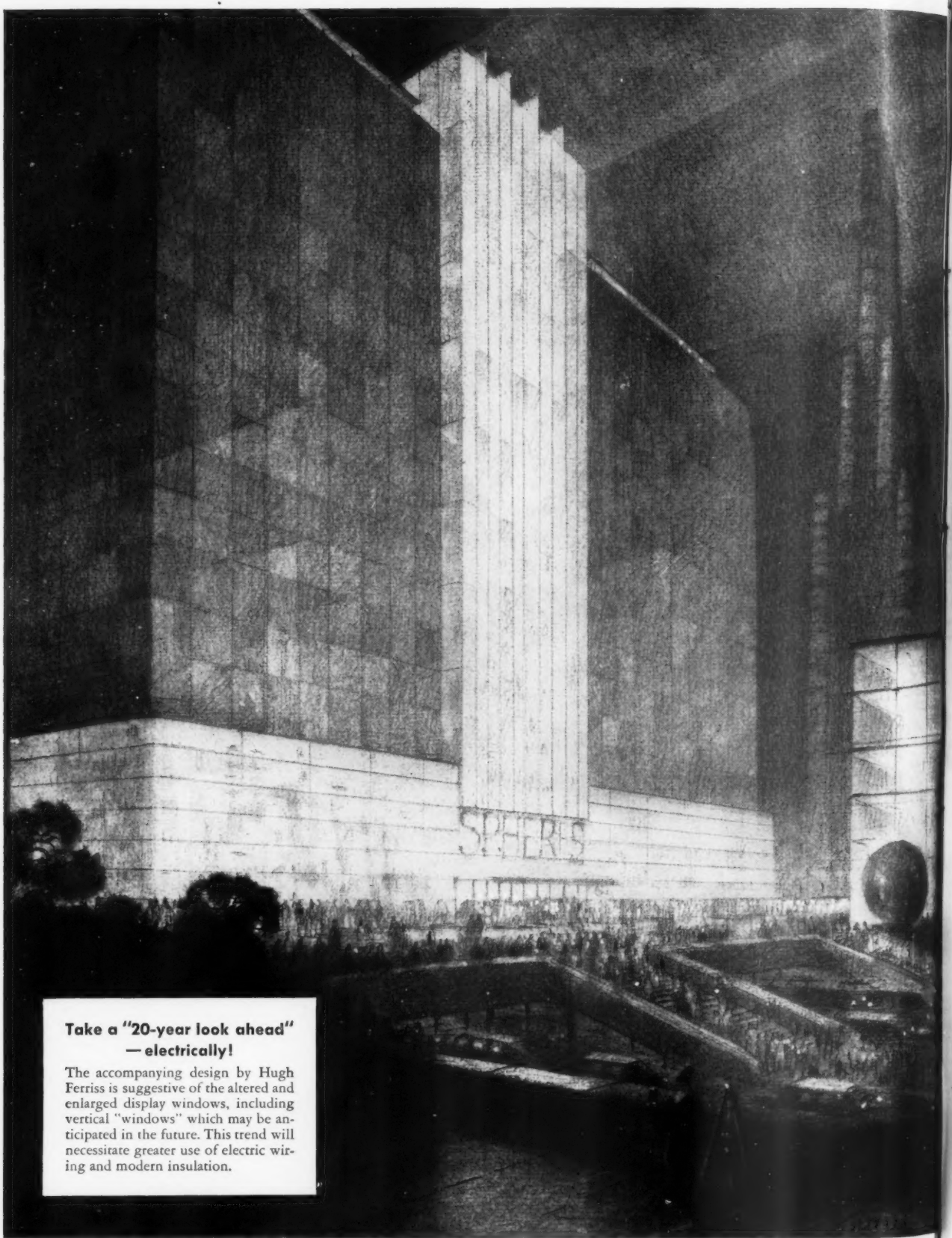
PRODUCTS OF UNITS OF UNION CARBIDE AND CARBON CORPORATION



Take a "20-year look ahead" — electrically!

The accompanying design by Hugh Ferriss is suggestive of the altered and enlarged display windows, including vertical "windows" which may be anticipated in the future. This trend will necessitate greater use of electric wiring and modern insulation.

ANACONDA MANUFACTURES A COMPLETE LINE OF WIRE AND CABLE FOR EVERY INDUSTRIAL,

Wiring deficiencies handicap most present-day buildings!

Safeguard your client against them. Anaconda engineers will help you in attaining "20-year adequacy" so far as it is possible to foresee the future.

RIGHT NOW, in many a city, the lighting company is getting complaints from building owners because of the burden placed upon store-building electric circuits by extra holiday lighting. Feeder lines in most present-day commercial buildings are inadequate, authorities say. Electric cables are too small and of antiquated design.

A vital matter financially

The problem is an important one. Store managers in even medium-size cities are said to value their windows at as high as one hundred dollars a day. And today is not tomorrow! If today finds store management unable to take advantage of "spot-lighting from remote control" . . . to mention one recent development in window illumination . . . what will the next twenty years bring?

It is much cheaper to provide generously *now* for electric wiring in your new project than it will be to replace wire and cable later. Safeguard your client against heavy future expense by planning for "20-year adequacy" so far as that is possible. Make use of the many improvements in cable design pioneered by Anaconda Wire & Cable Company. Stores are but one type of building that needs a "20-year look ahead" electrically.

As an aid to you in obtaining ideal wiring specifications, Anaconda Wire & Cable Company offers the services of its Engineering Department to assist your engineers, consultants, or electrical contractor in the solution of technical wire 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.

A few of many Anaconda cables for commercial use

For Lighting Circuits

Anaconda Duracode has all the outstanding characteristics of other grades of building wire and affords additional safety under conditions where the circuits may become overloaded for sustained periods of time.

For Power Circuits

Anaconda offers *Rubber, Varnished Cambric,* and *Paper-Insulated Cables* for a wide range of applications. Many have special features offering advantages not always found in such cables.

For Control Circuits

Anaconda *Performite* is an example of a high-grade Anaconda compound for service such as fire alarm, signal and control cables. This cable has high insulation resistance, exceptionally good aging characteristics and physical properties.

FOR OUT-OF-THE-ORDINARY APPLICATIONS, we suggest that you consult our "Industrial Guide for the Selection of Wire & Cable." A copy of this Guide will be sent upon request. Consult our Engineering Department for advice on unusual problems. 37639

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COMMERCIAL AND RESIDENTIAL PURPOSE. OUR ENGINEERING DEPARTMENT IS AT YOUR SERVICE

motion." Summer air conditioning consists of cooling, de-humidifying and circulating air; winter air conditioning should heat, humidify and circulate air. Year-round air conditioning should do all of these.

The National Better Business Bureau hopes to restrict use of the term to devices which meet the above requirements. In this way it hopes to prevent confusion among manufacturers, architects, engineers and consumers.

THE COMMERCIAL USE OF THIN METAL SHEETS as wall decoration is made possible by the recent invention of a glue which causes them to adhere firmly and smoothly to plaster or wood surfaces. The inventor is Benjamin K. Albrecht of Rowayton, Conn. His compound is being utilized for the first time in the Board of Directors room of the New York World's Fair, whose copper sheets are being used.

Which reminds us of a report we heard the other day that carpeting material is the coming thing for wall decoration. We have not seen it in use yet, but our informant described most enthusiastically the effects of soft depth thus achieved.

PHOTOS: MONKEMEYER

This new brick Protestant church in Berlin is one of the few in Germany where confessional church leaders are still allowed to preach

HOUSING

THE BENEFITS OF ARCHITECTURE must no longer be regarded as available only to the rich, states Charles D. Maginnis, President of the A.I.A., in a recent message to Institute members as follows:

"Under the initiative of government a promising beginning has been made in a great program of small housing under responsible architectural control. Other agencies are co-operating which are notably less sensitive to the need of professional direction. It is of vital importance to our profession, and at the same time an obligation of enlightened patriotism, that our relation to this great developing interest be securely and permanently established. The institute's Committee on Housing will study the means by which the profession, under the guidance of The Institute, may adjust itself to service effectively in this new and extensive field.

"As we seek to extend the boundaries of our profession in this direction, however, we are warned of a conflicting movement which threatens seriously to limit it. This is the extension of the bureaucratic idea. So far we have confronted this issue only in our relation to the Federal Government. We must now prepare ourselves to meet the aggravating problem in our very midst.

"Legislation has been twice attempted in New York State, and actually accomplished in Connecticut, which embodies the principle that architecture can serve the public interest adequately through the incorporation of architects and draftsmen in the general organization of public works. The implications of this menace are so unmistakable and so clearly to be combated only by local action that a large responsibility must be perceived to rest on all the chapters of the Institute.

"Nor is this situation to be effectively met by temporary political expedients. It is to be hoped that the validity of our position can be supported by realistic and convincing testimony of our superior claim upon the community. The lines of such opposition are so well indicated in the admirable enterprise of the Institute's Committee on Public Works in relation to Federal projects that all chapters of the Institute are urged to seek its counsel and acquaint themselves with the results of its study and experience. "It would be highly agreeable to the conservative spirit of the profession if its social value needed no aid of propaganda. But in these articulate days so many interests of no less conservative habit are clamoring for the public consciousness that, if we are even to hold our present place, we have need to make the world more aware of us.

"Taking it for granted that, in spite of assault, architecture still retains its ancient validities, we are occupied only with the vital and realistic business of the place which it is to have in the new order, an interest which should engage the earnest thought of every architect of America.

"In the shifting conditions there is visible the opportunity to enlist the science of the architect to a new and more vital social purpose. Architects cannot hope that the significance of this opportunity will be more directly indicated to us by our American public. It must be clearly detected by ourselves, and the future position of our profession will largely depend upon the intelligence and address with which we meet it."

THE PRESIDENT'S RENEWED ATTEMPTS to get housing activity under way have provoked much comment, not the least startling of which was that of General Hugh S. Johnson. This pundit, with his usual rush-in-where-angels-fear-to-tread tactics, says complete government control of housing is needed if anything is to be accomplished. Snapped he, in a recent column:

"Practically, such a plan would be attacked and sabotaged by every real estate board in the country. You never would know till you tried whether workers would move in and take and pay for the houses. It would be another $1,000,000,000 bet."

The General may be right, but his proposal makes us shudder to think of the howl that would be raised in certain

Traffic doesn't mar the beauty

OF THIS RUBBER TILE FLOOR

Long-lasting floor beauty is provided by Armstrong-Stedman REINFORCED *Rubber Tile in this smart reception room of Batten, Barton, Durstine, and Osborn, Inc., New York City. Color is Black Red No. 673.*

FIBRE REINFORCEMENT CHECKS DENTING AND ABRASION IN ARMSTRONG-STEDMAN RUBBER TILE FLOORS

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You'll find greater depth and beauty of coloring in Armstrong-Stedman Reinforced Rubber Tile because the fibre reinforcement prevents the graining from "running wild" during manufacture. Forty handsome colors in marble, paisley, and two-tone effects make it easy for you to create interesting inset designs.

Armstrong - Stedman Reinforced Rubber Tile is quiet and comfortable. Maintenance is easy and economical. Costly refinishing is never required.

For complete data, see "Sweet's Catalog" or write today for file-sized booklet, "New Beauty and Comfort in Floors." Armstrong Cork Products Co., Building Materials Division, 1601 State St., Lancaster, Pa.

Armstrong makes the only full line of resilient floors: Rubber Tile, Linoleum, Cork Tile, Accotile, Linotile.

ARMSTRONG'S *Linoleum* *and* RESILIENT TILE FLOORS

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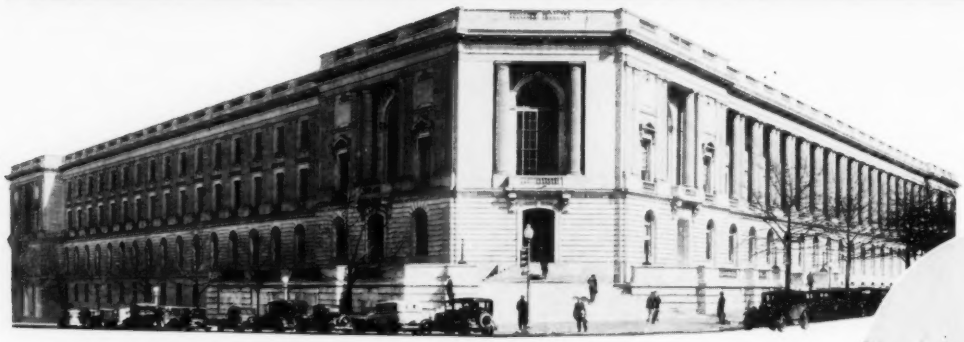
AIR CONDITIONING EQUIPMENT IN

U.S. SENATE OFFICE BUILDING

GUARDED BY ARMSTRONG'S CORKBOARD



U. S. Senate Office Building, Washington, D. C. air conditioning equipment is insulated with Armstrong's Corkboard and Cork Covering, installed by John R. Livezey. Architect: David Lynn; Consulting Engineer: George A. Weschler, Washington, D. C.

EFFICIENT OPERATION IS ASSURED BY USE OF CORK INSULATION THROUGHOUT SYSTEM

UNDER the direction of Architect David Lynn, the world's largest air conditioning installation is being made in the Capitol Group in Washington D. C. Included in this group is the Senate Office Building for which the Raisley Heating Company, New York, is contractor for the air conditioning.

To assure maximum operating efficiency, Armstrong's Corkboard insulates dehumidifiers, and supply and return ducts. In addition, Armstrong's Cork Covering and Fitting Covers are used on chilled water lines and fittings. The corkboard was applied with asphalt and banded in place.

Cork's insulating efficiency protects against condensation on ducts, cold lines, and other equipment. It also assures economical delivery of conditioned air, brine or chilled water at the required temperature. Important, too, is the ability of corkboard to maintain its high efficiency for many years. Some installations of Armstrong's Corkboard made twenty, twenty-five, and even thirty years ago are still in daily use. In terms of dollars and cents, the permanent efficiency of corkboard means important savings in air conditioning costs—continued economy for as long as the system is in use.

Armstrong engineers will gladly assist you, without obligation, in planning your insulation requirements. Write today for complete information concerning Armstrong's Cork Insulation. Armstrong Cork Products Company, Building Materials Division, 926 Concord St., Lancaster, Pa.

ABOVE: *Applying portland asbestos cement plaster finish over wire netting on a duct which is insulated with Corkboard.*

~ ~ ~

LEFT: *Corkboard conforms readily to flat or curved surfaces of ducts and is easily applied.*

RIGHT: *Armstrong's Corkboard being dipped in hot asphalt for application to duct. Ducts are insulated with 1" corkboard, dehumidifiers with 2" corkboard. Chilled water lines and fittings are insulated with Armstrong's Cork Covering.*

Armstrong's CORK INSULATION

PHOTO: ACME

Recent demolition in Rome has revealed the mausoleum of Caius Octavianus Augustus, first emperor of Rome

PHOTO: LENS & LETTERS

With housing in the news the underground Atlas Mountain homes of about 12,000 human moles prove how primitive housing can be

quarters were it adopted . . . especially now that a kiss-and-make-up is in prospect between Washington and private construction interests.

RESPONDING TO ROOSEVELTIAN IMPETUS, the Home and Community Builders National Association in a recent letter to the President states that a two billion dollar home construction campaign will be launched early in 1938 as the builder's contribution to the production of moderately-priced housing. Don A. Loftus, President of the Association, which is composed of home builders and land developers in many parts of the country, said that four years of intensive study of the housing problem had resulted in a definite plan for supplying the nation's demand for low-priced homes and that this plan would be inaugurated at a national conference called for January 11, 12 and 13 in Washington. Participating in this conference will be owners of large tracts of developed land and representatives of leading financial institutions.

Mr. Loftus declared that, as a result of study and experiment, work was started in thirty-one communities on houses of sturdy construction and attractive design, on large lots with all street improvements, taxes at a low rate, and equipped with such modern improvements as insulation, air conditioning systems, automatic heating plants, water heaters, built-in garages and electric kitchens containing range, refrigerator and dishwasher, at prices well within the range of requirements of the average family.

In one community alone more than 200 homes were built, sold and occupied in the last twenty months, while forty-two more were sold and are now in course of construction. The families who purchased these homes, Mr. Loftus said, have incomes no higher than may be found among "white collar" workers anywhere in the United States.

Mr. Loftus said that details of the plan will not be disclosed before the meeting in January.

THE NATIONAL ASSOCIATION OF REAL ESTATE BOARDS is advocating several changes in the law governing the Federal Housing Associations which it believes will speed rehabilitation of slum areas and stimulate new construction. Changes recommended are the result of discussion at the Association's annual convention in Pittsburgh and are as follows:

1. Amendment of the FHA act to permit insurance of mortgages up to 90% of the value of the land and structures on homes of $6,000 or under. Such mortgages would be insured under procedures already established by FHA.

2. Rewriting or revival of Title 1 of the FHA act so as to provide for insurance of bank loans made to operative home builders to assist in financing construction.

3. The development of an approved list of operative home builders eligible for FHA insurance on their construction loans as well as for insurance of general mortgages covering their entire operations. This can be done under the regulations and is consistent with the present practice of FHA in having a list of approved mortgages.

4. A reduction of the interest rate on insurable mortgages from 5 to 4 per cent and lengthening of the period of amortization through appropriate amendments to the act.

5. Rewriting of Title 2 of FHA so as to provide for a central mortgage bank to purchase sound mortgages.

6. Other changes previously requested in the FHA act, including:

(a) Reduction of insurance premium as capital amount of the insured mortgage is reduced.

b. Provision that in case of a defaulted mortgage the mortgagee receives cash or its equivalent for his claim.

c. Provision for insurance of any sound large scale housing project without unworkable limitation on rentals.

d. Provision for release from the general mortgage obligation on large scale projects for sales made.

"MAIS NON," states the Mortgage Bankers Association of America's Secretary George H. Patterson. Says he:

"Lowering the down payment from 20 per cent to 10 per cent on F.H.A. insured mortgages is unsound mortgage practice and is in line with the objectionable features in installment selling about which much official concern is expressed today. As long as building costs are high, as long as labor difficulties endure, this reduction would develop little sound construction but some speculative building of the type that caused the last real estate collapse."

Which just goes to show, to coin a phrase, that there are still two sides to every question.

A BUILDING BOOM, with rising rents and increasing residential construction, is foreseen by Dr. Benjamin Haggott Beckhart, associate professor of banking in the Columbia University School of Business. Dr. Beckhart thinks that the present slight business slump is just a temporary

(*Continued on page* 120)

ARCHITECTURALLY SPEAKING

by OTIS ELEVATOR COMPANY

If you have visited Monticello, you may have noticed the dumbwaiter that Thomas Jefferson had built into his residence, more than a hundred years ago. In these days, activities are more widely scattered (recreation-room, dining-room, sun-deck, etc.), home life is more varied, convenience is now a necessity rather than a luxury, and an automatic electric dumbwaiter receives the hearty approval of many home owners. We find many residences are now being equipped with one or more electric dumbwaiters.

★ ★ ★

And the home elevator is by no means a luxury in many homes where it has been recently installed, because it fits into the scheme of things in present-day standards of home convenience and comfort. And many architects, in planning modern larger residences, are either specifying a Personal-Service Elevator, or providing a hoistway for future installation of an elevator. When the elevator is not installed at once, the hoistway is usually floored over temporarily to form a tier of closets. A hoistway about 4′4″ wide and 4′6″ deep inside is a good average size; but it is best to get a standard Otis layout and check the overhead clearances and other dimensions.

★ ★ ★

During the last ten years the total number of hospitals in the United States has decreased somewhat, while the average size has increased about 50%. We don't know what this proves except that as hospital buildings grow larger, elevators deserve more and more consideration. Automatic Finger-Tip Control is now practically standard hospital equipment; but careful consideration must also be given to the *type* of automatic control, as well as to micro-leveling, automatic door operation, and other features that provide more efficient elevator service.

★ ★ ★

Speaking of Finger-Tip Control — the patient or visitor who rides to the hospital in a 1938 model streamlined automobile, and then steps into a 1908 model manually operated bird-cage elevator, has every reason to doubt the efficiency of the rest of the hospital equipment. An architect who is planning any hospital modernization work should bear in mind that 92% of all *new* hospital elevators have automatic control. The comparatively easy change to automatic elevator operation should, therefore, receive careful consideration if the building is to be brought really up-to-date.

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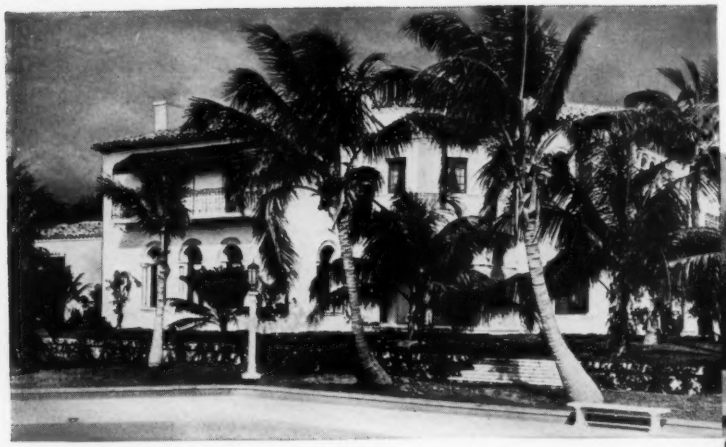

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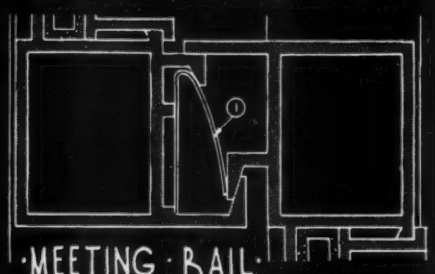

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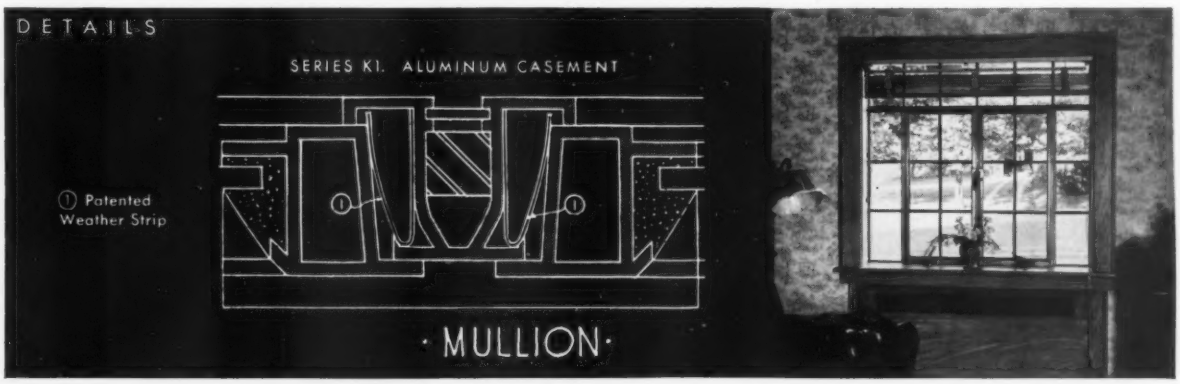

ARCHITECTURAL METAL WORK • WINDOWS • REVOLVING DOORS • TABLETS

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LETTERS TO THE EDITORS

The Editors welcome letters of criticism, comment or suggestion looking to a better and more fully rounded service by the magazine to the profession

AMERICAN ARCHITECT AND ARCHITECTURE:

I have written to you several times about AMERICAN ARCHITECT, and we have for some time considered it the most valuable of architectural magazines in our office because of the many special features which it contains. For that reason we bind most of these special items in books for our permanent files.

However, in your recent numbers you are allowing practically no margins on either side of the pages so that when the material is bound in loose-leaf binders some of the reading material is often cut off, and if this practice is continued the magazine will not be nearly so valuable to us for reference purposes as it has been in the past.

Several other architects have expressed the above sentiments to me concerning the lack of proper margins on either side of the pages in connection with various recent numbers of different architectural publications.

We are just sending this to you as a bit of constructive criticism.

Yours truly,

Miami Beach, Fla. (Signed) AUGUST GEIGER

AMERICAN ARCHITECT AND ARCHITECTURE:

If the information thus far published on the Town of Tomorrow planned for the Flushing exposition in 1939 can be credited, the projects for that section are distinctly more inept even than other aspects of the fair. It may be possible to distinguish between this "model" community and those that were erected by speculative builders a decade ago, but it seems doubtful. It would be absurd to comment now in detail upon this intended development. For one can at least hope that nothing so patently absurd will actually be erected under the sponsorship of the Fair during the next two years.

The contrast the Museum of Modern Art has made with the Werkbund exposition of 1927 in Stuttgart would be too cruel, did one not believe that such attacks alone can bring about a revision of the attitude of the authorities toward what should certainly be one of the most carefully prepared features of the exposition. But I am not sure that the photograph alone indicates the full distance backwards that the concept of a housing exhibition will have travelled in twelve years if the present plans are carried out. The Stuttgart exposition included the work of the leading modern architects of the world. The Fair authorities seem to have made no effort even to include the recognized modern architects of this country. Moreover, no influence whatsoever of the admirable Greenbelt communities built here in the last few years appears, and not even individual house designs of the merit one finds occasionally in the real estate pages of such conservative papers as the Boston *Transcript*. It is even doubtful whether an intelligent speculative builder, developing a subdivision in the year 1937, much less two years hence, would provide so startling an example of American cultural retardation.

In the face of such incredible blindness to all current problems of community planning and domestic architecture, words of direct protest almost fail and one is forced to take refuge in irony. Aldous Huxley has suggested that the Gothic of Duke University may impress the taste of some distant future more favorably than real medieval Gothic (on the dubious analogy of the Houses of Parliament, which he claims to be not only a fine building, but a fine Gothic building.) It is therefore possible that some far to-morrow may admire the Colonial (or is it Georgian?) of the twentieth century more than the real Colonial of the eighteenth. If that be so this Flushing subdivision may be a town built for the delectation of that far to-morrow. But certainly it is not a town for today or the immediate tomorrow of 1939. Furthermore I believe that the fact will be patent even to

(*Continued on page* 102)

The Museum of Modern Art compares the New York World's Fair's "Tomorrowtown" with Stuttgart's look ahead in 1927

A perfect example of how Transite Walls, here shown with quilted-maple veneer, add to the attractiveness of an office. This modern material takes lacquer, paint, wood veneer, fabric or any other finish. Or it can be left in its natural, neutral color. *(Installation for Schenley Distillers, New York. Designed by Hegeman Studios, Inc.)*

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TOWARD A BRIGHTER BUILDING PICTURE

ARCHITECTS, builders, economists, politicians and the public are now looking at the building picture in the hope that they will see in it a way out of the depression. The picture has been painted in chiaroscuro, but is now being brought out into the spotlight and dusted off, its highlights are observed and its shadows examined for possible ruddy details. A good frame of gold would brighten the canvas.

The highlight of encouragement in the building picture is the uncontested fact that the country is in need of residential building. It has been estimated that about 820,000 new dwelling units will be needed each year for the next five years to make up for the building cessation of the depression period. Such a volume of construction stimulates the so-called "heavy" industries and keeps turning the wheels-within-wheels of all industry. Until now the government has attempted to keep up the volume of construction through its program of Public Works, building post offices and federal buildings and subsidizing some housing for the lower income classes. The efforts of the Administration today are turned to inducing private capital to take up the problem of providing decent housing for the entire population, especially the middle classes. Private capital is now some forty billion less than it was this spring.

But what can induce private capital to invest in the building of homes? The three things which private capital must see in any venture before making its investments are:

1. The possibility of real *profit* comparable to that which it might receive through other types of investment. 2. *Safety* of principal. 3. *Liquidity* of investment. To devise a program which will provide profit, safety and liquidity in real estate investment is the problem of both the building industry and governments, national and local.

If we take up profit first, since that is always uppermost in the minds of the building entrepreneurs, we find the promise of profit offset by factors both psychological and factual. Psychologically, the disease known as "jitters" is acute at the moment. To offset these jitters, two things are necessary:

1—A statement of policy on the part of the government in regard to business and investment. 2—A factual presentation of actual conditions and possibilities on the part of the building industry itself.

Before 1929, there was profit for capital in high interest rates, rapid turnover of properties when erected, and larger profits from second mortgage investment. Now, lower interest rates are demanded, the second mortgage profit has been eliminated, and we have new taxes, such as the undivided profits tax and the restrictions of the S. E. C. The conditions of our cities also indicate a local tax situation that is not encouraging. A year ago, it was thought that residential building would take a definite upswing, but as soon as it started to materialize, costs of labor and material rose to a point where psychologically capital ceased to be interested. The building industry has recently been quoting facts and figures to prove that this was psychological and that the facts showed building costs had increased less than other commodity costs and that the building dollar today buys greater value than in 1928 or 1929. They also show that rents have advanced enough to make building profitable at today's prices, and we expect every effort to be made to bring these facts home to private capital. The advantages of large-scale building operation should prove another opportunity for lowering costs. Changes in building codes, and in labor union rulings, can be made in the interests of better buildings at less cost.

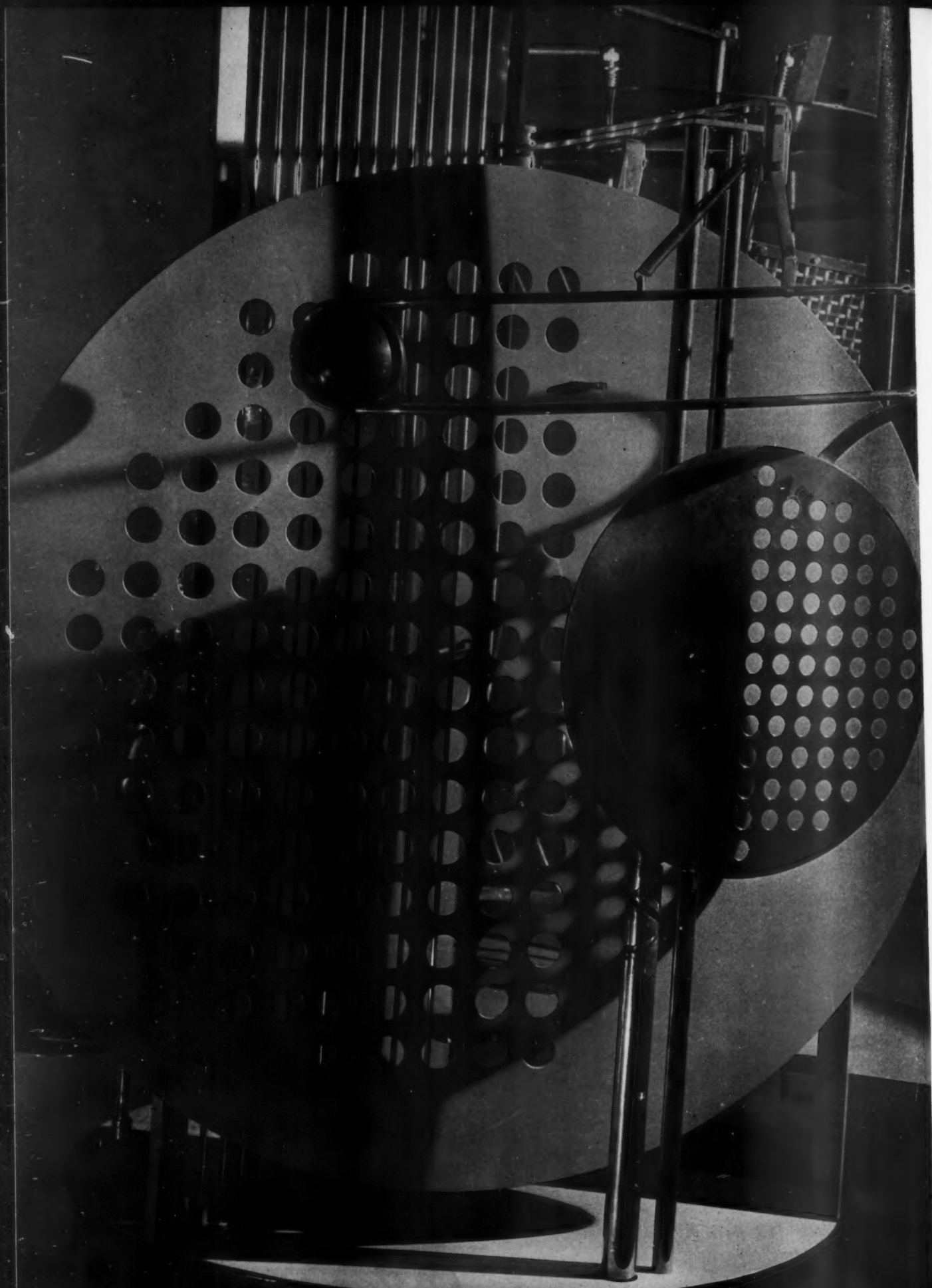
The building picture also is scanned by private capital for evidence of safety of principal. The depression has taught capital many bitter lessons and shown up many unsound practices in real estate financing. We believe that the lessons have been learned and the newer types of financing and the government guaranty of properly conceived and constructed projects have eliminated the major unsound practices and assure a greater measure of safety than has been enjoyed by real estate before. Private capital still questions the increasing mobility of population, the movement toward decentralization of industry (which means decentralization of population) and the possible rapid obsolescence of building due to technological improvement. These are problems which demand intelligent analysis and the exercise of astute judgment.

Liquidity has never been a major attribute of real estate investment. Too often, real estate has been classified as a frozen asset. It is advocated by many that large scale operations, with widespread participation, would tend to increase liquidity of real estate investment. The founding of an active building investment exchange and of a large national mortgage bank would be steps in the direction of increasing such liquidity.

Housing is a sociological problem, a political puzzle, a humanitarian necessity and an economic enigma, but when it comes to getting dwellings built today, it is a business proposition of financing that resolves itself to interesting private capital by increasing the profit, safety and liquidity of real estate investments.

Kenneth K. Stowell

EDITOR



the new bauhaus and space relationship

BY L. MOHOLY-NAGY

Internationally known for his creative contributions in the fields of painting, photography, typography, lighting, industrial design, and stage design, Moholy-Nagy sets forth the principles and aims of the New Bauhaus, of which he was recently appointed Director.

THE KEY to workshop training, which is the real Bauhaus idea, is the very deep, spiritual connection it has with craftsmanship. In the old Bauhaus it was the idea of the founder, Professor Walter Gropius, to have, in spite of a technically and socially advanced world, the same excellence of production that was significant of craftsmanship in the Middle Ages. This implied a training closely related to architecture, an architecture which integrated all designers' shopwork. Separate laboratories were devoted to the study of wood, metal, glass, clay, stone, textile, plastics, etc., affording the student a possible means of livelihood and certain security. This community of teachers and students was able, day after day and year after year, to produce useful inventions as a result of their studies. This was not due to their knowledge alone, but to their imagination and ability to see the goal of their own lives. The source of their ingenuity was their vision of life and their freedom to utilize the means and knowledge of the time in a new and unrestricted manner.

R. France's bio-technique, which we shall teach in the New Bauhaus, is an attempt at a new science which shows how natural forms and designs can be translated without great difficulty into human production. This means that nature's ingenious forms can be reduced to technical ones. Every bush, every tree, can instruct us and show us inventions, apparatus, technical appliances without number. I visited the east coast this summer and I was most amazed to see a little animal until then unknown to me—the horseshoe crab. This very thin prehistoric animal shell is constructed in such a wonderful and economical way that we could immediately adapt it to a fine bakelite or other molded plastic form. It is said that Edison, who was one of the greatest of your countrymen, had never invented anything without getting an order for it. His conscious approach to inventions is a great example for our students because whatever was done in human history as an outstanding achievement can be repeated or can be developed to a standard ability. This approach of function and industry is today no longer a revolutionary principle but an absolute standard for

Stage lighting device and photo by L. Moholy-Nagy. Courtesy of the Museum of Modern Art.

every designer. For this reason alone we could not build in the New Bauhaus a creative community again, but could produce only a rigid teaching system.

A fresh outlook can come only through satisfactory designs for our biological needs. Our aims today go far ahead of those of yesterday, of the labor saving devices built into our architecture. When we design we must relate them on a much greater scale with our psychological, psycho-physical needs beyond those of our physical comfort. This, I confess, cannot be done easily because we do not know enough about ourselves. We must work hard for such a knowledge since our biologists and physiologists, etc. have not supplied as yet sufficient data to enable us to understand the human being and his most important needs. When a clear statement, clear function and clear means are given, the design will not be difficult to execute. A factory, hospital, school or office building is rather definable and we have in each up to now really the most satisfactory designs. The difficulty today lies in the architectural design for dwelling purposes. We are told that we can kill a human being with housing just as surely as with an axe, but we do not yet know how to make him happy. The problem is clearly stated. To help bring about a right solution is the goal which the New Bauhaus has set for itself. But all have to cooperate, the scientists, the technicians and the artists, in order to find which course our designs should take; how they should be controlled, simplified, or enriched in accordance with the needs of the individual today and for future generations.

We must be far sighted enough to visualize the effect of our actions on mankind and to have sufficient intuition to relate our suggestions to his work and also to his recreation. We must know, among other things, his reaction to material, to color, to form and to space.

We attempt to teach today the understanding and use of spatial relationships much as we are teaching in the grade schools the ABC's which can be put together in words, the words into sentences, and the sentences into expression.

PHOTO: MONKEMEYER

Light—as spatial projection—is an outstanding aid in attaining virtual volume and, although an elemental factor in art creation, has not yet been elevated to its legitimate place

In our definition of space considerable uncertainty prevails at present. This uncertainty is evident in the words we employ, and it is precisely these words which increase the confusion. What we know of space in general is of little help in assisting us to grasp it as an actual entity. The different kinds of space are rather surprising, and you will be amused when you hear the manifold terms which we daily use without exact knowledge of what they convey. We speak today of:

mathematical	crystalline	projective	finite
physical	cubic	metric	infinite
geometric	hyperbolic	isotropic	limitless
Euclidian	parabolic	topographic	universal
non-Euclidian	elliptical	homogeneous	etheric
architectural	bodily	absolute	inner
dance	surface	relative	outer
pictorial	lineal	fictive	movement
scenic	one-dimensional	abstract	hollow
cinema	two-dimensional	actual	vacuum
spheric	three-dimensional	imaginary	formal, etc.

SPACE

Notwithstanding this bewildering array, we must recognize all the time that space is a reality in our sensory experience; a human experience like others, a means to expression like others; like other realities, other materials. Space is a reality that can be grasped according to its own laws. As a matter of fact, man has constantly tried to use this reality (this material) in the service of his urge for expression, no less than the other realities which he has encountered.

A definition of space which, even if it is not exhaustive, may at least be taken as a point of departure for further consideration, is found in physics—"Space is the relation between the position of bodies."

An explanation for that may be this: Two bodies exist, say the earth and the moon. The relationship between their position means space. We can now change earth and moon into other bodies, e.g., to two chairs or two houses or two walls. We can change it into telegraph posts, into wires, into two fingers of our two hands. We must test this simply by

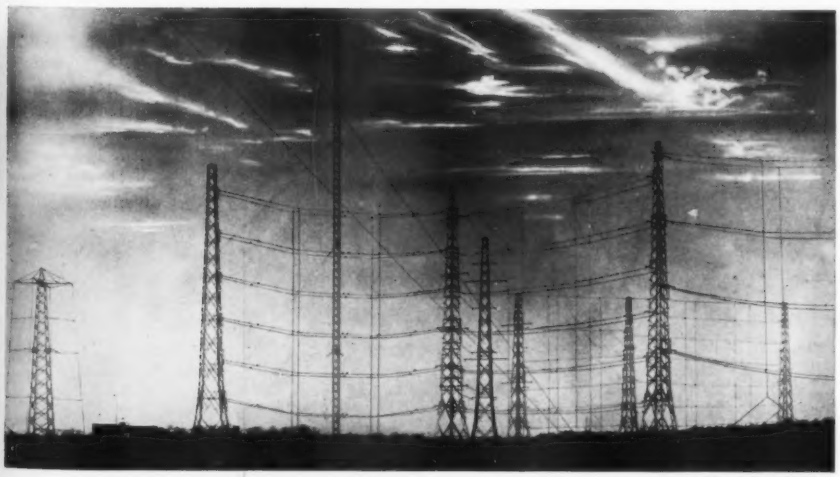


PHOTO: MONKEMEYER

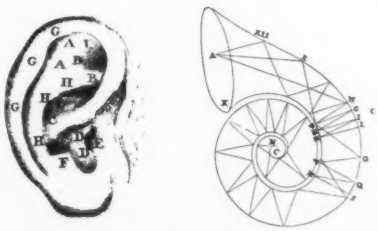
Spatial relationships may be produced by taut wires. So long as a relation between two entities is to be noted there exists also the possibility of a tension, which is biological, psychic, spatial, etc.

sensory experience through our eyes in order to be able to understand it correctly. This experience of the visible relationships of position may be checked by movement—alteration of position—and by touch, and it may be verified by other senses.

We know, for example, through experiments, that it is possible to distinguish forms and space through hearing, too. We know of substitutes for the eyes of the blind which mean that the photo cell is used to translate the visual existence into an acoustical one. We know the localization and function of the organ for balance called the labyrinth through experiments with the swirling porpoise. We know through our own experiences that when we ascend or descend a spiral staircase or land in an oblique aeroplane, our own balance sense, the labyrinth, records clearly the relationship between our consecutive positions.

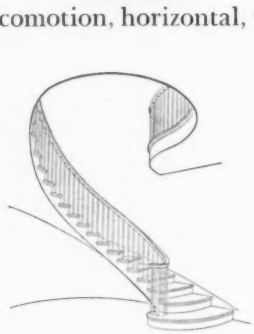
According to this, man perceives space:

(1) Through his sense of sight in such things as wide perspectives, surfaces meeting and cutting one another, corners, moving objects with intervals between them.



(2) Through his sense of hearing, by acoustic phenomena.

(3) Through means of locomotion, horizontal, vertical, diagonal, jumps, etc.



