

NEW ORLEANS



Baro

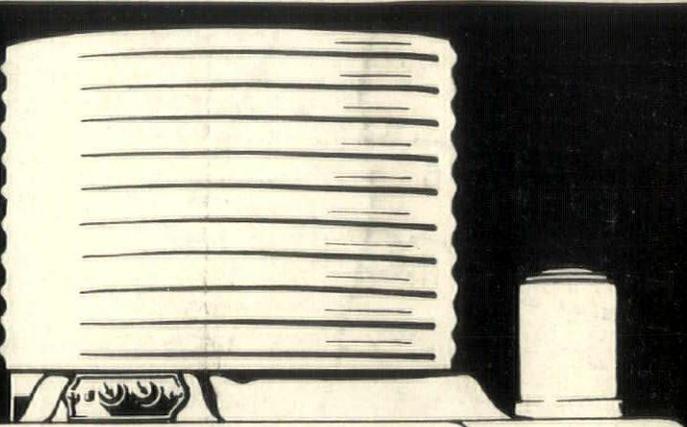
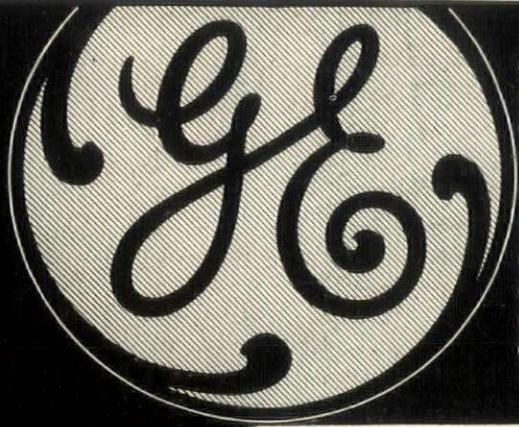


MARCH 1934

AMERICAN ARCHITECT

You Made This Magazine Yourself

Your keen interest in architecture—as a profession, as a business or even as a personal hobby—is one thing that you have in common with all your architectural colleagues. And it is to serve all the varied phases of that interest that American Architect is published. Its editors ride no pet hobbies; their job is merely a selective one; and their chief concern is to present the various phases and problems of architecture—the most fundamental of all the arts and sciences—to the best advantage of all concerned. Without the stimulus of your own activities this would be impossible for you as an architect have actually made the material between the covers of American Architect. In it will be something that touches directly on some interesting point of your present work. » » » » » »



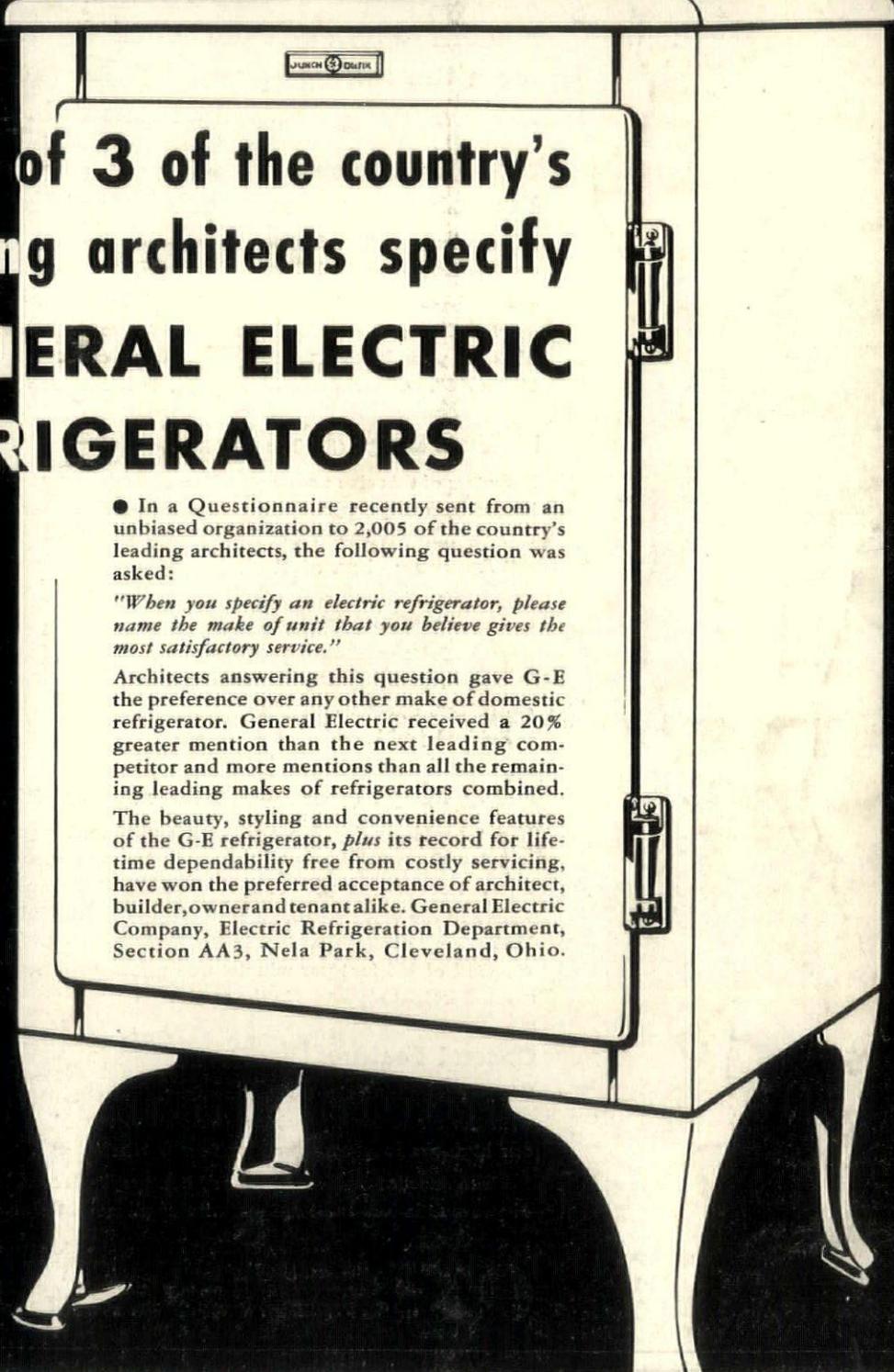
1 out of 3 of the country's leading architects specify **GENERAL ELECTRIC REFRIGERATORS**

● In a Questionnaire recently sent from an unbiased organization to 2,005 of the country's leading architects, the following question was asked:

"When you specify an electric refrigerator, please name the make of unit that you believe gives the most satisfactory service."

Architects answering this question gave G-E the preference over any other make of domestic refrigerator. General Electric received a 20% greater mention than the next leading competitor and more mentions than all the remaining leading makes of refrigerators combined.

The beauty, styling and convenience features of the G-E refrigerator, *plus* its record for lifetime dependability free from costly servicing, have won the preferred acceptance of architect, builder, owner and tenant alike. General Electric Company, Electric Refrigeration Department, Section AA3, Nela Park, Cleveland, Ohio.



WHAT IS MODERN ELEVATOR PRACTICE?

• NO. 1 OF A SERIES OF SIX •

This article concerns itself with the summarizing of modern freight elevator practices. This information comes from the many years of experience of Otis Elevator Company in installing thousands of freight elevators.

Moderate Duty: (2000 to 4000 lbs.—slow speed)

For economy of both installation and operation, the most popular type today is the electric machine with DOUBLE BUTTON CONTROL. This does away with the necessity of a regular operator, as it is easily and safely handled by any one.

For this type, standard arrangements are available. For instance, for a capacity of 2500 pounds at 50-foot speed, there are two platform sizes, 5' 6" x 6' 9" or 6' 6" x 7' 6". Other standard arrangements can also be obtained.

Medium Duty: (2000 to 6000 lbs.—medium or high speed)

Elevators of this size usually require a regular operator, as they are used in medium height buildings with fairly intensive service requirements. Therefore, they are usually furnished with Car Switch Control.

A number of practical combinations of load and speed have been worked out by us for this service. On the basis of long experience, they cover adequately and economically most requirements.

Special combinations for freight and service elevators in office buildings, hotels, etc., are usually special elevator engineering problems. We have a wide range of capacities, speeds and platform sizes which permit of much elasticity in solving individual problems.

Heavy Duty: (Special—large loads with or without high speed)

These problems involve specially engineered equipment. Requirements usually call for the working out of freight elevators along engineering and experience lines. Recent examples of such special installations are the large motor truck elevators in the Starrett-Lehigh Terminal and in the Inland Port Terminal, both of New York. Four of the elevators in the latter building have capacities of 40,000 pounds, a speed of 200 feet per minute, and platforms 17' x 34'. These are the largest commercial freight elevators in the world.

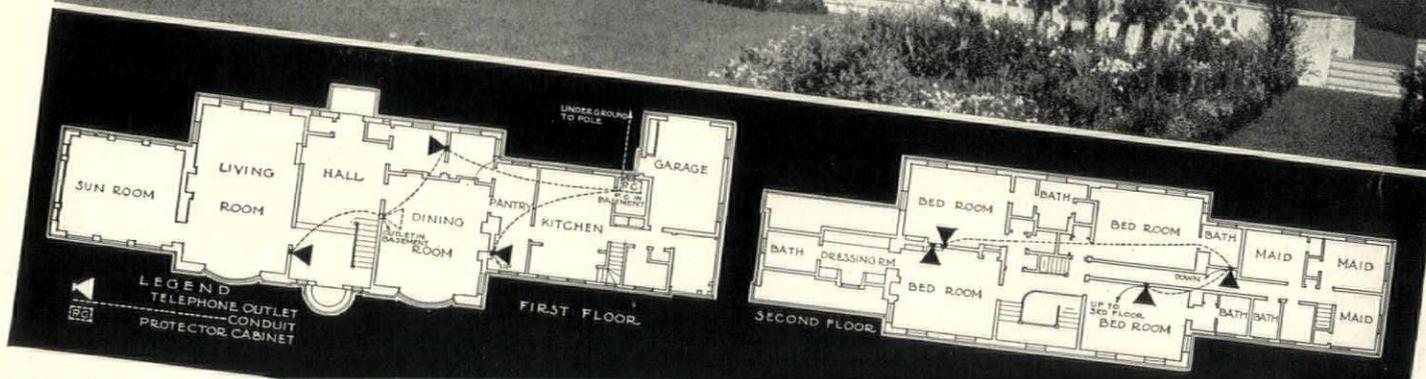
General Features:

We believe that freight elevators should be engineered, manufactured, and installed with the same high precision (for safety, operation and low maintenance cost) as our high-grade passenger elevators. Otis has one standard for both.

The success of this policy has been amply demonstrated, since over a long period of years Otis has built the majority of all freight elevators furnished in this country.

OTIS Elevator Company

Modern telephone convenience where Washington's couriers rode



The pleasant residence of Mr. Luther L. Blake, Loantaka Way, Convent Station, New Jersey. AYMAR EMBURY II, Architect, New York City

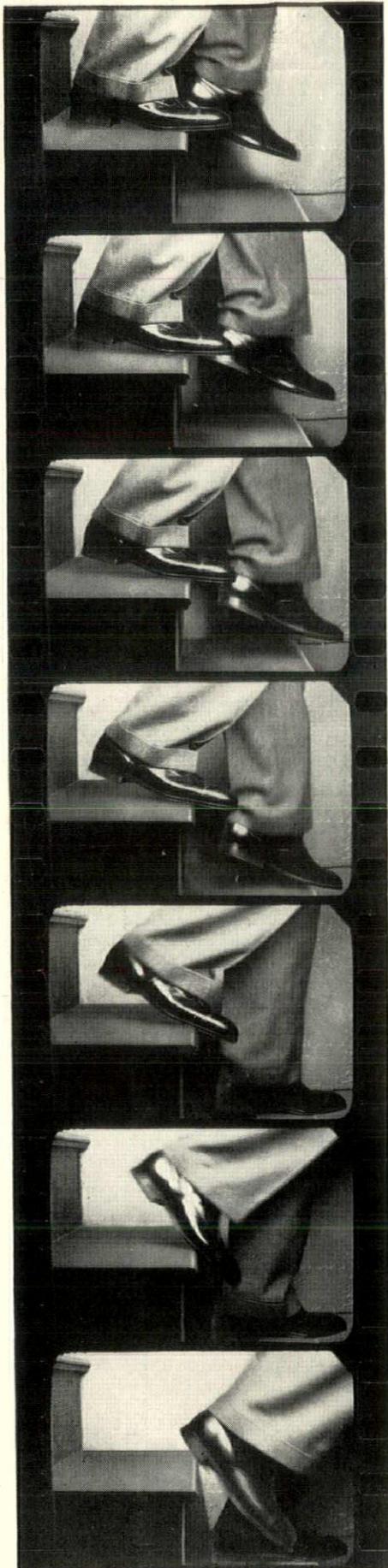
WITH white-painted bricks and wide-paned casements, this residence near Morristown, New Jersey, is keyed to the character of the fine old American homes around it. Where once Washington camped, with only hard-riding horsemen to carry his messages, this household can telephone to the ends of the earth, from nine convenient outlets.

The arrangements were worked out with the help of the telephone company. One outlet in the basement game room, three on the first floor, four on the second, and one in the third-floor hall. There are four permanently located telephones and two portable hand

sets which can be plugged into any of the five jack locations as needed. Buttons and buzzers provide intercommunication between the pantry and the master bedroom.

Built-in telephone conduit costs so little and returns so much — in genuine comfort — in steps, time and energy saved. Outlets can be located to meet both present and future needs. Your local telephone company will be glad to help you plan the telephone facilities for any of your residence projects. There is no charge, of course. Just call the Business Office and ask for "Architects' and Builders' Service."





Why Stairway Falls Cause 4,500 Fatalities a Year

THE camera study at the left is a typical selection from a series made to show how the average person descends a stairway. Note that most of the time the whole weight of the body is carried by one foot—and that only a small portion of the foot is in contact with the tread. Notice how close the heel of the other foot comes to the edge of each tread as it swings by. You can see why slipping accidents are frequent on treads that do not provide a firm grip for the foot and especially at the nosing. You can see why tripping accidents are likely unless the tread has a flat, level surface and a smoothly rounded nosing.

How To Prevent Stairway Falls

Norton Floors products were designed to protect against both slipping and tripping accidents. They provide the necessary grip for the foot and at the very nosing. Their non-slip effectiveness is permanent—not lessened by water nor wear. They have a flat, level surface free from heel catching hazards.

The several types of Norton Floors products make it possible to meet the construction requirements of all types of buildings as well as the individual preferences of different architects.

Alundum Aggregate for terrazzo or art marble treads — ideal for buildings where both appearance and safety of the highest type are essential.

Alundum Stair Tile — recognized by architects for over fifteen years as the most non-slip and wear-resisting stair material on the market.

Alundum Rubber Bonded Safety Treads for use on old or new stairways of wood, stone or steel—a new product that makes the exclusive safety features of Norton Floors available to a vastly wider field.

NORTON COMPANY, WORCESTER, MASS.

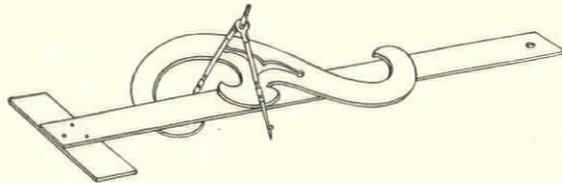
New York Chicago Detroit Philadelphia Pittsburgh Hartford Cleveland
Hamilton, Ont. London Paris Wesseling, Germany



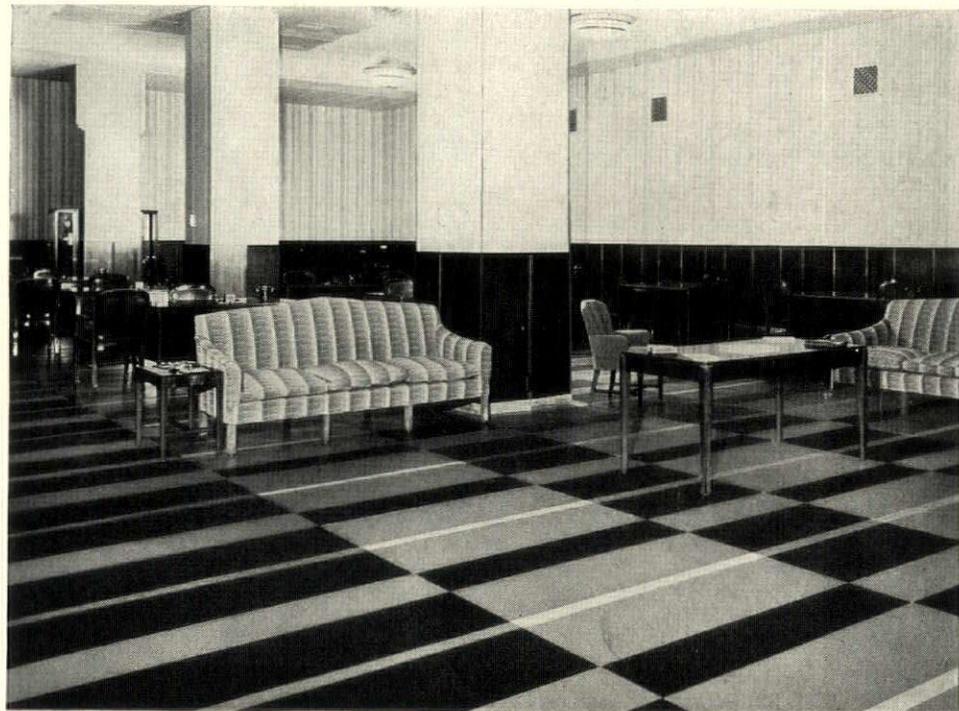
T-367

NORTON PRODUCTS — Grinding Machines; Lapping Machines • Grinding Wheels; Abrasives for Polishing; India Oilstones, Pulpstones • Laboratory Ware, Refractories; Porous Plates • Non-slip Tiles and Aggregates

Architects who work with Armstrong's Linoleum have complete creative freedom



Any design
you desire
may be
rendered
faithfully in
this most
versatile of
floor materials



This distinctive, custom-built Armstrong Floor adds greatly to the beauty of the Long Island headquarters of the New York Telephone Company. Voorhees, Gmelin & Walker, architects.

THE floor shown here was especially designed to be an integral part of a complete decorative plan. And floors of even greater complexity can be just as readily achieved with Armstrong's Linoleum.

You can work with a palette of 37 colors in plain, jaspé, and marbelle linoleum. Or you can choose from the scores of inlaid designs that Armstrong offers. Armstrong's Linoleum will help create any design effect you seek, harmonize with any color scheme.

And versatility of design is only one of the important advantages of Armstrong's Linoleum Floors.

These floors are durable—resist wear even under the heaviest traffic. The Armstrong Floor in the Illinois Host Building at the "Century of Progress" underwent terrific punishment from millions of feet. Yet, after months of service, this floor showed only the slightest wear, undiscernible to most eyes.

Armstrong's Linoleum Floors are easy to clean, too. They save main-

tenance cost. And they are quiet and comfortable to walk on.

We'll gladly tell you more about Armstrong's Floors, and send you the names of qualified floor contractors in your community. In addition, we offer the free cooperation of our Bureau of Interior Decoration in the planning of floors. Just address Armstrong Cork Co., Floor Division, 1201 State Street, Lancaster, Penna.



Complete specifications and design information in 1934 Sweet's Architectural Catalogues.

Armstrong's LINOLEUM FLOORS

LINOTILE ~ CORK TILE ~ ACCOTILE ~ RUBBER TILE ~ LINOWALL

A CONCRETE STRUCTURE



Sunset Tower, Los Angeles; LELAND BRYANT, *Architect*

PLAIN OR MOULDED SURFACES *CAST IN PLACE*

This all-concrete apartment building is an example of the application of a plastic material to architectural requirements.

The concrete exterior shows how this material may be used to produce, with equal facility, either severely plain or intricately moulded surfaces.

P O R T L A N D C E M E N T A S S O C I A T I O N

Room 263—33 West Grand Ave., Chicago, Ill.

AMERICAN ARCHITECT

Trade-Mark Reg. U. S. Patent Office

VOLUME CXLIV

NUMBER 2622



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

ROGER WADE SHERMAN,
Managing Editor

TYLER STEWART ROGERS
Technical Editor

R. F. GARDNER,
General Manager

T. W. TOWLER,
Advertising Manager

New Orleans. Cover Design by Ernest Born

Carved Corbel— <i>From a Photograph by Harold Holiday Costain...</i>	8
The Square Deal Does Not Apply to Architects <i>By Benjamin F. Betts, A.I.A.</i>	9
Trends in School Planning— <i>By N. L. Engelhardt</i>	10
A House that Forecasts the Home of Tomorrow <i>By Tyler Stewart Rogers</i>	22
The Architectural Profession Is Not Yet Dead, But— <i>By Rossel Edward Mitchell</i>	32
Munsey Park Golf Club, Manhasset, Long Island, N. Y., <i>Frederick L. Ackerman, Architect; Ramsey, Sleeper and Worcester, Associates</i>	34
Trends and Topics of the Times	40
Exhibition and Sales Room of Steuben Glass, Inc., New York, N. Y., <i>McMillen, Inc., Interior Designers; Platt, Platt, Platt and Gates, Consulting Architects</i>	42
Walkways, Stairways, Climbways— <i>By Ernest Irving Freese</i>	45
Six Small Houses for Lawrence Farms, Inc., Mount Kisco, N. Y.	49
As It Looks to the Editors	56
Church Modernization— <i>By Walter A. Taylor, A. I. A.</i>	58
Los Angeles Swimming Stadium, Los Angeles, California	63
Post Office and Shops, East Hampton, Long Island, N. Y. <i>Robert Tappan, Architect</i>	65
The Question of Architects' Charges— <i>By Clinton H. Blake</i>	69
The Dunhill Shop, British Empire Building, New York, N. Y. <i>Eugene Schoen & Sons, Architects</i>	71
Remodeling for Liquor Service	79
Books	97
Things You Didn't Learn in School	102
New Catalogs	105
New Materials	107
The Readers Have a Word to Say	110

AMERICAN ARCHITECT, Published bi-monthly by International Publications, Inc., 57th Street at Eighth Avenue, New York. Other offices, 919 N. Michigan Avenue, Chicago; General Motors Bldg., Detroit; 755 Boylston Street, Boston. William Randolph Hearst, President; Richard E. Berlin, Vice President; John Randolph Hearst, Vice President; Arthur S. Moore, Secretary. Copyright, 1934, by International Publications, Inc. Single copies, 50 cents. Subscription: United States and Possessions, \$1.50 per year; \$3 for two years; \$4.50 for three years; Canada, 50c extra; foreign countries, \$1.00 extra. Entered as second-class matter, April 5, 1926, at the Post Office at New York, N. Y., under the act of March 3, 1879. American Architect is protected by copyright and nothing that appears in it may be reproduced either wholly or in part without special permission.



The Square Deal Does Not Apply to Architects

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

THE TREATMENT of architects by governmental agencies is not consistent with policies of fair play urged by the Administration. . . . **THE NRA DIVISION** of Research and Planning, under Dr. Alexander Sachs, spent months preparing recommendations for stimulating the construction industry. Alvin Brown, executive officer of that Division, suppressed the report and *dismissed the only architect* and the only engineer in the Division. . . . **PUBLIC WORKS ADMINISTRATOR ICKES** appointed a committee to simplify the design of post offices. So far as can be ascertained, *no architect* was appointed to serve on that committee. Yet who could be better qualified to offer such recommendations than any one of several architects whose ability cannot be challenged? . . . **L. W. ROBERT, JR.**, Assistant Secretary of the Treasury, led the profession to believe that he would assign a large volume of Federal buildings to architects outside of his department. This has not been done. On the contrary, practically no new work has been forthcoming from that office since March 4th, 1933. The Supervising Architect's Office has recently been placed in the Procurement Division of the Treasury Department under the direction of *Admiral Peoples*. One suspects that fewer—rather than more—Federal buildings will now be assigned to outside architects. . . . **PWA FEDERAL PROJECTS** are for the most part being designed by Government architectural departments. State institutions are being designed by state architectural offices; many municipal buildings are being designed by city architectural offices. . . . **A SCHOOL SUPERINTENDENT** publicly stated that the use of stock plans furnished by a public office saved an architect's fee of \$10,000 on a \$250,000 school building. An acting city architect has been employing architects—at about \$1.00 per hour—to prepare sketches and working drawings for several million dollars' worth of institutional buildings. Had this work been given to architects in private practice, they could have *maintained their own offices* and employed draftsmen at the usual rate of pay. . . . **COMMON LABOR** on a CWA city plan project is being paid 60 cents per hour; masons and bricklayers \$1.25 per hour; electricians \$1.37½ per hour. Architects, landscape architects and engineers on the same project are paid from 61½ cents to 92⅓ cents per hour! . . . **THESE POLICIES** are not in accord with the avowed purpose of the Administration's program stated to be the widespread stimulation of employment. The architects of the United States are on the outside; and they are finding it difficult even to "look in." . . . **THE SITUATION** warrants scrutiny and vigorous action that will secure *a square deal* for the professional man. . . . **WRITE OR TELEGRAPH** your congressmen and state representatives. If local government officials are not giving architects *a square deal* this fact should be brought to their attention as well as to that of the public.

Trends in School Planning

BY N. L. ENGLEHARDT

Professor of Education
Teachers' College, Columbia University

CHANGING educational needs present an unusual challenge to the architect planning a public school building. The "New Deal" cannot be consummated without vitally affecting public education programs. The NRA, in its regulation of industry through shorter hours, limited production and elimination of child labor, creates new problems for the classroom teacher as well as for the public school administrator. New educational objectives are being formulated; and a new emphasis is being placed upon the content and method of teaching. In this new society the school is required to create more worth while interests for more human beings over a longer period of their lifetimes.

The CCC, with its 300,000 young men in reforestation, soil erosion and flood control projects, in a sense represents a trend in public education. This agency permits direction of a vast amount of human energy into new fields of action and thinking. Associated with it has been an educational program which definitely relates intellectual progress with these new interests into which thousands of young men have been plunged. The TVA, the CWA, and all of the other recently organized activities of our government which lead toward the improvement of human conditions carry educational implications which cannot be denied in the future development of the public educational system of this country.

Within the past two or three decades there has been considerable progress in school building planning. Taken by and large, this progress has not been highly significant. It has been difficult to turn traditions aside. Boards of education and superintendents of schools have been thought of as conservative individuals whose recommendations have frequently been restrictive. This is one reason why the school building architect has not contributed as significantly to educational planning as others have to different types of structures. Throughout this country too many unfortunate illustrations are to be found of bleak, barren, unattractive and poorly-conceived school buildings that add nothing to the adornment of their communities and certainly have little educational value in the lives of their users.

In planning the school building of a new tomorrow, the architect is confronted with all of the problems required to arouse his interest and to stimulate his initiative. The conditions impinging upon his problem should invite full exercise of his architectural instinct and genius. The successful solution, however, cannot be born of the professional contentment reflected in past school building planning. It seems essential that the school building architect of the future become infused with the spirit, the hopes and the ambitions of those who are advancing the cause of public education. Assimilation of the educational philosophy of his clients, knowledge of instructional methods employed, and an understanding of the educational objectives sought in human lives—these combined should form the basis for a studious attack upon the problem of planning a schoolhouse adapted to the new age.

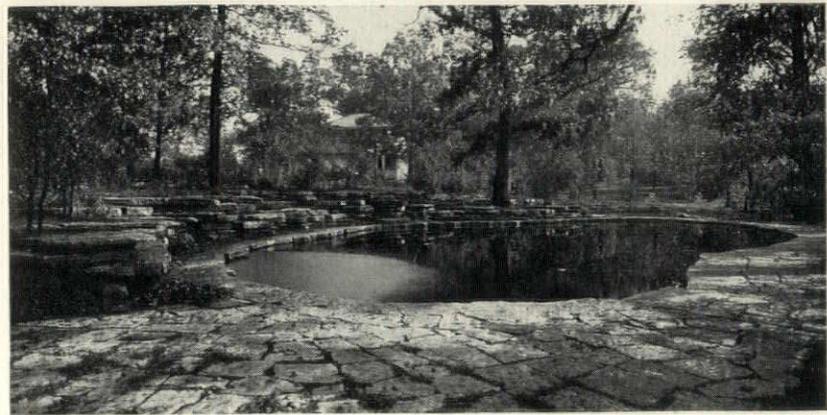
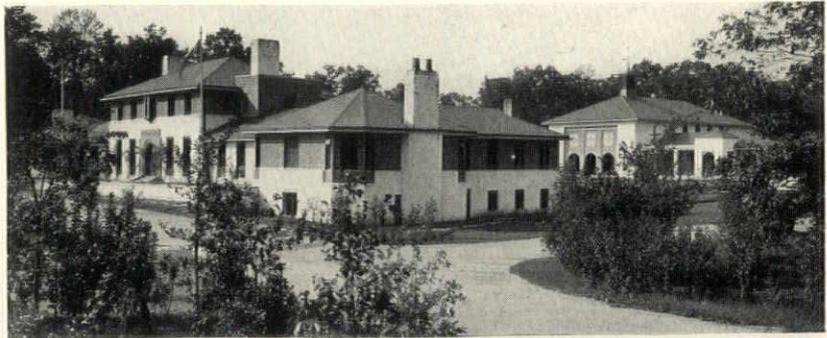
Primarily, school buildings should be regarded as part of a comprehensive program of human planning. The community itself must center its activities about the school; hence, the school building requires a strategic place in the whole scheme of community planning. This implies a thorough understanding of underlying principles and purposes of city-wide planning. Community housing, recreational facilities, traffic conditions and school building projects should be harmoniously related in a complete unity.

A PUBLIC education ideal seeks stimulating advantages for pupils from the environment in which school buildings are placed. But the ideal cannot be advanced except as conditions in the home are improved, opportunities for wholesome recreation are afforded, and ease of communication is established between school, home and the other community facilities which present opportunity for man's improvement.

A new concept of "school" must be born in the minds of architects. This is not alone the responsibility of the architect, because it certainly is an obligation of the superintendent of schools and members of the board of education to present a clear picture of school building requirements. The



CHICAGO ARCHITECTURAL PHOTO



FUERMAN N

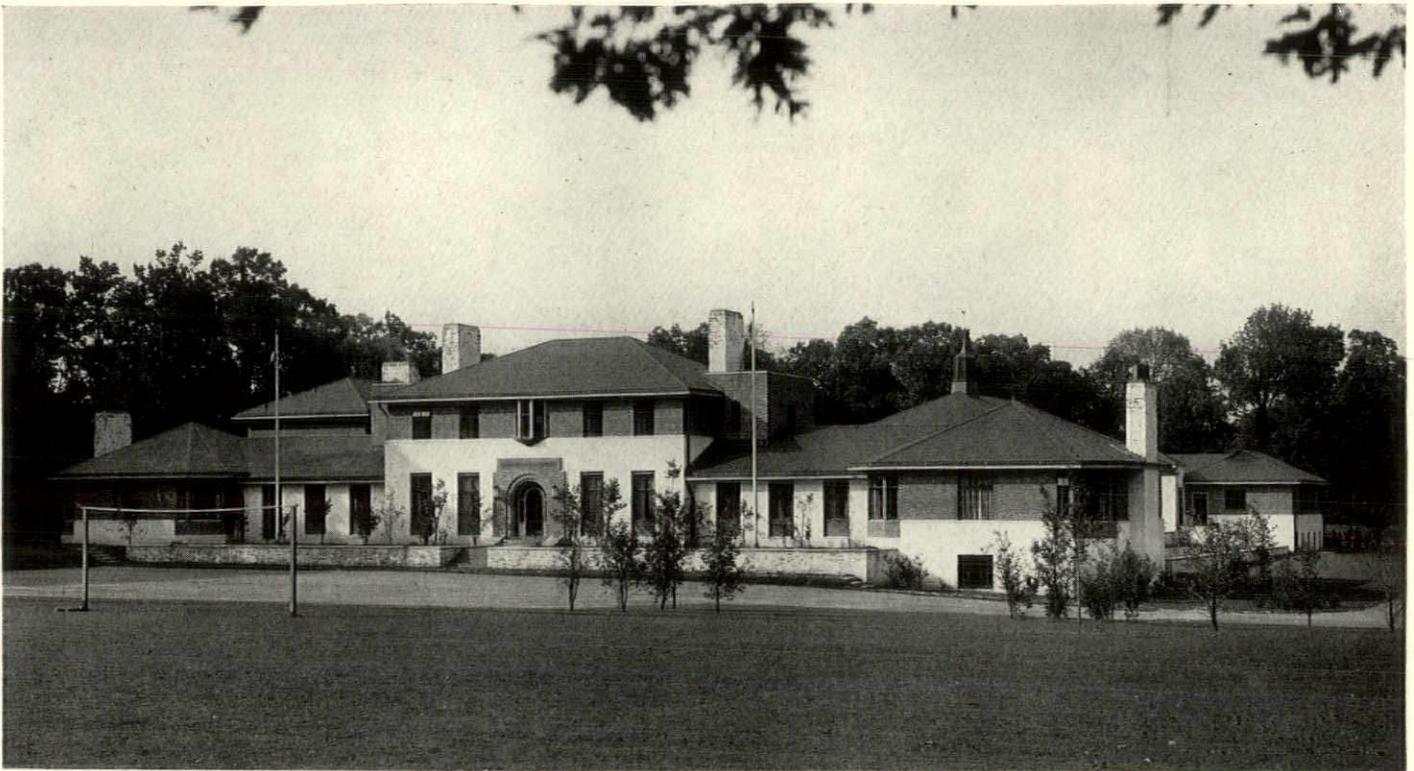
school architect, however, has held a peculiar position in his relationships with boards of education as clients. Board members have looked upon him as one prepared to conceive a building in terms of the real educational need. Many architects were in a position to render such service at a time when the public education program was a simple one. It was not difficult to plan an elementary schoolroom in which children sat in rows and recited the three R's. But such a project cannot be compared with the problems of incorporating in a new project rooms in which an activity program is to be advanced.

In the first place, the architect probably knows little about the activity program. He may not understand the philosophy which has changed the militaristic atmosphere of the schoolroom into one in which children are afforded the opportunity of mingling as human beings in a true social unit. He may not realize that learning under such a philosophy has taken on new meaning. It carries with it zest for living, an enthusiasm for doing, and an enjoyment in learning—all of which should be reflected in the atmosphere which the architect gives to the schoolroom itself. Until these things are known, the statement that formal institutional cubicals should no longer form a part of school building planning has little meaning. Literature of modern educational philosophy and recent educational method will clarify the assertion; and after study the architect will be encouraged to plan quite differently from the way he has in the past.

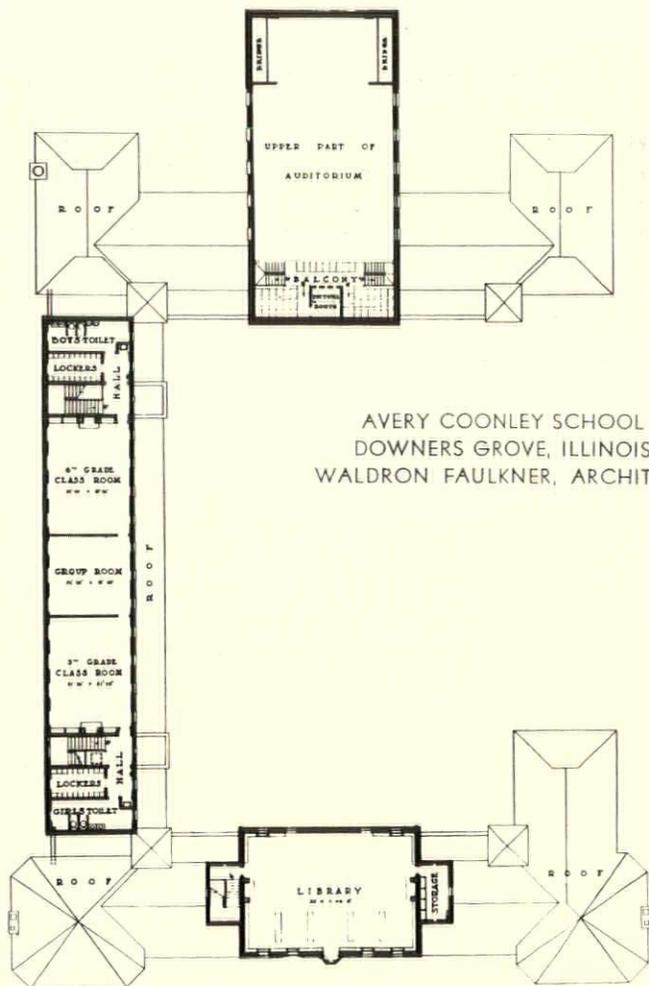
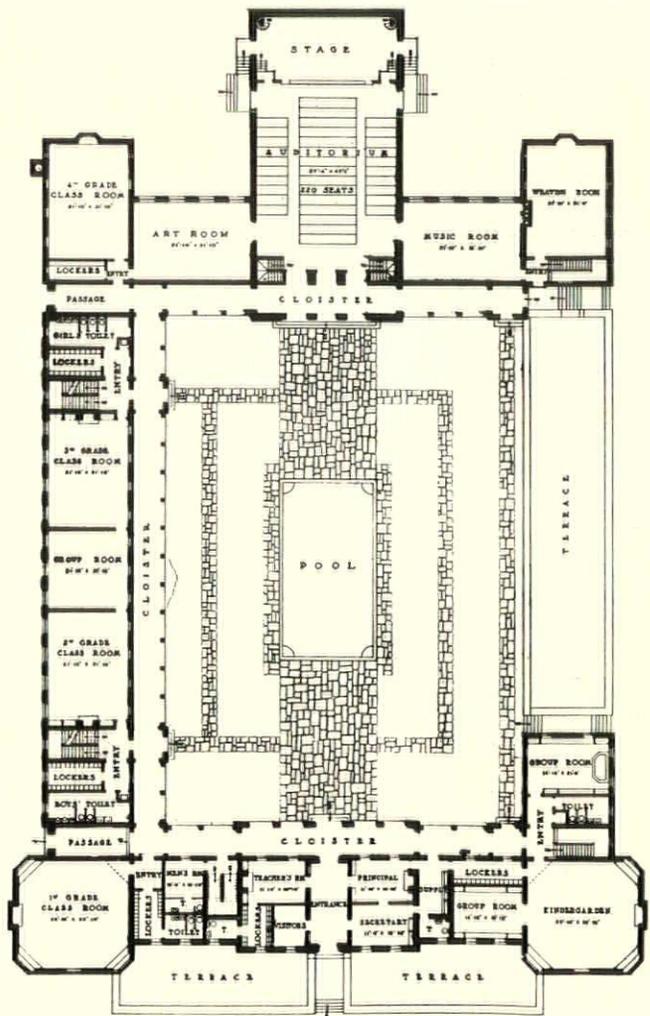
The school building itself must be planned not in terms of the short-lived educational program of the past, but in terms of a constantly developing educational program beginning in early youth and continuing throughout adult life. In such a program the six, eight or ten years which children customarily have devoted to public school education will not be considered merely a preparation for a life which is to be lived after graduation. The schoolhouse is to be a place in which children live—where they play and grow, with each day's program—a worth while and integrated period of living.

IN the rooms and corridors of these schoolhouses social growth through frequent contact will be encouraged. Participation in the opportunities for improvement of human relationships will be afforded. Laboratories will be provided in which prevail the best conditions for stimulation of initiative in the creative fields. Libraries will be so planned that many groups may meet for discussion and for development of research along lines of common interest. Open spaces, properly protected from rough weather elements, will be provided in abundance for play and for simple recreations. Efforts will be made in such schools as these to create for every child an atmosphere which will promote wholesome living and inspiring outlooks upon the years ahead.

