PENCIL POINTS JUNE 1936

MONOGRAPH SERIES



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with an eye to the Future

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PENCII

RUSSELL F. WHITEHEAD EDITOR

LKER R P H W A A L EDITORIAL ADVISER

KENNETH REID MANAGING EDITOR

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Refer to Sweet's Catalogue, Section 27-Page 11, 1936 Edition

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Azure Blue; the wave effect, Clear White; the border, Burgundy.

> It goes without saying that a yacht club should have a nautical atmosphere. How well this has been achieved in the Tri-State Yacht Club at Essington, Pennsylvania, is shown in the accompanying photographs.

> The officers of the club have been good enough to say the following about the contribution of Sloane-Blabon Linoleum to the attractiveness of these rooms:

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Central Vermont Public Service Building, Rutland, Vermont. Before remodeling.



After remodeling. LUMAR panels over windows and in the column add to the effectiveness of the redesigned facade. Payson Rex Webber, Architect.



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EBERHARD FABER

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HERE, THERE, THIS & THAT

The 68th Convention of the A.I.A.

The same old cacoëthes has impelled Hubert G. Ripley, F.A.I.A., member of the Board of Directors of the A.I.A. to scribble a few notes about the recent Convention. They will be found on pages 299 and 300 of this issue.

We did not meet the three nice hens whose pictures are shown "Here." The camera shows that they were "There" and Mr. Ripley assures us that they had "This and That" for their noonday meal.

Since 1910 we have missed only five Conventions of the Institute. The Old Point Comfort - Williamsburg affair stands out as unique. It seems to us that this Convention was most successful, but, personally, we should have enjoyed a little more conviviality. The exacting programme of exciting and provocative cultural events, not to mention certain obligations that simply had to be observed, was so compelling that one was in a continual flutter and at a loss which way to turn.

At the Luncheon and Joint Meeting with The Producers' Council on the opening day of the Convention, we listened to an address by Mr. Carl M. Snyder. He has granted us permission to publish the substance of his remarks on the pre-fabricated house. Turn to page 305 through 312 for reassurance.

PENCIL POINTS extends its congratulations to the architects who were elected by the Jury of Fellows as Fellows of the A.I.A.—Messrs. Moise H. Goldstein, Ralph W. Gray, Walter Karcher, Sydney E. Martin, Horace W. Peaslee, William G. Perry, Hardie Phillip, Henry R. Shepley, Wilbur T. Trueblood, Steward Wagner, and Charles Willing.

Designers Chosen for World Fair

New York World's Fair, 1939, Incorporated, have reached conclusions in the matter of the set-up of the Board of Design for the Fair. There will be a central board of seven—four Architects, a Landscape Architect, an Engineer, and an Industrial Designer, to plan and supervise the general physical layout of the Exposition.

Designers and draftsmen have begun work, on the 18th floor of the Empire State Building, on a master plan for the 1939 and 1940 World's Fair in the Flushing Meadows, New York City.



"THE HENS OF WESTOVER"

Photograph by M. A. R.

READING FROM LEFT TO RIGHT—CLOTHO, LACHESIS AND ATROPOS. IN THE DISTANCE LOUIS LA BEAUME PRESENTING HIS TICKET TO THE HEAD GARDENER, WHILE C. HERRICK HAMMOND IS WALKING BACK TO HIS CAR, SEE PAGE 299

The board, clothed with broad powers by the directors of the Fair, consists of the following:

Stephen F. Voorbees, F.A.I.A., Chairman of the Board of Design; member of the firm of Voorhees, Gmelin and Walker, Architects, and President of The American Institute of Architects.

William A. Delano, F.A.I.A., senior partner of the firm of Delano and Aldrich, Architects, and a member of the Board of Consultants of the U. S. Treasury Department.

Robert D. Kobn, F.A.I.A., former President of The American Institute of Architects and former director of the Housing Division of the Public Works Administration.

Richard H. Shreve, F.A.I.A., of the firm of Shreve, Lamb and Harmon, Architects, and general chairman of the Construction League of the United States.

Gilmore D. Clarke, Consulting Landscape Architect for the Department of Parks, New York City, Professor of city and regional planning at Cornell University and former Landscape Architect of the Westchester County, New York, Park Commission.

Jay N. Downer, former chief engineer of the Westchester County, New York Park Commission and a member of the American Society of Civil Engineers.

Walter Dorwin Teague, industrial designer for many diversified clients. He has planned three buildings for the Texas Centennial Exposition at Dallas this summer, has designed products for the Eastman Kodak Company, the Pittsburgh Plate Glass Company, and the standard service stations and equipment for the Texas Company.

Mr. Grover A. Whalen, President of the World's Fair Corporation, has appointed Paul P. Cret, F.A.I.A., of Philadelphia, and Eliel Saarinen, A.I.A., of Bloomfield Hills, Michigan, as consultants to the Board.

The chief function of the Board of Design will be to prepare and submit, by September 1st, 1936, a general plan of the Fair, including the definition of the main theme, limitations of heights and areas for structure and general architectural characteristics including color and lighting. The board will have authority to recommend names of architects, engineers, landscape architects, sculptors, mural painters, and other designers to be retained or commissioned to participate in the plans for the Fair. The Board will have final authority to approve all preliminary and final designs for the corporation and exhibitors.

Addresses Wanted

A number of designs submitted in the recent PENCIL POINTS-Portland Cement Association Competition have been returned to us due to incorrect addresses. Will the following com-petitors please communicate with us, giving their new addresses: John C. Van Balen of Chicago; Kenneth Jacobson of Tacoma Park, Maryland; Cole McFarland of Washington, D. C.; Sol King of Detroit, Michigan; Allen Dickey and William Leffler of Washington, D. C.; Julius Lauth of Brooklyn, N. Y.; Jalmar Y. Logstrom and Latham C. Squire of New York, N. Y.; J. F. O'Brien of New York, N. Y.; Theodore Smith-Miller and May E. Houch of New York, N. Y.; George Fous and Ferdinand R. Romano of Brooklyn, N. Y.; Karl E. Morrison and Don W. Kidder of Erie, Pa.; John Davis Young of San Francisco, California.



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creased insulating values and is waterproofed in manufacturing to give greater protection against loss of insulation.

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Invites troweling pressure. No sharp edges or protruding parts around which plaster must be forced. Wide beveled edges on four sides gives stronger bonding—full one-half inch Ship-Lap Joints remain tightly closed. This superior plaster base provides

protection against heat, cold, noise and destructive vibration.

See the new Celotex Laminated, Waterproofed Insulating Sheathing and the new Celotex Insulating Stiff-Lath at your Celotex lumber dealer. Or write for sample.

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A Statement from Collier's

In the May, 1936 issue of PENCIL POINTS, page 255, Mr. Ralph Walker asked "Why Do They Do It?" after he had read an advertisement for Collier's House. His remarks provoked the following letter:

Dear Mr. Whitehead:

Mr. Walker is needlessly alarmed. The buyer of the plans of Collier's house does not "buy the ability of an architect," nor is it at all likely that he thinks he does. When he opens the specifications the first thing he sees is a letter addressed to himself.

Mr. Walker doesn't know about that letter, of course, because he hasn't availed himself of this unusual opportunity to get a full set of plans and specifications for \$3. Or perhaps he doesn't want to build a house anyway. It's too bad, because he would have been pleased to read this paragraph in that letter:

"While every effort has been made to have the drawings and specifications as complete as possible, it is advisable to have your local architect help you with the letting of contracts, the checking of manufacturers' shop drawings, any additional drawings that may be required for your contractor, and the supervision of the actual building operations. He will also provide you with a copy of the General Conditions of the Contract for the Construction of Buildings, referred to in the specifications and accepted by the American Institute of Architects."

Mr. Walker, you see, is mistaken in assuming that we underestimate the architect and the service he gives his clients. We hope he is equally mistaken in predicting for us "the resentment of the architectural profession." We undertook this project because we know this country needs more and better housing and we wanted to help stimulate the business of designing and building good houses. The country-wide interest in Collier's house exceeds our brightest expectations.

Sincerely,

CHARLES COLEBAUGH Managing Editor

A. I. of S. C. Annual Competition

Clarence H. Rosa won first prize for his design of a steel highway bridge having a span of 300 feet, with 30 feet minimum vertical clearance over a river. A. W. Millington won the second prize. First honorable mention was awarded to Russell E. Madsen and second and third honorable mentions, respectively, to John A. Grove and Frank R. Streba.

For eight years the American Institute of Steel Construction have held a competition, open to students in the schools in the United States. In addition to giving the students Certificates of Award, the first prize carries a cash compensation of \$100.00 and the second prize \$50.00.

The Jury of Award consisted of H. H. Allen, Consulting Engineer of Baltimore; Arthur G. Hayden, Designing Engineer, White Plains, N. Y.; Theodore E. Blake, Architect, New York; Archibald Manning Brown, President of the Architectural League of New York; and Henry H. Saylor, Associate Editor, "American Architect and Architecture," New York.

The awards were made from the ten best designs selected in a preliminary competition when eighty-eight designs by students in eighteen schools entered drawings. Mr. Rosa represented the University of Michigan. Mr. Millington and Mr. Madsen took honors for Rensselaer Polytechnic Institute. Messrs. Grove and Streba registered for Carnegie Institute of Technology.



EUGENE F. STOYKE, WHO WON THIS YEAR'S PLYM FELLOWSHIP IN ARCHI-TECTURE AT ILLINOIS UNIVERSITY

Francis J. Plym Fellowship Goes to Stoyke

Eugene F. Stoyke, the winner of the twenty-third Competition for the Francis J. Plym Fellowship in Architecture, offered by the Department of Architecture, University of Illinois, was born April 6, 1912, in Lehe, Germany. He received his early education at the "Oberrealschule zu Lehe" until the age of eleven, when his parents came to the United States to settle in Chicago, Illinois, in 1923. At the Waller High School he was enrolled in a four-year architectural course, from which he graduated with High Honors. In 1931 he entered Armour Institute of Technology to study Architecture, transferring in 1932 to the University of Illinois, and receiving the Bachelor's Degree in Architecture from Illinois in June, 1935. He returned the following year to the University of Illinois for graduate work in Architecture, working toward the Master's Degree. During his study he became very much interested in the Beaux Arts Institute of Design, where he received several high awards. During the last two summers he has worked in the office of Mr. Arthur Woltersdorf, F.A.I.A., of Chicago.

The subject of the problem upon which the award was based was "A Stop - over on a Transcontinental Highway." The settlement, located in a valley, was required to include a group of individual cottages, a camp site, a hotel, a recreation hall, a playhouse, a general store, a postal substation, a telephone and telegraph office, a general museum for relics of the community, etc. It is regretted that the necessary reduction in size made it impossible to reproduce Mr. Stoyke's plans legibly herewith.

Mr. Stoyke wishes to express his appreciation to Professor L. H. Provine, Head of the Department of Architecture at the University of Illinois; to Professor A. F. Deam, Professor of Architectural Design at the University of Illinois; and to Mr. Arthur Woltersdorf, for the encouragement and advice which these able men have so freely given to him.

Rome Prize in Architecture for 1936

Richard Ayers, Architect, now residing in New York, was awarded the Daniel H. Burnham Fellowship in Architecture this year.

The final problem was "A Community Mausoleum." The Jury of Award consisted of John Russell Pope, Chairman; Louis Ayres, Benjamin W. Morris, and James Kellum Smith.

Mr. Ayers was born in Jefferson, Georgia, in 1910. He received his B.F.A. in 1932 and M.F.A. in 1934, both from Yale University. He works in the office of Frederick A. Godley, New York, N. Y.

Mr. Ayers acknowledges gratefully his indebtedness to his critics at Yale, Messrs. Otto Faelten and Frederic C. Hirons, and also to Frederick W. Dunn of New Haven.

The ten finalists were chosen from ninety entrants. Honorable Mentions were given to John J. Brust and Max O. Urbahn, both from Milwaukee, Wisconsin.

The winning drawings will be reproduced in the next issue of PENCIL POINTS.



Photograph by NESMITH

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This advertisement appeared in the Saturday Evening Post and Collier's during May

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CHURCHES, SCHOOLS HOSPITALS, FACTORIES COMMERCIAL BUILDINGS POWER STATIONS, JAILS, Swarthmore College field house, 326x175 ft. Walls of monolithic concrete matching in color and texture the warm buff and pink of surrounding stone buildings. Architects: Karcher & Smith, Philadelphia. Contractor: Hughes-Foulkrod Co.



Architects with a wide range of buildings from cathedrals to warehouses tell us that concrete has greatly simplified their designing problems.