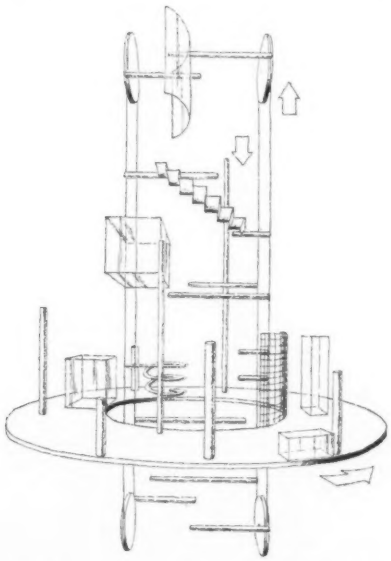
(4) Through his sense of equilibrium; by circles, curves, windings (spiral stairways).

PHOTO: SNYDER-TRIANGLE

A new phase of our victory over space: men poised in a swaying open network, like airplanes flying in formation . . .

All this sounds very complicated, but once we begin practical work with small models the goal becomes more clear. We must certainly know that a real space experience is a summary of experiences from many categories. If we analyze this we observe that every sense is able to record space relationships, but the highest form of space comprehension means the synthesis of all sensory experiences. Thus our students work first with the simplest perception formulas and slowly reach the peak.

In the near future I hope to construct a spatial kaleidoscope which should be an example for small constructions by the students themselves. I will assemble on a horizontal disc some perpendicular sticks which will revolve. Over the middle of the disc I will place a small elevator containing slats and rods, horizontal and oblique, and spiral forms, and transparent bodies, and then I will move it, too, in a vertical direction.



As the disc and the elevator move simultaneously we will have every kind of intersection and every kind of relationship between the "positions of bodies." The movement may be stopped at any time so that an interesting space relationship can thus be easily fixed, and by drawing or other means of representation may be recorded.

To this type of spatial exercise we add the study of perspective and stereoscopic drawing which helps to obtain a spatial vision. I find very often that the grasping of space seems to be, for most people, a very difficult task. They find it difficult to think in terms of space relationships on different intersecting and penetrating levels and heights. Even excellent architects, knowing every part of their subject, everything about technique and function, sometimes have difficulty in visualizing a rich space formula. This is actually the reason why contemporary architecture appears sometimes rather simple in comparison with the Gothic or Baroque.

According to my belief, space experience is not a privilege of the architectural genius. It is a biological function and we must try to approach

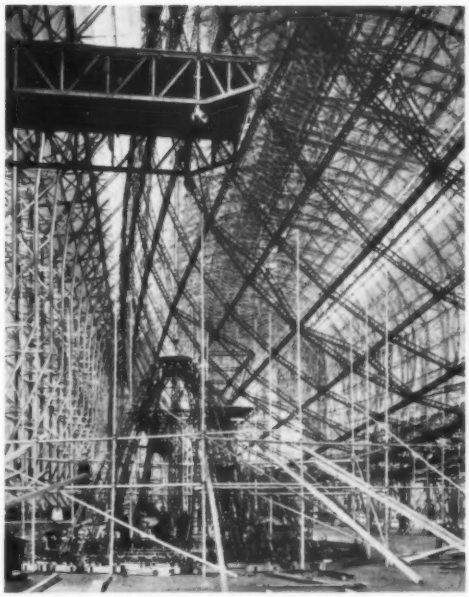


PHOTO: SCHRAGE-MONKEMEYER

Engineering assemblage as an economical working principle has had a fundamental influence on the new sculptural creation

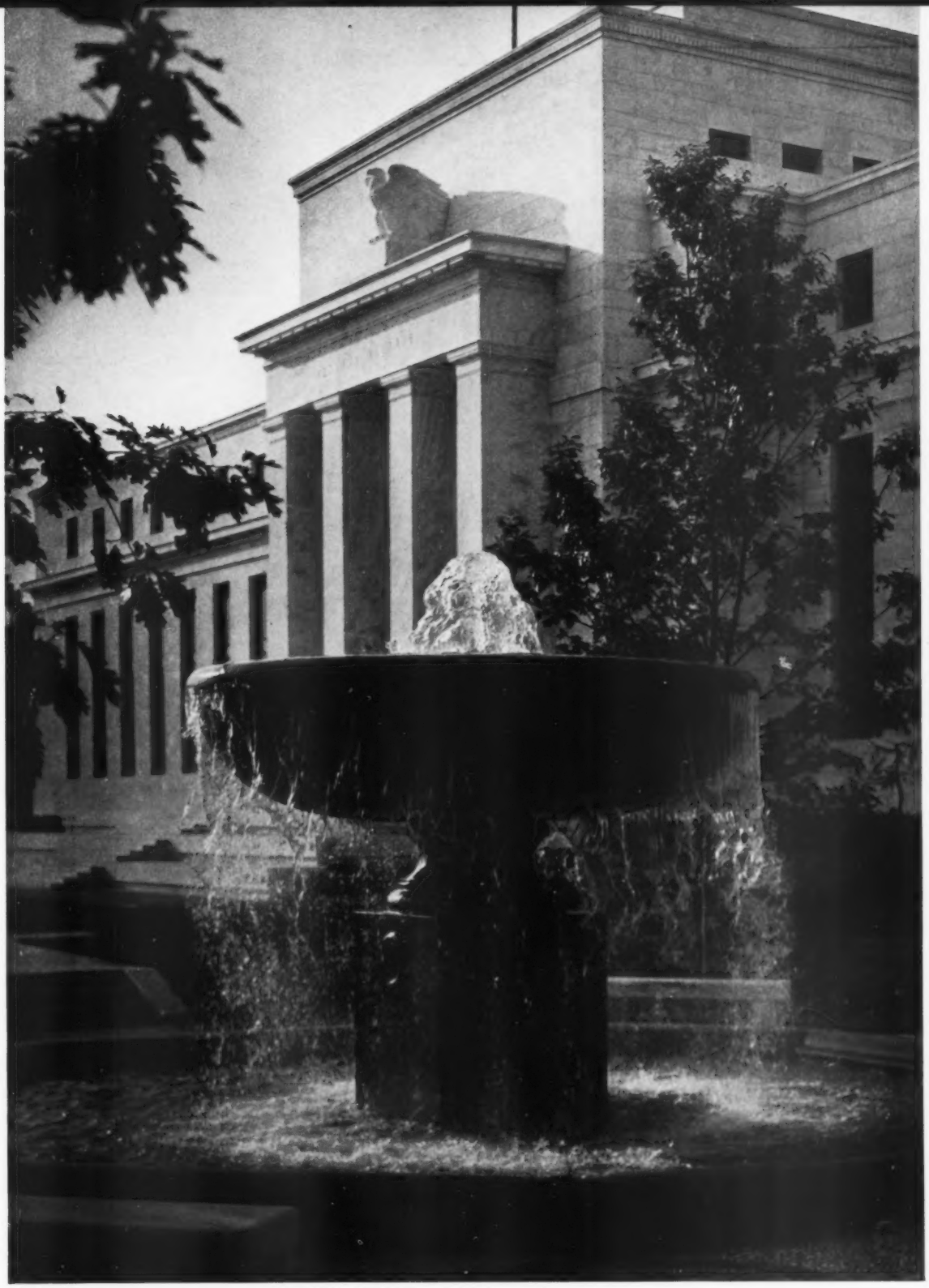
it in a conscious way. The biological bases of space experience are everyone's endowment, just like the experience of colors or of tones. By practice and suitable exercises this capacity can be developed. To be sure, there will be many degrees of difference in the maximum capacity, exactly as is the case in other fields of experience, but basically space experience is accessible to everyone, even in its rich, complicated form.

I am convinced that sooner or later we shall have a genuine space system, a dictionary for space relationships, as we have today our color system or as we have our sound system for musical composition. This has another significance, too; it is not enough that the architects will be clear about spatial relationship and spatial composition but, if their work is to be appreciated, the layman, the client, must know about space, too. Of course, in the planning of a modern building the most varied problems come up; social, economic, technical, hygienic. It is probable that upon their correct solution the fate of our generation and the next, in an essential aspect, depends. But in addition to the fulfillment of these elementary requirements, man should have opportunity in his dwelling to experience the fact of space. This means that a dwelling should be decided upon not only on the basis of price and the time it takes to build, not only upon the usual considerations of its suitability for use, its material, construction and economy, but the experience of space also belongs in the list, as essential to the people who are to live in the house. This requirement is not to be taken as a vague phrase of a mystical approach to the subject; it will not be long before it is generally recognized as a necessary element in the architectonic conception, and one capable of being exactly circumscribed. That is, architecture will be understood, not as a complex of inner spaces, not merely as a shelter from cold and from danger, not as a fixed enclosure, as an unalterable arrangement of room, but as a governable creation for mastery of life, as an organic component of living.

The future conception of architecture must consider and realize the whole. Individuals, who are a part of a biological whole, should find in the home not only relaxation and recuperation, but also a heightening and harmonious development of their powers. The standard for architects will then no longer be the specific needs in the housing of the individual, or of a profession, or of a certain economic class, but it will revolve around the general basis, that of the biologically-evolved manner of living which man requires.

Architecture will be brought to its fullest realization only when the deepest knowledge of human life in the biological whole is available. One of its most important components is the ordering of man in space, making space comprehensible.

The root of architecture lies in the mastery of the problem of space; the practical development lies in the problem of construction.



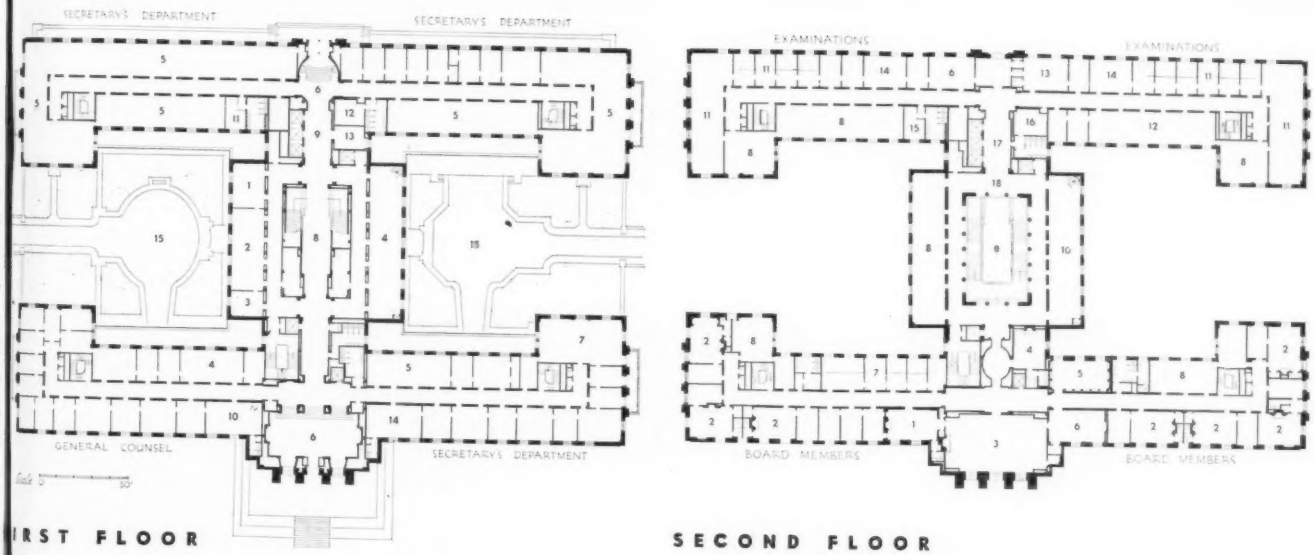
PHOTOS: RITTASE

PAUL P. CRET, ARCHITECT

FEDERAL RESERVE BUILDING, WASHINGTON, D. C.

FEDERAL RESERVE BUILDING
PAUL P. CRET, ARCHITECT

Upon authorization of Congress, June 1934, the Federal Reserve Board took the first steps toward the erection of a building "suitable and adequate in its judgment for its purposes." A site was acquired on the north side of Constitution Avenue, and a program, properly approved by the various governing commissions, was sent to nine leading architects with an invitation to participate in a competition for the design of the new building. Upon submission of the competitive designs the drawings of Paul P. Cret, of Philadelphia, were given first place by unanimous choice of the jury. The mass of the building was designed with a view of harmonizing in a general way with the building of the Academy of Sciences to the west and that of the Public Health Service to the east. Through the use of a similar cornice line the three buildings form a single composition dominated by the central portico of the Federal Reserve Building. The plan is H-shaped, with its principal architectural facade on Constitution Avenue and the entrance for general use on C Street. The entrance on Constitution Avenue is marked by a simple architectural motif of piers surmounted by an American eagle in white marble, of which Sidney Waugh was the sculptor. The entrance on C Street is marked by two pylons, which support figures in bas relief, symbolizing the United States on one side and the Federal Reserve System on the other. These figures were designed by John Gregory. The exterior of the building is of Georgia white marble. In contrast with the simple white marble wall surface is the design of the bronze windows, with spandrels of polished Swedish granite, on which bronze plaques are mounted. In the courts the spandrels are Alberene stone. The building is set back approximately two hundred feet from Constitution Avenue and this permits a special treatment of the approach—an interesting composition of terraces and steps which lead to the main entrance. These terraces are flanked on each side by a formal garden, the central motif of which is a fountain of black Coopersburg granite surrounded by pebble mosaic and marble borders. The courts on the east and west sides, which give access to the ground floor of the building, are formal in character with planting designed to focus attention on wall fountains which face the bronze entrance gates. The mask forming part of the decorative composition for the fountain in the west courtyard was designed by Walker Hancock. The landscaping was also designed by Dr. Cret and approved by the National Capital Park and Planning Commission and by the Commission of Fine Arts



FIRST FLOOR

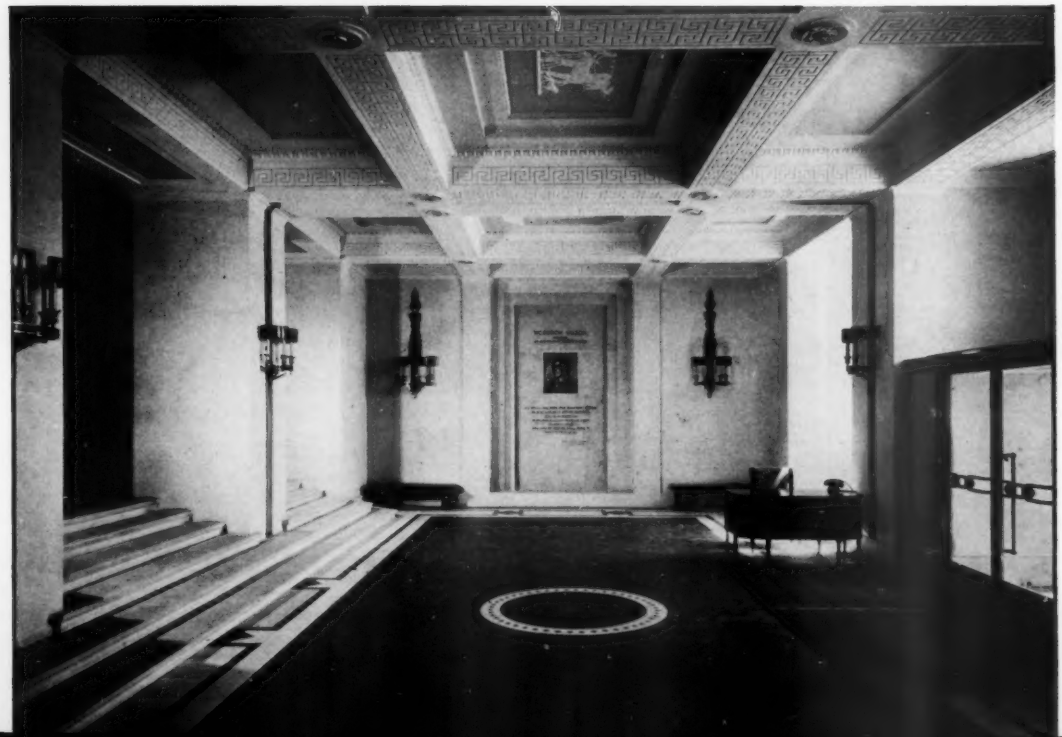
1 Conference Room
2 Law Library
3 Reading Room
4 Files
5 Extensions
6 Entrance Hall
7 Stenographers
8 Stair Hall
9 Elevator Lobby
10 Chief Counsel
11 Men's Lockers
12 Women's Lockers
13 Press Release
14 Secretary of Board
15 Court, Ground Floor

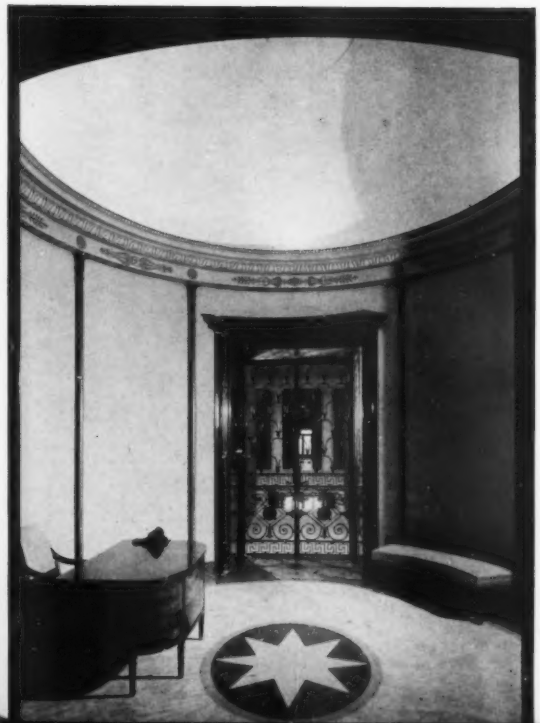
SECOND FLOOR

1 Governor
2 Private Office
3 Board Room
4 Reception Room
5 Library
6 Conference
7 Public Relations
8 Extension
9 Upper Part of Stair Hall
10 Files
11 Examiners
12 Stenographers
13 Chief Examiner
14 Assistant Chief Examiner
15 Men's Lockers
16 Women's Lockers
17 Elevators
18 Gallery

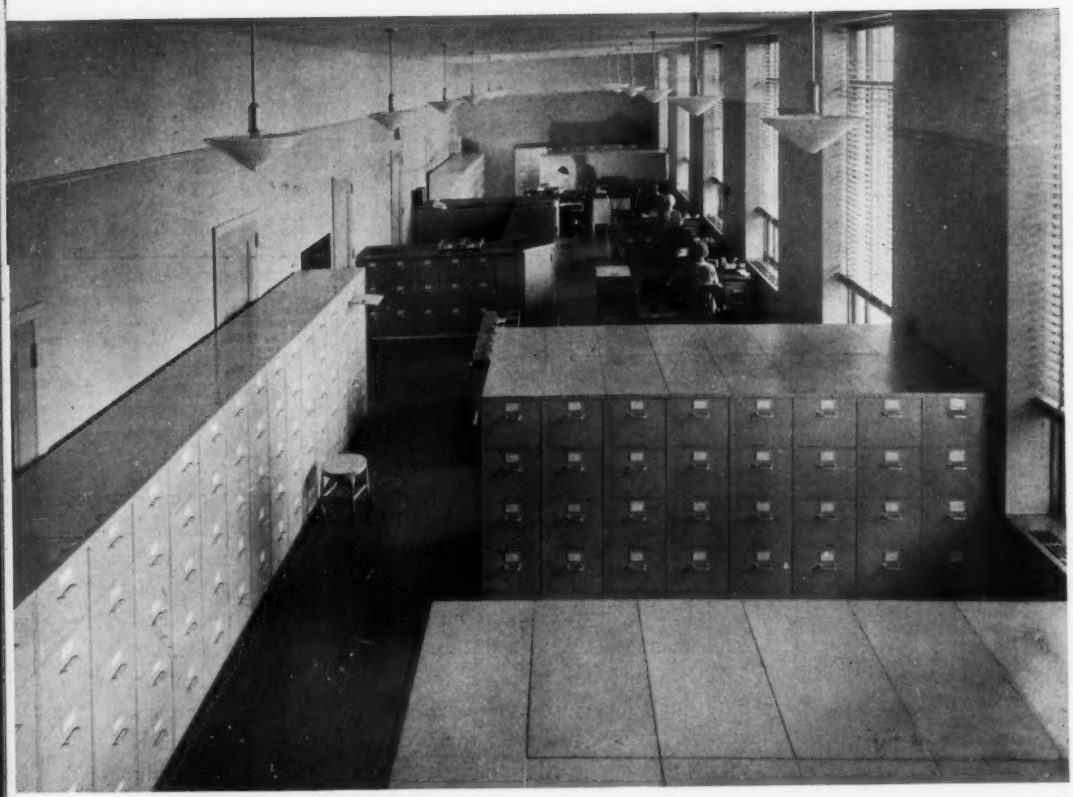
FEDERAL RESERVE BUILDING
PAUL P. CRET, ARCHITECT

The Constitution Avenue entrance opens into a lobby (below), the east wall of which contains a portrait relief of President Wilson, modeled by Herbert Adams. The inscription below the portrait refers to President Wilson as the "Founder of the Federal Reserve System" and contains a passage from his first inaugural address. The lobby walls are faced with Kansas Lesina stone and the plaster ceiling is decorated with motifs of Greek coins and a relief of Cybele. In the center of the marble floor is a bronze plaque reproducing the seal of the Board of Governors. The Board room (left) has a monumental fireplace of Tavernelle Fleuri marble. A bronze relief, set into the marble, symbolizes stability and productivity. On the opposite wall of the room is a Federal Reserve map of the United States painted by Ezra Winter. The furniture, furnishings and lighting fixtures of this section of the building were selected by the architect with a view to maintaining a harmonious relation with the character and period of the architectural design





While the building faces on Constitution Avenue, it is expected that the C Street entrance will be more generally used. This lobby (above) is directly connected to the Constitution Avenue lobby by a corridor extending through the central portion of the building. An elliptical anteroom (left) separates the upper landing of the monumental stair hall from the section set apart for members of the Board of Governors and their immediate staffs. This portion of the building, entirely separate from other sections, accommodates the private offices of the Chairman and other members of the Board, the Board Room, their conference room and library



In the monumental stair hall (above) the ceiling is composed of glass, with the coat of arms of the United States in bronze and molded glass as the center of interest. The ceilings of the surrounding corridors on the second floor are decorated with emblems of the twelve Federal Reserve Banks. Wrought iron work in this portion of the building is the work of Samuel Yellin. The file room (left) is connected by circular stairs at each end to a similar room on the floor below, and together serve all parts of the Board's organization. With the exception of mechanical rooms and storage spaces, the building is entirely air conditioned

FEDERAL RESERVE BUILDING
PAUL P. CRET ARCHITECT

RESULTS

of the

STRUCTURAL CLAY PRODUCTS INSTITUTE, INC.

1937 Moderate Cost

HOME COMPETITION

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

FOREWORD:

TO each member of the architectural profession who submitted an entry for any of the Structural Clay Products Institute competitions, is due an individual expression of appreciation for his interest and work.

It is obvious from the winning designs presented in the accompanying pages that each stage of the competition was accorded painstaking thought. All submissions gave evidence of the outstanding ability of architects to design with clay masonry. Unfortunately, it is possible to publish only those entries to which a distinguished jury gave awards.

In the prize-winning designs, architects, and their clients as well, will find much to interest them. The original designs for small houses prove that it is possible and eminently practical to use clay products for the construction of modern, well-planned, economical and extremely attractive individual houses. Prize-winning entries in the competition for completed houses prove with equal force that such well-studied houses are being built in all parts of the country.

And if the Structural Clay Products Institute competitions had accomplished no other purpose than to indicate the widespread interest in better small home design and construction activity in this particular field of building, it would have been deemed particularly successful by its sponsors. These competitions have proved much more than that, however, for they showed the unmistakable trend toward a truly American solution to the manifold problems of small home design and construction.

Prize-winning designs were chosen by a jury which included not only architects pre-eminent in the field of design, but also experts in the field of land development and residential financing. They stand, therefore, as unique examples of an architectural competition, for they were chosen not only for attractiveness but as practical examples of houses which could be built as sound investments in any section of the country.

It is with pride, therefore, that the Structural Clay Products Institute presents the results of its first important architectural competition. To all who entered it, to each member of the jury, and to all others who co-operated to bring these competitions to a successful conclusion, go the warm thanks and best wishes of the Institute.

DOUGLAS WHITLOCK

Structural Clay Products Institute

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

SPONSORS:

The Structural Clay Products Institute is an associated group of America's leading manufacturers of brick, structural clay tile and other burned clay products used in building and land and highway improvements. Its purpose is to engage in research and promotional work for member manufacturers.

PURPOSE:

The purpose of the present competition was to discover (a) current ideas and architectural practice in the design of moderate-cost homes built with structural clay products, (b) houses of this type which have actually been constructed in the past few years, and (c) ingenious uses of brick and structural clay tile in the design of architectural and structural details for buildings of all types.

JURY:

DWIGHT JAMES BAUM, F.A.I.A., New York, Chairman
LOUIS LA BEAUME, F.A.I.A., St. Louis
D. K. ESTE FISHER, Jr., A.I.A., Baltimore
WILLIAM STANLEY PARKER, F.A.I.A., Boston
HERBERT U. NELSON, Chicago
W. C. MILLER, Washington

AWARDS:

Stage One — Class A. Sketches, floor plans, elevations and sections of 1-, 1½- and 2-story houses built of structural clay masonry, brick or clay tile and their combinations. Houses not to exceed 5 rooms and 1 bath, in no case exceeding 18,000 cubic feet in volume.

First Prize—GEORGE D. CONNER, Washington, D. C.
Second Prize—ATWELL JOHN KING, New York City
Third Prize—EARL F. CLELAND, Columbus, Ohio
Honorable Mentions—L. C. CAVITT, Wichita, Kansas
J. F. DWORSKI, Detroit, Michigan
HAROLD H. EHLERT, Detroit, Michigan
ARTHUR GALLION, Berkeley, California
JACK D. GILCHRIST, Santa Barbara, California
CHARLES E. HAUPT, Washington, D. C.
RALPH R. HOHLT, St. Louis, Missouri
J. E. MILLER, Chicago, Illinois
JOHN P. MORGAN, Philadelphia, Pennsylvania
HOWARD PEIRCE, Arlington, Massachusetts

Stage One — Class B. Sketches, floor plans, elevations and sections of 1-, 1½- and 2-story houses built of structural clay masonry, brick or clay tile and their combinations. Houses not to exceed 5 to 7 rooms and 1 or 2 baths, not exceeding 24,000 cubic feet in volume.

First Prize—A. J. KING, New York City
Second Prize—SHERMAN R. PATTERSON, Pittsburgh, Pennsylvania
Third Prize—C. J. PADEREWSKI, San Diego, California
Honorable Mentions—RAYMOND BASEL, Collegeville, Minnesota
J. F. DWORSKI, Detroit, Michigan
FERDINAND EISEMAN, New York City
JAMES J. FITZSIMMONS, Springfield, Massachusetts
ROBERT A. HELSER, Cincinnati, Ohio
RALPH R. HOHLT, St. Louis, Missouri
JACK HOLLABAUGH, Wichita, Kansas
HOMAR KIESSLING, Boston, Massachusetts
JOHN M. LACHIN, Jr., New Orleans, Louisiana
JAMES W. RICE, Los Angeles, California

Stage Two — Class A. Blueprints and photographs of 1-, 1½- or 2-story houses actually built of brick or other clay products during the past 8 years. Homes not to exceed 5 rooms and 1 bath, in general not exceeding 18,000 cubic feet in volume.
The Jury felt that the submissions did not warrant any prize awards. House submitted by George J. Adams of Los Angeles, California, received an Honorable Mention.

Stage Two — Class B. Blueprints and photographs of 1-, 1½- or 2-story houses actually built of brick or other clay products during the past 8 years. Homes from 5 to 7 rooms and 1 to 2 baths, in general not exceeding 24,000 cubic feet in volume.

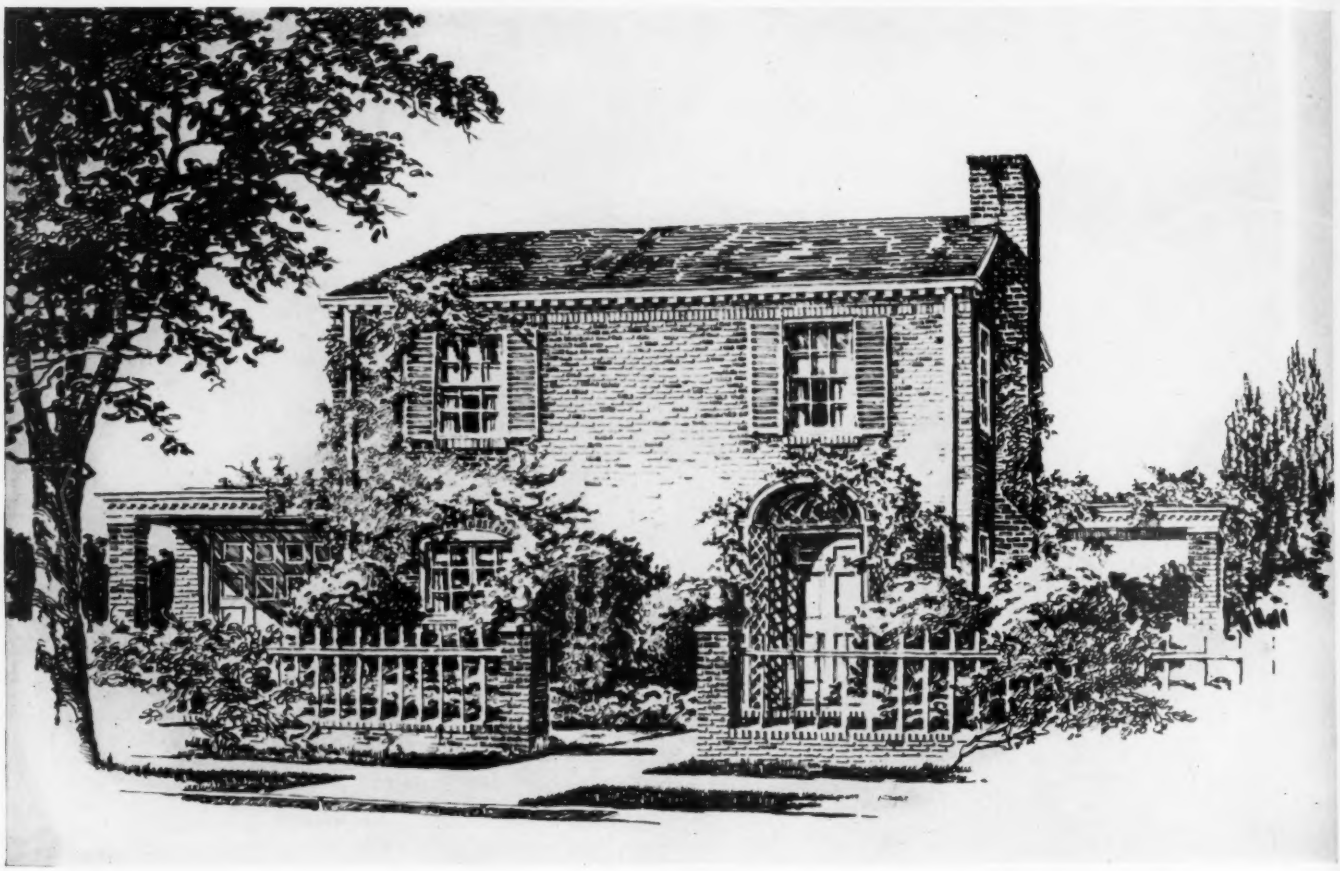
First Prize—WALTER E. CONKLIN, Decatur, Georgia
Second Prize—J. LINERD CONARROE, Philadelphia, Pennsylvania
Third Prize—H. ROY KELLEY, Los Angeles, California
Honorable Mentions—JOHN H. BAKER, Cincinnati, Ohio
A. W. BOEHNING, GORDON FERGUSON, Associated, Albuquerque, New Mexico
GERALD K. GEERLINGS, New York City
O. L. GOWMEN, New York City
T. L. & DALE R. JOHNSON, University City, Missouri
MOTT BROTHERS, Garden City, New York
MOTT BROTHERS, Garden City, New York
ROYAL BARRY WILLS, Boston, Massachusetts

Stage Three — Class A. Individual decorative details built of structural clay products.

First Prize—T. H. BUELL & COMPANY, Denver, Colorado
Second Prize—LYLE NELSON BARCUME, Los Angeles, California
Honorable Mentions—DAVID J. ABRAHAMS, Boston, Massachusetts
PHILIP FRANKLIN EDDY, INC., Providence, Rhode Island
WILLIAM L. DREVO, Washington, D. C.
L. S. SANDERSON, Laredo, Texas

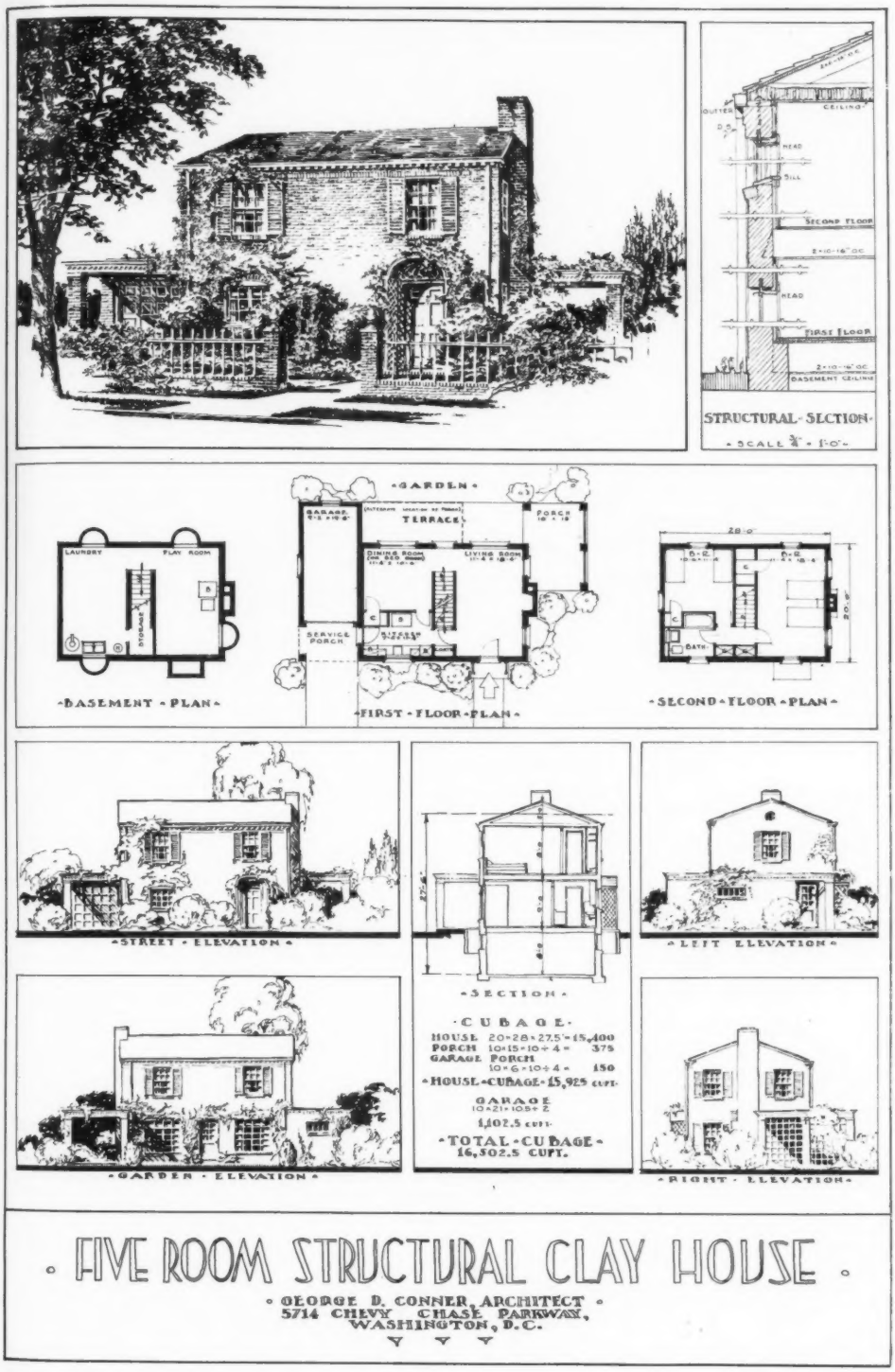
Stage Three — Class B. Individual structural detail built of structural clay products.
No awards.

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION



FEDERAL Housing Administration authorities consider George D. Conner's prize-winning design to be an exceptionally fine example of an economical, soundly planned house of good quality. Arrangements are being made for the erection of this model house in various sections of the country. The first house will be built in the nation's capital where members of FHA can inspect it to see that it is erected in accordance with construction requirements of FHA. Since Washington is one of the highest priced building points in the country, it is felt that, if the house can be built for $5,000 or less, other localities should have no trouble meeting building costs.

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION



FIRST PRIZE

STAGE ONE—CLASS A

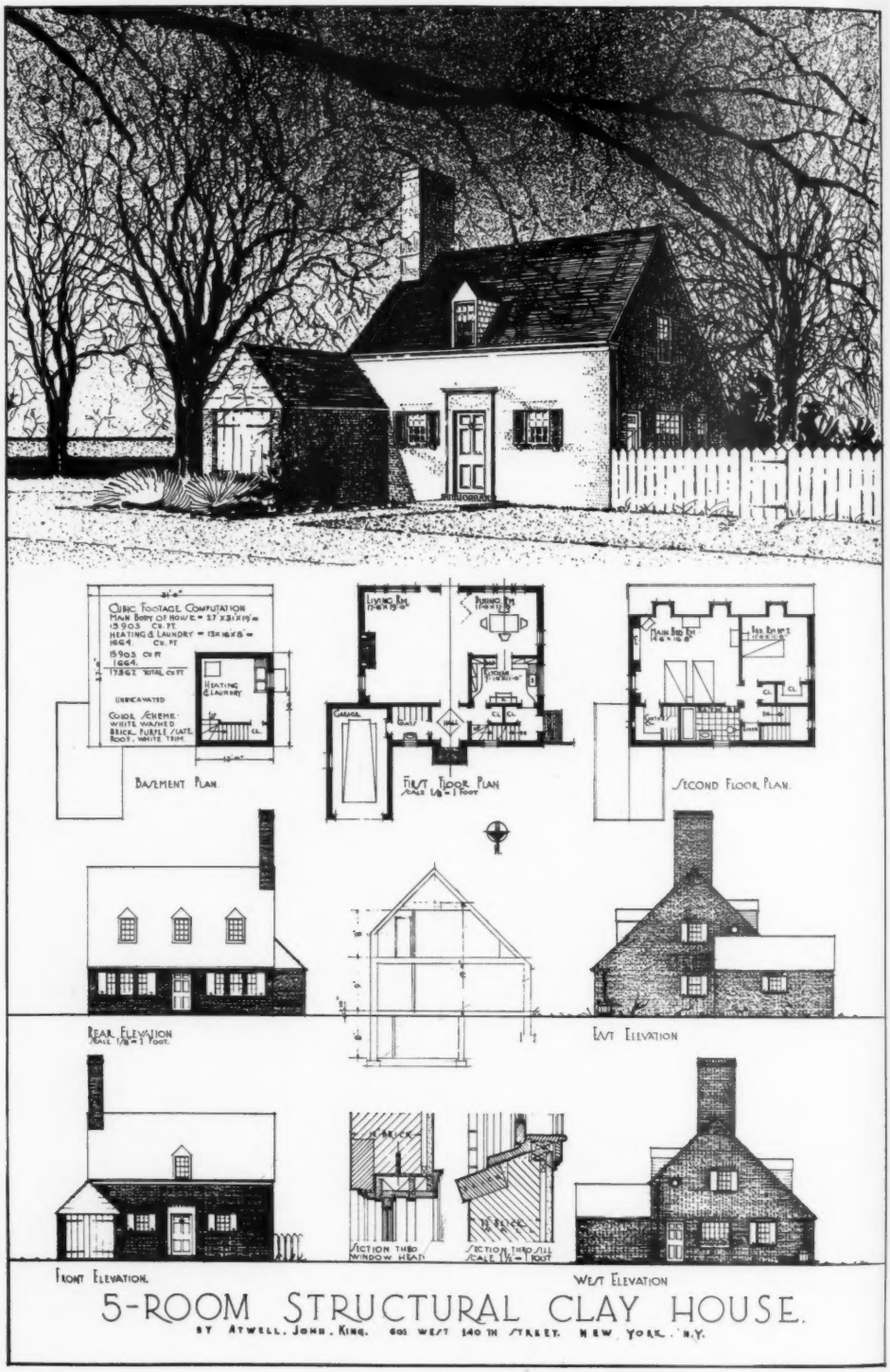
"A beautifully studied small house, simple and compact in plan, rooms well arranged, economical to build; garage well placed for front entrance type, shielded and covered entry for inclement weather. All elevations well studied, simple, good American architecture, expressing best taste in use of brick. Well presented."

GEORGE D. CONNER, WASHINGTON, D. C.