Schools will afford these opportunities not only for the child. Adults also will go to school in greater numbers as time progresses. Today the adult dis-



VAN ANDA



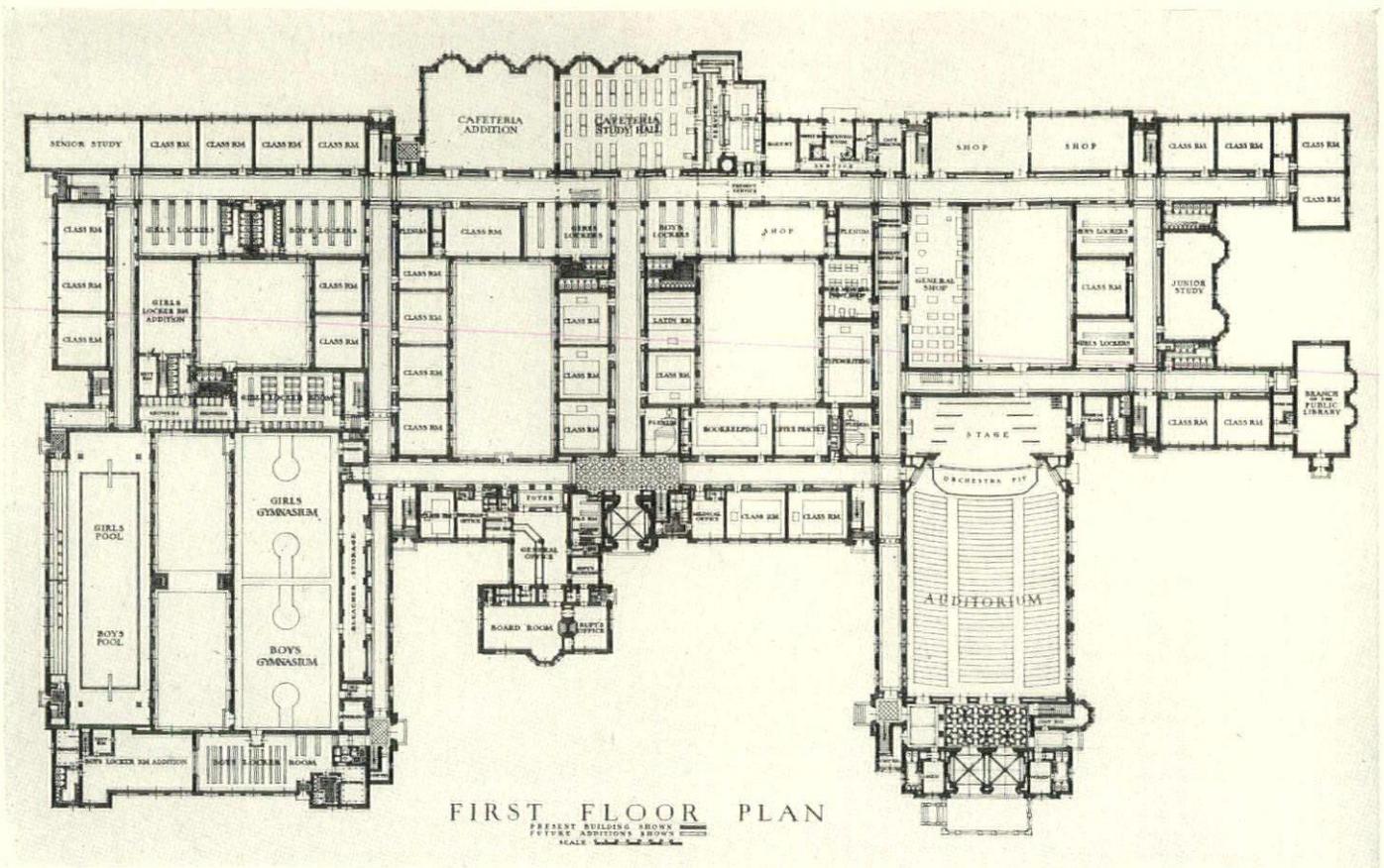
AVERY COONLEY SCHOOL
DOWNERS GROVE, ILLINOIS
WALDRON FAULKNER, ARCHITECT

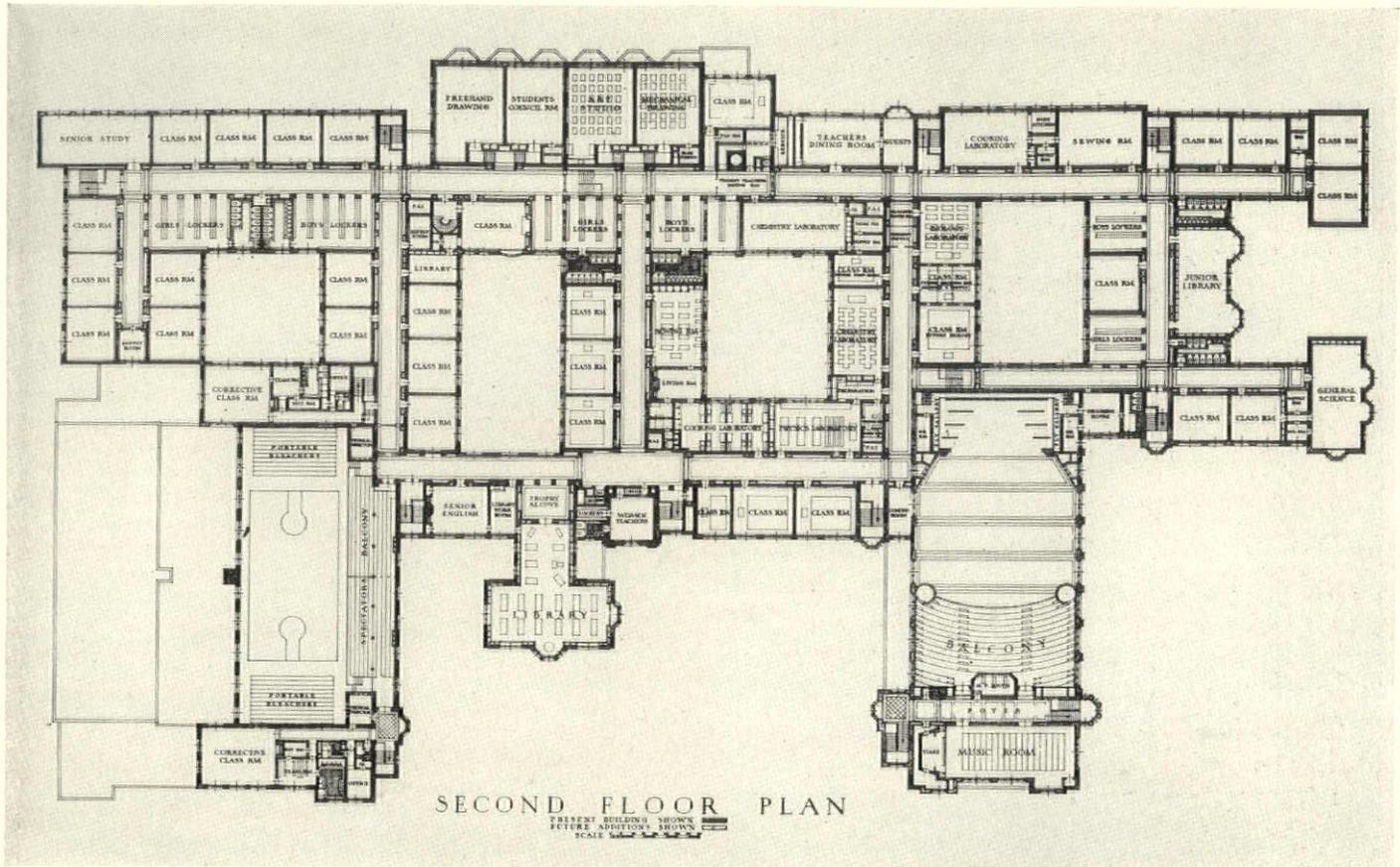


FUERMANN PHOTOS



A primary school with an "activity program" in which social contact, group play and out-of-doors recreation hold places as important as that of traditional instruction in the three R's. The Avery Coonley School at Downers Grove, Ill., Waldron Faulkner, architect





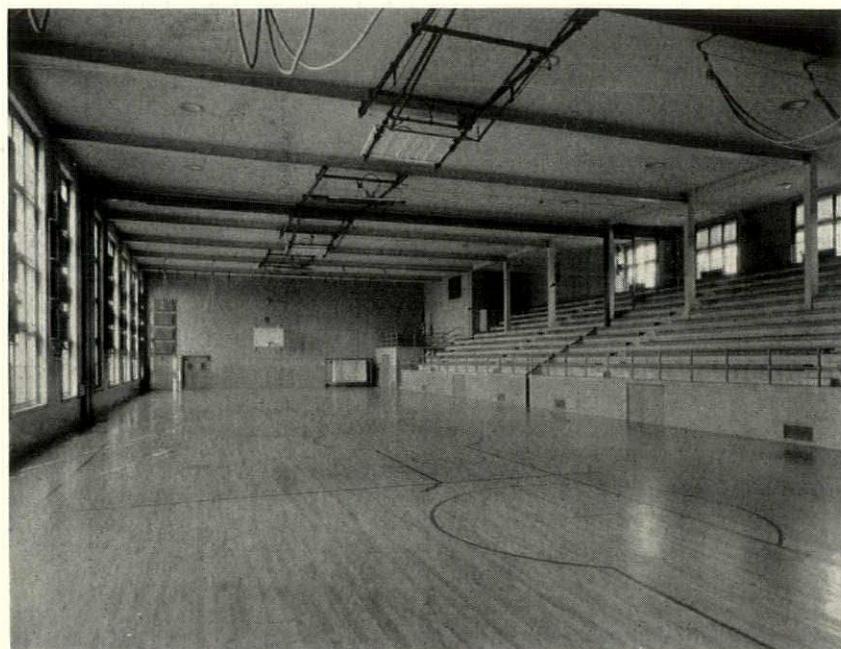
Expansion to keep pace with community growth has been anticipated in planning this high school. It is located in a large park that will contain recreation centers to meet future requirements. The present school structure forms the nucleus of a large plant that will ultimately provide every educational facility for children and adults. Many rooms have been planned for multiple use; special purpose rooms have been equipped to present as authentic and practical a background as possible for specific studies or activities. The gymnasium and future auditorium are so laid out in reference to the rest of the school that they may conveniently be used for general community activities

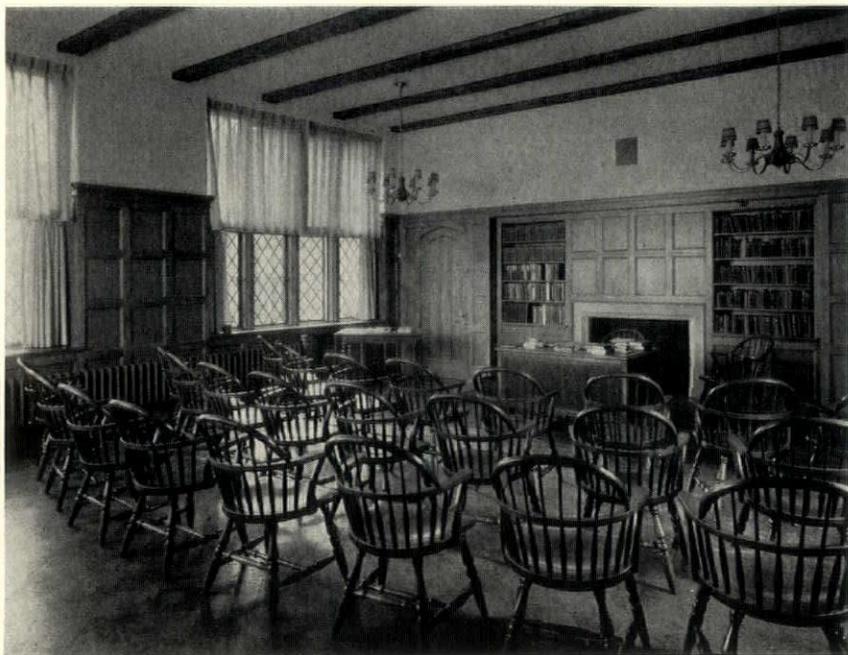
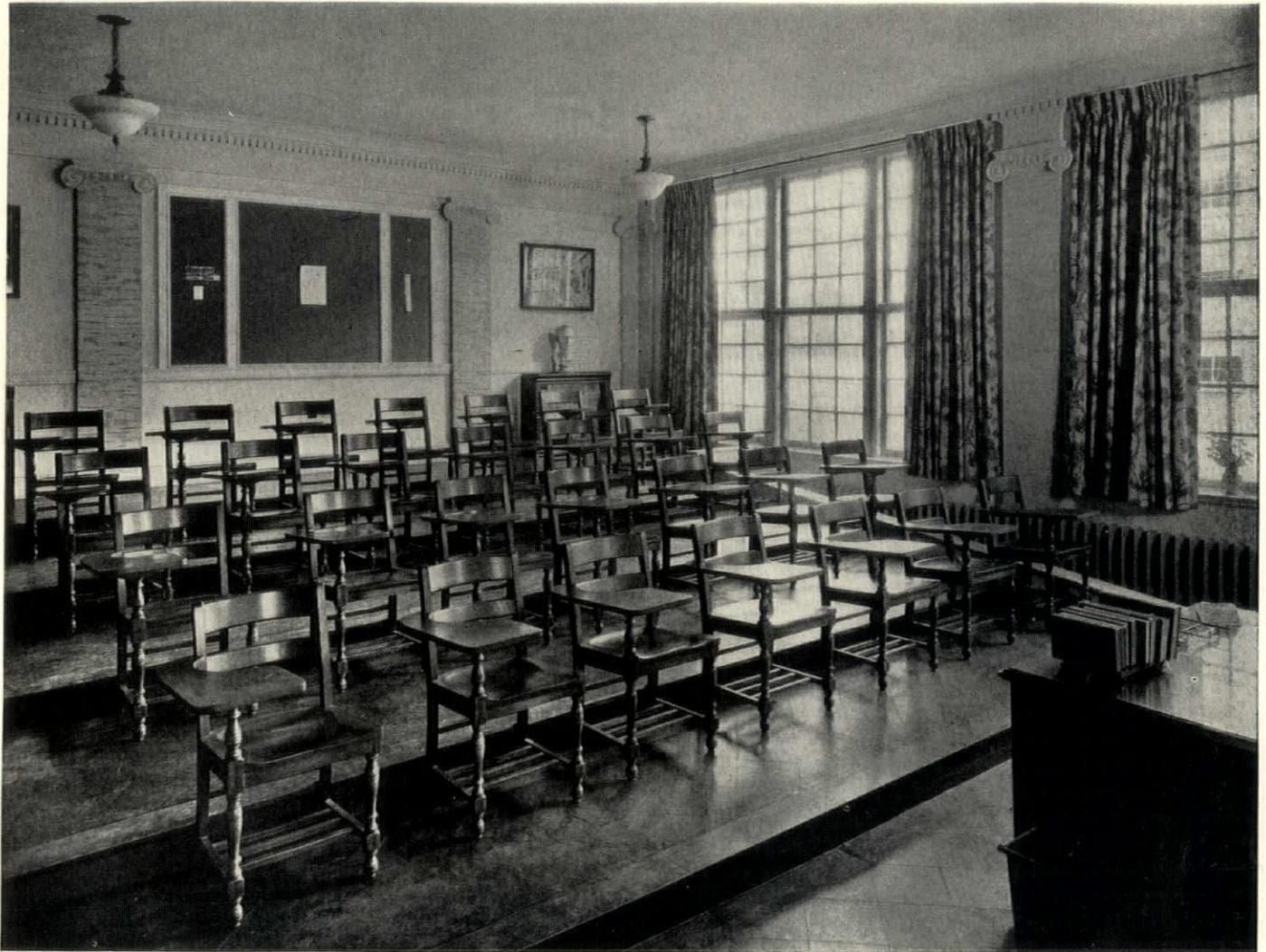
ENGLEWOOD HIGH SCHOOL, ENGLEWOOD, N. J.
 LAWRENCE C. LIGHT, ARCHITECT
 Photographs by Richard Averill Smith



Above: First floor corridor near entrance.
 Right: Gymnasium. Accordion doors, concealed
 in a wall pocket, divide the space in halves

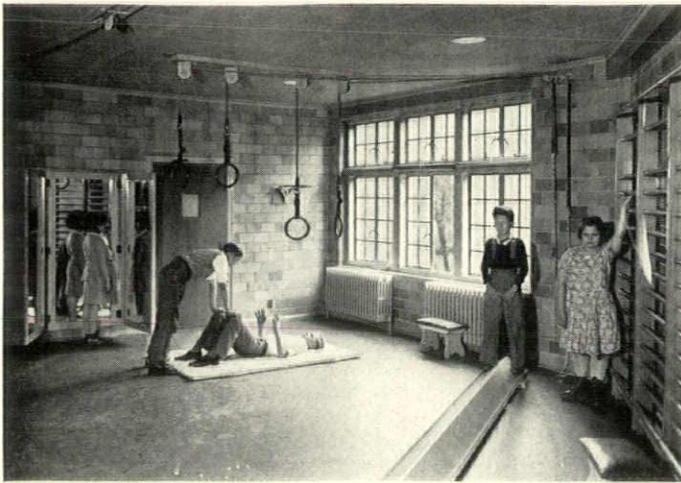
ENGLEWOOD HIGH SCHOOL
 ENGLEWOOD, NEW JERSEY
 LAWRENCE C. LICHT, ARCHITECT





Above: Latin room. Left: English room. Both spaces have been planned to provide a background in harmony with the subject studied

ENGLEWOOD HIGH SCHOOL
ENGLEWOOD, NEW JERSEY
LAWRENCE C. LICHT, ARCHITECT



HOULETTE PHOTOS



Under a stimulating activity program, learning takes on a new meaning for crippled children. Illustrated are two phases of such a program from the David Smouse Opportunity School, Des Moines, Iowa, Proudfoot, Rawson, Souers and Thomas, architects. Left: corrective gymnasium. Right: covered patio used for instruction

likes school because he thinks of it in terms of the school of his youth. Frequently he would even reproduce the school of his youth for his own children, being entirely ignorant of the progress made by public education. When he becomes aware of the modern spirit of public education, he will once more wish to attend school. In fact, it may be that he will be required to do so. It may be necessary for him to learn a new vocation as an adjustment to changing conditions in society or to gain a more thorough knowledge of a new science, a new theory or a new understanding of the government under which he lives. The adult will also utilize the schoolhouse as a means for better living; for in every department of existence the school facilities will be recognized as contributing to a fuller and more zestful life.

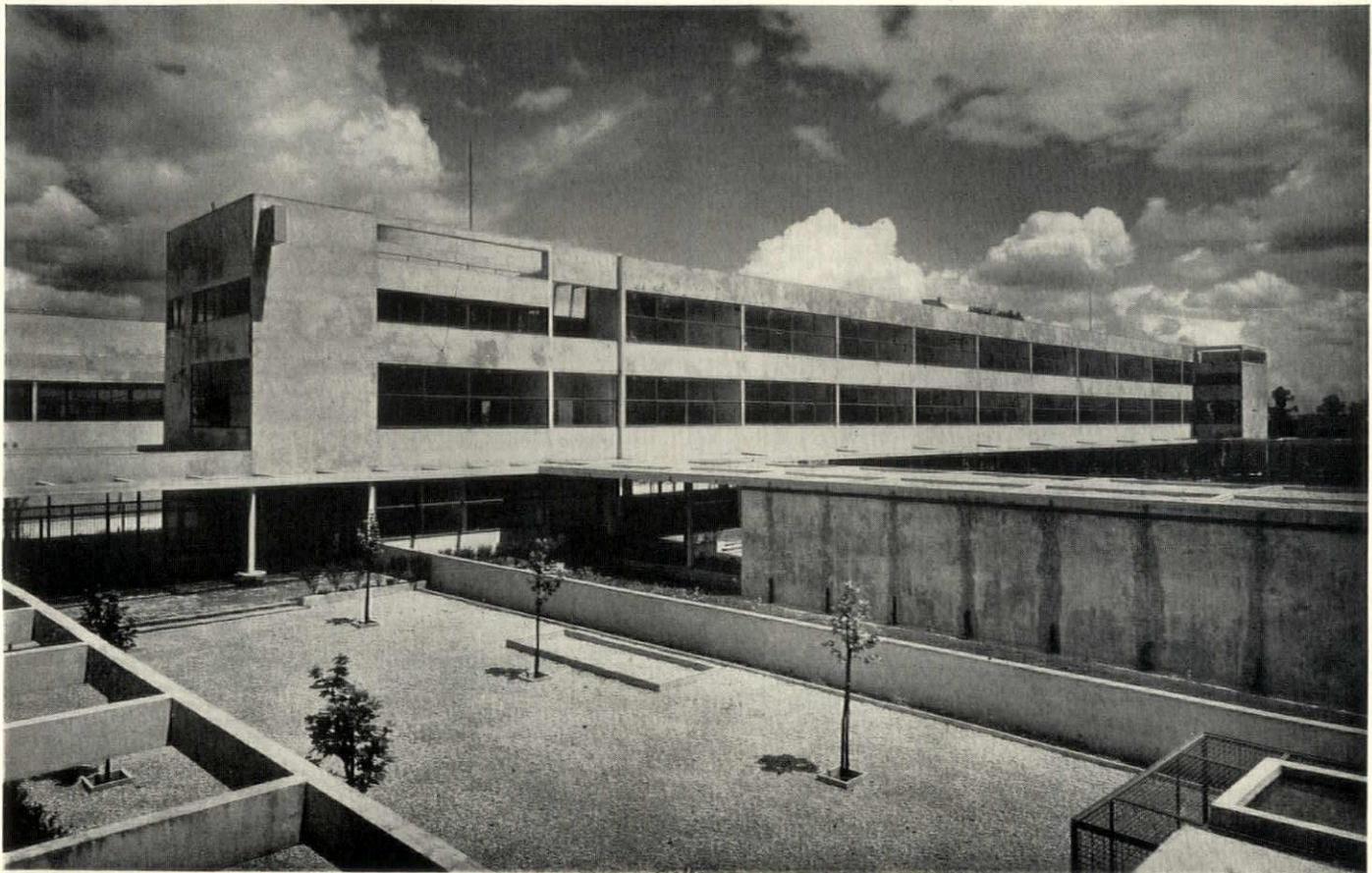
SCHOOL buildings of the past have, in many cases, been so located that there has been no economy of site utilization for recreational purposes. Surveys of school systems made from time to time have clearly disclosed the fact that small sites are totally unsatisfactory for carrying out an adequate program of public education. Such a program demands large acreage; and areas of five, ten, twenty acres and more should be sought.

There should be play spaces definitely set aside for the kindergarten and primary children. The architect has most frequently ignored the element of play in the educational development of the very young. Courts and play areas for competitive sport of older children should be well defined, so that none of the groups and neither sex is ignored. It may even be that in schools of the future all children will be taught how to produce their living from the soil; how to grow poultry, fish and other animal food for human consumption. The site should be

sufficiently large to permit of these activities both by children and adults; and the building itself should be so planned that it will contribute to the advancement of these many other related teaching interests.

There is probably no phase of school planning which has become quite so stereotyped as the health and physical education facilities. In the minds of architects, physical education has apparently been regarded as an opportunity for large groups to observe a few expert ball-players at work or, at most, a formal program in which gymnastics of calisthenics constitute the main part. Nothing could be more contrary to the true meaning of the term. A proper health and physical education program should present the opportunity to understand, to enjoy and to live in the out-of-doors. Streams running through a woodland section, a neighboring river, the adjacent mountains and forests—all provide possibilities for physical exercise and for the promotion of health which should not be overlooked in school planning. It may be that an open amphitheatre in a wooded hollow, a well-equipped boat-house, or over-night camps in the mountains can contribute more significantly to health and physical education programs of the near future than the wall-enclosed gymnasiums of the present. Mechanical requirements cannot be ignored, of course. Locker and shower rooms should be planned, however, not in terms of limited visions of their usage, but in terms of the objectives to be attained, namely, the development of wholesome bodies in wholesome environments.

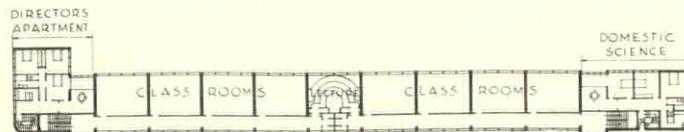
The schoolhouse that will meet the new standards may not have the compactness and the concentration which characterize most present structures. An expanding educational program, the wider use of school facilities and a broadening of curriculum to include most worth while human activities tend



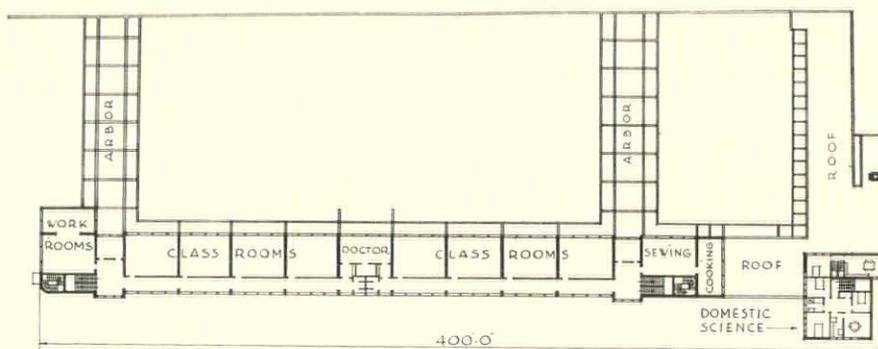
SALAÜN PHOTOS



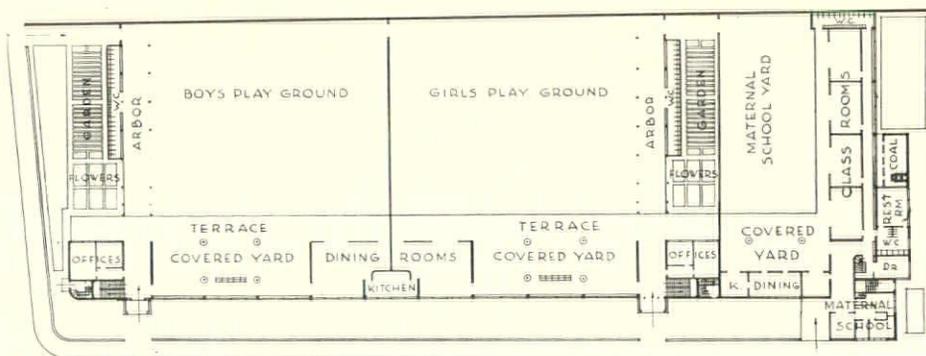
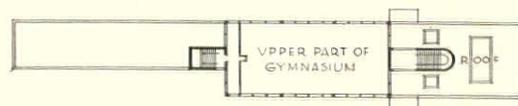
School at Villejuif, a communist municipality near Paris, France, André Lurçat, architect. Above: classroom wing and playground. Left: one of the dining rooms



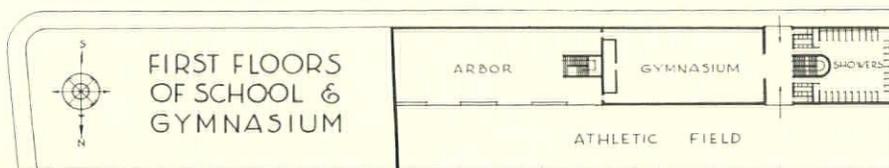
THIRD FLOOR



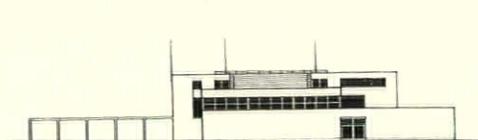
SECOND FLOOR



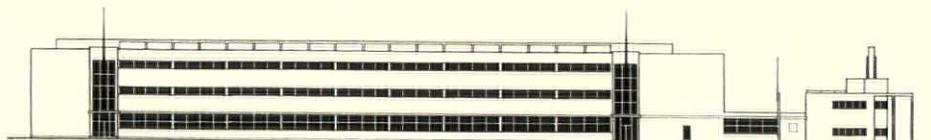
PROJECTED AVENUE



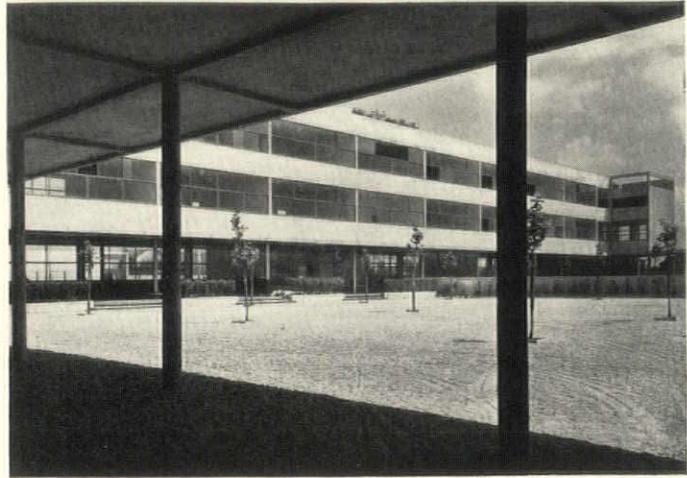
School at Villejuif, France, André Lurçat, architect. The building contains three schools in one: a nursery—or maternal—school, a boys' school and a girls' school. The last two schools are entirely separate



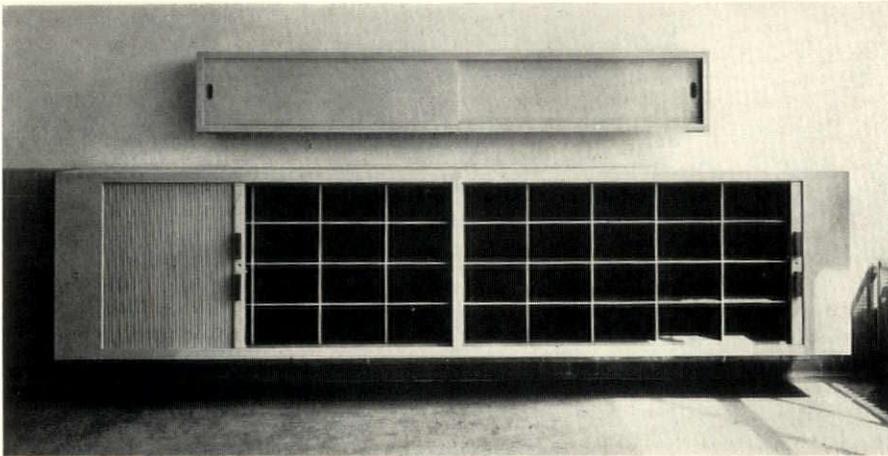
ELEVATION OF GYMNASIUM



ELEVATION OF SCHOOL



SALAÜN PHOTOS



School at Villejuif, France, André Lurçat, architect. Above: left, maternal school yard; right, boys' and girls' play grounds. Below, left: a storage cabinet in one of the classrooms. Doors are made of slats and are flexible

toward the development of a new architectural concept. The advantages of nature, such as woodlands, hills and valleys, running streams and open spaces must be sought when sites are selected. And the charm of this environment should be maintained as the building plan evolves. So far as possible the school should absorb all nature's characteristics. Sunshine should permeate the building. Fresh air should flow to every nook and cranny. Freedom from distracting noises must be sought; and circulation throughout the building must be made simple, direct and easy.

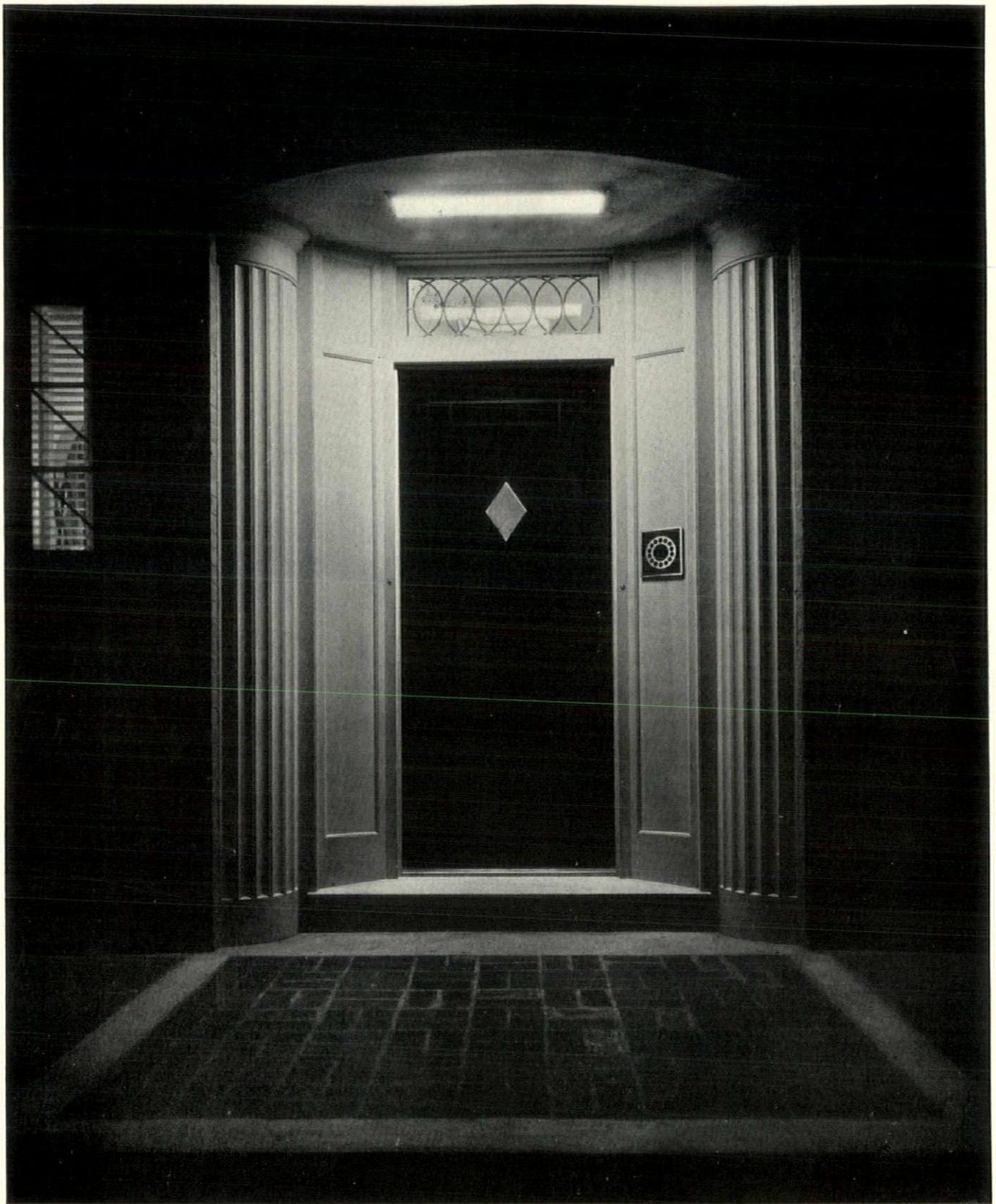
The community school will probably be large. It will provide for many individuals. The architect may, therefore, plan in terms of a number of units each of which may grow as the community needs develop, and yet retain a proper place in the architectural whole. It is even conceivable, where community planning relates most definitely to school planning, that the school itself may become a miniature community in which space and facilities are provided for the well-rounded development and education of a civilized human being.

Here the adult as well as the child may participate in presentation of the drama; or he may be a mem-

ber of a group enjoying the production of music. Here he may acquire an avocational skill in some phase of the fine arts or improve his knowledge or technique in the field of his major vocational interests. Some of his schoolmates may be participating in recreational field games or some of the various activities in social rooms. Others may be advancing their interests in the sciences or may be satisfying inventive tendencies by utilizing shop facilities.

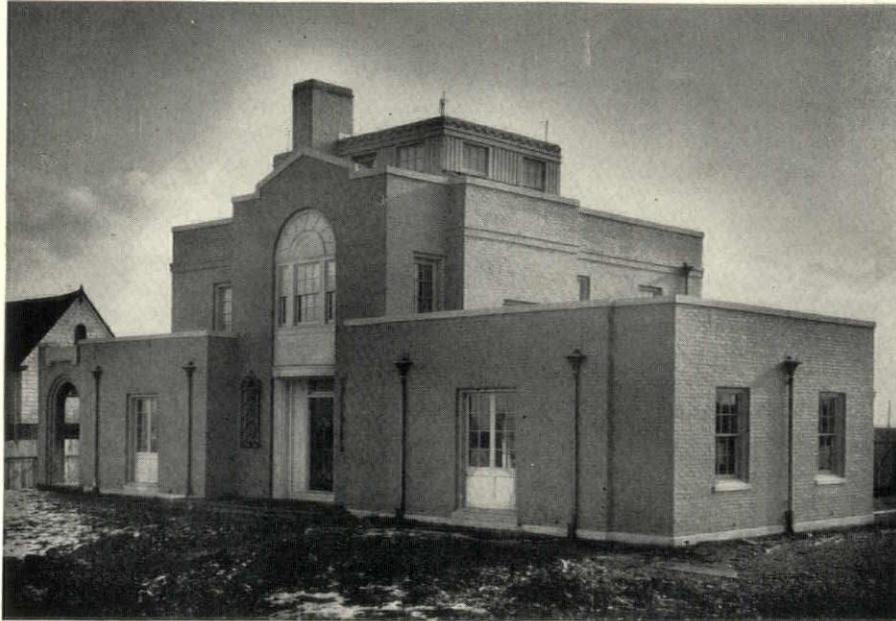
The school thus will be truly a place in which human beings learn while they live and live while they learn. The environment will be one of happiness, of encouragement, of stimulation. The product of such a school will be a civilization of human beings gradually adapting themselves to new conditions and having full enjoyment of the process.

The problem of school architecture is to adjust school building planning to these newer and quickly-growing needs of society. In some communities advancement is rapid and the adjustment will be easy; in others progress will be slow. The problem of the school architect is to plan the school building so that as the educational change occurs, development of the school plant will offer no impediment to progress in the social order.



Detail of Main Entrance

"HOME OF TOMORROW," VERNON REDDING & ASSOCIATES, ARCHITECTS. DWIGHT J. BAUM, CONSULTING ARCHITECT



A House That Forecasts the Home of Tomorrow

BY TYLER STEWART ROGERS

UNLESS architects can design within their organizations modern lighting and electrical installations, air conditioning and plumbing systems and can devise efficient kitchens, laundries and housekeeping facilities as well as they now design exteriors, they face the competition of a new profession of 'house engineers' which will soon absorb all architectural functions except those of purely aesthetic nature."

Such was the statement made by Victor G. Vaughan upon completing an experimental "Home of Tomorrow" at Mansfield, Ohio, built to focus the research and development activities of every department of Westinghouse Electric & Manufacturing Co. upon improvements in the equipment of average-sized houses.

The primary objective of this project was to provide a house in which Westinghouse engineers and their families could temporarily reside to test at first hand such improvements in planning, equipment and housekeeping facilities as might be devised. But the project quickly developed collateral values,

not the least of which is the effect upon planning and structure when a dwelling is subjected to complete mechanization. Where the ordinary house has a connected electrical load of three to twelve kilowatts, this experimental house may use as much as eighty kilowatts of energy.

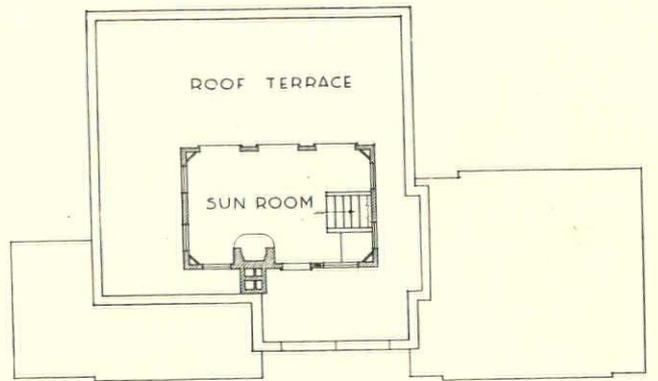
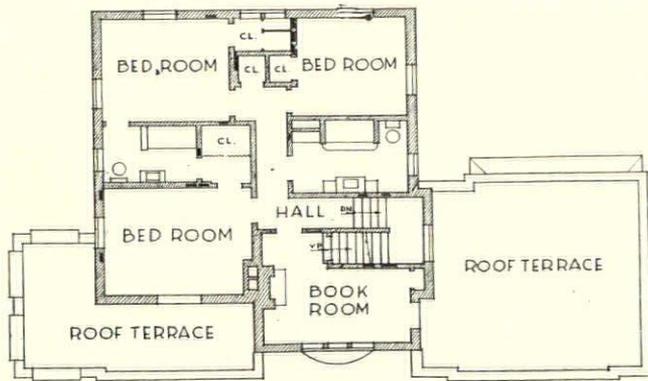
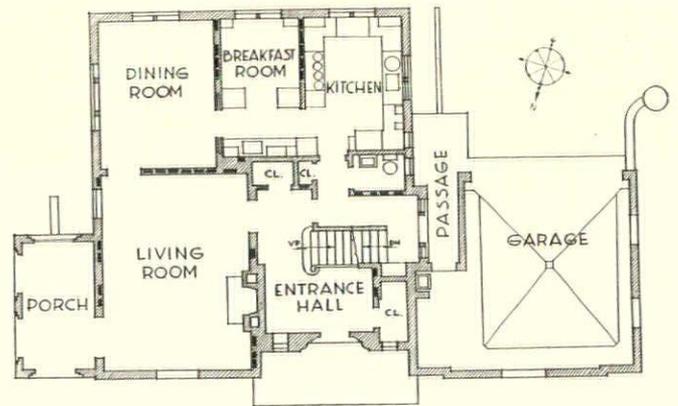
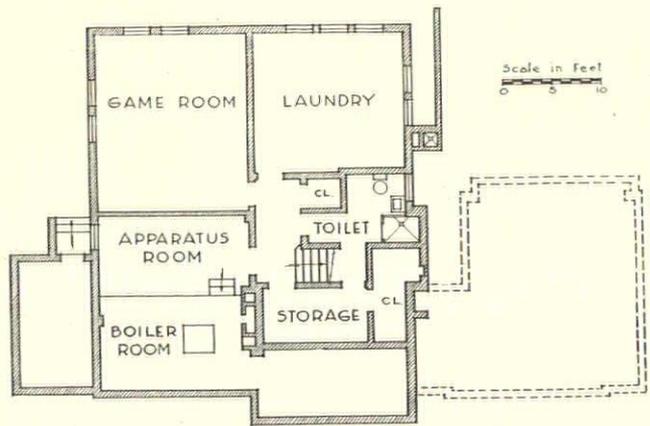
The house itself would cost, under normal conditions, about \$12,000 to build, inclusive of all desirable built-in electrical equipment. It is of wood construction with a veneer of painted common brick and has a gross volume of 26,800 cubic feet, including the garage wing.