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A CORNER OF A DANCE BAND STUDIO FOR THE BRITISH BROADCASTING STUDIO BY RAYMOND MCGRATH, ARCHITECT

J U N E 1 9 3 6

THE ARCHITECTS OF EUROPE TODAY 10-RAYMOND MCGRATH, ENGLAND

BY

TEN years ago Raymond McGrath arrived in London, just another student on a traveling fellowship; today at the age of 33 he is one of the most successful of the younger English architects. While McGrath objects strenuously to the word "modern"—"It is an abused word used to mean almost anything by the present race of critics," he says—in his own case it is a peculiarly apt designation. McGrath as an architect—a designer of complete buildings is beyond question admirably qualified to undertake important commissions of this nature, and his chief interest, self-confessed, is in planning; yet the main portion of the work he has

executed up to the present time has not been buildings. He has done fabrics, floor coverings, interiors, industrial design, furniture, and even the interior of an airplane. While this is doubtless to some extent the result of a strong personal leaning, it is also a very clear indication of the broad field that lies open before the young architect today. If the architect could get away from the specialization that has characterized the profession in recent years, if he could once more set out confidently as the universal designer, if he could correlate all of his experience in handling form with his training in the matter of logically combining and

GEORGE NELSON



TWO VIEWS OF "FINELLA," AN OLD HOUSE IN CAMBRIDGE WHOSE REMODELING WAS MCGRATH'S FIRST COMMIS-SION. IT HAD GREAT INFLUENCE IN STIMULATING INTEREST IN MODERN DESIGN AMONG HIS CONTEMPORARIES



FISCHER'S RESTAURANT IN LONDON, A DISTINGUISHED AND UNUSUAL INTERIOR IN WHICH WALL COVERINGS, FURNISHINGS, AND ACCESSORIES WERE DESIGNED BY THE ARCHITECT TO CREATE A HARMONIOUS ENSEMBLE

expressing complicated functions, he would fill an extremely important place that no one at the present time is better qualified to occupy.

A trend certainly exists. It is not new: it might be said to have begun when William Morris found that there was no available furniture good enough to put into the house Philip Webb built for him and designed his own, thereby starting something that is only now coming to a head. This does not only apply to the designing of slick gadgets for the carriage trade. Take the small house, now the subject of so much discussion. The majority of men now engaged in the design of small houses are architects who have been forced into it because there is no larger work to do. While a certain rise in the standard of taste and planning is perceptible as a result of this professional participation in a formerly neglected field, the small house is still in a lamentable condition. And as long as architects continue to approach the small house as an exercise in aesthetic expression rather than an economic problem it will remain that way—at least as far as the results of their efforts are concerned.



FURNITURE BY RAYMOND MCGRATH IN BROADCASTING HOUSE, MANCHESTER. ALL PIECES ARE OF CELLULOSED MAHOGANY AND TUBULAR STEEL. THE CLEAN LINES AND SIMPLE SURFACES PRODUCE A FEELING OF ORDER

Even such distinguished professionals as Neutra and Wurster in California who are doing so much—in quite dissimilar ways—to arrive at an indigenous domestic architecture, are only scratching the surface of a problem whose roots wind through the entire economic and industrial structure of the country. The small house costs too much for the man who needs it most, and until men see this problem as basic rather than aesthetic—and the industrialists are quite as shortsighted in their approach as the architects—there will be no solution; or industry in cooperation with architects who know what they are up against will find a solution, and then there won't be any more small house architects. For such a task and others like it, men with a training like that of McGrath will be best fitted. It is not accident that he has been interesting himself in prefabrication of late.

McGrath is an Australian by birth, and his first architectural recollections are of the Macquarie buildings designed by Francis Greenway, an English architect who was sent down for fourteen years in 1814 because he was unable to pay his debts. Greenway's buildings



THE VAUDEVILLE STUDIO IN BROADCASTING HOUSE, LONDON. ONE OF THE FIRST STUDIO INTERIORS TO SHOW AN INTELLIGENT AND CONSISTENT USE OF THE NECESSARY ACOUSTICAL MATERIALS FOR DECORATIVE EFFECT

were fine and simple, with much of the quality of the great work of the preceding century. So the first influence on McGrath was a good one. His interests, however, were literary, not architectural, and he won the University Medal for English Verse three years in succession. He later turned to etching, woodengraving, and book printing, but it was a study of an imaginary colonial settlement whose architecture he described and drew that prompted the then professor of English to suggest that he transfer to the department of architecture. After this change, he realized that he had finally found himself and the literary career was abandoned. The work done in this preparatory period, however, was not wasted and later stood him in good stead. In the meantime he concentrated on architecture, finally winning a traveling Fellowship which fortunately had no restrictions, and in 1926 he arrived in London.

London did not seem very promising architecturally, nor did Oxford, and upon examining the Beaux-Arts he "was dismayed by the prospects." It is hard to realize that so short a

time ago there was no modern work of any significance being done in England. The Period architects were in complete control of the situation and the prospects for a young man with new ideas was discouraging in the extreme. On the verge of abandoning architecture as a profession, he met Mansfield Forbes, a remarkable personality, then Fellow of Clare College. Forbes had an extraordinary range of interests and a great gift for attracting people to him, and his rare intuition enabled him to put those who came to him on the right track. As a result of the meeting McGrath went to Clare College to research on "Modern Entertainment Architecture" for three years. During this time he saw little of the faculty of architecture and a great deal of Forbes. Out of this stimulating friendship came his first commission, "Finella," a complete remodeling of Forbes' Victorian villa, and one of the first examples of modern interior design in England.

The house was about 80 years old and in poor condition. Under McGrath's hands it underwent a complete transformation. Much glass, gold leaf, and many modern machine-

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THE ORCHESTRAL STUDIO IN THE STATION AT MANCHESTER. A CARPETED FLOOR IS LAID UP IN SQUARES TO FACILITATE PLACING INSTRUMENTS FOR SOUND CONTROL. RADIATOR GRILLES ARE BLACK BAKELITE TUBING

made materials were introduced. The house is frankly experimental in design as well as materials. The aluminum foil, pink plaster, indirect lighting, cut-glass fountain, and so on, were not intended to be the ultimate expressions of any fixed ideas, but rather a searching for an atmosphere more in harmony with present-day living. Upon completion it became the natural meeting place for Forbes' large circle of friends and in it the younger group of designers found their first encouragement. The house made something of a sensation; nothing in England had been seen that was even remotely like it. It is hard to realize in the light of today's developments in England that "Finella," which played an important part in starting off the new movement, is barely eight years old.

The "Finella" experiment had important repercussions. For one thing, it brought McGrath into contact with all of the younger men who were just starting out on similar careers, such as Welles Coates, Chermayeff, Connell, and others. These formed the Twentieth Century Group, sponsored by Mansfield Forbes, and the first meeting took place in 1930. The object was to encourage good contemporary design, and the immediate aim was to organize an exhibition of modern art in London, something which was badly needed. The group never brought it off, but when the first exhibition was opened in 1933 many of the original members of the group were already actively at work.

Thousands of people flocked to Cambridge to see "Finella" and it was inevitable, particularly since there were so few men doing modern design, that the resulting publicity should bring more work. It did. Almost immediately afterwards McGrath was appointed Decoration Consultant to the British Broadcasting Corporation, and began work on its new studios in London. Two members of the Twentieth Century Group, Serge Chermayeff and Welles Coates, were chosen to collaborate with him. The three produced twenty-two studios for the company. All were animated by the same desires and ideals and, with the

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unifying and energizing influence of Forbes in the background, the success of the collaboration was inevitable. McGrath had, and still has, an overwhelming desire to make known the great possibilities of modern design. This ambition has always come before his personal aspirations. He was therefore delighted by the chance to bring in other men who shared his convictions and remarked with obvious pleasure that "The team spirit that produced these studios was something new in post-war English architectural design." And what pleased him most of all about the broadcasting studios was that with so many people seeing them constantly there was bound to be a strong influence and a very salutary effect.



TWO VIEWS ON THIS PAGE SHOW A MODEL OF A PROPOSED HOTEL AT AN AIRPORT. THE PLAN IS ARRANGED TO ALLOW A VIEW OF THE FIELD. THE COMBINED HANGAR AND GARAGE IS IMPORTANT TO THE COMPOSITION



A WALL-TYPE ASH RECEIVER OF BRONZE, USED IN CORRIDORS OUTSIDE THE BROADCASTING STUDIOS

The studios, like "Finella," were quite unlike anything ever seen before. The original practice had been to take a room and install the necessary acoustical materials, relying on entirely extraneous matter for the "architectural effect." McGrath and the others started with the acoustical requirements, organized the materials, and, by virtue of this organization, created a beautiful interior. In other words, by such a procedure the functional becomes the decorative as well and there is no confusion as to the essential character of the room. In this work they set a precedent that has been widely followed, as in the new studios for the Columbia Broadcasting Company, and they demonstrated unmistakably that the new materials, originally conceived of as exclusively utilitarian, had definite decorative possibilities if used frankly and with an understanding of their properties. This pioneering work had a great influence on contemporary design in England; it lessened the influence of the Period architects and encouraged the young men. So strong has the movement become that today a majority of the work appearing in the British architectural publications is definitely modern in character.

McGrath is a mild, very agreeable person whose impatience with the slowness of the change in architecture frequently carries him away. "Why," he asks, "must our buildings always remain twenty years behind what we are capable of doing?" He knows the answer, of course, but, being keenly alive to all new developments and possessing a strongly inquisitive and forward-looking mind, he forgets that most people are not even aware of this cultural and technical lag, to say nothing

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A CORNER OF A WAITING ROOM IN ONE OF THE BROADCASTING STATIONS. HERE AGAIN, IN ADDITION TO THE ROOM ITSELF, McGRATH DESIGNED THE FURNITURE, THE FLOORING AND EVEN THE WALL-COVERING MATERIAL



THIS PIECE OF EQUIPMENT FOR THE VACUUM OIL COM-PANY IS AN EXCELLENT ILLUSTRATION OF THE SCOPE OF McGRATH'S WORK AND HIS RANGE OF ABILITIES

of doing anything about it. His distaste for Period architecture is monumental. His list of the states of mind which distinguish the enthusiast for Period architecture omits nothing: "Stagnating conservatism, lack of creative imagination, sentimentality, respectability, snobbery, laziness." The tendency "to play safe under all circumstances" infuriates him. There is no direction to go but forward. It is not surprising, therefore, that he has done much besides design in his attempts to change the existing situation.

"Propaganda of the right sort," he has frequently remarked, "is necessary for the dissemination of fresh ideas." So, in addition to serving on many committees for the Royal Institute of British Architects, the Board of Trade's Council for Art and Industry, and others, he has frequently made use of his not inconsiderable literary gifts. Twentieth Century Houses, one of the best books that has yet appeared on the subject of the small house, is frankly propaganda, of a very reasoned sort, enlivened by a dry wit and a quiet but devastating irony. Another book, now in preparation, Glass in Architecture and Decoration, is of a more obviously technical nature, but it also has as its purpose the spreading of information on one of the most adaptable of materials in the hope that others will be encouraged to carry on further experiments.

In his own work there is certainly no indi-



AN INTERIOR OF AN "ATLANTA" CLASS AIRLINER, DESIGNED FOR IMPERIAL AIRWAYS. THE DETAIL SHOWS ONE OF THE ADJUSTABLE ARMCHAIRS IN WHICH WEIGHT AS WELL AS COMFORT WAS AN IMPORTANT FACTOR

cation of any attempts to play safe. He now has under construction a house of reinforced concrete, circular in form, with a pie-shaped wedge taken out of the upper floor to allow the placing of a sun deck. The advantages of such a form are not apparent, but the attempt shows a searching curiosity and the courage to find out. An even more curious project was a house he never built, "Rudderbar," designed for a woman whose main interest was aviation, and equipped with a hangar as well as a garage. It was to be a steel frame construction with a special mosaic facing, all organized for quick construction. The idea was that the aviatrix was to take off on an attempt to break the world's endurance record for solo flight, and that the house was to be then put together with the greatest possible speed so that when she finally came down she would find it finished and ready for her. The idea sounds



AN EXHIBIT FOR THE GENERAL ELECTRIC COMPANY AT THE 1933 BUILDING EXHIBITION AT OLYMPIA. THE IDEA OF LIGHTING IS INGENIOUSLY EMPHASIZED



THIS BOOKING OFFICE FOR NATIONAL FLYING SERVICES, LONDON, SHOWS AN INTERESTING USE OF AN AIRPLANE WING FOR ADVERTISING AND FOR INTERIOR LIGHTING

fantastic but there is more than a grain of sense in it. It is a pity that the job never went ahead. It would have been interesting to see what happened.

McGrath's practice has been spreading steadily in the intervening years, and, in addition to private houses, he has designed radio cabinets, motor oil equipment, oven glassware, and fabrics. He likes the variety of such commissions, and considers it "fortunate that the architect's range allows him to encompass the most minute requirements of industry." In other words, McGrath, by his initiative, has taken the position which is occupied in America by the industrial designer. This is an opportunity that has been passed up here, to the great detriment of the architectural profession, because one of the best ways to find out what present-day technical knowledge can do for the small house is to work with manufacturers and learn how and under what conditions they operate. That the architect could take care of such work is demonstrated not only by the career of Raymond McGrath, but

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POINT



A MOBILE PHONOGRAPH UNIT, DESIGNED FOR THE BRITISH BROADCASTING COMPANY. A GOOD EXAMPLE OF THE SIMPLIFICATION OF FORM POSSIBLE IN EQUIP-MENT OF THIS TYPE WHICH IS QUITE ARCHITECTURAL

by the fact that the key men working for industrial designers today are architects.

The finish and completeness of such interiors as Fischer's Restaurant is due in large part to the broad designing experience McGrath has had. When he wants a floor or wall covering to serve a special purpose, he designs it; there is never the handicap imposed upon architects who feel that their designing ends with the building. More and more men are realizing the advantages of this control of the entire design by one individual, and it is significant that the best metal furniture, wood furniture, and similar accessories have been designed by architects who had no fear of straying from a narrow path.