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

SECOND PRIZE

STAGE ONE—CLASS A



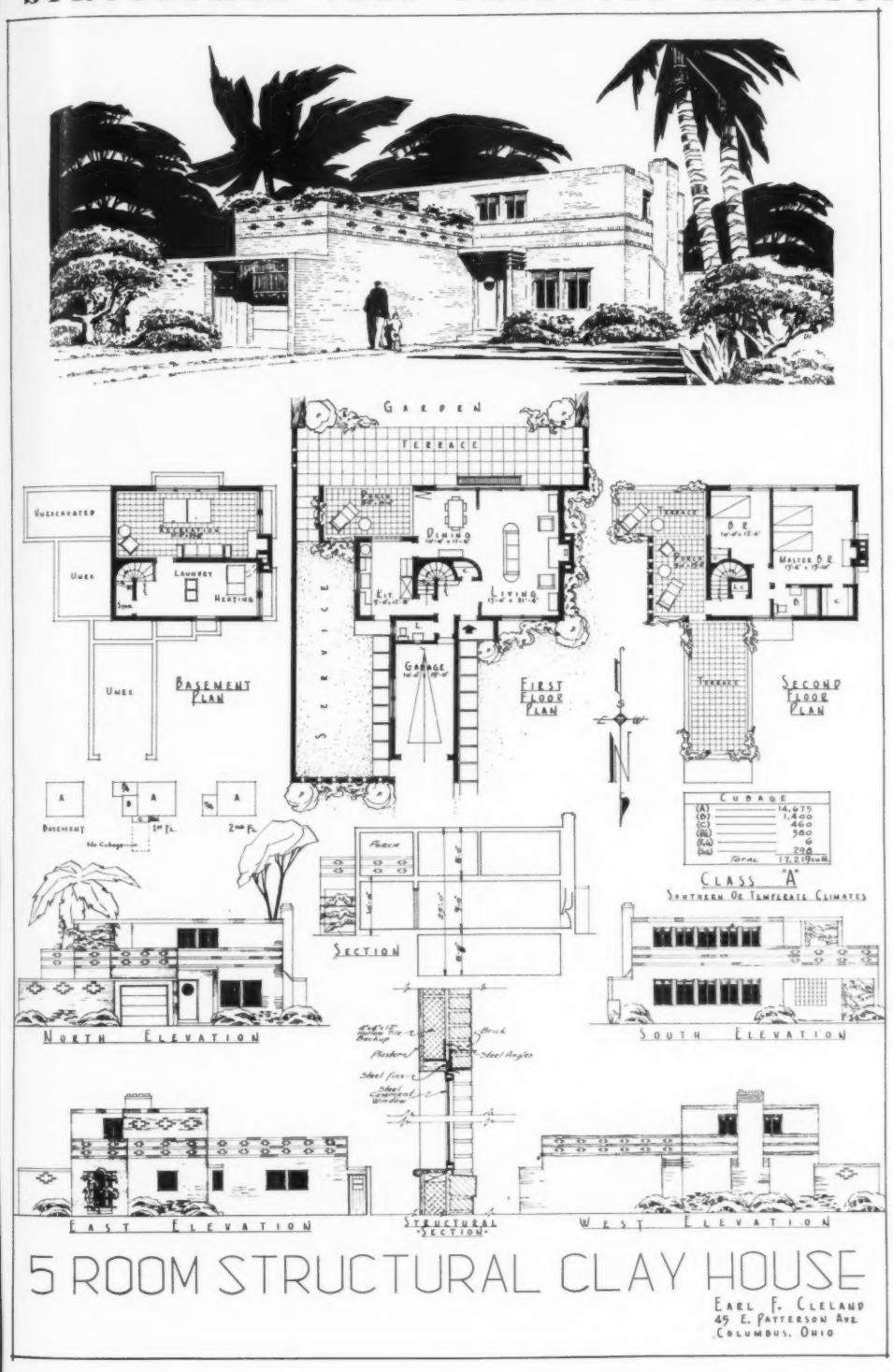
"A charming, small house of Southern type, not as simple in plan, but more ingenious. Fine brick character. Also well presented."

ATWELL JOHN KING, NEW YORK, N. Y.

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

THIRD PRIZE

STAGE ONE—CLASS A



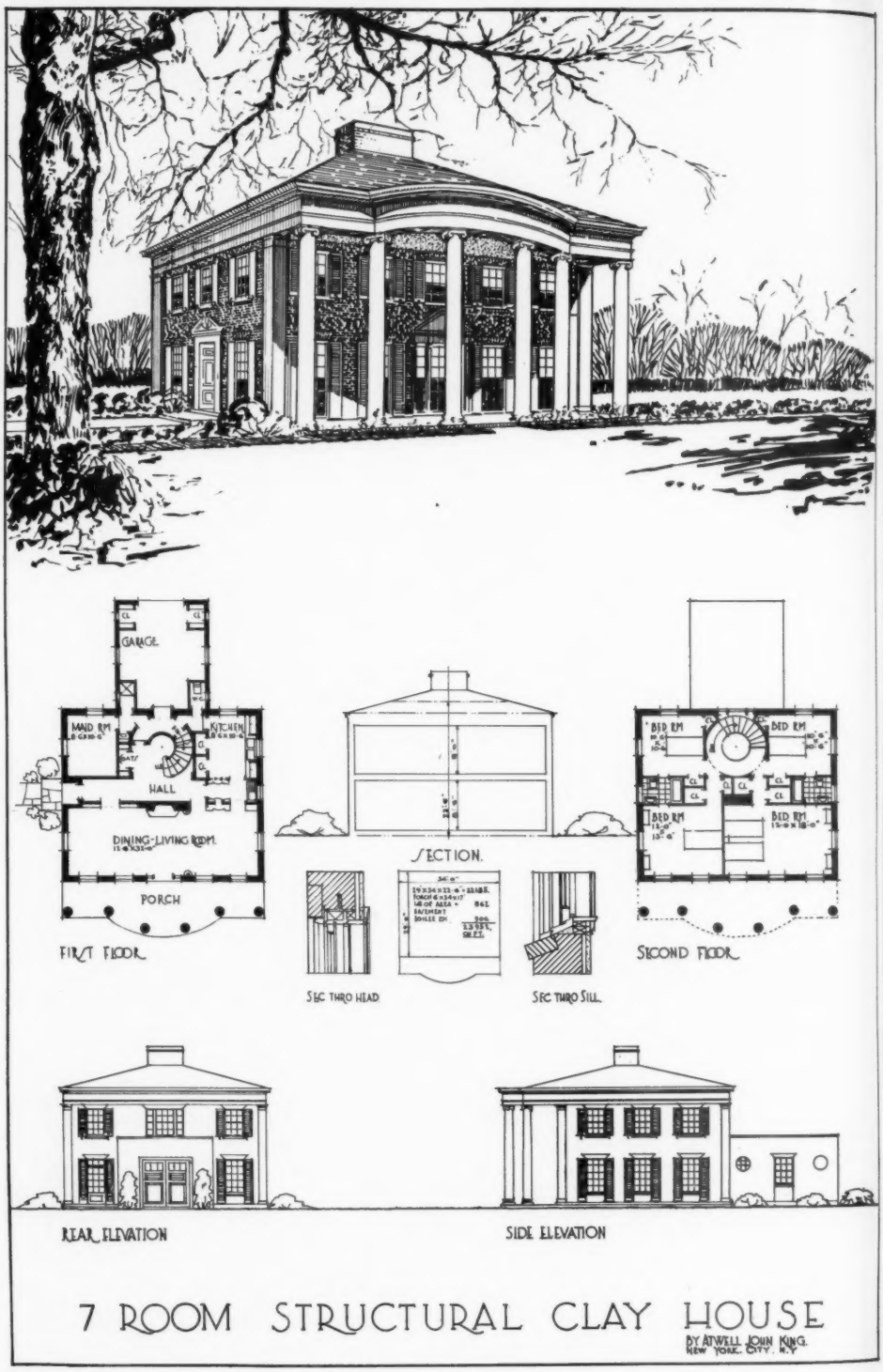
"A house with an appearance of some size, well planned for Southern living, rooms arranged for good ventilation, interesting terrace and porch treatment. House is one of best of modern design submitted expressing use of clay products."

EARL F. CLELAND, COLUMBUS, OHIO

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

FIRST PRIZE

STAGE ONE—CLASS B



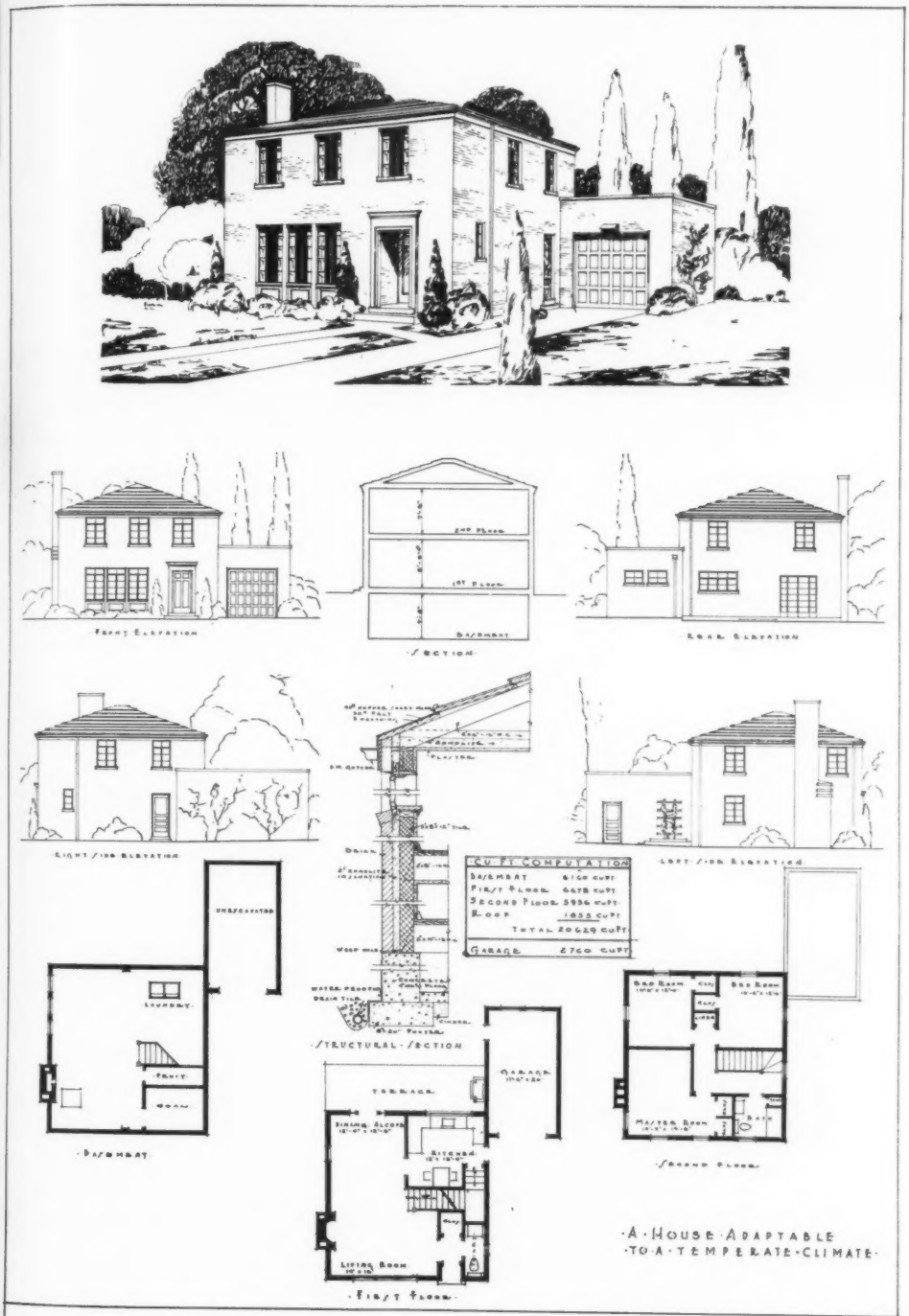
"An unusual plan of considerable interest for a small house. Interesting treatment of stairway. Maid's room not well placed, yet accessible to service and arranged for privacy. Garage well located in most convenient relation to both main and service portion of house. Second floor plan also interesting and baths, closets and rooms well arranged, also minimum of waste space in hall. While there is a feeling of false scale in the perspective, house would build well. Garage treatment novel and details throughout well studied."

ATWELL JOHN KING, NEW YORK, N. Y.

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

SECOND PRIZE

STAGE ONE—CLASS B



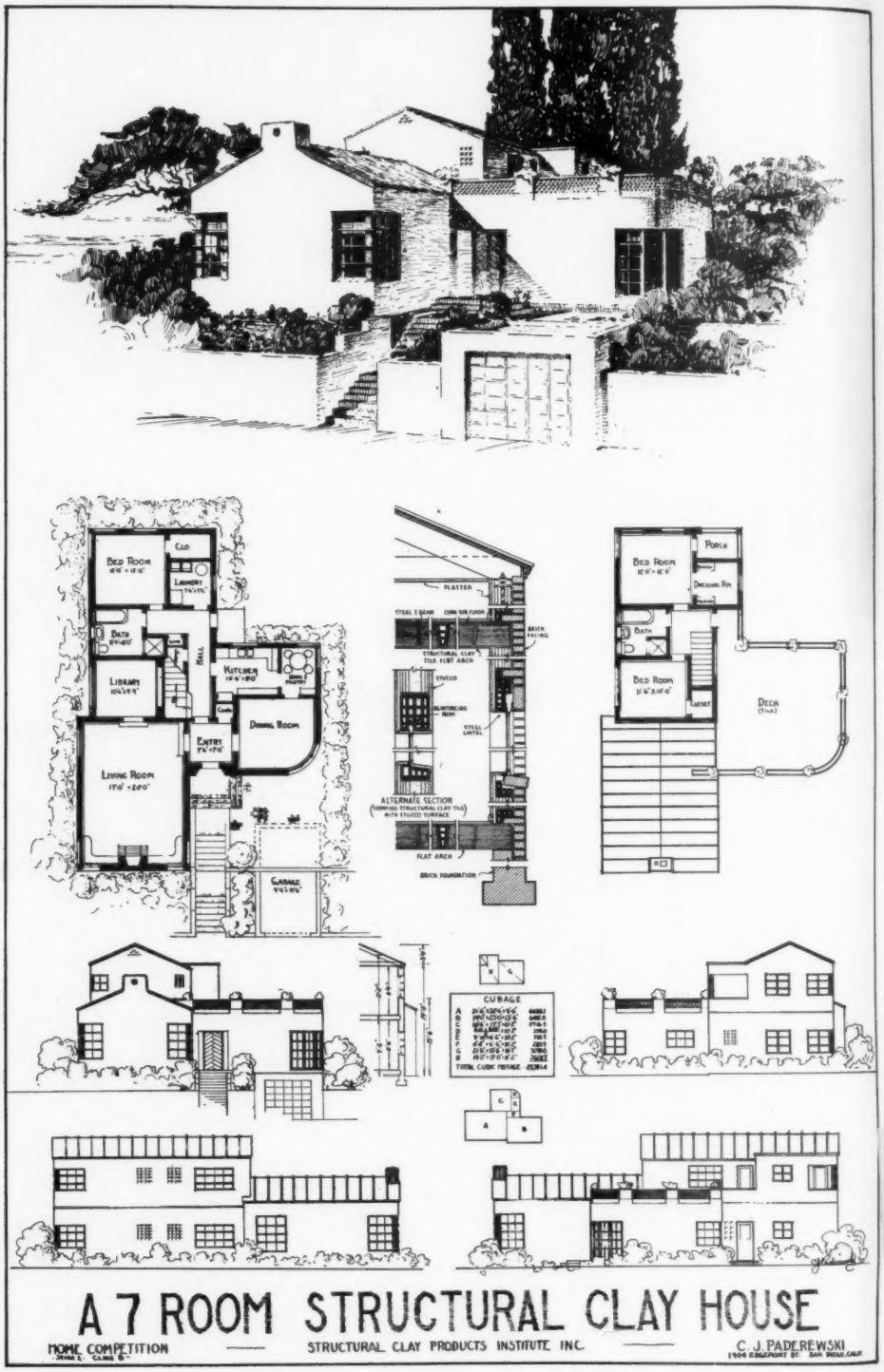
"A commonplace yet practical plan. Garage well placed for one having direct front entrance, yet would be greatly improved by covering over garage and kitchen doorways for both practical and artistic reasons. Layout economical and both design and plan found favor with the real estate members of the jury."

SHERMAN R. PATTERSON, PITTSBURGH, PENNSYLVANIA

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

THIRD PRIZE

STAGE ONE—CLASS B



"A good solution of the common problem of high lots where there is the necessity of a front garage entrance. Interesting plan with small cubage except that Jury felt windows were poorly placed. Handling of garage prevents house having appearance of being on stilts."

C. J. PADEREWSKI, SAN DIEGO, CALIFORNIA

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

FIRST PRIZE

STAGE TWO—CLASS B

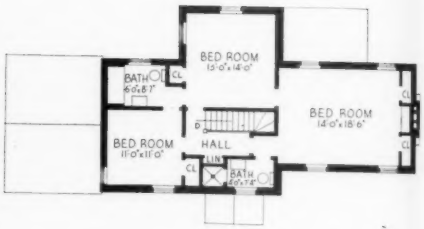
"A charming small brick house fitted to a difficult site. A fine plan, taking advantage of both site and limited cubage. Good use of brick, exterior well detailed. Outstanding house in its class."

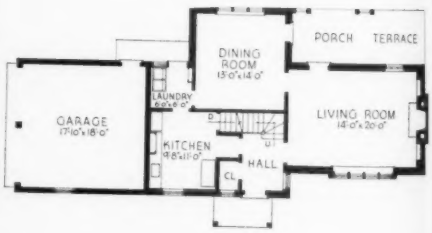
WALTER E. CONKLIN, DECATUR, GEORGIA

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

SECOND PRIZE

STAGE TWO—CLASS B





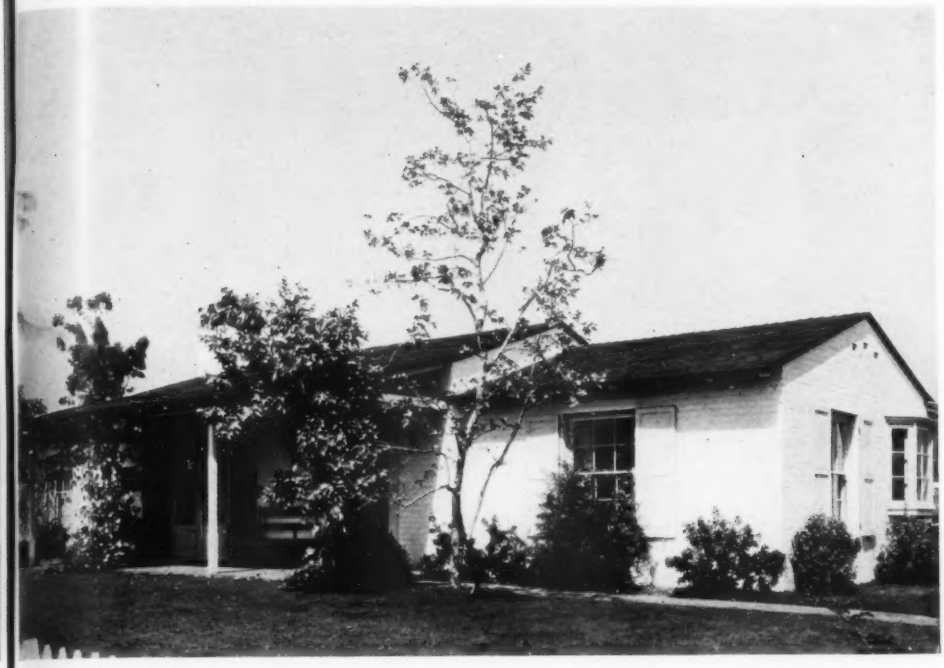
"A good Eastern Pennsylvania type of painted brick house. Well arranged plan, garage well handled, design pleasing, a popular type, well done, needs planting to bring out its best points."

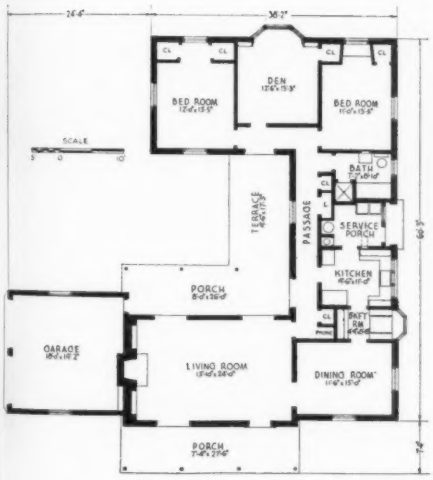
J. LINERD CONARROE, PHILADELPHIA, PENNSYLVANIA

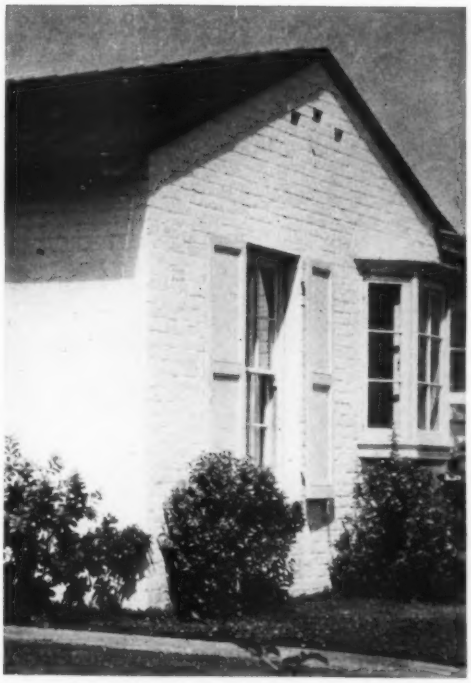
STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

THIRD PRIZE

STAGE TWO—CLASS B







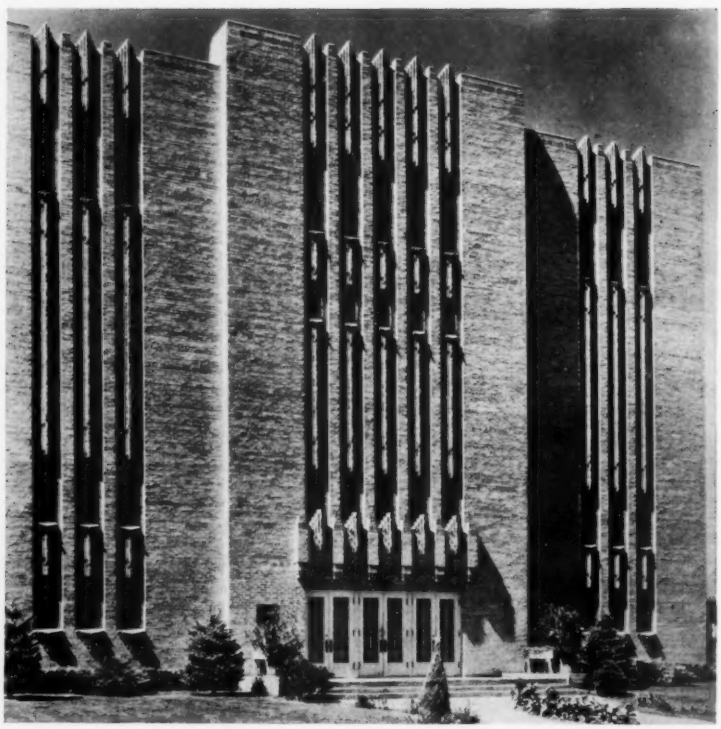
"An interesting house of the type now popular in Southern California. Plan well fitted to its environment, pleasing in lay-out. Design charming as all of the work of this architect."

ROY KELLEY, LOS ANGELES, CALIFORNIA

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

FIRST PRIZE

STAGE THREE—CLASS A



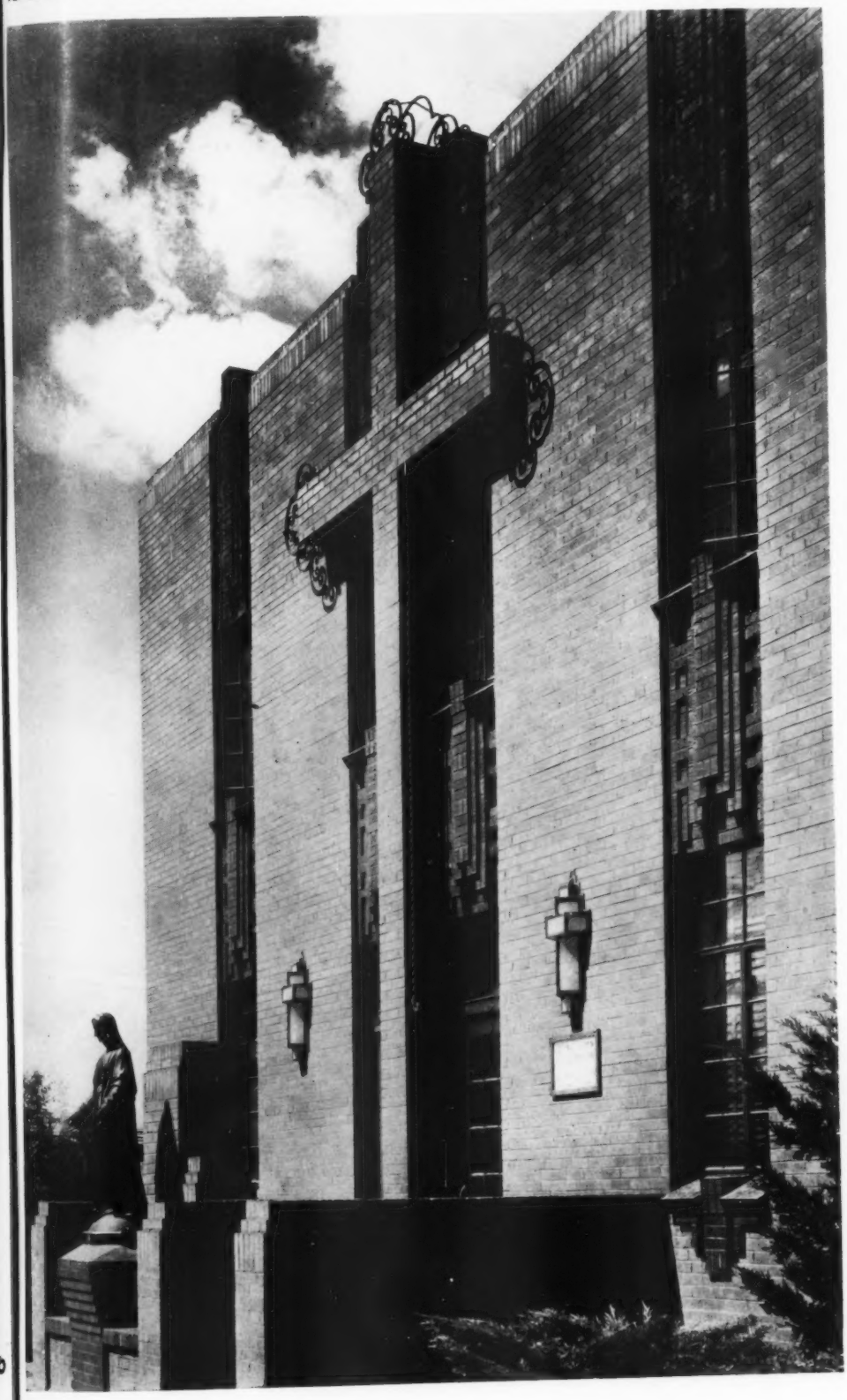
"A group of buildings where an experimental desire to do something in brick work shows a sane method of approach. Clay products handled in such a manner can not help but add a new medium of expression in building materials."

T. H. BUELL & COMPANY, DENVER, COLORADO

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

FIRST PRIZE

STAGE THREE—CLASS A

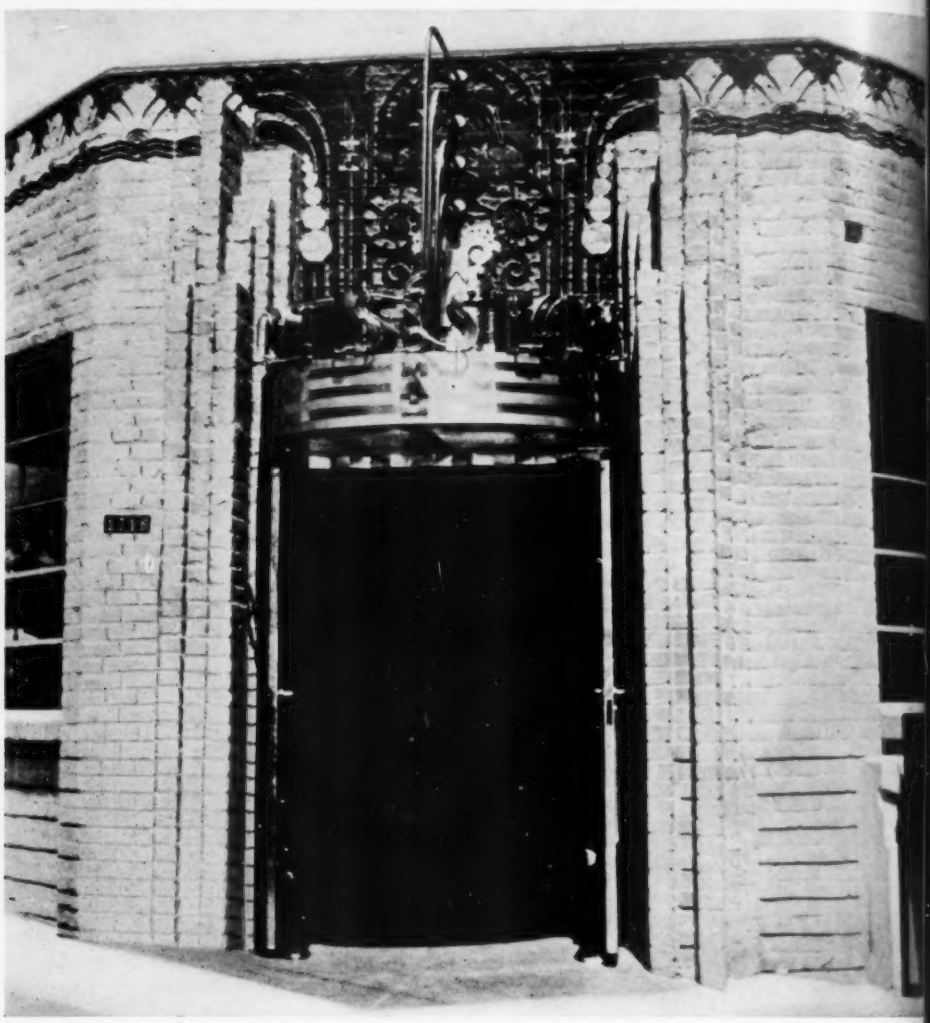


"The dramatic solemnity of a great parochial foundation has been magnificently caught in the conception of the cross as an integral part of this striking facade."

STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION

SECOND PRIZE

STAGE THREE—CLASS A



"A clever method of carved brickwork worked out in an able manner. Method used worth studying. The ornamentation upon the brickwork is sand-blasted to a depth of one-half inch, using a fibre stencil. Ornamentation is then further relieved by the use of a waterproof coloring in dull red, brown and light blue. The process is very inexpensive."

LYLE NELSON BARCUME, LOS ANGELES, CALIFORNIA

© V. L. HUBBARD, PITTSBURGH, PA.

Schenley Farms District (illustrated on second following page) may be distinguished by the University of Pittsburgh's "Cathedral of Learning" in the distance

PITTSBURGH

WE have a great admiration for the editors of this magazine. They are nobody's fools. When they run out of copy they devise a trap like this to make the architects get it for them. The bait they use is the titillation of the vanity, and they know that architects break down immediately under this treatment, just as the little boy when he is tickled in the ribs. So we fall in line behind Boston, Detroit, and Washington to run the gauntlet.

Ours is no gallery of Pittsburgh architecture. If the editors cannot get photographs from architects of their work, how many could we get? — we do not even photograph our own. Furthermore, the magazines show such pictures as regular routine, and the editors said, "Give us something different."

So we give you here some broad sketches of our picturesque city, a little philosophy, and the whimsies, dear to an architect's heart, which these national professional journals so generally lack. Our editorial board was small and our brothers of Pittsburgh may protest that we have only carried the ball to the 30-yard line. Our only defense is that no one would take the pass.

—THE PITTSBURGH GUEST EDITORS

THE ANATOMY OF PITTSBURGH
— AND ITS CHALLENGE TO THE PLANNER

BY FREDERICK BIGGER, F.A.I.A.

Chairman, Pittsburgh City Planning Committee

IF the city of Pittsburgh and adjacent territory were to be viewed from above, when the late afternoon sun brings into high relief the slopes of the ridges and the multitude of serrated hills, there would come instantly to mind a picture of the human brain with all its convolutions bared to view. There would appear, however, one marked difference, in that the landscape is distinctly divided into three major parts. Two large rivers, the Allegheny and the Monongahela, wind through the hills, gradually converging to form the Ohio River at the so-called "Point District," where lies the downtown business district, a small approximately level area of less than two hundred acres.

These rivers lie each in a valley, often rather narrow, sharply defined by high and steep hills. In many cases the hills rise so close to the water's edge as to leave but a narrow shelf, wide enough only for a highway or a railroad, or perhaps both. Here and there a minor valley, more or less ample, breaks through the barrier of hills to bring its tributary creek to the river.

Sporadically, through the river valley are towns and villages occupying low land, or the easier slopes where the hills recede farther from the river, the latter sweeping in a great arc around the town. The highways and railroads following the river, bordered by industrial plants or straggling houses, appear as tenuous connections between the thriving towns. In fact, an aerial observer would not see below him one single compact city, nor would he discover any indication of that topographically meaningless boundary line within which lies the political unit of the City of Pittsburgh with its irregular area of about fifty-five square miles.

Some of the hills are covered with streets and buildings; others stand steep, barren, and unbuildable. Great hillsides and bluffs overlook thriving communities, and form barriers compelling circuitous travel and long detours in passing from one part of the city to another. The hills throughout the district, varying as much as 500 feet in elevation, afford striking views.

From this general description it will be readily believed that in Pittsburgh are many more or less isolated settlements and communities, difficult or indirect of access. It is said that quite a number of these districts are never visited by residents of other parts of the city, and close observation leads one to accept the statement as true.

The difficulties and cost of imposing modern urban conditions upon this western Pennsylvania topography emphasize the compelling forces that have driven human beings to build a city here. Not only does one marvel at the temerity of men before such an undertaking, but even more is one astonished that these physical difficulties failed, during so many generations, to impress the leaders of the community with the supernecessity for broad-visioned and co-ordinated planning.

The seven hundred thousand people within the city are the nucleus of a metropolitan district, comprising seventy-five to eighty separate political units and a population exceeding a million and a quarter persons, most of whom live within sixty-six square miles lying in or adjacent to the major river valleys. In contrast to this, Allegheny County contains 725 square miles. Regardless of the County boundary, a circle of thirty-mile radius with Pittsburgh as the center would include something like 150 separately incorporated communities.

As an industrial center the census records of recent decades continuously have shown less than forty per cent of the population to be native white persons of native parentage. The remainder is in large blocs of native-white-of-foreign-parentage, foreign born, and negro. The foreign born, of many nationalities, have displayed the usual tendency to live in groups according to nationality. This tendency, combined with classifications of an economic character, which heretofore have seemed inevitable, often is intensified further by the physical segregation induced by the rough topography. When there is superimposed upon all this a political system and custom making it possible for the inferior politician to play off one district against another, the combined difficulties create of themselves an insistent demand for simplification and co-ordination.

What about planning? In the year 1764 the first plan of streets and building lots was laid out, covering the small area bounded by Market, Ferry and Water Streets and Second Avenue (now called Boulevard of the Allies). Twenty years later, in 1784, a plan was laid out for the whole of what we now know as the downtown business district, or "Golden Triangle." From that time on, piece by piece, the land was cut up into building lots, and the streets were gradually extended. It was a piecemeal process, with too much of accident and chance and with no general comprehensive planning or control of the expanding community. This continued for 126 years, until 1910, when the City Planning Commission was created and assigned the task of examining the things that had been done; of appraising the need for correction of early mistakes; of studying the possibilities of creating a more orderly arrangement of streets and open spaces; of attacking the problem of how best to make a city suitable to modern conditions and ways of living. Then for a period of about seven years, 1910 to 1918, the Commission tried to adjust itself to its huge task, and a beginning was made. During the past nineteen years there has been slow but substantial progress—much more than the average citizen realizes. No small part of the accomplishment in planning is due to the privately financed Citizens Committee on City Plan which was organized in 1918. Its six comprehensive city plan reports are almost completely

valid yet, and official plans since made are largely based upon them. That citizen group, which was incorporated in 1920 under a title, Municipal Planning Association, was largely quiescent between 1933 and 1937, but is now revived and active.

In Pittsburgh, architectural planning and design have been subjected to the same kinds of handicap of financial and legal procedure that have operated in all American cities. During the depression much discussion has been given to these matters. They have received some consideration by architects, who themselves can do little to cope with the special forces that dominate planning and design. Whether a building of architectural excellence shall remain in existence or be swept away in rapid speculative evolution of business or residential localities will always be a significant matter with respect to architecture and city building.

If we admit that urban zoning laws have been only a first *and not too successful step in protecting neighborhoods* and in stabilizing different sections of the community, we must also admit that few buildings seem to need to be more than good enough in quality of design and material to live through a financial period of uncertain duration. With real home ownership extremely limited in proportion to the entire population, and with buildings of all kinds treated as exchangeable commodities in a speculative or investment market, it is small wonder that urban land uses are continually changing and that the objective of architectural excellence should be either entirely neglected or very limited in its acceptance.

So long as the designer is expected to produce first a building to earn for its owner more money, rather than to satisfy, in an adequate and beautiful way, a human need or a social purpose, just so long will architectural excellence have limited and short-lived expression. This assertion might be amplified extensively.

We need not assume that only particular housing projects are subject to the uncertainties of unstable and uncontrolled city growth. Certainly, all residential development, most business district development (including practically all of the small neighborhood business developments), and at least some of the industrial areas, are subject to the same uncertainty. Maladjustments are encouraged by reason of lack of control; and it is clear that the community must learn how to devise and apply reasonable regulations which will encourage more harmonious development and greater stability of neighborhoods and of property values.

Schenley Farms District

Mr. Frederic A. Delano, Chairman of the National Resources Committee, said: "When you consider that most of the altruistic housing projects are based on amortization in thirty to sixty years, it seems ridiculous to talk about them if there is not some definite plan of stabilization. . . . So, I appeal to you . . . that you give close attention to stabilization of value."

The foregoing remarks were prompted by a discussion in which one of the speakers looked askance upon housing which is or becomes a multitude of separate ownerships, and housing which is on a purely speculative basis, because of the lack of stability inherent in developments of this sort. Individual owners are reluctant to act collectively for their own protection, and singly they are unable to cope with the disintegrating forces that surround them. Speculative building projects are based on the intention to get the most out of the community with the least possible contribution by the speculator. If the planner of the community is to deal with the relationships of dwellings to other buildings, to streets, and to open spaces, then he must look with favor upon long-term-investment housing on a large scale, upon co-partnership housing, and upon limited-dividend-and-rental housing, all of which require certain stability and continuity of existence within the urban pattern.

By way of illustration, it is worth mentioning that the City Planning Commission from time to time opposes the changing of zone classification which would allow large multi-family buildings (apartments) to replace an outmoded mansion or a group of old and small houses. In many such cases no community need whatever for the proposed apartment can be cited, but only the desire of the property owner to market his property at a higher value. Frequently, within a very short distance of the site in question there exist large areas of property zoned to permit apartments but not built up with such buildings. To grant the request would handicap this latter property. It would give the successful applicant a monopoly within a locality where his neighbors would have their properties damaged in character and value because of the introduction of the unharmonious new structure; and meantime they could not hope to get an income from apartments similar to his because of lack of demand. What, then, is the alternative? Obviously, it is to devise means of stabilizing neighborhoods, either by real estate deed restrictions or more permanent zoning, and to adjust the property valuations if necessary, so that the smaller dwellings may continue to exist, or be increased in number, without changing the essential character and the value of the neighborhood.

Beyond these maladjustments which we have been discussing, there are other factors which influence the scope and permanence of architectural planning and design. Bad city planning, layout of streets and building blocks which are not only bad in themselves but also badly adjusted to uneven topography, inappropriateness of land subdivision which has been based on sales and quick profit rather than on harmonious and consistent community planning—these factors are very significant.

In Pittsburgh, for example, with rough and difficult topography, we could have a more efficient street system if there were larger blocks and perhaps but half as many streets. This would afford opportunities for designing an entire block of buildings as an entity, with more adequately disposed open spaces, more charm, more stability for long-term investments or for owner-occupied dwellings. An excellent example of this is Chatham Village, a well designed entity of many moderate-rent dwellings held under one ownership. Here, the site planner and the architect worked hand in hand to design the remodeling of the ground, the location of streets, the grouping of buildings of different sizes, in harmonious relationship to the streets and to the open spaces surrounding the buildings. This is the kind of development which could not have been expected under the traditional policy of "every lot owner for himself." Chatham Village is a long-term investment, the value of which over a long period is assured by the fact that it has been designed in this manner, and that it is largely self-contained.

What could have been achieved if the development of Pittsburgh's topography for urban uses had been properly planned in the beginning? If that had been done, we should have been able to reduce the total cost of streets, while allowing the thoroughfares individually to be more spacious and in many instances of easier gradients. We could have reduced the cost of underground utility systems, i.e., the initial cost as well as the cost of maintenance and operation. We could have allowed the originally beautiful hillsides and ravines to remain intact as parks, or be developed as the large estates of well-to-do owners, that is, owners who could afford to pay the greater cost of building residences on difficult hillside sites. Concurrently, we should have avoided that kind of land subdivision which has produced many small and steep lots on hillsides and ravines, speculatively created and sold to poorer people who are less able to build on these more difficult sites. We should have had fewer abandoned or low-grade lot developments for the city to take over and hold, doubtful of what is best to do with them.

The physical problems themselves are enormously difficult in Pittsburgh. Here, as elsewhere, and regardless of their difficulty, the physical problems go hand in hand with the economic and social forces with which the planner must try to cope.

No one will deny that there remain a few places in the City of Pittsburgh not spoiled, a few places where buildings of architectural merit are properly placed and still in no immediate danger of deterioration because of the breakdown of the neighborhood. However, it is small wonder that this city should be called by some a city of lost architectural opportunities. If one is not reconciled to the past mutilations, how much less can one become reconciled to the continuation of these mutilations. If they are to be stopped, we must revise some of our procedures in city development, and exercise controls that will allow architectural planning and design to accomplish all that it is capable of accomplishing, both for the social good of the community and for its beauty.

THINGS WE HAVE LOST

BY CHARLES M. STOTZ, A.I.A.

Chairman, Western Pennsylvania Architectural Survey

WITH the smoke from his inevitable cigar raising his eyebrows into a scowl, Professor Brauner would say once more, "Take care of the edges and the rest will be easy." It took me a long time to understand what he meant in those life class days at school, but it finally sank in. And now I know that they knew it instinctively in the old days, those masons and carpenters in the crude western country, and they seldom fumbled the ball. Their buildings were simple, their materials few. They were not spoiled, as we are, by knowing too much; without apparent effort, they rang the bell every time they tried. They could do no wrong and they seemed incapable of making ugliness. But the strong mass and fine proportion, the shewd use of material, and the sure knowledge of how to set a house on and in the ground, all of which we admire so much, was, I feel sure, accepted by them without particular emotion. It was just what Dad and Uncle Lem had done before them. There was nothing else to do.