Wood stud construction was employed to permit the inevitable changes and adaptations required to introduce the specially-developed mechanical and electrical devices. It proved to be costly, however, as standard stud spacing interfered with the use of ventilating ducts of adequate size and forced many deviations from ideal practice. The mechanized house of the future will require a construction system that accommodates equipment with the minimum of field labor.

Insulation of rigid board type in two layers $\frac{1}{2}$ inch and $1\frac{1}{2}$ inches thick has been used in all exterior walls and roof to minimize the cost of heating



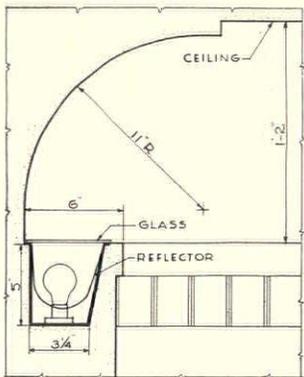
Light is used as an element of decoration as well as an instrument of comfort and convenience. Fixtures are unusual in type and treatment. Left to right, above: Living room with cove lighting; dining room with special window lighting; case lighting in book room; second floor hall with recessed ceiling light and baseboard night light; and mirror lighting in master bedroom



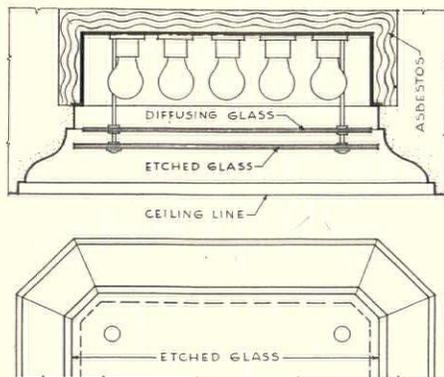
"HOME OF TOMORROW," VERNON REDDING & ASSOCIATES, ARCHITECTS, DWIGHT J. BAUM, CONSULTING ARCHITECT



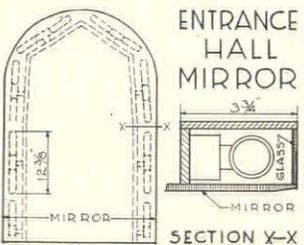
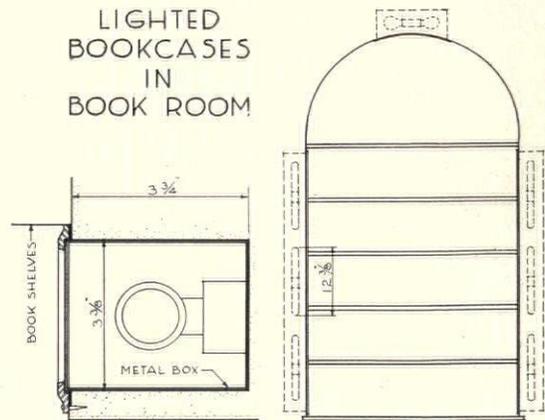
Construction of lighting fixtures is simple as indicated by details below. Ordinarily it should cost no more than less efficient fixtures of commonplace design. The dining room fixture contains four circuits that provide two intensities of white light, one of amber and one of blue. Combinations of color and intensity are possible by manipulation of circuit control switches



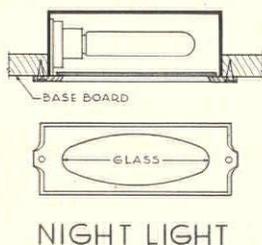
LIVING ROOM COVE



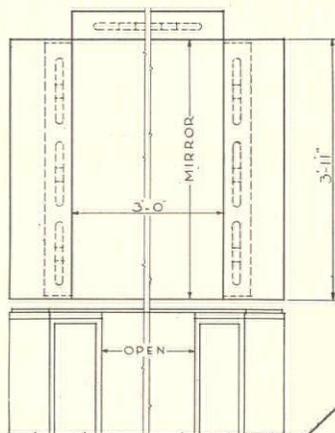
DINING ROOM CEILING LIGHT



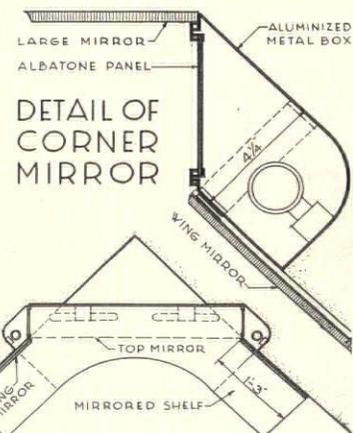
SECTION X-X



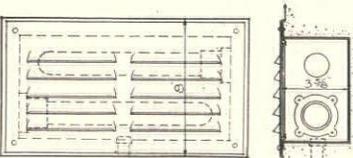
NIGHT LIGHT



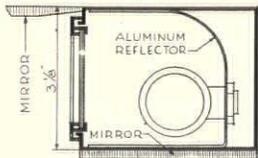
ELEVATION AND PLAN OF BEDROOM MIRROR



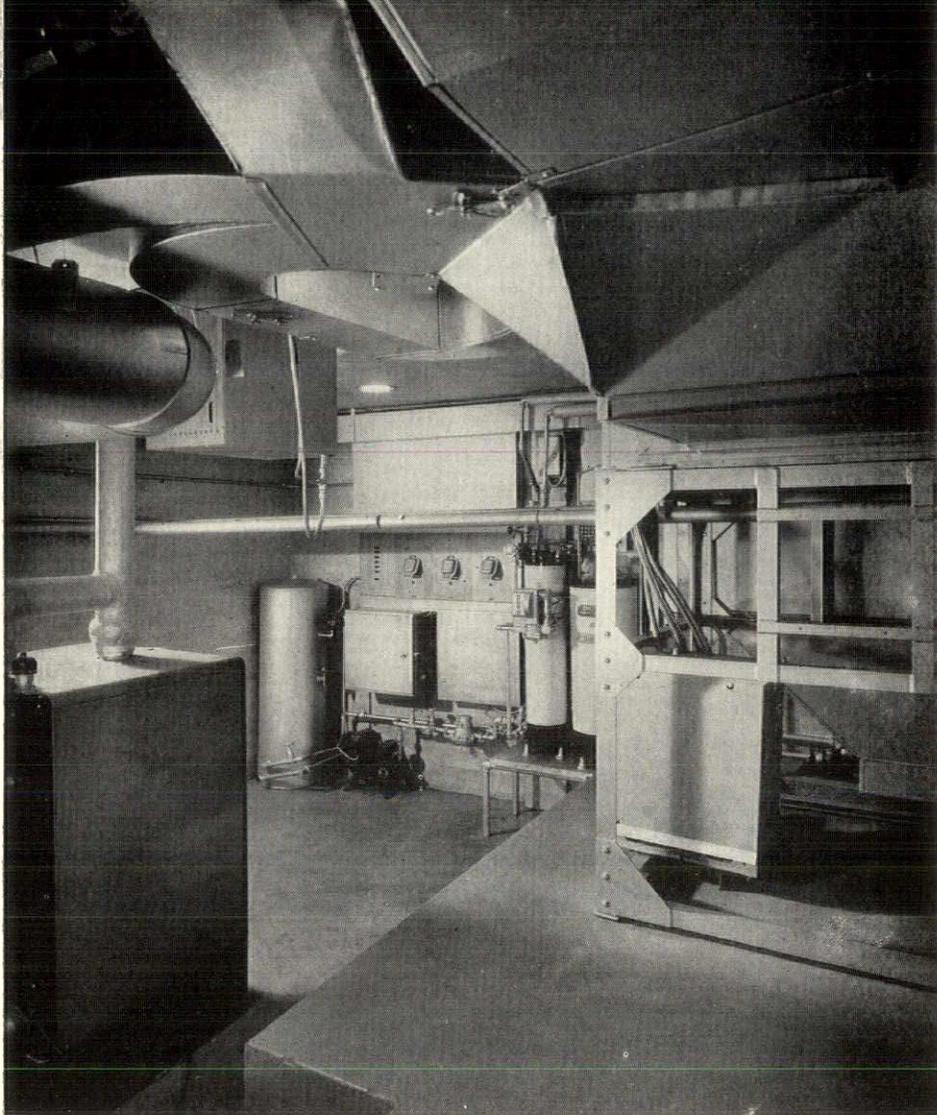
DETAIL OF CORNER MIRROR



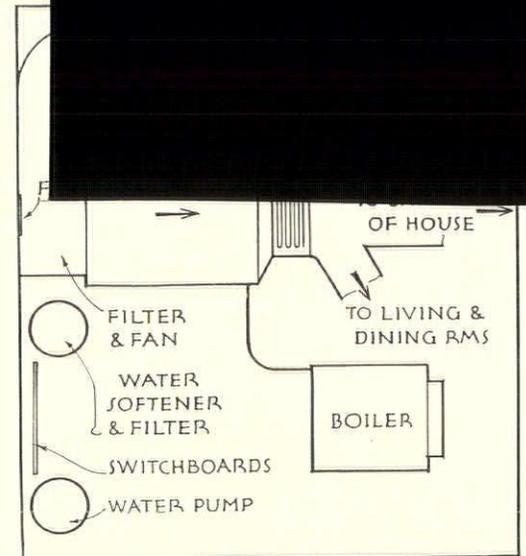
PARAPET RECESSED LIGHTS



MIRROR LIGHT



Air
rod
mid
fer
cool
by



and cooling. Windows and doors are weather-stripped; and all windows are double glazed with dehydrated air sealed between the panes.

Heating, cooling and air conditioning are provided through a system of unusual efficiency and completeness. The "weather room" in the basement contains an oil-fired steam boiler and an air conditioning unit consisting of filters, variable speed fans, heat transfer coils, spray humidifier and cooling coils. The conditioning unit is fed by a system of recirculating ducts and delivers to a distribution duct system divided into three parts. One part serves the living room and dining room, another the three bedrooms including one bath and the third the remainder of the house.

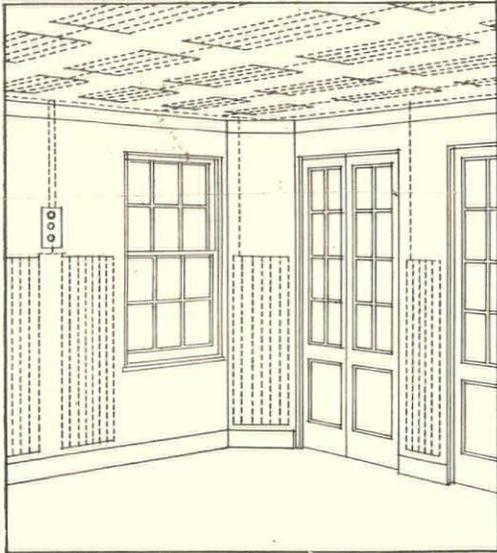
In mild weather all three duct systems carry cooled air. During brief periods of extremely hot weather, the entire refrigerating capacity is concentrated on the living and dining rooms during the day and is transferred to the bedrooms at night. The remainder of the house remains uncooled except for infiltration from the cooled areas. Thus a two-ton capacity refrigerating unit is made to serve the

entire house, though a six-ton unit would be necessary for complete cooling.

Panel heating has been introduced in the walls and ceiling of the penthouse. Panels consist of nichrome ribbon heating elements embedded in the plaster. Each unit is rated at 75 watts, 55 volts, or 300 watts, 110 volts. Panels can be operated in series-parallel at either 110 or 220 volts, the latter being used for quick heating and the lower voltage for sustaining heat in ordinary weather. The total load ranges from 2.6 kw. to 10.4 kw.

Reversed refrigeration equipment, a Westinghouse development still in the research stage, is installed in the basement and used to provide domestic hot water. In principle the mechanism pumps heat from the air and transfers it to the water, thereby reversing the normal process of cooling the air by refrigeration. At present the unit can operate efficiently only when the indoor temperature is above 65 degrees. Therefore, emergency service is provided by an ordinary electric water heater. Though not part of the air conditioning system, the reversed refrigeration equipment will be used experimental-

Traditional construction, indicated by the illustration, is ill-adapted to economical installation of highly mechanized modern house equipment. Diagram shows location of electrical heating panels in pent-house. Nichrome ribbon elements embedded in ceiling and wall spaces are concealed by finished plaster



ly for summer cooling as well as for space heating in portions of the house during cold weather.

Automatic controls are used throughout the air conditioning system. The plant is completely automatic at all times. Humidity is automatically controlled in the winter only, there being no dehumidifying equipment installed except to the extent that condensation will be removed from cooling coils.

Lighting is an important feature in the experimental house. Of special interest is the cove lighting in the living room used for general illumination which is supplemented by indirect lighting standards and local lamps; the color lighting and window lighting effects in the dining room; and the panel and soffit lighting around all mirrors in bedrooms, bathrooms and entrance hall. Intensities are proportioned according to occupancy of the rooms, and may be instantly checked at any point by a portable photometer—an instrument to measure the strength of illumination as a thermostat indicates temperature.

Lighting units not shown in the illustrations include exterior lighting of foundation planting, submarine illumination of the garden pool, an illu-

minated house number and soffit lighting over the entrance door. Roof terraces are lighted by louvred, recessed panels immediately below the coping.

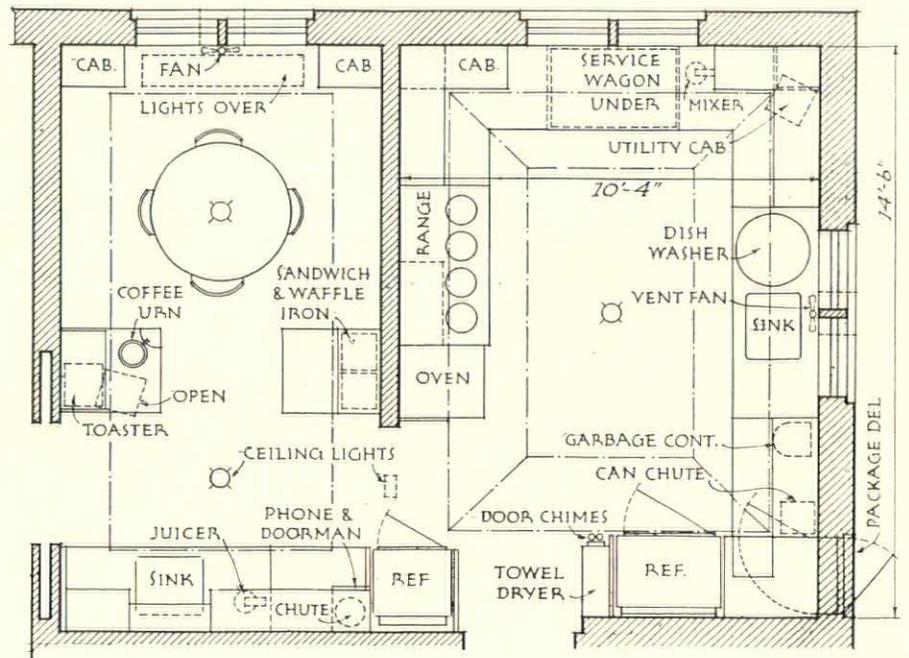
The general use of soffit lights and light panels simplifies the maintenance and cleaning of fixtures, as lamps are enclosed in practically dust proof boxes.

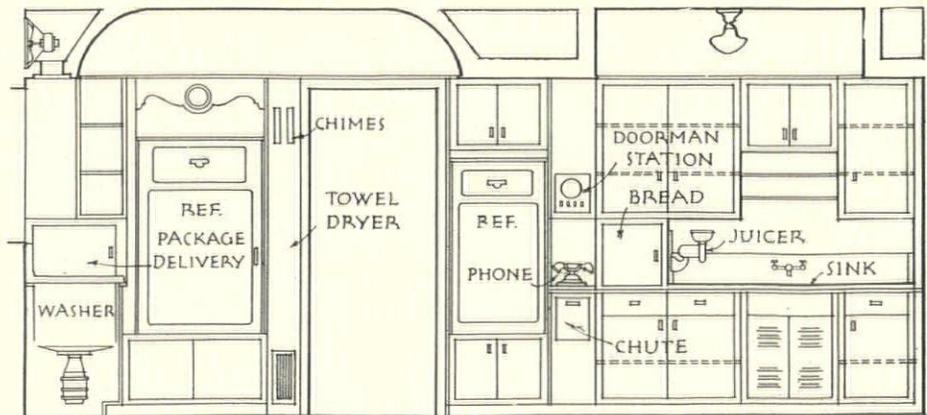
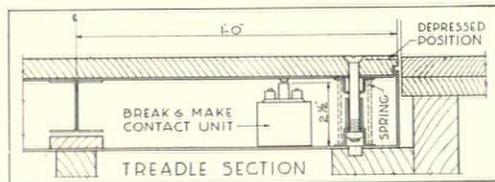
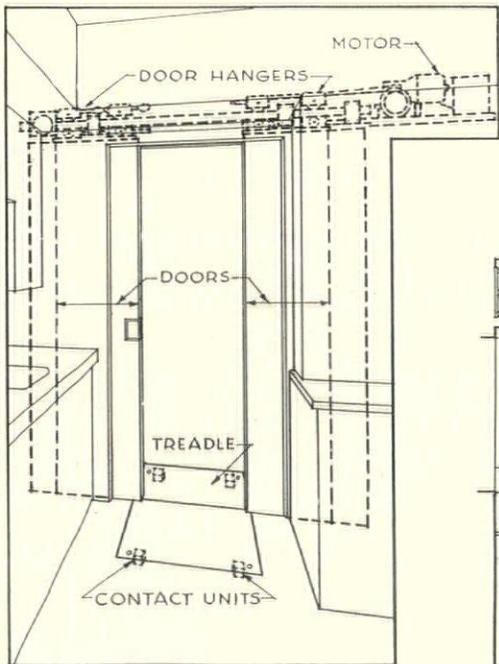
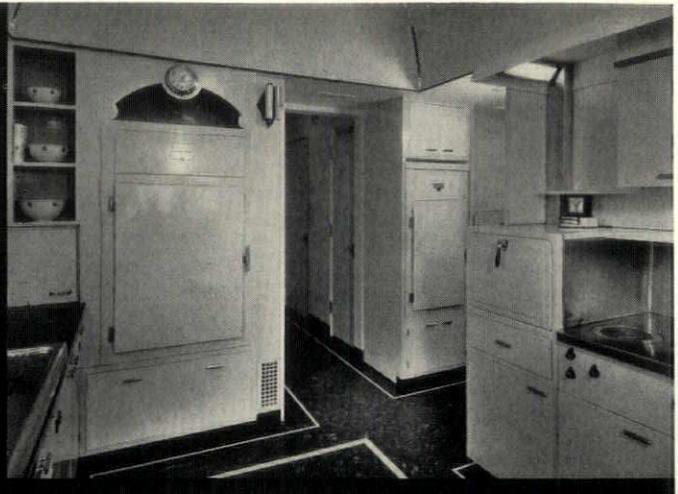
High efficiency lighting is to be found in the kitchen, pantry and breakfast room. General lighting in the kitchen is derived from a central ceiling fixture with a 150-watt lamp which reflects against the coved Micarta ceiling to illuminate all working surfaces. This is supplemented by soffit lights over the sink and in the range hood and by concealed lights beneath the cupboards that overhang other work top areas. Lighting in the pantry and breakfast room is similar.

Burglar protection is provided by the installation of low intensity louvred lights near the floor in every room and hallway. A single switch at the master's bedside will turn on all these lights throughout the house. In addition a switch in each bedroom will separately control lights in that bedroom, in the adjacent hall, and in the nearest bathroom.



An all-electric kitchen and pantry designed for a servantless household. Labor-saving innovations are: an electric range with all heating elements in front for easy access; an electrically heated serving wagon that fits under a kitchen work top; a self-cleaning garbage disposal device; an automatic waste disposal chute; a hinged package receiver; and a motor-driven coffee percolator which guarantees perfect coffee at the throw of a switch. Between pantry and dining room are double doors that slide open into concealed wall pockets. Operation is automatic. A step upon floor treadles opens them; they close tightly when the weight is removed. Diagram on the facing page indicates location of hangers and operating mechanism





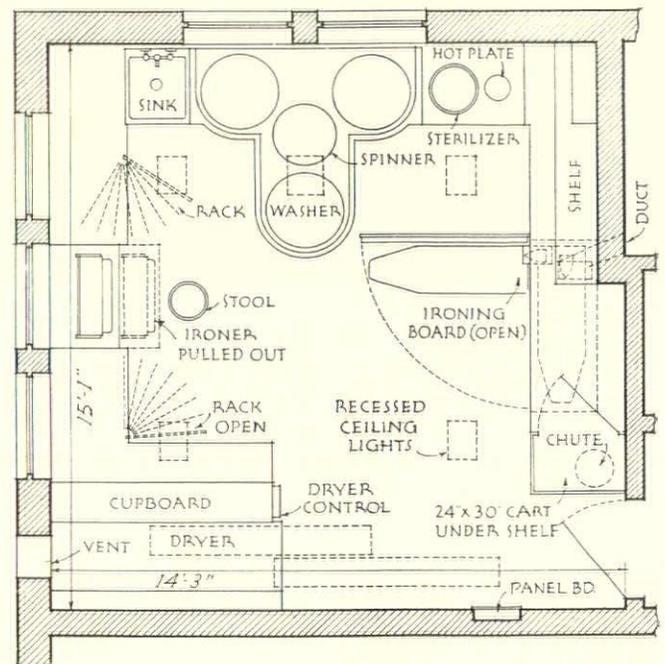


Switch controls are generously supplied so that one may pass through any part of the house and control the lights on entrance and exit from each area without retracing steps. Pilot lamps are installed wherever necessary to show that lights out of vision from the switch point are on or off. Closets or cupboards are lighted within, under control or automatic door switches.

The mistress of the house is saved many tiresome steps and unwelcome annoyances by the installation of a Vocalphone system, sometimes called "the doorman." Three master stations, one in the kitchen, one in the laundry, and one on the second floor at the entrance to the book room and two door stations (one at the front and one at the service entrance door) permit a person anywhere in the house to answer the door vocally and to carry on a conversation with the visitor, who perceives only the shielded cover of a microphone-like speaker. Conversation may also be carried on within the house between any two master stations. Door and telephone calls operate musical chimes of different tones.

Electric clocks are built into the walls of many rooms in the house.

In the front hallway is an automatic, temperature-indicating device which will show, by turning a switch, the exact temperature out-of-doors or in any important room in the house. Garage doors, of the overhead type, are electrically controlled from two points in the garage and service hall and from a



local standard in the entrance driveway. There is a built-in radio in the living room and connections serving seven secondary receivers in other rooms.

The kitchen and pantry are planned and equipped in accordance with the most advanced principles of simplified housekeeping. In their organization they represent an ideal development of the principles given in AMERICAN ARCHITECT Reference Data on "Household Kitchen Planning" (July, 1933). New



THE BASEMENT LAUNDRY is equipped as efficiently as the kitchen and pantry. All machines are electrically operated. Clothes from the laundry chute pass around work tops at the left and are laundered in a kind of straight-line production sequence. They pass from the sterilizer to a washer, then through two rinsers and a spinner which rough-dries them to an ironing machine that fits into a cabinet when not in use. **BATHROOMS** are noteworthy for convenient cabinets, for panel lighting at the mirrors and for use of Micarta for both sanitary and decorative purposes. The bathroom at the left above has an electric heating and ventilating unit combined with a towel dryer near the window. In the other a wall decoration of Micarta, inlaid with anodized aluminum, is reflected in the mirror above the lavatory.

developments of particular interest include: a new electric range with four top cooking elements in a single line across the front to make all cooking operations easily accessible; a motor-driven electric coffee-making machine in the serving pantry which has its own water connections and drains and an automatically controlled operating cycle that assures perfect coffee of any desired strength; a novel garbage disposal container that is self-cleansing; a rubbish disposal chute leading directly to a receptacle outside the house; a package receiver; and a complete ventilating system.

The laundry in the basement is equally advanced in design and equipment. Clothes arrive through a ventilated chute, pass over a sorting table to a sterilizer, thence into the first washing drum and in sequence through the drying spinner, first rinse, spinner, second rinse and to an electrically heated and ventilated drying cabinet. From this they may be taken either to the hand-ironing section or to the electric flat ironer.

Bathrooms and toilets are of first interest for their decorative treatment, for the use of lighted mirrors and for the electric heater, towel dryer and infra-red ray warming lamp over the shower in the main bathroom. Ample cabinets and storage spaces are provided as recommended in *AMERICAN ARCHI-*

TECT Reference Data on "Bathroom Planning" (January, 1934).

The extent of the equipment embodied in this house is obviously exaggerated over what may be considered normal requirements—an exaggeration that is natural because of the experimental nature of the project. But it is obvious that the technical planning details involved in a mechanized dwelling of this character far exceed the present experience or training of the average architect.

Mr. Vaughan's observation that a new profession of house engineers will arise unless architects keep pace with these developments reveals a new opportunity and an enlarged field of work for the far-sighted members of the profession. At the same time, however, it threatens severe competition with, if not the complete elimination of, architects who believe their work is done when simple drawings, elevations and routine specifications are completed.

The "House of Tomorrow" was designed by Vernon Redding & Associates, architects. Dwight James Baum was consulting architect and the Good Housekeeping Institute was consultant on kitchen and laundry housekeeping facilities. The Good Housekeeping Studio of Architecture and Furnishings planned the interior decoration. Photographs are by Ernest Graham and Kaufmann and Fabry.

The Architectural Profession

// IN a few years there will be no such thing as a practicing architect!"

This statement was made recently by a high official of the National Association of Real Estate Boards. Was this realtor—who employs an architect on a yearly salary—merely voicing a wish, or did he, in the vernacular, "speak a mouthful"? Is architecture as a profession mummifying? Are its ranks so overcrowded that it has become impossible for more than a small minority to make a decent living? And, if this condition actually exists, can anything be done about it—and if so, how can it be accomplished?

To those who are willing that the profession should forever doder on the brink of oblivion, these questions have not even an academic interest. But to others—thousands of earnest men who place human values above all else and are proud of their ability to build honestly and well—they are of major importance. They *must* be answered if the professional architect is to extricate himself from the maze of difficulties that have for many years enmeshed him, even prior to the depression.

There is little question that for a long time there has been constant betterment in the quality, character and spirit of American architectural design. But during an equal period there has been a steady deterioration of the profession as a means of securing a livelihood. For both conditions architects themselves have been responsible. Responsibility for the first is obvious. For the decay of professional opportunity architects have, perhaps, been only indirectly to blame. But by passive neglect they have allowed others to usurp an increasing list of their prerogatives. Here, specifically, are some results of a complaisant inattention to the business of lucrative opportunity.

1 . . . Small House planning has been ignored. Consequently, an important contact with a large portion of the building public has been lost.

2 . . . Realtors and Speculative Builders have made devastating inroads on the field of architectural practice. Professional societies have not raised a finger to stop the advance.

3 . . . Federal, State and Municipal governments have poached on the preserves of the practicing architect with numberless planning bureaucracies. Thus architects have been deprived of much substantial and lucrative work.

4 . . . Popular magazines, material manufacturers and "Small House Bureaus" have vied with one another in furnishing stock plans at prices with which the architect cannot compete. Thereby thousands of trained men have been deprived of a chance to

make contacts, gain valuable experience or even make a living.

5 . . . Tradition in professional business affairs has prevented architects from adapting their practice to changing methods of financing and construction.

THE collective attempt of a few thousand professional men to go counter to the progress of millions of their fellow citizens was doomed to failure from the beginning. If persisted in, the prediction of the Real Estate official will come to pass; and architects will become as extinct as the dodo.

The situation can be forestalled. But protection from ruthless competition by a paper aegis of ethics is no panacea. Nor is any campaign of polite publicity to "Sell Architecture to the Public" of much practical help. Too great insistence upon the letter rather than the spirit of codes of professional ethics has lost the architect recognition as a man of practical business; and though publicity efforts in the past have been meritorious, they have had the fundamental defect of promoting *architecture* rather than the *architect* and thus have often played directly into the hands of agencies that encroach upon the architect's activities under various subterfuges of architectural service.

If architecture as a profession is to survive and grow, architects, individually and collectively, must: (a) recapture the small house market; (b) get the Government out of the building business; (c) organize a body that will be truly representative of the profession as a whole; and (d) publicize professional activity in all its phases, promoting to the public the value of the architect's service.

OBVIOUSLY, it is impossible to offer in detail a program by which all these essentials can be accomplished. Their implications are of too serious and fundamental a nature to be lightly considered. But action must be taken promptly on each. It must be vigorously carried forward; for the goal is nothing short of self-preservation—self-preservation as concerns the profession as a whole and every individual who is a member of it.

It is possible that many practices common to a traditional profession will need to be changed. For example, so far as the small house market is concerned, the architect must meet competition that already exists and which has been responsible for shouldering him out of this basic architectural activity. One answer to this problem may lie in the development by individual architects of their own stock plans, specifications and cost standards based on competitive bids. There is nothing wrong, fun-

Is Not Dead Yet, But . . .

ROSSEL EDWARD MITCHELL says that
if the profession is to survive and grow,
architects must:

1. Recapture the small house market
2. Get the Government out of the building business
3. Organize a professional body to represent every architect
4. Publicize the architect and not architecture

damentally, in the stock plan idea. The evil lies with the manner of its administration and the fact that no opportunity has existed for originators of plans to supervise development of their designs.

Again, it is possible that some system of design-and-construction will be practical in many localities. Such a system has worked admirably for many years in European countries and might prove to be as generally efficient here. Whatever the method, the architect *must*—to justify himself economically in a huge popular market now largely foreign to him—offer his small house clients less vaguely professional advice and more of a fixed-cost product, made up of planning, design and specification and sold under a contract that also covers supervision.

THE necessity of getting the Government out of business is almost too self-evident to require comment. In spite of well-conducted campaigns to bring this about, recent Government efforts to stimulate employment have led to tremendously enlarged Government architectural offices. If present practices of the Government continue, it will not be long before every department of building activity will be originated and administered through a vast bureaucratic organization against which the most active efforts of private architects will prove unavailing.

Let it be emphasized here that the Federal Government is not alone doing work that should be done by private firms. States and municipalities have followed the lead of Washington; and during the last year, particularly, there have been numerous public buildings planned, under the direction of city, county or state engineers, by architects who are paid ridiculously low daily wages from emergency unemployment funds.

All this cannot be altered by local excitement or the efforts of a few individuals. A change requires the concerted action of every architect, every engineer, every building contractor and every manufacturer of building materials who is anxious to secure his freedom of individual action and his

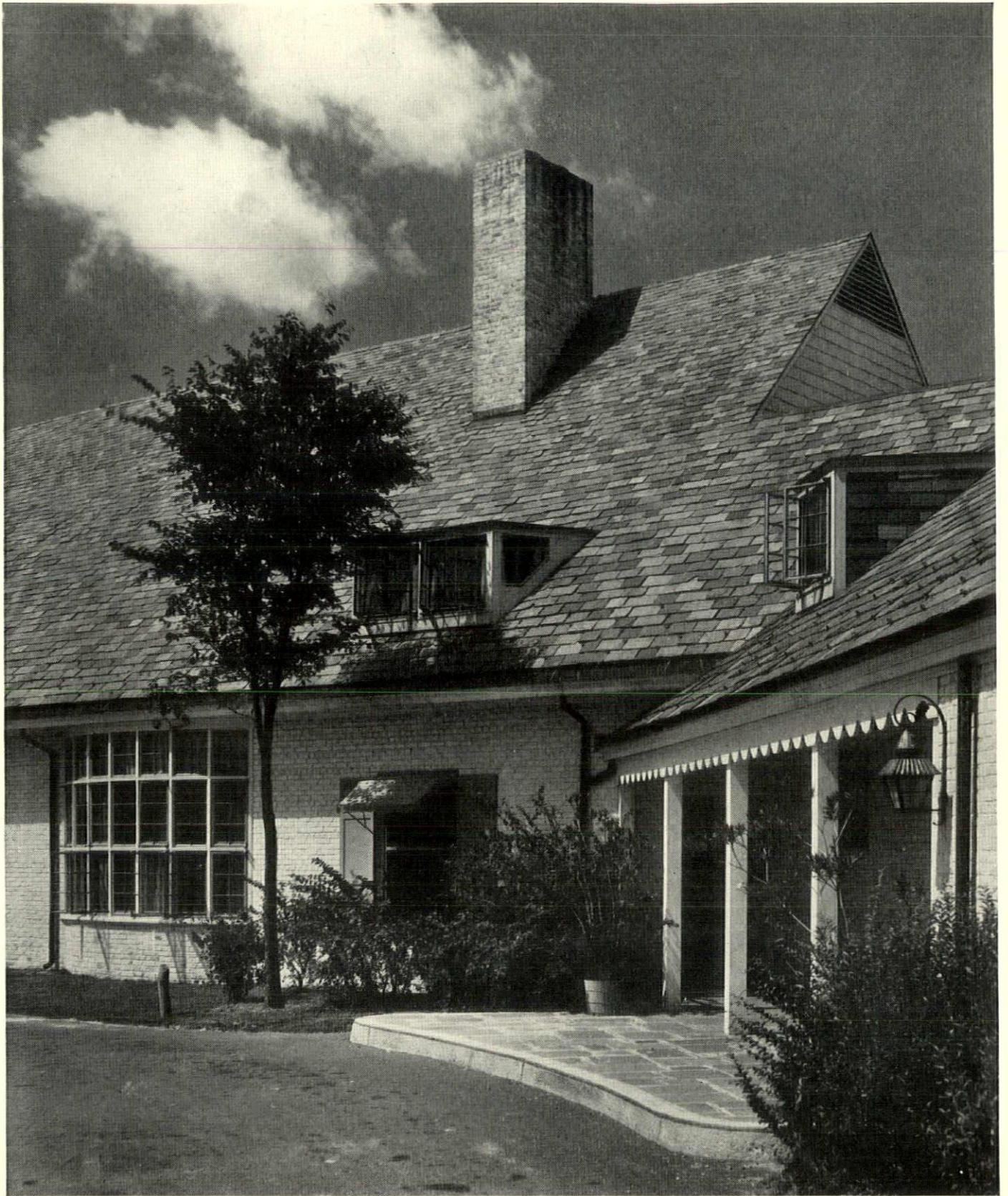
economic independence. This leads directly to the need for organization of every directing element in the building industry into a national body which, by virtue of its represented power, would carry weight among legislators and civic authorities.

A National Architectural Association—for want of a better name—should open its membership without restriction to every architect and qualified draftsman in the United States. Associate memberships should include practically everyone in the building material manufacturing and distributing industry. It should have an efficient secretariat to direct the entire profession of architecture in all matters pointing to the welfare of the profession as a whole.

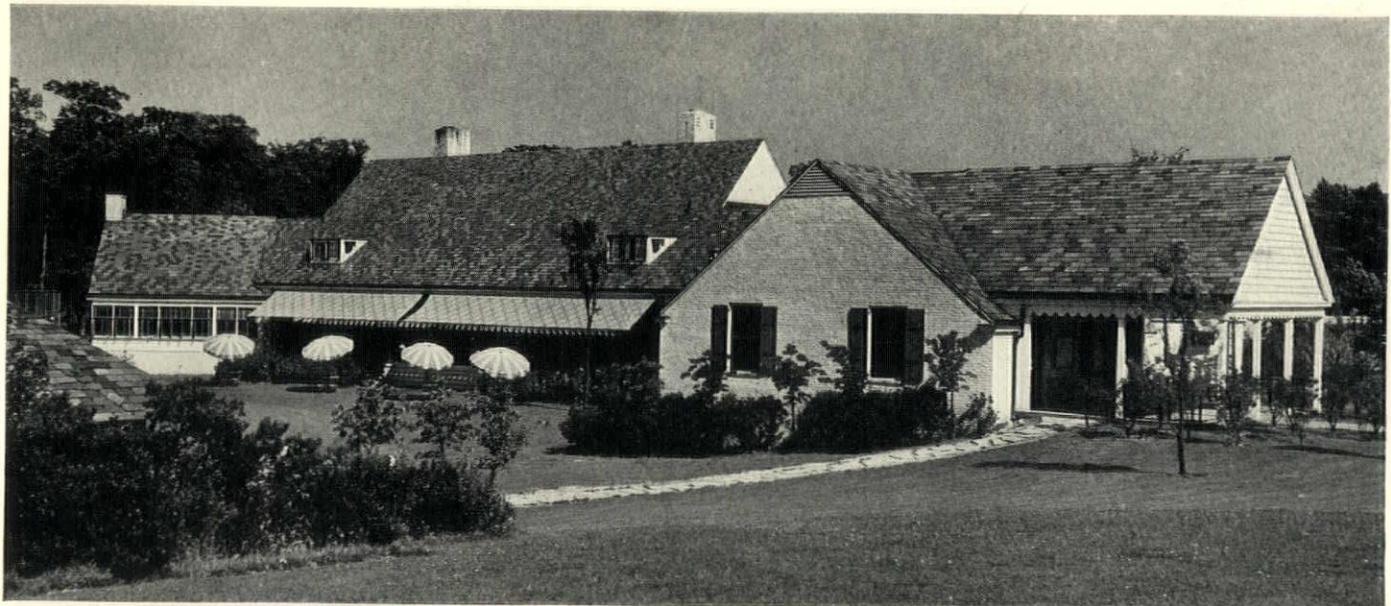
Once formed, the Association would, in a remarkably short time, make a place for architects that has never so far been allowed them. One of its major functions would properly be to publicize the professional activity of architects by disseminating information on the functions, costs and procedure of architectural services. Another of its objectives would be the protection of individual architects through assuring proper state registration laws and their strict enforcement.

THERE exists no panacea for all the ills of the architectural profession; and the suggestions noted here can be effective cures for some of them only to the extent that a clear-thinking self-interest of every individual architect can put them into practice. But at least they form a basis for future action. Each has been proposed to serve the needs of the small architectural office as well as the large one; and forcefully carried through they would be equally valuable to every responsible member of the building industry.

It is certain that something very definite and constructive must be done if the statement of the Real Estate official is to be refuted. And only by forceful and continued action can that statement be reversed to read, "In a few years there will be no such thing as an untrained speculative builder—skilled architects are rapidly preempting the field."