With this lesson to be gained from his work, McGrath assumes an importance all out of proportion to the actual value or extent of the work itself. This is not to belittle what he has designed-quite the contrary. "Finella" today may look less fresh in spots than it did eight years ago, and better solutions of many of the problems have since been found, but McGrath's development has more than kept pace with the times so that his latest work has a simplicity and ordered quality that is impressive. He is unquestionably entitled to be considered one of the leaders of his profession in England, in spite of his comparative youth, not only because of what he has done himself. but because he inspired so many others and started so many things that have materially contributed to contemporary English architecture. His career has only started, and there is still plenty of pioneering to be done, plenty of "propaganda" as well. And not only in England. Our own young architects might look far before finding another man whose work sets so valuable an example.



A SILVER CABINET AND BAR, DESIGNED FOR A HOUSE IN HAMPSTEAD. IT IS MADE OF WHITE SYCAMORE WITH A TOP OF RED PADANK AND A FLESH-TINTED MIRROR. THE METAL PARTS ARE OF SATIN-FINISHED COPPER

"HILARITAS SAP-IENTIAE PROLES"

Part I. Where do we go from Here?

IT was the cocktail hour which begins at nightfall and runs on more or less indefinitely, and a group of Dr. Fellows' admirers (the Doctor makes an excellent mixture and his Hotel Suite is a popular rendezvous) were assembled from various quarters of the country discussing the present state of the Fine Arts. These stimulating little symposia usually last as long as the gin holds out, and the Doctor and his friends find that excellent beverage most helpful in settling knotty points. One of the company noted for his illuminating drolleries remarked: "The last time I attended an Institute Convention was some eight years ago. As I was leaving the Hall toward the close of the session in order to make an early train, the Delegates were discussing Competitions and Bob Kohn was speaking. This morning, entering Phi Beta Kappa Hall in Williamsburg, I was late in arriving, the Delegates were again discussing Competitions, and Bob was still speaking."

It seems a propitious time to suggest some helpful constructive action, and with this purpose in view, and as a means of arriving at an amicable agreement on this controversional question of Competitions, the following suggestion is respectfully submitted to the Committee on Arrangements for the sixtyninth Convention. The program being determined in advance, the hour may be set when this subject comes up for discussion. The chair will then rap his rostrum sharply with his gavel and announce: "Is Mr. Kohn in the Hall? Good! We will now take up the subject of Architectural Competitions." Immediately on this signal, doors from the anteroom will be thrown open and bevies of stalwart waiters will enter bearing great trays laden with bottles, syphons, buckets of ice, glassware, limes, lemons, spoons, muddlers, shakers, and all the essential paraphernalia of Dyonisos.

These noble men will pass quickly from seat to seat, taking the orders and filling them, combining dexterity with generosity. In a relatively short time the chair will again strike the rostrum sharply and ask, "Is everyone served? Good! Let the discussion proceed."

The debate is now continued from the point where it ended a year ago, but in an entirely different atmosphere. Everyone is smiling and the utmost good humor will prevail. There may be a little stir now and again but it will be in a spirit of comradeship and good clean fun. We are apt to attack our problems with unwonted seriousness at times; "we open our mouths and close our minds" so to speak. If there were something refreshing and stimulating close at hand which we could put into these open mouths, such as Dr. Fellows provides for his guests at his symposia, how much pleasanter a Convention session might be.

One might listen with dignity and tolerance to leftists and rightists and even to extremists on all phases of the question while sipping a Tom Collins or a Silver Fizz. Even the most zealous and emotional advocate might well hesitate to embark on an impassioned catechresis or a lengthy peroration to the accompaniment of tinkling ice cubes and gentle gurgles. Our mental and physical tissues would be relaxed and our absorptive capacity increased in consequences. We might even reach a healthy conclusion in the matter for, as the good book says, "In vino veritas."

Part II. The Hens of Westover

Many of those who attended the 68th Convention at Williamsburg remained for the tour to three notable plantations, which had been arranged for Saturday, May 9th. A large bus and many private cars—in all, perhaps a hundred or more—made the trip from the Chamberlin in Old Point Comfort to Carter's Grove, Westover, and Shirley. These are three of the Great Manor Houses in Vir-

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ginia's historic peninsula and, according to Dr. Fellows, the Antiquary, each possesses a degree of architectural and archæological interest-aside from their historic associationsthat fully compensate for the somewhat arduous day's journey. We followed the Doctor's advice which was to concentrate on gin and Carter's Grove. "Shirley is lovely," said the Doctor (who had to leave early in order to catch the Ferry to Cape Charles in time for the Board Meeting of the Society for the Preservation of New England Antiquities). "Westover is stately and has some fine paneling, but the Czechoslovakian furnishings to my mind contribute a note of incongruity that is not observed in either of the other two." The distinguished antiquary is a most meticulous purist in these matters.

Carter's Grove has recently been completely and most satisfyingly restored with loving care and a fine sense of the amenities by W. Duncan Lee, of Richmond. (In Virginia, Lees are architects at present just as in Maine they are mostly Stevenses.) Having in mind the present restorations it is interesting to compare a photograph of the Hall taken a half century ago (published in Colonial Architecture in Maryland and Virginia, by James M. Corner and E. E. Soderholtz, Boston, 1891). The splendid paneling, pilasters, entablature, and archway were at that time painted over in varied colors; only the sweeping staircase and dado were left in the natural wood. The only furniture showing in the old photograph is one end of a "square" piano and an airtight stove with isinglass in the doors, a cast iron pineapple on top, and a zinc mat beneath. A chandelier composed of a cluster of kerosene lamps, squat ground glass globes etched with bunches of grapes, hung from the ceiling. Another photograph, about half full size, shows the beautifully designed end of the stair treads, a splendid bit of woodcarving in the Grinling Gibbons manner. The aspect of the Manor House, both inside and out, at the present time is so fine and lovely as to leave you at a loss for words. Situated on rising ground just above an immense Ha-Ha, surrounded with enormous tulip trees and an extended prospect over billowing lawns, æsthetic emotion holds one in thrall while strolling about this hospitable demesne. The ladies of the house welcomed us most cordially and did not seem to mind our poking around.

According to Messrs. Corner and Soderholtz, Shirley was built shortly after the beginning of the eighteenth century, while Carter's Grove and Westover are dated 1737. This would appear to be so, as Shirley, while a free expression of the Classic form, adheres pretty closely to Vignola. Carter's Grove and Westover partake of the Later Renaissance, such as one finds in Belcher and McCartney's monograph. The outbuildings, very good in design, are placed at the four corners of a large service court, centered on the main axis.

Shirley is some 40 miles further up the James and is inhabited by two gracious and charming old ladies who have lived there for eighty years, one of them told me. They made you feel that you were honoring them in visiting their abode. A word of welcome to all, a personally conducted tour to some favored spot, and the expressed wish for a return visit left us with a most delightful sense of the essence of Southern hospitality.

As the Architectural Procession neared Westover, a rumor spread that its proprietor, then in residence, was giving a luncheon party to some friends and did not wish to be disturbed by strangers. This was fair enough if he'd only let us know earlier so we might have visited Claremont or some other nearby estate. The Committee on Arrangements went into a huddle with the head gardener and, after a waiting spell, during which many of the pilgrims ate a somewhat protracted lunch outside the gates, word came that we might visit the gardens if we promised not to peek through the Dining Room windows. While the planting and grounds are splendid and the vast expanse of the river most impressive, it was a keen disappointment to many to be forbidden the house. Perhaps the real reason was that the proprietor was hesitant to disclose, to the gaze of a group of æsthetic savants, the whimsicalities of the Czechoslovakian furniture. Anyhow the grass plot outside the gates was cool and shady. Three very friendly hens took lunch with us and there was plenty of ice water, bananas and pickles to share with them. Many architects went in and viewed the gardens, while a few snooty ones remained outside during the hour or so we were there. It was a pleasant spot overlooking the broad river, a restful interlude, and the company was most agreeable. So much for Westover; we sensed it rather than saw it.

> JUNE 1936


ROWLAND HENRY CRAWFORD, 627 SO. CARONDELET STREET, LOS ANGELES, CALIFORNIA

PROBLEM B

P E N C I L P O I N T S



LOUIS C. ROSENBERG, GREENFIELD HILL, FAIRFIELD, CONNECTICUT

PROBLEM B

HOUSING AND PREFABRICATION*

SOME REASONS WHY THE FACTORY WILL NOT SOON SUPPLANT THE ARCHITECT

Importance of Better Housing

PROBABLY no one subject on the horizon of American industry is so packed with opportunities—so vital and stimulating—as that of "Better Housing." The Architectural and Building publications are crammed with evidence of growing recognition and concern, on the part of the building industry, as to the course which this gigantic problem will follow. By "Better Housing" I refer to the very definite trend to develop small-house projects, individually or in groups, encompassing at the same time the two conflicting elements of lower costs and better living standards in terms of comfort, health, and convenience.

The greatest single economic force the world has ever known is represented by the two hundred and forty-eight billions of dollars of assessed real estate values in the United States. It is a terrific sum. When we contemplate it, we must realize that if we owed the rest of the world as many billions as the rest of the world owes us, we would still be the richest of nations. Yet, rich as we are, more than 80% of our people are living in obsolete houses! In fact, we could easily defend the proposition that 99% are living in obsolete houses. There are millions and millions of them -kind, patriotic Americans who are forced, by an American failure, to exist in shelters of which the country should be ashamed.

Home-building a Non-progressive Industry

That this fantastic operation, involving billions in investment, must somehow be revolutionized, has been apparent for the last twenty-five years. The fact that in the past few years it has begun to receive attention on the part of many alert individuals in the building professions is one of the gratifying results of the depression. Architects, craftsmen, manufacturers have all apparently taken this breathing spell to study some of the things left undone in the rush of the boom market; and in a very casual personal study, over nineteen various programs have been analyzed, all of them dedicated to the evolution of a small home, erected in forty-eight hours of labor instead of the customary three to six months, containing mechanical equipment for comfort and convenience beyond the dream of the average citizen, financed under terms and by methods undreamed of five years ago-all at a theoretical cost approximating 50% of existing experiences in home costs.

Dozens of our largest companies interested in the manufacture of building equipment have been making more or less exhaustive studies of this trend. Inasmuch as it is a healthy trend, having to do with the stability of the American home and the happiness of our people, it all constitutes a study, at least, of tremendous interest to the Banker, the Federal Government, and to every individual and institution interested in some form of mild inflation in one of our greatest industries.

Social and Welfare Significance

In the many current discussions of housing, however, one must maintain a sympathetic sense of humor if the reaction is not to be a sense of chaos and despair. It is very easy to criticize the building business as an industry, but quite another to announce some simple solution. Personally, I protest the attempt to solve, by a simple device, a problem that is inherently complex. If there was a simple solution of the housing problem, it would not be a problem. Any forward move must be by trial and error. We must have sufficient humility to regard our efforts as experiments and our conclusions as tentative. Salvation in this business will not be won by grasping at many

^{*}EDITOR'S NOTE:—This is the substance of an address by Carl F. Snyder, Manager, General Electric Home Bureau, given before the Joint Meeting of the American Institute of Architects and The Producers' Council, May 5, 1936. during the 68th Convention of the Institute at Old Point Comfort, Va.

of the glittering cure-alls carelessly offered, for in their shadow grins the great god Bunkum. Wild-eyed dreamers, impractical theorists, and visionaries are all suggesting some magic key to the mystery of housing. Out of the resulting confusion stands clearly, however, one common meeting ground-the universal admission of the tremendous social and economic advantages inherent in better living conditions for our still growing population.

I quote the following extract from a recent pronouncement of Owen D. Young:

"Sympathizing as I do with the objective of social security, I am still bound to say that while governments may menace the security of the individual by what they do or fail to do, it is difficult, if not impossible, for governments to guarantee security in any substantial measure to the individual. In the last analysis that effort must be made by every citizen for himself if he be mentally competent and physically able. I know of no better place to start in providing security than with a home which belongs to you. It is just impossible for any movement, however radical, to take away homes, because they are more than property. Men's attachment to them is stronger than their cohesion to any cause . . . so I believe the most important challenge today to the security of the inventory, to the technology of the fabricator, to the wisdom of the financier, is to bring within the means of the average man a more comfortable and efficient home. We have spent ourselves, both brains and money, in the creation of great machines. Now let us turn that energy and experience to building the most important mechanism of human life, a modern American home."

In this statement we read a clean-cut, concise, direct challenge to the future of our commonwealth and the preservation of American ideals.

It is impossible today to segregate so-called "classes," in a democratic institution, from the standpoint of the normal, common desires of all people for recreation, freedom from household drudgery, health, and relaxation. The American workingman and his family or the underpaid white-collared office worker represent no distinct gap from the family of better income, as far as their knowledge of what constitutes "better living" is concerned. The propaganda in newspapers, general publications, moving pictures, etc., has brought these two ends together and the workingman's wife is as interested in, and as susceptible to, all agencies for easing the tension of humdrum existence as her more fortunate neighbor.

These desires for better living are not diminishing. They are increasing every year and will mirror their most important reflection in homes and real estate values. The only insurance that a building operation can provide for its successful financial liquidation lies in the provision, not only of walls, roof and bare essential equipment, but in anticipating, as far as can be visualized at least, adequate equipment within the shelter to guarantee permanency of occupancy and love of home.

Essential Elements

If the foregoing premise is true, it must, of course, be conceded that all classes of income cannot share alike in every blessing provided by mechanical skill and ingenuity. A \$10,000 house cannot be obtained within the budget provided for a \$3,500 house.