What they really longed to do was to manicure one of those "edges" that Professor Brauner kept harping on—to leave a mark of their own, to throw their own dash of salt on the steak. Joe Harper had worked long and hard on Krepps' stone tavern, but it was not the thought of the finely proportioned building that lingered in his mind—it was that fancy signature stone he had carved (1). I can hear Joe

[1]

[2]

Harper back in 1845 say, as he slowed up the buggy in passing old man Krepps' tavern, "See that there name stone up there. Look at that eagle. I done that." And as he whipped up the horse, I can see him cast a fond eye at the curlicue after the 1830 date. He had thought of that master stroke at the last minute.

I can see Alec Hines in 1783 down in Washington County, painfully bending his old knees as he took a last crack with his mallet and chisel at the stone for Kelly's little girl (2). He was an honest man and was not deceived about his ability to portray Mary Ann's features—he did not try. He just carved the sort of face he had idly drawn years ago in

[3 and 4]

school, the same kind that Mary Ann herself had scratched last summer on her school slate. But in it he infused the same grace and instinct for decoration that lingers in the beautiful letters of the misspelled and carelessly spaced words. He had something there and he knew it.

So Joe and Alec achieved their happiness by casting away their thumb-marked copies of "The Builder's Jewel: or, the Youth's Instructor and Workman's Remembrancer" and branched out into a little pent-up self expression. Long before them the first settlers had a chosen few, known for their deftness with the broad-ax. And among these few were still a more skillful few who were chosen as "corner men" at the log house raising. There was a trick in notching and fitting the logs and of this they were very proud. Let someone else lay up the wall, cut the doors and window and rive the shingles; but to turn the log corner quickly and deftly, plumb, neat and true, that was one of the first "edges" (3).

Look at Joseph Woodwell's wood carving (4), one of the six vases delivered in 1838 to grace the sandstone garden pavilion at Economy, Frederic Rapp's only purely architectural essay. Joe may not have been able to name every article of fruit in these urns, but he surely had a good time, and the stolid gentlemen of the Harmony Society undoubtedly felt that if Woodwell carved fruits and flowers of such great beauty, their counterpart undoubtedly existed somewhere. Back in 1807, Frederic Rapp of the Harmony Society, newly arrived in Butler County from Germany, carved a keystone (5) of forgotten meaning but of ingenious design expressed with great tenderness. The modern generation has torn down the house to make way for "improvements," and has broken up the stones for road ballast. But some less unregenerate soul saved this stone alone and built it into the roadside wall of his farm yard, where this photograph was made.

They had a great advantage over us with our machines, because they did not have any. We cannot look back—we must learn to use our machines. We dare not even consider the hand craftsman unless our client be very wealthy and can afford the sleek lines of the modern sophisticate at work in the spotless city workshop with materials, tools, and machines which would have made the eyes of Woodwell and Rapp bulge from their heads with surprise and envy. Nor can we be hypocrites, laboriously adzing timbers and hacking "accidental" lines in the stonework. That, also, takes too much time and money. We have lost those things just as surely as the tired old man has lost his lanky youthful figure and day dreams. The old swimming hole has been filled in, probably by the steam shovel, to provide room for the four-lane highway.

Our door casings have suffered anemia. I wonder if we use these undernourished moldings because they are "smart," or because we are afraid of the cost of the millwork, or because we are weary of searching for new arrangements of

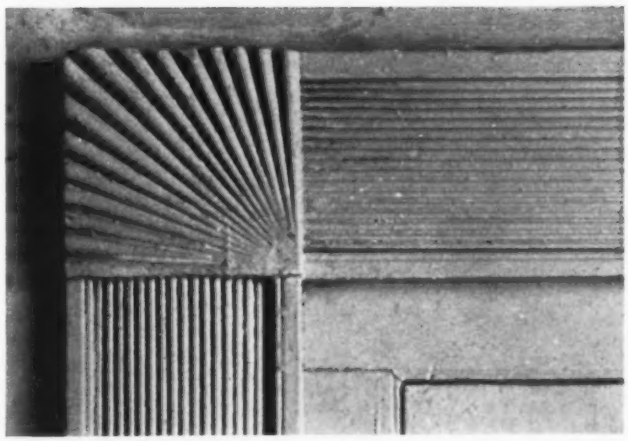
[5, 6 and 7]

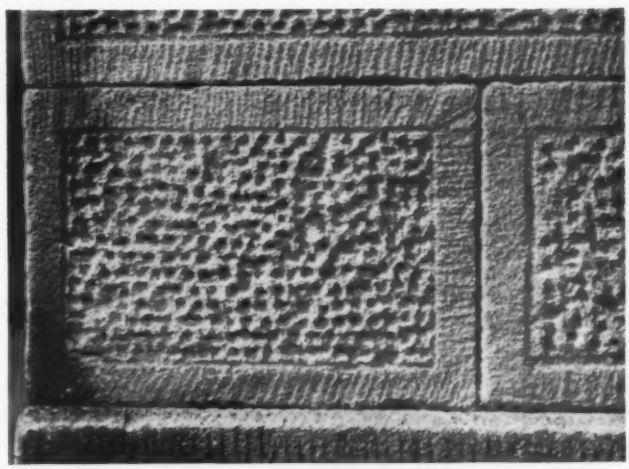
moldings and this is the easiest way out. Look at this stunning and quite modern effect produced in Mr. Daily's house in 1797, over in Westmoreland County (6). The corner block was the stumbling block over which the architect tripped into the Victorian period. So we wonder what naïve carpenter conceived this heresy with such sureness of touch when he was surrounded by a world of mitred moldings.

Mr. Blair, one of Greene County's best masons, executed a house for Mr. John B. Gordon in 1843. On the two sides away from the road he produced a reasonably well tooled stone job, but on the road sides he excelled himself. Mr. Gordon was, unlike our clients, not in any undue haste to occupy his house, and while he probably did not mention this fact, Mr. Blair felt the same way. He took each and every stone from grade to cornice and delivered himself of a "scabbled and drafted" job that makes the perspiration stand out on one's brow (7). Here was a man of "edges" for you. Lacking the aid of a bush-hammer or a pneumatic drill, only a philosopher could have lived through this experience. But he did something for us. Today as one looks up the flagstone path through the cedars, the slanting afternoon sun gives a glory of light and shadow to this rich sandstone wall that is almost excruciating.

In 1847 the second Fayette county court house was completed, an imposing Greek Revival affair with a six-column Ionic portico and a towering cupola. This cupola had, of necessity, to be crowned with a wooden statue, and the only subject that could be considered was the Marquis from whom the county was named and who had honored us with a visit in 1826. But, in casting about for a carver, the commissioners could find no one with the temerity to undertake the commission—until David Blythe came forward. Blythe was the town wag and prankster, famous for his pointed doggerel verse (written under the name of "Boots") and a fair hand with the paint brush. With some trepidation he was engaged by the commissioners. Blythe gave up his room, known as "The Rat's Nest" over Hook's store in Uniontown, moved to the deserted log West School House and set to work. As a guide in delineating La Fayette's face and figure he had to rely only upon a wood engraving and the variable descriptions of the residents who remembered La Fayette on his visit there—weak reeds indeed upon which to lean. From a block, made by building up two-inch poplar planks, Blythe carved the ponderous Gallic features you see in the illustration (8).

For this *tour de force* Blythe was rewarded by the remarkable fee of $125, raised by public subscription. So when, a few years later, he was approached to carve a statue of General Greene for the court house of the neighboring county, he boldly requested $300 for the work. The county commissioners replied, however, that they could not give him "the whole country for his work," and retained a local artist at $100. Blythe later attended the unveiling of this work and wrote some caustic verse which gave great





[8, 9 and 10]

joy to the citizens of Fayette County. He thereafter devoted himself to painting. Blythe's work on the La Fayette statue is almost forgotten, but he is regarded today as one of the outstanding *genre* painters of his times, a collection of his paintings having been shown at the Museum of Modern Art in New York several years ago.

The "Grecian gusto" was a most compelling force in the early nineteenth century, the first and most intolerant of our modern architectural "fads." Towns and children were given Greek names, and all things were pervaded with the austerity of classic forms. But who today would believe they carried this fine frenzy to the point of insisting upon cast-iron conductor boots of Greek design?—that is, if they had not left specimens to astonish us. How did this strange thing happen? The Temple of Victory, glistening on the Acropolis, attracted the curiosity of some wandering English architects who made books. So the fallen torch was tossed down the corridors of time to plain Ben Patterson in Washington County in 1820, who proceeded in humbleness of spirit to fashion these Ionic iron columns (9) to spout water across the sidewalks of Maiden Street. Ben got out of the jam in great style, for they are indeed very attractive and much more practical than those columns in Greece.

I close with Rapp's angel (10). In all the early architecture in the 22,000 square miles of western Pennsylvania, there are few details more apt to warm the cockles of the architect's heart than this *chef-d'oeuvre* of Frederic's. Those Germans were deadly serious men, thrifty and industrious and probably very little concerned with unnecessary decoration, even though their first act in starting their settlement was to give a band concert in the wilderness that was then Butler County. But Frederic was George Rapp's adopted son, whom he had brought from Germany and placed in charge of his famous society so he could indulge himself in this extravagance of spirit and sandstone. No one knows today what his motives were when, in 1806, he carved this angel's head. Not that it matters. Of course we will pass over the strained apoplectic expression, for the anatomy was very faulty—the lack of shoulders, for instance. But consider rather the total lack of self-consciousness, note how he made his angel suit itself to the space, to spread its wings so neatly and adequately over the keystone. Above all (and this is what makes these things so lost to us, so impossible to do again), see how nonchalantly he disregarded the dignity of his subject and carved for the first and probably the last time in the history of art, an angel with a bow-tie.

Illustrations are used by courtesy of the Western Pennsylvania Architectural Survey, a joint project of The Buhl Foundation and the Pittsburgh Chapter of the American Institute of Architects. Many of the results of this Survey are to be found in "The Early Architecture of Western Pennsylvania," published for The Buhl Foundation by William Helburn, Inc., New York, 1936

PARKS IN PITTSBURGH

BY RALPH E. GRISWOLD, F.A.S.L.A.
Superintendent of Pittsburgh Parks

PITTSBURGH, with its dramatic contrasts, has a beauty of landscape unique among cities. Although its rivers dominate the landscape, Pittsburgh's civic development has been completely reversed from the famous river cities of Europe. There are no grand Thames, Seine, Rhine, or Tiber waterfront parks along the Ohio, Allegheny, or Monongahela. These rivers were used in the early days as trading routes to the west, and have continued to this day as vital industrial arteries. Consequently, public parks and civic centers were relegated to the then less commercially desirable hills.

Regrettable as it may seem for the city to have turned its civic back on the rivers which were responsible for its origin, this unusual condition has its compensations. The higher inland areas which were acquired for the larger parks are much more fortunately located and have far greater natural beauty than the flat lands along the river fronts. It was an unintentional economic development, therefore, and no result of genius in civic planning, which preserved the choicest lands for Pittsburgh's future parks.

A visit to Pittsburgh's four large country parks, Schenley, Highland, Riverview, and Frick, will counteract the unfortunate impression that industry has wiped out every vestige of natural beauty in Pittsburgh. Few other cities have as many parks isolated by natural topography from surrounding commercial and residential communities.

Within twenty minutes' walk from almost any section of the city, there are many miles of park trails, completely hidden from highways or buildings of any kind. Fully half of the entire two thousand acres of park property consists of beautiful ravines and hillsides, very much as the early traders and settlers found them. Thus, nature has provided and man has preserved in the heart of the most densely populated districts a retreat from the city's confusion which could not be duplicated by any expenditure of money or landscape architect's skill.

And we now realize that it is these very ravines and precipitous slopes which have prevented automobile highways, golf courses, athletic fields, tennis courts, and other sports facilities from monopolizing every available acre. Nature has come to our assistance. Areas suitable for sports can and should be acquired by slum clearance, by demolition of condemned structures, or by reclaiming useless lands. Appropriations for such purposes are usually popular with politicians. But areas of natural beauty within city limits are rarely available and the few which exist should be preserved at all costs.

Recognizing the wisdom of this policy, Henry C. Frick purchased some 390 acres in the Nine Mile Run Valley and presented it to the city as a public park. In 1919 his will created a two million dollar trust fund for the development and maintenance of this park. For many years the design was directed by Guy Lowell of Boston. Playgrounds, tennis courts, and athletic fields were constructed on the more accessible upper areas where the park was bordered by city streets. But no automobile roads were permitted to penetrate the interior; only trails entered the ravines where natural conditions were restored as faithfully as possible. Last year new entrance gates were designed to harmonize with the picturesque character of the park (see illustration).

Little change has occurred in the landscape character of the older parks since the turn of the century. Designed in the English landscape manner, according to the earliest theories of park planning in this country, roads still wander in graceful curves around undulating hill tops. They are pleasant roads whose leisurely lines take the easiest course over rugged topography, but which do not satisfy the demand for automotive speed. The widening and straightening of park highways, which has destroyed so many public parks, has been lacking in Pittsburgh's park program only because of the prohibitive cost of dealing with its difficult topography.

Recreation facilities, while adequate, are unobtrusively located so that they do not dominate the entire park area. A drive or walk through the parks still presents a pleasant

picture of open meadows framed by groves of trees composed in picturesque silhouette. Where great white oak forests once stood, there remain today the log cabins of the first settlers who cleared the land. The present day atmosphere, and lack of natural ground cover to retain moisture, prevent the reestablishment of the native forests, but many varieties of trees better adapted to these new conditions have been skillfully arranged to create a satisfactory reproduction of a natural rural landscape.

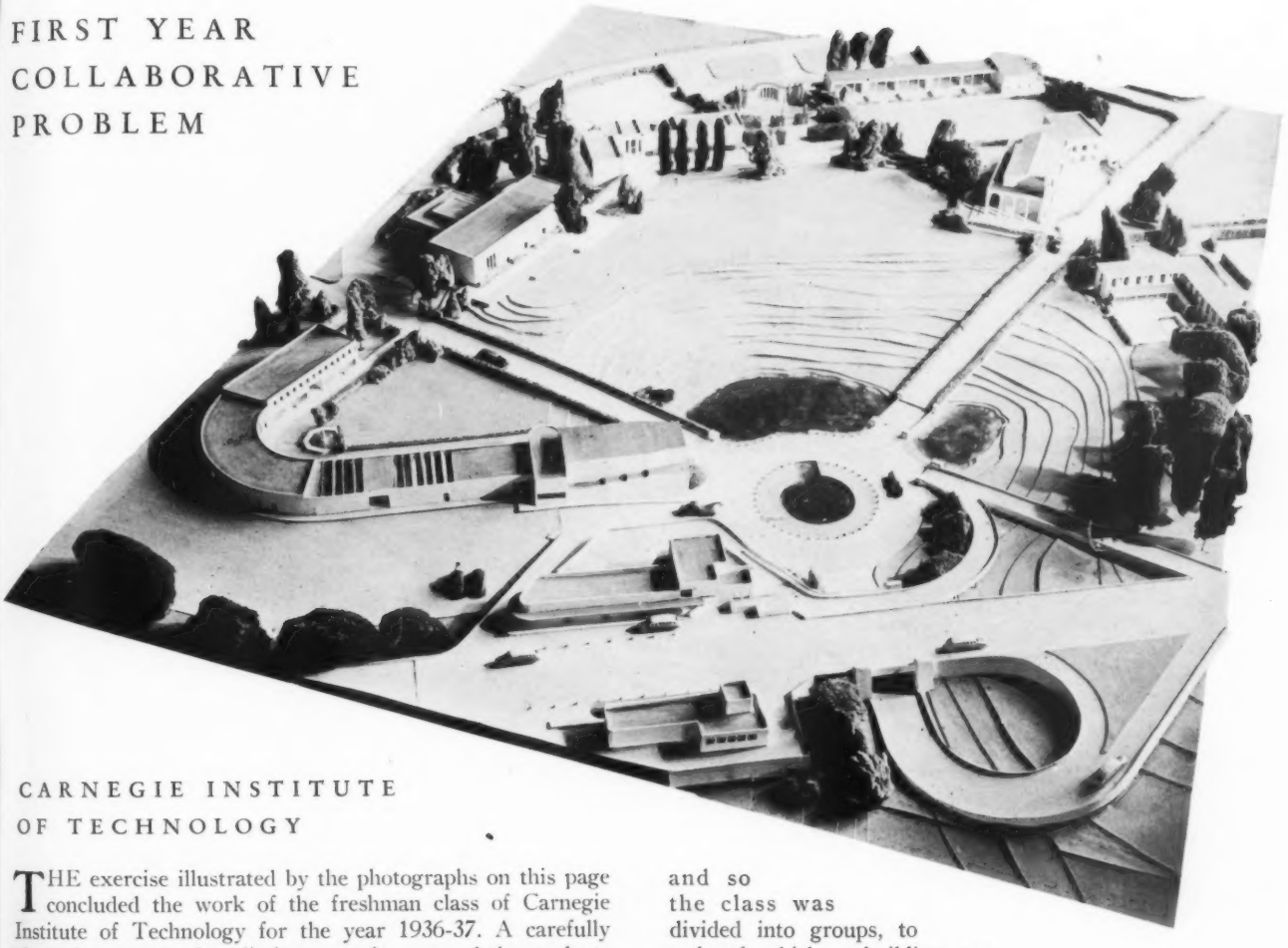
Over 125,000 persons visit the Annual Spring Flower Show at the Phipps Conservatory in Schenley Park. This Conservatory, presented to the city by Henry Phipps in 1894, is one of the earliest and finest conservatories in the country. Many of its original collections, still preserved, came from the famous Chicago World's Fair. During the past two years this Conservatory has been completely rehabilitated. Display houses which were devoted to collections of plants arranged on benches have been remodeled into gardens in character with the type of flowers or plants displayed. No other public flower show achieves the same variety of display on such a vast scale.

Although the interior park landscapes have undergone little change, the surrounding communities are vastly altered. The distant sky line, which was once hardly distinguishable from the wooded sky line of the parks, has taken on the angular silhouette of modern structures. Seen through the softening haze of distance, these silhouettes of steel mills, buildings, stacks, and bridges along the industrial water fronts are most impressive. The outline of monumental buildings against the street patterns of the densely populated hillsides creates a fascinating contrast with the foreground of green meadows and wooded slopes. Sometimes these panorama are softened by haze, at other times they are sharply outlined against the rivers and hills beyond, and again they are a black mass against the vivid glare of blast furnaces. Painters of the Pittsburgh scene invariably find a challenge in these picturesque, though strange, landscapes. They are as stimulating to the imagination as the vistas of famed towers and domes from ancient gardens. From Grandview Park on Mt. Washington, a bird's eye view of the Golden Triangle impresses the most blasé sightseer. Such views are characteristic of Pittsburgh parks and distinguish them from all others.

Almost as dramatically contrasting as the views, are the social strata which surround the larger parks. Bordering the high side of Schenley Park is the cultural center of the city, and beyond this the luxurious homes of wealthy and influential citizens. In the ravines below, cows may be seen grazing on the undeveloped hillsides within sight of the Carnegie Museum. Picturesque groups of squalid frame houses cluster on precipitous slopes immediately below the main highways which connect the residential areas with the city. The borders of every major park run the full social and topographical gamut, the one following the other. Nowhere are the public parks used by such numbers and varieties of people. Under these circumstances, a more complex problem of park administration could hardly exist.

The day is now approaching when our Pittsburgh park system will begin to approximate the ideals for which this city has striven in its program of rehabilitation. The city dweller is becoming daily more conscious of the meaning of these oases in the congested urban districts. As he avails himself more and more of their facilities, he learns how essential they are to well balanced good living.

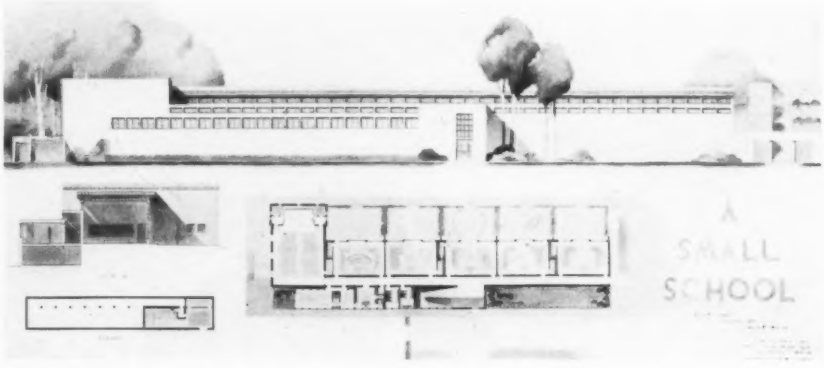
FIRST YEAR COLLABORATIVE PROBLEM

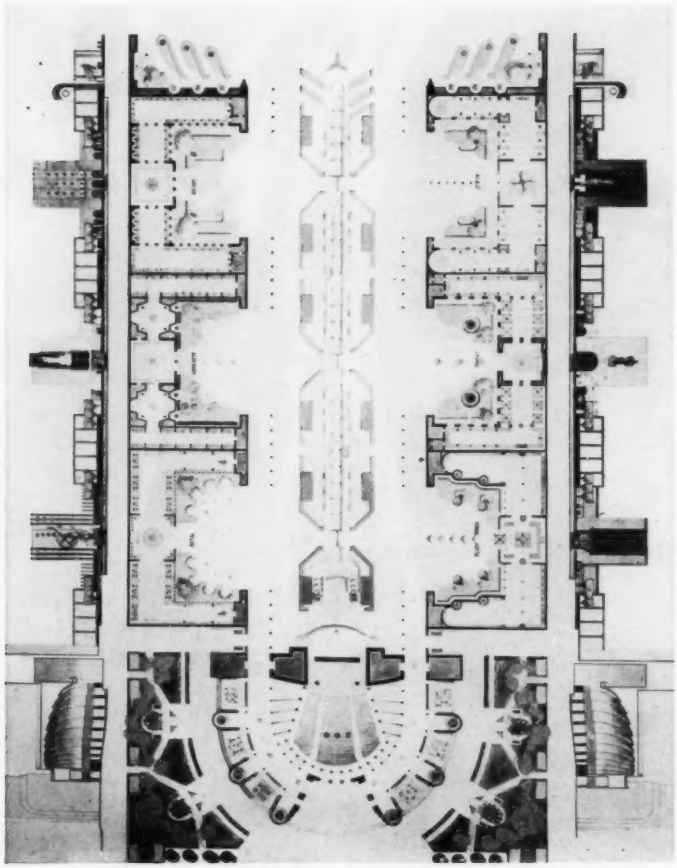


CARNEGIE INSTITUTE OF TECHNOLOGY

THE exercise illustrated by the photographs on this page concluded the work of the freshman class of Carnegie Institute of Technology for the year 1936-37. A carefully planned program of preliminary work prepared the students for this problem, which, although apparently an ambitious project for freshmen, was chosen in the belief that it would, while providing many problems of detail, call attention to the origin of these in the demands of a larger scheme, and show the inevitability and importance of relationships.

A contour diagram of a site designated as that of the cultural and commercial center of a satellite town, a traffic system giving access to and from a highway, and a master plan were given, and the students were required to work out the buildings. Charcoal sketches were developed into finished rendered drawings of plans, sections, and all elevations of each building; and a scale model of each was constructed and fixed in place upon the contour model which had previously been built. Time would obviously not permit each student to work upon all the buildings, and so the class was divided into groups, to each of which a building was assigned. Close collaboration between groups was necessitated by the constant effort to integrate each part with the whole—and frequent general discussions of all individual problems were held. Willingness to work after class hours attested the interest of the students.



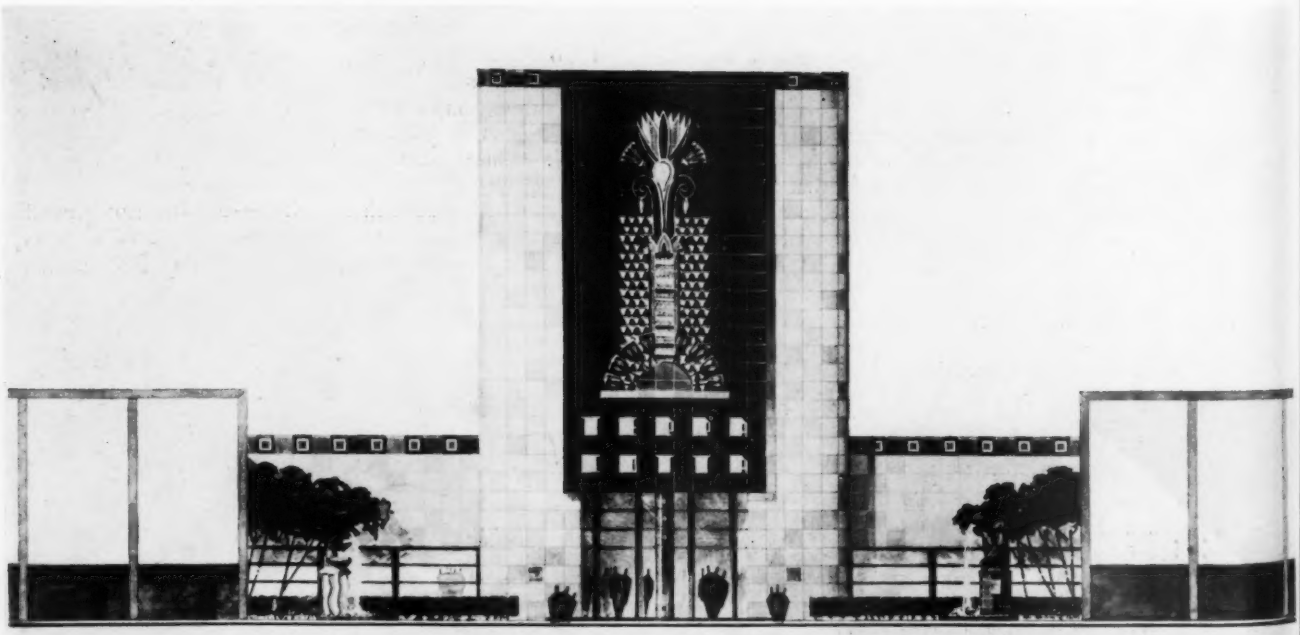


AN EXPOSITION OF BUILDING MATERIALS

FOURTH YEAR
COLLABORATIVE PROBLEM
CARNEGIE INSTITUTE OF TECHNOLOGY

REFLECTING a new and interesting trend in architectural education, the Department of Architecture at Carnegie Tech has established a policy of co-operative effort among students. The older type of competitive project is still in vogue, but at intervals throughout a student's career he is required to collaborate with other architects, with painters and sculptors, with engineers, or with town planning experts, in the production of a unified result. "An Exposition of Building Materials," partly illustrated here, is an example of architectural collaboration within a group of eight architects. The stimulus of co-ordinated thinking, which closely parallels the professional approach, indicates a valuable type of exercise for students.

TYPICAL SOLUTION OF PYLONS



HI - DE - HO AND HO - HUM

BY ROBERT SCHMERTZ, P.A.C. and A.I.A.
(But not one of the fellows)

THE Pittsburgh Architectural Club was organized in 1898 for the purpose of generating a little hi-de-ho to counteract the ho-hum emanating from the local chapter of the American Institute of Architects. Incorporated in 1901, the club has maintained a very high standard of hey-nonny-nonny to the present day.

Early meetings were held here and there, in taverns, in attics, and in subterranean hangouts, somewhat like the early Christians in the Catacombs. Vestiges of the crude drawings of the first members no doubt still exist on the backs of menu cards, napkins, and tablecloths.

The club from time to time maintained its own quarters in various places, meetings grew louder and funnier, but just as things got going just a little too well the buildings were altered or torn down and the architects were on the town again. This state of affairs obtained until along about 1929, when the officers of the club, after examining most of the Golden Triangle's vacated speakeasies and booky-joints, discovered an elegant second-floor loft, dilapidated though respectable, and whose antecedents were beyond reproach. There being no access to the loft except by a freight elevator, a winding wood stair was inserted which violated all the laws of egress of every state in the Union and looked like a set from the Cabinet of Dr. Caligari. This stair debouched on a blind alley which the City Fathers happily consented to rename "Charette Way." The French Academy has not consented to change the spelling of *charrette*, but the error has persisted too long for us to concede the point.

An oak entrance door was hung, as was also an iron lantern, and the whole thing became just too picturesque, so much so in fact that a steady stream of drunks looking for a speakeasy caused a great deal of annoyance and some little amusement.

The problem of shelter solved, the louder and funnier type of hi-de-ho gave way to art. Exposed steel beams began to reminisce of the glorious painted trusses of San Miniato; architects, artists, and craftsmen contributed miscellaneous odd jobs here and there; and the club began to take on an atmosphere, a pleasing confusion of garbled decoration and free and easy embellishment.

And so the club was again something that could be seen and sat in. Regular monthly meetings were held, with hobby nights, soap carving contests, sketch competitions, and the like, bringing out hidden talent. *The Charette*—a little journal of rejuvenation—continued to be published, containing sketches, articles, and even whimsey, some of which is here reproduced. As a rent-paying measure during the depression the club was turned on occasion into a night club, open to a selected public, where the architects did the honors as waiters, musicians, and actors. The annual picnic, a popular event which is designed for pleasure and profit (profit derived from several games of chance which make the material man shower down—never give a sucker an even break) is also illustrated.

Meanwhile the regular meetings go on—the Architectural Club, 120 members strong, continues to put out an excellent brand of hi-de-ho, and even the ho-hum of the American Institute seems somewhat tempered by the periodic juxtaposition of the members of both organizations.

Home of the Pittsburgh Architectural Club, in a second-story loft, where sketch exhibitions, hobby nights, soap carving contests, and other momentous events are frequently held

Whether in its social event posters or its delineations of historic events, the Pittsburgh Architectural Club's peregrinations among the graphic arts are marked by hi-de-ho rather than ho-hum

THE PALAZZO WAS PUSHED . . . . BY ROBERT SCHMERTZ

Pietro Massimi he built a palazzo
With cornices very ornate;
He decked it with pilasters, caps, and rosettos,
And egg-and-dart spheroids oblate;
And when it was finished he threw out his chest
And shouted aloud to all Rome,
"I hereby defy any Medici guy
To show me a classier home!"

Pietro Massimi he filled his palazzo
With tapestries mellow and rare,
And many a chest with his family crest
And many a rich-carven chair,
And when it was ready he said to his wife
"You may send out the R. S. V. Ps.—
Invite only those who have evening clothes
And well-rooted family trees!"

Pietro's house-warming was quite a success
And Rome became all of a twitter;
The Pitti, the Pazzi, Ricardi and Strozzi
Attended by coach and by litter;
The Medici, D'Este and Borgia came,
And who but the proud Pandolfini—
The swell Davanzati (a little high-hatty)
And of course, Benvenuto Cellini.

Leonardo and Raphael came in their smocks
To try out their genius at drinking;
Not to mention Bramante who came with his aunty
And heartily joined in the swinking;
The party was lively, the party was gay—
It wasn't the least bit depressing;
Palladio's nose turned from red to old rose
And the Pope gave pontifical blessing.

Pietro's palazzo was jammed to the roof—
His guests seemed quite peaceful and loving,
'Till one of the Strozzi pushed one of the Pazzi
Who said, "Who you tink you are shoving?"
"Gowan," said the Strozzi, "I poosh in your face!"
And the Medici shouted, "Izzatso!"
"Poosh 'em op!" yelled the D'Este, who felt rather chesty,
And they pushed out Pietro's palazzo!

And so, gentle reader, in the city of Rome,
On the Via di San Pantaleo,
A curving facade which the critics applaud
May indeed still be seen to this day—oh!
The Palazzo Massimi with curving facade!
But it wasn't Peruzzi's intent—
For you know, and I know, and so did Pietro
Just when, why, and how it was bent!

LEST WE FORGET . . . .

BY WILLIAM BERGEN CHALFANT

THE architect is "contact man" between the world of ideals and the world of practical necessity. Of the two, the first is his spiritual home; if it were otherwise, he would not have entered the profession.

As a dealer in practical things he must be master of efficiency—he must be more practical than the practical. Yet this skill is not acquired for its own sake but because it is a prelude to his real work and because it is also a value enabling him to sell his true wares under the guise of utilitarian service.

For the architect as such sells one thing and that alone: beauty.

* * *

Beauty in principle is the sense of superlatively pleasant experience. Any form of superlatively pleasant experience has some of the attributes of beauty in consequence and so superlative efficiency achieves a pale reflection of beauty; a moonlight of delight.

It is understandable, then, in this world of modern gadgets and ancient muddling, that the function of the architect tends to be identified with that of the efficient builder. Our architectural press increasingly stresses the mechanical phases of building and discussion turns on up-to-date kitchens, baths and heating systems.

This is good, because the inefficient architect deprives himself of his only demonstrable grasp on workaday life—we should and must be efficient, or starve. But when the cult of efficiency gets too big for its breeches and begins not merely to defend, but to extol, ugliness in building on the score of "efficiency" it is time to recall the architect's function. That function is to create a beautiful physical environment for mankind. The implications of the task are sweeping, but its nature is clear.

The moment ugliness appears architecture vanishes.

* * *

This is an "intellectual" age. The epithet recognizes that we have been cursed by the time and the need for reflection. The only use of adversity is that it "gives us furiously to think." But those who think only when prodded, generally think the worser the furiouser. An age of enforced intellection is not a situation in which to take pride, but a matter for commiseration.

The intellectualism of the modern world means nothing more admirable than widespread worrying.

But the new vogue for intellectual gymnastics has made generally known the trite fact that intellectual thought develops its own beauties. Solution of a very difficult logical problem is among the most beautiful of intellectual moments. And all architects enjoy an adroit design which extricates, from apparently hopeless conditions, a building which passes the situation off with an air. Indeed, in this mutilated world most architectural problems find us struggling to avoid ugliness, instead of striving to find beauty. All this should not tempt us to confuse the practical with the ideal, however. The fact that there are beauties in intellectual experience should not blind us to the meaning and significance of true beauty, and it is true beauty that is the goal of architectural effort.

Unfortunately, many self-styled architects of the present day have evidently lost sight of this goal, largely because they have neither the intellectual vigor nor the moral instinct to understand it. There is a new breed of "architect" abroad in the land, men who by nature are engineers, but whose opinions are being palmed off on the public as those of genuine architects.

The sham architects are often otherwise able men, and furthermore men inspired by purposes akin to that of the architect; they would better the environment of mankind. They have a place in the world and the world should welcome them—but not as architects.

These pseudo-architects understand beauty in its intellectual sense—as any superlatively pleasant outcome of rationalization. They suppose that when they have been reasonable, they have been beautiful; never having known sunlight, they worship the moon.

* * *

Sensitivity to true beauty is a gift bestowed on all, but unequally bestowed. And all people who must consistently think, as we understand thinking, grow progressively insensible to true beauty although compensated palely by intellectual delights.

There can be no standards set for intellectual beauty, because it concerns success in our conscious reactions to the external world, and these vary with different men because of the infinite variety both of experience and of reflective character. So to all true intellectuals it appears that beauty has no standards, a cry which sham intellectuals echo with pleasure, absolving themselves from any duty of self-discipline.

But the true beauty is a superlatively pleasant emotional experience.

Now the process of reflection, of intellection, is itself a specialized phase of emotional experience. But it is always a part, never the whole of emotional life. Psychologists speak of this when talking about the deeps of the subconscious, the "reflexes" or whatever they choose to call the vast body of ancient meaning which underlies the new born self-conscious mind of man. Simple people likewise recognize that we are full of the old Adam.

That is the bedrock of fact which causes the sense of superlatively pleasant emotional experience to be true beauty and not simply a beauty among others.

For the emotional nature and experience of men are precisely as uniform as their intellectual natures and experiences are heterogeneous. That is not to say that emotional responses do not vary, and that there are not varying notions on true beauty. But the differences between the basic emotional reactions of men are infinitely less significant than their resemblances. The man of open heart can enjoy the art of the Bushmen, even while preferring the higher art of the Florentine, or the different art of the Eskimo. Kinship in art is never remote.

Worldwide sameness of fundamental emotional life has given rise to the false theory that there are objects which are in themselves beautiful. The idea is mistaken; but the fact it records is obdurate. When we deal in true beauty it is substantially, if not exactly possible to recognize standards.

The terms beauty and ugliness have natural force.

* * *

People often defend ugliness in modern work under the delusion that standards of beauty are always artificial because some standards are provably so. By token of this nonsequitur they assume that, given time, we can adjust ourselves to any experience and call it beautiful.

In a sense that is true. We can accustom ourselves to profess that we like false values; indeed we do so every day of our lives. But we are lying; and will sneak off for an old-fashioned orgy with truly beautiful things and situations at every opportunity that offers. To pretend that we can educate ourselves to accept standards of beauty that are genuinely artificial—which means purely intellectual standards—is to assert that the intellect can subdue the emotions, that the whole can master the part. This is nonsense.

The progress of art must take the course of all science. We speak of having mastered Nature through science. The truth is that through science we have learned where Nature masters us. We fly not in defiance of gravitation, but by utilizing it. So it must be with design. The intellect can discipline the emotions—when the discipline accords with their nature, but not otherwise. The emotions are a woman—gratifyingly docile when ordered to do what she wants.

The charge of ugliness cannot be brushed aside as a plaint of convention. Ugly building is in fact not architecture.

* * *

We must talk about what we do in order to clarify our minds. But we should beware the beguilements of bright conversation. It is so easy to fall victim to the magic of words, that we should be chary of indulging elegant phraseologies. In a cloak of resonant terms any building appears beautiful. Some of the most atrocious efforts of the sham architects are the best buildings we ever listened to. But architecture, like good children, should be seen and not heard. Ugliness remains ugliness even when set to chin music.

Yet since we must talk, consider who is talking. Do not overlook the alien and irrelevant factors which have intruded themselves into discussion of modern architectural philosophy.

There is first the chitter-chatter of the childless; the twittering of the Smart World that has taken up Modern Art. These people are the core of modern decadence, which is a fact attested not by moralists but by vital statistics. The relation between body and soul is too intimate to render a withering stock capable of uttering vital opinions. A dying society lacking the biological vigor even to desire, much less to beget, offspring, is a poor teacher of "truth" in philosophy, architectural or otherwise. Consider, rather, the opinion of the Jap.

Also remember the psychopathic quality of European philosophy. A broken civilization is no more able to think rightly than is a moribund society. Europeans were stunned by belated realization of the progress of mechanical arts, and their world was wrecked by the fury of machines. At first hysterically fearful lest the Machine conquer its creator, now they abjectly fawn on it. They plan cities in which standardization is dramatized, and ugliness organized. This, to them, is keeping abreast of the Machine. We must even speak of a house as a "machine for living," and perhaps a fine dinner is a machine for subsistence. Well, let them get their bellyful of the Machine.

But Americans were born and bred masters of the machine, and always used to keep it in the outhouse, where it belongs when not in use. Keep it there still.

* * *

The scientist thinks, the artist feels. The architect must both think and feel.

It is a difficult role and none of us does so well with it. Some will feel more than they should and others think too much. But as long as we strive to hold the faculties in balance the world of architecture will wag.

But now, when civilization quivers on a dead center, both unable and uncertain whether to go forward or back, all men think more than is normal and most of them more than is good for them. The architect suffers with the rest. The magazines are full of elaborate analyses of negligible building problems by architects propounding trivial solutions.

Gentlemen, do not try so hard to think; leave this work to the thinker born. Remember to feel honestly and without shame for it, instead of pondering abstract architecture from which the architecture has been abstracted. Commence again to judge work by the main standard first—its beauty—only thereafter considering its further sociological merits and its transcendental meanings.

Otherwise we will wake up and discover that we have designed a Theme Tower.

Absit Omen.

It is ended.