MUNSEY PARK GOLF CLUB, MANHASSET, LONG ISLAND, NEW YORK
FREDERICK L. ACKERMAN, ARCHITECT. RAMSEY, SLEEPER AND WORCESTER, ASSOCIATES

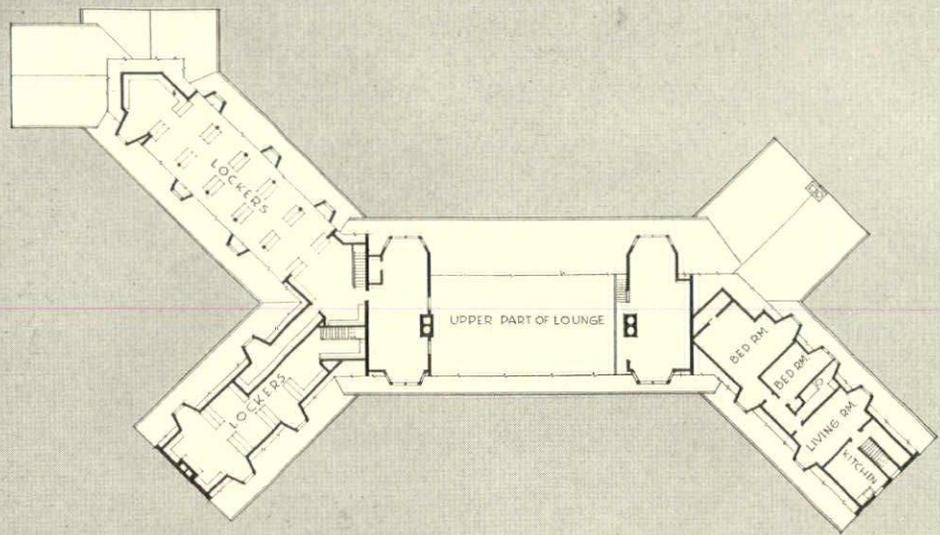


CONSTRUCTION: Walls are non-loadbearing hollow and laid with reused brick painted white. Solid brick piers support timber-frame roofs. Foundation: concrete piers with continuous wall under brick construction. No excavation except under dining room and shop. Floors: framed with wood, insulated with gypsum board, finished with oak throughout. Roof: gray and green slate, varied in size and thickness. Trim: white pine, painted white. Steel casements and wooden shutters painted red

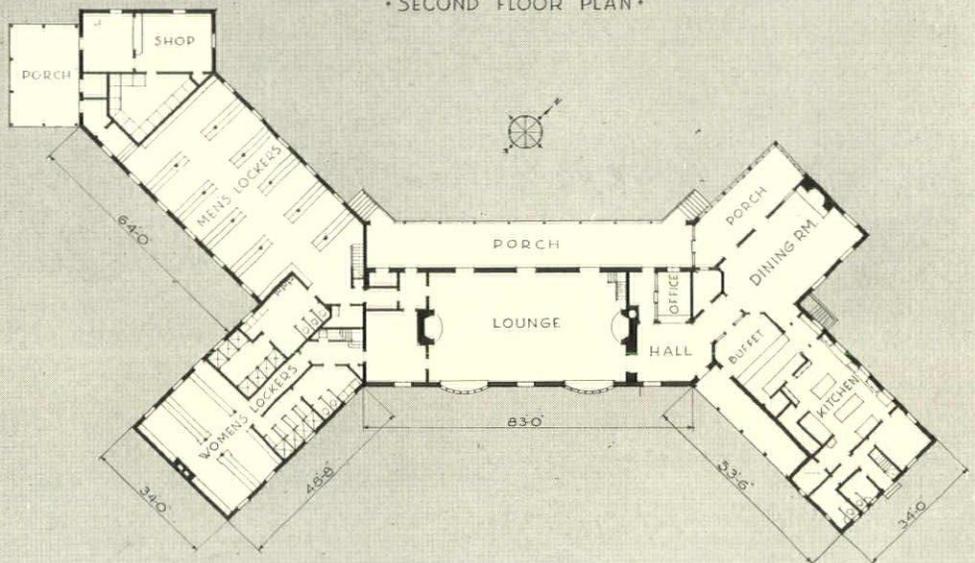
MUNSEY PARK GOLF CLUB, MANHASSET, LONG ISLAND, N. Y.

FREDERICK L. ACKERMAN, ARCHITECT. RAMSEY, SLEEPER AND WORCESTER, ASSOCIATES

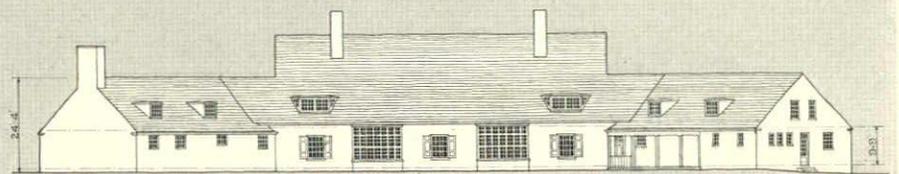
Photographs by Samuel H. Gottscho



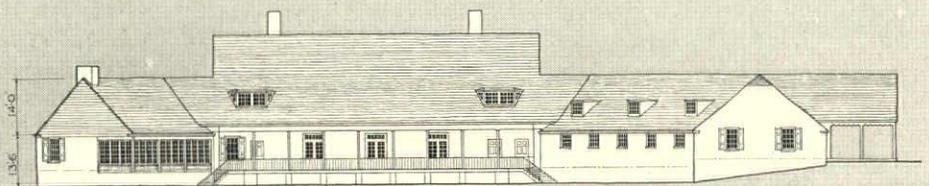
• SECOND FLOOR PLAN •



• FIRST FLOOR PLAN •



• SOUTHEAST ELEVATION •



• NORTHWEST ELEVATION •

Building contains 284,780 cubic feet and cost \$76,700 exclusive of landscaping, fees or furnishings. It was completed in the spring of 1932

MUNSEY PARK GOLF CLUB
 MANHASSET, L. I., N. Y.
 FREDERICK L. ACKERMAN,
 ARCHITECT
 RAMSEY, SLEEPER AND
 WORCESTER, ASSOCIATES



Fireplace corner of dining room

MUNSEY PARK GOLF CLUB, MANHASSET, LONG ISLAND, NEW YORK
FREDERICK L. ACKERMAN, ARCHITECT. RAMSEY, SLEEPER AND WORCESTER, ASSOCIATES

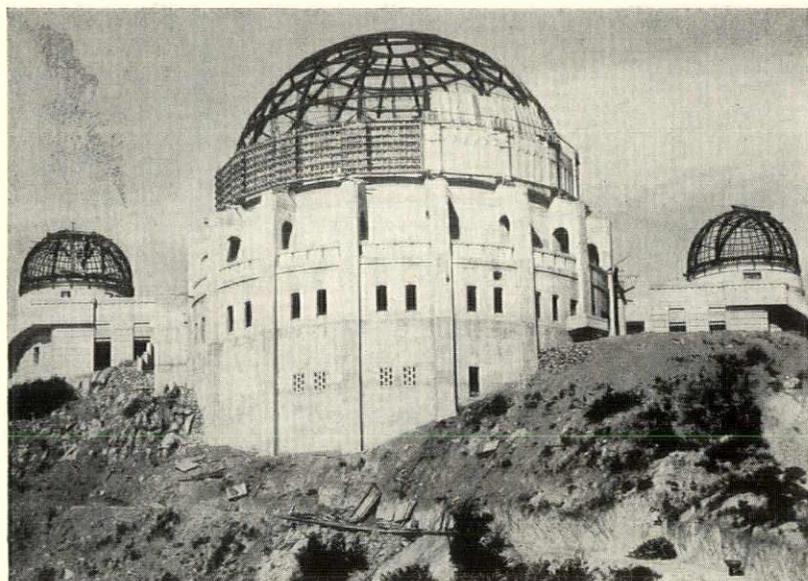
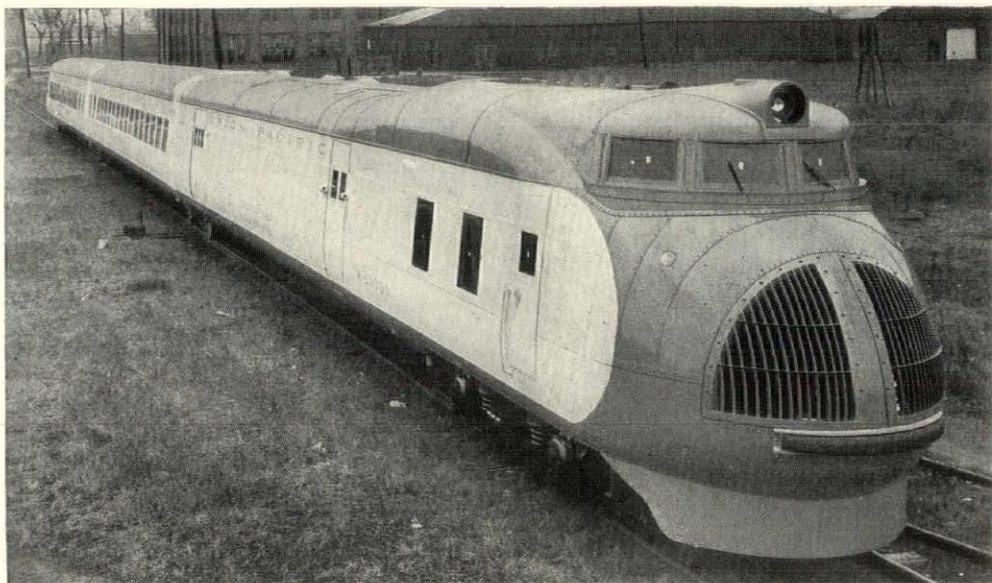




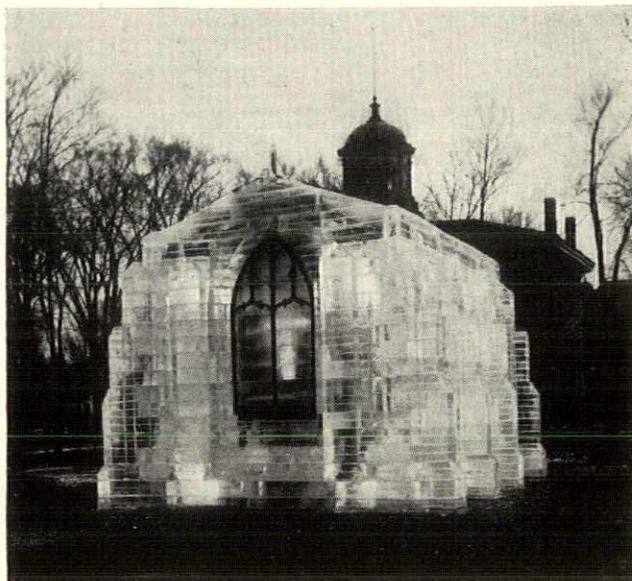
The Lounge. On facing page: detail of fireplace at opposite end of Lounge

MUNSEY PARK GOLF CLUB, MANHASSET, LONG ISLAND, NEW YORK
FREDERICK L. ACKERMAN, ARCHITECT. RAMSEY, SLEEPER AND WORCESTER, ASSOCIATES

Right: At 110 miles per hour this new light-weight, air conditioned, motor-driven, streamlined train of three cars looks like a long, bright projectile. Roof and bottom are painted brown; sides are canary yellow. It was built as an experiment for the Union Pacific lines. Below, left: Under construction in Los Angeles, Cal., is the Griffith Planetarium, the third project of this kind in the United States. John C. Austin and Frederic M. Ashley, architects. Below, right: A chapel 23 feet long with walls of ice and a roof of evergreens was built this winter on the campus of Lawrence College, Appleton, Wisconsin. It was designed by Raymond N. LeVee, Appleton architect. It is illuminated from within by a battery of red, white and blue lamps



ACME



Trends and Topics

• Assistant Secretary of the Treasury, L. W. Robert, Jr., is no longer in charge of the Supervising Architect's Office and that office has now been placed in a newly-formed Procurement Division directed by Admiral C. J. Peoples. W. E. Reynolds, formerly Technical Adviser to Assistant Secretary Robert, has been made Assistant Director of Procurement under Admiral Peoples and will have charge of the Public Works branch of the new Division. Included in this branch is a Department of Awards, the Supervising Architect's section and the Construction section. James A. Wetmore, formerly Acting Supervising Architect, has been made Chairman of the Board of Awards. The Supervising Architect will be Louis A. Simon, formerly Superintendent of Architectural Drafting. In commenting on the change one architect said that since the Supervising Architect's Office has been placed under the direc-

tion of an Admiral in the Navy, the floating of bonds will become easier and sub-aqueous foundations the rule! In any event, it will be interesting to learn of Admiral Peoples' policies in regard to the employment of private architects for future Governmental projects.

• A survey issued by the Hegeman-Harris Co., builders of some of the Rockefeller Center structures and many college buildings, indicates that housing for students and academic activities is inadequate in a large percentage of our higher institutions of learning. Of 221 colleges that formed the basis of the survey 65 per cent indicated definite need of some new construction. Only 11 per cent reported adequate buildings throughout. Apparently, the most urgent need is for student housing, the next in importance being new library structures. Ag-



LARZARNICK



Above: A corner of Colonel Robert McCormick's new office in the New York Daily News Building. Murals, done in line with some color, were painted in place on zebra wood by Clara Fargo Thomas. They cover the four walls of the room and depict the history of newspapers and events that make the news. Left: Albert Kahn, Inc., is the architect for the new De Soto building at Detroit

of the Times . . .

gregate construction needs of the 221 schools reporting was estimated to be about 135 million dollars. If this is a representative cross section, the Hegeman-Harris Co. places the total needs of colleges throughout the nation at nearly 900 million dollars, involving 2,200 projects as new structures or as additions to existing ones. Among reasons given for the building shortage—which was described as “urgent” and even “desperate”—was the difficulty of raising funds, the low cash values of securities and other reactions from the general depression.

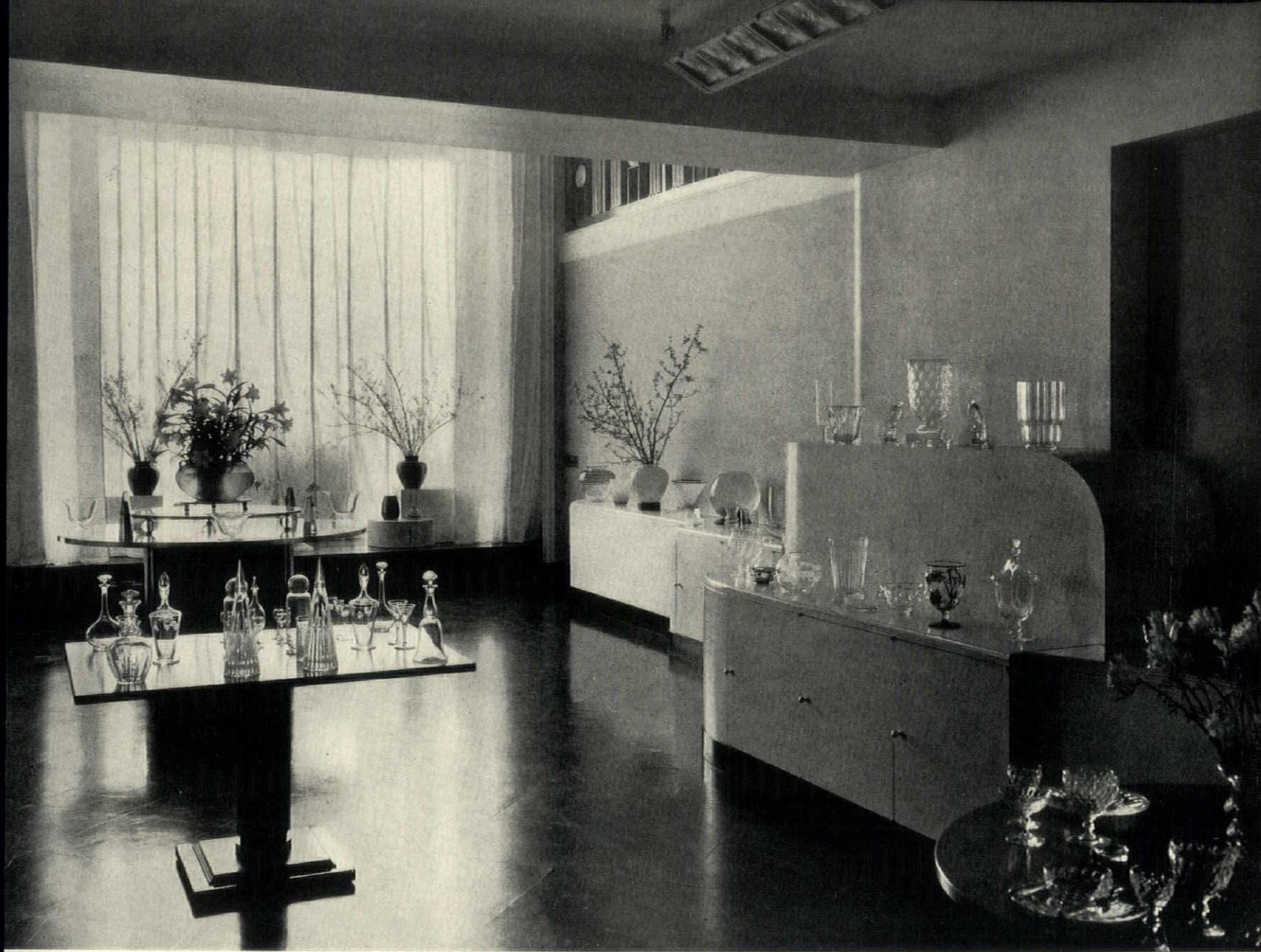
- The much discussed Code of Fair Competition for the Construction Industry has finally been signed by the President and when this paragraph is read will be in effect. To architects it means little until the architectural code has been finally approved and signed. It was confidently expected that this would

be accomplished in February. But it is still held up, presumably due to the inability of the various committees to agree on schedules of charges.

- For the development of a self-contained unit air conditioner which may be located anywhere and which cools, filters and re-vitalizes air during the summer and heats it in the winter, the John Scott medal for outstanding scientific achievement was awarded to Engineers Charles R. Neeson, Harry L. Galson, Hans K. Steinfeld and Henry C. Heller. The device which they developed is said to be the first successful commercial application of the reversed refrigeration cycle in air conditioning.

- Drawings for the new St. Louis Post Office are 6' 4" long. A set of these drawings contains 142 sheets. A set of blueprints (*Continued on page 114*)



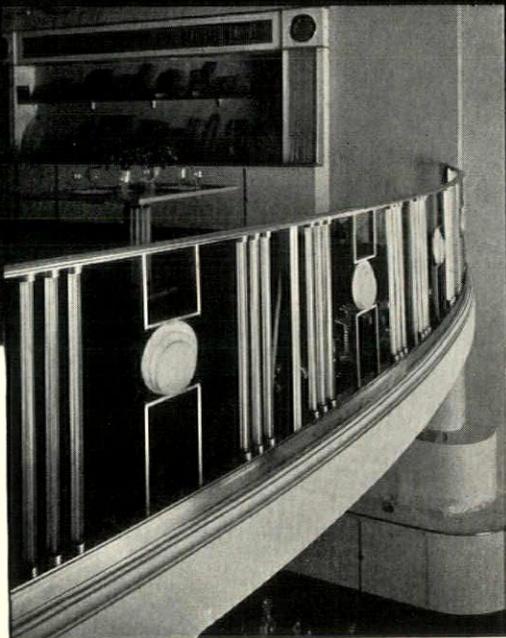
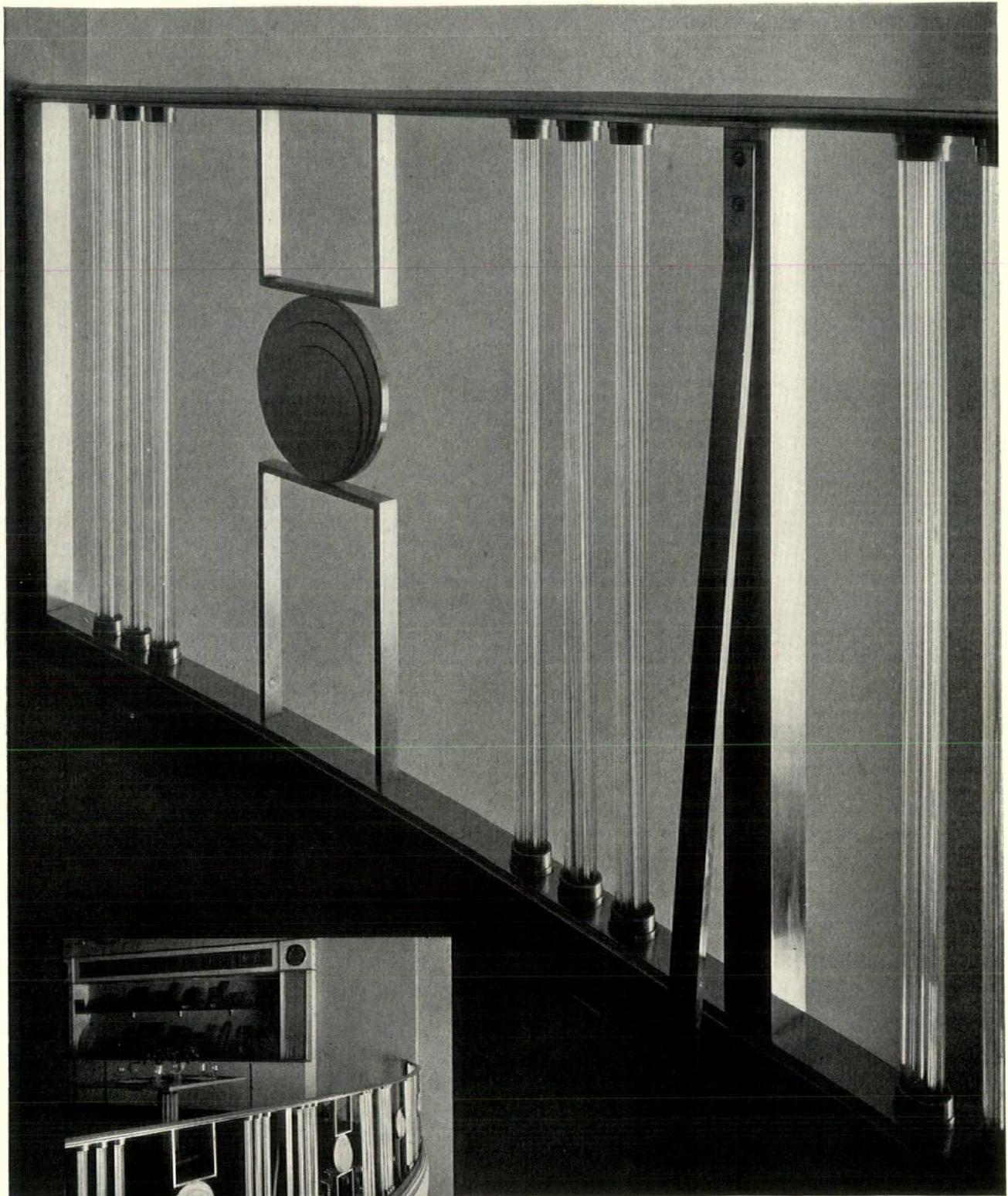


EXHIBITION AND SALES ROOM OF STEUBEN GLASS, INC., NEW YORK, N. Y.

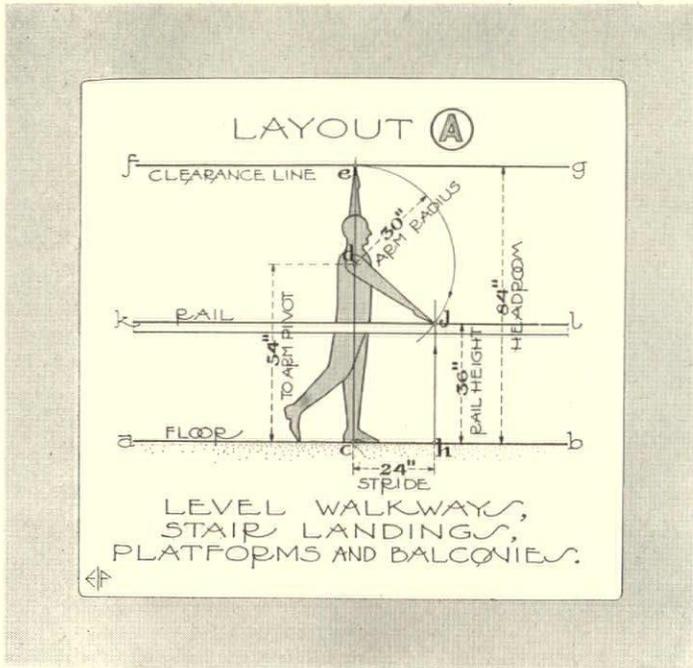
McMILLEN, INC., INTERIOR DESIGNERS

PLATT, PLATT, PLATT AND GATES CONSULTING ARCHITECTS

Striking simplicity of color and design provides a background that emphasizes forms and colors of unusual glassware and glass objects of special design. Floor, polished black rubber tile; walls appear white by contrast, though actually painted a flat "silver-gray." Wall ledges, tables and closed cabinets replace the usual type of showcase. Indirect lighting in the front of the room comes from a huge circular ceiling fixture. Space under the mezzanine is lighted by a double row of inset ceiling fixtures faced with frosted lenses. Colored light is used with some of the displays. Hollow, fluted-glass balusters are illuminated from lamps concealed in the base of the mezzanine railing



Glass and chromium finished railing of the mezzanine. Inset shows the front of rail and mezzanine. The wall cabinet contains an exhibit of architectural glass and conceals an indirect neon lighting system



Walkways, Stairways, Climbways

BY ERNEST IRVING FREESE

WALKWAYS, Stairways and Climbways of some form occur in almost every building. Too often, however, their design is the result of inexperience or guesswork; and many an uncomfortably steep stair or a ladderway with insufficient headroom has been built because some designer lacked knowledge of their correct mechanical layout. Presented here is a series of diagrams and reference tables that fix layouts of stairs, ramps and ladders.

Guesswork has given way to geometrical relations that are invariable and that are inherent in a trio of three definite dimensions. These are: first, the average comfortable walking stride of an adult human being—24"; second, the average height from shoe-heel to upper arm pivot—54"; and third, the average arm-swing from pivot to tip of midfinger—30". In certain instances these dimensions may vary, but for practical purposes this is negligible.

The importance of the three dimensions in stair design is graphically expressed in Layout A. Desirable headroom and handrail height are at once established by the swing of the indicative arm. This arm-swing is used as the basis of two important dimensions under all conditions of gradients—the vertical heights of handrail and clearance line.

Determination of the handrail height is shown in Layout B on the following page. In all layouts the clearance line, *fg*, is parallel to *ab*, the pitch line of the passage, and tangent to the arm-circle at point *e*. Location of this point varies with the given gradient, but can be readily fixed by a line from the arm pivot, *d*, drawn square with *ab*. The rule is invariable.

In Layout C the basic construction shown in Layout B is applied to stepped passageways, in all of

which the equivalent stride is the given tread, *T*.

In Layouts D and E a needed and logical distinction is made between a stairway and a stepladder. It is this: Any stepped passageway having a riser *R* in excess of 9" or, conversely, having a tread less than 8" is a stepladder. Such a ladder may, or may not, be equipped with handrails, though these safety devices are usually to be desired.

Layouts F and G are of ladders that employ either rungs or cleats as both footholds and handholds. Round rungs are to be preferred, since knee-room is a consideration. Rungs of an inclined ladder can often be built-in between the walls of a narrow closet in a way not to interfere greatly with the use of the space. For permanent access to necessary scuttles, however, the inclined rung-ladder is a better device.

In the case of rung-ladders, it is not essential that rungs "space out" evenly between landings. Let the "left-over" space occur at the lower landing, however, since there the irregularity can be seen by the climber as he approaches the ladder.

The following definitions will facilitate reference:

RAMP . . . an inclined plane footway having a gradient not in excess of 3:10 pitch or 30 per cent, or an angle of 16 degrees and 42 minutes. See Table 1.

STAIRWAY . . . a stepped footway having a gradient not less than 5:16 pitch, or 31¼ per cent, or an angle of 17 degrees and 21 minutes; and not greater than 9:18 pitch, or 112½ per cent, or an angle of 48 degrees and 22 minutes. See Table 2.

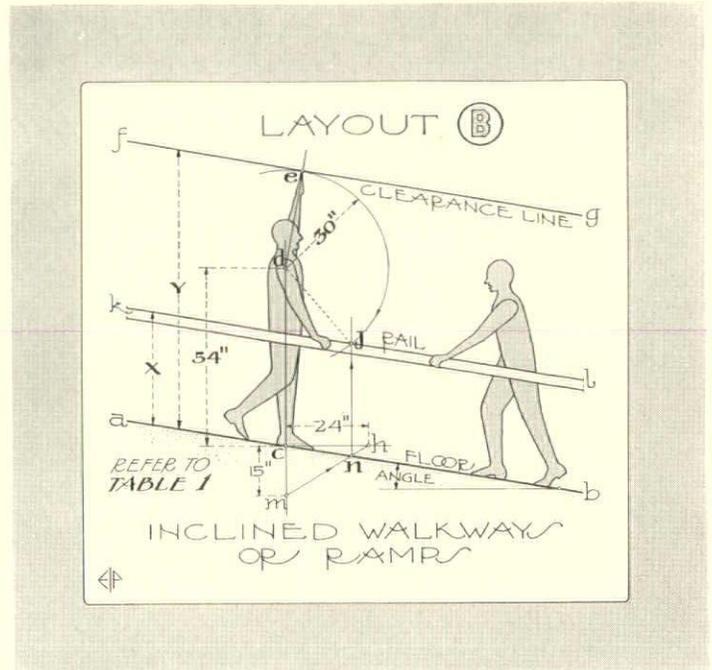
STEPLADDER . . . a stepped footway having a gradient exceeding that of a stairway, but not in excess of 12¾:3 pitch, or 425 per cent, or an angle of 75 degrees and 46 minutes. See Table 3.

RUNG-LADDER . . . a rungged or cleated footway having a gradient in excess of that of a stepladder, and attaining the vertical. See Table 4.

Table 1 . . . RAMPS . . . Refer to Layout "B"

Gradient designations			Handrail height X in inches	Headroom Y in inches
Pitch ratio	Per cent grade	Angle in degrees and minutes		
1/2 : 12	4 1/6	2 - 23	35	84
1/2 : 10	5	2 - 52		
1 : 12	8 1/3	4 - 46	34 1/2	
1 : 10	10	5 - 43		
1 1/2 : 12	12 1/2	7 - 7	34	
1 1/2 : 10	15	8 - 23		
2 : 12	16 2/3	9 - 28		
2 : 10	20	11 - 19		
2 1/2 : 12	20 5/6	11 - 46	33 1/2	85
2 1/2 : 10	25	14 - 2		
3 : 12	25	14 - 2		
3 1/2 : 12	29 1/6	16 - 16		
3 : 10	30	16 - 42		

NOTATIONS: Ramps steeper than 10 per cent should have non-slip surfaces and handrails. Building codes ordinarily limit steepness of ramped passageways in buildings; the maximum permissible being a pitch of about 2:12 or 16 2/3 per cent. Width of a ramped walkway is dependent upon traffic, 30" being about the minimum width for "single-file" traffic. But here, as in all footways in buildings, the moving of goods and furniture must also be considered when fixing the width of passageways. On this basis, 36" should be minimum. 42" is to be preferred.



Handrail locations can be determined by a standard method. In Layout "B" the basic level stride of 24" is reduced to the equivalent tread of a stairway having the pitch of the given ramp. Handrail height can be found as follows: lay off **ch** horizontally equal to 24"; lay off **cm** vertically equal to 15". Then **mh** cuts the ramp at **n** from which a vertical projection will determine **j x** height of the handrail, equals **nj**

Table 2 . . . STAIRWAYS . . . Refer to Layout "C"

Step dimensions		Gradient designations		Headroom Y in inches	Handrail height X in inches
Riser R in inches	Tread T in inches	Per cent grade	Angle in degrees, minutes		
5	16	31.25	17 - 21	85	33 1/2
5 1/4	15 1/2	33.87	18 - 43	86	
5 1/2	14 3/4	37.28	20 - 27		
5 3/4	14	41.07	22 - 20		
6	13 1/2	44.44	23 - 58	87	33
6 1/4	13	48.07	25 - 40	88	
6 1/2	12 1/4	53.06	27 - 57		
6 3/4	11 3/4	57.44	29 - 52		
7	11	63.63	32 - 28	89	
7 1/4	10 1/2	69.04	34 - 37	90	
7 1/2	10	75	36 - 52	91	33 1/2
7 3/4	9 1/2	81.57	39 - 12	93	
8	9	88.88	41 - 38	94	
8 1/4	8 1/2	97.05	44 - 9	96	
8 1/2	8 1/4	103.02	45 - 51	97	34
8 3/4	8 1/8	107.07	46 - 57	98	
9	8	112.5	48 - 22	99	

NOTATIONS: Risers from 5" to 6 1/2" are suitable for exterior flights and for "grand" interior stairways. Risers from 6 5/8" to 7 5/8" are generally defined as most comfortable and, therefore, most suitable for general interior use; the 7" by 11" step, considering all things, being about right. For cellar and attic stairs, risers from 7 3/4" to the 9" limit may have to be used where space is worth more than ease of travel. A stairway 30" wide will do for single-file travel, but 36" should be considered the minimum desirable width, while, from the standpoint of appearance, as well as for the moving of furniture, 42" is much better. Headroom **Y**, above tabulated, is ample for passage of furniture. Building ordinances should be consulted in all cases to establish limits of stairway design, even though such ordinances are often purely arbitrary.

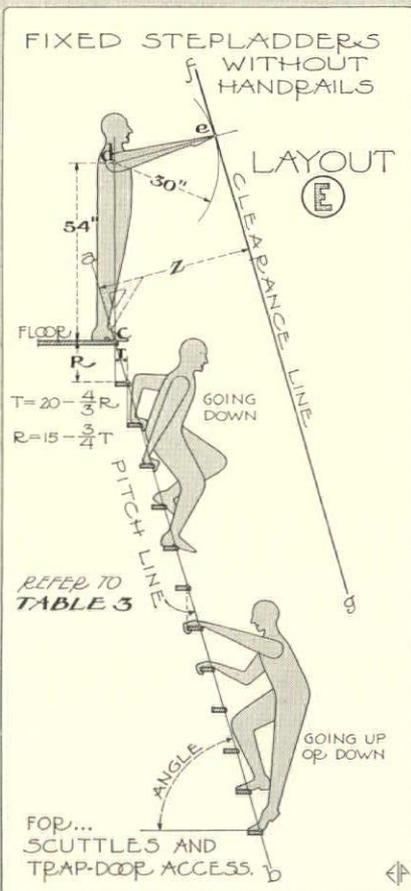
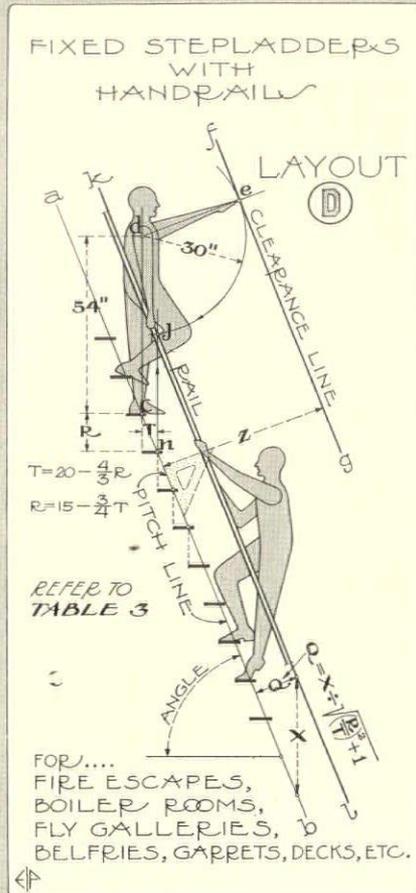
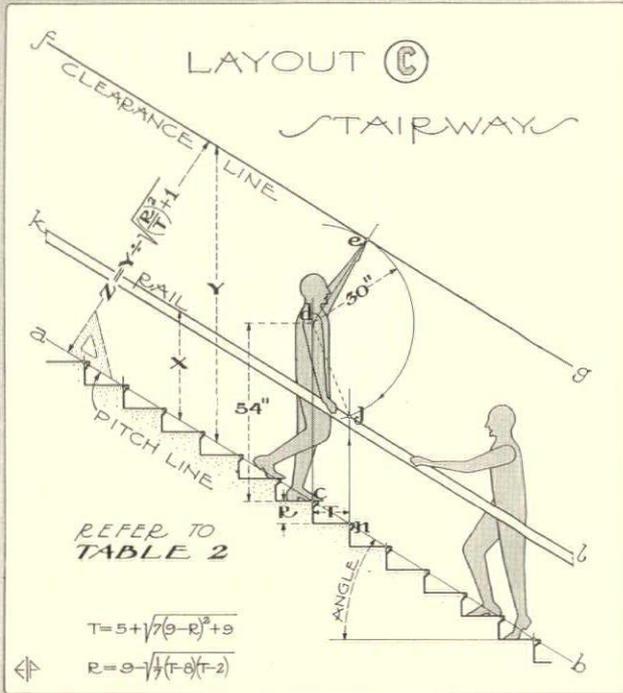


Table 3 . . . FIXED STEPLADDERS
Refer to Layouts "D" and "E"

Step dimensions		Gradient designations		Headroom Z in inches	Handrail height X in inches
Riser R in inches	Tread T in inches	Per cent grade	Angle in degrees. minutes		
9 ³ / ₈	7 ¹ / ₂	125	51-21	64	34 ¹ / ₂
9 ³ / ₄	7	139.28	54-19	62	
10 ¹ / ₈	6 ¹ / ₂	155.75	57-18	59	35
10 ¹ / ₂	6	175	60-16	57	
10 ⁷ / ₈	5 ¹ / ₂	197.72	63-10	54	35 ¹ / ₂
11 ¹ / ₄	5	225	66-2	52	
11 ⁵ / ₈	4 ¹ / ₂	258.66	68-50	50	36
12	4	300	71-34	47	
12 ³ / ₈	3 ¹ / ₂	353.21	74-12	45	36 ¹ / ₂
12 ³ / ₄	3	425	76-46	42	

NOTATIONS: There is no such thing as a "comfortable" ladder though one such may be easier to climb than another. When not confined between side walls, as on fire escapes and in machine rooms or on ship board, or when risers are not left "open," stepladders should have handrails on both sides for safety. Stepladders are essentially one-man passageways. With handrails, they should never exceed 24" nor be less than 21" in width. Without handrails, the maximum width requirement does not hold, since, in this case, the steps themselves are used as handholds, hence, the risers are left "open." Limiting requirements for fire escape stepladders are usually fixed by building codes or fire department regulations

Rung-spacing for a fixed ladder of given pitch is shown in Layout "F". Lay off **cq** horizontally equal to 20"; lay off **cm** vertically equal to 15". Line **qm** then fixes point **n** on pitch line **ab**, whence **cn** is the correlative rung-spacing, **S**, for that pitch. Maximum rung-spacing for vertical ladders, as in Layout "G" is 15"

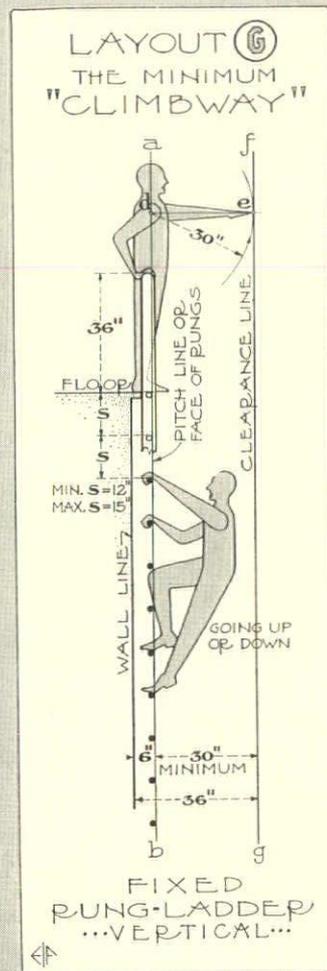
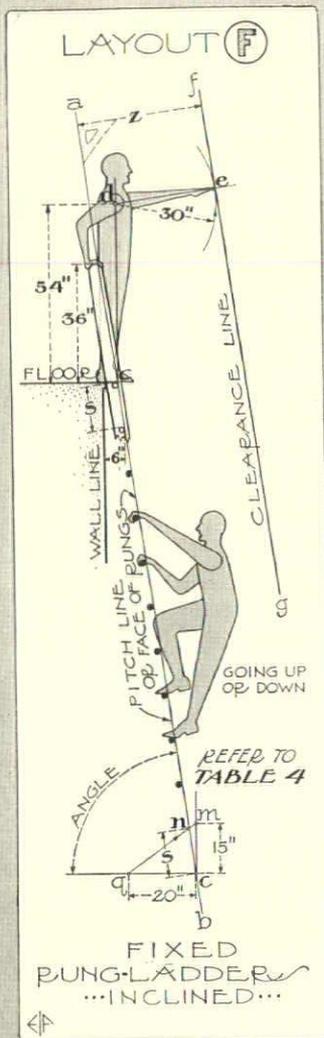
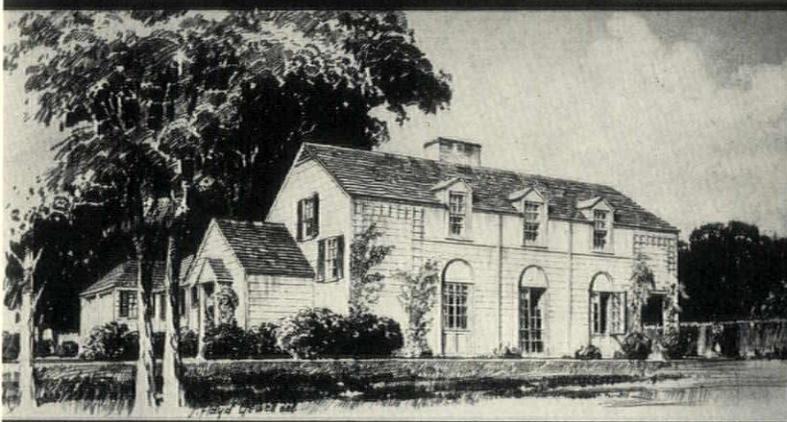


Table 4 . . . FIXED RUNG-LADDERS . . . Refer to Layouts "F" and "G"

Gradient designations			Rung spacing S in inches	Headroom Z in inches
Pitch ratio	Per cent grade	Angle in degrees, minutes		
12 : 2½	480	78 - 14	13¼	41
12 : 2	600	80 - 33	13½	39
12 : 1½	800	82 - 53	13¾	37
12 : 1	1200	85 - 14	14¼	35
12 : ½	2400	87 - 37	14½	32
vertical			15 maximum 12 minimum	30

NOTATIONS: Permanent rung-ladders, inclined or vertical, are used in places where a more desirable stepladder would demand more than the available space or would be unsuited to the situation. Rung-ladders not confined between side walls may be as narrow as 15", but 18" is a better width. When limited by a walled passageway, such passageway should have a clear width of at least 24" to give elbow-room and for possible use of ladder frame as handrails. Minimum scuttle opening, for a vertical ladder, should be 24" wide and 36" the other way; the ladder to stand about 6" away from the wall to provide toe-room. (See Layout "G"). This clearance also gives finger-room in case ladder frame is used as handrails. Commonly, scuttle ladders have no free-standing frame, but consist simply of rungs attached to side walls of a closet or other narrow space. Special ladders, such as are used in connection with fire escapes, are subject to code requirements.