It is essential, first, to provide housing groups having sufficient exposure to fresh air, sunlight and normal facilities for recreation in the open. Better arrangement of rooms for improved space utilization, coordination of indoor and outdoor living and economy in plan are the problems of the architect and community planner.

To provide recreational facilities, and at the same time not to provide proper equipment in the home, permitting the tenant or owner and his family to enjoy these facilities, is hardly evidence of sound banking judgment. The homemaker herself-if she is to fulfill her real responsibility as a better wife, mother, and citizen-must be relieved of that part of her existence which is translated in forms of humdrum drudgery and time-consuming slavery.

The many conveniences available for comfort, entertainment, health, and relaxation all exert major appeals of varying significance to each individual prospect and must all be given due consideration by the architect and builder in determining specifications within the price limitations of each operation.

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This continues to be the challenge to the architect. Is there anything available in the way of a home that is a new and exciting package, exciting enough to make great masses of our people dissatisfied with their existing abodes-dissatisfied sufficiently to buy homes in large enough quantities to bring about the substantially lower costs necessary? On the one hand we hear that low-cost, stripped houses are the answer; again we are

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WILLIAM HENRY BUDERUS, JR., 6317 KENMORE AVENUE, CHICAGO, ILLINOIS

told that the new package must be a miracle house, far beyond anything we have yet conceived of in equipment, convenience, and new contributions to a relaxed living; and again the efficiency school has come forward with its answer—Prefabrication. I have been asked to stress this latter phase with you today. But I wish especially to emphasize that the excitement over prefabricated houses, interesting as the study becomes, is but a very small part of the entire subject of housing.

Prefabrication

The problem of factory fabrication or semi-fabrication, financing and distribution of homes has resulted in wide and fairly intelligent study during the past ten years. Much of the early speculative type of enthusiasm has now boiled down to more serious, sober consideration of the stumbling blocks and negatives to be overcome before any sound procedure encompassing a reasonable profit factor can be designed. Many of the comments made here are quotations and represent largely the opinions of students of the problem, gleaned from current operations appearing in the architectural and building press, and we have here only to clarify the strategy or attack necessary to overcome the pitfalls obviously present in prefabrication. If my remarks reflect a note of skepticism in connection with the first lukewarm, half-hearted, poorly-planned efforts, let me offer as my defense the proposal that we cannot lick a problem without acknowledging its difficulties.

Let me touch on the background which forms the thesis for the study, quoting largely from one writer's summary. First, the cult of utility.

The Cult of Utility

"We hear a great deal about the cult of utility, largely a product of post-war Ger-many. While no other nation faced its housing problem more courageously than the Germans, it was fatal that they should make a virtue of necessity. Staggering under a tremendous burden of debt, bitterly struggling with physical factors, they were forced to make utility a cult. What was useful became ipso facto beautiful; proportion and design were mere abstractions; ornament was taboo. In their insistence on rationality, they forgot that, although human nature is partly rational, the emotional factors in our make-up are far more potent than is our reasoning. Our natures still demand expression in beauty. Repetition and standardization have not become entirely acceptable. What the Germans and their followers had to do was rationalized to appear what they *wanted*." And so the cult of utility alone has not solved their housing problem, and it requires an even greater stretch of the imagination to believe it can solve ours.

The Machine Age

The machine age is another favorite theme for loose reasoning. The usual argument runs about as follows: This is a machine age; machines produce more quickly, more accurately and cheaper than handcraft production; rather than resist it, let us embrace it; behold what mass production has done for the automobile, a marvelous product at a low price. Building construction processes are antiquated and wasteful; let us turn to mass production of prefabricated houses and the consequent reduced cost will bring good housing within the reach of all!

In this neat little train of thought there are just three things forgotten. In the first place, only part of the final cost of a home is labor and materials. If labor and material costs of a house that now sells for 16,000 can be reduced 75 per cent, the house would still have to sell for 10,000 unless at the same time we can cut down the cost of those other elements that are usually so blithely ignored, viz., land cost, cost of improvements and utilities, sales and financing costs and profits.

It is easy to assume that houses can be produced en masse, just as automobiles are made, but the analogy is not valid because of one cardinal factor: depreciation. If I buy a car, I expect it to have a life of three or four years at most. I tell myself at the end of that time I will be able to afford a new car, or, if not, I may have to do without one.

But a home is quite different; it is a cardinal necessity, and when I buy one I expect it to have a life of at least twenty years. Let us examine approximately what this means. There are 120,000,000 people in the nation, or (at an average of four per family) 30,000,-000 families. If the depreciation period of a house is thirty years, then 1,000,000 homes should be replaced annually. But people who would scorn a 1924 car are still content to use an 1884 home, and we must assume that at least 60 per cent of our million will be used long after they should have been scrapped, if not by the original owner, then by others less fortunate. This brings us down to 400,000 new dwellings. Of these, how many will be in multi-family buildings, how many will be special types to meet individual needs, how manyplank shacks in the backwoods and adobe in the desert? If these constitute only 30 per

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P E N C I L P O I N T S cent of new dwellings, there remain a possible 280,000 susceptible to standardized production. Divide by 300 working days and we have a production of 933 houses a day for the entire country. Consider the thousands of cars that a single modern plant can turn out in a day and ask yourself whether a production of 933 houses a day, distributed among six or ten manufacturers, warrants the building of the colossal organizations and making the expensive machinery that mass production entails. And the statistician of the foregoing theme rightly adds—Hooey!

Own Your Own Home

One of the more elementary forms of Housing Hooey is the "Own Your Own Home" movement which has received support and encouragement in high governmental circles. We may assume that a vast number, probably a good majority, of Americans would prefer to have a home of their own. The President has pointed out that "My Little Gray Home in the West" lies closer to the hearts of the people than any song that might be written about an apartment. But we know that under present conditions it is economically possible to build individual homes for only a very small part of our population. I shall not digress into a presentation of facts and figures that substantiate this statement; suffice that it is not in the cards. However, it might be of interest to note one or two of the factors that help to keep this illusion alive.

Another element is land speculation. If the business of subdividing were dependent on sale of tracts for large scale development, it would soon disappear. Its very life is sale to individuals. Some subdivisions are well conceived, honestly sold, and give due consideration to the future protection of the purchaser —but all too many go to bits on the rock of speculation. Something for nothing is their lure. The subdivider is interested only in the price increment between acreage and plottage, the realtor in commissions on the sale and resale of poker chips called lots, and the purchaser in the resale profit which the other two have led him to anticipate.

Other Fallacies

We could go on condemning other factors widely discussed in present-day housing. We could discuss so-called modern design with its apparently increasing acceptance on the part of the public; the cult of new materials, which tries to argue that old materials should be scrapped for the new, regardless of the physical properties involved. To quote: "It's just around the corner—the lowpriced, factory-made home. It won't be long now before houses will be punched, pounded and pressed out at factories precisely as Henry Ford ground out the Model T—millions of 'em. They'll sell for \$1,500 to \$5,000. Housing will be revolutionized. Every home now standing will be obsolete. A million of these factory-made homes will be sold so fast that the depression will beat a hasty retreat."

It's a beautiful dream. So beautiful that it's a downright shame to awaken the dreamers. For too long, press agents have been permitted to allow their vivid imaginations to run wild on the subject. For too long, manufacturers in scores of fields that would be directly or indirectly benefited or harmed by such a development have been unnecessarily perturbed. And for too long, advertising agencies whose clients are in these fields have been kept on the anxious shelf, wondering about and waiting for a development that need not affect, for the immediate present, our efforts toward building recovery.

Time prohibits any attempt to even summarize a complete roster of efforts made to date to work out a factory-made house that could be sold to that vast part of the population whose income is under \$2,000 a year. Most of this group are thoroughly familiar with them. Suffice it to say that there is very little in the record to indicate any hope that the low-priced, factory-made home is just around the corner, unless one is, indeed, an optimist.

There will be more factory-made houses built for sale to large corporations to resell to employees on liberal terms. There will be schemes developed to lease standardized houses on a sizable scale. Definite plans of this sort are being worked on. But these plans do not envisage selling a million low-cost, factorymade homes to the general public in the next five years.

We now come to the second question: What are the obstacles the low-priced, factory-made house must surmount in order to become a reality?

Before plunging into an answer to that question, let me say that nothing said in this summary is to be taken as an indication that the house of the immediate future may not make increased use of fabricated units in structure and equipment. As a matter of fact, considerable progress is being made along that line. Nor is it unlikely that home design, as well as materials used, will change radically almost at once. Air conditioning, for example, may and should bring about important



WILLIAM J. CREIGHTON AND JOHN LOUGHNANE, 101 PARK AVENUE, NEW YORK



changes in new house design and construction.

But these inevitable advances in building technique do not portend, for the next few years, anything remotely resembling the picture that some factory-made home enthusiasts profess to see immediately ahead. Rather, they will constitute important steps in a practical direction.

Obstacles to Prefabrication

But what about the obstacles to the lowpriced factory-made house? Listed without any attempt at order of importance, the obstacles are:

1. If any attempt is made to construct a house complete at the factory and ship it all put together, or even partly together, transportation difficulties and expenses immediately arise that eat up many of the savings effected at the factory. The use of lightweight alloys will alter this somewhat, but not entirely.

2. Lots come in all sizes, all shapes; the terrain of each lot is different. These factors necessitate so much elasticity in design that the manufacturer who attempts to meet them is immediately involved with so many parts or models that he cannot achieve economical production at the plant. Engineering igenuity may also make this less of a problem, but it will always be troublesome. 3. Climatic and other local conditions are important factors in house design. How can these be anticipated without making so many models as to make mass production impossible? New methods of construction and new building materials may lessen this problem but the goal of low-cost production is still questionable.

4. Unfortunately for the company that longs for factory production, the size of families is not standardized. A family may consist of only two people or of twenty. Once more, it is a case of designing a house to meet individual requirements and killing much of the opportunity for factory standardization, or making just a few models and so constricting the market as to make volume sales impossible. The use of movable walls, like the Japanese use, and interchangeable units will help here, but the simplicity of production desired remains only partly answered.

5. Most factory-made home plans contemplate obtaining savings on the shell of the house—the framework. Even if savings as large as 50 per cent were made on the shell of a house, the cost of the completed house

would not be reduced tremendously. In fact, it would probably not lower the total cost more than 10 per cent—not enough to open up any big market for homes.

6. Of what avail is a house that costs no more than \$2,500 to build, transport and erect, if the land on which it is to be erected costs almost as much as the house? It is axiomatic that the lower-income classes must be near their places of employment. They cannot commute long distances both because of the time and commutation cost factors. Can cheap and satisfactory land be found near large centers of population? And if such land cannot be found, isn't it true, again, that the possible market is once more restricted? Decentralization of factories may change this, but it also lies far ahead in the future.

7. A good part of the cost of a house is outside of the factor of construction. The matter of financing is of the utmost importance. It has been estimated that a reduction of 1 per cent in the cost of financing would save more than the reduction of the cost of the shell of the house by 50 per cent. Then there is the tax factor. There are running costs, including depreciation. In brief, the first cost of a house is not the only matter of importance to the buyer, especially the buyer of low-priced homes. The leasing of homes may help here, but that, in turn, will bring stubborn problems of its own.

8. The size of units that could economically be made at the factory is controlled by another factor in addition to the shipping. If a unit is so large, or so heavy, or so cumbersome that it must be handled, on the lot, by more than two men, it immediately loses most, if not all, of the factory savings. That means that a good part of the assembling job will continue to be done on the lot, which indicates that factory savings cannot exceed a certain point, although this point will change as the use of lighter alloys or materials increases.

9. It has already been mentioned that if mass production is to be achieved, models must be limited. Will the masses, even though their aesthetic tastes may not be highly developed, fall in droves for standardized homes? The interchangeable unit idea will, of course, help this problem—that remains to be seen.

10. Surely no elaboration of the problem of union labor is necessary here.

11. Many factory-made homes contemplate erection without cellars. Every investiga-



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tion ever made of what women want in homes irrefutably proves that, in the northern half of this country especially, cellars are demanded. Perhaps by effective advertising and selling this could be overcome, involving only the cost—usually high—of overcoming consumer resistance.

12. The old-established forms of building would not permit their markets to be taken away without some struggle. That means competitive selling, which always means expense.

13. Mass production depends on rapidity of turnover. Houses do not turn over rapidly, nor will they be traded in for new models. 14. The problem of selling and distribution is a terrific one. Undoubtedly, a whole new system of merchandising will have to be built up, if we are to sell 1000 homes where one grew before. This will add greatly to the expense for sales promotion, advertising and merchandising costs which would have to be tacked onto the sale price of the house—that is, if the houses are to be sold, not leased—and probably make up for all or more of the anticipated economies of factory production.

The conclusions to which we come, then, are these:

1. The factory-made house that will be erected and sold at a cost of perhaps \$4,000 and under is, for the time being, still on the way. Engineeringly, it may be only three years away, although most unbiased observers place it much farther in the future. But its acceptance by the public will be another matter and will require further time and expense.

2. The trend for years has been toward making more and more of the home units in the factory. This trend—partial fabrication—will continue and accelerate. (Unit Kitchen.)

3. The building industry, which, as a whole, is frequently criticized as being conducted in a somewhat archaic manner, will have to achieve modern production and selling methods.

4. New types of materials and equipment are going to come to the fore in building construction, in an attempt to achieve lower costs, until complete prefabrication is accomplished.