THE PORTFOLIO

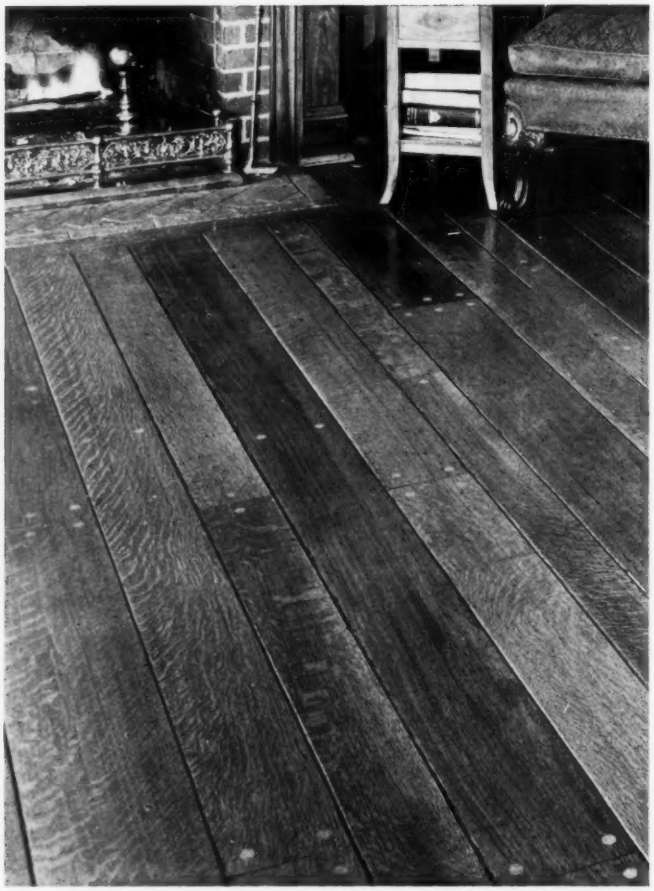
Resilient Floors

House in Brookville, Long Island. J. Bradley Delehanty, architect. Foreground, American plain-sawn white oak. Drawing room beyond, a Fontainebleau parquetry pattern. Cincinnati Floor Company

NUMBER 134 IN A SERIES OF COLLECTIONS OF PHOTOGRAPHS ILLUSTRATING VARIOUS MINOR ARCHITECTURAL DETAILS

PORTFOLIOS IN PREPARATION—Roof Textures, January . . . Rain Leader Heads, February . . . The Eaves Line, March . . . Gate Post Tops of Wood, April

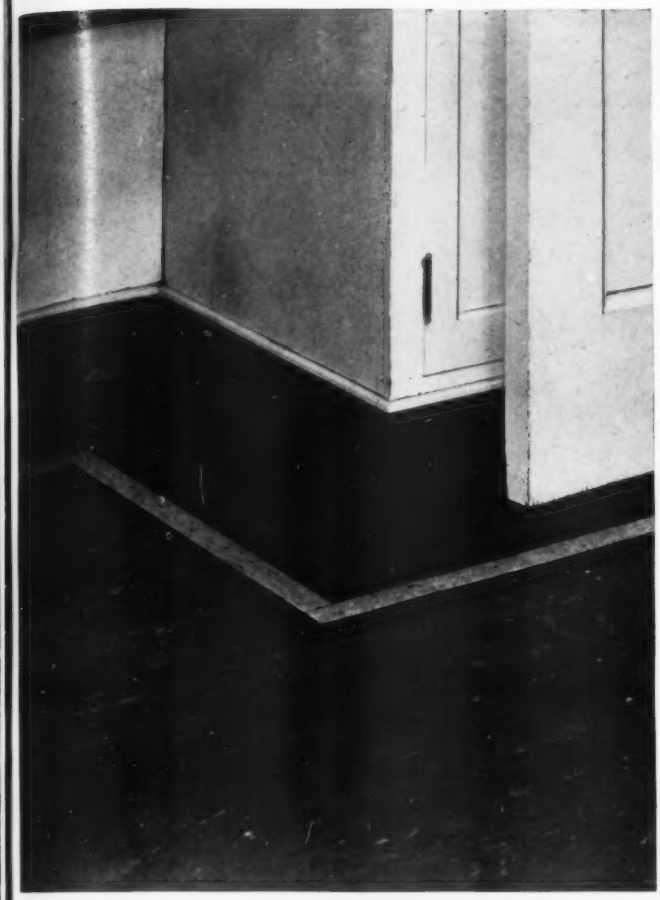
The Editors welcome photographs of these subjects . . . Forms close eight weeks in advance of publication. A list of the subjects that have appeared will be sent upon request. Certain of these past Portfolios are available to subscribers at 25 cents each; or five subjects for one dollar



Above left, house in St. Louis, Mo. Solid oak floor planks, random width, both straight - sawn and quarter - sawn, slightly beveled edges, put down with screws and screw holes plugged. E. L. Bruce Company

Above right, a patterned linoleum floor for a nursery, Lancaster, Pa. Hazel Dell Brown, architect. Armstrong Cork Products Company

Right, cork flooring in a New York Public Library, West New Brighton, Staten Island. Sibley & Fetherston, architects



Above left, rubber flooring in continuous lengths for a kitchen in Akron, O. Field, border, and cove base dark green and white. Strips of black and cream. Goodyear Tire & Rubber Company, Inc.

Above right, solid oak plank floor with walnut pegs and butterfly keys. E. L. Bruce Company

Left, cushioned pressed wood floor, Seattle Art Museum, Seattle, Wash. Bebb & Gould, architects. Masonite Corporation

Wood parquetry floor in a simple herring-bone pattern, for a Louis XV interior in the Metropolitan Museum of Art, New York, N. Y.

New England splatter-dash on white pine—generally deep green or black paint, over which a speckling of many bright colors is applied

Oak block flooring finished alternately in light and dark, in a model room for a department store in Memphis, Tenn. E. L. Bruce Company

House in New York. Linoleum floor with border and center field of black, and alternating squares of black and white. George W. Kosmak, Jr., architect

A New England stenciled floor treatment often found in Salem and vicinity in the early 19th century

House in Birchwood Beach, Mich. John Lloyd Wright, architect. The contrast between alternate squares results from directional change of grain. E. L. Bruce Company

Above left, inlaid linoleum dining room, Lancaster, Pa. Field, eggplant color with stripes of gray and white. Hazel Deil Brown, architect. Armstrong Cork Products Company

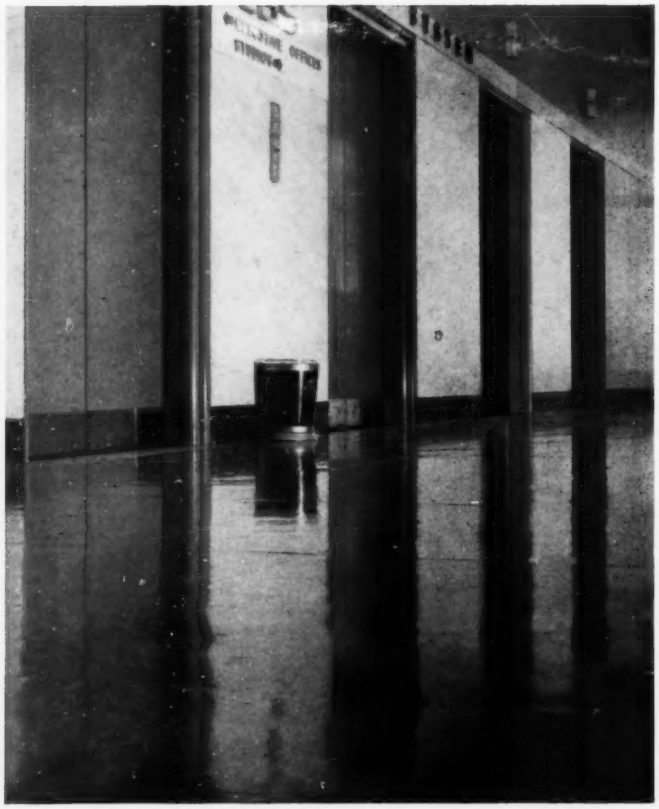
Above right, linoleum flooring in a New York office. Two tones are used for the squares—bleached mahogany and beaver brown. William Tode and Louis Monte, designers and decorators. Sloane - Blabon Corporation

Right, linoleum floor for a dining room with Pacific blue field, pearl gray and white stripes and insets. Congoleum-Nairn, Inc.

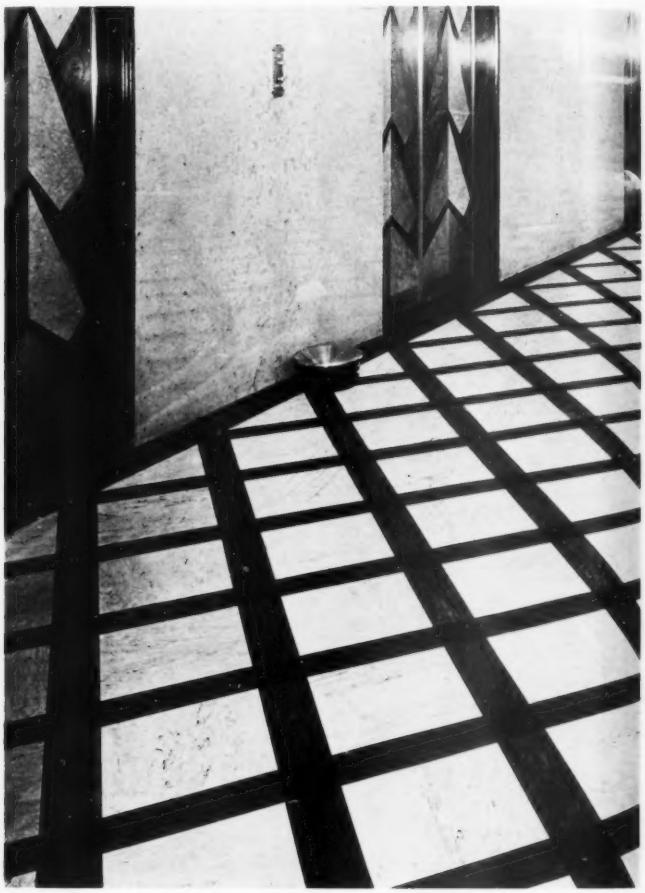
Above left, rubber tile floor in Kosair Crippled Children's Hospital, Louisville, Ky. Field, ivory antique; inset figures, red and jade green. Armstrong - Stedman

Above right, rubber tile in an office corridor, Wurlitzer Building, New York. The tile field is 9" x 18" travertine color, with border in mahogany color. Royalite Rubber Tile

Left, Municipal Auditorium, Kansas City, Mo. Gentry, Voskamp & Neville; Hoit, Price & Barnes, architects. Northern hard maple, 1/4" thick, veneered to a chestnut core and laid in mastic over a cement finish. The pattern is of the natural light color of maple, alternating with ebonized maple. Maple Flooring Manufacturers Association



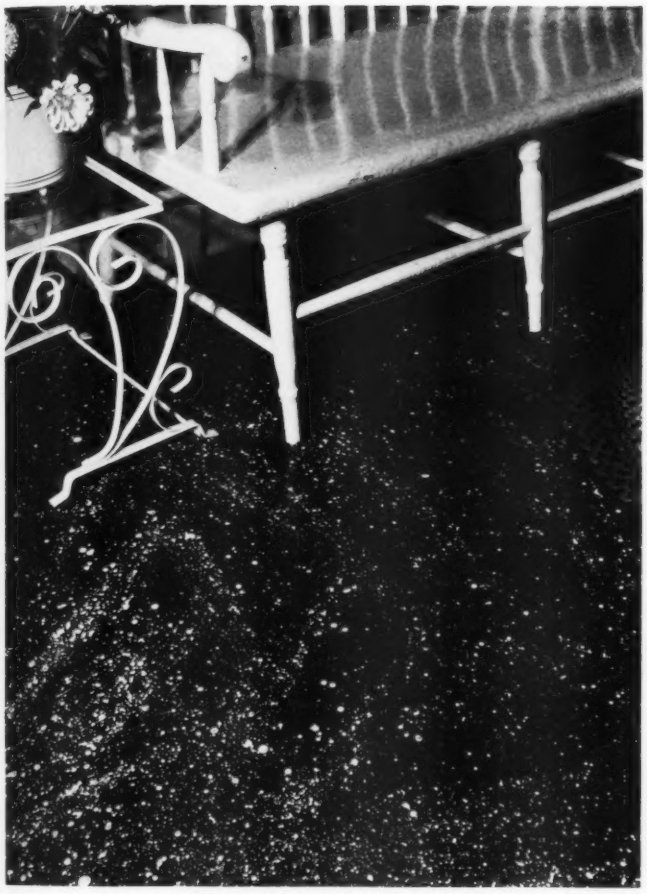
Rubber tile flooring in a three-tone gray; blocks 36" x 36". Columbia Broadcasting System Station, Chicago. William Lescaze, architect. Goodyear Tire & Rubber Company, Inc.



Elevator landing, Chrysler Building, New York. Field, 12" x 12" reinforced rubber tile in ivory antique, with 4" x 12" dark mahogany strips and 4" x 4" blocks of Indian red; border of black. Armstrong - Stedman

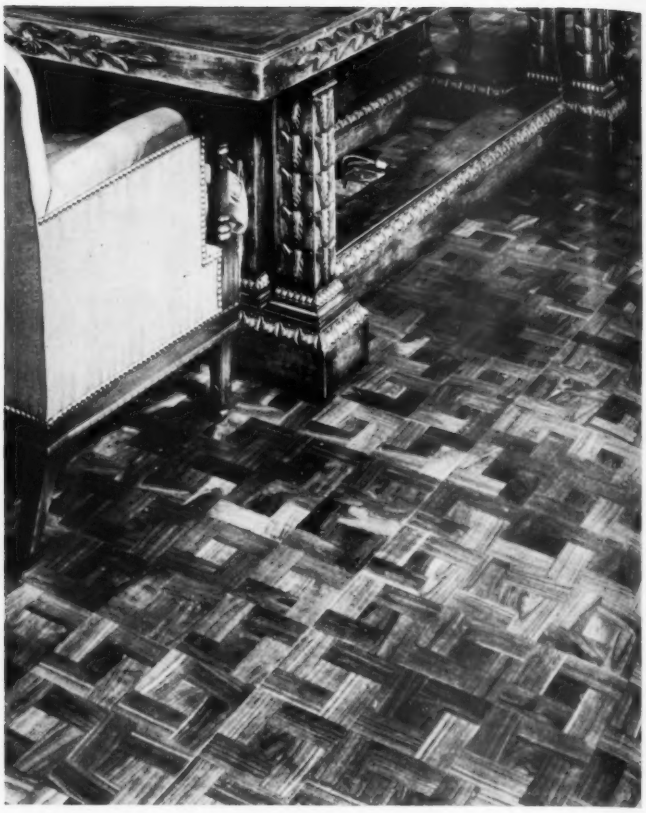
The rubber granite or terrazzo type of rubber flooring, in ticket office of Southern Pacific Railroad, Chicago. American Tile & Rubber Company

Entrance hall in a house in Cleveland, O. Marbleized rubber tile in black and white. American Tile & Rubber Company



Linoleum flooring in a store, Montclair, N. J. The linoleum is painted dark blue and spattered white. Helen Oakley, designer

Reproduction of an old French parquetry floor in antique oak. House in Mansfield, O. Dunn & Copper, architects. Cincinnati Floor Company



Above left, flooring of wide oak planks laid with narrow white wood inlays. House in East Hampton, Long Island. Office of John Russell Pope, architect

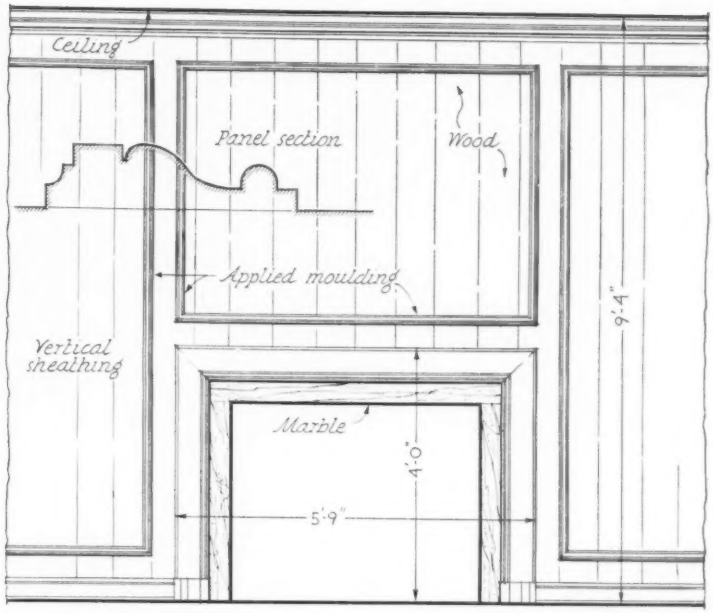
Above right, walnut flooring laid over a terrazzo base in a directors' room, Palmolive Building, Chicago. Ross, Browne & Fleming, designers. Wood-Mosaic Company

Left, three colors of plain linoleum with special insets. Childs Restaurant, Atlantic City. Congoleum-Nairn, Inc.

FAVORITE FEATURES

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

Sheathed Chimney Breasts



TREANOR & FATIO

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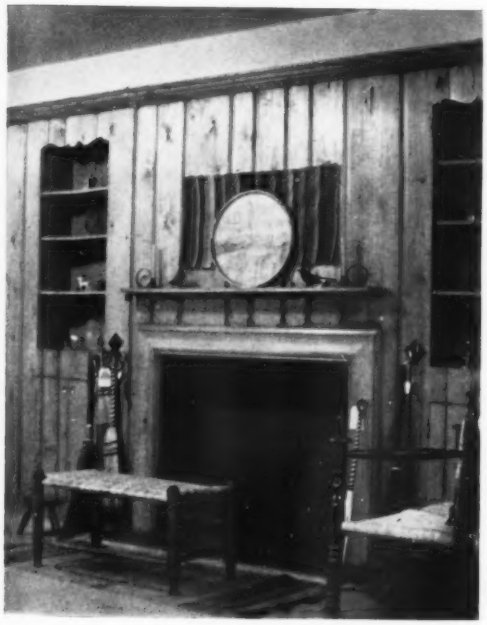
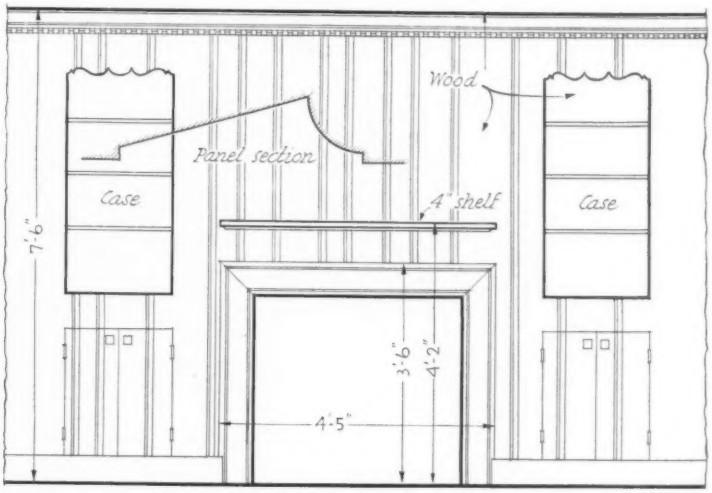
NOTE. *All elevations are drawn at 3/8"=1'-0" Profiles are Full size*





ORLO HELLER - BORTIC STUDIO

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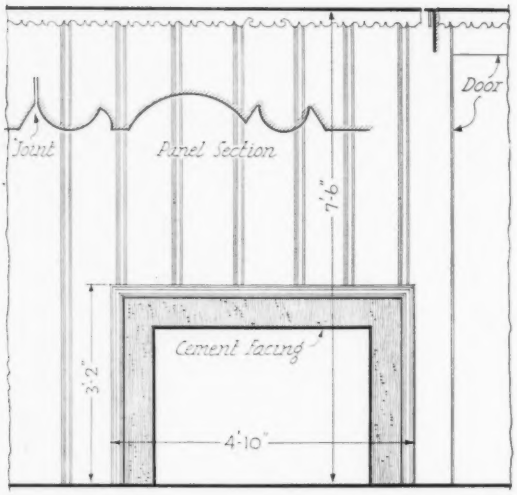

GEORGE H. VAN ANDA

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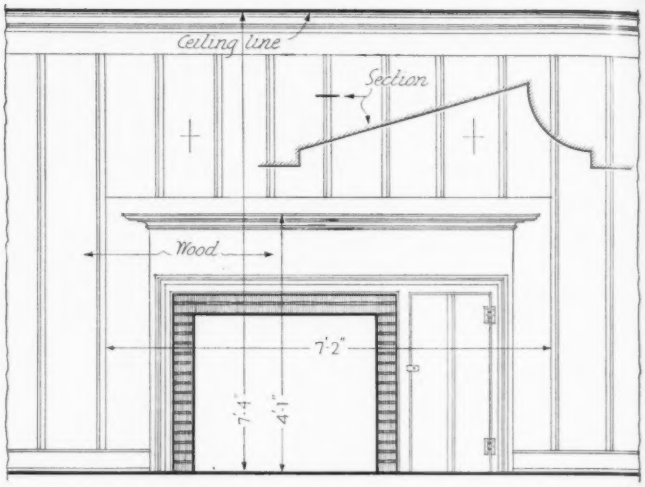

R. LINCOLN HEDLANDER

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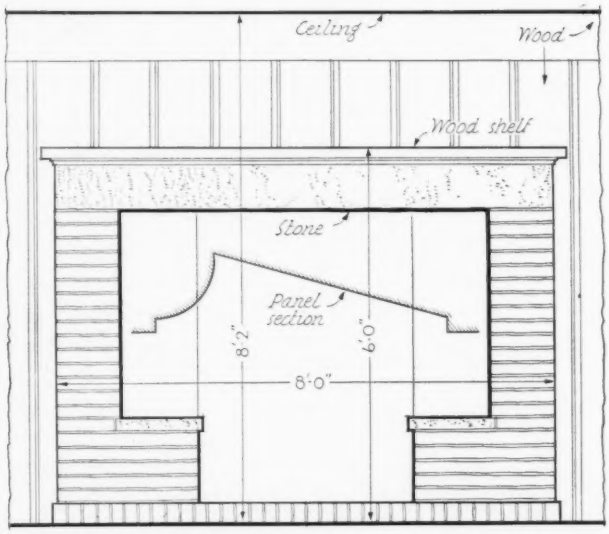

ERIC KEBBON

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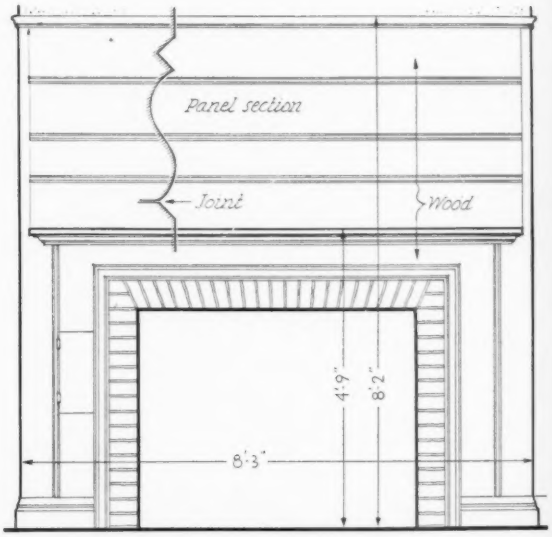

BERTRAM GROSVENOR GOODHUE
BERTRAM GROSVENOR GOODHUE ASSOCIATES

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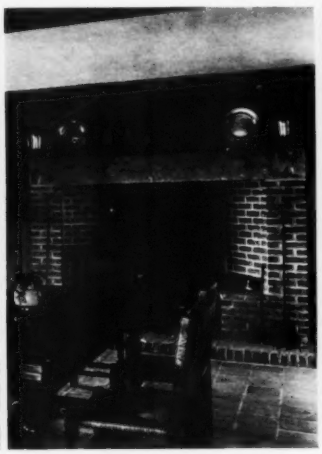

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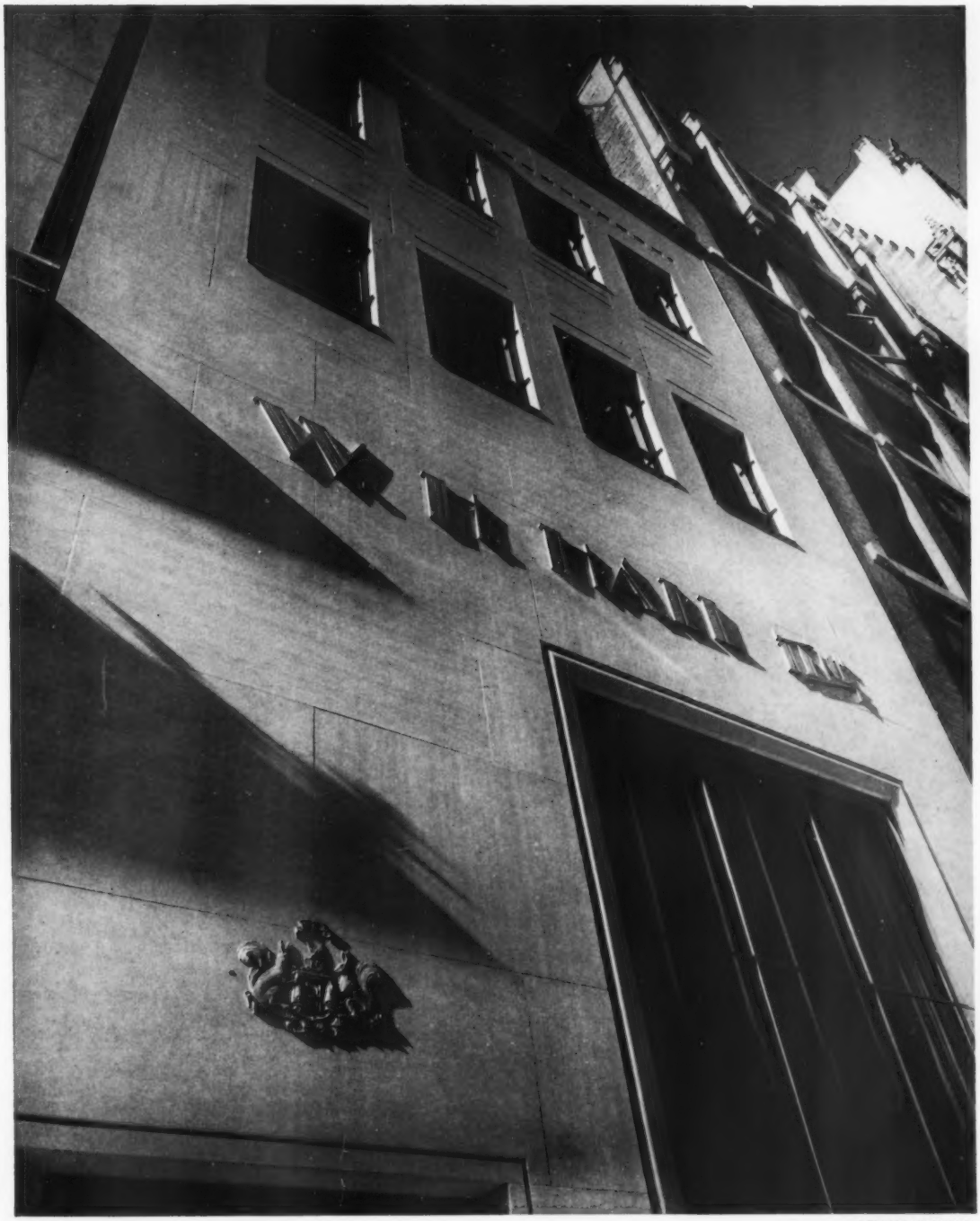


PHOTOS: SCHNALL

FUR SHOP FOR W. H. HALL, INC., NEW YORK, N. Y.

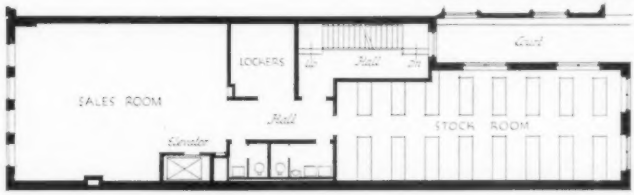
STARRETT AND VAN VLECK, ARCHITECTS


W. H. HALL

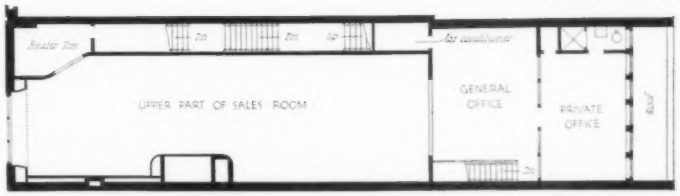
Remodeled as a shop for the sale of furs, alterations consisted primarily in making the first two floors into one large two-story sales room. Entrance and access to upper floors were wisely kept to one side of the building, allowing a single display window of impressive size and a consequent simplicity on the exterior. The doors, show window frame, escutcheon, and lettering are of bronze and the walls of limestone. Within the building, appointments are in keeping with the luxurious type of merchandise displayed, with particular attention paid to lighting. The stock room, typical for a store of this type, becomes in reality a window-less storage vault, completely air conditioned and artificially lighted

FUR SHOP FOR W. H. HALL, INC., NEW YORK, N. Y.
STARRETT AND VAN VLECK, ARCHITECTS

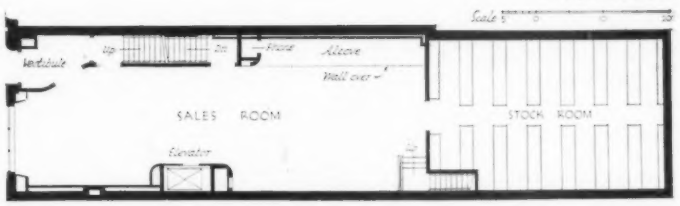
THIRD AND FOURTH FLOORS

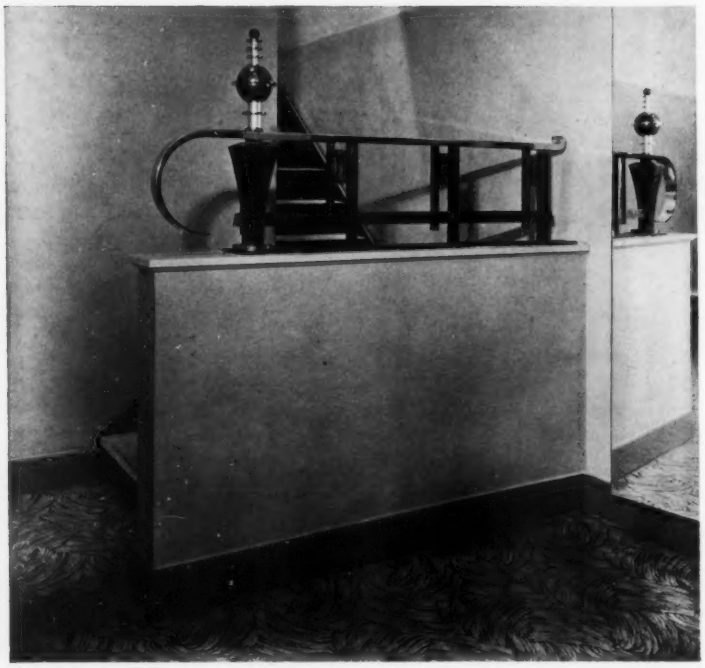


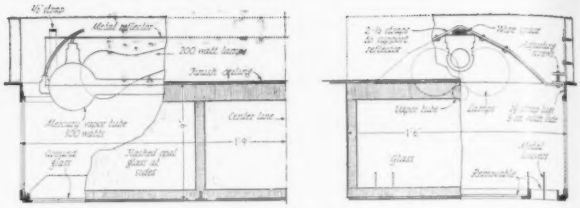
SECOND FLOOR



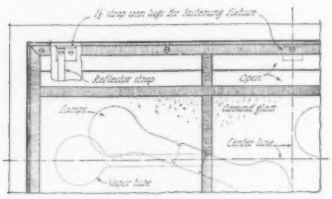
FIRST FLOOR







SECTIONS

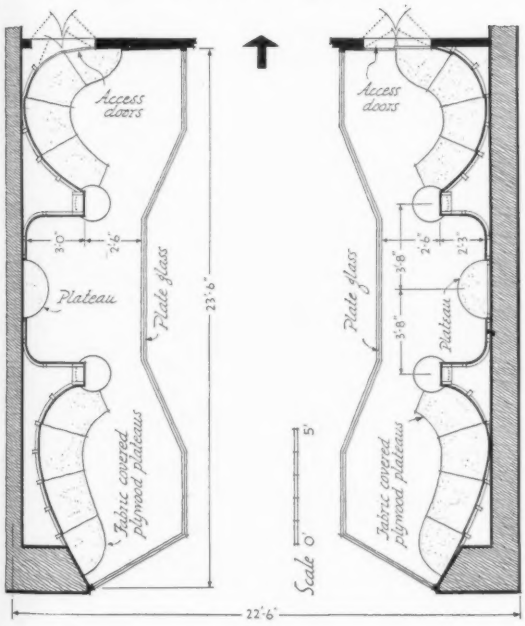


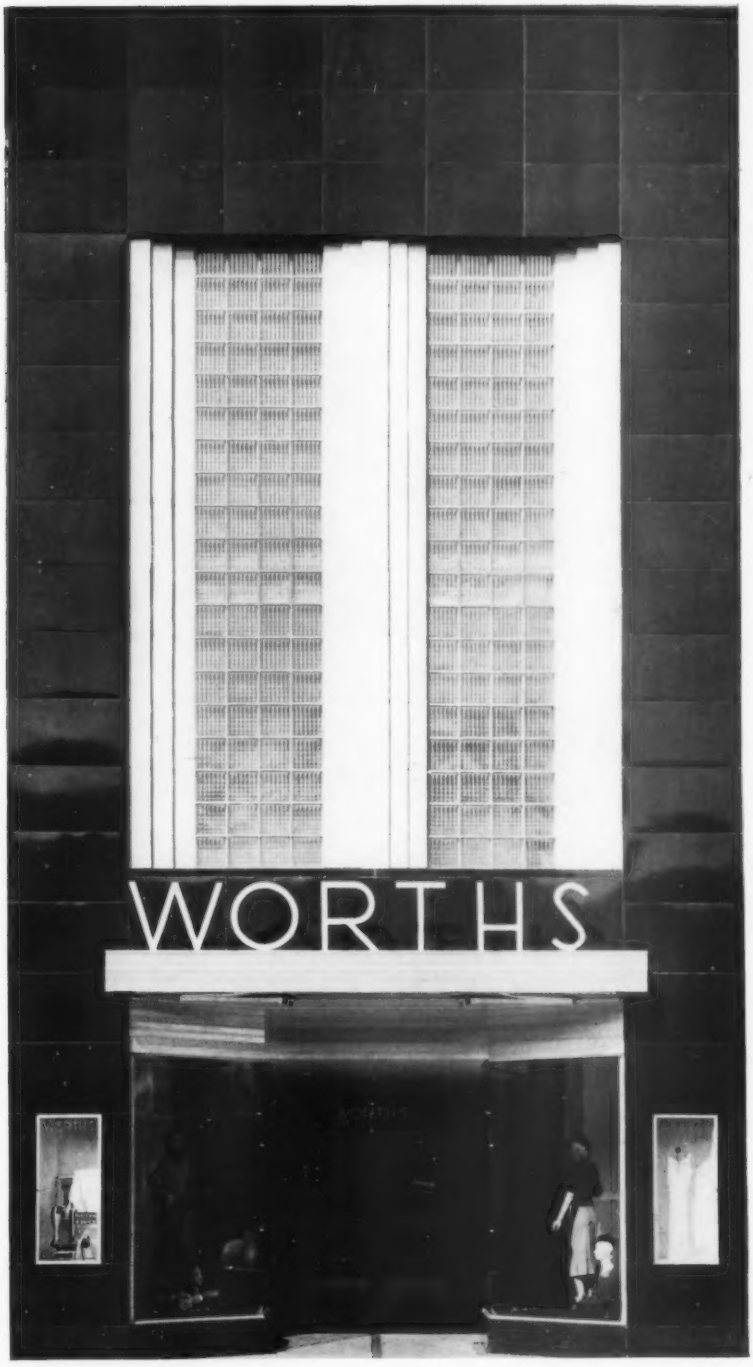
ONE-QUARTER PLAN

An unusual feature of the store is the design of the lighting units. Color distortion, usually encountered under incandescent light which detracts from the full richness of the furs, particularly silver fox, ermine or squirrel, is overcome by using a combination of mercury vapor light and incandescent light. Deficient in red rays, but high in the percentage of blue and blue-green rays, the mercury vapor light serves to balance the red and yellow rays predominant in incandescent light. By the combination a color balance is obtained which approximates daylight and penetrates into the depth of the furs. A standard combination chassis composed of a 33-inch mercury vapor tube of the Cooper Hewitt type with 275 Watts is used with four 200-Watt incandescent lamps. These units are built into special fixtures designed by the Frink Corporation. The elevator doors (above left) are decorated with a simple, abstract design, and are of Formica. The detail of the stairs (left) that lead from the sales room to the offices on the mezzanine is typical of the refined character of the design found throughout

FUR SHOP FOR W. H. HALL, INC.
STARRETT AND VAN VLECK, ARCHITECTS

DETAIL PLAN OF SHOW WINDOW

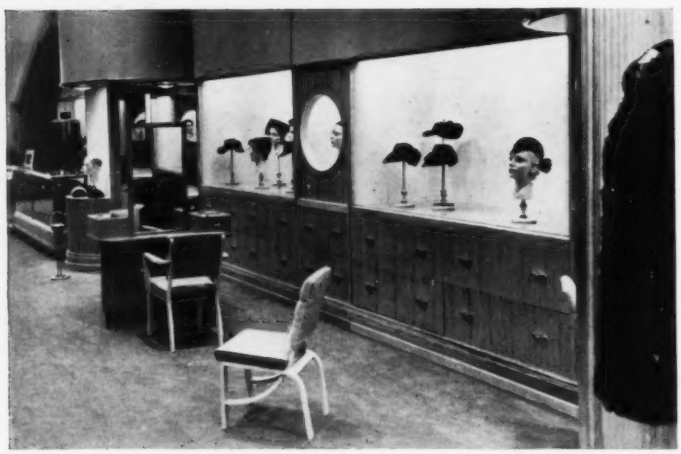




CLOTHING STORE, SOUTH BEND, INDIANA

C. E. SWANSON ASSOCIATES, DESIGNERS

ERNEST W. YOUNG ARCHITECT

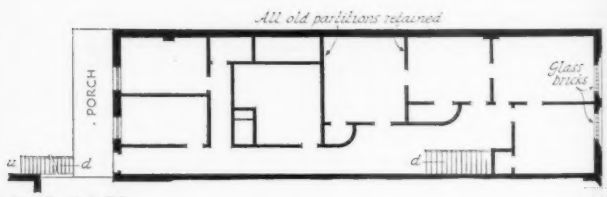


CLOTHING STORE, SOUTH BEND, INDIANA

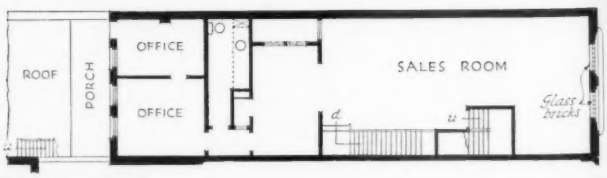
C. E. SWANSON ASSOCIATES, DESIGNERS

ERNEST W. YOUNG, ARCHITECT

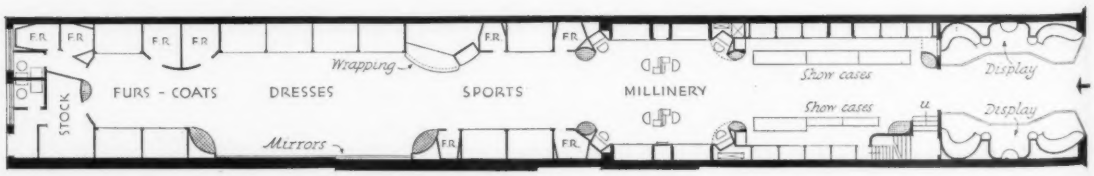
In addition to the great depth and extremely narrow frontage of this remodeling project, adjoining store fronts of one and two-story heights, many of them including ornate signs, further complicated the problem. To obtain a distinct individual character, an entirely new facade covering the full height of the building was agreed upon. The glass brick used has proven particularly effective from an advertising standpoint at night. The show windows are notable in their departure from the usual balanced design of the backgrounds. In this instance eccentric curved backgrounds were used which tended to pick up a display so that it apparently was always focused toward the window shopper irrespective of the shopper's position. The tunnel-like interior effect of the ground floor was overcome by the use of intermediate displays which divided the space into various areas, each of which housed a distinct department. To obtain an illusion of even greater width, high intensity lighting was used and the color of the side walls kept consistently brilliant



THIRD FLOOR



SECOND FLOOR

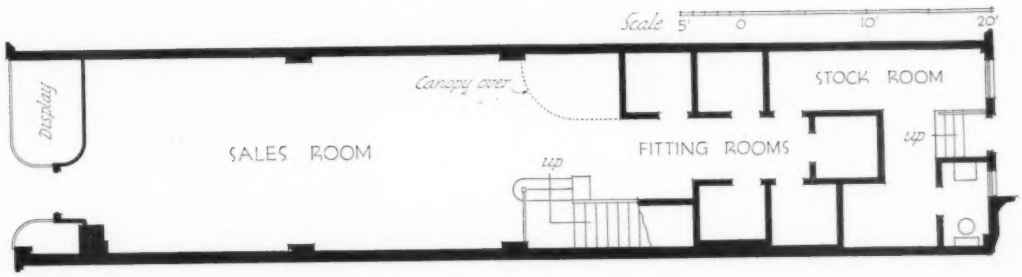


FIRST FLOOR

PHOTOS: MOTT STUDIOS

CLOTHING STORE, WESTWOOD, CALIFORNIA

ALLEN C. SIPLE, ARCHITECT



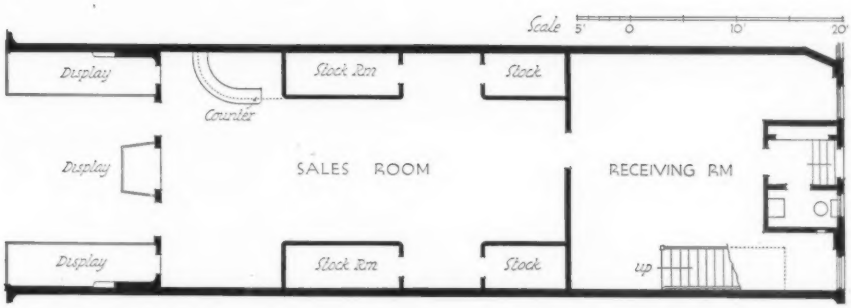
Rapid style change as the basis of woman's fashion merchandising naturally affects the design of retail stores catering to this market. With this in mind the architect placed the main wall of the building back from the property line so that each front of this block of small shops is actually only a projecting decoration. Thus when remodeling is demanded it can be accomplished with the least possible expense. Furthermore, to make a single concrete span of the entire width of the shops, he had to comply with earthquake laws requiring a 3-foot concrete pier at either end of the span. Had this been placed on the property line, there would have been six feet less of display area

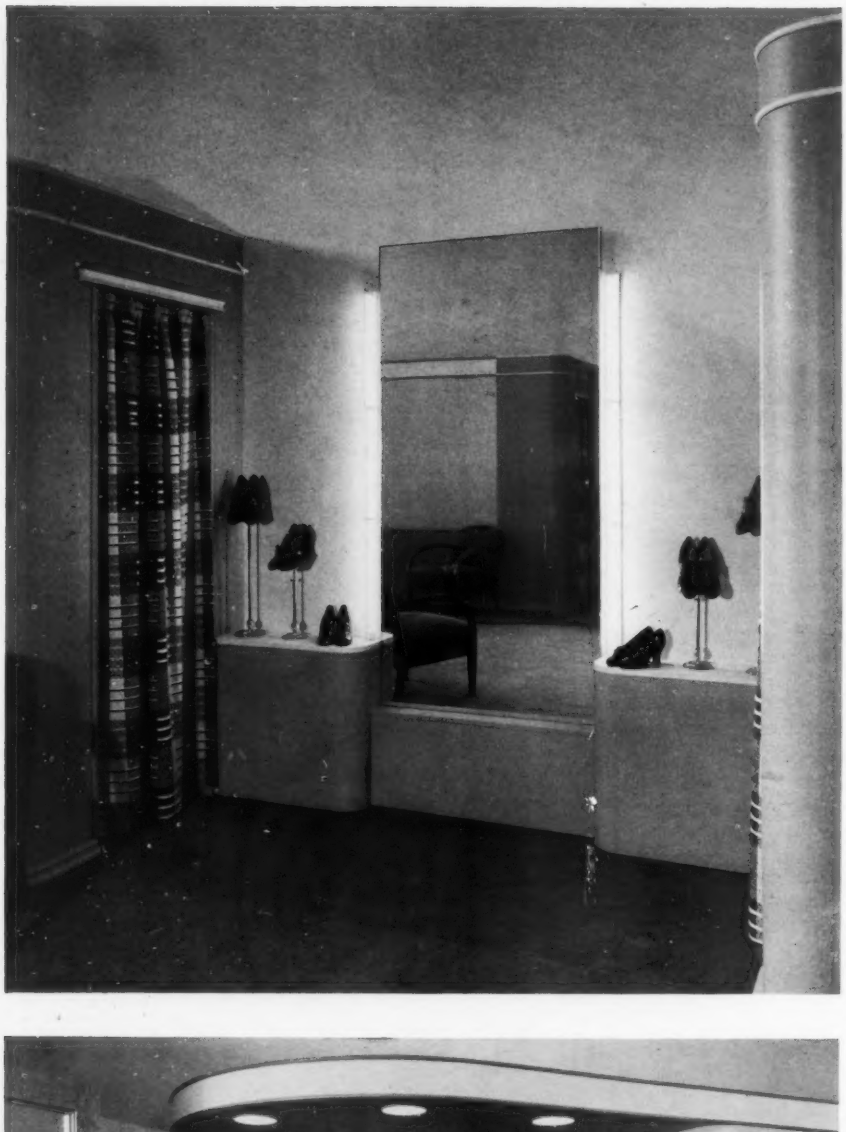
CLOTHING STORE, WESTWOOD, CALIFORNIA. ALLEN G. SIPLE, ARCHITECT

PHOTOS: MOTT STUDIOS

SHOE STORE, WESTWOOD, CALIFORNIA

ALLEN C. STIPLE, ARCHITECT





An interesting display technique has been used in this women's shoe shop. Exterior windows are given over entirely to the display of merchandise while in the interior there are no shoe racks in sight of the customer and just a few pairs displayed on special fixtures. The interior color scheme is in shades of green ranging from a dark tone at the base to a light tone at the top. Trim is white and lumaline illumination is extensively used

SHOE STORE, WESTWOOD

ALLEN G. SIPLE, ARCHITECT

THE DIARY

French Lick, Ind., Tuesday, November 2.—Ostensibly, I am out here at the invitation of the Structural Clay Products Institute to tell them something about research as an aid to better products, but as a matter of fact, the flow of information and stimulation is in the other direction, for I am learning a lot more about the products and the problems of the burned clay industry than the delegates can possibly hope to learn about research.