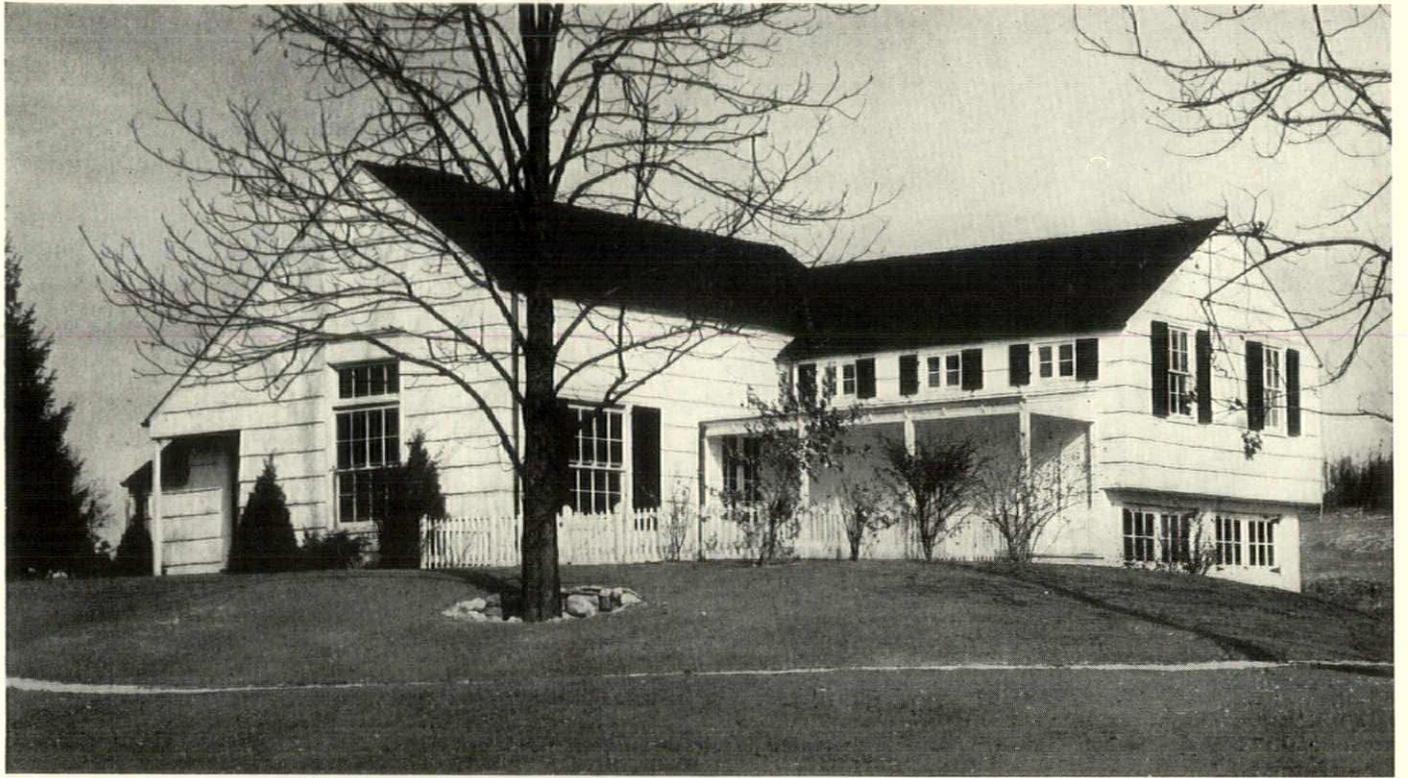


SIX SMALL HOUSES

for Lawrence Farms, Inc., Mount Kisco, N. Y.

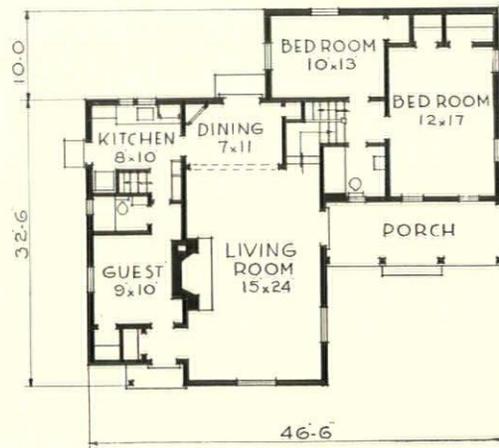
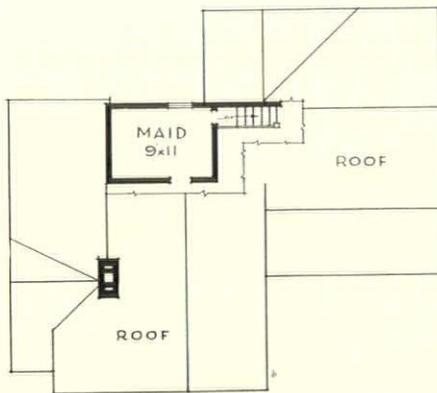
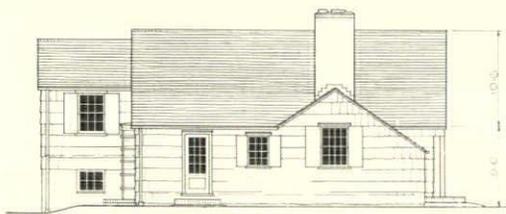
Photographs by John Gass

UNUSUAL building practice marked the development of these six houses. Though designed individually by six architects, all were constructed at the same time from a common specification on which owner and the architects collaborated. Each house stands upon an acre of land; and five of them were planned as a group. They represent individual interpretations of the early American style, one chief requirement of the owner. Though varied in plan and elevation, all are generally similar in size and equipment. Size ranges from 27,853 to 31,000 cubic feet. In addition to usual appointments, each house is equipped with a kitchen gas range and an oil-burning boiler supplying a vapor steam heating system. Based on figures for the house on page 54, construction costs average 40 cents per cu. ft.



WALKER & GILLETTE, ARCHITECTS

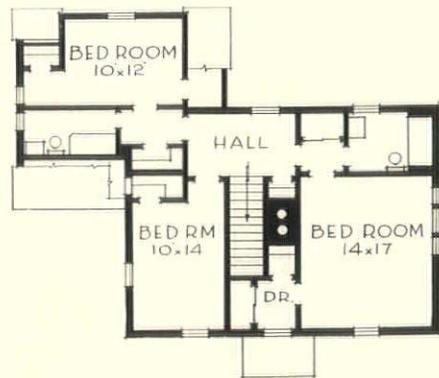
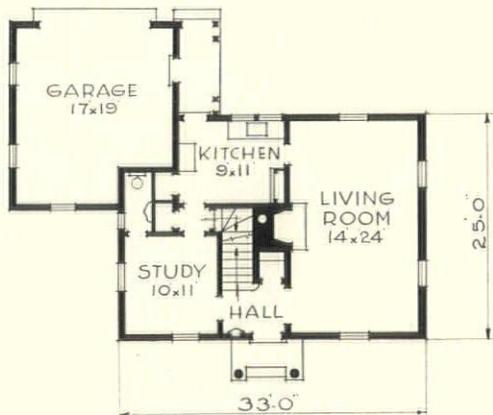
Contents, 29,678 cubic feet

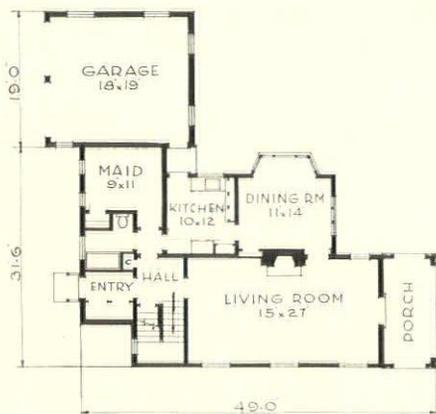
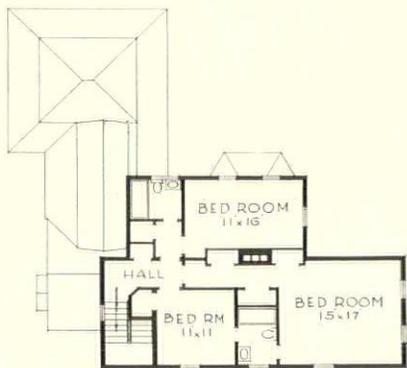




DWIGHT JAMES BAUM, ARCHITECT

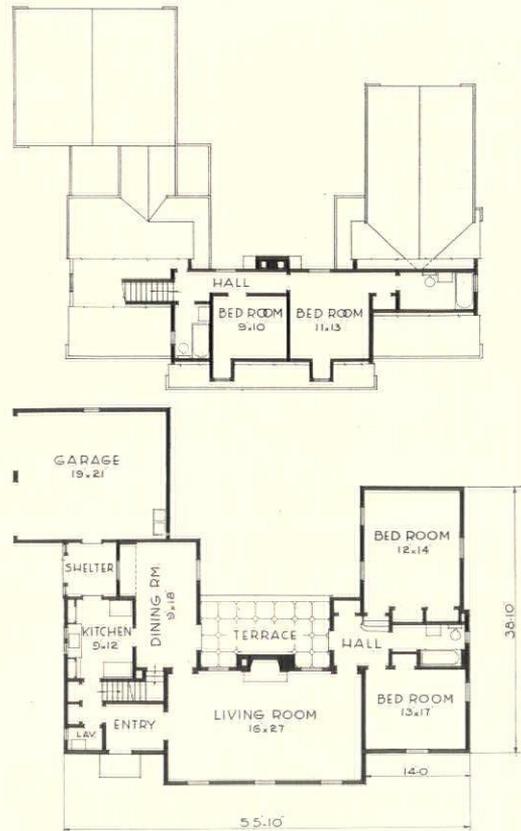
Contents, 27,500 cubic feet





MORRIS & O'CONNOR, ARCHITECTS
 Contents, 31,000 cubic feet



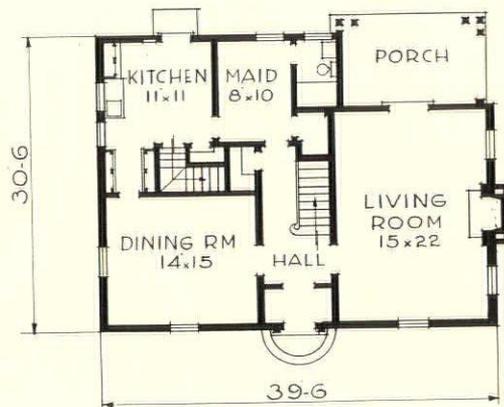
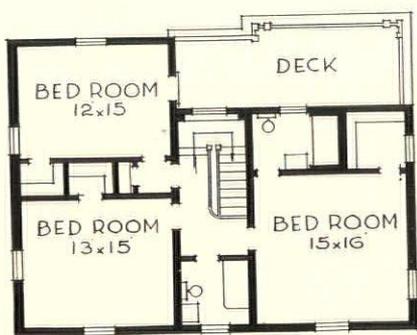
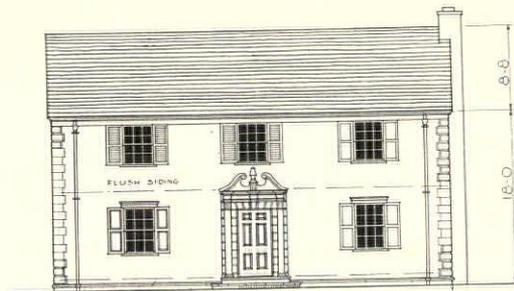
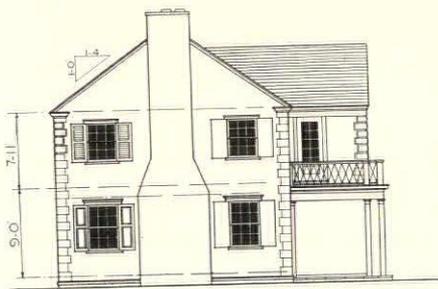


OFFICE OF JOHN RUSSELL POPE, ARCHITECTS
 Contents, 30,900 cubic feet



DELANO & ALDRICH, ARCHITECTS

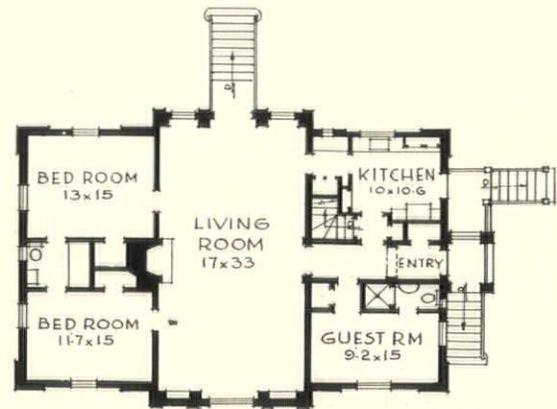
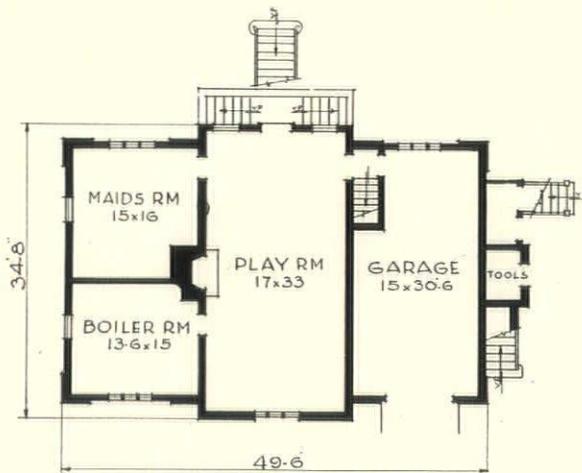
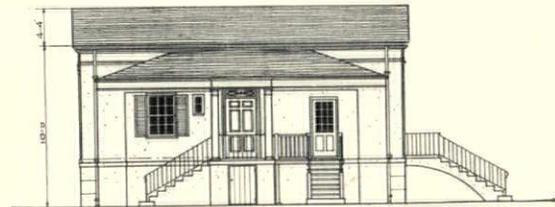
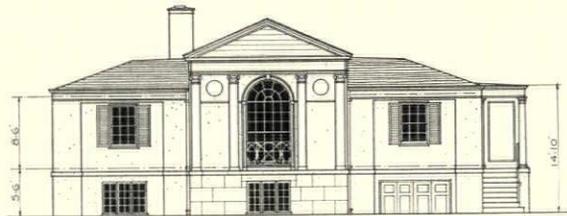
Contents, 27,853 cubic feet





PENROSE V. STOUT, ARCHITECT

Contents, 30,000 cubic feet



. . . As It Looks

A QUESTION OF POLICY

"THE Architects Small House Service Bureau, Inc., fostered by the American Institute of Architects, was made possible through the financial assistance of the Southern Pine Association." This statement, appearing in an advertisement published by the Southern Pine Association in the February, 1934, issue of *American Builder*, raises the question as to whether or not other building material interests also had a hand in aiding the Bureau. If the Bureau was largely financed by building material interests, should the American Institute of Architects continue its endorsement of the Bureau? Endorsement by the Institute has allied this body closely with the Bureau—so closely, in fact, that the Bureau is commonly thought to be part of the Institute itself. For many years the Institute wisely has maintained a policy condemning the acceptance by architects of "favors" and commissions from contractors and building material producers. Is this policy now unwittingly being jeopardized by the Institute's endorsement of the Small House Bureau?

RIGHT AFTER BUSINESS

AN architect in the middle west intends to make a personal survey of the downtown section of his city, noting the condition of buildings and finding out who owns them and how they are financed. Where they are properly financed, and through improvements can become better investments, he intends to submit his ideas to the owners. He believes a large volume of business exists in this field. He has a good idea. He is proceeding on a sound basis by determining first whether or not the building is in sound financial condition. Modernization seldom pulls a poorly financed building out of the hole.

TAXES RETARD BUILDING

PUBLIC improvements, the business of government, and the many activities essential to the common good of a nation cannot be carried on without money. In theory every individual in the nation contributes to a common fund to defray the costs of government. Just and wise methods of apportioning and collecting this money are difficult and complicated to formulate. For years land and buildings have been obliged to bear an unfair proportion of the burden. So great has this become that today buildings are being torn down to avoid payment of taxes. In the heart of our cities land thus vacated is being used for open air parking areas.

Even in communities with plenty of cheap land, owners are often forced to build on narrow lots to escape the penalties of improving the amount of land that should be used. Our methods of taxing real estate do not encourage property improvement. Unjust tax levies on real estate are a serious deterrent to the revival of building. Taxation, therefore, is a question of vital interest to architects. They will do well to support tax reforms that will aid building owners and builders; and help to defeat tax proposals that are inimical to the best interests of the building industry and the public.

IS THE BIG OFFICE DOOMED?

IT is reasonable to expect that for many years we shall see fewer "big" architectural offices than in the past. Here and there one may survive or develop. Some architects believe that the "group" office will be the rule of the future and are already beginning to develop a nucleus from which to start. Others think that the small office of the individual employing few draftsmen will be the inevitable result of the present building outlook. A few express the opinion that many architects will be working for large construction companies or companies that have considerable building to do. What do you think is going to happen? How are you preparing for the future?

THE FAR-REACHING STREAMLINE

WHO can foresee the far-reaching effect of the work of the architect—especially the streamline tendency in design? This has been brought home to the Editor by the receipt of a much-needed pair of braces (suspenders to you) from the Pioneer Suspender Company (address upon application). They were accompanied by a cordial letter calling attention to the streamline construction of the braces, the design of which is frankly admitted to have been inspired by "line combinations created by architects." To the beauty of the design has been attributed the popularity of these braces as indicated by their great salability!

PAY AS YOU GO

THE Nebraska State Capitol Building, now completed except for landscaping and mural decorations, has been paid-for-as-built. It cost several million dollars and required ten years to build—but the State owes nothing on it. The taxpayers of Nebraska will have no strangling debt of build-

to the Editors . . .

ing cost and heavy interest charges hanging over their heads in coming years. And they have a State Capitol of which they can be justly proud. Many individuals and communities no doubt wish they had followed the old-fashioned idea of pay-as-you-go.

IS PRICE THE ONLY ANSWER?

THE prefabricated house is still a dream. Since it has not yet reached the mass production stage, costs about as much to build as any other type of house of comparable size. It has not yet been awarded general acceptance by the public. Under mass production conditions one might be able to obtain the desired area, equipment and conveniences of the built-to-order house at a fraction of the cost of the latter. But will the public buy houses on the price basis whether or not they like the appearance? Perhaps a good looking mass-produced house can be made that will satisfy the average person both as to looks, plan and cost. For those who like to look into the future it is a highly interesting subject.

FIX UP YOUR OFFICE

THE public properly assumes that architects have good taste. One of the best places to demonstrate this is in the architect's own office—and this means from the outer office through to the drafting room. Good taste need not be expensive. In many cases it merely means orderly planning, good colors, pleasing curtains—if there are any—well-selected and placed furniture, a few well-arranged pictures. If these are brought together to create a sense of organization, pleasant surroundings and well being, this is all that is essential. A well-appearing office has a good effect on clients as well as upon those who must spend a large part of their working time in it. It's a good business tonic. If your office does not look as well as it should, now is a good time to paint the walls and woodwork, rearrange the furniture and pictures, and clean up the drafting room.

JOBS FROM ARTICLES

IN 1930 Charles Stotz of Pittsburgh wrote an article dealing with a walking trip he took through French Canada. It was published in *AMERICAN ARCHITECT*. A year or so later it brought him a job from an owner who wanted a house designed in the spirit of the houses built by the French-Canadians. This is but one instance of new work that architects have been able to trace directly to the publication of their work or writings.

PERHAPS IT WAS VANITY!

AN architect designed a community theater in which economy was an important consideration. When the time came to purchase seats he located a quantity that could be bought second-hand. These seats were a little narrower in width than usual and to make sure that the seats would be entirely satisfactory it was suggested that a committee pass upon them. It so happened that three ladies who were probably the largest in the dramatic organization were appointed on the committee. They reported the seats entirely satisfactory even as to size. Someone said later that vanity might have prevented the ladies from admitting that the seats were even slightly uncomfortable.

PUBLIC WORKS EXPENDITURES

THE January statement of the Treasury Department showed that \$590,000,000 of the \$3,300,000,000 appropriation had been actually expended. Of this \$322,000,000 was spent on CWA projects, leaving but \$268,000,000 as having been expended on PWA projects. The total expenditure is but 18% of the total appropriation. Exclusive of the CWA expenditure, only 8% of the total appropriation has been paid out. Numerous building projects, widely distributed through architects in private practice, would have speeded up the distribution and expenditure of the appropriation—and in turn business recovery through the additional money put into circulation.

DON'T REDUCE PROFESSIONAL FEES

ONE unfortunate result of the depression has been the noticeable trend toward professional fee-cutting. Small fees have always plagued the architectural profession; in times of distress these become increasingly disastrous. The price-cutter probably does not realize the effect of this practice on himself, the profession and the public. A job taken at too low a fee means that work must be skimped to make even a small margin between cost of production and the pittance received. This necessitates obtaining another job quickly—also at a reduced fee—and another and another. The price-cutter never quite gets caught up. And it's just poor business. The public is thus given the idea that architects work cheaply and that their work is of little value. Under price-cutting conditions good plans, specifications and supervision cannot be furnished. And the public is thus lead to believe that a reasonable fee for architectural service is too high.



GOTTSCHO



Church Modernization

A New Opportunity for Architects

BY WALTER A. TAYLOR, A.I.A.

Merrill, Humble and Taylor, Architects

BUSINESS opportunities for architects exist in churches that were built fifteen, twenty-five or forty years ago. Many of these buildings are now completely outmoded. All are potential projects that with suitable promotion may often be developed into worth while "alteration and addition" commissions.

Almost any church which has recently called a new pastor is a likely prospect, especially if the new pastor is a young man. He probably has new ideas about worship, religious education and community activities. He is sure to be dissatisfied with some part of the building which is to be his workshop. The church has probably called him because it wants a "new deal"; and the trustees and leading members usually will go a long way with him in trying to realize his ideals for the church.

Churches are becoming decidedly "architecture-conscious." It should be significant to the architect that the really fine church work done during the past quarter-century by some of our outstanding architects is begetting a higher standard of design in churches of all sizes and denominations. In no other type of building has there been a greater advance in average architectural quality.

The architectural bureaus, commissions or advisors which are parts of the national organizations of the leading Protestant churches, have been preaching good architecture to their respective constituencies for fifteen or twenty years. In thirteen years one such architectural advisory bureau turned into the hands of architects approximately sixteen million dollars' worth of church building which would otherwise have gone directly into the hands of contractors. The religious press has also given some helpful publicity to church architecture. Notable in this connection has been the Christian Herald and its annual competition and awards for excellence in plan and design of completed church buildings.



On facing page: Before and after modernization of the Nanuet Baptist Church at Nanuet, N. Y., Albert Humble of Merrill, Humble & Taylor, architect. On this page: The recessed chancel at the right was developed from the out-moded arrangement above that is common to many churches. These before and after interiors are of the First Baptist Church of Evanston, Illinois, Tallmadge and Watson, architects

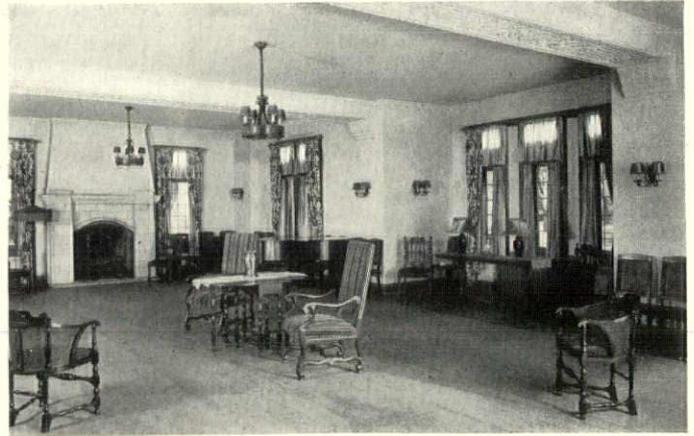
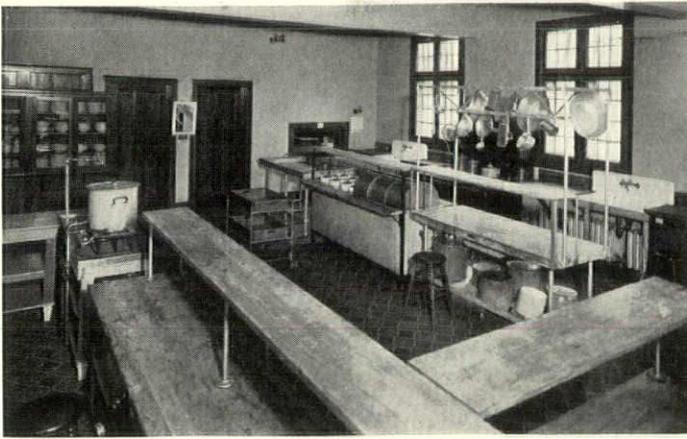
At least 90% of existing Protestant church buildings do not have proper space or facilities for all or even part of the activities which they wish to carry on. Leaders in most of them are fully conscious of their handicaps. They talk frankly about the necessity of good architecture and adequate provisions to compete with influences which draw people away from the church.

Many churches have been intending to build for some time. Some have accumulated funds which, in more normal times, would have been basically sufficient to finance the required building. Many churches with building funds in hand feel the necessity of making alterations or additions to provide relief for crowded activities, to sustain interest in the building project or to satisfy those members who have contributed money and wish to see results. The architect who will work sympathetically in providing the most urgently needed parts of the church building will, of course, be in a favored position when the church is able to finance the remainder of its program.

Two general trends are observable in the outlook and activities of churches today: a greater emphasis on weekday social life and an increasing interest in forms of worship. Of greatest significance is the broadened conception of the individual church's function in the community which finds expression in the Three-fold Program of Social Recreation Activities, Religious Education and Worship.

SOCIAL RECREATION ACTIVITIES... There is probably greater demand, numerically, for social and recreational building provisions than for other parts of the three-fold program. The "seven-days-a-week" program of the modern church includes activities for all ages from junior high school age up. This program often demands the design of rooms for multiple use and others for more or less specialized activities.

The Social Hall having an area of 1,000 to 2,500 sq. ft. and provided with an adequately lighted stage is often desirable. It is a general purpose room for amateur dramatics, moving-pictures, Sunday-



Rooms for social recreation activities are of greatest importance in most church modernization programs. On this page are those of the First Baptist Church of Evanston, Illinois, Tallmadge and Watson, architects. The Fellowship Hall, left, is equipped for a variety of uses and can be serviced from the well-equipped kitchen, shown above it. Right, above, the Church Parlor. On facing page, left: The Fellowship Hall of the First Baptist Church of Plainfield, N. J., Hobart Upjohn, architect, George Merrill, consultant. At the right are two views of the First Baptist Sunday School of Omaha, Nebraska. In upper picture note the separate study rooms for advanced classes

school assembly, lecture hall, banquet hall, dancing and the milder forms of athletics, such as volley-ball. For these varied activities must be provided dressing rooms, projection booth, kitchen with serving space, storage for gymnasium equipment, chairs and tables, coat rooms, etc.

In communities where Y.M.C.A. and high school gymnasiums are lacking, a full-sized gymnasium may be required, with shower and locker-rooms for both sexes and, perhaps, a spectator's gallery. In this case, direct public access from the street is essential. Few churches can afford such a gymnasium, however; and this feature should be discouraged unless there is real need for it. If it is necessary, the Social Hall-Gymnasium becomes one of the most difficult parts of the church problem, since it must be satisfactory, esthetically and acoustically, as a theatre and auditorium and also practical as a gymnasium.

Next in importance is the Church Parlor or Church Living Room. It also has multiple use for weekday social gatherings, for all-day sewing circles, Red Cross and missionary meetings, receptions and discussion groups. The room is used for an adult Bible class on Sunday or for mid-week prayer meetings. In some cases it may also serve as an informal chapel for weddings and private funerals. Its multiple use makes a kitchenette and storage

space for sewing machines and tables most desirable.

Boy Scouts usually have a room of their own, which may well be in the basement. This room may be more or less rustic, or at least ruggedly designed to permit "roughhouse" activities. Storage space for hiking and camping equipment should be provided. Girl Scouts or Campfire Girls may have a similar room, or may use the same room as the Boy Scouts. In the latter case, separate lockers and storage space should be provided.

The present emphasis in the church's social program is upon activities of young people of high school and college age. Departmental assembly rooms used by these groups on Sunday morning are treated as parlors or club rooms. By providing an adjoining kitchenette, their use for Sunday evening and week day social or semi-social gatherings is made practicable.

RELIGIOUS EDUCATION... Fifty, or even twenty-five, years ago the church was distinctly an adult institution. The relation of children to the church was more or less incidental. Even after the development of the Sunday School with its somewhat broader program, the one-room church with two ante-rooms was considered sufficient. The church was still an institution devised by and for adults. Children were herded off into musty basements or



other ill-lighted, unventilated spaces, where good citizenship, churchmanship and a lofty ideal of religion were supposed to be inculcated. Such conditions would not have been permitted in the most archaic of public schools.

The church of today takes the responsibility of supplementing home and public school in the training of youth. It has applied sound pedagogical principles to the formulation of a continuous graded and coordinated system of educational activities, directed when possible by specially trained leaders and teachers.

The director usually has definite ideas as to the division of the school into age groups and also as to the size of classes, their activities and the amount of space required for each. These ideas are, however, subject to change from year to year, since religious education is a relatively new "science."

There are still thousands of one-room churches with musty basements. There are still other thousands of churches built between 1890 and 1910 which feature that architectural monstrosity known as the "Akron Plan Sunday School" which opens, by means of huge folding doors, into the side of that other architectural monster, the octagonal or polygonal church with corner pulpit, sloping floor, curved pews and radiating aisles. A program to enable these churches alone to meet modern requirements pre-

sents a large potential field of modernization activity.

To meet changing conceptions of religious education, the architect will do well to provide for flexibility in plan by construction similar to that of an office building, with conduits and piping in piers and bearing walls. As many partitions as possible should be non-bearing. This, however, is not an excuse for folding, rolling, sliding or disappearing doors for classroom division. Religious educators and experienced architects agree that for effective teaching the classroom must have solid, soundproof walls and a single, hinged door.

WORSHIP . . . The third element of the church's three-fold program is traditionally the sole reason for the existence of the church. In the Roman Catholic, Episcopal and Lutheran churches, the forms of worship have long since developed into rituals. In the younger, non-liturgical Protestant churches it is claimed as a matter of principle that there is no ritual. As a matter of fact, there has been an order of service which, sanctified by habit and association, has been built around the sermon and has found its architectural expression and setting in the prominent central pulpit on a rostrum or platform.

Now, however, in many non-liturgical churches worship is far from being a fixed or standardized

procedure. In practically all Protestant denominations, excepting the Episcopal and Lutheran, the form of worship is now the object of much experimentation. Scores of books about it are produced by the religious press; and it is a favorite subject of "shop-talk" among ministers.

This activity on the part of the church leaders is, of course, in large measure a reflection of a trend in the thinking of the church membership. There is a general feeling that the services of worship and architectural setting of the average church have been lacking in dignity, reverence and orderliness; also that the service has been leaning entirely too heavily on the spoken word and the entertainment type of music.

The desire is now for an order of service and a setting which are less typical of a lecture or concert hall. To this end more attention is being paid to sequence and alternation of the elements of public group worship, to appropriateness of the music, to antiphonal and responsive prayers and litanies.

LIKEWISE dignity, regularity, simplicity and symmetry are being called for in the architecture. The focal point of the church interior is being more carefully designed, a recessed chancel often taking the place of the pulpit platform. Instead of a great expanse of gilded organ pipes, a feature having religious significance is being placed at the focal point. It may be a window of stained glass, a mural painting or a piece of tapestry with suitable architectural enframement above the communion table which is located at or near the end wall. In most churches where this innovation has been adopted, it is made to appear less like the medieval altar and reredos by providing ministers' seats between the wall and table, facing the congregation in the Early Christian manner.

In many Baptist churches the baptistry shares with the communion table a position of greatest emphasis at the end of the main axis. Instead of the variously attired choir or the paid quartette ranged in banked seats under the organ pipes facing the congregation, a choir attired in uniform vestments is seated on one or both sides of the chancel, facing toward the center and only slightly elevated, not performing *at* the congregation, but assisting it in worship.

The pulpit is still a prominent feature. In many cases it is placed at one side of the chancel between the choir and congregation. It is used for preaching only and is often balanced on the other side of the chancel by a lectern for the reading of the Scriptures.

In the seating area, more often called "auditorium" than "nave," straight pews are arranged in rectangular blocks on a level floor, usually with a center aisle. Necessary sight lines are secured by elevating various parts of the chancel.

In many examples this would appear to be a wholesale adoption of the plan arrangement of an

Episcopal church. It is undoubtedly true that in too many examples the architect, minister and building committee, in endeavoring most easily to comply with the newer requirements, have adopted almost completely the chancel of a liturgical church. In doing so they have gone further in this direction than is consistent with the temperament and traditions of their own church.

Many churches are now considering remodeling solely for the purpose of effecting changes in their form of worship. Church officials realize that this, more than any other part of their building problem, is an esthetic question requiring study by an architect. There is a real opportunity here for creative design. But architects and ministers must attack this problem from the beginning if the new impulse is to find its own liturgical and architectural expression.

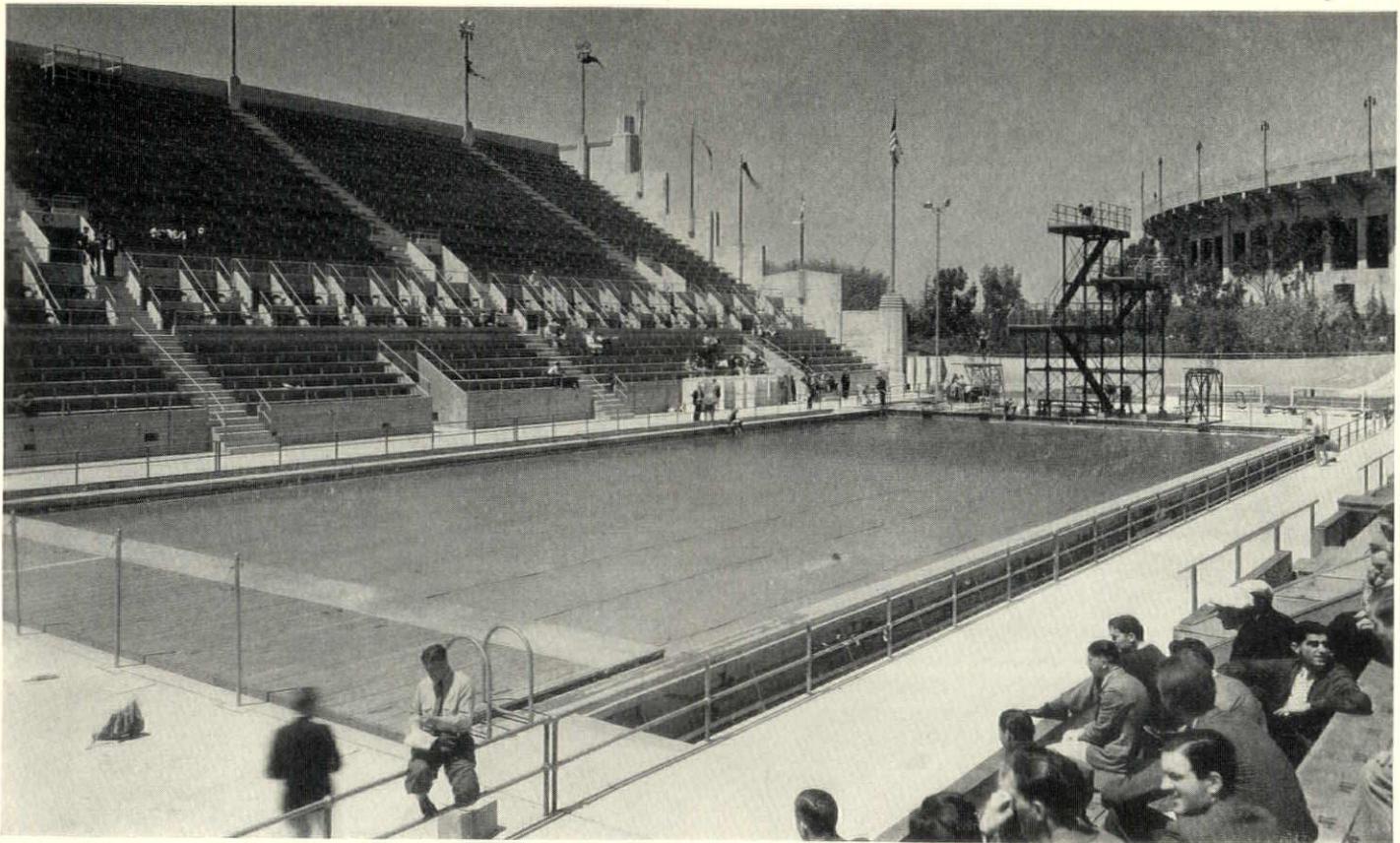
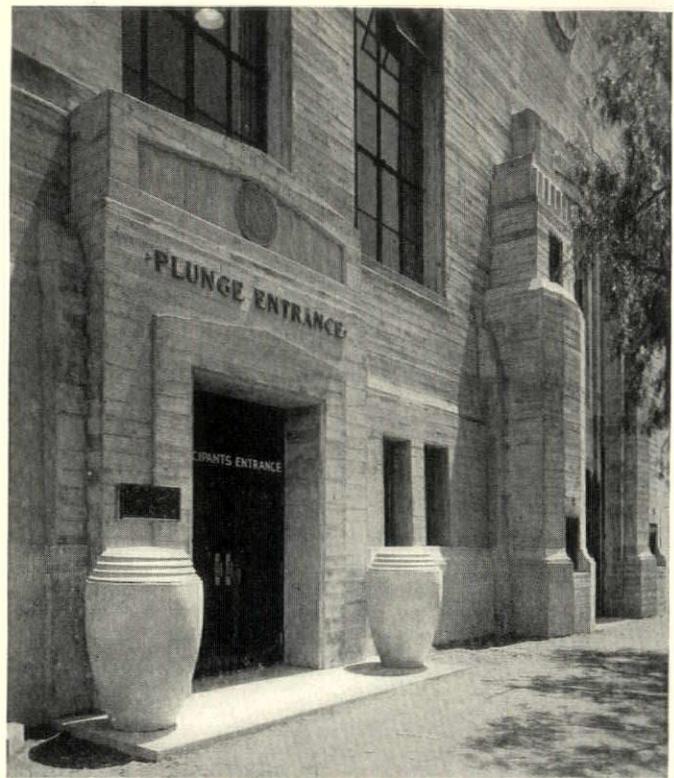
In larger churches worship and religious education functions may overlap in a small chapel seating from 75 to 200, which is definitely ecclesiastical in character and atmosphere. Such a chapel may be open daily for private meditations. It will also be used for weddings, funerals and other special services, and is adaptable as an assembly room for two or more departments of the Church School, jointly or on a staggered schedule.