5. It is more important that the building industry work out a new system of land valuation and a financing program that would immediately offer greater savings than are evidenced to date by factory-made homes. 6. Experiments and investigations in the field of prefabrication should continue as a matter of research. Much good will come out of such studies as by-products of partial fabrication. Publicity, however, should be reserved until the problem is licked, in order that the general public will not be misled and confused, and, instead of holding off, will proceed to build today of honest, available materials.

Time permits no exposition of the many structural methods being undertaken in the name of prefabrication. Dozens of experiments have been made with pre-cast masonry, poured-concrete slabs, arc-welded steel frame houses, steel-shell houses, porcelain enamel houses, fabricated wood, asbestos, and synthetic materials. If in this discussion we have talked less of structural methods and the product itself, it is because we believe the engineering method which might eventually be used for prefabrication is not as important as the questions of:

1. Land revaluation.

2. New financing programs involving lower interest charges and long terms.

3. The gigantic merchandising and sales promotion investment necessary to build sales volume.

While much I have said may appear slightly caustic or tinged with skepticism, may I close with the seemingly contradictory statement that semi-fabrication and even complete prefabrication of homes are feasible and possible and I think we should realize now that the studies made in this field have been exceedingly valuable, if only to point the way to the obstacles. My critical treatment of the subject must be considered as simply a statement of some of the problems facing the too optimistic enthusiast in this field. Many economies can be found in the factory fabrication of wall and floor slabs containing window and door frames, ducts, conduits, finish, and insulation, as well as the fabrication of mechanical and electrical equipment in new units of convenience and simplification. The House of the Future, regardless of the limited or complete extent to which its fabrication will be handled at the factory, represents a ringing challenge to the engineering and development talent of the country. It is to be hoped only that the demand for more efficiency in housing will enlist the open minds of our architects and engineers, to the end that their ingenuity and talents will be directed in practical channels with a clear understanding of all objectives.

> JUNE 1936



JOHN THOMAS GRISDALE, 205 SOUTH JUNIPER STREET, PHILADELPHIA, PENNSYLVANIA

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PROBLEM B

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HOWARD L. FARLEY AND LEO IRWIN PERRY, 2720 DAVID STOTT BUILDING, DETROIT, MICHIGAN

PROBLEM A

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P E N C I L P O I N T S



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M. DALE SMITH, 312 WILLOW STREET, CAMP HILL, PENNSYLVANIA



CHARLES J. SPIES, 10 EAST 40TH STREET, ROOM 3703, NEW YORK, N. Y.

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GEORGE ENGLERT, 6505 HOUGH AVENUE, CLEVELAND, OHIO

PROBLEM A

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JUNE 1936

TODAY AND ORDER

BY RALPH WALKER, F. A. I. A.

WE have so often thought of ourselves as living in a period of transition that we have come to accept chaos as being very natural and necessary.

We have so often wished ourselves far into the future in order that we might see what new mechanical devices will be then diverting our children that we are blind to those things which now surround us.

We talk of prefabrication, of air conditioning, of this-and-that new device, television for instance, as if, when finally they are here, then will we have the long-desired Utopia; then will "Heaven" be on earth.

We talk of internationalism, of a managed world—forgetting that we are unable to solve even a family budget.

Always, in the final analysis, the answer is to be given by someone else; the benefits, of course, are to come to us.

I have noticed this tendency in the A.I.A., where members have looked to Washington to solve local and municipal problems.

We limit our fields of endeavor and then bitterly compete within the limitations.

Meanwhile, most everywhere chaos exists; ugliness and blight are present not only in the city but wherever the concrete ribbons extend.

And, further, there is a lack of harmony between our thinking and our doing. We are not afraid to scrap old machinery but *how we hold on to outworn ideas!*

Nothing can be more amazing to a rational mind than the present maladjustments between Government and Industry and the hope, so evident, that they can be solved by slogans.

Nothing can be more amazing than the utter lack of understanding as to the proper use of land which seems to be general in savings banks and loaning institutions. And this lack of understanding is one of the reasons why slums and blights (ugly words designating ugly places and meanings) exist.

It is, of course, easy to be a Jeremiah and hurl wrathful maledictions upon our society and its faults. On the other hand, if one is comfortable, it is just as easy to hold that the world needs no further improvement.

The American world must find itself in harmony, otherwise we will continue to pass on our unsolved problems to the next generations.

The only true bases for solutions are well stated programs of the fields to be explored.

The Architect has definitely, as part of those fields, the creation of beauty in harmony with all the other efforts now in evidence. In the very recent past, the Architect has thought it impossible to *create* beauty. It could only be *copied* from the Renaissance, from the Middle Ages, from the fruits of other civilizations.

The Architect, therefore, has been a cribber, looking everywhere except within his own spirit and within his own times to find details to be plastered onto his buildings.

The new generation is merely cribbing some new details, some perhaps a little more in harmony with the industrial age we live in *but* with as little understanding of the inherent beauty in form as was shown in the use of the millions of miles of egg and darts and dentils used yesterday.

Certainly the Architect must learn to create, must take it to himself that it is his major business to create beauty, not only in buildings but in the city.

At the recent Convention at Williamsburg there were no papers, no real discussion by Architects alone as to the problems of the city. To all intents and purposes one might think the architect had no major interest in city planning, and yet there is that great job to be done and where is the Architect!

We must achieve order and harmony in today's civilization. The beauty of yesterday is best preserved in or as museums. The daydreams concerning tomorrow are best left to Wells and others of that kind.

A people well informed and well led can, within a generation, achieve a culture in which beauty is a dominant factor.

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E N C I O I N T L



Courtesy Arthur U. Newton Galleries

FULTON FISH MARKET, NEW YORK—FROM AN ETCH-ING BY JAMES IRZA ARNOLD. SIZE OF ORIGINAL 8" x 10"

GUPTILL'S CORNER



THIS IS THE SEASON FOR THE OUTDOOR SKEICHING BEE

Ever been bitten by the Outdoor Sketching Bee? This bee (a social hymenopterous insect of the genus Apis, especially the Apis Sketchibus Awayfrum Homus, or B. Ucumin Outdoorus) leaves its happy hive when first it feels the warm influence of the spring sunshine, and at once seeks a victim. Its sting is painless, but one properly (or improperly) stung is customarily stimulated into a state of riotous exhilaration. He starts! He turns three times 'round! He snatches wildly at pencils, pens, or colors, and with sparkling eyes and disheveled hair dashes from the house and is gone, gone a-sketching!

What would you do if you should find yourself thus smitten? My advice would be to keep calm and cool, accepting the situation philosophically and enjoying, while it lasted, this exaltation of feeling and the pleasures of the task to which it leads. For sketching, when approached in the right spirit, is not only great fun but is positively beneficial.

I shall assume you have already felt this sting. What shall you sketch? Whatever you see about you. Too many architects feel they are wasting time unless they work from something of architectural merit. And it is true that there are occasions when good architectural subjects can be highly recommended. For when one draws actual buildings, freehand, he learns several important lessons. First, he increases his knowledge of the three-dimensional character of architecturethe perspective appearance of real buildings. In other words, such sketching affords the ideal antidote for the poison which seeps into his system through steady work at his highly artificial two-dimensional plans, elevations, and sections. It is particularly valuable for him to sketch buildings erected from his own working drawings, the accompanying analysis helping to reveal his design faults. Again, sketching from architectural subjects teaches one the importance of mass in relation to detail, and the vital part which light, shade, and shadow play in the expression of design. It further demonstrates what a powerful influence a building's environment exerts, and makes him better able, in later design problems, to visualize his proposed buildings as they will actually appear when built and viewed in relation to their surroundings. In short, the sketching of architecture acquaints one with architecture. Even old barns, shacks, and cabins can offer valuable lessons in such matters as mass, scale, color, texture, etc.



But all this does not mean that only buildings are worth the doing. Quite the contrary. On the whole the architect is wise to spread at least half of his sketching efforts over a wide variety of subject matter with which he is less familiar. Why? For several reasons. First, he knows so much about architecture-the detailed appearance of every individual member-that he forgets that as one normally views a building he gains only a somewhat hazy impression of it. So he is in danger of an overelaboration and fussiness which often produce a result which, true as it may be in detail, is false in its larger effect. If he elects to sketch a ship, instead, he is more likely to see, and so try to interpret, its general impression. And he is quite sure to sketch the ship (or even a subject still farther removed from architecture) not only with greater truth but with increased boldness and freedom. It therefore affords him more welcome relief from his accustomed tight instrumental work.

It is not always realized that one of the greatest advantages to be gained from sketching, regardless of subject matter, is training in design. Yet it is true that many of the same principles are involved in developing the typical sketch as in designing a building. There must be the same fine relationship of line, form, and color. I shall return to this a bit later.

Whatever type of subject you select, avoid things, at least at first, which are too large or complex. The intimate scene is far more sketchable than the view from the observation tower. One way to learn what experienced sketchers prefer is to look through art and architectural magazines, including back numbers of PENCIL POINTS, for there you will discover reproductions not only of drawings, but of paintings, etchings, engravings, etc. You will find many subjects such as your own locality affords.

Almost as vital as selection of subject is choice of point of view. In both, a view-finder is helpful. Cut a small rectangular squint-hole in a sheet of cardboard, sighting through it at the subject until you can discover the position from which it shows to best advantage. Draw from that point, if possible. But don't stand too near your subject: if you do, you will see too much detail and lose sight of the larger relationships. Comfort is important. If you can keep your paper out of the sun you can judge your values better. Dark glasses or an eye shade may prove convenient: glasses



MAKE YOURSELF COMFORTABLE

for color work must of course be neutral in tone. Choose a point of view from which there is no noticeable rivalry of conflicting interests. Or if the subject shows elements which compete, try, as you draw, to unify them, or let one dominate over the other. It often pays to focalize your main emphasis around the central areas, rendering them more completely and definitely than the remainder. With such a center of interest developed, your sketch will show a more homogeneous plan or design, and can be read at a glance.

Before drawing, analyze your subject. Your problem is to express its individual characteristics in lines and tones much as you might describe it with the spoken or written word. Decide what you want to say about it. You should stress its really vital elements, omitting or suppressing those which are less significant. Little preliminary sketches often help at this point (see those overleaf); they not only prove time saving in the end, but contribute towards better results.

When you start a final sketch, work boldly. A fearless, bad sketch, is usually better than a timid, inoffensive one. Don't think of how your sketch will impress the other fellow, but go after the aspects of the subject which appeal to you, working naturally, vigorously, and quickly, remembering that many effects in nature, including those of light and shade, change rapidly.

You may wonder why I have so far said nothing about medium or tech-

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nique, but these are of relatively minor importance. The thing which really concerns the artist is his composition-the arrangement of the true essentials so they tell the story clearly and pleasantly. If a subject calls for color, use color: otherwise you may be disappointed. If its main interest lies in value contrasts, color may be less essential. And so it goes. Most subjects have some special type of appeal. One impresses us because of its fine relationship of forms, another for its textures; still another we like for its association or because it awakens some emotional response. So when I sketch I plan to have always on hand a sufficient variety of materials to enable me to choose the medium and handling which I think appropriate to the development of these characteristics.

Could the artist, if he would, make a true and complete rendering of the subject before him? No. Here are two of several reasons. First, it would be impossible for him to compress within the confines of paper or canvas of limited size all the details which any subject reveals. Again, his white drawing surface and pigments are far too dull for a true representation of the dazzling brilliancy of nature. Therefore, in sketching, we offer in place of a full, literal portrayal, a suggestion or indication, trying to create a convincing impression of the thing before us with emphasis on such elements as hold for us greatest interest.

And would the artist, if he could, prepare a literal interpretation? No! Why not? Because he is human and not a camera. It is far more fun for him to recreate the subject matter before him according to his personal inclination. Occasionally, of course, his mood is more that of the copyist, as when the architectural student makes a study of some worthy building, but as a rule one's prime object, as has been said, is to make a pleasing sketch which records the spirit of the place rather than the hard facts. Hence drawings often look quite different from the subject matter.

Time and again I have seen this thing dramatically demonstrated in my summer classes at Boothbay Harbor, Maine, where I frequently have fifteen or twenty people sketching from one subject. No matter how capable they are their sketches when finished vary so greatly in appearance that it is sometimes hard to realize they portray identical material.

The rough studies above are presented to exemplify this point still further. All were from a single subject sketched from approximately the same viewpoint. Each was very small, meas-uring only $3\frac{1}{2}'' \ge 4\frac{1}{2}''$, so took only a few minutes. Any handy medium was used; pencil, pen, brush with black ink, and a bit of white. One advantage of such small sketches is that in them one often dares to do more in the way of original composition than in larger work. Again they permit him to re-cord very quickly fleeting impressions which can later be more carefully developed. These particular sketches reinforce my point that the study of pictorial composition which is in-volved-the adjustment of spaces, tones, and colors-teaches lessons applicable to work in the design of anything, including architecture. They help to make clear, too, that as you sketch you can think of yourself as a sort of stage director. Clouds, buildings, trees, people, etc., are all properties (or actors) which normally can be moved about according to your will. If you wish, you can even draw on memory or imagination for others. So again you see that your main concern is less with the choice and handling of your medium than with the selection and arrangement of these pictorial elements.

> J U N E 1 9 3 6

PENCIL POINTS DATA SHEETS

Prepared by DON GRAF, B.S., M.Arch.