French Lick, Ind., Wednesday, November 3.—The business sessions being confined to the afternoons, one has plenty of time for the personal exchanges of ideas and opinions which, after all, are perhaps the most valuable byproducts of all conventions. While M. M. Coates was talking with me today, he grew deeply disturbed over our national lack of progress in designing and building better homes for ourselves. The family, even of very limited income, has an automobile which it discards for a new model every year or two. The family would not think of driving a car ten years old—it would occasion too many smiles on the part of the neighbors. Nevertheless, this same family will occupy a house twenty-five years old, completely out of date as to heating, refrigeration, and the score of amenities which science has brought to home building within that time. Obviously, there are difficulties in the way of turning in an old home for a new one, but to American ingenuity it should be no great task to design a home that might very easily be kept up to date. Coates thinks that perhaps the answer lies in more economical, more rapid methods of constructing houses, using standardized units on a modular system—a system in which you could replace a panel of wall section with a built-in desk, or replace a few smaller wall units by recessed book shelves, or what not. He thinks we spend entirely too much time and money on trim, doors, and applied interior finish which might better be an inherent part of the structure.

Friday, November 5.—I am told that I missed a real event last night at The League, when Professor Jean Labatut showed his own motion pictures of the Paris Exposition. The water effects of Paris are reported by many visitors to be the best thing in the show, and Labatut's color cinema seems to have captured their spirit.

Monday, November 8.—Obeisances to Major Gilmore D. Clarke, who has been chosen chairman of the Commission of Fine Arts, succeeding the venerable and beloved Charles Moore, who fortunately, while giving up the chairmanship he has so long held, retains his membership.

Being a trifle hazy about the personnel of the Commission of Fine Arts, and how it is selected, I asked Egerton Swartwout to tell me about it. The membership comprises three architects, a sculptor, a painter, a landscape architect, and a lay member. Appointments to the Commission are by the President, usually upon the recommendation of the Fine Arts Commission itself. A man is appointed for a four year term, or until his successor is appointed. Members elect annually their own chairman from among their number. They serve without compensation, being reimbursed, however, for their traveling expenses and subsistence while attending the usual monthly meeting in Washington or elsewhere. There is, of course, a paid secretary who at present is H. P. Caemmerer.

Wednesday, November 10.—At a Building Congress luncheon today Nelson Rockefeller disclosed some of the inside story of his father's building of the great pile known as Rockefeller Center. Most of us had forgotten the fact that the first idea in leasing these three city blocks from Columbia University was for the purpose of giving the Metropolitan Opera House a suitable site. Most of us never knew that the original rental to Columbia for this land was $300,000 annually, and that after Mr. Rockefeller's plans became known, others wanted the same land, and bid the price to $3,300,000 annually. Then came the depression. The Opera House withdrew, and Mr. Rockefeller found himself with three blocks in the heart of the city for which he had contracted to pay three and a third million dollars a year. He turned to radio and the theatre for large space tenants, signing up the Radio Corporation of America, the broadcasting companies, and the R. K. O. theatres. The depression deepened. The Radio Corporation of America withdrew, and R. K. O. went into receivership. There still remained the question of what to do with land costing three and a third million dollars a year. It must have taken nerve and a solid faith in the future of this country under these circumstances to go ahead and spend one hundred million dollars in the building of what is now Rockefeller Center.

Thursday, November 11.—We have mused more than once in these columns over the fact that in low-cost housing two forces are pulling in opposite directions. On the one hand we have improvements in building technology tending to lower our construction costs. On the other hand, however, there is on the part of the public a growing insistence upon more gadgets. We no sooner bring our costs of the structure within hailing distance of what people might be able to pay, than the people's demand for more amenities pushes the cost once more out of reach.

Nathan Straus, our new administrator of the Federal Housing Authority, seems inclined to do something that other housing authorities have been too timid to attempt. Mr. Straus is in favor of putting up sanitary, decent housing to cost not more than five dollars a room in the big cities—instead of the $11 rooms we have been achieving with more or less success. In other words, he would put up a decent form of properly planned shelter, and let those who can afford the gadgets buy them.

Friday, November 12.—The group of architects who designed the Williamsburg Housing Project invited the members of the New York and Brooklyn Chapters, A. I. A., to come over for a buffet luncheon and a tour of inspection. Either the invited architects were quite hungry, or the Williamsburg project appealed very strongly, for they turned out in vast numbers. The group of architects associated for the project, if you must know, was made up of the following: Richmond H. Shreve; M. W. Del Gaudio; Arthur C. Holden; William Lescaze; Holmgren, Volz & Gardstein; Gurney & Clavan; John W. Ingle, Jr.; Paul Trapani; and Harry Leslie Walker, in addition to Vitale & Geiffert and Gilmore D. Clarke, landscape architects; and from among the engineers, Fred Brutschy; Meyer, Strong & Jones, Inc.; and George E. Strehan. The group of architects and engineers divided themselves into guides, each to conduct a dozen of so of the visitors. It fell to my lot to be conducted by William Lescaze, who in spite of his holding a chart of the plot plan with a course traced in blue pencil upon it, succeeded in losing himself and us more than once. Nor was it his own special lack of knowledge regarding the plan, for most of the parties seemed to be having difficulty in finding their way through the boiler rooms, perambulator storage, social group rooms, laundries, the typical two to five room apartments, and the maze of herringbone plan. However, it is a stupendous job of housing—the largest thus far undertaken by any public agency in this country. And in spite of the fact that there were many architects involved, the actual construction work is nearing completion after little more than twelve months from the clearing of the site. Romer Shawhan who has been the architect representing PWA on the job from start to finish, tells me that the basic rental is $7 per room per month, to which should be added $1.53 for heat, hot water, and electricity for lighting and cooking.

Saturday, November 13.—There are fifty immortals constituting the maximum membership of the American Academy of Arts and Letters. Ten of this number were lost through death since the Academy's 1936 annual meeting. John Russell Pope was the architect member lost last year. Among the ten new members just elected is William Adams Delano. The whole profession is honored in this recognition of one of its most able and best loved men.

Sunday, November 14.—Add to the evidence supporting the wisdom of Historic American Building Surveys: Beverly, one of the fine old brick manor houses of Maryland, was destroyed by fire last night.

Monday, November 15.—Tonight youth was in the saddle at the New York Chapter meeting. Youth was not only in the saddle, but was using its newly found spurs rather freely. While there were some of the elder statesmen present whose counsel was given and heeded—William Adams Delano, Robert D. Kohn, Arthur Loomis Harmon, chapter president, among others—the attendance was preponderantly of the younger generation. A few of the resolutions adopted tell better than any words, of a new era in the history of the New York Chapter: one committing the Chapter to the general policy of selecting architects by competition for work involving the use of public monies; a specific proposal to Secretary Morgenthau for the holding of one metropolitan competition and one statewide competition for public works now on the Procurement Division's program; an ultimatum to the Directors of the A. I. A. to the effect that the above proposal to the Secretary of the Treasury would be sent by the New York Chapter unless immediate reasons for not sending it were offered by the Directors, these reasons being satisfactory to the Chapter.

For several years those who have urged this principle of selection of architects through competition for public works have been shushed with the warning that the relationship between the profession and the Government was in a very delicate situation which must not be disturbed. Meanwhile buildings are being built, and federal building programs are nearing an end. The Procurement Division has indicated its sympathy with the idea of distributing the public works to private practitioners if only a workable system could be devised. The New York Chapter now offers such a working plan, avoiding the expense and other drawbacks of elaboration in drawings and a multiplicity of competitions. For, say, five buildings now planned for the New York metropolitan district, one competition is suggested, calling for simple small scale drawings, without rendering and without entourage, from which would be selected the architects of all five buildings, the largest going to the winner, the next largest going to the second, and so on.

All in all, it looks as if the New York Chapter tonight punched a big hole in an old dam.

Tuesday, November 16.—There is an interesting fact bearing on continuity of architectural practice revealed in connection with the exhibition of the working drawings of London's Houses of Parliament. These date back to 1836, and are the work of Sir Charles Barry and his unofficial partner in the competition, A. W. Pugin. The point is that the drawings are a loan to the R. I. B. A. for this exhibition by Cary A. R. Barry, a great-grandson of Sir Charles, who conducts a practice which has descended to him in unbroken succession. Well, we on this side of the water have the Upjohn Dynasty, practising for over a century, and the Stevens Dynasty of Portland, Maine, in which three generations are now associated.

Thursday, November 18.—The Society of Beaux-Arts architects tonight elected as its president Frederic C. Hirons, famous not only for his ability to win competitions, but for his devastating neckties.

Friday, November 19.—I was sorry not to be able to attend the conference in Washington which starts today with the purpose of trying to find a practicable way to stimulate residential construction. Not being able to attend, I have been watching the papers for news of some bright ideas. All I find in the news is a scarehead to the effect that the Mayor of New York City telegraphed the Housing Authority to "discontinue stargazing conferences" and get down to work on a practicable housing program.

Monday, November 22.—I see that John W. Root has turned for the moment from skyscrapers to designing a demonstration house of prefabricated wood panel construction. The Forest Products Laboratory is likely to tell us about it shortly.

Wednesday, November 24.—There have been disturbing rumors to the effect that rock wool as insulation takes unto itself water from the air or from leaks, and becomes useless as insulation. Johns-Manville, with a number of engineers and architects, cut into the walls of ninety houses in the Great Lakes and Atlantic seaboard area—houses which had been insulated with rock wool for from one to ten years. The findings: rock wool does not invite condensation and will not take up moisture from the air; where leaky walls or wet plaster have brought moisture into the rock wool, the latter has dried out without subsequent loss of insulating efficiency. Naturally, neither rock wool nor any other form of insulation will maintain its efficiency if handicapped by repeated wetting from unrepaired leaks.

Thursday, November 25.—The human touch in building news as taken from a St. Petersburg paper: "Because the love of her husband had been won by another woman, Mrs. Goldie Goldberg, 32, who came to Florida last year to be cured of chronic indigestion by the mineral waters obtainable in the Springs near here, shot and killed Patrick Goldberg, 38, this afternoon, at Fourth Street and Central Avenue, just in front of the West Coast Title Building, which is being erected at a cost of approximately $500,000, and which will be of brick, concrete and steel construction, incorporating all of the latest ideas in office building construction. The steel work is almost completed now, and the contractors promise that the finished structure will be one of the most beautiful on the West coast."

Friday, November 26.—The old problem of making the shell of a building watertight was concerning us in these columns some time ago—as it usually is. The brick manufacturers now think they have a sure method of building brick masonry so that it cannot leak. D. E. Parsons, chief of the Masonry Construction Section, U. S. Bureau of Standards, has made an elaborate investigation into why brick walls leak, and believes that he has the answer. It is not anything particularly new—merely the necessity of securing well filled mortar joints with mortar of the proper composition and consistency.

Monday, November 29.—The epidemic of world's fairs continues unabated. The latest victim is Scotland who will hold one next year at Glasgow. Taking a leaf from Paris with her Eiffel Tower and from New York with her Stylon, Thomas S. Tait, F.R.I.B.A., architect of the Exhibition, is designing a steel tower three hundred feet high and of startling thinness.

Tuesday, November 30.—The Athens correspondent of the *Journal of the Royal Architectural Institute of Canada* takes a lusty swipe at some of our contemporary theorizing and philosophizing about architecture: "Architects used to be intellectual once, they used to be able to read and write and sculpt and orate and philosophize; in fact, in ancient Athens you probably had to take Philosophy, Dialectics, Logic and Rhetoric in your first year at college before you even knew what a tympanum was. And you had to keep it up, too, or you weren't seen in the best atriums. But today's brand has let its brain go very soft. What is Plato to us but an inventor of a rather horrid love? If an architect were given his "Republic" to read today he would find Glaucon continually reminding him of Charlie McCarthy, such is the low calibre of most of our minds."

TIME SAVER STANDARDS

RESIDENCE OF LEON BARSHA, NORTH HOLLYWOOD, CALIF. RICHARD J. NEUTRA, ARCHITECT. PHOTO: LUCKHAUS

SERIAL No. 95 OFFICE EQUIPMENT SIZES . . . .
SERIAL No. 96 RESIDENTIAL FURNITURE SIZES

AMERICAN ARCHITECT
TIME-SAVER STANDARDS

Serial No. 95

DECEMBER 1937

OFFICE EQUIPMENT—Sizes

Basic elements of office equipment and furniture are illustrated on this sheet as a guide to the planning of office space. Three general divisions of equipment are indicated: (1) executive's office; (2) stenographer's or secretary's office; and (3) general office. Specialized types of equipment, such as bookkeeping and accounting machines, punching machines, electric reproducing machines, etc., are not included. Consult manufacturers' literature for data required for detailed planning of spaces which include these special types.

Dimensions given cover the ordinary range of sizes found in equipment currently on the market. Slight variations in size exist between wood and steel equipment, and among manufacturers. Sizes given are adequate for planning purposes.

Clearances are given for desk and chair arrangements in both executive's and stenographer's offices. These are minima only, based on requirements for circulation, chair rotation, and clearance for open drawers.

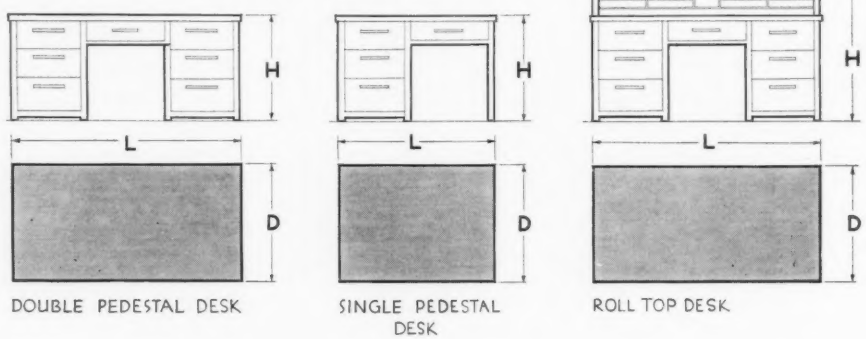
Files. Fractional variations in height and depth dimensions for each type occur among the various makes of files within a maximum range of 2 to 3 inches. Width dimensions vary in accordance with the type of file.

Counter-height files may be employed as space planning elements to form secondary partitions within large working areas. Special units such as gates, cupboards, knee space sections, etc., are available for this purpose.

Lockers. Dimensions indicated for the various types of lockers have been generally adopted by leading manufacturers, although slight variations will be found to exist.

Steel Shelving. Standard sections cover a variety of elements which in combination will satisfy any requirement.

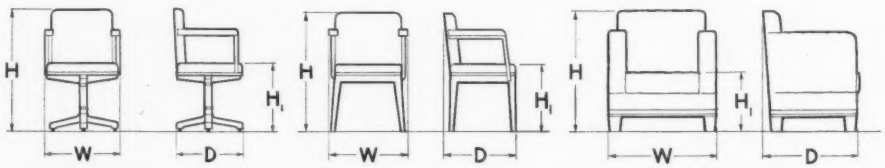
EXECUTIVE OFFICE



DOUBLE PEDESTAL DESK — SINGLE PEDESTAL DESK — ROLL TOP DESK

DESK DIMENSIONS

	DOUBLE PEDESTAL	SINGLE PEDESTAL	ROLL TOP
D	2'-2" to 4'-0"	2'-2" to 2'-10"	2'-10" to 3'-2"
H	2'-6½"	2'-6½"	3'-5" to 3'-7"
L	4'-2" to 5'-6"	3'-0" to 3'-9"	5'-0" to 5'-6"



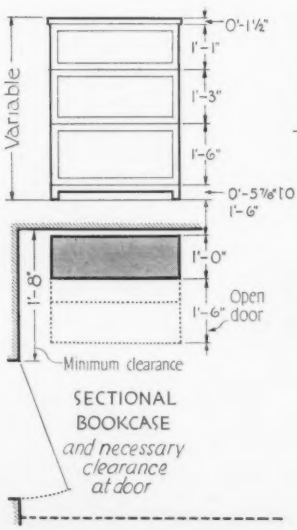
SWIVEL ARMCHAIR — RIGID ARMCHAIR — UPHOLSTERED CHAIR

CHAIR DIMENSIONS

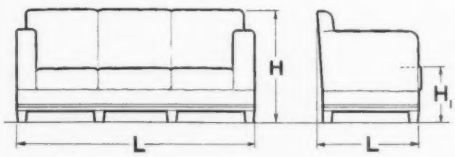
	SWIVEL (ARM)	RIGID (ARM)	UPHOLSTERED
D	1'-5" to 1'-7"	1'-8" to 2'-0"	2'-10" to 3'-2"
H	2'-9" to 3'-2"	2'-10" to 3'-1"	2'-8" to 3'-0"
H_1	1'-4" to 1'-8"	1'-6"	1'-4" to 1'-5"
W	1'-6" to 1'-8"	1'-7" to 2'-0"	2'-2" to 2'-10"

SOFA DIMENSIONS

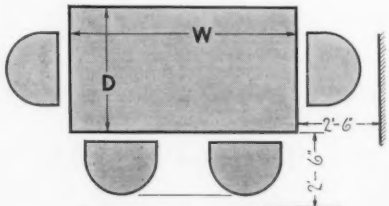
D	2'-6" to 3'-6"	L
H	2'-8", 2'-9"	2 SEATS 5'-0" to 6'-0" 3 SEATS 6'-0" to 7'-2"
H_1	1'-5", 1'-6"	



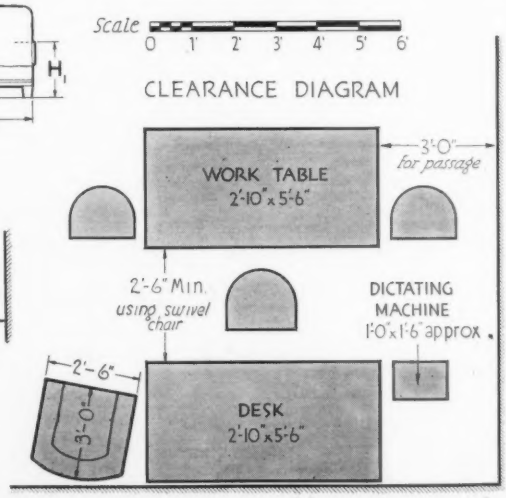
SECTIONAL BOOKCASE *and necessary clearance at door*



SOFA



CONFERENCE TABLE
D 3'-0", 3'-6" W 5'-6", 6'-0", 7'-0", 8'-0", 10'-0"



AMERICAN ARCHITECT
TIME-SAVER STANDARDS

Serial No. 95
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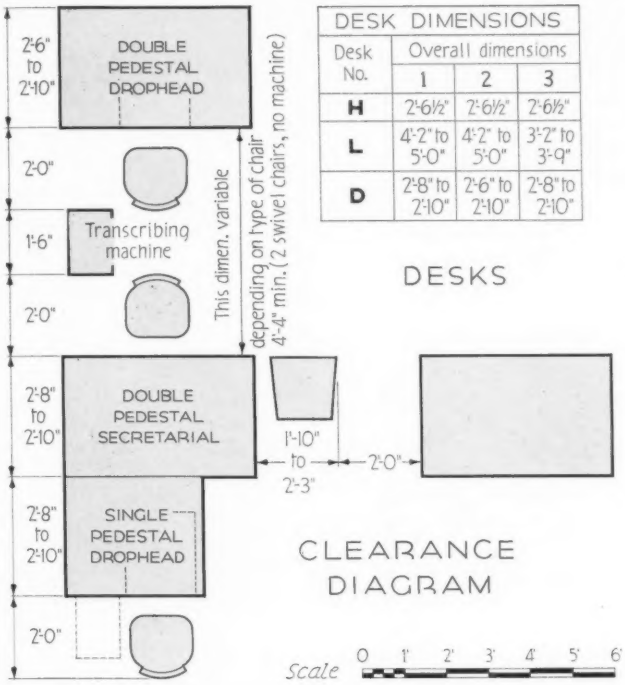
OFFICE EQUIPMENT—Sizes

STENOGRAPHERS OFFICE

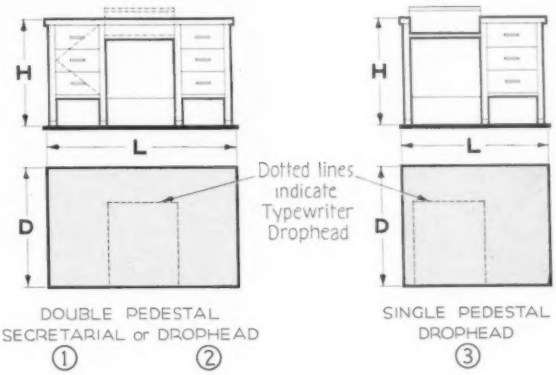


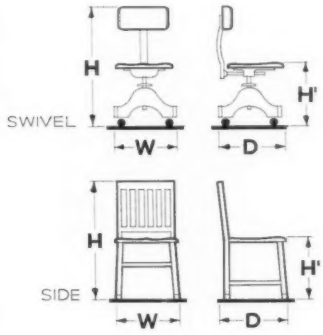
CLEARANCE DIAGRAM

Scale 0 1' 2' 3' 4' 5' 6'

DESK DIMENSIONS			
Desk No.	Overall dimensions		
	1	2	3
H	2'-6½"	2'-6½"	2'-6½"
L	4'-2" to 5'-0"	4'-2" to 5'-0"	3'-2" to 3'-9"
D	2'-8" to 2'-10"	2'-6" to 2'-10"	2'-8" to 2'-10"

DESKS

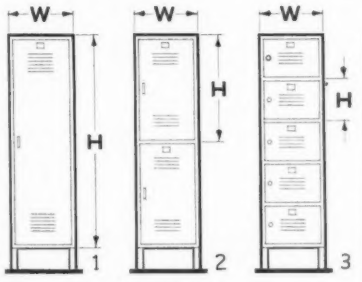




CHAIR DIMENSIONS		
	SWIVEL	SIDE
H	2'-6" to 3'-0"	2'-10" to 3'-0"
H'	1'-4" to 1'-8"	1'-6"
W	1'-9" to 2'-0"	1'-5" to 1'-6"
D	1'-6" to 2'-0"	1'-5" to 1'-7"

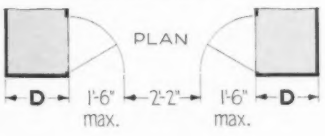
CHAIRS

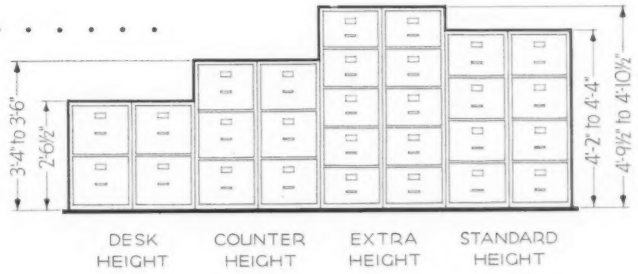
GENERAL OFFICE . . . . . .



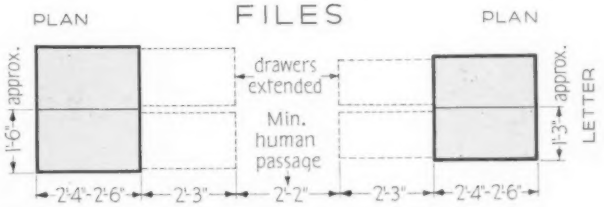
LOCKERS

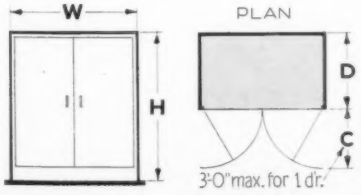
LOCKER DIMENSIONS			
	1	2	3
H	5'-0", 6'-0"	2'-6", 3'-0", 3'-6"	1'-0"
W	9" to 2'-0"	9" to 1'-6"	1'-0", 1'-3"
D	1'-0" to 1'-9"	1'-0", 1'-3"	1'-0", 1'-3"





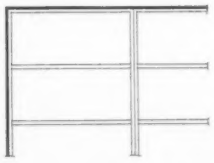
FILES





CABINET DIMENSIONS	
H	2'-6½", 3'-6", 5'-6", 6'-6"
W	1'-6", 2'-0", 3'-0"
D	1'-6", 1'-10", 2'-0"
C	1'-6" max. for 2 drs.

STORAGE CABINETS



SHELVING DIMENSIONS	
Widths	2'-0", 2'-6", 3'-0", 3'-6", 4'-0"
Depths	6", 9", 1'-0", 1'-3", 1'-6", 1'-9", 2'-0", 2'-6", 3'-6"
Heights	as desired

STEEL SHELVING

AMERICAN ARCHITECT
TIME-SAVER STANDARDS

Serial No. 96

DECEMBER 1937

RESIDENTIAL FURNITURE SIZES

Commonly used elements of residential furniture are illustrated on this sheet, together with dimensions and clearance diagrams, in three divisions: living room, dining room and bedroom. Basic elements only are included; specialized items such as porch furniture and recreational equipment are subjects for future treatment.

Sizes of residential furniture vary with style, with material and with particular manufacturers. However, custom has established general ranges of sizes within which the various types of furniture fall. No standardization is apparent except in those dimensions which are determined or governed by requirements of the human body. Ranges of sizes indicated cover in general the majority of products currently available. Considerable variation may be found among items of equipment designed to serve the same function but which vary in character from traditional to modern. Illustrations are diagrammatic, and dimensions include, at the lower range, the smaller sizes of furniture of modern design as well as sizes commonly found in designs based on stylistic precedent.

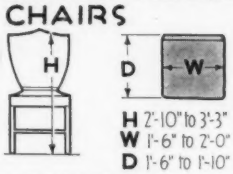
Clearances. Minimum clearances are shown for bed arrangements and dining table arrangements; these determine minimum room dimensions and location of windows and doors. No clearance diagram is given for living room arrangements since these will vary with individual taste and available space.

Dining table sizes given are those commonly available, but many variations will be found. Two feet per person should be allowed along the perimeter of square, rectangular or circular tables for comfortable seating; one foot-ten inches is minimum allowance.

Beds of metal are standard in sizes indicated. Wood beds vary fractionally in both dimensions. Inside dimensions are 4″ less in length for metal beds, and 4″ less in length and width for wood beds.

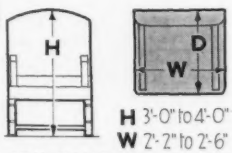
LIVING ROOM FURNITURE

CHAIRS

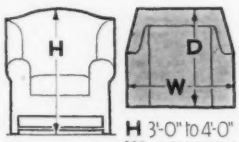


H 2'-10" to 3'-3"
W 1'-6" to 2'-0"
D 1'-6" to 1'-10"

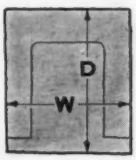
SIDE CHAIR With or without arms



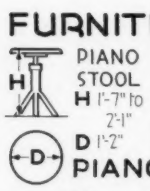
H 3'-0" to 4'-0"
W 2'-2" to 2'-6"
ARM CHAIR D 2'-0" to 2'-4"
Back and seat upholstered



H 3'-0" to 4'-0"
W 2'-4" to 2'-10"
WING CHAIR D 2'-4" to 2'-10"



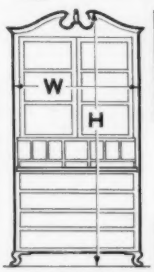
H 2'-10"
W 2'-4" to 3'-3"
D 2'-4" to 3'-9"
EASY CHAIR
Upholstered

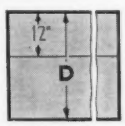


PIANO STOOL
H 1'-7" to 2'-1"
D 1'-2"

PIANO CHAIR or BENCH
H 1'-6½" to 1'-8"
W 1'-4" to 3'-0"
D 1'-2" to 1'-4"

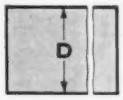
PIANO SEATS



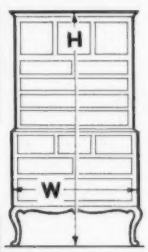


Plan of Secretary

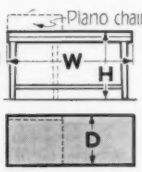
SECRETARY
H 6'-0" to 7'-2"
W 3'-0" to 5'-0"
D 1'-6" to 2'-8"



Plan of Highboy

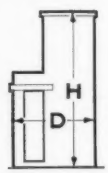


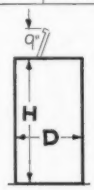
HIGHBOY
H 5'-6" to 7'-6"
W 3'-0" to 3'-6"
D 1'-5" to 2'-0"

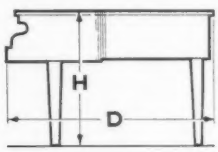


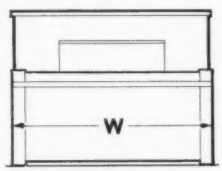
PIANOS

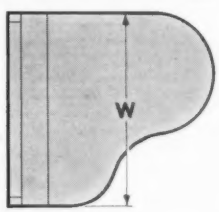
	UPRIGHT		GRAND			
	Standard	Miniature	Baby	Living Rm.	Music Rm.	Concert
H	3'-8" to 4'-7"	3'-0"	3'-2" or 3'-3"	3'-4"	3'-4"	3'-4"
W	4'-9" to 5'-10"	4'-8"	4'-7" to 4'-10"	4'-10" to 5'-0"	4'-10" to 5'-0"	4'-10" to 5'-2"
D	2'-0" to 2'-2"	1'-7"	4'-11" to 5'-8"	5'-10" to 6'-9"	6'-1" to 7'-3"	8'-10" to 9'-0"









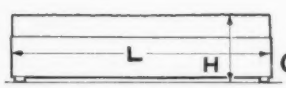


TABLES

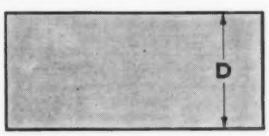
LIVING ROOM TABLES
L 3'-6", 4'-0", 4'-6", 5'-0", 6'-0" to 10'-0"
W 1'-8", 1'-10", 2'-0", 2'-4", 2'-8", 3'-0"
H 2'-6" to 2'-7"

BRIDGE TABLES
2'-6" to 3'-0" Square
H 2'-4" to 2'-5"
Folded thickness 1½" to 3"

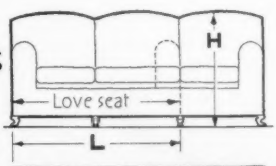
COFFEE TABLES
L Variable 2'-0" to 3'-0"
W 1'-4" to 2'-0" H 1'-4" to 1'-6"



DAY BED H 1'-4" to 1'-8"
L 6'-2" to 6'-8", D 2'-9" to 3'-3"

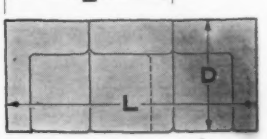


COUCHES

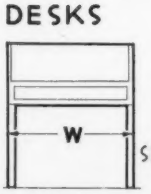


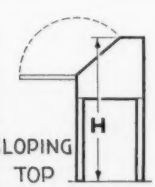
SOFA
H 2'-8" to 2'-9"
L 6'-0 to 7'-2"
D 2'-8 to 3'-6"

LOVE SEAT
H 2'-8" to 2'-9"
L 3'-6" to 4'-6"
D 2'-0" to 2'-10"

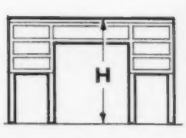


DESKS



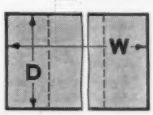


SLOPING TOP
H 2'-4"±
W 3'-0" to 3'-8"
D 1'-6 to 2'-0"

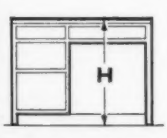


DOUBLE PEDESTAL
H 2'-6"
W 4'-0" to 5'-6"
D 2'-4" to 3'-0"

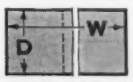
Scale 0 1' 2' 3' 4' 5' 6'



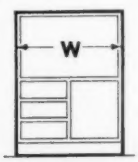
PLAN DOUBLE PED.

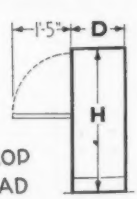


SINGLE PEDESTAL
H 2'-5" or 2'-6"
W 3'-4" to 4'-0"
D 1'-7" to 2'-0"



PLAN SINGLE PED.





DROP HEAD
Height 3'-5" to 3'-8"
Width 2'-6" ±
D Closed 1'-3"±

AMERICAN ARCHITECT
TIME-SAVER STANDARDS

Serial No. 96
DECEMBER 1937

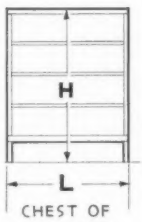
RESIDENTIAL FURNITURE SIZES

BEDROOM FURNITURE

Scale 0 1' 2' 3' 4' 5' 6'

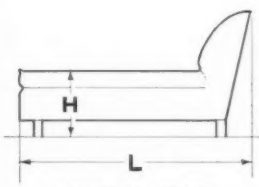
DIMENSIONS OF BEDS

SIZE	MATERIAL	L	W
SINGLE	Metal	6'-10"	3'-0"
	Wood	6'-10"	3'-4"±
TWIN SINGLE	Metal	6'-10"	3'-3"
	Wood	6'-10"	3'-8"±
SMALL ¾	Metal	6'-10"	3'-6"
	Wood	6'-10"	3'-10"±
LARGE ¾	Metal	6'-10"	4'-0"
	Wood	6'-10"	4'-4"±
FULL SIZE	Metal	6'-10"	4'-6"
	Wood	6'-10"	4'-10"±



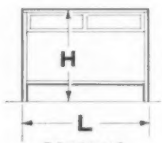
CHEST OF DRAWERS

H 3'-5" to 4'-8"
L 2'-8" to 3'-4"
D 1'-6" to 1'-10"



CHAISE LONGUE

H 1'-4" to 1'-7"
L 4'-0" to 5'-6"
D 2'-0" to 2'-4"



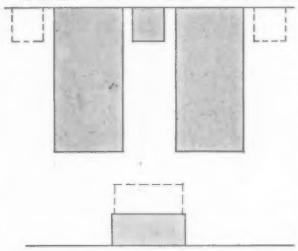
DRESSING TABLE

H 2'-2" to 2'-6"
L 3'-0" to 4'-2"
D 1'-3" to 1'-10"

DRESSER

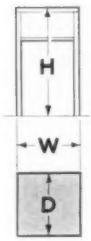
H 2'-8" to 3'-1"
L 3'-0" to 4'-0"
D 1'-6" to 1'-10"

CLEARANCE DIAGRAM - BEDROOM



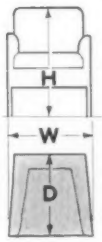
Clearance Diagrams - Scale 1/8" = 1'-0"

WIDTH (wall space)		W
Twin Beds	No Night Table	7'-0" to 8'-0"
Twin Beds	1 Night Table	7'-10" to 9'-8"
Twin Beds	2 Night Tables	9'-4" to 12'-2"
Double Bed	1 Night Table	5'-8" to 7'-0"
Double Bed	2 Night Tables	6'-10" to 9'-2"
Single Bed	1 Night Table	4'-2" to 5'-6"
LENGTH DIMENSIONS		L
Bed plus passage		8'-10"
Bed plus passage & dresser		10'-8" to 11'-4"



NIGHT TABLE

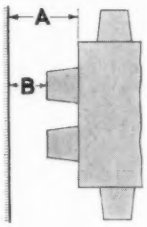
H 1'-9" to 2'-6"
W 1'-2" to 2'-0"
D 1'-0" to 2'-0"



BOUDOIR CHAIR

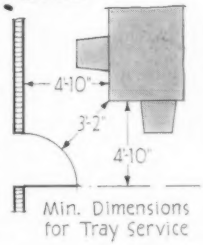
H 2'-8" to 3'-4"
W 2'-6" to 2'-10"
D 2'-8" to 3'-2"

DINING ROOM FURNITURE



Chair only	A	2'-0"±
	B	4"
Human passage only	A	3'-4"
	B	1'-8"
Passage for tray service	A	4'-10"
	B	3'-2"

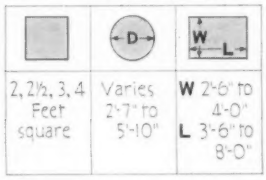
CLEARANCES *for* DINING TABLES



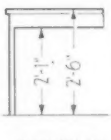
Min. Dimensions for Tray Service

DINING ROOM TABLES

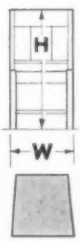
Allow 2 lineal feet per person



2, 2½, 3, 4 Feet square	Varies 2'-7" to 5'-10"	W 2'-6" to 4'-0" L 3'-6" to 8'-0"

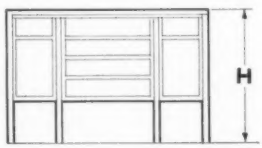


MINIMUM KNEE CLEARANCE DINING TABLES



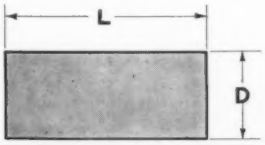
DINING ROOM CHAIRS

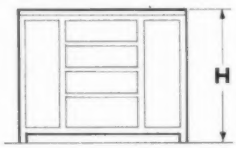
H 2'-10" to 3'-3"
W 1'-6" to 2'-0"
D 1'-6" to 1'-10"



BUFFET

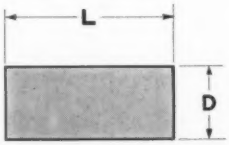
H 2'-9" to 3'-3"
L 4'-10" to 6'-6"
D 1'-5" to 2'-1"

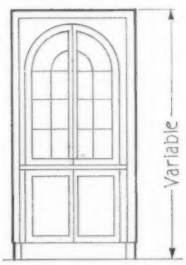




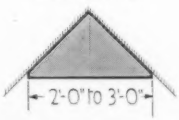
SIDEBOARD

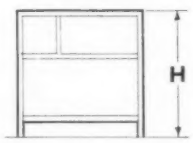
H 2'-9" to 3'-2"
L 4'-0" to 5'-0"
D 1'-8" or 1'-9"





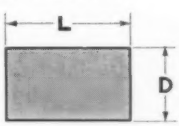
CORNER CUPBOARD

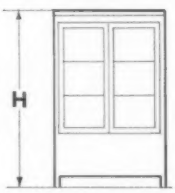




SERVING TABLE

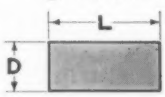
H 2'-6" to 3'-0"
L 2'-6" to 3'-6"
D 1'-2" to 1'-9"





CHINA CABINET

H 4'-2" to 6'-2"
W 2'-8" to 3'-8"
D 1'-2" to 1'-9"



BOOKS FOR THE ARCHITECT'S LIBRARY

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AN ILLUSTRATED HANDBOOK OF ART HISTORY. By Frank J. Roos, Jr. 304 pages, 8¾ by 9½ inches. Illustrations from photographs. New York: 1937: The Macmillan Company. $3.50.

The author, who is connected with the College of Fine Arts, Ohio University, and some of whose photographs, incidentally, have been appearing as covers on this magazine, gives us in this volume a new sort of art history. The book is intended mainly for use in schools in connection with instruction in the history of art and art appreciation. Realizing that most of the known facts have been put into book form, Mr. Roos gives us herein an enormous quantity of pictorial data to supplement the written history. Much to the author's regret he has been forced to eliminate Oriental art. The illustrations are well chosen to typify schools and periods of painting, architecture, and sculpture, together with some of the minor arts. There is a comprehensive index.