Architectural opportunity is just as real in rural churches and in industrial sections among the foreign born population of large cities. A church's settlement house program may include building problems that involve libraries, clinics and dispensaries, manual training and domestic science facilities as well as chapel and gymnasium.

IN every case the architect will do well to cooperate with the denominational advisory bureau, commission or consulting architect as the case may be. These agencies can be of material assistance in formulating the church's program, and can often provide valuable technical data. The local church will often accept decisions and advice from its national architectural advisor on many matters which the architect alone could not persuade them to accept.

The numerous Protestant advisory boards are informally united in The Associated Bureaus of Church Architecture which conducts annually the North American Conference on Church Architecture for problem study and for the exchange of ideas and observations. These bureaus are proof that modern churches recognize the technical complexities of their building program.

The necessity of architectural advice for their solution is admitted and the bureaus are ready to coordinate all their experience with that of the architect who is working with them. Opportunities for modernization of church plants are more active today than they have ever been before. Architectural initiative and sound planning can turn these opportunities easily into profitable and interesting commissions.

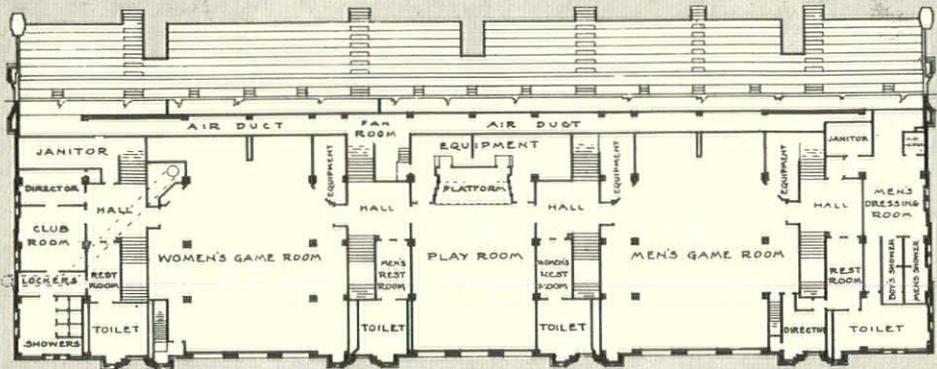


LOS ANGELES SWIMMING STADIUM, LOS ANGELES, CALIFORNIA

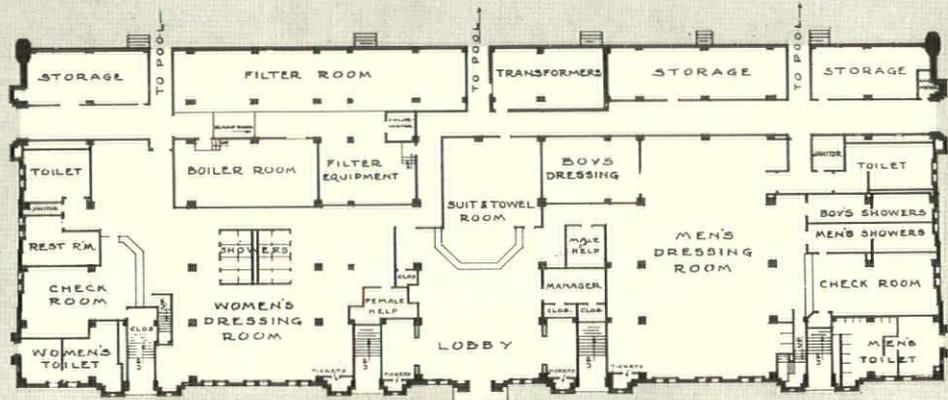
Designed by Department of Playground and Recreation

David Berniker, Supervisor of Construction

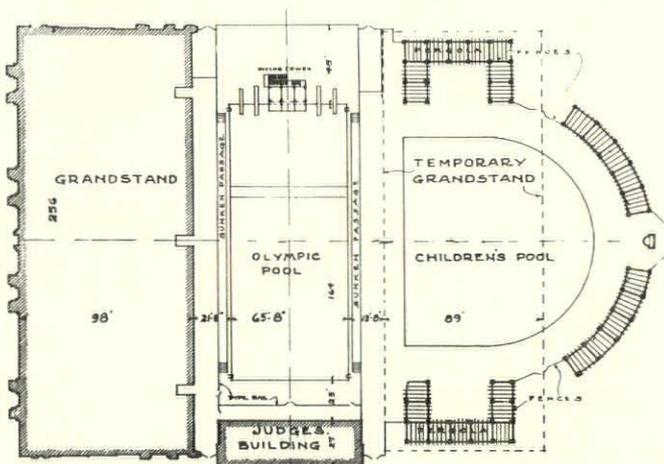
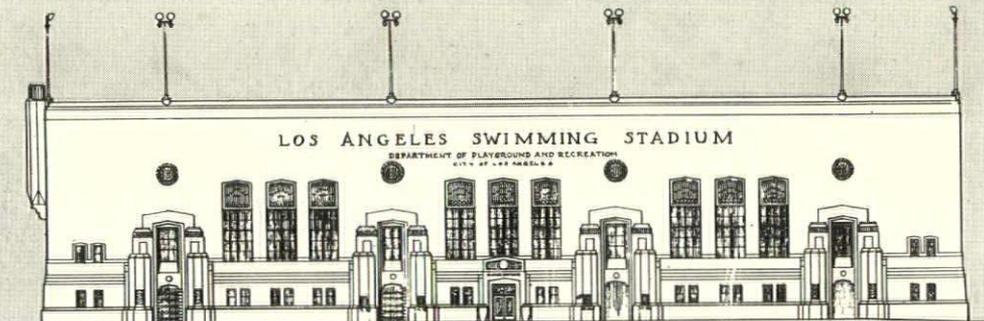
Second
Floor
Plan



First
Floor
Plan



West
Elevation



CONSTRUCTION. Grandstand, pool, judges' building and walks: reinforced concrete. Wall surfaces are natural finish with form marks showing. Steel sash and metal-covered exterior doors painted dark bronze green. Lettering: lead-coated copper plates, natural finish. Large pool lined with white tile. Children's pool coated with white cement paint. Pool water purified by pressure filters and liquid chlorine and heated to 76° by an automatically controlled steam system supplied by gas-fired boilers. Project cost \$215,000

LOS ANGELES SWIMMING STADIUM, LOS ANGELES, CAL.

David Berniker, Supervisor of Construction



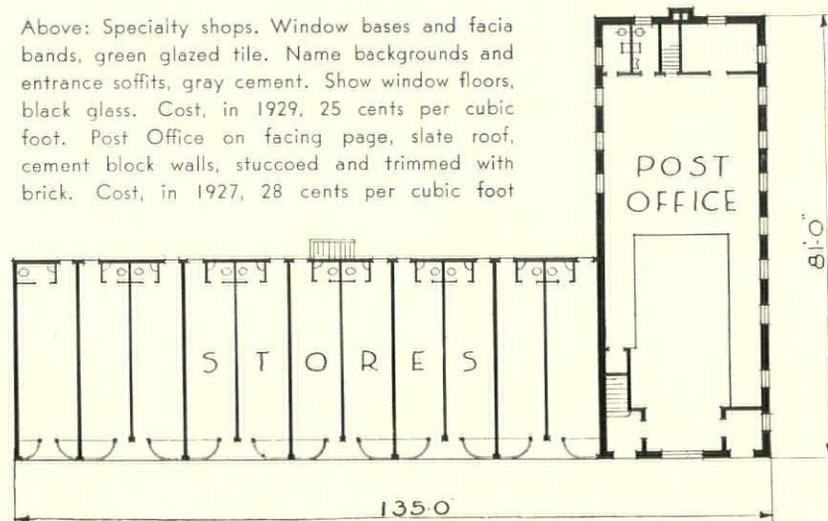
POST OFFICE AND SHOPS
EAST HAMPTON, LONG ISLAND, N. Y.

ROBERT TAPPAN, ARCHITECT

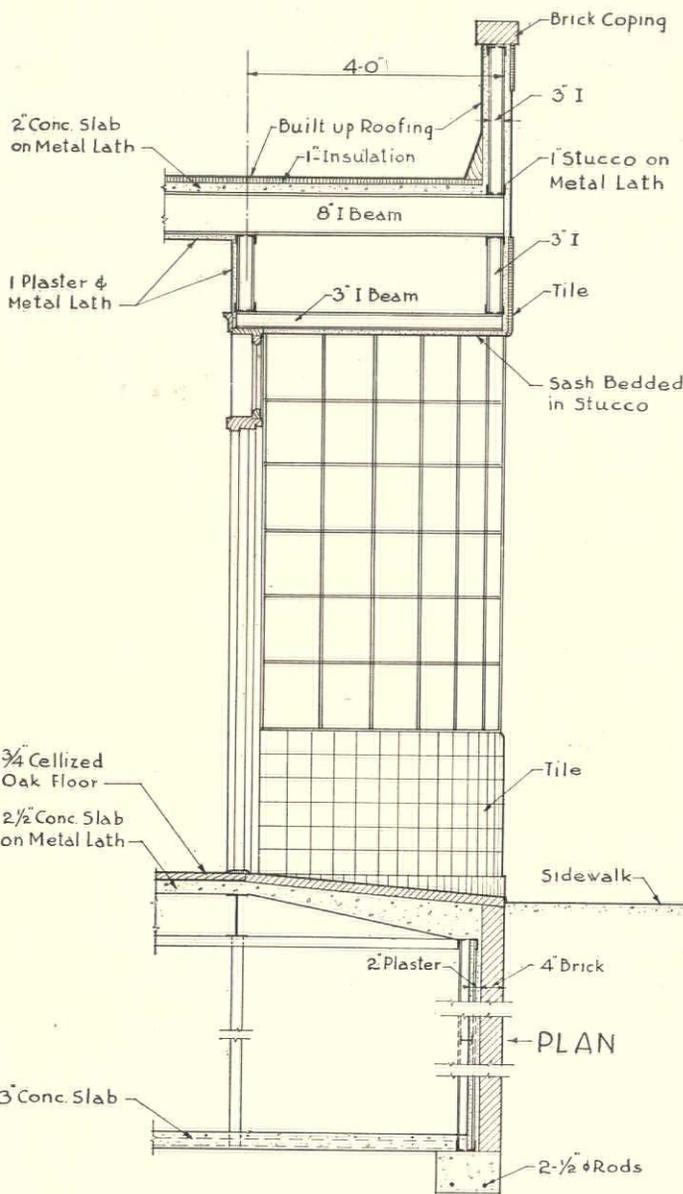
Photographs by Samuel H. Gottscho



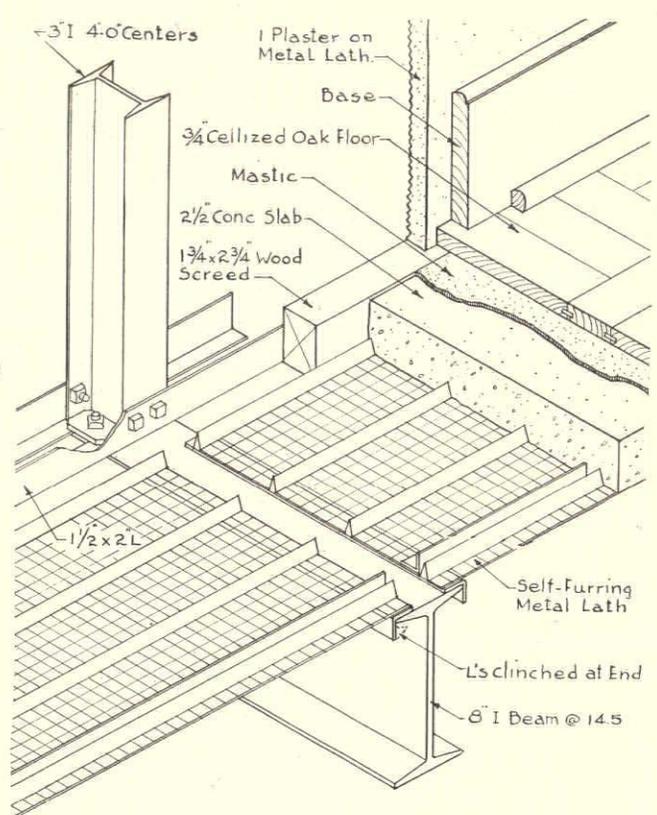
Above: Specialty shops. Window bases and fascia bands, green glazed tile. Name backgrounds and entrance soffits, gray cement. Show window floors, black glass. Cost, in 1929, 25 cents per cubic foot. Post Office on facing page, slate roof, cement block walls, stuccoed and trimmed with brick. Cost, in 1927, 28 cents per cubic foot



POST OFFICE AND SHOPS, EAST HAMPTON, LONG ISLAND, NEW YORK, ROBERT TAPPAN, ARCHITECT



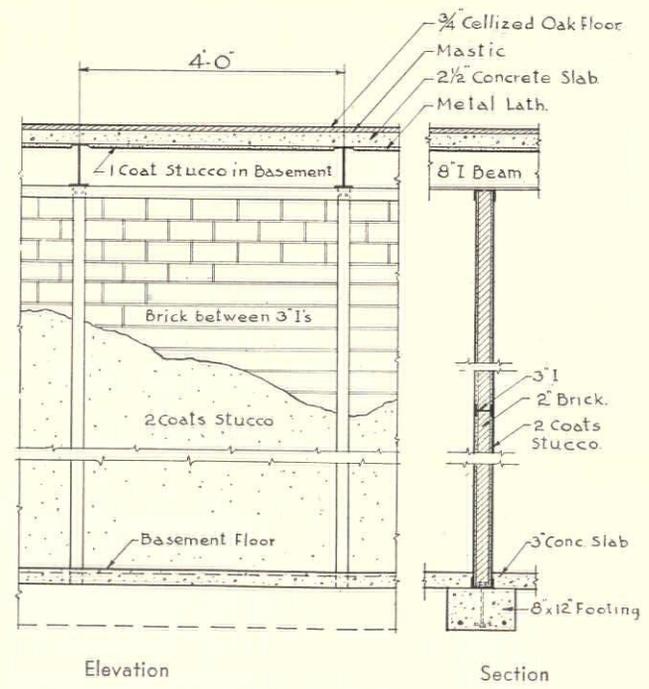
WALL SECTION



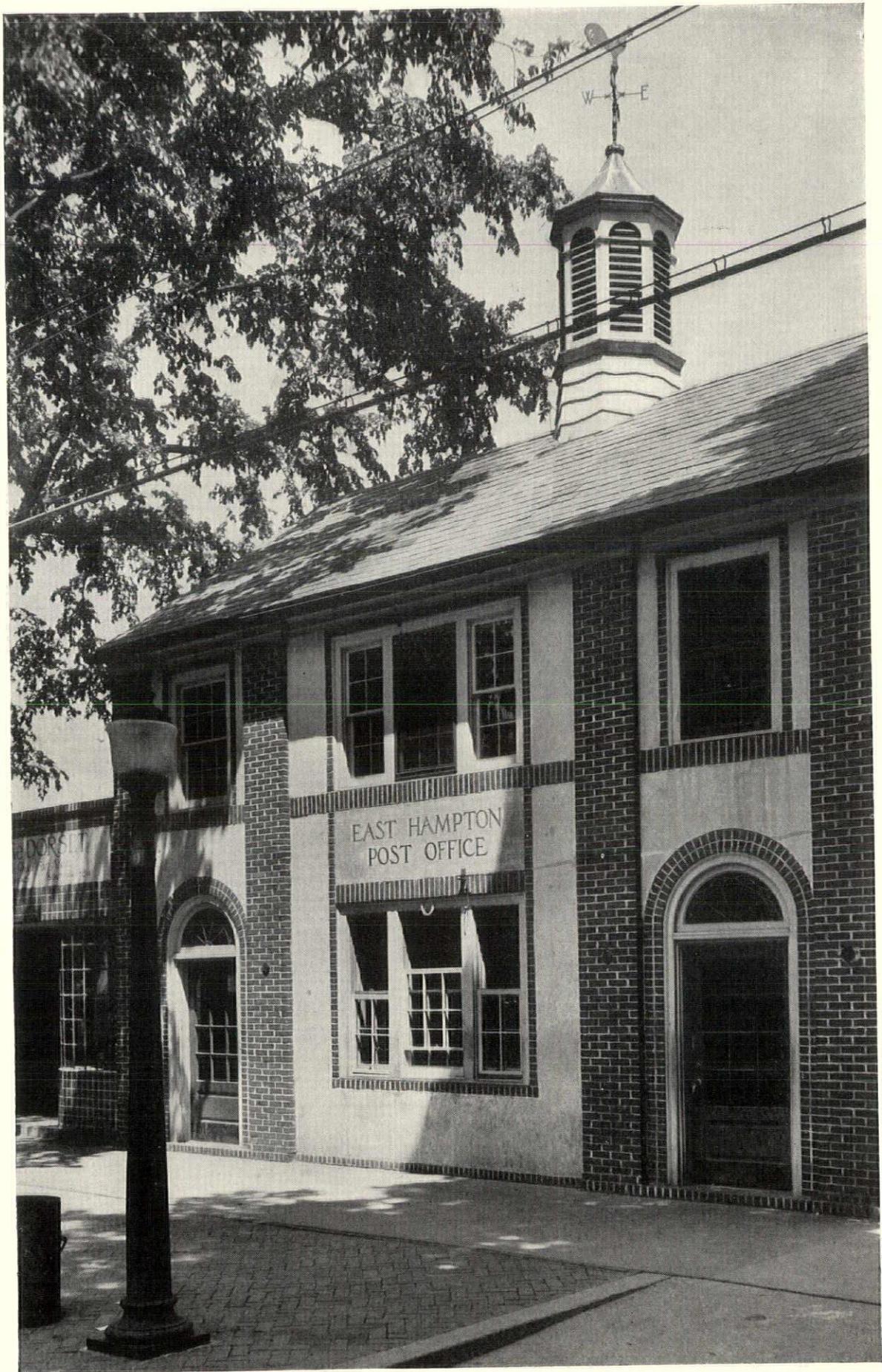
ISOMETRIC FLOOR SECTION

Construction details of shops. Steel framing follows a design patented by the architect. Isometric floor section shows framing method and small size of members. Concrete floors are poured directly on metal lath which is then stuccoed on bottom to prevent corrosion. Brick in basement walls is used between small section I-beams. Columns are exposed and painted. This light system of construction applies to the Post Office as well as to the shops. Both buildings were constructed largely with unskilled labor

POST OFFICE AND SHOPS
 EAST HAMPTON, LONG ISLAND, N. Y.
 ROBERT TAPPAN, ARCHITECT



Elevation Section
 BASEMENT WALL



The Question of Architects' Charges

Percentage-Of-Cost vs. Lump Sum Fees

BY CLINTON H. BLAKE

Blake & Voorhees, Counsellors-at-Law

UPON what basis should the architect's fee be charged? Should it be a percentage of the cost of the work as is now the usual practice? Should it be upon a cost-plus basis, or should it be upon a basis more nearly similar to that of charges for legal services, dependent upon the time and character of the services involved? A brief discussion of these questions seems pertinent at this time, when so many business and professional practices are being tested.

The practice of basing the architect's charge upon a percentage of the cost of the work has been gradually extended until today it is recognized as the usual basis of charge for architectural services. The American Institute of Architects has done much to strengthen and extend this custom and has given it practical expression in its Schedule of Charges and in the standard form of contract between architect and client. A practice which has been thus established should not lightly be changed or discontinued. But, certainly, it is in order to weigh its advantages and disadvantages and to examine the desirability of alternative plans.

One of the chief advantages of the percentage basis of charge is that it establishes a definite measuring rod for the architect's fee, irrespective of the amount of work involved. It automatically produces an increase in fee proportionate to the increase in the cost of the job. Another advantage is that it reduces computation of the fee practically to a formula. This tends to avoid argument and saves time and strain on the part of the architect in making out his bills. Another advantage to the architect is that in many cases—such as a commercial building with typical floor plans—a much larger architectural fee results from the percentage-of-cost method than could otherwise be secured. Perhaps the most pronounced advantage is the fact that the profession has gradually educated the public to a rather general acceptance of the percentage method of charge. If a radical change in method were now

made, this missionary work would just be wasted.

On the other hand, there is the question whether the percentage-of-cost basis of charge may not properly be open to attack upon ethical grounds. As a matter of fact, some years ago not only the ethics, but the legality, of a contract for architectural services based on a percentage of the contract price was challenged in a court proceeding. In this case (*Chicago v. Hunt*, 130 Ill. App. 462) a firm of architects made a contract with the client, under the terms of which the architect's compensation was based on a percentage of the contract price of certain engines, the erection and testing of which was to be supervised by them.

The arrangement was such that the price was increased in accordance with the efficiency of the engines. This efficiency was passed upon by the architects. The result was that the architects' report, showing that the engines produced an efficiency in excess of a certain fixed base, resulted in automatically increasing their compensation. The city, in contesting part of the architects' claim, contended that the contract was void as against public policy in so far as the compensation of the architects was made dependent under these circumstances on the contract price. The city also contended that the architects could not recover any compensation on so much of the contract price as resulted from the increased efficiency of the engines to which they certified. There was no question of bad faith involved or any showing that the architects' judgment was affected by self-interest in the result. The court held the contract not against public policy.

The foregoing decision is probably legally sound. It does not, however, dispose of the ethical considerations involved. It indicates that these might well be challenged in another jurisdiction or under slightly different circumstances. Assuming that the cost be not so high as to cause an abandonment or postponement of the project, it is clearly to the architect's financial interest that the cost of the build-

ing be as high as possible. A reputable architect will necessarily strive in good faith to work out a design which will carry out the wishes of his client with a minimum of expense. But even assuming good faith and an intent to do this, the architect, by adopting the percentage-of-cost method of charge, places himself in a position where, consciously or unconsciously, he is under a constant temptation to provide a building at as high a cost as may be practicable. He is in somewhat the same position as a lawyer, who, having an interest in some project, undertakes to advise a client as to whether he should invest in that project. It would be to his selfish interest to have the client make the investment. But no lawyer could ethically allow himself to be placed in this position; and it has been held legally that the relationship between architect and client is generally similar to that existing between an attorney and his client (*Coombs v. Beede*, 89 Maine 187).

That that point in question is not merely academic can be attested by any architect with a substantial practice. Such an architect, over a period of time, will have had clients who, in contesting his charges, have maintained that the cost of the work was too high and have intimated that the architect has not been averse to having the cost increased to his own advantage. I have had many cases in my own practice in which owners contended that the architect purposely prepared drawings calling for an unreasonable construction cost. It is very difficult to convince such an owner that his suspicions are not well founded; and there is always resistance in such a case to any endeavor to secure payment of the architect's bill. Theoretically and ethically, it would be far sounder, I believe, for an architect's charges to be based, as are those of other professional men, on the time involved, the character of services rendered, the amount involved in the transaction and the financial position of the client.

The Institute has recognized the necessity in some cases of placing the fee on a different basis by suggesting the possibility of a cost-plus form of con-

tract for the architect's services and by providing a standard form for this purpose. While this is not subject to the same ethical criticisms as the percentage-of-cost agreement, it has never appealed to me as a practical form of working arrangement except in special or exceptional instances such, for example, as the case where the amount and character of the services and work can not be foreseen.

Another possible form of agreement is a lump-sum fee including all drafting and other expenses of the architect. In many cases a client will prefer this type of charge, because it enables him to know exactly what the architectural expense will be. It is subject, somewhat, to the objection that it is difficult to estimate what will be a fair charge and especially difficult to take care of variations in the charge which might fairly be called for because of changes in the plans by the owner. On the other hand, it is quite possible for the architect to figure the fee on a basis of his usual percentage of estimated cost of the work, and thus arrive at a figure which may be agreed upon as the fee to be paid.

If this be done and the work is carried out at less expense than anticipated, it is true that the client will not receive the benefit of a reduction in the architect's fee. On the other hand, if the work costs more than anticipated, as is so often the case, the client will not be called upon to pay a larger fee than that originally contemplated. There is no legal objection to the parties agreeing upon any stated amount of compensation, if they wish to do so. Their agreement as to this will be recognized and enforced by the courts.

If the percentage-of-cost basis of charge had not become so well established, I should feel that it might with advantage be abandoned, because of the objections which I have urged. To abandon it at this time, however, would be a serious step which should not be taken without full and very careful discussion and consideration. Nevertheless, the problem is one which merits the continued and thoughtful analysis of all architects.

EDITOR'S NOTE:—The legal side of the architect's professional practice has been long recognized by *American Architect* as a factor of importance in the building world. Years ago this journal published a series of articles on this subject and since that pioneering innovation in architectural publishing, the value of a legal commentary on matters architectural has become apparent to every member of the profession. Interest in these legal articles has become keen—so keen, in fact, that we have asked Mr. Clinton H. Blake to discuss in more detail than formerly future legal decisions of current interest and importance to every member of the building industry. As many an architect knows, Mr. Blake is a New York jurist, a member of Blake and Voorhees, Counsellors-at-Law, a firm that for years has represented several architectural firms throughout the country. Each month in *American Architect* Mr. Blake, a widely recognized authority on building law, will bring to architects keen comment and legal criticism on cases that involve some principle or custom of architectural practice. It is to be hoped that architects will take advantage of the opportunities for discussion which Mr. Blake's pages will present. Obviously it will be impossible for the author to act as a corresponding legal advisor through *American Architect*. Nor will his pages be any kind of legal question-box. But he will welcome correspondence which might form a basis for instructive comment or helpful criticism, not from the standard of an individual case but from that of the practicing majority of the architectural profession.



"How Britain Smokes," mural painting by Arthur Crisp in various shades of tobacco brown

The Dunhill Shop

BRITISH EMPIRE BUILDING, NEW YORK, N. Y.

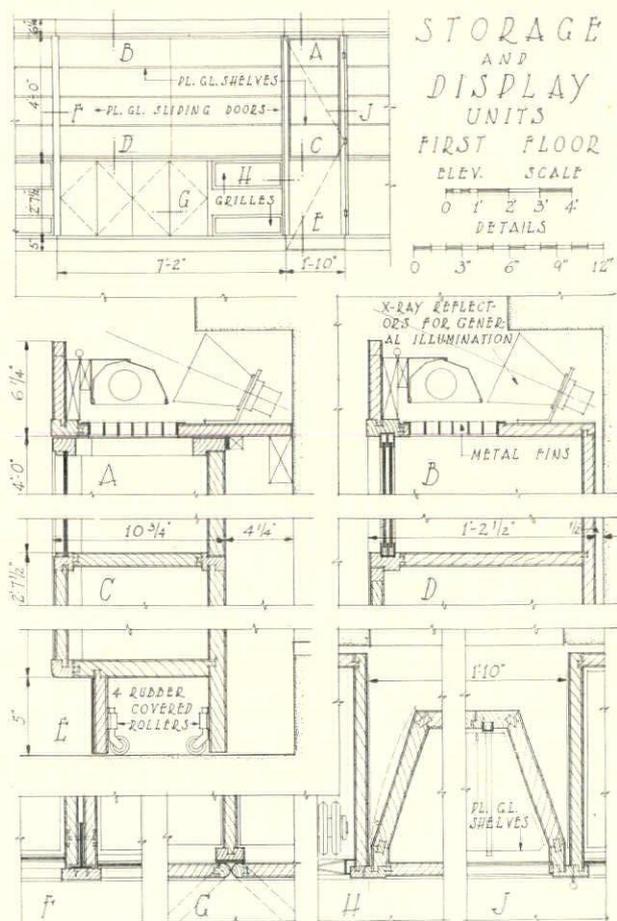
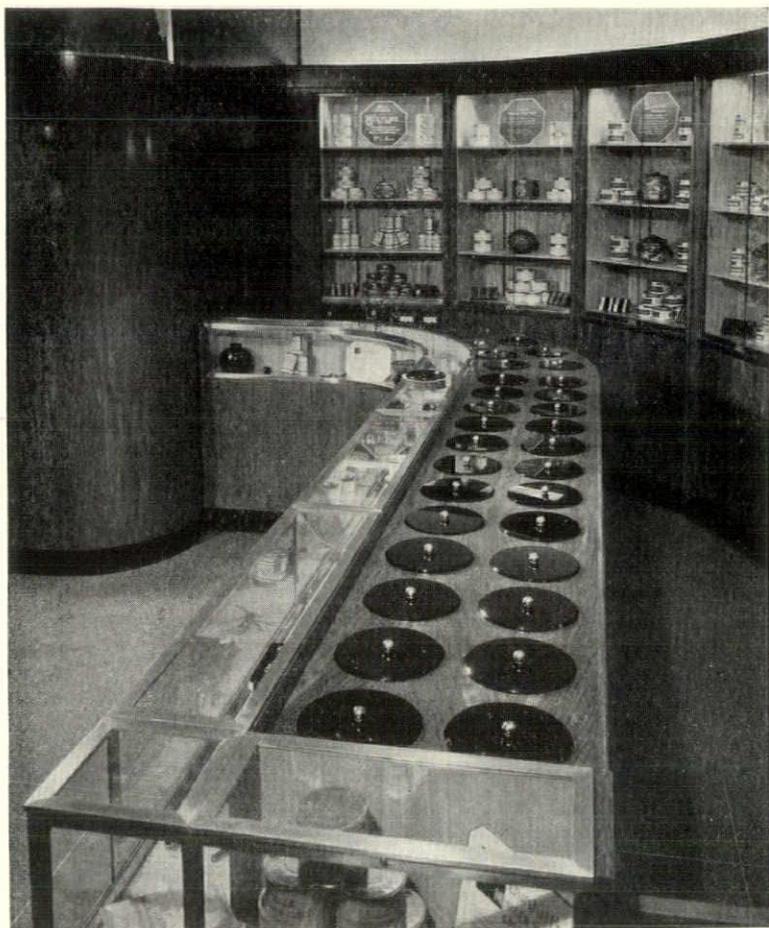
EUGENE SCHOEN & SONS, ARCHITECTS

Photographs by Rotan

SMOOTH, gleaming surfaces, lighting that is everywhere indirect, absence of architectural ornament, air conditioning and an attractive color harmony of browns, gray, tan and red—these are outstanding physical characteristics of Dunhill's new shop in the British Empire Building at Rockefeller Center, New York. Skillful combination of simple elements has produced an impression of elegance as a background for unusual smokers' gadgets, cigars and tobacco, repeal paraphernalia, sport clothes, cosmetics and feminine accessories of the swankier sort.

The shop occupies most of three floors. Two

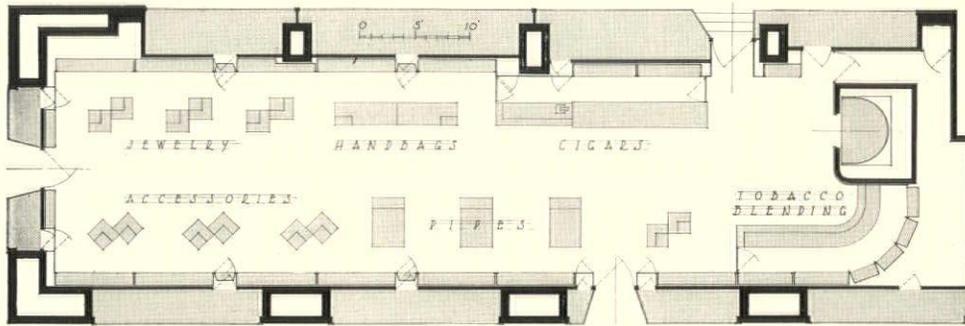
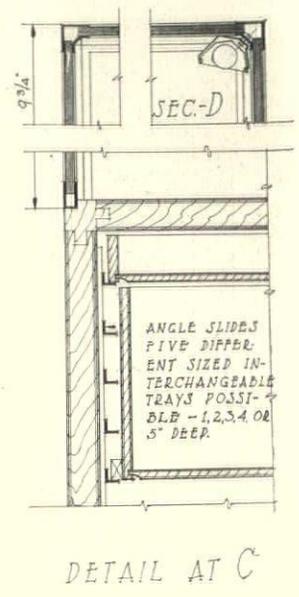
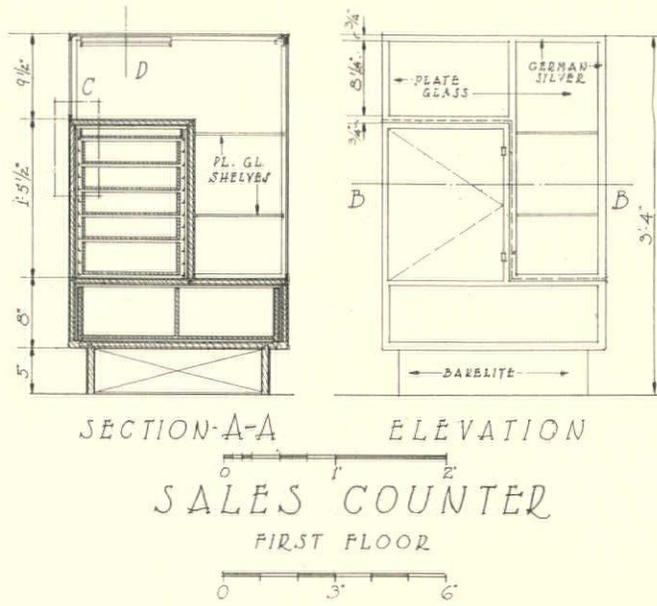
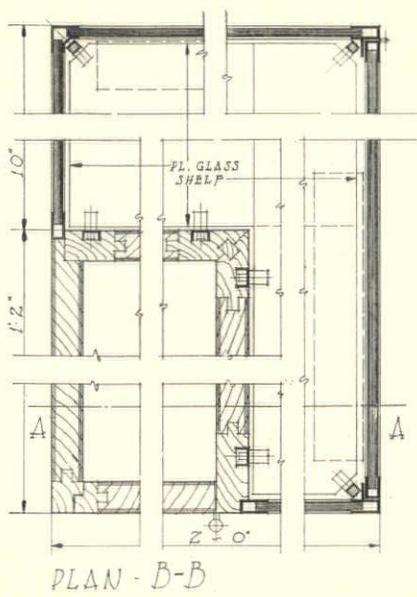
lower ones display articles with a masculine appeal; the third caters to the ladies. Though similar in general style, designs of different departments vary in detail to reflect most accurately the character of merchandise displayed. For example, first floor colors are strong, quiet, dark. Surfaces are plain. Decoration is lacking except for the mural by Arthur Crisp that dominates the shop from over the elevator door. In the women's spaces colors are lighter, forms less heavy, pattern in coverings and hangings more obvious. Nearly every item of furnishings and display equipment was designed by the architect, including the carpet and hangings of the upper floors.



Above: Tobacco blending counter and detail of typical display cases. Narrow units roll on rubber casters to permit access to the exterior show windows. Right: Shop from main entrance

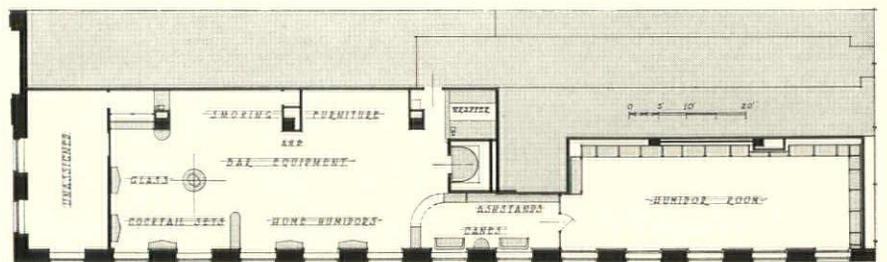
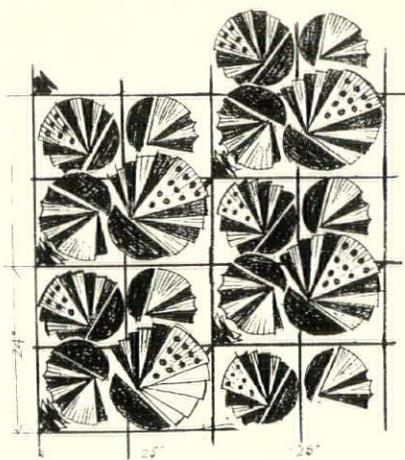
THE DUNHILL SHOP
NEW YORK, N. Y.
EUGENE SCHOEN & SONS
ARCHITECTS





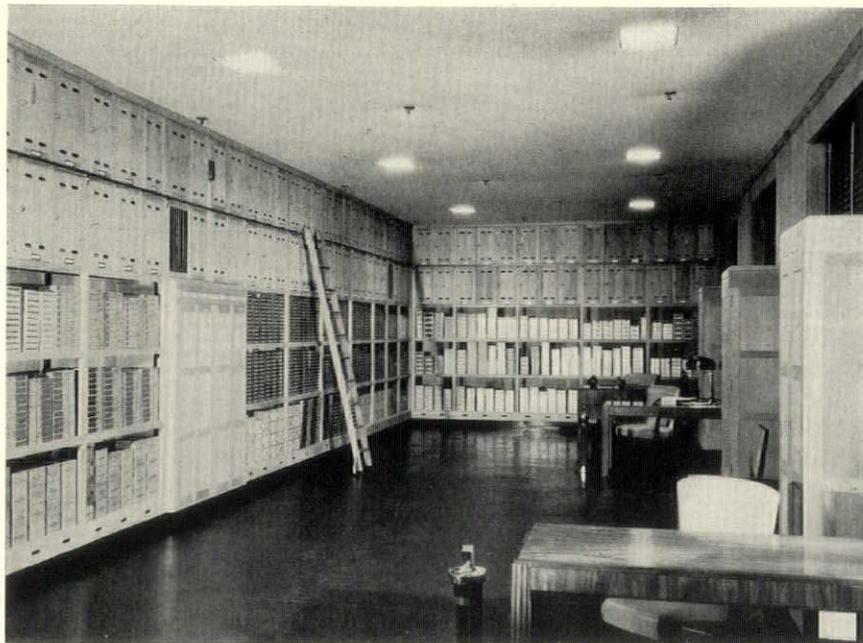
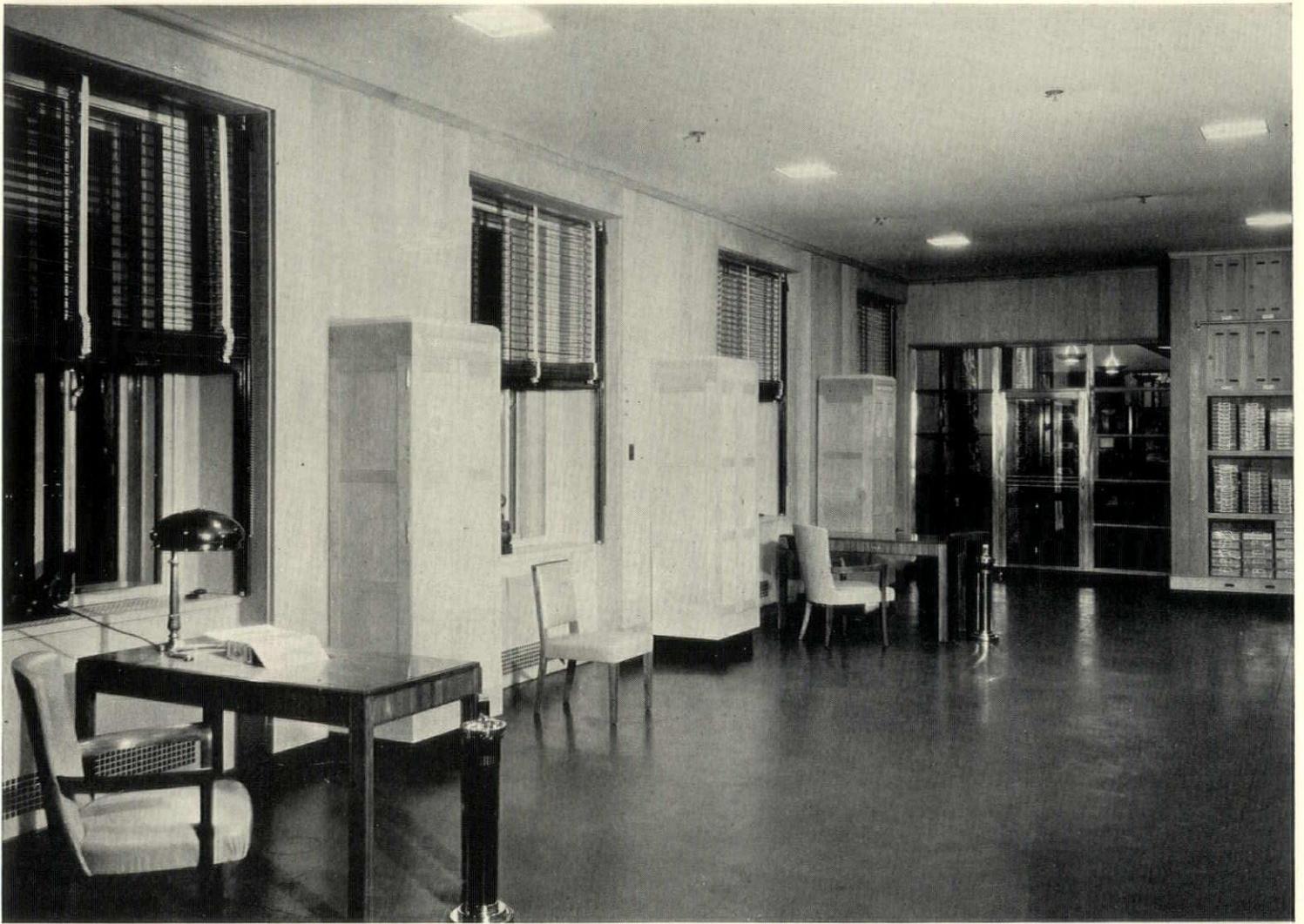
Above: Typical counter details and first floor plan. Left: Jewelry cases and main entrance. Dark red carpet; dark wood veneer walls, natural finish, waxed. White ceiling; aluminum grilles.