FACTS AT YOUR FINGERTIPS

TWO new free sets of manufacturers' Data Sheets this month! Turn to the advertising section now for coupons to get this valuable information easily for your Data Sheet Library!

The Barber Asphalt Company are offering a set of 4 Data Sheets. 3 of these sheets are on the installation of mastic flooring. These sheets tell you not only how to use and install mastic but—wonder of wonders—they also tell you how NOT to use it! This is one of the first times in the history of architectural advertising that a manufacturer has been brave enough to tell you where his product *cannot be used*! A fourth sheet in this set gives some worth while information on the use of asphalt in built-up roofing.

The Holland Furnace Company have developed a new type of air conditioner which is fully explained in a set of 6 Data Sheets that are now in preparation. These sheets will not be ready for some weeks yet—but send in your request now so that you will be sure to receive them just as soon as they are finished. Hot air heating has long been favorably regarded by



JUNE 1936 architects-and now Holland have combined the features of the hot air installation with a filter, blower and humidifier to create comfortable living conditions, using any type of fuel.

Next month another well known manufacturer will announce a new set of free Data Sheets on a subject never before covered in this form.

There are a lot more manufacturers' sheets on the fire which will be announced in forthcoming months. Watch the advertising pages closely for there will be a wealth of valuable information offered to you—merely for filling out a coupon.

If you are not a *Data Sheet* user be sure to cut out the hunting license which is printed in the advertising pages of this issue. This license gives you the privilege of wasting your own time if you are the boss, or the boss' time if you are one of the slaves. Every architectural man who does not keep the *Data Sheets* should have his hunting license.

DATA SHEETS. The Data Sheets which appeared earlier giving the vertical course heights and scales for brickwork have been so popular that we are presenting here 4 new Data Sheets on the horizontal dimensions. The August issue will contain 4 more to complete this group.



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Watson says, "If there's any graphic sensation more delightful than that furnished by a smooth, soft Eldorado pencil on Cameo paper, I've failed to discover it." He says that this drawing was made with the softer grades of Eldorado pencils—4B, 3B, 2B and B. He has also made a great find in the new Dixon Claro eraser which can be used effectively on Cameo paper Pencil Sales Dept. 167-J6, JOSEPH DIXON CRUCIBLE COMPANY, Jersey City, N. J.

S E R V I C E DEPARTMENTS

- THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale or desiring to purchase books, drawing instruments, and other property pertaining directly to the profession or business in which most of us are engaged. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.
- PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed free of charge.
- FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions.
- SPECIAL NOTICE TO ARCHITECTS LOCATED OUTSIDE OF THE UNITED STATES: Should you be interested in any building material or equipment manufactured in America, we will gladly procure and send, without charge, any information you may desire.
- Notices submitted for publication in these Service Departments must reach us before the fifth of each month if they are to be inserted in the next issue. Address all communications to 330 West 42nd Street, New York, N. Y.

THE MART

- L. T. Brush, 477 4th Street, Brooklyn, New York, has copies of PENCIL POINTS for sale, from June, 1920, through June, 1929, unbound. Although some of the advertising pages have been removed, they are all in very good condition.
- M. Nirdlinger, 907 Empire Building, Pittsburgh, Pa., has the following copies of PENCIL POINTS for sale: June, 1920, through December, 1928, complete; broken sets 1929, 1930, 1931, and 1932. Make offer for lot or state sets wanted.
- Robert Ronowski, La Grange, Illinois, has the following for sale: Tribune Tower Competition, \$1.00; Philadelphia Architectural Exhibition Year Book, 1929, \$1.50. Perfect condition.
- The Architectural Library of New York University, 1071 Sixth Avenue, New York, wishes to secure a copy of the November, 1924, Bulletin of the Beaux Arts Institute of Design.
- Joseph W. Northrop, Bridgeport, Conn., has the following copies of the *White Pine Series* for sale: Vol. 2, Nos. 1 and 2; Vol. 3, Nos. 1, 2, 5; Vol. 4, Nos. 2 and 5; Vol. 5, No. 1; Vol. 7, Nos. 3 and 5; Vol. 8, Nos. 1, 2, 6; Vol. 9, Nos. 5, 6; Vol. 10, Nos. 2, 4, 5; Vol. 11, Nos. 1, 4, 6; Vol. 12, Nos. 1, 3, 4, 5, 6; Vol. 13, Nos. 2, 3, 5.
- Wanted: the following copies of American Architect: January, March, October, November, and December, 1934; all of 1935. Must be uncut, good condition. Communicate with Service Department, PENCIL POINTS.
- Ralph W. Zimmerman, 518 Jefferson Avenue, Toledo, Ohio, would like to purchase copies of *The Architect* from January, 1927, to the time it was discontinued. He will pay \$10 for these issues.

- Owen L. Gowman, 101 Park Avenue, New York, would like to secure the August, 1925, and May, 1927, issues of PENCIL POINTS.
- A. G. Westbrook, Box 85, Avenue Miramar, San Clemente, Calif., has for sale back issues of PENCIL POINTS from 1920 to 1929, but not complete. He will sell the lot or singly.
- Elias M. Grossman, 57 West 70th Street, New York, would like to obtain a copy of the January, 1929, issue of PENCIL POINTS.

PERSONALS

- JOSEPH B. WERTZ, Architect, is now conducting his practice from Mayville, New York.
- WYATT C. HEDRICK, Architect, and C. H. LINDS-LEY, Architect, have formed the firm of Hedrick and Lindsley, Inc., with offices at 1903 Sterling Building, Houston, Texas. Mr. Hedrick will also maintain his Fort Worth, Texas, office.
- ALFRED W. GRANT and L. LIVINGSTON GEORGE, Architects, have opened an office for the practice of architecture at 44 East State Street, Westport, Conn.
- HARRISON GILL, Architect, has moved his office to 101 Park Avenue, New York.

MANUFACTURERS' DATA WANTED

- BOYCE N. HARRISON, Architect, 933 Ringgold Street, Crafton Heights, Pittsburgh, Pa. (Data on all lines of building construction, including waterproofing, steel joist, wood trim, etc., for service stations and residences. Also equipment for same.)
- HEDRICK & LINDSLEY, INC., Architects, 1903 Sterling Building, Houston, Texas.

JOSEPH B. WERTZ, Architect, Mayville, N. Y.

- SIDNEY J. HELENE, Architect, 228 Audubon Avenue, New York, N. Y.
- ALLEN T. FREDERICK, Designer, 2011 Theard Avenue, Covington, La. (Data on residential materials, construction and equipment.)
- ROBERT P. LIST, Draftsman, 823 Trenton Avenue, Wilkinsburgh, Pa. (Data for A.I.A. file on residential materials and equipment.)
- HARRY J. KROPET, Draftsman, 1031 Usener Street, Houston, Texas.
- A. W. BRIDGES, Draftsman, 211 Preston, Shreveport, La.
- H. EUGENE MONTGOMERY, Draftsman, 714 Marietta Place, N. W., Washington, D. C. (Data on small houses.)
- R-H-K CORPORATION, Architectural Department, Earl Avenue, Lafayette, Indiana. (Data for A.I.A. file.)
- CHARLES H. CONNORS, Ornamental Horticulturist, Agricultural Experiment Station, New Brunswick, N. J. (Data on horticultural equipment and supplies and nursery stock, with price lists.)

JUNE 1936
WHY G-E BRANCH-CIRCUIT CIRCUIT BREAKERS ARE THE HEART OF MODERN WIRING SYSTEMS

You are designing today's home for comfortable and convenient living. Wisely, you consider a modern wiring system of vital importance. Now, General Electric introduces a new circuit protecting device, which is designed for standard outlet box mounting, that aids you in functional design of homes, apartments, and other buildings.

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These new Branch-circuit Circuit Breakers fit in well with modern trends. Your clients will appreciate the livability that they add to the homes you design. These devices apply the successful principles of protection and control, long used for industrial equipment. They can be furnished in capacities of 15, 20, 25 or 30 amperes; single-pole, 125 volts A-c. or D-c. You will be most interested in the convenience that

You will be most interested in the convenience that their use offers your clients. Because they have the neat outward appearance of flush Tumbler Switches, they can be placed in living rooms, kitchens, bedrooms — and their appearance is similar to that of the neat appearing Tumbler Switches.

When a short circuit or overload occurs, service in that particular circuit is resumed after the trouble has been removed, by simply flipping the breaker. They can be placed in accessible spots about the house near the circuit that they protect. Thus, inconvenient changing of fuses in branch circuits is eliminated. Home owners will appreciate this step-saving feature which is another aid to good housekeeping.

As well as convenience, mark these additional advantages of using G-E Branch-circuit Circuit Breakers:

They offer safe and positive protection. Factory calibration and sealing practically eliminates tampering. They insure positive short circuit and accurate overload protection for branch circuits.

They may be used as master switches to control the circuits that they protect.

These breakers are designed for all conventional wiring systems and are specified in the new G-E Radial Wiring System.

They have satisfactorily passed all tests of, and are listed by, the Underwriters' Laboratories, Inc.

For further information on their convenience - appearance - safety and control, refer to "Sweet's Architectural Catalog" and "American Architect Time-Saver Specifications", or write Section CDW-126, Appliance and Merchandise Department, General Electric Company, Bridgeport, Connecticut.

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WIRING DEVICES

APPLIANCE AND MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONN.

PUBLICATIONS ON MATERIALS AND EQUIPMENT

of Interest to Architects, Draftsmen and Specification Writers

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.

QUALITY CASEMENT WINDOWS.—Folder with descriptive and specification data covering a new line of air-tight aluminum and bronze casement windows. Detail drawings, dimensions, hardware and test data. 8 pp. 81/2 x 11. General Bronze Corp., 34-19 Tenth Street, Long Island City, N. Y.

Published by the same firm, "Quality Double-Hung Windows." Folder describing a new and self-sealing type of double-hung window furnished in aluminum or bronze. Specifications, dimensions, detail drawings. 4 pp. 8½ x 11.

- KOH-I-NOOR DRAWING AND SKETCHING MATERIALS.—The 1936 edition of Koh-I-Noor drawing and sketching material catalog covers a complete line of drawing pencils, artists' pencils and leads, polycolor wax crayons, special polycolor sets, Mona Lisa pencils and sticks, permanent chalks and technicolors, square sticks and holders, sketching leads, etc. 18 pp. Koh-I-Noor Pencil Co., 373 Fourth Avenue, New York, N. Y.
- PYRAMID SNAP-ON MOULDINGS.—A.I.A. File No. 16-e-2. New folder showing full size views of standard Pyramid snap-on mouldings adaptable to many uses in architectural design. 4 pp. 81/2 x 11. Pyramid Metals Co., 455 North Oakley Blvd., Chicago, Ill.
- IRON FIREMAN PNEUMATIC SPREADER.—Catalog 3905 describes and illustrates the first stoker conveying steam size coals (up to $1\frac{1}{2}$ -inch lumps) into the furnace on a stream of air, burning dust in suspension and larger pieces on a shallow layer on the grates, particularly adapted to firing power and process boilers for industrial uses. 12 pp. $8\frac{1}{2} \ge 11$. Iron Fireman Mfg. Co., Cleveland, Ohio.
- TONCAN IRON PIPE FOR PERMANENCE.— Fourth edition. This new 64-page book is profusely illustrated with test charts and tables and incorporates new sections dealing with threading, air conditioning, industrial maintenance and process uses, etc. Included are large number of photographs showing the increasing applications for which Toncan copper molybdenum pipe is being utilized. Republic Steel Corp., Cleveland, Ohio.
- PLANNED PLUMBING AND HEATING FOR BETTER LIVING.—New brochure showing the latest products for sanitation and comfort, and affording many suggestions for increased beauty and practicality in the new or modernized home. Several Kohler bathrooms, a lavette and a kitchen, with floor plans and alternate floor plans, have been illustrated in color by Gerald K. Geerlings, Architect. The text discusses not only the fixtures, but alternative materials for walls and floor, desirable color schemes, etc. 16 pp. 8½ x 11. Kohler Co., Kohler, Wis.

- COSALCO METAL MOULDINGS.—Folder snowing actual size illustrations of a line of mouldings available in chromium, copper, brass, stainless steel and other metals. Price list. 4 pp. 8¹/₂ x 11. Colonial Sales Corporation, 480 Lexington Ave., New York, N. Y.
- THE AMERICAN LARSON ROOF VENTILATOR. —A.I.A. File No. 12-k-1. New catalog giving a detailed description of the design and operation of a line of exhaust and inlet ventilators for use in all types of industrial, marine, residential and public structures. Specifications, dimensions, details. 16 pp. 8½ x 11. The American Larson Ventilating Co., Keystone Bldg., Pittsburgh, Pa.
- A NEW BUILDING COST CALCULATOR.—Descriptive bulletin giving table of contents and reproductions of tabular matter contained in a new building cost calculator or estimator's handbook. 4 pp. 8½ x 11. J. R. Smith & Son, 5006 Dudley St., Lincoln, Neb.
- ROBINSON LAP-LOK WALL COPING.—A.I.A.
 File No. 5-k. Folder describing and illustrating an improved modern covering for parapet walls. Included is information on Robinson chimney pots. 4 pp. 8½ x 11. The Robinson Clay Products Co. of New York, Empire State Bldg., New York, N. Y.
 EAGLE TINTING AND MIXING CHART.—Useful
- EAGLE TINTING AND MIXING CHART.—Useful new color chart giving formulas and suggestions for exterior and interior colors. Included are formulas for painting with Eagle white lead. Eagle-Picher Sales Co., Temple Bar Bldg., Cincinnati, O. Published by the same firm, "Eagle Lead Wool."
- Published by the same firm, "Eagle Lead Wool." Bulletin discussing the advantages of Eagle lead wool for caulking pipe joints.

for caulking pipe joints. "Eagle Super Flange." Descriptive booklet covering a type of all-lead, one-piece roof flashing.