STEEL SQUARE POCKET BOOK. A Practical, Handy Reference Book Illustrating and Describing the Best Methods of Using the Carpenter's Steel Square. By Dwight L. Stoddard. 182 pages, 3¾ by 5¾ inches. Illustrations from line drawings. New York: 1937: Scientific Book Corporation. $1.

It is a constant source of amazement how versatile a tool the steel square can be made if one has explored its possibilities. Here is a small handbook which sets down those possibilities in a graphic and easily understandable form.

SPANISH-COLONIAL ARCHITECTURE IN THE UNITED STATES. By Rexford Newcomb. 39 pages of text and 130 pages of plates, 9 by 12¼ inches. Illustrations from photographs and drawings. Printed in Germany. New York: 1937: J. J. Augustin. $12.

Dean Newcomb, who is professor of the History of Architecture and Dean of the College of Fine and Applied Arts, University of Illinois, has devoted much of his study over a quarter of a century to Hispanic-American architecture. Two volumes of his have appeared previously, "Franciscan Mission Architecture of Alta California" in 1916, and "Old Mission Churches and Historic Houses of California" in 1925. Both of these monographs have passed into the category of rare and practically unobtainable works. In the present volume Dean Newcomb's purpose has been to trace the various forms stemming from Spanish architecture through Mexico, and into our own South and Southwest. He points out also the variations of form in our adaptations in Florida, along the Gulf Coast, in Texas, New Mexico, Arizona, and more fully in California. The photographic illustrations are particularly good, and well printed. They are accompanied by a generous portion of line drawings which clarify details of construction, embellishment, and material. Incidentally, this is said to be the first work in any language treating of the Hispanic-American architecture in the United States in its entirety.

HEATING, VENTILATING AND AIR CONDITIONING FUNDAMENTALS. By William H. Severns. 468 pages, 6 by 9 inches. Illustrations from line drawings and a few photographs. New York: 1937: John Wiley & Sons, Inc. $4.

A volume designed primarily for undergraduate courses in the schools for students in architecture and engineering. As Professor of Mechanical Engineering in the University of Illinois, the author knows how to make a maze of scientific facts understandable and useable tools.

A GRAMMAR OF CHINESE LATTICE. 2 Volumes. By Daniel Sheets Dye. 470 pages, 9 by 12 inches. Illustrated with line drawings. Cambridge, Mass.: 1927: Harvard University Press. $10.

Here is a fascinating source book for the architect, the landscape architect, and even the designer in wider fields. Dr. Dye, who is a professor in West China Union University, has for years devoted himself to this particular feature of Chinese design in wood, bronze, brick, stone, and porcelain. The grille or lattice is no new and passing whim of Chinese designers, for the examples brought together by the author reach over the period from 1000 B.C. until 1900 A.D. There are nearly twenty-five hundred examples, and they are shown uniformly in line drawings. Dr. Dye's deep study of this fascinating field has enabled him to classify these lattice patterns into groups of forms varying in detail, but repeated and refined over the centuries.

TESTS OF STEEL COLUMNS: Thin Cylindrical Shells, Laced Channels, Angles. Bulletin No. 292. By Wilbur M. Wilson. 42 pages, 6 by 9 inches. Illustrations from one photograph, graphs, and line drawings. Pamphlet binding. Urbana, Ill.: 1937: University of Illinois. 50 cents.

A report of tests conducted by the Engineering Experiment Station, University of Illinois, in co-operation with the Chicago Bridge and Iron Company.

ELEMENTS OF INTERIOR DECORATION. By Sherrill Whiton. 778 pages, 6¼ by 8¾ inches. Illustrations from photographs, drawings and paintings. Philadelphia: 1937: J. B. Lippincott Company. $5.

Books on interior decoration usually fall into one of two classifications. Either they are a hodge-podge of saccharin drivel satisfying only the dull and inhibited tastes of Helen Hokinson ladies, or they are of a highly specialized nature, appealing primarily to the expert. The present work belongs in neither category. Written by an architect, it should take its place beside the work of Bannister Fletcher, after which it is very sensibly patterned. In common with its master pattern the various phases of this broad study are indexed so as to make a ready reference for the student, professional or amateur. It is roughly divided into four parts: the first, a history of style; the second covers decorative materials and accessories, the third, selection, harmony and arrangement; the fourth, a glossary of technical terms and an excellent bibliography. In short, this is a volume that should be owned by any architect who has occasion to go beyond architecture in his interior design.

VOLUME WATER HEATING. A committee report—Lawrence E. Biemiller, chairman. 17 pages, 6¾ by 10¼ inches. Illustrations from one photograph and line drawings. Pamphlet binding. New York: 1937: American Gas Association.

THE TOWERS OF NEW YORK. The Memoirs of a Master Builder. By Louis J. Horowitz as told to Boyden Sparkes. Foreword by Richmond H. Shreve. 278 pages, 5¼ by 8 inches. Illustrated by photographs. New York: 1937: Simon & Schuster. $2.25.

When the architectural history of our epoch is finally written for posterity, an important factor in these achievements will unquestionably be the master builders. Without their genius for organization of vast operations, their ability to co-ordinate the labor of many men, and the assembly of materials from all over the world, America's tall buildings could never have been built. Here is the story of one of these builders, the man who directed the Thompson-Starrett Company. Of him Richmond Harold Shreve (whose initials incidentally the publishers inexcusably bungle) writes that in what is probably the most intricate construction problem field that man has ever known, he was, and still is, a master of organization. Much of this book appeared serially in *The Saturday Evening Post.*

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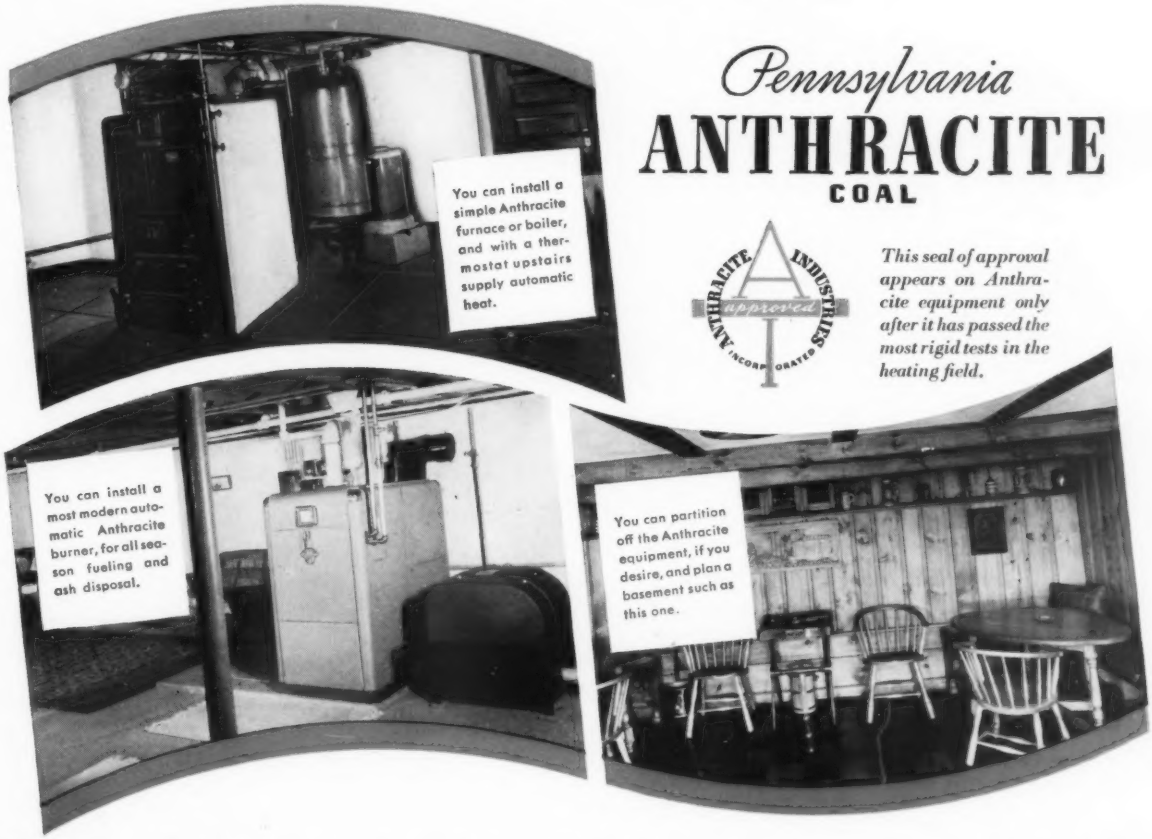

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TECHNICAL DIGEST

KEY TO PRESENTATION

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

d—detail drawing **g**—graph **p**—plan
s—section **t**—text **v**—photo view

Accordingly, **gptv** means graph(s), plan(s), text and photographic view(s) in the article mentioned.

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AIR CONDITIONING & HEATING

Cool air through the earth. (E. Strokirk). Byggmästaren.(Stockholm). No. 29'37:319-323 **st**

Description of a novel air cooling and filtering method patented by C. Angst of Zurnich under the name of "Solair." Cool air can be sucked into a floorless sub-cellar through the earth and distributed to cool and ventilate the building above. The article (in Swedish) gives data on temperature and blower capacity while sketches illustrate various applications including use as protection against poison gas.

The Swiss Pavilion at the Paris Fair has an installation of this system with ground sealed except for an air intake through and beneath a planted area.

Date heating season begins in a normal year. Heating & Ventilating. O'37:45-48 **map t**

A useful table of 100 cities and full-page colored map of the United States showing graphically when the normal daily mean temperature in any location first falls below 65°F in the Fall.

The brief text interprets some of the not so often realized effects of geography illustrated by the map.

A new chart for comparing fuel costs. (P. D. Close). Heating & Ventilating. O'37: 62-64 **gt**

Graph comparing costs of coal, oil, natural and manufactured gas. This correlates cost per unit quantity, overall heating efficiency and cost of useful heat per million B.t.u.

The text includes tables of costs of useful heat per million B.t.u. for these fuels.

CONSTRUCTION

Welding for New York buildings. (G. D. Fish). Engineering News-Record. 23 S'37:509-512 **t**

Discussion of advantages and limitations of welding as it is to be permitted under the new New York City Building Code. Silence, technical interest in the new method, and economy of well designed welded work are the principal motives for the use of welding. The point of economy is well established in the writer's belief through experience with 100 welded structures of considerable size. Weight may be saved in main steel members and in connections in both shop and field work, and the process is faster than riveting. No drilling is required to meet job conditions or for design changes. Full sections are maintained to develop full bending stresses. On the other hand the planning and supervision of welded work requires more engineering because of its newness. The author claims a complete absence of welding failures in his experience and knowledge over the eleven years welding has been practiced for building construction here.

The welding clauses (except for administrative section) in the new New York City Code were taken from the 1930 version of the American Welding Society's Code for Fusion Welding and Gas Cutting, and from this organization's only version of a code for resistance welding. One strange administrative clause in the new city Code contains the requirement that all welders be United States citizens.

Plate crumples but welds hold. (H. S. Card). Welding Journal. S'37:28 **tv**

Amazing evidence of the strength of welded joints in the case of a petroleum storage tank 55 ft. in diameter and over 35 ft. high. While this welded tank was being cleaned out with live steam a cold rain fell suddenly. The vacuum resulting sucked in the plates so that the reporter suggests it looked like a "shower of boxcars" had taken place. A second photo view shows the tank after water pressure had forced it back into shape. No welds were damaged although some plates were split.

Photo-elastic analysis. (Excerpts from long papers by L. Baes). Technique des Travaux. (Paris). S'37:441-443 **tv** and L'Ossature Métallique. (Brussels). S'37:432, 433, 436, 441, 442 **v**

Exceptionally fine views of photo-elastic models of pylons and trusses photographed under various stresses by polarized light.

"Diagrid" construction. R. I. B. A. Journal. (London). 11 S'37:1001-1003 **tv**

A structural method similar to "Lamella," employing a gridiron scheme of joists (of any material) enclosing square filler panels which are set in diagonal relation to supporting walls.

It is claimed that clear spans up to 300 ft. in the shorter direction can be made by this method, using standard 24" rolled steel beams. Total steel in such a span would weigh only about seven pounds per sq. ft.

Concrete walls as counterweights. Engineering News-Record. 16 S'37:478-480 **stv**

New San Francisco exposition buildings, designed for later use as hangars, have huge three-hinged arches (span 217', clear height at center 65') counterbalanced by concrete walls suspended from them. Considerable saving of cost is claimed for this design which also employs pile groups driven at a batter in order to follow line of dead load resultant from the arches. The reinforced concrete walls are 8" thick, weigh about 190 tons per 41' bay, and are hung at a lever arm distance of 9' outside the lower pin.

The steel work was completed before the walls were poured, the latter progressing just fast enough to balance roof construction.

This structural system is reminiscent of Owen Williams' great new Wembley exposition hall in England, which, however, was all concrete.

Reinforced brickwork. (L. W. Burridge, from Clay Products Tech. Bur. Bull No. 2). The Builder. (London). 20 Ag'37:333-335 **tv**

Long technical abstract containing much valuable data. The list of advantages of reinforced brickwork includes mention of accuracy of design comparable to concrete, simplicity of formwork and equipment, short curing period, light weight (10-15% less than reinforced concrete), fire and thermal resistance.

Uses include all parts of the building structure.

The abstract concludes with additional data on bricks, mortar, grout, forms, reinforcement placing, construction joints, curing and form stripping.

Specification data on solid plaster partitions. The Plastering Craft. 15 S'37:16 **t**

Data sheet sponsored by Metal Lath Mfrs. Assoc. Tables giving size of channels for partitions from 9' to 30' high and 1¾" to 3½" thick; and spacing of channels for various types of lath.

There are also tables of quantities of materials (both lathing and plastering) for 100 sq. yds. of 2" solid plaster partition, finished both sides, and for proportions of plaster mixes.

The construction industry in the United States. (P. A. Stone). The South African Builder. (Johannesburg). S'37:9 and 5p. **t**

A brief review of United States Building Codes, discussing fire protection, health provisions, structural requirements and protection during construction.

There are tables giving fire resisting ratings for fireproofing and structural

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materials are used in the famous Pacific Coast "Uniform Building Code."

A survey of modern building technique. (E. Gunn). Architect & Building News. (London). 1 O'37:6-8 **dt**

Part I of a new weekly series on construction of domestic and similar buildings. This installment discusses clearing of site, use of "profiles" for setting out, surface and trench excavation, embankments and terraces, water in trenches, and concrete materials. Orthodox and sound.

Part II. 8 O'37:36-37 **dt**

Concrete work continued, paving, concrete lintels, concrete defects, brickwork.

Part III. 15 O'37:74-75 **dt**

Brickwork continued. Bricks, color, mortar, jointing, bonds.

DESIGN AND PLANNING

What is industrial design. (E. F. Lougee, from Modern Plastics). Business Digest. O'37:85-86 **t**

A wide open criticism of the current vogue for styling without fundamental improvements. Examples: refrigerators with the works in the way of the housewife; and a camera which in the statement of the manufacturer or designer "did not give the desired impression of small size." The critic's comment on what was done is worth quoting: "If the camera was made no lighter in weight or more convenient to use, the design was attempted only to deceive. If adding a line down the side of the case and widening the parallel perpendicular lines is industrial design, then I'm Godiva and I'll meet you at Central Park Sunday morning at ten if I can find a white horse."

Furniture and built-in equipment. Moderne Bauformen. (Stuttgart). O'37:525-540 **dtv**

Executed work of students of Prof. A. G. Schneck at the Stuttgart School of Industrial Art. Notable for nice feeling for natural wood. Many detail drawings. Photos include a series of views of cane seats of attractive original design. There are two excellent drawings of chair designs included.

References on hotel planning. Ter es Forma. (Budapest). S'37:265-286 **dtpv**

Several well-illustrated articles on hotels. (In German and Hungarian, with French captions for illustrations.) There are many diagrams of room arrangements, including some of ship cabins.

Swimming pools and sports buildings. (F. E. Towndrow and B. E. Verstone). Design & Construction. (London). S'37:422-443 **pstv**

Data article followed by examples of seven British public baths and pools, three open-air pools, two private pools, and four sports buildings. An Italian velodrome and a Michigan tennis house are included in the foreign section.

Light and glass in the country house. M. Müller). Deutsche Bauzeitung. (Berlin). Kunstdruckteil. Ag'37:129-134 **tv**

Views of several pleasant versions of the large glazed opening, often including access or complete opening into garden or upon terrace.

Exposition architecture. Casabella. (Milan). Ag'37:8-15 **ptv**

Views of a recent Roman Fair. Extremely light in structural effect. Designed planting. Brief Italian text.

ILLUMINATION & ELECTRICAL WORK

Fluorescence as illumination. (G. R. Fonda, from G. E. Review). Illuminating Engineering Soc. Transactions. S'37:773-774 **t**

There are two types of fluorescent substances: (1) organic dyes and salts of rare earth elements which fluoresce when in dilute solution (liquid or glass); and (2) "Phosphors," crystalline sulphides and silicates. The latter type is now being used experimentally for illumination. In this application a phosphor is coated on the wall of an ultra-violet ray discharge tube. Atoms of small amounts of foreign metals, dispersed throughout the phosphor, are excited by the radiation and when they return to their normal condition, energy is released in the form of light. The amount of visible light converted from the invisible ultra-violet may be much greater than the visible light normally produced by the tube. Several colors and white have been obtained.

A study of brightness, distribution and control of classroom lighting. (R. L. Dearborn). Illuminating Engineering Soc. Transactions. S'37:785-806 **gpstv**

Specifications for ideal classroom illumination as developed by an investigation which covered: (1) location of outlets and selection of equipment; (2) determination of proper color values for higher intensities; (3) technique of automatic control to supplement daylight.

The recommendations include:

30 footcandles intensity on desks.

Luminous, indirect units.

Blue background with small, brightly colored pictures for interest. This blue was to be graded from light, nearly white on ceiling, to darker values at floor.

Venetian blinds for daylight diffusion.

Photo-electric control units in locations most quickly influenced by changes in daylighting.

This paper is followed by a typical IES discussion.

Measuring and predetermining daylight illumination. (P. Waldram, from paper read at Paris Conference). The Builder. (London). 1 O'37:598-603 **gpst**

Application to town planning. The shading effect of nearby buildings.

The author discusses the development of practical methods of daylight predetermination, including contour plans, photographic and perspective webs. He points out the fallacy of defining permissible degrees of daylight obstruction by means of angles measured from the ground to the tops of the buildings in question. Several forms of graphs and tables to facilitate plotting of accurate daylight determinations are presented in the article.

See also: **R.I.B.A. Journal.** 16 O'37; 1045-1055 **st.** Longer text abstract, fewer illustrations.

Electrical installations that improve house values. (B. F. Betts). American Building Association News. O'37:532-547 **dptv**

In less than 50 years the electrical industry has developed an annual market in the United States of 26 million customers, served by a plant investment of 13 billion dollars. This growth has been due in part to new appliances and uses. This article discusses these in a readable fashion, following through the complete electrical service for a house from supply, through distribution board, wiring systems (wire sizes, branch circuits), outlets, switches (illustrated), and suggests minimum practice for the small house of today. A check list in tabular form gives an idea of the maximum possible practice in outlet use.

MATERIALS

Anhydrite as a basis for building materials. The Builder. (London). 10 S'37:467-468 **tv**

Part II. Accelerated anhydrite plasters and some details of erection and after-treatment of anhydrite materials.

Anhydrite is the anhydrous form of calcium sulphate (gypsum is the hydrated form). It is a mineral, hard, fire and vermin resistant, highly resistant to intermittent water attack, low in density and good as thermal insulation. It is used in England in hard wall plaster, decorative plastics, floor and wall compounds, terrazzo substitute (walls), flooring screed for resilient finishes, and in partition blocks.

Only 25-30% of water (by weight) is required as against 40-60% for gypsum plasters. This means a set in 1 to 1½ hours.

The article also discusses efflorescence, erection details, after-treatment and reinforcement.

The glass industry goes modern. (R. G. Skerrett, from Compressed Air Magazine). Science Digest. O'37:9-12 **t**

Review of current accomplishments in glass manufacture. New machines make 400 light bulbs per minute and use 50 tons of glass per day. Both the Corning and the Owens-Illinois glass blocks are completely described. The article also

(*Continued on page* 121)

"Couldn't I save here by using cheaper acoustical materials?"

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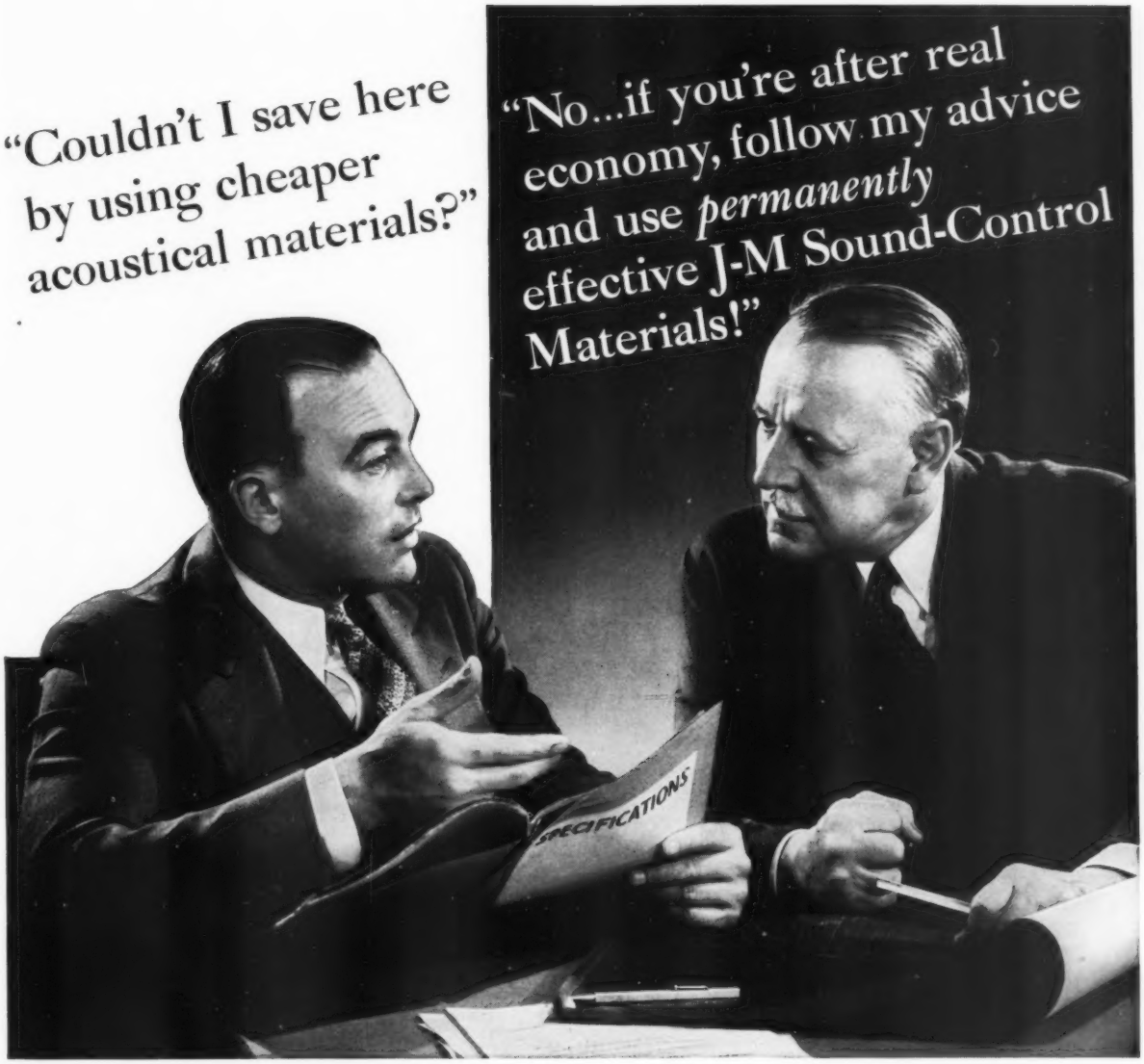

IT'S hard work protecting clients against "economies" that look plausible . . . but turn out false. And yet, in your own interests, it must be done.

Acoustical treatment is a case in point. Here, there can be no compromise with quality—or with economy. If these materials are not permanently effective, maintenance and replacement costs will follow. And in the end, they turn "bargains" into extravagances!

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ACTUALLY IT COSTS NO MORE TO USE THE BEST ACOUSTICAL MATERIALS

LETTERS TO THE EDITORS

(*Continued from page* 16)

those who still have a certain liking and specious excuses for the type of domestic architecture the project offers.

The concept of a town of tomorrow is essentially a foolish one as such. Let us leave the visualization of such communities to those who make films on Wells' scenarios. What we want is a town of today and for today it is evident that this scheme is an outrage.

As in Paris last summer, we may presume, it will not be the work organized by the local authorities which is most impressive at the World's Fair of 1939. Let us hope that foreign nations will be as generous with their architectural ideas at Flushing as they were in Paris. Otherwise the few American pavilions of distinction and Harrison and Fouilhoux's Trilon and Sphere are likely to be lost in a welter of turgidity and irrelevance even greater than at Chicago. There was no town of tomorrow at Chicago, but there were certainly several quite good contemporary houses. I refer here to Chicago 1933-34; but I am not sure the reference would not apply as well to Chicago 1893: the Colonial Revival has hardly improved in forty years of continuous exploitation.

Yours very truly,
(Signed) HENRY-RUSSELL HITCHCOCK, JR.
Middletown, Conn.

AMERICAN ARCHITECT AND ARCHITECTURE:

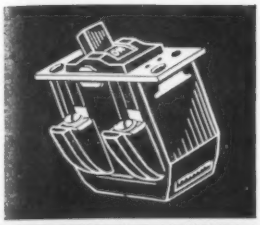
Is the name of our forthcoming World's Fair—"The World of Tomorrow"—an expression of hope, encouragement, or despair? Or merely a come on? I ask because I have recently seen illustrated sketches showing a proposed layout and some of the houses intended for the housing section of that fair. If they represent the world of tomorrow, then today must be at least yesterday—or further back.

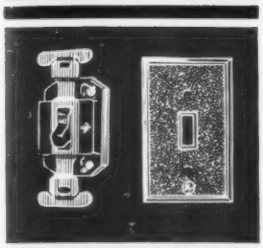
The layout is a real-estate vulgarization of an idea that was—and is, if well treated—good; the cul-de-sac. The houses are women's magazine "charming." But neither layout nor houses shows a particle of advance over what is being built commercially today in thousands of suburbs—there is the same heterogeneousness, the same superficiality of facade, the same reworking of old formulae that make such dull chaos of our typical suburbs. Yes, dull chaos.

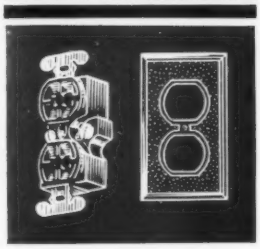
Of real study of land utilization, of creative thought in what might be achieved today and can be done tomorrow, there is not a trace. Of a true search to find some coherence to bring order out of confusion, there is no sign. The unsolved problems of suburban design are legion—how to combine privacy and a close relation to the out-of-doors, how to achieve individuality within harmony, how to preserve natural amenities in an artificial creation, how best to preserve openness of view in a crowded locale. Of a serious attack on any of these I can see no evidence. No; what we have here is a mere real-estate salesman's sample book made three-dimensional.

Perhaps this is the future fate of all suburban developments. Perhaps our great carefully commercially-fostered ideal of trying (vainly, of course) to be English country gentlemen on 50′ x 100′ lots is too deeply ingrained in us to be eradicated. Perhaps "rugged individualism" will forever deprive us of the benefits of applying real creative intelligence to these pressing problems. Perhaps. . . . But it's discouraging so to believe.

FOR SATISFIED CLIENTS







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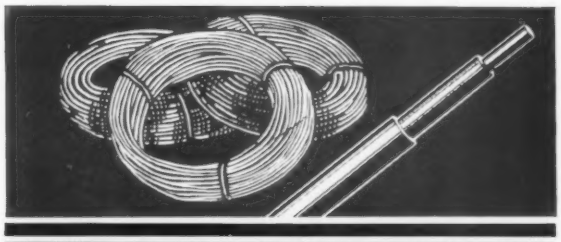

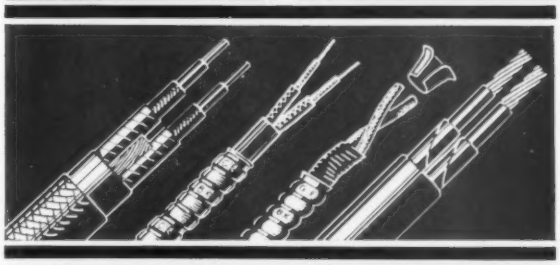

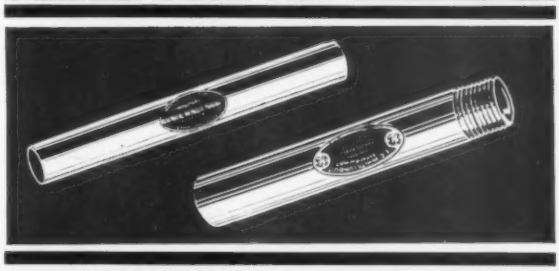

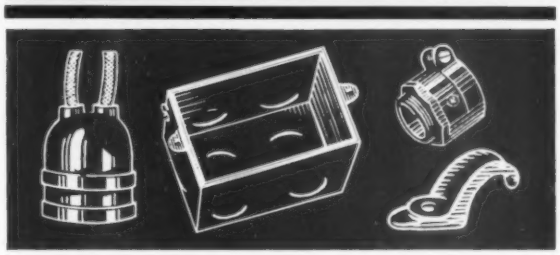

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Stuttgart, in 1927, did better; Vienna, in 1930, did much better, in their housing exhibitions. Even here in America better, more creative, more reasoned work is being done today. The World of Tomorrow? No; what the World's Fair, after much talking, has produced with such éclat is, if anything, basically the World of twenty-five years ago.

TALBOT HAMLIN

Columbia University, New York, N. Y.

AMERICAN ARCHITECT AND ARCHITECTURE:

A few days ago a representative of the Carnegie Steel Company lent me a booklet entitled "Understand the Architect and You Can Sell Him" by Marsh K. Powers. There is a note on the booklet "Reprinted from Sales Management."

I am interested in knowing if you have these booklets for sale and how I may obtain twenty-five or fifty of them.

To my mind the subject is handled thoroughly, and accurately states the position of the architect. It would be a great boom to the architectural profession if every salesman in the building industry were required to commit this booklet to memory before calling on architects.

Very truly yours,

Bluefield, W. Va. (Signed) ALEX. B. MAHOOD

AMERICAN ARCHITECT AND ARCHITECTURE:

We congratulate you on your publication AMERICAN ARCHITECT AND ARCHITECTURE for both the material published and its editorial policy.

Your magazine renders our organization a real service. It is closely followed by a large number of our staff.

I, personally, hope that you will continue along the lines which you have so creditably followed during the past years.

Very truly yours,

Detroit, Mich. (Signed) ALBERT KAHN

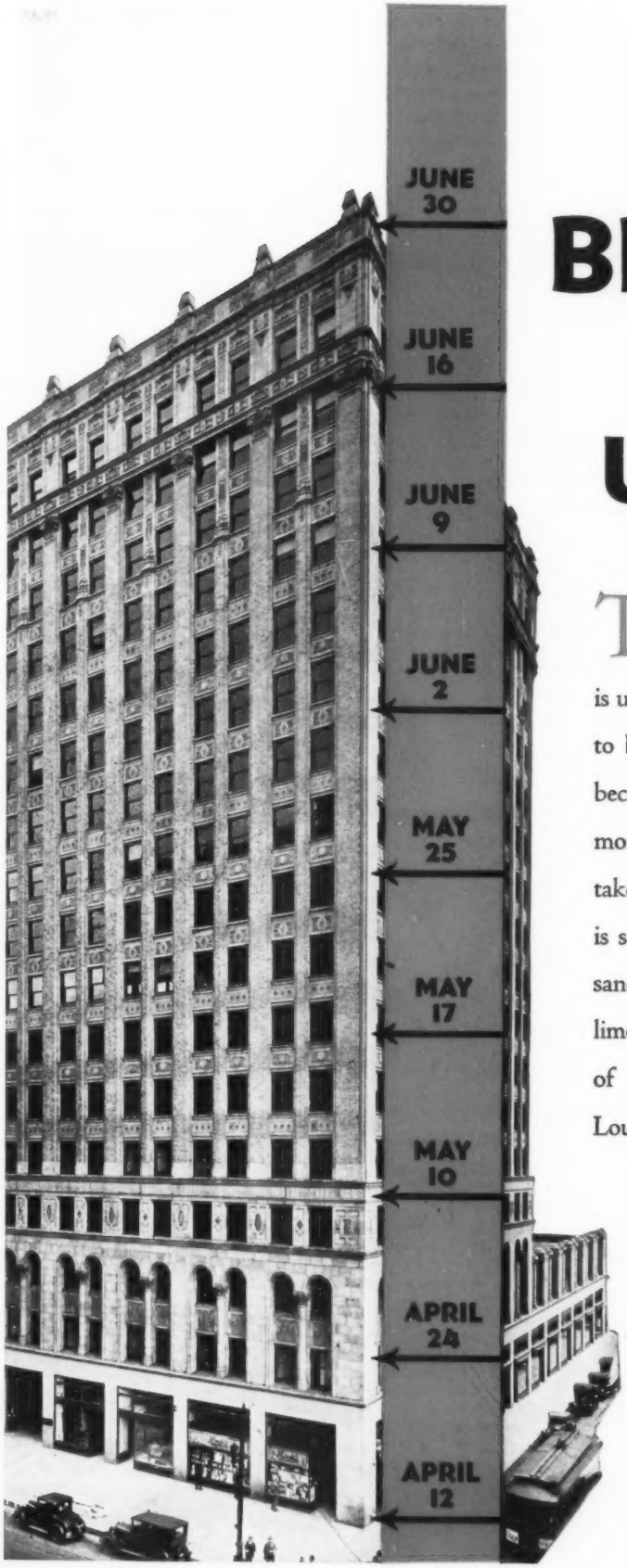
AMERICAN ARCHITECT AND ARCHITECTURE:

At the announcement of the great New York Fair of 1939, one remembers the eager interest in artistic circles to see what the great committee of New York's most gifted architects, working in unison, would evolve to meet the challenge of properly bodying forth to all the world a fitting conception of not only the material but the spiritual values which our aspiring America believes in, and from which she draws her nourishment and renews her strength.

What architectural conception should be the worthy keynote, the focus of the proud display of her skills and imagination, the great central monument about which the ancillary buildings should cluster and acclaim? That was what all awaited to see, and what was the result? What was the inspired pile to be which was to typify the aspirations of our Western World? What awesome structure skillfully conceived, poetic in color, warmed with emotion, did these chosen men working in concert finally bring forth to amaze an awaiting world?

It was a ball and a pyramid. That was the great conception. The big ball was a house, the pyramid just an emaciated spike. Now a ball is just the thing for a game of billiards, but not so good for a house, and a spike is a fine shape for a thumb tack or (ominous thought) a bill sticker, but not so good to whip up an esthetic emotion.

This then is the bright jewel in the crown of the exposition that we are to show our foreign visitors as signal proof



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of our architectural originality and puissance. Bald, cryptic and a little sinister, as if some member of a klavern had schemed to erect a Ku Klux high-sign, the New Deal in masonry, the Style Modernistic, the "Functionalism" about which we have all been so severely lectured. We have already had to swallow the cubical house, and now we have the spherical one, a Manhattan cherry, but at least it should make an easier pill—and there is the toothpick.

With this precious pair as the crescendo, we shall be interested to see what the lesser buildings are to be. There are still a lot of shapes left.

Respectfully yours,

Boston, Mass. (Signed) Allen W. Jackson.

AMERICAN ARCHITECT AND ARCHITECTURE:

For some time I have delayed writing to express my satisfaction and pleasure in the kind of magazine you are publishing. I can open each copy with the assurance that in it I shall find the best of contemporary architecture, vital creative work that is neither crude nor ugly, and a new and fresh presentation of historical material.

"The Diary" is of especial interest to me, for although living in California, I can nevertheless have an informal, intimate contact with what is being done and thought in the East, through reading your notes each month.

My best wishes for a continuance of the present excellence of AMERICAN ARCHITECT AND ARCHITECTURE.

Very sincerely yours,

Los Angeles, Calif. (Signed) PAUL ROBINSON HUNTER

VIBRATING CONCRETE

Vibrating the concrete in a pavement as it is laid increases the strength 10 percent, according to a report by the Bureau of Public Roads of the U. S. Department of Agriculture or, by vibrating, 10 percent less cement can be used, and the same strength maintained.

The report gives the results of an investigation recently conducted at Arlington, Virginia. Two hundred and seventy slabs of pavement, each 10 feet wide and 8 feet long, were constructed and tested. Four different types of vibrating equipment were used with speeds of 3,600-4,000 r.p.m.

Slabs of similar composition were placed and finished by standard methods without vibration. Thus, differences in the strengths and physical properties were directly attributable to vibration. In every instance it was found that vibration increased the strength and density and decreased the amount of "honeycomb," or air pockets.

To investigate the effects of vibration further, the quantities of aggregates, cement, and water were varied in slabs finished by the vibration method, and their properties were compared with those of nonvibrated slabs. Slabs 7 and 10 inches thick were placed, and the effects of surface vibration were found to extend entirely through both.

OBITUARIES

Professor Frederick W. Revels, for more than thirty years director of the Department of Architecture, Syracuse University, died Thursday, October 14, at his home in Syracuse. Professor Revels was born in Randolph, N. Y., and attended Syracuse University. Shortly after his graduation in 1895,

he became an instructor in the Department of Architecture and in 1902 was named professor. He succeeded Edward H. Gaggin as director in 1904. In collaboration with the late Professor Earl Hollenback, Professor Revels designed many campus buildings, including Lyman Hall of Natural History, Bowie Hall of Chemistry, the library, gymnasium and men's dormitories. While on leave of absence in 1922, Professor Revels organized an architectural course at the University of Porto Rico and later was awarded the degree of Master of Architecture by that university. He was a member of the A.I.A., of which he had been a Fellow since 1930.

•

William George Malcomson, affectionately known as the dean of Michigan architects, died October 19, at his home in Detroit. Born in Hamilton, Ont., in 1853, Mr. Malcomson came to Detroit in 1857, and received his early education in the public schools.

For a period he was in the office of Mortimer L. Smith, and in 1885 set up his own practice. Five years later he formed a partnership with William E. Higginbotham, who died in 1923, but the firm name, Malcomson & Higginbotham, was continued until quite recently, when it became Malcomson, Calder & Hammond. It is said that the firm of Malcomson & Higginbotham was responsible for possibly three-fourths of Detroit's school buildings over a quarter of a century.

Mr. Malcomson was one of the organizers of the Michigan Society of Architects, and served as its second president during 1916-17. He was, of course, a member of the Detroit Chapter, A. I. A., in 1926 having been made a Fellow. In June of the present year Wayne University conferred upon him the degree of Master of Science in Architecture.

Paul Gmelin, a member of the firm, Voorhees, Gmelin & Walker, architects, died at his home in Cranford, N. J., November 20. Mr. Gmelin was seventy-nine years old. Born in Ulm, Germany, his early education was obtained in Stuttgart, but soon thereafter he came to the United States.

Mr. Gmelin was associated with the firm of Eidlitz & MacKenzie, and later was made a member of the firm of MacKenzie, Voorhees & Gmelin. This firm's activities extended from 1910 to 1926, when it was reorganized with the present name. Mr. Gmelin was a member of the American Institute of Architects.

OF THE OFFICES

Louis A. Brown, Jr., architect, of 60 East 42nd Street, New York City, who has for years travelled to his Virginia office every two weeks, announces that he has established his Charlottesville, Va. office at 603 National Bank Building, and will hereafter live in Charlottesville. The New York office, with Irving Noel Simon, architect, as manager, is maintained. In a word, Mr. Brown now reverses the direction of his commuting.

A press relations office for the United States Housing Authority has been established at Room 5331, North Interior Building, Washington, D. C. All press inquiries relative to the USHA should be directed to Mr. Walton Onslow, Acting Director of Information.

Robert P. Greenleaf, mechanical engineer, announces the establishment of an office for engineering consultation and design, with special reference to air conditioning. The address is 2804 East 132nd Street, Cleveland, Ohio.

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Azrock Is Sanitary. A smooth-surfaced, dustless mastic floor tile, Azrock will not warp nor check under constant usage; and its dense texture demands only the simplest cleaning and maintenance. An exclusive process for cutting tile with micrometer accuracy makes Azrock tile joints fit tighter than ever before possible with this type of floor covering.