THE DUNHILL SHOP
 NEW YORK, N. Y.
 EUGENE SCHOEN & SONS
 ARCHITECTS



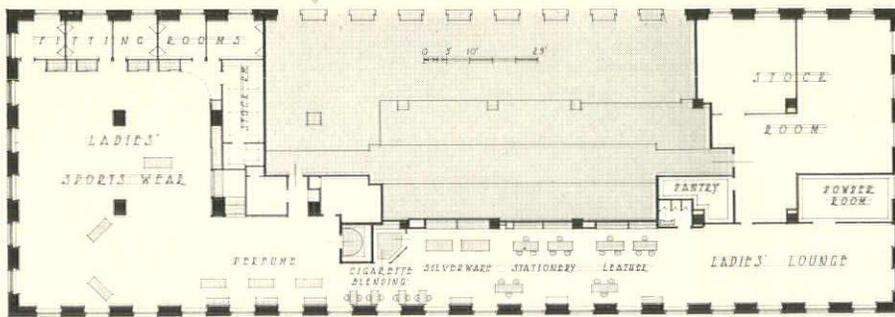
Top of page: Vestibule to humidor room on second floor. Carpet, brown and gray; walls, English oak veneer with walnut trim. Intarsia crest. Above: Second floor plan. Left: Tobacco-brown pattern of linen hangings. Each vertical band is 25 inches wide

THE DUNHILL SHOP, BRITISH EMPIRE BUILDING, NEW YORK, N. Y.. EUGENE SCHOEN & SONS, ARCHITECTS



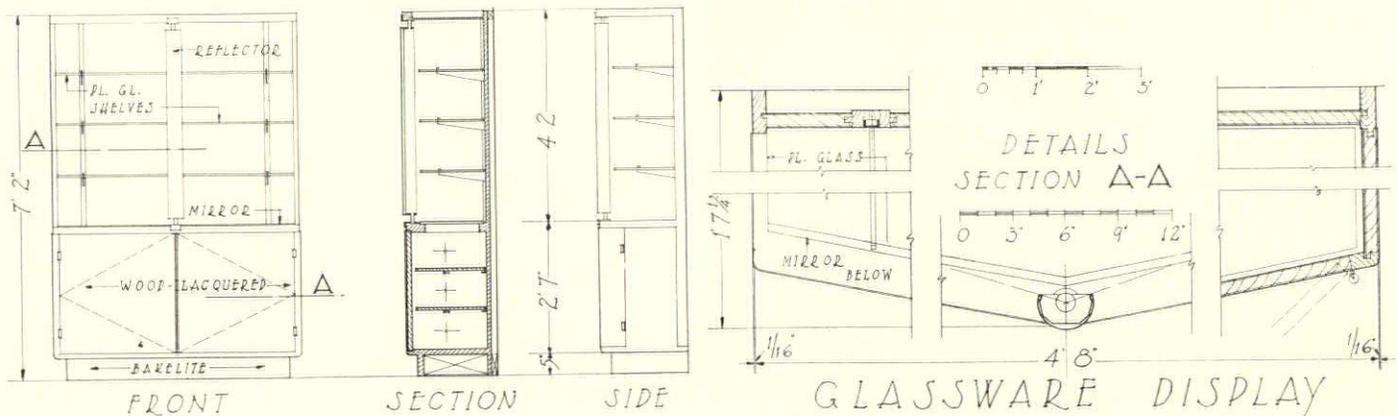
Humidor room. Floor, cement painted brown. Woodwork, including walls and cabinets, cedar lined with cork. Ceiling, natural color canvas stretched over cork. Lights are recessed. Furniture, English oak; Venetian blinds, dull blue

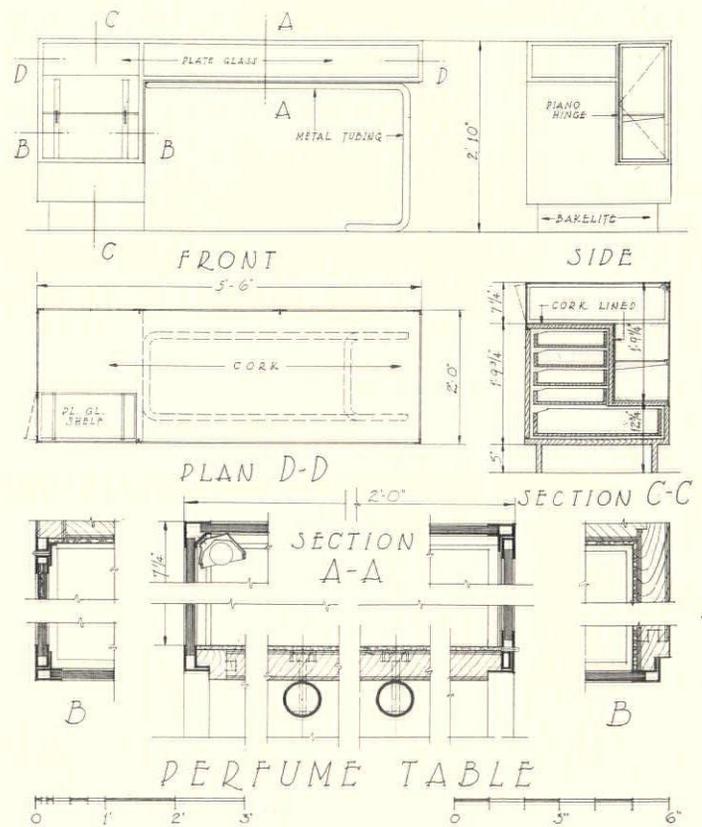
THE DUNHILL SHOP, NEW YORK, N. Y.
EUGENE SCHOEN & SONS
ARCHITECTS



Above: Glassware department, second floor. Walls, English oak veneer, walnut trim. Cases (detail below) are lacquered; bases red, top and side bands, white. Plan is of third floor. On facing page: Above, perfume department. Tables have nickel silver frames, light, pinkish-tan woodwork (oak wood veneer). Below left, Ladies lounge. Walls are white

THE DUNHILL SHOP
NEW YORK, N. Y.
EUGENE SCHOEN & SONS,
ARCHITECTS







Powder room, third floor. Wallpaper, tan field with dull blue and red pattern. Hangings, dull blue. Furniture, hawthorn

THE DUNHILL SHOP, BRITISH EMPIRE BUILDING, NEW YORK, N. Y., EUGENE SCHOEN & SONS, ARCHITECTS

Remodeling for Liquor Service

AMERICAN ARCHITECT REFERENCE DATA

No. 10, March, 1934

THE return of legal wine, beer and liquor to more than two-thirds of the States has brought new opportunities and new problems to architects. The data here presented seek to cover the major considerations in the remodeling of food service space to adapt it for wine, beer and liquor service. The term "remodeling" here embraces the treatment of building areas, such as stores, for complete conversion from other uses to food and liquor service. Principles and data, therefore, embrace the planning of new structures as well, with the exception that commercial kitchen planning and equipment—a highly specialized subject in itself—is left for separate consideration.

Variations in State laws with regard to conditions under which alcoholic beverages may be served, as well as differences in the types of trade encountered, require consideration of three types of layouts:

TYPE I . . . Barrooms and saloons, in which liquor service is the dominant trade, with food service incidental and customers may be served at the bar.

TYPE II . . . Cafes, club bars, rathskellers and their modern counterparts, in which food and liquor service are combined. The beverage bar may be in the public space, but customers are served at tables, booths or counters.

TYPE III . . . Restaurant, hotel and club dining rooms, in which food service dominates, with alcoholic beverages served from the kitchen, service pantry or portable bars wheeled to customers' tables.

Procedure in the planning of any space for service of alcoholic beverages begins with the owner or operator of the space establishing his requirements. Far more experience in bar and restaurant management than the architect may be expected to have is required to determine the character and volume of trade obtainable in a given location, or to plan for and select equipment for kitchens, pantries, and service bars. The first must be estimated by the owner; the latter is best placed in the hands of a competent consultant or determined by the recommendations of one or two manufacturers of beverage and food service equipment of high standing and integrity. The architect can render invaluable service by checking requirements and layouts and by compromising differences of opinion that inevitably

arise. But his major function is that of coordinating the many elements of food and beverage service equipment and all plumbing, heating, electrical and refrigeration connections, with the structural and space limitations of the building and designing the public areas in the manner that will attract the most profitable trade.

Preliminary Planning, however, is entirely within the architect's province. For this purpose the following general data are useful:

1. *Adequate kitchen and food preparation space is the first essential of profitable operation.* It is false economy to seek a greater volume of trade in a given area by increasing the dining space at the expense of the kitchen. Extra capacity, from space saved by restricting service areas, is not worth impairment of the quality of prepared food, cleanliness of service areas, efficiency of service, turnover of trade, and customer satisfaction.

Subject to recommendations of competent experts and a detailed study of all factors, the ratio of kitchen area (including service pantries, but exclusive of helps' wash-rooms, locker-rooms, etc. and bulk storage space) to either gross area or public area, should be:

	Kitchen Area in	
	% of gross area	% of dining area
Type I. Bars and saloons, depending on extent of menus	5% to 15%	6% to 18%
Type II. Cafes, club bars, rathskellers. Limited menu—table d'hote	23% to 26%	30% to 35%
Type III. Restaurant, hotel and club dining rooms, waiter service at tables. Average menu—table d'hote and a la carte	26% to 33%	35% to 50%
De luxe menu—unlimited a la carte	up to 48%	up to 90%

Before adding alcoholic beverage service in existing dining space, a check should be made of kitchen capacity in Type II and III projects, for the additional volume of trade may overtax service facilities, resulting in poor service and lost customers. However, the tendency toward more leisurely dining



This arrangement of bar and furnishings is typical of modern practice when liquor service is the dominant trade with food service incidental. Barroom of the Century Club, A Century of Progress Exposition, Chicago, Holabird & Root, architects

TABLE I
APPROXIMATE AMOUNT OF SPACE PER SEAT AND RATE OF TURN-OVER

Type of Space	—Square feet floor area per seat—			Approx. Number Meals served per Seat per Hour	*Estimated Meals per Hr. per 100 sq. ft.
	Average	Max.	Min.		
Hotel Dining Rooms: (Ample traffic space, medium to large tables)	13.5	15.9	11.5	1 to 1½	7.4 to 11.1
Hotel Banquet Rooms: (Crowded tables, minimum traffic space, large table units)	8.8	10.2	7.25	No turn-over	11.4
Lunch Rooms and Bars: (Service at counters or bars only. No tables or waiter service. Seated on stools or fixed chairs at bar)	21.4	28.0	15.5	{Lunch only—3 to 3½	13.7 to 16
				{With liquor service— 2 to 3	9.1 to 13.7
Tea Rooms, Cafes, Lunch Rooms: (Waiter service at compact tables; limited traffic space. Estimated average)	11.5			{Lunch only—2 to 3	17.4 to 26
				{With liquor service— 1¼ to 2	13.0 to 17.4
Self-service Cafeterias and Cafes with Liquor Bars in Dining Space: (Waiter service in cafes; small tables, average traffic space)	16.6	18.5	15.4	{Cafeterias, no liquor—3	18.1
				{Cafes with liquor—1¼ to 2	7.5 to 12.1

*Computed by dividing 100 sq. ft. by average area per seat and multiplying by meals served per seat per hour



A small service bar can serve a large area when liquor service is incidental. This cafe is decorated to simulate a ship's deck. Walls, white-painted wall board studded with rubber-headed nails. Ceiling, canvas. Yacht Club Cafe, Edgewater Beach Hotel, Chicago, Benjamin Marshall, architect

when alcoholic beverages are served tends to minimize this problem if the kitchens were adequate for the previous trade.

2. *Seating capacities must be accurately related to (a) extent of menu, (b) character of trade, and (c) type of service as these factors affect table, booth and counter sizes and spacings.* Where food must be served to legalize liquor dispensing, or where liquor may be consumed only by seated customers, small tables compactly arranged may suffice. But where food is a major consideration and elaborate meals may be ordered, not only must tables be large, but there must be adequate aisle space for waiters to pass without interfering with seated customers. Table, chair, booth and counter stool sizes are indicated in Figure 1 and typical arrangements and spacings are shown in Figure 2.

Preliminary planning may be facilitated by using data from the preceding table showing approximate amount of dining space per seat, approximate number of meals served per seat per hour, and a composite of these figures showing estimated meals per hour per 100 square feet of gross floor area. The latter figure shows that capacity is governed

not only by seating arrangements, but by speed and type of service. Caution must be exercised in using these data, as many factors influence them and representative installations are not reliable guides where basic conditions vary.

3. *Bars in public space (Types I and II) may vary widely in size and proportionate area occupied according to amount of liquor sold, habits of clientele, and local or state drinking laws.* This matter must be determined by the experience of owner or operator. Unless bars are used as dining counters and must be equipped with fixed stools or chairs like lunch counters, their capacity is extremely flexible and is governed mostly by the number of bartenders that can work efficiently behind them. Typical elements of bars and back-bars with dimensions and spacings are shown in Figure 3 as a guide to average space requirements.

4. *Service bars located in kitchens or serving pantries (Type III establishments) are purely utilitarian units that may be sized in direct proportion to the number of barkeepers required under average heavy load.* Units employed in service space bars are identical with those used in public bars, the



HEDRICK-BLESSING



GOTTSCHO

On facing page: Private drinking room designed by Kelly Interior Crafts Co., Chicago, that suggests possibilities for treatment of public spaces. Above: The Rendezvous, barroom of the Barclay Hotel, New York. John A. Walquist, architect. Wall panels, mulberry velour; carpet, light red; mirrors, flesh-colored; ceiling, gold. Lighting is indirect from aluminum fixtures. Furniture is brown upholstered in brown leather.

chief difference between them lying in the elaboration and appearance of counters and fronts.

5. *Portable bars used in formal dining rooms and cocktail rooms (Type III) require a loading point in the kitchen area where stocks of liquor, fruits, ice and glassware may be replenished.* This loading point should be close to the dining room service entrance. Serving capacity varies with the number of bars in operation. The system is flexible in operation, though requiring somewhat expensive equipment. A typical unit is shown in Figure 4. Storage space for portable bars not in use must be provided in the service area.

6. *Storage space for bottled beverages and ice in public or service space bars and back-bars should be adequate to carry through periods of peak loads without replenishment unless conveyors or dumbwaiters are provided to deliver extra stocks from bulk storage on demand.* Interruption of service during busy periods cannot be tolerated.

Organization Of The Plan involves the following considerations:

7. *Bars in public space should usually be located: (a) to form a focal point in the decorative scheme*

as viewed from entrance, (b) immediately accessible to kitchen or service space, (c) adjacent to, or connected with, bulk storage space by means of conveying equipment or passageways and (d) centrally with respect to dining tables or booths. Beer lines from remote beer pumps in basement should be as short as possible.

8. *Service bars should be located: (a) close to dining room service doors to minimize traffic in the rest of the kitchen and (b) accessible to bulk storage space.* Glassware washing may use regular kitchen equipment, but if capacity is to be increased the extra load should be cared for near the bar.

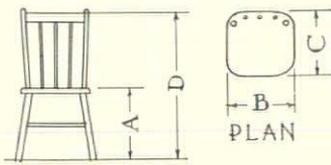
Storage and handling facilities are governed by the volume of beverage sales and the owner's preference for bulk purchases or frequent replenishment. No rules can serve as a guide, but the space required to store cases of wines and other bottled goods in horizontal racks, and sizes of barrels, cases, beer coolers and related storage equipment are indicated in Figure 3.

Conveyors and dumbwaiters serving the bar should be sized to handle a half-barrel of beer or a minimum of one case of bottles. Glassware racks may be obtained to fit type of conveying device.

SEATS, BOOTHS and TABLES

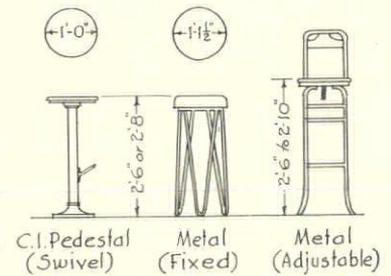
Figure 1

Chair rail heights are determined by dimension D

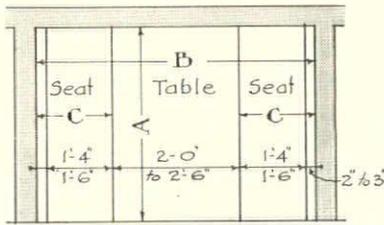


CHAIR DIMENSIONS				
TYPE	A	B	C	D
Straight	1'-5" to 1'-6 1/2"	1'-2" to 1'-4"	1'-2" to 1'-4"	2'-8" to 3'-0"
Windsor	1'-5" or 1'-6"	1'-3" to 1'-7"	1'-3" to 1'-6"	3'-0"
Arm	1'-5" or 1'-6"	1'-7" to 2'-0"	1'-3" to 2'-0"	2'-10" to 3'-6"
Dining Room	1'-6"	1'-6" to 1'-9"	1'-6" to 1'-10"	2'-10" to 3'-3"
Tavern	1'-5"	1'-5" to 1'-8"	1'-3" to 1'-6"	2'-4" to 2'-6"
Metal	1'-6"	1'-3" to 1'-7"	1'-2" to 1'-6"	2'-6"

CHAIRS

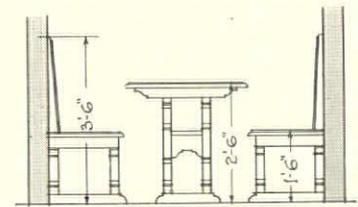


STOOLS



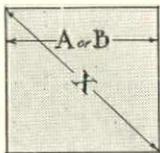
PLAN

A - One person at side - 2'-0" to 2'-6"
 A - Two persons at side - 4'-0" to 4'-6"
 B - Without sloping back to seat, 4'-8" to 5'-0"
 B - With sloping back to seat, 5'-0" to 5'-6"
 B - With upholstered seat back 6'-0" c.loc.
 Local regulations limit height of booth partitions.
 Tables are often made 3" or 4" shorter than seats and have corners rounded.



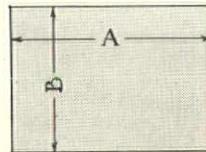
ELEVATION

BOOTHS



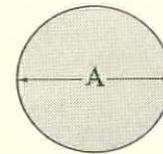
PERSONS	A or B	X
2	2'-0"	2'-10"
	2'-6"	3'-6"
4	2'-6"	3'-6"
	3'-0"	4'-3"

SQUARE



PERSONS	A	B
2	2'-6"	2'-0"
4	3'-6"	2'-3"
4	4'-0"	2'-6"
5 to 6	5'-0"	2'-9"
6	6'-0"	3'-0"

RECTANGULAR



PERSONS	A
2	2'-0"
2 to 4	2'-6"
2 to 4	2'-8"
5 to 6	3'-0"
5 to 7	3'-6"
6 to 8	4'-0"

ROUND

Minimum sizes are satisfactory for drink service, use larger for food service. All tables wider than 2'-6" will seat 2 extra at ends. Table heights are usually 2'-6", occasionally 2'-7".

TABLES

Beer Storage Requirements are well established by experience. Bottled beer should be stored upright in a cool, dark, well-ventilated place. Where beer is to be served from taps and the kegs are not contained within the bar itself, a cellar keg room or pre-cooling box should be provided directly under the bar or as near to it as possible. Ceilings, walls and floors should be insulated, and interior faces lined with an easily cleaned material, such as tile, enameled metal or painted cement. Floors should be drained to eliminate standing water or beer spillage. Insulated doors should fit snugly; and an automatic closing device is desirable.

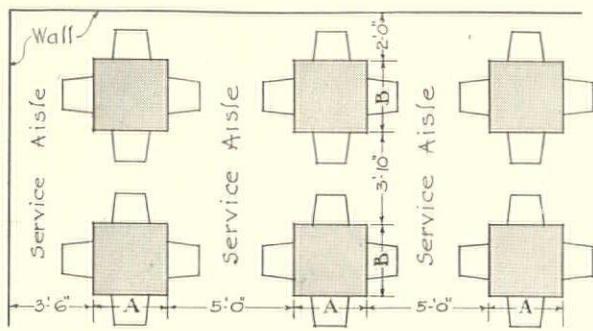
The keg room should be as small as possible to minimize the amount of air to be cooled and conditioned. It should provide space for: (a) an ice bunker or mechanical refrigeration cooling unit, (b) as many barrels as there are taps at the bar, and (c) one spare barrel for each tap. The spare barrel

may be connected to the same tap used by its mate through a siamese connector and beer switch, ready for use when the first keg is empty. Empty barrels should be removed from the taproom, and to prevent unsettling the beer, spare barrels should be moved as little as possible when connecting up. Larger capacities are not recommended, for barrels should be stored twelve to twenty-four hours before opening and beer served within forty-eight hours thereafter. Pressure equipment in the form of carbonic gas drums with pressure regulators, or electric or hydraulic air pressure pumps, may be located within or outside the keg room.

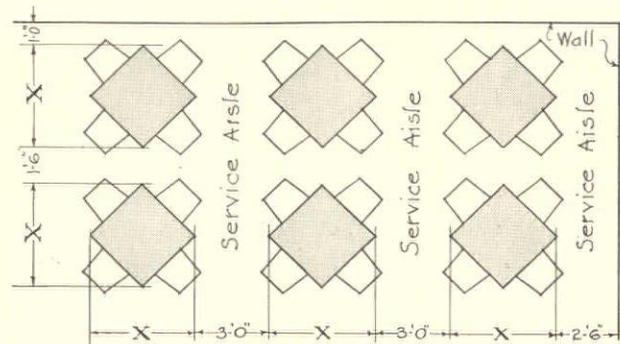
The cellar keg room should be ventilated and kept at a uniform temperature of 40° to 45° F. Good lighting of the keg room facilitates tapping barrels and maintaining cleanliness. A water tap for washing down walls is recommended.

Beer lines should be of block tin of uniform in-

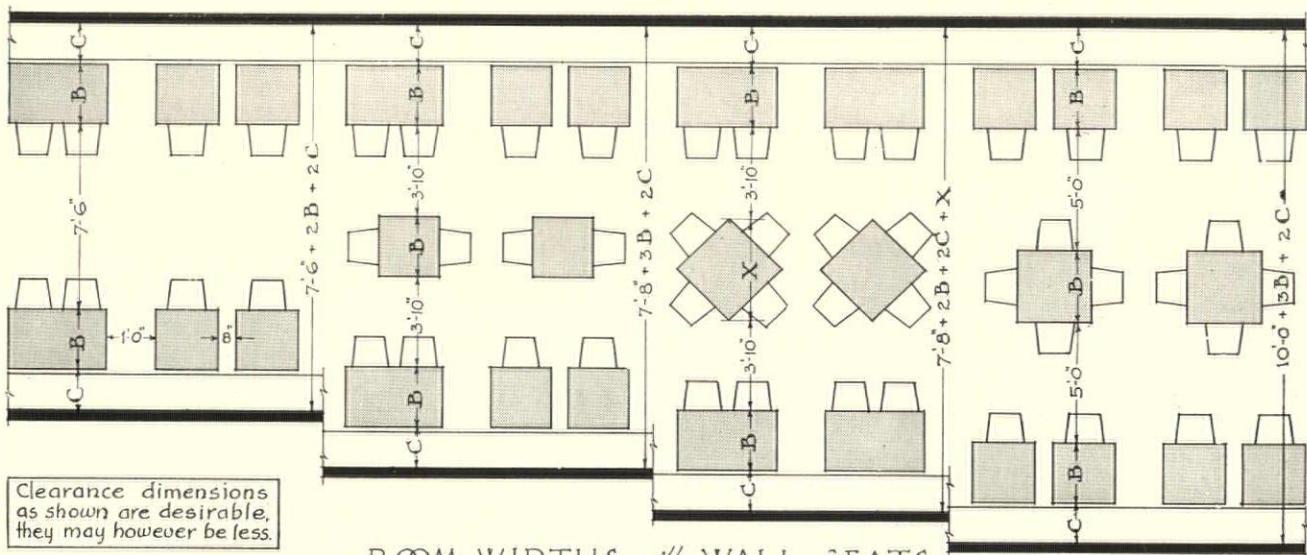
Figure 2 SEATING ARRANGEMENTS



SQUARE SPACING

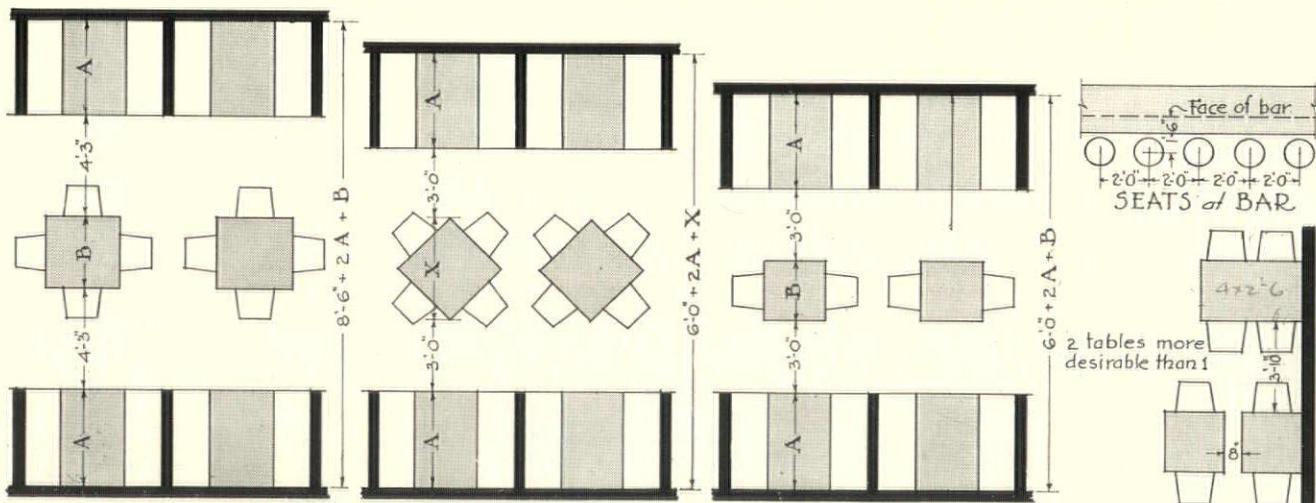


DIAGONAL SPACING



Clearance dimensions as shown are desirable, they may however be less.

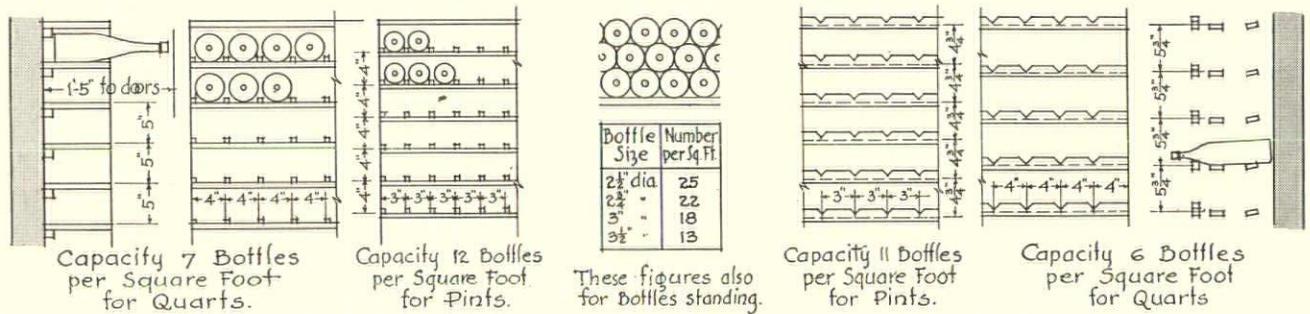
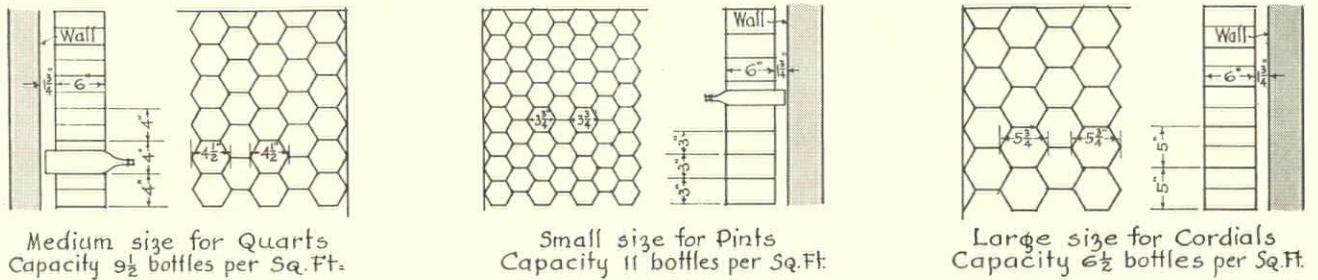
ROOM WIDTHS with WALL SEATS



ROOM WIDTHS with BOOTHS

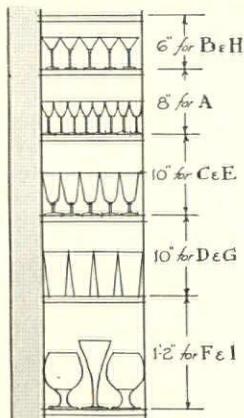
WALL TABLES

STORAGE for BOTTLES and GLASSES. Figure 3



WOOD BOARD SHELVES STACKED WOOD SLAT SHELVES

BOTTLE STORAGE



Type	Glass dia.	Glass Ht.	Lineal ft. of shelf
A Cordial	1/2" to 2"	3 1/2" - 4"	4" to 5"
B Cocktail	2 1/2" to 3"	2" to 4"	8" to 10"
C Wine	2" to 2 1/2"	5"	5" to 8"
D Champagne	3 1/2" to 4"	5" to 6"	1'4" to 1'7"
E Beer	3 1/2"	5"	1'4"
F Pilsener	3"	8 1/2"	1'0"
G Highball	2 3/4"	5 1/2"	9"
H Old Fashion	3"	3 1/4"	1'0"
I Brandy	4" to 5"	6" to 8"	1'7" to 3'0"

The above are average sizes and allowances. No exact standards exist.

GLASS STORAGE

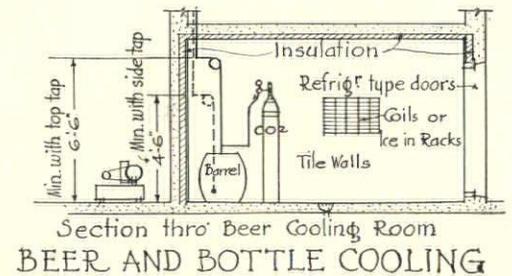
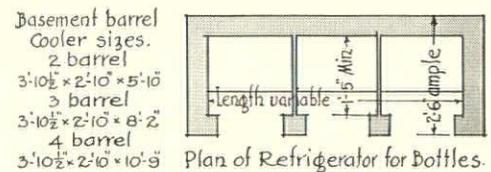
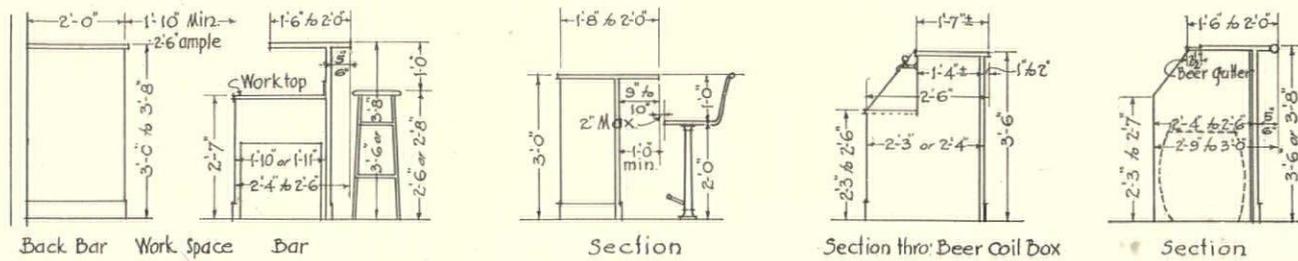
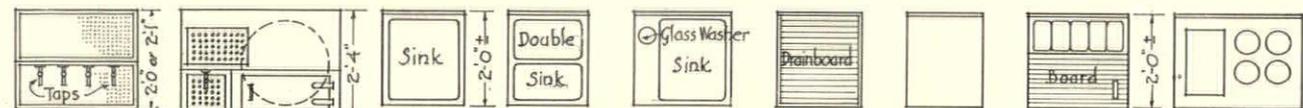


Figure 4

BARS

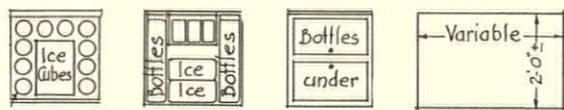


COMPLETE BAR- END ELEV. FOOD COUNTER BEER BAR NOVELTY BOX
 Stock units shown below fit under these bars in various combinations. Bar heights are standard, other dimensions vary slightly.

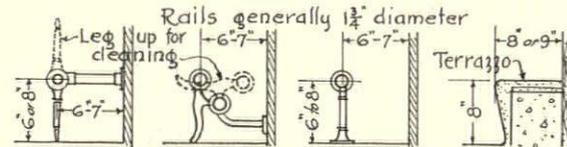


The length of these units is variable and they may be combined as requirements demand

COIL BOX NOVELTY BOX. UNITS for SINKS and DRAINBOARDS. WORK'RD. SANDWICH 'D. STEAM TABLE



SET-UP & BOTTLE RACKS. STORAGE COCKTAIL WAGON



TYPES of FOOT RAILS

ternal diameter installed with a continuous slope to the tap and with long radius bends in preference to angle fittings. They should be as short as possible and insulated wherever exposed. Conveyor lines should be visible and accessible to facilitate repair and inspection. Drain valves should be installed to facilitate cleaning the lines weekly.

Bar Equipment For Beer Service is available in three basic types: (a) beer coils immersed in ice in a "coil box," (b) beer coils surrounded by a refrigerant or structurally embodied in an evaporator or cooling coil; and (c) a settling tank surrounded with ice and equipped with a device for bleeding off excess gases before beer is drawn through the faucet. Pressures for delivering beer from the keg to faucet vary from 13 to 15 lbs. for "low pressure" systems to about 30 lbs. for "high pressure" systems.

Authorities do not agree as to relative merits of the various systems available. All agree, however, that beer, delivered cold from the brewery, should be kept cold and that the cooling device at the tap should merely supplement maintenance of proper temperatures in keg room or box. All parts of the system including faucets should be designed to prevent disturbance of the beverage that causes "wild beer," excessive foaming and loss in service.

Storage Of Wines requires a cool even temperature in a dark wine cellar or refrigerator. A uniform temperature of 58° F. is recommended. All wines, except sweet wines, should be stored with the bottles on their sides. Sweet wines should be stored in an upright position for a considerable time before service to allow sediment to settle.

White wines, which should be served at a temperature as near 45° to 50° F. as possible, may be kept in a separate refrigerator prior to service.

Storage Of Cordials And Liquors is similar to that of wines. They are less sensitive to temperature changes and disturbance than wines and may be stored either horizontally or vertically in wine cellar or refrigerator, or in any other space kept at a temperature of about 58° F.

9. *Temperature control equipment should be used in all important wine, beer and liquor storage spaces.* The majority of these beverages are sensitive to temperature variations and are permanently harmed by freezing or excessive warmth.

10. *Bulk storage space should be free from vibration.* Nearby machinery should be isolated and an area chosen that is not disturbed by heavy traffic. In the opinion of connoisseurs fine wines should "rest" in storage with as little handling as possible.



HEDRICK-BLESSING

Service Bars installed in service areas are made almost exclusively of heavy-gauge, solid, white metals and are designed to withstand heavy use and constant cleaning. Cheaply constructed units made of light sheet metal are seldom good bargains. Manufacturers should be consulted for arrangement of component elements including ice trays, bottle boxes, drainboards and sinks, work boards, bottle racks or "set-up" racks, storage cabinets, beer service equipment, glass washers, etc. Manufacturers also supply requisite data on plumbing, refrigeration and electrical connections needed to serve their units.

Public Space Bars may be obtained in standard units complete with decorative exterior faces, or they may be specially built to meet any style requirement and color scheme. Service elements of the bar and back-bar should be determined in consultation with owner and manufacturer. Any combination of units is obtainable; and the most efficient assembly is governed by the volume and nature of the anticipated trade. The approximate depth of bars and back-bars from face to wall is indicated in Figure 4. Length of the bar is governed by the

sum of the dimensions of separate elements and may be made to match any preliminary design requirement within a foot or two.

Construction of the working parts of public space bars is substantially the same as that of service bars, solid white metals of heavy gauge being preferred for their durability, ease of maintenance and appearance. Light-gauge metals used for the visible working parts quickly become dented and disfigured. More consideration should be given design refinements of public space bars than is required for service bars because of their partial or complete visibility to customers.

Decorative fronts or aprons and the serving tops may be of almost any material that appeals to the owner or architect provided the material can be easily maintained and is not subject to damage through accidental spillage. Aprons may be of wood, mirror, structural glass, ceramic tile, marble, synthetic stone, linoleum, rubber, polished metal, or combinations of these decorative products, including laminated composition veneers.

The traditional serving top is mahogany, in natural color or ebonized, but modern practice has



HEDRICK-BLESSING

Barroom of the Palmer House, Chicago, (on facing page) and ladies cafe in the same hotel (left). Holabird & Root, architects. Barroom floor, dark brown terrazzo with small, light inlaid panels. Wainscot and bar front, alternate strips of mahogany and prima vera; bar top, mahogany. Three sides of the room are covered with murals in shades of green, light lemon yellow and dull red. The fourth contains flesh-colored mirrors

introduced many other suitable materials. The most important are prepared linoleum, rubber, glass, polished metal, structural glass, composition veneers and other materials impervious to absorption. Marble may be used but must be of dark or mottled colors to conceal stains that may develop. The surface of the bar should be smooth with a minimum number of joints.