- PENCILS AND PAPER.—Booklet dealing with subject of Conté drawing pencils presents useful information pertaining to their special uses, grades and kinds of paper most suitable for their use. 16 pp. J. Gratz Farish, 42-57 Kissena Blvd., Flushing, N. Y.
- KEWANEE TYPE C STEEL BOILERS.—A.I.A. File No. C-1. Catalog No. 84-h. Useful reference manual describing the design and construction characteristics of a line of steel coal-burning, oil, gas or stoker boilers. Engineering data, dimensions, etc. 24 pp. 8¹/₂ x 11. Kewanee Boiler Corp., Kewanee, Ill.
- Published by the same firm, "Kewanee Residence Type R Boiler." Catalog 88-b presents detailed descriptive and engineering data on a coal, gas or oil burning, steel welded boiler for heating bungalows, bomes and smaller buildings. 16 pb. 8½ x 11.
- bomes and smaller buildings. 16 pp. 8¹/₂ x 11. CORNELL ROLLING GRILLES.—New catalog showing numerous Cornell rolling grille installations over store fronts, in revolving doors, entrances, over counters, bars, in gateways, corridors of commercial buildings, exhibit halls, schools, etc. Construction details, descriptive matter, specifications. 8¹/₂ x 11. Cornell Iron Works, 36-20 Thirteenth St., Long Island City, N. Y.
- A. C. F. UNITFOLD FOLDING WALL.—A.I.A. File No. 19-e-61. Descriptive and specification data bulletin covering the Unitfold folding wall suitable for gymnasiums, schools, Y. M. C. A.'s, churches, hotels, clubs, etc. 4 pp. 8 1/2 x 11. American Car and Foundry Co., 30 Church St., New York, N. Y.
- Foundry Co., 30 Church St., New York, N. Y. Published by the same firm, "A. C. F. School Wardrobes." A.I.A. File No. 28-b-33. Folder describing and illustrating Fairburst school wardrobes. 4 pp. 8½ x 11.
- THE PALMOLIVE SOAP DISPENSER.—A.I.A. File No. 29-i-2. Descriptive and specification data folder covering a new dry soap dispensing unit. 4 pp. 8 1/2 x 11. Colgate-Palmolive Peet Co., Jersey City, N. J. (Continued on page 40, Advertising Section)



- This is the house that Jackson will build.
- These are the floor plans for B the house that Jackson will build.
- This is the household that will C live in the house that Jackson will build.

What should be the telephone arrangements for the house that Jackson will build?

- **Built-in conduit to prevent** D exposed wiring and provide protection against certain types of service interruption.
- An outlet in the living-room E for all the family.
 - An outlet in the kitchen for household business.

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- An outlet in the master bed-G room for protection at night and convenience all the time.
 - An outlet for portable telephone in the guest-room-to serve guest or invalid.

An outlet for portable telephone in basement recreation room to save running upstairs.

This is a suggested approach to a typical problem. Trained telephone engineers will help you custom-tailor efficient, economical conduit layouts for any of your

projects. Just call the Business Office of your local telephone company and ask for "Archi-tects' and Builders' Service."



FREE EMPLOYMENT SERVICE FOR READERS OF PENCIL POINTS

Replies to box numbers should be addressed care of PENCIL POINTS, 330 West 42nd Street, New York

- WANTED: Draftsmen experienced on small house work. Send full information as to ability, samples of work both in sketches and working drawings and salary expected. Box No. 600.
- POSITION WANTED: Young man, age 24, graduate Virginia Polytechnic Institute in architectural engineering, desires work with designing architect, structural engineer or consulting engineer. Three years' experience in mechanical engineering and industrial plant maintenance. Salary of minor importance. P. O. Box 148, Petersburg, Virginia.
- POSITION WANTED: Young man, 24, with four years' college architectural training desires any beginning position with architect or engineer. Neat draftsman, renderer. Single. Go anywhere. Box No. 601,
- POSITION WANTED: Designer, renderer and draftsman, neat, speedy and accurate. Fifteen years' field experience, construction foreman, concrete buildings, bridges and highways. Prefer Los Angeles or vicinity. O. Larry Wiesenborn, 645 No. Jackson, Clarendon, Virginia.
- POSITION WANTED: Student, age 23, desires summer position in architect's office to gain practical experience. Junior in architecture at Chicago Technical College. Especially interested in drafting, design and rendering. Location in Illinois preferred. Salary secondary. Box No. 602.
- POSITION WANTED: With architect as junior draftsman. Graduate of High School and Pratt Institute, Department of Architecture. Willing to work for any reasonable salary. N.Y.U. evenings. Rudolf Seliger, 158 Huber St., Secaucus, N. J.
- POSITION WANTED: Junior architectural draftsman, High School graduate and graduate of Mechanics Institute. Have had some experience in the office of a well known Brooklyn architect. Can furnish reference on request. Salary reasonable. Lawrence Ephraim, 2050 East 18th St., Brooklyn, N. Y.
- PART TIME WORK WANTED: Young man, 22, wants to devote spare time to drafting, freehand drawing or rendering. Own perspective, capably rendered in various mediums, especially pen and ink. Free lance renderings of small houses preferred. L. R., 2111 Quentin Road, Brooklyn, N. Y.
- POSITION WANTED: Architectural draftsman, with several years of experience in model making, would like to get in touch with architects or builders. Able to take care of models of any size or description. Box No. 603.
- POSITION WANTED: For the past 15 years construction superintendent, am first class mechanic (carpenter) with a lifetime experience in building construction. Very good at blue prints, also at drafting. Employed by leading New York builders and was architect-superintendent on several jobs. John McNeil, 306 Prospect Place, Brooklyn, N. Y.

- POSITION WANTED: Architect, designer-draftsman, seeks a general or supervisory post. Experience in Government and private offices. Address "Z," 174 Grant Ave., White Plains, N. Y.
- WANTED: Delineator doing free lance work able to lay out and render perspectives of small buildings and residences in water color from working plans. William O. Armitage, architect, South Portland, Maine.
- POSITION WANTED: Draftsman, architectural, competent, experienced, seeks position in architect's office. Jerome Licher, 304 Mt. Eden Avenue, Bronx, N. Y.
- POSITION WANTED: Young woman, 23, single, B.S. Kansas State College, 1935, training in Interior Architecture and Decoration, desires connection with architect or interior decorator, location immaterial. Box No. 604.
- POSITION WANTED: Architectural draftsman (advanced age) desires employment. Temporary, part time, hours, days. City buildings, plans, elevations, etc. Moderate compensation. Any time at disposal. Box No. 605.
- POSITION WANTED: Draftsman (junior), age 21, desires position with architect or architectural designer; recent graduate of Drake School of Drafting preceded by four years of technical training; inexperienced but willing to learn business, salary secondary, willing to travel. Edward Rahn, 739 Decatur Street, Brooklyn, N. Y.
- POSITION WANTED: Junior architectural draftsman wants work with architect or builder. Knowledge of all types of building construction. Box No. 606.
- POSITION WANTED: Young man, 22, seeks position with architect, contractor or builder. Graduate Mechanics Institute architectural drawing and design. One year mechanical drawing. Inexperienced but offer service, intelligence and a desire to work to learn business. Neat appearance. Best references. Willing to travel. Herbert Maselson, 46 West 64th Street, New York, N. Y.
- POSITION WANTED: Young man, 5 years' drafting school training, wishes position as junior architectural draftsman. Guido Cocchini, 1632 Taylor Ave., New York, N. Y.
- WANTED: Apprentice draftsman wanted by architect in White Plains. Nominal compensation for six months to a year. Excellent opportunity for recent architectural school graduate living in the general vicinity. Box No. 607.
- POSITION WANTED: Young man with some experience in drawing is looking for position as office boy with New York architect. Box No. 608.
- WANTED: Opportunity for young lady with both decorating and secretarial experience in Westchester County architect's office. Please give complete personal information and salary desired in first letter. Box No. 609.
- POSITION WANTED: Male, white, neat, experienced, dependable, competent, college trained, 20 years at drafting, detailing, designing, specifications, construction superintendent and architect's representative on a wide diversified type of buildings. Come well recommended. Go anywhere. Charles Palmer, Room 524-4614 Prospect Avenue, Cleveland, Ohio.
- DRAFTSMAN WANTED: Good man who would like to work in the south. One who is good on small residence work, sketches, working drawings and details. Send full information and samples of work in first letter. George Watts Carr, Durham, N. C.

JUNE 1936

HERE ARE FLOORS KEYED TO THE MODERN



Entrance Lobby of the Maple Terrace Apartments, Dallas, Texas. Floor is Armstrong's Linoleum in black, silver-gray, and terra cotta with inner border of black and field of egg-plant and yellow. Walls are Armstrong's Display Cork.

CUSTOM-BUILT floors of Armstrong's Linoleum make it easy for you to provide an attractive individualized setting for any decorative scheme. The design possibilities of these linoleum floors are practically unlimited. Any decorative idea drawn on paper can be faithfully reproduced in the floor—every intricate detail trimly cut and tailored to fit with craftsmanlike perfection.

Armstrong's Linoleum Floors are modern in other ways, too. They're resilient—quiet and comfortable underfoot. They're simple to install. And once installed, they're longwearing and inexpensive to maintain.

On your next floor job, you are invited to consult the Armstrong Architectural Service Bureau. The complete-

ness of the Armstrong Line enables this bureau to give valuable, *unbiased* suggestions on the best type of floor for any interior. See Sweet's or write now, on



Lobby of the Greystone Apartments, St. Louis, Mo. Floor is Armstrong's Linoleum in egg-plant, white, and yellow. Architeet—John F. Barlow.

your letterhead, for "Armstrong's Floors and Walls." Armstrong Cork Products Co., Build-

ing Materials Div., 1206 State St., Lancaster, Pa.

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Architect Selected for Oregon's New Capitol

Goodhue Livingston, Architect, member of the firm of Trowbridge and Livingston, New York, is the acknowledged winner of the nationwide competition for the selection of an architect for the new Oregon State Capitol Building to be erected at Salem, Oregon. Francis Keally, also of New York, was Mr. Livingston's associate in preparing the competition design and will be associated with him in carrying out the commission. The winning designs will appear in next month's PENCIL POINTS.

Five runners-up were selected by

the Jury of Award, to receive \$1500 each to repay them for entering the competition. They were: Wesley Sherwood Bessel of New

Wesley Sherwood Bessel of New York, John A. Thompson and Gerald A. Holmes of New York, De Young and Moskowitz of New York, Walter T. Karcher and Livingston Smith of Philadelphia, and Weeks & Day of San Francisco.

Pencil Points-Portland Cement Competition Designs

Beginning on page 301 of this issue, there will be found twenty additional designs submitted in the recent PENCIL POINTS - Portland Cement Association



It is an occcasion for no great surprise to us when an architect or engineer brings in a beautiful drawing or rendering and says: "I did that with a 'Castell' about twenty years ago. Look how fresh it is—how it has retained its depth of color."

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Made in Bavaria in 18 degrees NEWARK, N. J. Architectural Competition — ten of them solving the problem of the southern house and ten the problem of the northern house. These designs did not receive any prizes or mentions at the hands of the Jury of Award but they are considered of sufficient interest to merit publication. They are placed in no particular order and no implication is intended that any one is better than any other. Studied in connection with the program (published in the January and February issues) and with the premiated designs (published in the April issue), they may yield many good ideas for the residence designer.

Arthur L. Guptill to Teach

From July 6th to August 14th Arthur L. Guptill will conduct his usual summer courses at Frank Allen's Studios, Boothbay Harbor, Me.

While his regular classes will be in Sketching and Rendering (including lectures on Color, Composition, and Freehand Perspective), he is able to arrange special work for individuals. In past years many architects, landscape architects, and others have taken advantage of this opportunity to combine study with pleasure, enrolling for special vacation courses of one, two, three, or more weeks.

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For circular or further information, address Frank L. Allen, Director, 27 Fairmont Street, Brookline, Mass. After July 1, Boothbay Harbor, Me.

Faculty Appointments at Columbia

Appointment of seven New York architects to the Faculty of the Columbia University School of Architecture is announced by President Nicholas Murray Butler.

Edgar Williams, John Crosby Brown Moore, and Donald A. Fletcher were named Associates in Architecture to be in charge of instruction in design. In accordance with the School's plan of relating the study of design to "a creative and living architecture," four visiting critics were appointed as follows:

Arthur Loomis Harmon, architect of the Shelton Hotel, New York, and member of the firm of Shreve, Lamb, and Harmon, architects of the Empire State Building.

William Lescaze, designer of the proposed Children's Museum in Brooklyn, and architect of the Columbia Broadcasting Station, 485 Madison Avenue, New York, and of the Editorial Publications Building, 40 East 49th Street, New York.

J. André Fouilhoux, one of the architects of Rockefeller Center, collaborator with Wallace K. Harrison in the design of the new Rockefeller Apartments between 54th and 55th Streets, New York, and architect of the MGM Studios of the Chicago Tribune in Chicago.