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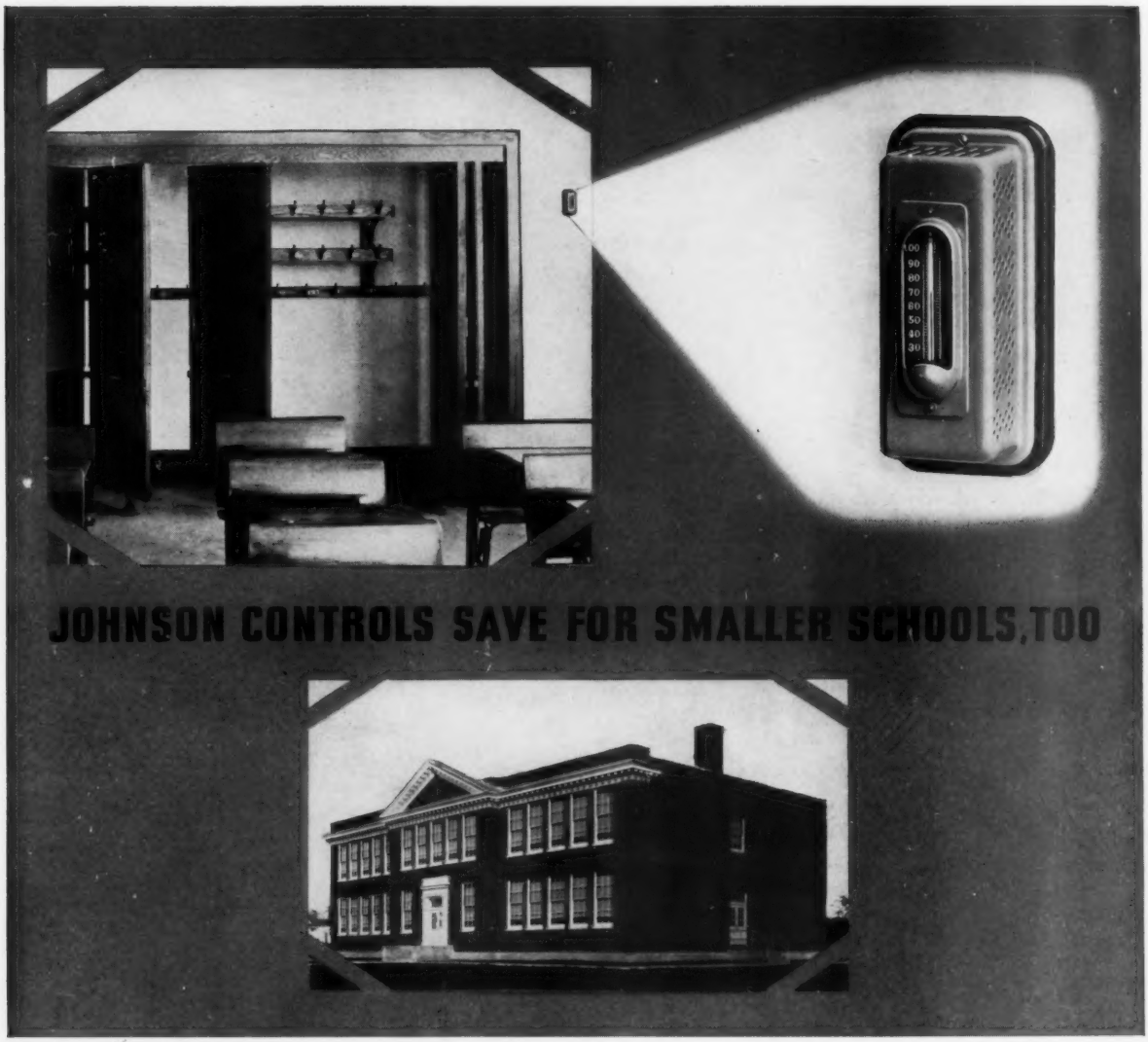

George Washington Feaser Grade School, Middletown, Pa.
John H. Wickersham, architect, Lancaster, Pa.; C. C. Kottcamp & Son, mechanical contractors, York, Pa.

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NEW CATALOGS...

Readers of AMERICAN ARCHITECT and ARCHITECTURE may secure without cost any or all of the manufacturers' catalogs described on this and the following page by mailing the prepaid post card printed below after writing the numbers of the catalogs wanted. Distribution of catalogs to draftsmen and students is optional with the manufacturers

Building Hardware

402 . . . Yale Locks, Builders' Hardware and Yale Door Closers are illustrated and described in new Catalog No. 29, issued by the Yale & Towne Manufacturing Co., Stamford, Conn. Complete with a design index in addition to alphabetical and numerical indices, this publication provides a comprehensive selection manual of all Yale products commonly used in building construction.

Modernization

403 . . . The Brooklyn Union Gas Co. in co-operation with the American Gas Association, American Radiator Co. and others has sponsored a 28-page pamphlet called "Profitable Modernization by the Use of Gas." Included are plans of successful alterations in various parts of the country, suggestions for mechanical equipment, and blank forms for financial analysis.

Industrial Lighting

404 . . . Catalog No. 26 of the Benjamin Electric Manufacturing Company, Des Plaines, Ill., is a 325-page loose-leaf book containing specifications, plans, intensity formulae, efficiency curves and installation diagrams for all types of industrial lighting, flood lighting and signals, in addition to a complete description of Benjamin products. The book is sectionalized and indexed.

Load Centers

405 . . . A 4-page folder, issued by the Bryant Electric Co., Bridgeport, Conn., gives selection and installation data and knockout sizes and locations for Bryant Nofuse Multibreaker Load Centers.

Expanding Insulation

406 . . . Recommended practices for installation of Kimsul Expanding Building Insulation are contained in a 24-page booklet published by the Kimberly-Clark Corporation, Neenah, Wis.

Open-Web Steel Joists

407 . . . Design data, accessories and specifications of Bethlehem Open-Web Steel Joists, together with tables of Marking Systems, Properties and Safe Loads are contained in a new 32-page catalog of the Bethlehem Steel Co., Bethlehem, Pa. Filing size; A. I. A. File 13 G.

Bonded Metal

408 . . . The strength of steel and the beauty of wood veneers have been combined by means of a phenolic resin adhesive in a new product developed at the Mellon Institute of Industrial Research. Robertson Bonded Metal is described in a circular issued by the H. H. Robertson Co., Pittsburgh, Pa.

Revolving Doors

409 . . . Descriptive data, details of design, construction and operation, and recommended specifications of solid metal revolving doors of bronze, nickel silver, aluminum or stainless steel are the subject of a pamphlet published by the General Bronze Corporation, Long Island City, N. Y.

Acoustic Tile

410 . . . Properties, available types and methods of application of "Nodin," a cellular asbestos tile with perforated face and rock wool fill are described in a folder issued by the Norristown Magnesia & Asbestos Co., Norristown, Pa. Filing size; A. I. A. File 39.

Rigid Frame Construction

411 . . . Design, fabrication, erection and cost factors of rigid frame construction are discussed in a 19-page pamphlet published by the American Institute of Steel Construction.

Insulation Board

412 . . . The Celotex Company, Chicago, announces "Cemesto," a new asbestos clad cement board, in an 8-page folder.

Swimming Pools

413 . . . "A Treatise on Swimming Pool Design" is the title of a 48-page book recently published by the Josam Manufacturing Co. of Cleveland and written by Louis J. Day and C. W. Stedman. Individual chapters cover Sizes and Types, Construction, Water Supply and Purification, Operation, and Special or Ornamental Pools. Price $1.00. Filing size; A. I. A. File 35-F-2.

Fans

414 . . . "Standard Methods Adopted for Centrifugal Fans and Blowers" is the title of an 8-page pamphlet published by the National Association of Fan Manufacturers. Data include standard methods of designating discharge and rotation, and arrangement of drive; comparison chart of multi-blade and non-overloading types; and operating limits. Filing size; A. I. A. File 30-d-1.

Floating Wall

415 . . . Development of a permanent, monolithic wall flexibly attached to framing members, which is crack-proof, fireproof and sound deadening through the use of the new "Floating Wall" system of plastering is described in a 15-page booklet released by the National Gypsum Co., Buffalo, N. Y.

Stoker Firing

416 . . . A comprehensive story of the characteristics of Econ-o-col Automatic Coal Burners is told in a pamphlet recently issued by the Cotta Transmission Corp. of Rockford, Illinois, titled "Econ-o-col Showdown."

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AMERICAN ARCHITECT and ARCHITECTURE December, 1937
New York, N. Y.

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

Numbers .....

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Numbers .....

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Kitchen Equipment

417 . . . Planned "Work Center" kitchens embodying Art-Metal equipment are illustrated in a new booklet published by the Art Metal Household Institute, a division of the Art Metal Construction Co., Jamestown, N. Y. Type plans, equipment units, color schemes and specifications are included, in addition to a formula and chart for determining efficiency.

Air Conditioning

418 . . . Air-conditioning (including air cooling) without refrigeration equipment is described in "Carrier Air-Conditioning—At the Mere Cost of Water." New floor and ceiling units developed by the Carrier Corporation, Newark, N. J., are contained in this 4-page folder. Industrial air conditioning, refrigeration and space heating equipment are separately described.

Low Cost Dwellings

419 . . . Floor plans, exterior and interior perspectives of twenty houses in the $2,000 to $5,000 price range are contained in "Livable Homes of Southern Pine," released by the Southern Pine Association, New Orleans, La.

Glass Block

420 . . . Varied uses of "Insulux" Glass Blocks are shown in a 27-page brochure issued by the Owens-Illinois Glass Co., Toledo, Ohio. Data on patterns and sizes and light transmission factors are also included.

Fireplace Circulators

421 . . . The Superior Heat Circulator, a double-walled metal fireplace form for increasing the efficiency of a fireplace and circulating heated air, is described in a 4-page folder released by the Superior Fireplace Co., Los Angeles, Calif. Filing size; A. I. A. File 14e2.

Concrete

422 . . . Heat curing and protection of concrete to attain maximum strength in minimum time, and the use of "Inca" 24-Hour Cement and Lone Star Cement are discussed in a detailed technical manual on Cold Weather Concreting, published by the Lone Star Cement Corporation, New York.

Compressors

423 . . . Frick Frean 12 Compressors, for supplying refrigeration for commercial or industrial air conditioning, or for hotels, hospitals, and industrial processes are completely described in Bulletin 508-B, "Ice and Frost," published by the Frick Co., Waynesboro, Pa.

Bathroom Fixtures and Trim

424 . . . Recent additions to the Speakman lines of Diamond and Wildel Showers and Trim are shown in a new catalog issued by the Speakman Company, Wilmington, Delaware, which provides data for a complete specification of matched sets in these patterns.

Prefabrication

425 . . . The "Precision-Built" system of prefabricated construction based on the use of "Homasote" Insulating and Building Board is detailed in a new pamphlet issued by the Homasote Company, Trenton, N. J.

Aero Convectors

426 . . . The National Radiator Corporation presents ratings, dimensions and construction diagrams for National Aero Convectors in various types of installation. Filing size; A. I. A. File 30-C-4.

Venetian Blinds

427 . . . The Chicago Venetian Blind Co. announces a new aluminum slat Venetian Blind with integral, electrolytic process oxide coating and enclosed head in a four page folder recently published. Filing size A. I. A. File 35 P 3.

Linoleum Floors

428 . . . "Resilient Floors of Sealex Linoleum" is the title of a new booklet, recently published by Congoleum-Nairn, Inc. Designed to serve as a pattern book for architects, the brochure includes sections on the various types of Sealex Linoleum, decorative border strips and insets, specialized uses, specifications and structural details. Filing size; A. I. A. File 23j.

Water Columns and Gages

429 . . . Complete data on Yarway Floatless Hi-Lo Alarm Water Column and Yarway water level gages for pressures up to 1,500 pounds in steam power plant equipment are given in Bulletin WG-1805 issued by the Yarnall-Waring Co., Philadelphia. Construction details, parts, dimensions and prices are included.

Motor-Driven Doors

430 . . .Kinnear Motor Operated Doors with push button control for industrial use are described in a new bulletin issued by The Kinnear Mfg. Co., Columbus, Ohio. Mounting details for various types of application and suggested specifications are also included. Filing size; A. I. A. File 16-D-13.

Paint

431 . . . "Let's Look at Paint" and "The House We Live In" are the titles of two booklets issued by the National Lead Co., New York. The first gives basic data on textures, color and light, costs and durability. The second discusses protection and decoration of the dwelling.

Hardwood Interiors

432 . . . Southern Hardwood Information, Series No. 3, is a 32-page pamphlet illustrated with interiors of the Southern Hardwood Producers Home, Memphis, Tenn. Details of construction and finishes are also included. Filing size; A. I. A. File 19-a-21.

Adjustable Furring System

433 . . . The Penmetal Adjustable System of Wall Furring for dampproofing masonry walls by means of horizontal and vertical Channel Iron Runners and Metal Lath is described in a 4-page bulletin issued by the Penn Metal Co., Inc., New York. Filing size; A. I. A. File 20-B-14.

Downlighting

434 . . . Rambusch Downlighting — a system of focal lighting with concealed light sources using standard Mazda lamps without lenses—is described in a three page folder issued by Rambusch, Designers and Craftsmen, 2 West 45th Street, New York. Illustrations of typical installations are included.

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AUTOMATIC HEATING

As a feature of its January, February and March issues, AMERICAN ARCHITECT AND ARCHITECTURE will publish a complete working manual on AUTOMATIC HEATING AND AIR CONDITIONING.

Embodying the latest, most authoritative data, this series will bring up to date the information architects must have to plan intelligently.

Hundreds of articles have been printed on various phases of automatic heating and air conditioning, but this series—organizing, condensing, and presenting the subject in 48 pages—will be, the editors believe, the most useful of all articles printed up to now.

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STUYVESANT BUILDING GROUP
TOWN AND COUNTRY
AMERICAN ARCHITECT & ARCHITECTURE
and HOUSE BEAUTIFUL

CONTENTS: MANUAL OF AUTOMATIC HEATING and AIR CONDITIONING

AUTOMATIC HEATING: glossary of terms; symbols used on layouts; calculation of heat losses—facts needed, schedule sheet for duct and/or radiator systems, short cut or "rule-of-thumb" method, b. t. u. method and "calculator tables."

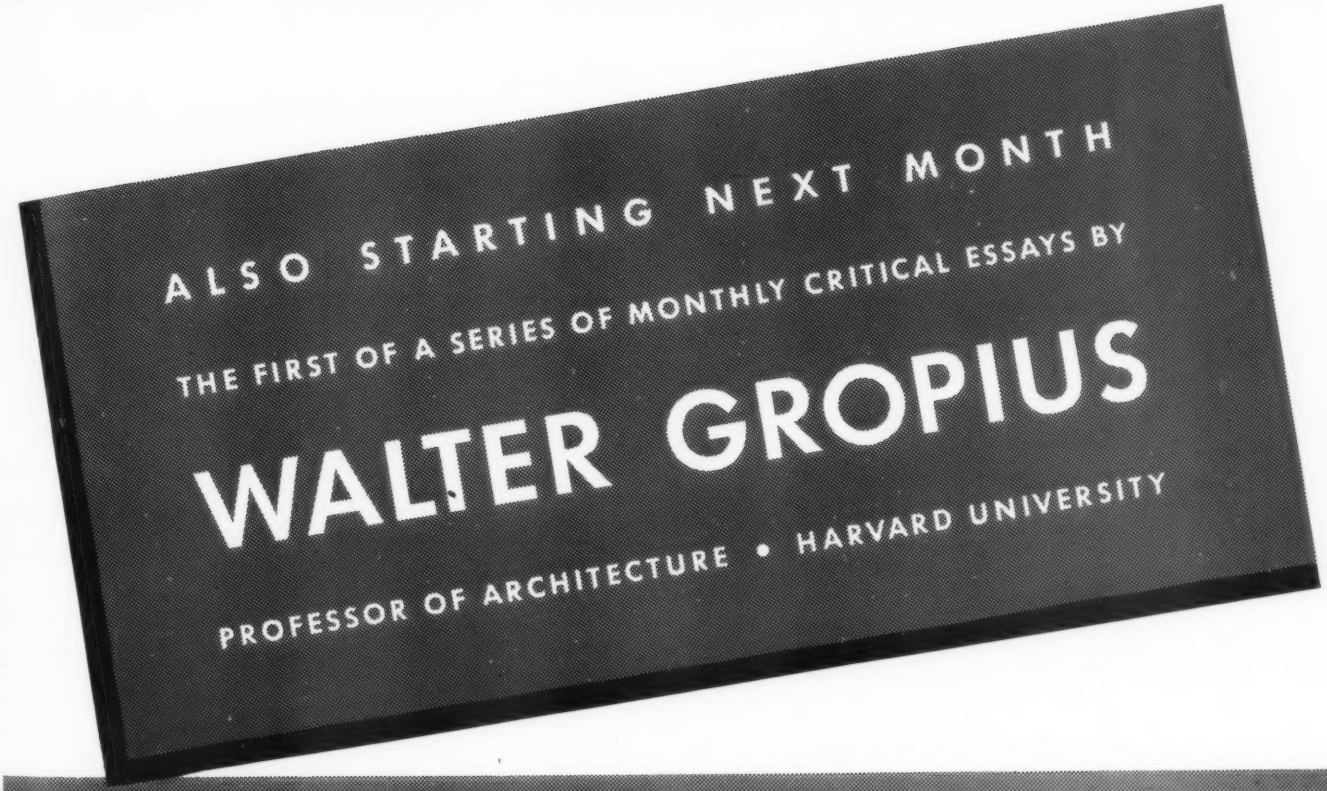
Description of various systems: pipe and duct systems, one pipe steam, one pipe vapor, two pipe steam, two pipe vapor, two pipe vacuum, two pipe gravity hot water open, two pipe gravity hot water closed, two pipe forced circulation closed, one pipe forced circulation closed. (For each system will be shown an isometric drawing, elements, characteristics, performance, application.)

Types of automatic heating equipment: conversion equipment, oil fired boilers, stoker fired boilers, magazine feed boilers, gas fired boilers, oil burning warm air furnaces, gas fired warm air furnaces, oil burning water

AMERICAN ARCHITECT AND ARCHITECTURE

OF A COMPLETELY UP-TO-DATE NEW MANUAL OF

and AIR CONDITIONING



heaters (domestic supply), gas burning water heaters (domestic supply), electric water heaters (domestic supply); control equipment — thermostatic, summer-winter, fan, operating and safety; tables of installation and operating costs, fuels and storage.

AIR CONDITIONING: glossary of terms; symbols used on layouts; design standards—heating, humidifying, air-motion, controls, cleaning, cooling, dehumidification.

Various types of systems; cost comparison table; description of various winter air conditioning systems—direct fired, split, auxiliary, unit; types of available equipment (line drawings similar to heating products).

OUTLINE SPECIFICATION OF EQUIPMENT AVAILABLE TO THE ARCHITECT (products with local distribution only, omitted): Air conditioning systems — summer; air conditioning systems—winter; air conditioning units—summer; air conditioning units—winter; air filters; air valves—automatic radiator; air washers; blowers.

Boiler burner units—oil; boiler burner units—stoker; boilers—cast iron; boilers—steel; boilers — horizontal firebox; boilers—gas; boilers—oil; burners—gas; burners—oil domestic; burners—oil industrial.

Circulators — hot water; controls — feeders and low-water cut-offs; convectors; dehumidifiers; fans—attic; furnaces—all types; grilles.

Heaters—unit; heaters—gas burning, water; heaters — electric water; heaters — indirect; heaters—oil burning water; humidifiers; machines—refrigerating.

Pumps—artesian deep well; pumps—condensation; radiators—cast iron; radiators—non-ferrous; registers; stokers — anthracite; stokers—bituminous; traps—steam.

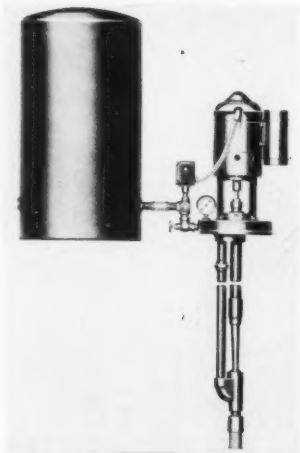
TECHNIQUES

METHODS . . . MATERIALS . . . RESEARCH PRACTICES

ELECTRIC METALLIC TUBING

Xduct Junior, a new and more efficient electric metallic tubing, is now being produced by the National Electric Products Corporation of Pittsburgh. Xduct Junior is made under an exclusive electroplating process which produces a heavy and consistent zinc coat evenly applied to both inside and outside. The thickness of the zinc is controlled to the precise degree beyond which the tubing will not remain bendable. Tests indicate this to be more than sufficient to afford complete immunity to normal corrosive action. Silver white in color, Xduct Junior may be worked easily and bends readily, its coat adhering under the most tortuous strains. **863M**

CENTRIFUGAL WELL PUMP



A new vertical, close-coupled motor-driven centrifugal pump for general service in deep or shallow wells has been announced by Fairbanks, Morse & Co., Chicago. It is designed for pumping water under either high or low pressure at 6 to 60 gallons per minute. Because of compact construction, only a small space is needed for installation. No lubrication is necessary; there are no mechanical moving parts below ground. Units for shallow well service consist of combined motor, pump and base, into the bottom of which is screwed a single suction pipe extending below the water level. This is satisfactory for water lifts of 15 to 20 ft. Pumps for deep well—20 to 200 ft. deep—are equipped with an ejector and venturi in one of two drop pipes extending from the pump down into the well. By allowing a predetermined amount of water from the pump discharge to bypass down one of the drop pipes in the well and back up through the ejector into the venturi, a vacuum is created above the ejector nozzle, drawing well water into the suction chamber. The high velocity of the water through the venturi, and the mixing of the two streams of water, lifts the well water to within reach of the pump suction. **864M**

SHEET RUBBER FOR WALLS

A fabric-backed rubber that can be used for all-over wall coverings, panels or dados, or for rubber mosaic decorations has recently been placed on the market. It is particularly suited for bathrooms, kitchens and nurseries in the home, and in bars, restaurants, hotel lobbies and similar public rooms. A wide variety of soft, unfading colors gives the decorator full play, and its practical qualities make it a simple solution to many interior problems. The product is 36″ wide, 1/16″ thick, and is said to be easily cemented to any smooth surface. The manufacturer claims that it does not shrink or expand or disintegrate through oxidation over long periods of time. It has a wax-like finish and is said to

be impervious to dirt and moisture, acids, alkalis and other staining agents. It is slightly insulating and highly sound absorbent. This new product, known in the trade as Wingfoot Wall Rubber, is manufactured by the Goodyear Tire and Rubber Company, Akron, Ohio. **865M**

AIR CONDITIONERS

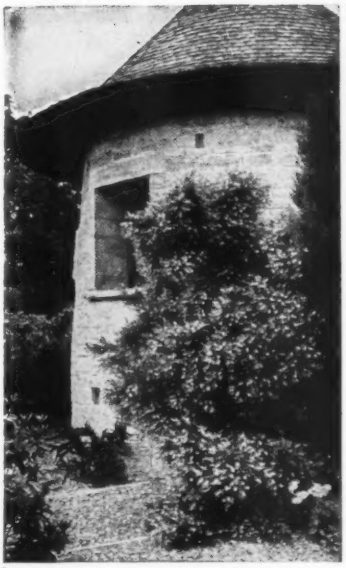
Eight new Westinghouse Home Air Conditioning Units are announced, designed for year around service and proposed for use in homes ranging in cost from $5,000 to $15,000. Summer air conditioning equipment may be added

whenever desired. The winter system is complete with automatic burner, slow speed blower, "V" angle filters, and either Drip or Spray type humidifier. For summer cooling the Westinghouse Seal-Less Condensing Unit is provided together with cooling and dehumidifying coils precisely matched to the condensing unit for balanced capacity. Four models are available in the gas fired series with capacity at register ranging from 107,000 Btu to 267,750 Btu per hour. High efficiency is claimed in this gas fired series as a result of ample heating surfaces, without restricted gas passages and unusually extended fire travel. The oil fired units are similar to the gas fired except that the blower compartment, like the cooling compartment, is mounted on the side instead of the rear. Over all dimensions for the large oil fired model are 58½ inch height, 57⅞ inch depth, and 124¾ inch width. Cabinets for both air and gas fired series are constructed of 20 gauge cold rolled furniture stock with rounded corners and glossy enamel finish. **866M**

LUMINOUS ARCHITECTURE

Vitrolux, a new color-fused tempered plate glass, has been announced by the Libbey-Owens-Ford Glass Co. Approximately five times as strong as ordinary plate glass and highly resistant to thermal shock, Vitrolux is an excellent diffuser

and may be employed in forms which become evenly luminous at night through the use of properly designed concealed light sources. Luminous color may thus become integrated with structure. Available in a wide range of colors varying in degree of translucency, Vitrolux may be bent or twisted and edged to any desired specification before tempering. It can not be cut or finished after tempering, and if broken will crumble into small, relatively harmless crystalline particles. **867M**



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

CHARLES SCRIBNER'S SONS

TRENDS—*Continued from page* 11

condition, that the existing housing shortage will mean higher rents with a consequent effect on construction. He predicts that the pattern over the next few months will resemble that of 1924 rather than that of 1929-'32 . . . a short recession lasting only a few months to be followed by sharp recovery.

A SUGGESTION OF INTERESTING PORTENT was made at the United States Chamber of Commerce conference on home building by Russell G. Creviston, director of advertising and sales promotion of the Crane Company and also president of the Producers Council. In essence, Mr. Creviston urged a co-ordinated, nation-wide educational campaign to stimulate residential construction, entailing among other things, observation of a "construction week," during which home building would be emphasized by means of extensive advertising, home and trade shows. A feature of the campaign would be to demonstrate that building prices are not excessive, something which, in our opinion, is badly needed, after all the scare talk the public has heard about runaway costs.

The best friends of advertising, those who proclaim loudest that it is a beneficial social force, will frankly admit that it has sometimes been used to sell articles of dubious merit; now, with something really worth while to sell, the resources of advertising could not be utilized in any more meritorious and far-reaching cause than the current attempt to boost home building. We hope that the near future will see Mr. Creviston's suggestion put into effect with gratifying results.

HOME BUILDING, of course, is directly affected by existing mortgage liquidity and supplies of available capital; according to the recent issue of the *Federal Home Loan Bank Review*, the high cost of mortgage foreclosure in some states has hampered mortgage-lending activity because it serves automatically to lower security and raises interest rates. The average cost of foreclosure to the HOLC, it is shown, varies from $5 in Texas (not including salaried attorneys) to $350 in Illinois. The time required to complete a foreclosure runs from 22 days in Texas to over two years in Alabama. As a solution to the problem of finding an equitable substitute for existing foreclosure laws, the *Review* suggests nationwide adoption of the Uniform Real Estate Mortgage and Foreclosure Law drawn up by the Sub-Committee on Laws and Legislation of the Central Housing Committee after two years of study. This law, it is said, provides adequate protection for both mortgagor and mortgagee, and eliminates excessive delays and costs.

SCHOOLS AND SCHOLARSHIPS

AMERICAN ART AND ARCHITECTURE HAVE COME OF AGE, says Dean Leopold Arnaud of the Columbia University School of Architecture in his annual report to Dr. Nicholas Murray Butler, president of the University. Dean Arnaud cites as proof of this contention two facts —1. our architecture is no longer imitative; 2. the increasing tendency of European students to study architecture in America.

YOU MAY REMEMBER OUR REPORTING SEVERAL MONTHS ago on the income study being made by Professor Harold F. Clark of Columbia University. At that time Professor Clark had just released figures showing that of all the professions, Architecture pays least . . . a fact not news to its adherents. Now, Professor Clark has just issued some more statistics which give us additional cause for self-pity. Let us quote the hard, cold figures of the Professor:

"A study of annual earnings from 1920 to 1929 reveals the effect a major depression has on incomes. The average doctor, earning $4,850 in the years from 1920 to 1936, made about $5,250 annually in the years from 1920 to 1929. Architects appeared to be among the hardest hit. In the years from 1920 to 1929 the average architect made $5,000 annually. His lower earnings since 1929 have caused his total average from 1920 to 1936, to sink to $3,820."

From the way some of our friends are talking, we think the Professor's figures may be a trifle high even at that.

SHOWS

PLANS FOR THE 52ND ANNUAL EXHIBITION of The Architectural League of New York have just been announced by Francis Keally, Chairman of the Annual Exhibition Committee. One of the chief purposes of 1938's exhibition will be to lay the ground work for a magnificent show in 1939—year of the World's Fair and of the International Congress of Architects and the A.I.A. conventions in New York. Mr. Keally, speaking of the ambitious plans now being perfected says:

"The League Exhibition this year will be of unprecedented national interest to architects, builders, and manufacturers. Plans call for regional exhibits from all over the United States, the material to be selected by local juries in the seven regions—Pacific Coast, Rocky Mountain Section, Middle West, South Atlantic, Far South and Southwest, New England, and New York,—into which the Committee has divided the country. The

committee, which forms the jury, appointed by the Exhibition Committee of the League, in each city will select its own material.

"Selections made by these juries to send to the Exhibition in New York will include architecture and the allied arts—sculpture, mural painting, landscape architecture, and the decorative arts and crafts.

"The object of this arrangement is to have all regions of the country represented by work which they themselves consider truly representative of their locality. The Exhibition Committee believes that in this way the show will be of greater public interest and will reflect in a more dramatic way what is being accomplished in America than if the exhibits were selected as heretofore by a New York group alone.

"A parallel object in organizing the Exhibition in this new way is to build up, out of the 1938 juries, a National Jury which will help in selecting out of the 1938 shows, material to form the nucleus of the United States section of the 1939 Exhibition."

FAIRS

"THE HISTORY OF THE HOME," is what the Golden Gate International Exhibition calls one of the projected features of the 1939 San Francisco World's Fair. The contemplated exhibit will show homes of all types . . . from prehistoric days right on down to the present time. It is stated that this one feature alone will take acres of space and will show not only exteriors of all dwellings, but various landscaping and gardening effects as well. Fundamental purpose is to stimulate interest in homes and housing; from the immense implications of the announcement we expect to find that Hollywood gave the Exhibition this idea. Sounds like Sam Goldwyn to us.

TECHNICAL DIGEST

(*Continued from page* 100)

tells of developments in glass fiber making (for insulation, thermal and electrical, for filters, and for textiles, particularly where some degree of fire resistance is desirable—safety glass and tempered glass, glass road lane markers, and the glass tile ceilings of the new Midtown Hudson Tunnels in New York City. In these two tubes a total of 1,400,000 15-ounce molded glass tiles, embedded with bronze clips in the concrete ceiling slabs, are used to diffuse reflected light and minimize glare.

Copper alloys for many purposes. (C. H. Vivian, from Compressed Air Magazine). Science Digest. N'37:87-90 †

Historical and technical discussion of phosphor bronze, nickel silver (of Chinese origin and called "Packfong"—white copper—rediscovered in Germany and named "German Silver"). This latter is composed of 55-75% copper, 5-30% nickel, remainder zinc.

Beryllium copper, the new "wonder metal" is also described. This is extremely hard, elastic, and of great tensile strength (170,000 lbs. per sq. in.).

New method of cleaning building stone. (Building Research Report). The Builder. (London). 20 Ag'37:331 †

It has been found that badly discolored limestones can be cleaned without harm by directing a fine spray of water on the surface. The soot incrustations may finally be removed by brushing with a soft paint brush. Half an hour was sufficient for Cotswold limestone. Weathered Caen stone required an hour and lost no tool marks in the process. Portland Stone took two hours spraying before soft brushes could remove the dirt.

Excerpts from Bureau of Standards Letter No. 151 on Plastering. The Plastering Craft. 15 S'37:18-21 †

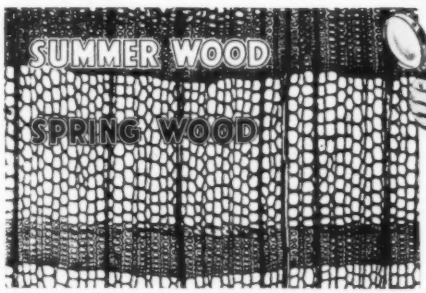
A complete treatise on plastering, explaining the functions and reasons for the different coats and their ingredients, proportions, application, exposure and curing.

INDEX TO ADVERTISERS

This index is an editorial feature, maintained for the convenience of readers. It is not a part of the Advertisers' contract and American Architect and Architecture assumes no responsibility for its correctness.

"A Most Important Clue—

my dear Watson!"



● *Look at the end grain of a board under a microscope. You will see something very much like this. Note the denser cell structure of the summer wood. Many paints have difficulty adhering to such a surface. Dutch Boy White-Lead gets a good anchorage on both spring and summer wood. That's one of the reasons why this paint does not scale off.*

"MARVELOUS, HOLMES ... *it proves how important it is to specify White-Lead*"

ANOTHER baffling mystery solved! At first—as usual—the culprit seemed completely innocent. Summer wood cells look so harmless that you never suspect what hardened trouble-makers they are ... for some paints.

These summer wood cells, as you can readily see, are considerably smaller than their spring wood brothers. And their walls are thicker, tougher, and less porous. Certain paints have difficulty adhering to this denser surface. After a short term of service, they "lose their grip" and start to scale off.

But not Dutch Boy White-Lead. This paint gets a good firm hold on both spring and summer wood. It does not "let go" but continues to present an unbroken surface to the weather.

Still another point to be considered is wood's incurable habit of expanding and contracting. Some paints haven't enough elasticity. They crack under the strain. But not Dutch Boy White-Lead. This paint is highly elastic when first applied. And it stays that way through years of service.

Every application of Dutch Boy White-Lead is a tailor-made paint job—mixed to suit the special requirements of the surface to be painted—tinted to the exact shade you and your client desire. By specifying Dutch Boy White-Lead, you secure that combination of beauty and durability which is a fundamental objective of good architecture.

DUTCH BOY WHITE-LEAD

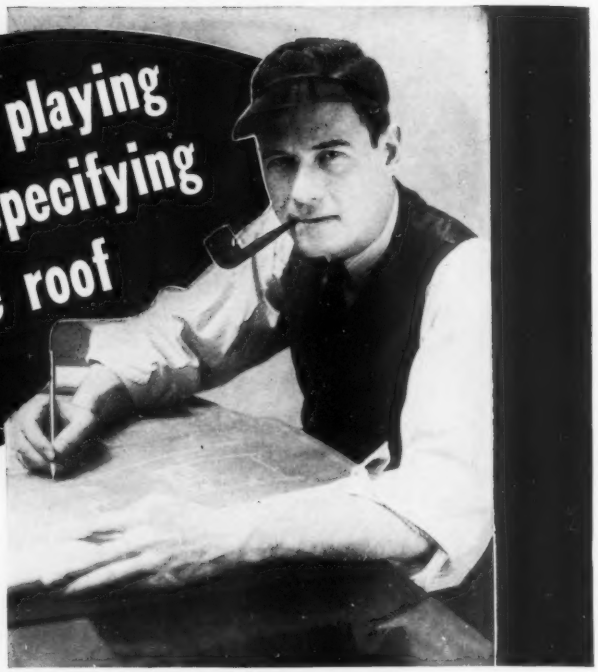
Good Paint's Other Name

• • •

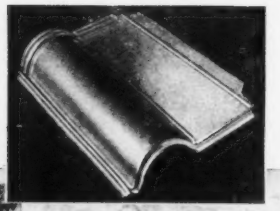
NATIONAL LEAD COMPANY

111 Broadway, New York; 116 Oak St., Buffalo; 900 West 18th St., Chicago; 659 Freeman Ave., Cincinnati; 1213 West Third St., Cleveland; 722 Chestnut St., St. Louis; 2240 24th St., San Francisco; National-Boston Lead Co., 800 Albany St., Boston; National Lead & Oil Co. of Penna., 316 Fourth Ave., Pittsburgh; John T. Lewis & Bros. Co., Widener Building, Philadelphia.

The "old man" is sure playing safe on this job. He's specifying MILCOR from the roof down



You get every safeguard for PERMANENT CONSTRUCTION WITH MILCOR fireproof building materials



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MILCOR EXPANSION CASING with its expanded metal wings can not pull away during settlement and will not leave cleavage cracks. PAT. No. 1,419,232.

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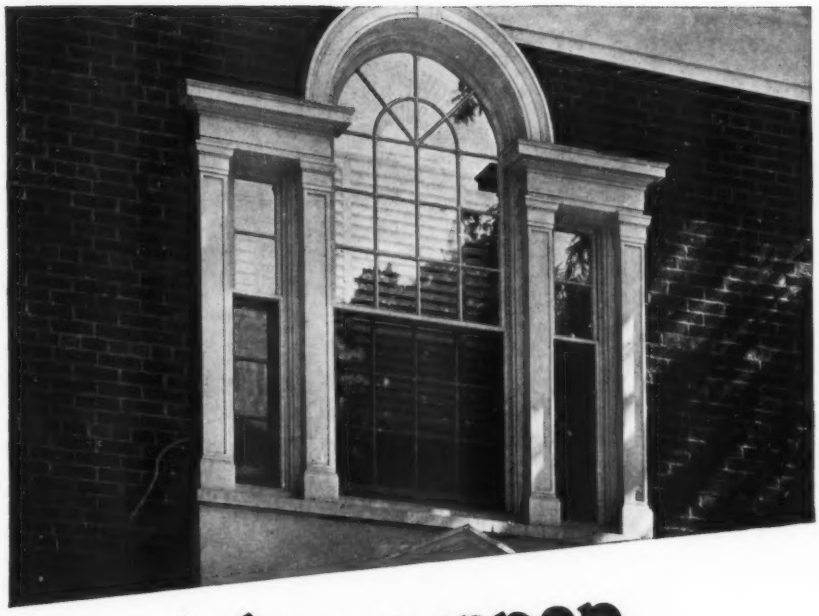
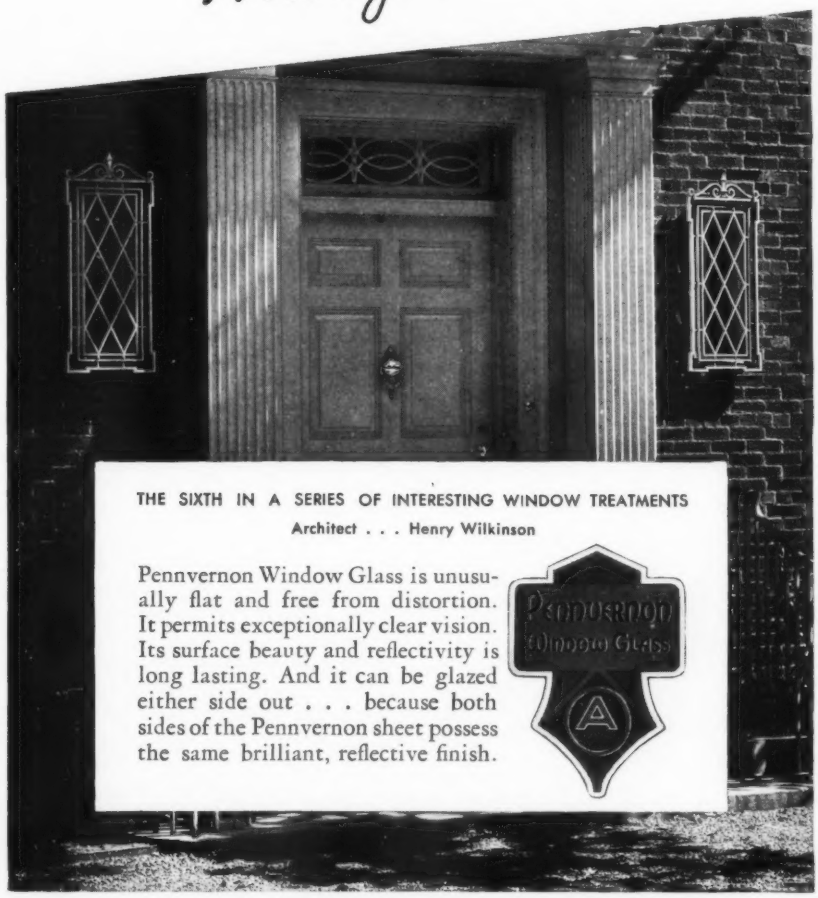


Specify PENNVERNON *. . . not just window glass*



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Architect . . . Henry Wilkinson

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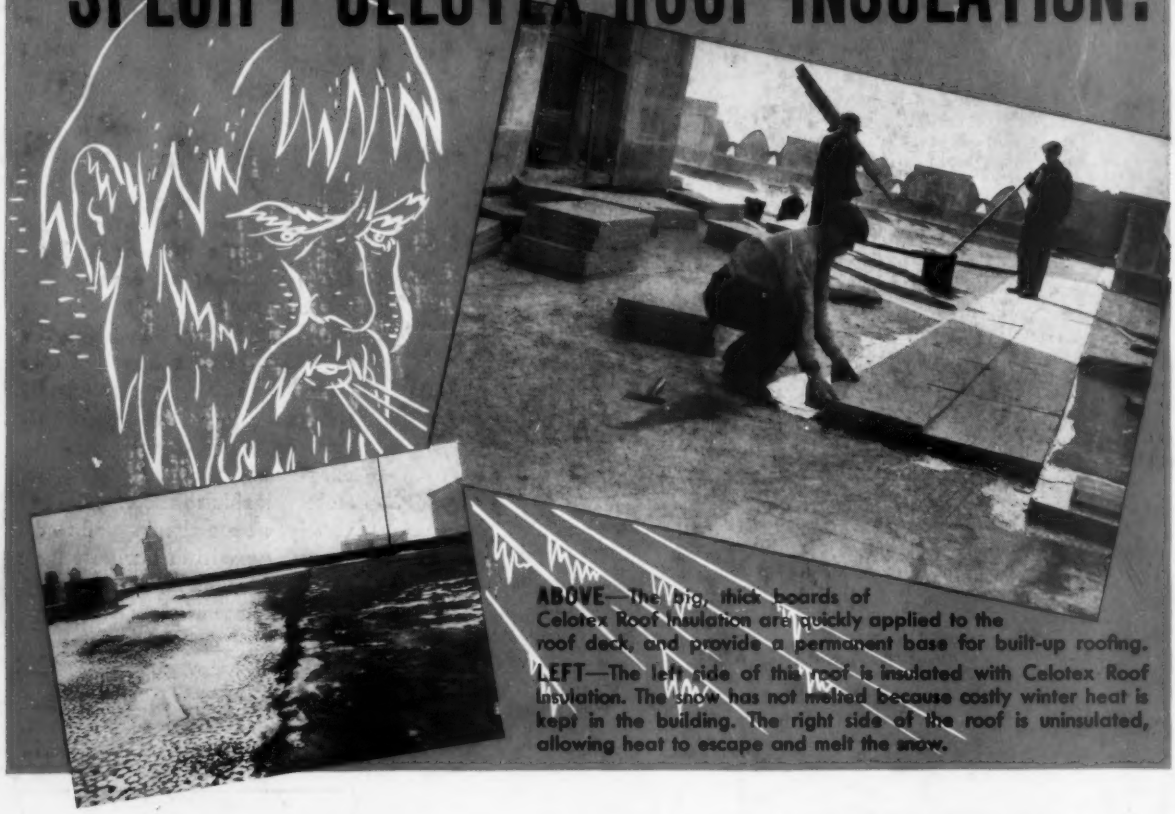

ABOVE—The big, thick boards of Celotex Roof Insulation are quickly applied to the roof deck, and provide a permanent base for built-up roofing.

LEFT—The left side of this roof is insulated with Celotex Roof Insulation. The snow has not melted because costly winter heat is kept in the building. The right side of the roof is uninsulated, allowing heat to escape and melt the snow.

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**Figures based on coefficients of heat transmission determined according to the 1938 Guide of the American Society of Heating and Ventilating Engineers. Cast iron radiation figured for steam heat with a maximum of 70 degrees difference between inside and outside temperatures.*

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