George Howe, designer of the Philadelphia Savings Fund Society Buildings, Philadelphia, the Hessian Hills School at Croton-on-Hudson, N. Y., and of the projected plan for the Chrystie-Forsyth low-cost housing development, New York.

Schermerborn Fellowship Won by J. S. Atkins

Winner over seven competitors, James Samuel Atkins of 3410 Kingsbridge Avenue, New York, has been awarded the F. Augustus Schermerhorn traveling fellowship of the Columbia University School of Architecture for 1936, it is announced by Acting Dean Leopold Arnaud, chairman of the jury of award. The fellowship, open to graduates of the School within the past ten years, carries a stipend of \$1700 for study abroad.

The Schermerhorn competition called for designs of a progressive country day school "especially adapted to the new education, which is based on complete time-freedom for the children." Eighteen applicants entered the preliminary competition, while eight were accepted for the final. The decision was made by a jury of New York architects, including Charles Butler, Wallace K. Harrison, William Lamb, J. André Fouilhoux, and Ralph Walker.

Atkins was graduated from Columbia College in 1931, and from the School of Architecture in 1934. He is associated with the firm of Bloch and Hesse, 18 East 41st Street. He was born in Cincinnati, Ohio, and attended schools in Scranton, Pa., and Yonkers, N. Y. He will travel in France, Germany and Italy.

Joseph Martiner of Franklin Avenue, Bellmore, N. Y., was chosen first alternate, with special commendation for the high quality of his work. He received the degree of bachelor of architecture from Columbia in 1934.

"Architecture" Changes Ownership

Announcement has been made that William Randolph Hearst has purchased from Charles Scribner's Sons the architectural journal Architecture which will be combined with the American Architect which has for several years been published by Hearst.

We understand that the publications will be combined, beginning with the June, 1936, issue, and that the journal will be edited by Mr. Kenneth K. Stowell, the present editor of the American Arcintect and by Mr. Henry H. Saylor of Architecture.

Both the American Architect and Architecture have behind them many years of splendid service and the paper which will result from the combination of these excellent periodicals should be of great value to the architectural profession in years to come.

Federation of A.E.C.ST.

Following the decisions of its second National Convention, relating to the unification of employee technical groups throughout the country, the Federation approached the Architectural Guild of America to discuss unification of both organizations.

The Federation agreed to let the Architectural Guild retain its own name and become the architects' section of the Federation, but stipulated that the section give particular attention to setting up a local of those working in private industry.

The two groups, it was agreed, are to have parity on the executive committee of the section, or to have an election. The architects' section is to have proportional representation on the Chapter Executive Committee.

The matter is being referred to the membership of the Guild, which for months past has been working in close cooperation with the Federation.



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(Continued from page 28, Advertising Section)

- G & G ANTI-FRICTION BEARING TELESCOPIC HOISTS.—A.I.A. File No. 30-i-1. Catalog J-3136 announces and describes in detail a line of all antifriction bearing manual and electric telescopic hoists. Included are specifications, blueprint details and data covering watertight sidewalk doors and other G & G equipment. 6 pp. 8¹/₂ x 11. G & G Hoist Corp., 11 Park Place, New York, N. Y.
- OWENS-ILLINOIS GLASS MASONRY.—Useful reference manual dealing with the subject of Insulux glass masonry blocks. Included are typical construction details, specifications, installation views, standard sizes and cuttings, data on light transmission and diffusion, etc. 24 pp. 8¹/₂ x 11. Owens-Illinois Glass Co., Ohio Bank Bldg., Toledo, Ohio.

Published by the same firm, "The Story in Pictures— Owens-Illinois Insulux Glass Masonry." New brochure illustrating numerous exterior and interior installations of glass masonry in industrial buildings, stores, office buildings, schools, apartment houses, laboratories, residences, etc. 24 pp. 8½ x 11.

- FITZGIBBONS OIL-EIGHTY AUTOMATIC.— A.I.A. File No. 30-C-1. New catalog giving a detailed description of a modern steel oil burning boiler for providing automatic heat and hot water supply. Ratings and dimensions. 8 1/2 x 11. 16 pp. Fitzgibbons Boiler Co., Inc., 101 Park Ave., New York, N. Y.
- FRANKLIN TILES.—A.I.A. File No. 23-a. Catalog No. 20. Useful handbook prepared to show the different kinds of tile in the industry. The various Franklin line products are illustrated and described, including all kinds of tiles, accessories and lighting fixtures accompanied by important color information, illustrations and details. 140 pp. 8½ x 11. Franklin Tile Co., Lansdale, Pa.
- WESTINGHOUSE ALL ELECTRIC KITCHEN EQUIPMENT.—A.I.A. File No. 31-h-2. Portfolio designed to serve architects as a ready reference whenever residential layouts are being prepared. Subjects covered by separate folders with data bulletins include planned electric kitchens, electric refrigerators, electric ranges, electric dishwashers, electric water heaters. 8 1/2 x 11. Westinghouse Electric & Mfg. Co., Kitchen Planning Dept., Mansfield, Ohio.
- ARCHITECT'S HANDBOOK OF WILLIAMS OIL-O-MATIC HEATING.—A.I.A. File No. 30-g-1.
 Reference guide giving complete descriptive and engineering data covering Oil-O-Matic burners and water heaters, specifications, installation details, dimensions.
 12 pp. 8¹/₂ x 11. Williams Oil-O-Matic Heating Corp., Bloomington, Ill.
- MURAL-TONE WALL PAINT.—A.I.A. File No. 25b-22. Set of two folders presenting descriptive information and detailed directions for using Muraltone casein-vehicle wall paint. Specifications. 8 1/2 x 11. The Muralo Co., Inc., Staten Island, N. Y. Published by the same firm, "Mural-Tone Positive Colors." Folder with color chart announcing and describing a new line of positive colors are in in
- scribing a new line of positive colors for use in interior and fresco decoration, theatrical painting and for sketching. ILG ELECTRIC KITCHEN VENTILATOR.—A.I.A.
- File No. 30-d-1. Bulletin 503 describes a new line of kitchen ventilators. Installation details and instructions. 8 pp. 8¹/₂ x 11. Ilg Electric Ventilating Co., 2850 North Crawford Ave., Chicago, Ill.

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The Celotex Corporation, Chicago, announces two new products that have just been put into production. One is new laminated waterproofed 1" Insulating Sheathing, surfaced two sides to 25/32—the same thickness as standard wood sheathing. The other is a new insulating Stiff-Lath which in appearance is much the same as the company has been marketing for some time, but is much more rigid, being made by a new manufacturing process.

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Stiff-Lath provides a stronger, more firm plaster base without the addition of any supplementary gadgets, which may interfere with troweling and slow up the work of the plasterers. The wide open beveled edge on the Celotex patented ship-lap joint receives the scratch coat willingly and provides a bond between the Celotex and gypsum plaster of uniform strength on all sides of the lath, and a flat plaster base which should facilitate the making of smooth, flat plastered walls.

MASTIC ARMOFLOR

A new floor covering consisting of a calendered mastic mix on a backing of tough saturated felt is announced by the Armstrong Cork Products Co., Lancaster, Pa. This new product, which will be known as Armstrong's Mastic Armoflor, has been developed especially to meet the demand for a floor for low class commercial and industrial areas where reasonable durability and low cost are of first importance.

An outstanding advantage of Mastic Armoflor is that it can be installed on grade level concrete floors in direct contact with the ground, except where an excessive moisture condition exists. On such installations the new floor is to be applied with Armstrong's mastic cement.

Armstrong's Mastic Armoflor is available in four colors—red, green, black, and brown—and is supplied in rolls 36 in. wide.

MURAL-TONE POSITIVE COLORS

Announcement is made by The Muralo Co., Inc., Staten Island, N. Y., of the introduction of the Mural-tone line of positive colors suitable for tinting, decorating and sketching.

These finely ground, concentrated colors in casein vehicle have been especially developed for tinting regular Mural-tone white and other casein-vehicle paste paints used for decorating walls, ceilings and other interior surfaces.

Mural-tone positive colors may also be used full strength, alone or intermixed with one another, for use where strong, brilliant color effects are desired for artistic color treatments.

THE TRANE COMPANY ENLARGES PLANTS

The Trane Company, La Crosse, Wis., manufacturers of heating and air conditioning equipment, is starting immediately on an addition to one of their plants which will give an increase of 20,000 sq. ft. of floor space and allow for the expansion of manufacturing in business that the firm has experienced during the past year.

Julius Kahn, who has been president since his founding of Truscon Steel Corporation 33 years ago, has resigned his position to become vice president in charge of product development of Republic Steel Corporation, Cleveland, Ohio.

Forrest H. Ramage has been promoted from assistant manager of the advertising and sales promotion division to sales promotion manager and will work in conjunction with the new product development division.

Stanley A. Knisely, formerly manager of the advertising and sales promotion division, has been named director of advertising with direct supervision of all advertising of the corporation and its subsidiaries. Chester W. Ruth has been made assistant director of advertising.

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IN STORE FRONT DESIGN

NEW FREEDOM



BY UTILIZING Pittco Store Front Products, architects and designers gain new freedom in store front design. These pictures show how Patriarca Store Fixtures, Inc., transformed a store in Boston, Mass., by designing and installing an attractive and effective Pittco Store Front. For perfect execution of the store fronts you design, specify Pittco Store Front Products.

PITTCO Store Front Products impose very few limitations upon the architect's imagination. When you design an original, attractive and distinctive store front, you can be pretty certain that Pittco Store Front Products will enable you to build it exactly as designed. For these glass and paint products combine beauty with utility so well... they are so versatile, so readily adaptable to different handlings and combinations

PITTCO Store Front Products . . . that they really enlarge the impose very few limitations upon scope of possibilities for store front the architect's imagination. When design.

Undoubtedly, many merchants and property owners in your community will be taking advantage of the Pittsburgh Time Payment Plan (which includes provision for an architect's fee) to remodel with new Pittco Store Fronts. When you are retained on projects of this nature, design your fronts with Pittco Store Front Products in mind. You'll find them thoroughly satisfactory in every way, not only to you but to your clients.

Each month, our staff of store front experts, maintained to cooperate with architects on problems of construction and product application, prepare a style suggestion on some type of front. Clip the coupon below ... now ... and have your name entered on our architect's list to receive our "Design of the Month" service.

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CARRARA STRUCTURAL GLASS PITTCO STORE FRONT METAL PITTSBURGH MIRRORS PITTSBURGH MIRRORS PITTSBURGH MIRRORS PRODUCTS OF PAINT PITTS B U RG H PLATE GLASS COMPANY PLATE GLASS COMPANY	Pittsburgh Plate Glass Company, 2223B Grant Bldg., Pittsburgh, Pa. Please enter my name on your list of architects who will receive your store front "Design of the Month" suggestion regularly each month during 1936. Name
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Summertime in Chicago...

Overlooking Lake Michigan, the great inland ocean away from disturbing street noises — The Stevens offers you Chicago's finest hotel location — in the very center of things — on famous Michigan Boulevard.

We're old-fashioned at The Stevens, that is, when it comes to cheerful hospitality — but new in spirit. A friendly staff of employees interested in **your** comfort will make you enjoy every minute of your visit.

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EVEN A DUST STORM CAN'T GET THROUGH

After Emporia and other Kansas towns "bit the dust" in one of the worst sand storms in history a number of people whose homes were equipped with Silentite Windows were asked to report their experiences.

One home owner (James Pagedas) said, "I do not think we had any more dust in our house than one would have with ordinary windows on an ordinary day."

"Silentite Windows stood the test satisfactorily," said Leo J. Brinkman of Emporia. "While a little dust got into the house, it was of no consequence and certainly not the fault of our Silentite Windows."

Still another owner wrote us, "During the very severe dust storms, my home was almost free from dust and dirt. If I were to build another home, I would have no other kind of windows..."—Mrs. J. R. Harvey. Dust storms, of course, do not plague the

Dust storms, of course, do not plague the entire country, yet they are a serious problem in many states. In designing a new building, or remodeling an old one, there are always some elements you want to keep in the structure or out of it. Smoke and dirt are not confined to the dust storm area. Cold and drafts are almost universal. Heating economy is appreciated everywhere.

Windows that can baffle a suffocating Kansas dust storm are well worthy of consideration anywhere else, especially when in beauty, ease of installation and operation, and simple adaptability to any type of wall, they have so many other architectural advantages. If you are not familiar with this new Curtis window, write us for particulars.

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HEN you specify portland-cementand-lime for mortar, you have no assurance that the proportions of your specifications will be accurately followed unless your superintendent is constantly at the mortar box. . . The proportion of lime may be increased for the sake of plasticity or the mix may be oversanded. In either case the strength of the mortar is impaired.

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• In 1890 the builders of the original Waldorf-Astoria chose Steelcrete Metal Lath as the plaster base for its walls and ceilings which were to hold perfect through so many years its famous decorations . . . For the Waldorf of today Steelcrete Lath was again the choice . . . this time the modern Bar-X-Lath with its twin welded bars which reinforce the sheet . . . the most efficient and also the most popular lath which this company has produced in all its long history.

Also in the new Waldorf Steelcrete Corner Bead, Base Screed and Tie Wire were used. Steelcrete plastering bases and accessories meet the requirements of the whole job, insure excellence of workmanship, economy and long

satisfactory service.

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