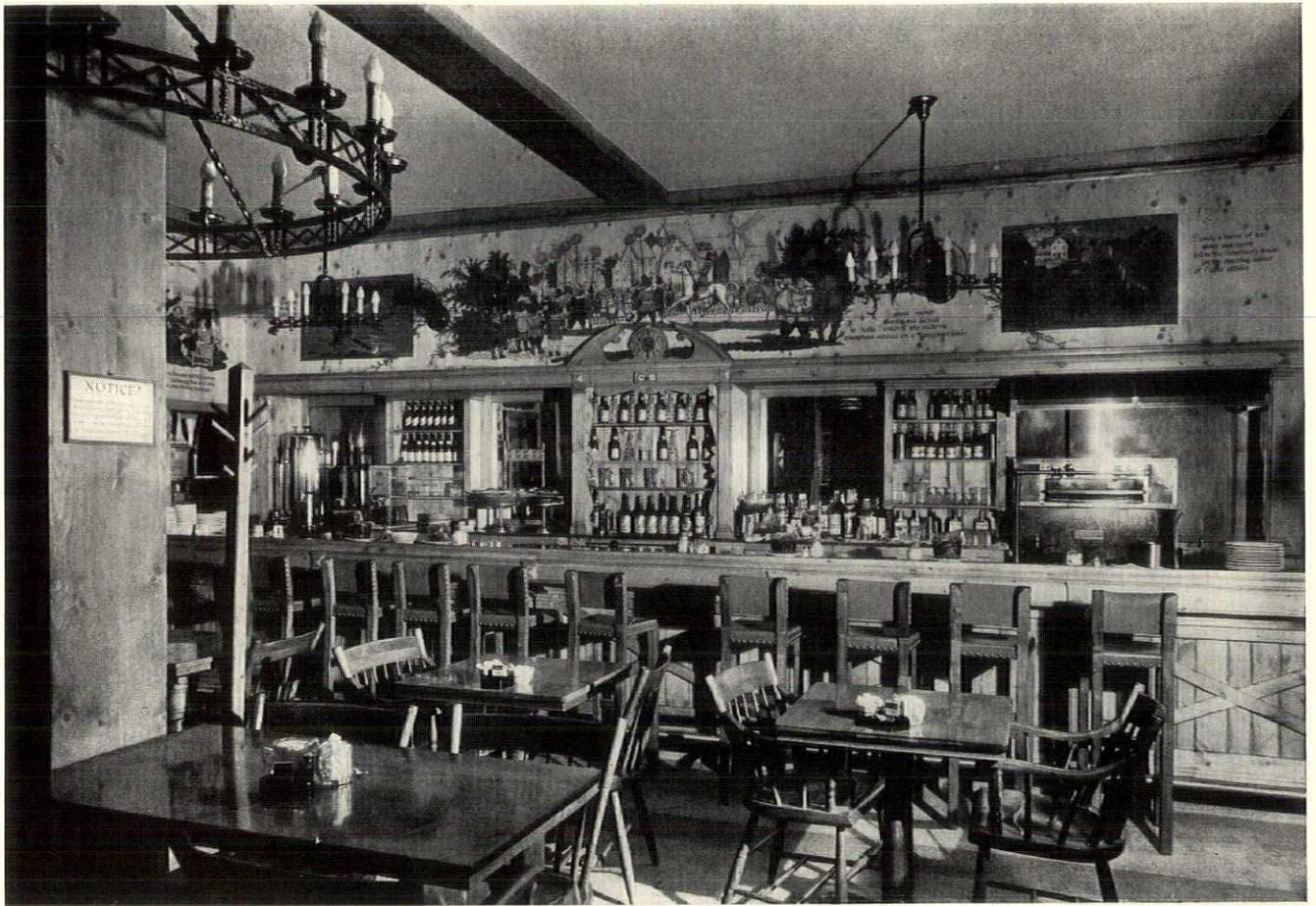
Where the architect is developing a special front and serving top, manufacturers of the service equipment should be consulted for precise dimensions and attachment methods as well as for the required plumbing, refrigeration and electrical connections. Preferably, the manufacturer of bar units should make the bar counters under the same contract.

Refrigeration is required in all types of bars; and mechanical refrigeration is usually preferable to the use of natural ice because of greater convenience and cleanliness. If existing dining facilities are already equipped with central refrigerating plants, or where space can be provided in the basement or service areas for installation of one or more central refrigerating machines, space may be conserved at

the bar by obtaining equipment fitted with evaporating coils rather than with complete refrigerating units. The load required by additional bar equipment may not be too great for service by existing central refrigerating equipment. However, this should be checked by a competent refrigeration engineer or by the manufacturer of existing units.

Practically all bar manufacturers provide cabinet space in units for installation of a refrigerating machine. This space is ordinarily insulated and sound-proofed so that operation of the refrigerator is not noticed by patrons. Portability and economy of installation are important factors favoring self-contained units.

Manufacture of ice in quantities sufficient for bar service is seldom expected of unit refrigerating machines which are designed purely for beer and wine cooling. Where central refrigeration systems are installed, they should be capable of manufacturing a quantity of ice cubes sufficient for bar service unless bulk ice is to be used for this purpose. For information on refrigerating equipment, see AMERICAN ARCHITECT Reference Data No. 3—"Mechanical Refrigerating Equipment." (November, 1932.)



GOTTSCHO





GOTTSCHO

On facing page: Barroom of the Governor Clinton Hotel, New York, Lessman, Inc., designers. Floor, random width terrazzo strips with brass spots to simulate hand-pegged wood planking. Walls, knotty pine veneer, with decorations by A. Champanier. Fireplace tiles, blue and white. Furniture, maple with red leather upholstery. Above: Free-standing service bar in the Colonial Cafe of the Collingwood Hotel, New York, Francis Keally, architect

Air Conditioning is a money-making adjunct of any dining space, even though the extent of conditioning facilities may be limited to proper humidification in winter, to air cleaning, and to ventilation and partial cooling in summer. Complete summer cooling and dehumidification is highly desirable where the initial expense of necessary equipment can be balanced by a large volume of business or relatively high prices. Of all aspects of air conditioning, proper ventilation is of maximum importance. If ventilating equipment is oversized, it will produce vigorous air circulation during humid summer days and give a generally satisfactory sense of comfort at relatively low cost.

The usual practice is to ventilate dining rooms through kitchens (in the case of small restaurants and cafes) or to ventilate the kitchen separately at a rate which precludes any possibility of kitchen odors or heat entering public spaces. For data on selection of air conditioning equipment, consult AMERICAN ARCHITECT Reference No. 5—"Air Conditioning Equipment for Residences and Limited Spaces." (May, 1933.)

Acoustical Treatment of all dining, drinking and associated service areas has a sales value fully equal to that of proper air conditioning. However, where public space is acoustically treated it is important that the adjacent service area be similarly quieted. Otherwise kitchen noise—at a higher level than that in dining room—will be objectionable.

Sound absorption in public spaces may be accomplished: (a) by the use of carpets, table cloths, upholstered furniture and fabric wall coverings, (b) by the use of acoustical plasters or sound-absorbing materials of ceramic or fibrous nature on side walls above a wainscot, (c) by treating ceiling areas with similar materials, or (d) by any practical combination of these treatments and materials. Ceiling treatment alone reduces the noise level appreciably.

In service areas ceiling treatment is the only practicable method of sound reduction; and since appearance is not a factor, the work can be accomplished with relatively inexpensive materials ranging from perforated fiber boards and perforated metal with hair felt panels to acoustical plaster or fibrous flake materials sprayed on existing plaster surfaces. Unless the kitchen and service areas are

thoroughly ventilated and all cooking centers are hooded, the acoustical material should be chosen for its ability to resist excessive humidity.

Lighting intensities and distribution may vary over a wide range according to the character of the trade to be served. High intensity lighting well distributed gives an air of brilliance and gaiety, while low intensity lighting with table lamps for local lighting produces a sense of quiet and intimacy. The choice is a matter to be determined by the owner and architect in consultation.

Decorative Treatment of public spaces may be stated in terms of a principle as follows:

11. *The decorative treatment of public dining and drinking spaces should be that which will attract the maximum trade.* The first decision in determining the manner of treatment rests with the owner who can gauge the character of the most profitable trade he can attract in his location.

It may be assumed that the late experiences of the more successful speakeasies have definitely influenced the style trend in popular drinking establishments. The rathskeller, familiar to the patrons of pre-Prohibition cafes, has not retained its popularity to the expected degree. In its place modern styles have come into vogue. Modern architecture, however, has not entirely eliminated the popular period styles of Early American, English, Italian and Spanish origin which apparently appeal to popular fancy in the more conservative tea rooms, lunch rooms, club and hotel dining spaces.

Where the project is in store space or its equivalent, the entrance and store front should reflect the mode of the interior. Authorities recommend that restaurant windows be treated as store windows to reveal the nature of services offered and advise against fronts characteristic of the old-time saloon.

Flooring Materials of all types may be used in public dining and drinking areas where alcoholic beverages are served. Appearance and ease of maintenance are the two primary considerations. Durability is a factor according to the luxury and quality of the environment. No flooring materials in common use are seriously affected by spilled beverages, except as they may be stained if light in color. Varnishes and shellacs, however, may be affected by alcohol unless protected by waxing.

In service areas and in the space between bar and back-bar a non-slippery, water-resistant and non-absorptive material should be used, such as terrazzo or ceramic tile with abrasive surfaces, or hardwood. Manufacturers of rubber tile and some manufacturers of linoleum specifically exclude their products from these areas because excessive spillage affects either the flooring or the cements used for adhesion.

In public spaces, rubber tile, linoleum, ceramic tiles, synthetic stones, including magnesite and fibre compositions, ornamental terrazzo, quarried stone,

and fine hardwoods are commonly used. In restaurants, and hotel and club dining rooms, Type III, carpeting becomes an important addition to the list of acceptable flooring materials. It is a luxury type floor covering and should always be laid over a carpet cushion. A patterned carpet is preferable to one of plain colors for spotting does not so greatly mar its appearance. For further information on the selection of flooring materials, see AMERICAN ARCHITECT Reference Data No. 4, "Resilient Flooring Materials." (March, 1933.)

Wall Finishes, like lighting treatments, may vary over an infinite range according to the decorative treatment and the desired "atmosphere." The only practical considerations which need govern selection are: (a) a wainscoting material resistant to wear, marking, or spillage, and easily cleaned should be used on all walls against which tables are placed or which are otherwise accessible to customers; (b) base trim should be coved wherever possible for easy cleaning; (c) the color of upper walls should be chosen with regard to its light reflecting or absorbing capacity according to the desired lighting effect; and (d) whatever material is used for upper walls, it should be able to withstand frequent cleaning to restore its freshness. For detailed consideration of wall surfacing materials, see AMERICAN ARCHITECT Reference Data No. 2.—"Interior Walls and Wall Finishes." (October, 1932.)

Ceiling Materials should be chosen in relation to their light reflecting and acoustical value as well as for their decorative quality. No other special properties are required of ceilings in dining spaces, although it should be noted that ceiling areas offer an exceptional opportunity for decorative treatment appropriate to the establishment.

Furnishings, including chairs, tables, booths, wall benches and even glassware, linens and other accessories, should be considered a definite part of the architectural treatment of the room, for neglect of these details by the designer often impairs the result he envisions. Standard sizes of tables, chairs, stools and booths are shown in Figure 1.

Where table cloths are not regularly used, the tops of tables, booths and serving counters become important parts of the color scheme. Materials used for these tops include: rubber and linoleum, usually with inlaid designs and color combinations thoroughly bonded to the structural top; laminated composition materials in which colored metals may be inlaid; structural glass in plain colors or in marbled patterns; polished slate; and plate glass over decorative fabrics or natural woods.

Chairs, bar stools, booths and wall benches have marked decorative influence and should by all means be selected to fit the scheme of the room. Modern interiors suggest the use of chromium plated steel furniture upholstered in leather or fabrics.



An antique wood-plank effect in Sealex Linoleum. Tap Room of the Newark Athletic Club, Newark, N. J.

Sealex was his choice

for the Newark A. C. Tap Room

The architect wanted a resilient floor. He wanted color and a pattern in keeping with the feeling of the room and the furnishings in it.

Because Sealex could give him these, he selected this Sealex custom-cut plank floor with the club monogram cut in contrasting colors of the same material.

For Sealex Floors are made in a wide variety of colors, patterns and textures from which you may create custom floors for individual jobs such as this one. Their resilient, long-wearing and stain-proof qualities assure your clients years of floor satisfaction.

And, your specifications will be properly carried out by Authorized Contractors selected by the manufacturers of Sealex as "Bonded Floors" distributors.

When such installations are made, both materials and workmanship are backed by a Guaranty Bond which covers the full value of the contract price.

One of our flooring engineers will be glad to discuss with you the use of Sealex materials in new or remodeling tap room jobs. Write our Architectural Service Department.

SEALEX WALL-COVERING • This permanent wall-covering offers you the ideal material to combine with Sealex Floors in obtaining first-class interiors for bar and tap room work. It is stain-proof, water-proof and lasting.

CONGOLEUM-NAIRN INC., KEARNY, NEW JERSEY

SEALEX
REG. U. S. PAT. OFF.
FLOORS AND WALLS



**TWO JOBS WELL DONE,
MR. ARCHITECT!**

... An attractively designed interior ... and effective insurance against food spoilage

Steuben's Tavern, Philadelphia, Pa. Architect Frank E. Hahn, has protected food and drink supply with Armstrong's Corkboard.



... to insure efficient refrigeration, at minimum cost, this tavern has five corkboard lined storage rooms



THE architect who designed this tavern did more than make it attractive to customers—he minimized refrigeration expense for the owners by specifying Armstrong's Corkboard for five cold storage rooms where perishable food, milk, and beer are kept. These rooms are completely insulated with two courses of Armstrong's Corkboard, each two inches thick.

Many architects have learned the value of specifying Armstrong's Corkboard where heat or cold insulation is necessary . . . in tap rooms, restaurants, or wherever cold storage is required . . . as insulation in air-conditioned homes and offices . . . and where fuel economy and comfort are desired, whether in small rooms or great auditoriums.

For further information about Armstrong products write Armstrong Cork & Insulation Company, 936 Concord Street, Lancaster, Pennsylvania.



Two of the five rooms lined with corkboard. General Storage (below), Beer Storage (above). This effective insulation minimizes refrigeration expense.



Armstrong's

**CORKBOARD ~ CORK COVERING
ACOUSTICAL PRODUCTS ~ VIBRACORK
INSULATING BRICK ~ TEMLOK INSULATION**

Cocktail Lounge—Repeal Style

THE MODERN CARPET IS BY COCHRANE



The Cocktail Lounge at the Hotel Traymore, Atlantic City, covered with Charles P. Cochrane's Rosedale Imperial, Pat. No. 9943-11

At the Traymore, Atlantic City, it is the return to gracious living. To you it opens wide the planning and executing of rooms in clubs, hotels and homes.

Repeal is worth its weight in gold to those who are sharing in the reconstruction work now going on. For the trend is toward good taste! And the Traymore Cocktail Lounge is typical

of the return to authoritative planning.

Cochrane Representative Near You

The Charles P. Cochrane Company, long an honored name in the art of weaving carpets and rugs, offers architects the services of an experienced staff of designers and colorists, for consultation. No matter in which key cities you have a commission, there is

a Cochrane representative on the spot to serve you.

He will help you get the patterns you need. He will aid you in selecting grades of carpets. He assures you of complete expert service, from plan to order, to delivery.

If you have an assignment or a plan for a prospect . . . call the Cochrane office near you.

COCHRANE *Carpets and Rugs*

CHARLES P. COCHRANE COMPANY

PHILADELPHIA
Kensington Ave. & Butler St.

CHICAGO
59 East Monroe Street



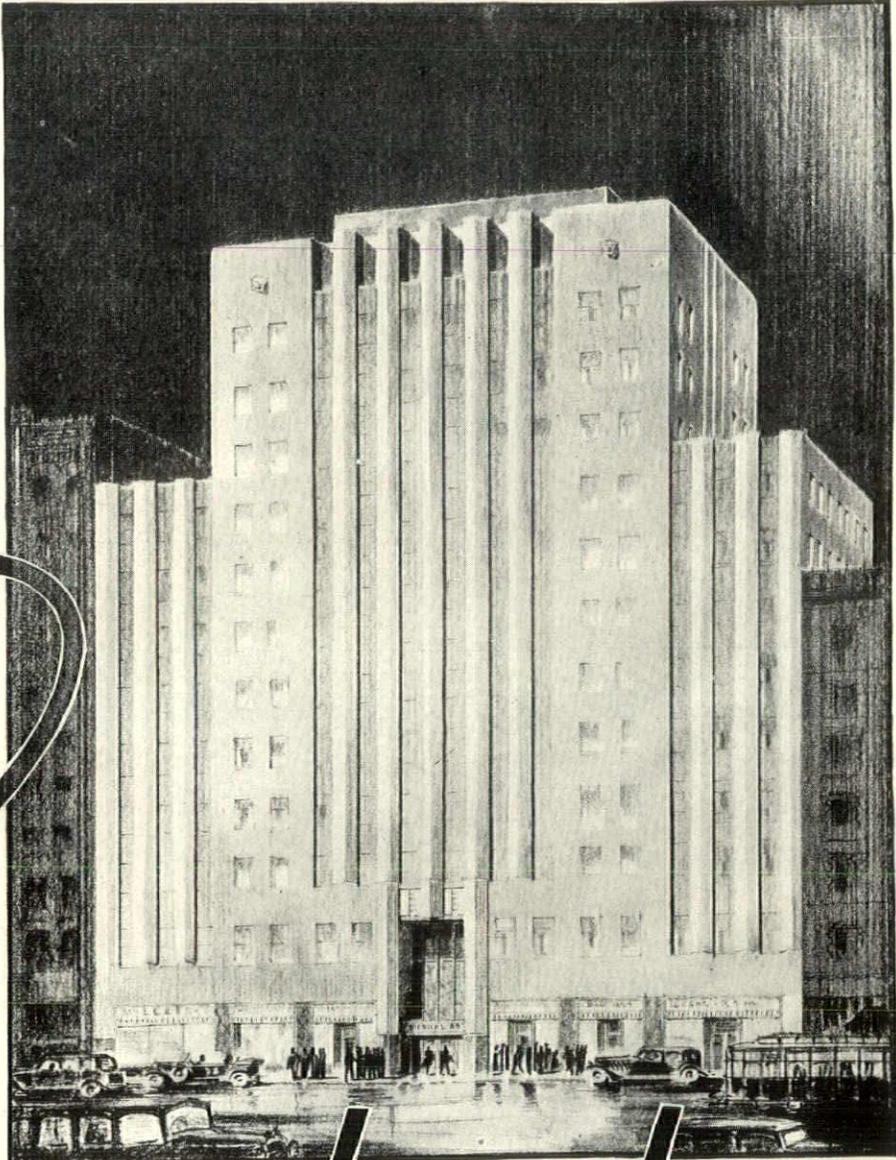
NEW YORK
295 Fifth Avenue

OFFICES IN ALL
PRINCIPAL CITIES

The Medical Arts Building, Duluth, Minnesota. Completely equipped with the Modutrol System. Erickson & Co., Architects; Ellerbe & Co., Consulting Architects; Charles Foster, Engineer.

*Comfort
Cooling
and
Heating
with*

PERFECT



Co-ordination

in this RESTAURANT

The widely fluctuating outside temperatures often make it necessary to both heat and cool the restaurant in the Medical Arts Building, Duluth, in order to maintain the desired inside temperature . . . The perfect co-ordination of the Modutrol System enables it to maintain temperature within a fraction of a degree at all times, despite the quickly changing conditions within the restaurant, and with the outside temperatures in a single 24 hour

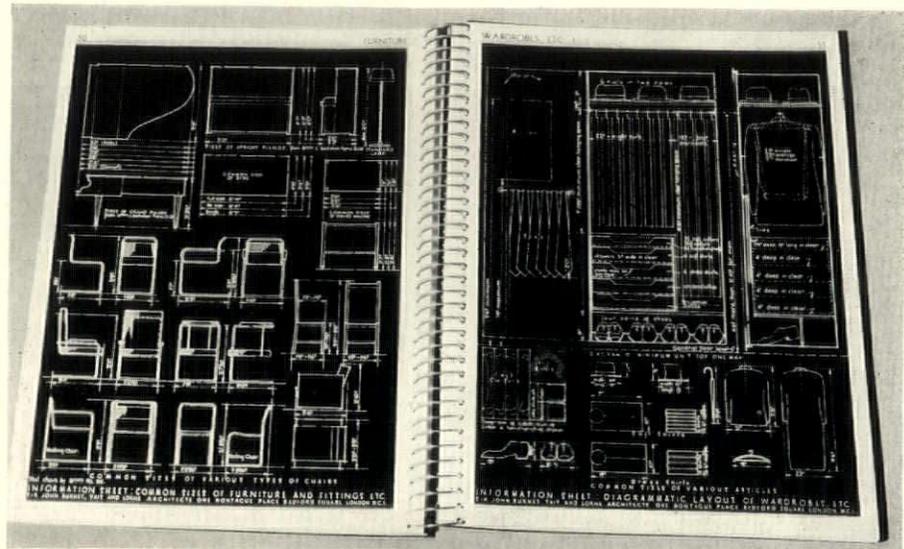
period ranging, as on June 20 and 21, 1933, from 58° to 84° . . . This same kind of co-ordinated temperature control is available for any restaurant, cafe, or wherever comfort cooling and heating is desired. There is a Modutrol System tailor made for every application . . . Minneapolis-Honeywell Regulator Co., 2738 Fourth Ave. So., Minneapolis, Minn.

MINNEAPOLIS-HONEYWELL
Control Systems

THE INFORMATION BOOK OF SIR JOHN BURNET, TAIT AND LORNE

By Messrs. Burnet, Tait and Lorne. Published by The Architectural Press, 9 Queen Anne's Gate, Westminster, S.W.1, London, England. Illustrated; Indexed; 202 pages; size 9 x 12; price 25s.

SIR JOHN BURNET, Tait and Lorne is a prominent architectural firm in England. In this excellently produced loose-leaf volume is presented much valuable information that has proved the best of its sort in the firm's extensive practice. The book is generally divided into two sections. The first—primarily text matter—treats of office practices. It lists several charts and forms which have proved efficient in the firm's secretarial department and an additional set governing procedure in the drafting department. The remainder of the volume consists of 147 plates of graphic information that include all sorts of material from progress charts to the layout of a physiotherapy department of a hospital. Included between these extremes are structural details, steel layouts, details of lighting fixtures, hardware, fireplaces and all the things that a draftsman requires for a ready reference. Although the book was designed primarily for use in English architectural offices, much of the information is adaptable to American practice. The volume should prove of practical assistance to almost every architect.



Above: The Information Book. Spiral wire binding permits pages to lie perfectly flat on the table. The cover is of non-inflammable black celluloid

PLANNING FOR THE SMALL AMERICAN CITY

By Russell Van Nest Black: Published by Public Administration Service, 850 East 58th St., Chicago, Ill. Illustrated; 87 pages; size 7 7/8 x 10 1/2; price \$1.00.

IN view of the growing trend toward decentralization of industrial and commercial activities, Mr. Black's monograph should prove interesting and valuable to every architect. As its title implies, it is concerned primarily with the essentials of city planning problems and the possibilities of accomplishing planned improvement. Most of the city's political organization is assumed. The author treats his subject from the semi-technical aspects of street layout, zoning problems, the use of land and the necessary utilities. Such points as zoning administration, the financial end of improvement programs and the citizens' support in plan realization are touched on. Included also is a bibliography of city planning and zoning.

HOUSES OF STONE

By Frazier Forman Peters; published by Frazier Forman Peters, Westport, Conn. Illustrated; 162 pages; size 8 3/4 x 11 1/2; price: paper binding \$2.50, cloth binding \$3.50.

WHEN an architect turns publisher for himself an out-of-the-ordinary result can be expected. Mr. Peters—architect, author and publisher—has produced it. Pages are typewritten and reproduced by an offset process in contrast to ordinary printing methods. The text, divided into 36 short chapters, is largely an informal discussion of the various problems of small house planning, design and building. Most of it is written for the layman. In a conversational fashion the book answers a good many questions which every architect encounters with the average small house client. Included are many illustrations of small standard houses for which the author was both architect and



Right: From the jacket design of Houses of Stone

builder. Most of them are built of field stone, a material for which Mr. Peters is an enthusiastic advocate. The subject of which the book treats would have limited application in areas where field stone is a scarce, expensive commodity. But architects will find the volume generally interesting and instructive.

TWELFTH ANNUAL OF ADVERTISING ART

Published by The Book Service Co., 15 East 40th St., New York City; Illustrated; Indexed; 132 pages; size 8 1/4 x 11 1/2; price \$6.00.

THOUGH not essentially architectural this compilation of entries at the Twelfth Exhibition of the Art Directors Club of New York will prove interesting to many an architect who has admired advertising illustrations in popular magazines. The book is excellently printed in halftone with many black and white drawings and color reproductions.

CONTEMPORARY BABYLON

By W. K. Oltar-Jevsky with introduction by Harvey Wiley Corbett. Published by Architectural Book Publishing Co., Inc., 108 West 46th St., New York, N. Y. Illustrated, 44 pages; size 9 $\frac{1}{4}$ x 14 $\frac{3}{4}$; price \$5.00.

ELABORATELY bound and printed, this book is an unusually well presented series of twenty-two pencil drawings which are printed on special paper and mounted separately to simulate a privately bound portfolio. All of the drawings which, though in pencil, are executed with a sort of brush technique, are the work of a Russian architect who has seen New York through the romantic eyes of a foreigner. His architectural training, however, has given to his drawings a documentary character. All of them seem accurate and realistic and in addition to being remarkably well executed, constitute an interesting record of contemporary New York architecture.

BYZANTINE ARCHITECTURE AND DECORATION

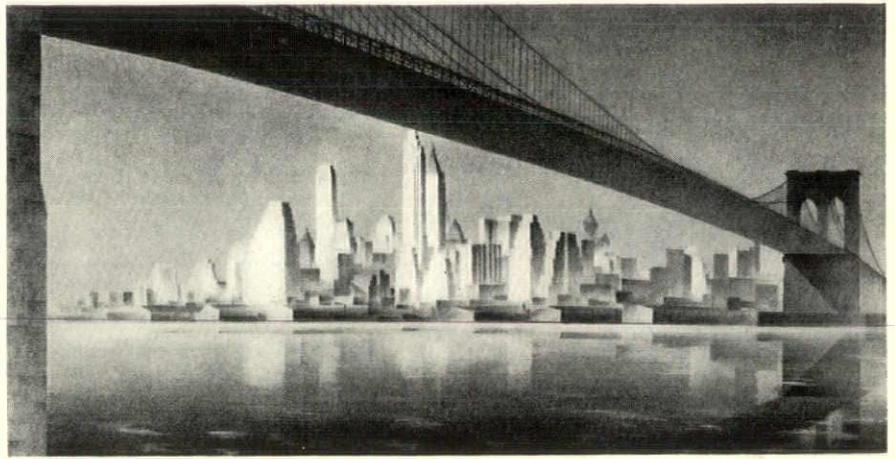
By J. Arnott Hamilton, M.A., B.D., Ph.D. Published by Charles Scribner's Sons, New York City. Illustrated; Indexed; 165 pages; size, 6 x 9; price, \$7.50.

THIS volume is based upon the author's researches, for which he was awarded his doctorate by the University of Edinburgh and was written from the thesis prepared for this degree. In it an attempt is made to trace the origins and developments of the Byzantine art and architecture giving due consideration to the variety of theories and controversies that surround these subjects. The book treats of its subject in a somewhat more topical fashion that would be expected from a reading of the author's preface. Comparatively little effort has been made to explain the art and architecture of the period in the light of the social and philosophical characteristics of the Byzantines. Thus Mr. Hamilton has compiled a volume dealing essentially with the physical remains of Byzantine architecture and presents a catalog of statements and facts culled carefully from an obviously extensive and painstaking research of a colorful and aesthetically influential epoch.

THE MEDIAEVAL MASON

By Douglas Knoop, M.A. and G. P. Jones, M.A. Published by the Manchester University Press, 23, Lime Grove, Oxford Road, Manchester, England. (Macoy Publishing and Masonic Supply Co., 35 West 32nd St., New York City) Indexed; 278 pages; size 5 $\frac{1}{2}$ x 8 $\frac{5}{8}$; price \$5.00.

THE volume is an exhaustive, economic history of English stone building in the latter middle ages and early modern times. It is chiefly of academic and historic interest and by implication gives a good picture of the building industry during period with which the book is concerned.



From "Contemporary Babylon"

TERMITES AND TERMITE CONTROL

Charles A. Kofoid, Editor-in-Chief; published by the University of California Press, Berkeley, Calif. Illustrated; 725 pages; size 6 $\frac{1}{4}$ x 9 $\frac{1}{2}$; price \$5.00.

THIS volume constitutes a scientific report to the Termite Investigations Committee on the types of termites which have caused unbelievable damage to wooden structures in the past. Included also are methods of controlling termite depredations. The book is divided into four major parts which include a technical discussion of termites and their biology; a report of chemical investigations; the termite resistivity of building materials and the prevention and repair of termite damage. To architects the second and fourth parts chiefly are of interest, but the entire volume will be helpful in determining types of termites which may be encountered in any section of the country.

LIGHT IN ARCHITECTURE AND DECORATION

Published by Illuminating Engineering Society, 29 West 39th St., New York City. Illustrated; Indexed; 122 pages; size, 6 x 9; price, 35 cents.

FOR the fourth successive year, the Illuminating Engineering Society presents in this little volume the progress of lighting in its special relation to architecture. The material, compiled under the auspices of a committee headed by Mr. A. L. Powell of the General Electric Co., appeared during 1933 in the Society's *Transactions*. Most of it consists of illustrations of various types of architectural lighting accompanied by concise descriptions of the lighting problems involved, the physical limitations or opportunities encountered and the main physical characteristics of equipment installations. The committee has been catholic in its choice of lighted subjects; and examples range from the comparatively simple problem of store front illumination to complicated installations in museums and open-air swimming pools.

GILLOTT'S PEN POINTERS

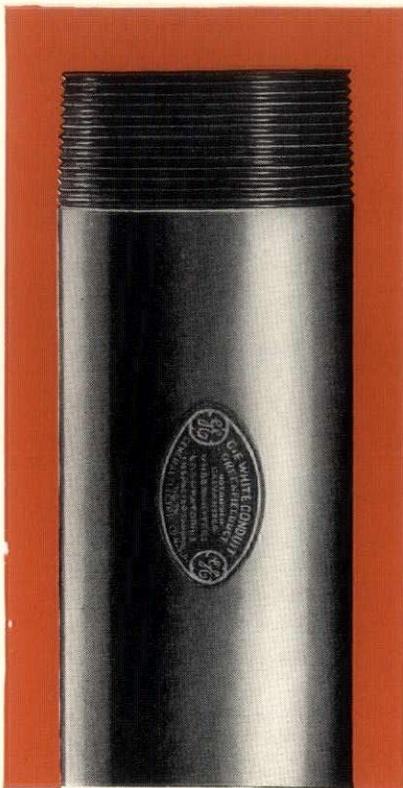
Published by Joseph Gillott & Sons, Ltd., 93 Chambers St., New York City; Illustrated; 11 pages; size 8 $\frac{3}{4}$ x 11; price 35c.

OF interest to draftsmen is this loose-leaf pamphlet of seventeen sketches by pen and ink masters. Works of Charles D. Maginnis, Samuel Chamberlain, Sydney R. Jones and Alfred Parsons and others are illustrated. Included are examples of a variety of pen and ink techniques with comments regarding the sizes of originals and the type of pen with which they were made.

A. S. H. V. E. GUIDE, 1934

Published by American Society of Heating & Ventilating Engineers, 51 Madison Ave., New York City. Illustrated; Indexed; 862 pages; size, 6 x 9; price, \$5.00.

PREPARED under the direction of the Publication Committee of the A.S.H.V.E. headed by W. L. Fleisher, the 1934 Guide presents a mass of technical information on heating, ventilation and air conditioning that is both formidable and exhaustive. Since its inception the Guide has proved to be a handbook of increasing value to architects, engineers, contractors and students. The newly issued 12th edition has been revised and enlarged to include many newly developed data. Some chapters of former issues have been completely replaced; all data have been reviewed toward the end of amplification and revision. The 42 completely indexed chapters include new ones dealing with air conditioning, newer developments of unusual heating techniques and humidifying and dehumidifying equipment. Particularly important is the standard definition of air conditioning and the discussion of air conditioning systems of all types. The 1934 Guide presents the largest technical data section ever compiled and published by the Society. It is supplemented by engineering data of leading manufacturers which comprise the catalog section of the volume.



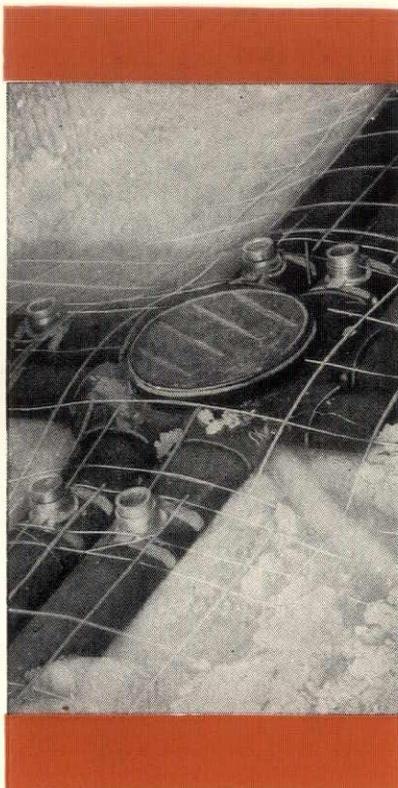
SPECIFY G-E WHITE CONDUIT

G-E White Electrical Conduit is designed to give complete wiring protection to every type of building. The manufacturing process assures its permanence. Flexible alloy steel is Hot-Dipped Galvanized inside and out. A heavy coat of Glyptal, both inside and out, gives still further protection.

G-E White is moisture-, vapor- and dust-proof. It resists heat. It is easy to work. Specify G-E White Electrical Conduit.

For further information see your nearest G-E Merchandise Distributor, or write Section CDF-103, Merchandise Dept., General Electric Co., Bridgeport, Conn.

CONDUIT



ALWAYS SPECIFY G-E FIBERDUCT

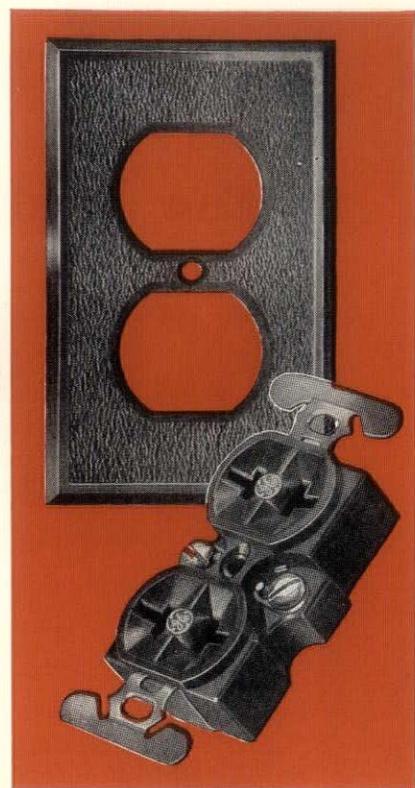
G-E Fiberduct provides permanent wiring flexibility. This flexible underfloor wiring system is adaptable to every type of building.

G-E Fiberduct assures electrical outlets for all present and future needs. Outlets may be changed at any time. Unused outlets may be neatly capped until needed again.

In a building equipped with G-E Fiberduct, adequate electrical outlets are always assured.

For further information, see your nearest G-E Merchandise Distributor, or write Section CDF-103, Merchandise Dept., General Electric Co., Bridgeport, Conn.

FIBERDUCT



SPECIFY G-E WIRING DEVICES

There is a G-E Wiring Device for every need. They are dependable, rugged and lasting.

G-E Twin Convenience Outlets and Plates add quality. Outlets have easy-finding slots. Made of Textolite, they are strong. Large binding screws provide easy wiring. Wide-mounting ears give correct alignment quickly. Installations are economical.

Always specify G-E Textolite Plates for use with G-E Convenience Outlets.

For further information see your nearest G-E Merchandise Distributor, or write Section CDF-103, Merchandise Dept., General Electric Co., Bridgeport, Conn.

WIRING DEVICES

GENERAL ELECTRIC

MERCHANDISE DEPARTMENT. GENERAL ELECTRIC COMPANY. BRIDGEPORT. CONNECTICUT

A MESSAGE

to the Lighting Fixture Industry which

ARCHITECTS are asked to read

NOTE: Chase is not a newcomer to the Lighting Fixture business. Since the days of Bunsen burners and gas fixtures, Chase has been active and closely interested in the Lighting Fixture industry. For the past five years Chase has been making periodical surveys of the Lighting Fixture business—interviewing thousands of wholesalers, dealers, contractors, architects and home owners—learning what is wrong, needed, wanted. The following message is based on facts for which Chase is indebted to you and others in the industry who have contributed to our studies.

The Lighting Fixture business has been sick.

It has been sicker than most businesses and sick longer.

What's wrong? Why should this important and fundamental industry be a "headache" to so many leading factors in the trade—a "problem" to otherwise successful business men?



Is "hard times" the answer? No, we do not believe it is the *real* answer. As every sound thinking man in the Lighting Fixture business knows, the real trouble lies deeper than the passing pains of depression.

True, there has been little or no new building for four long years. True, also, that new

construction is the very life blood of sales volume in the fixture business.



But if the thousands of straight-thinking men in the business with whom we have talked are not mistaken, the Lighting Fixture business has long suffered from *internal* conditions which hard times have only aggravated. In plain language, the Lighting Fixture business suffers from destructive price cutting, overlapping competition, design piracy, etc.—all preventing profitable growth of the industry. These things cannot be cured by easily given, easily broken promises and the continuation of unsound policies and unfair practices.

What then about the *future* of the Lighting Fixture business?

Chase believes in it!

Chase believes that, given a *new viewpoint* and a new lease on life, there is a real future and great opportunity in the Lighting Fixture business.

 Chase believes in the future of the Lighting Fixture business provided those policies which are essential to the building of a sound, profitable and lasting business become the foundation on which a *new* Lighting Fixture industry is raised.

★ ★ ★ ★

Chase believes that the Lighting Fixture trade needs and will welcome a policy of distribution that is a *policy of protection*—not exploitation.

Chase believes in fair prices and *full profits*, and in the strict maintenance of both, for the benefit and protection of the Lighting Fixture trade, the public, the manufacturer.

Chase believes in the inherent *good taste* of the American public—believes it prefers and will enthusiastically purchase Lighting Fixtures of pure design, authentically

styled and at reasonable consumer prices.

Chase believes in and *respects creative designing* as well as the trade rights which emanate from such designs.

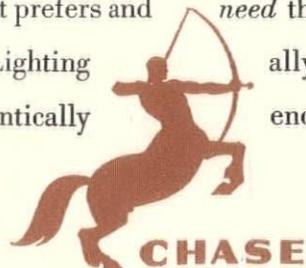
Chase believes in the sound judgment of the worthwhile home owner—believes he prefers *money's-worth quality* in lighting fixtures to dubious discount "bargains".

Chase believes the manufacturer should support and not compete with his customers—and therefore in a trade merchandising policy of *constructive, helpful cooperation* as opposed to destructive competition.

Chase believes in the value of *educational national advertising* of Lighting Fixtures to the American public to the end that home owners will have increased faith in the industry, its policies, prices and products.

 Chase believes there is a *need* in the Lighting Fixture industry for a *new viewpoint*—for a new and better way of doing business; new merchandise, new policies, new methods, new ideas—and ideals.

Chase believes that where there is a *real need* there is a *great opportunity*—that usually when the need for anything is great enough, that need is met.



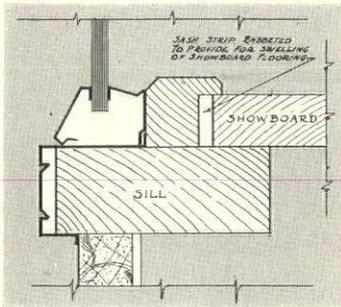
CHASE BRASS & COPPER CO.

WATERBURY

• INCORPORATED •

CONNECTICUT

Things You Didn't Learn in School



• TO PREVENT CRACKS IN SHOW WINDOWS

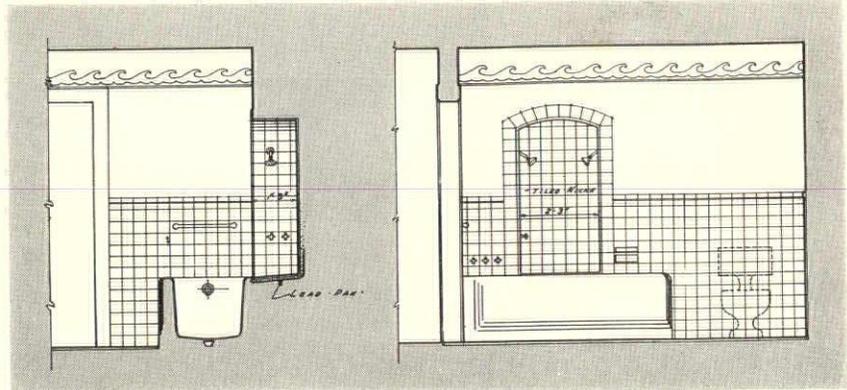
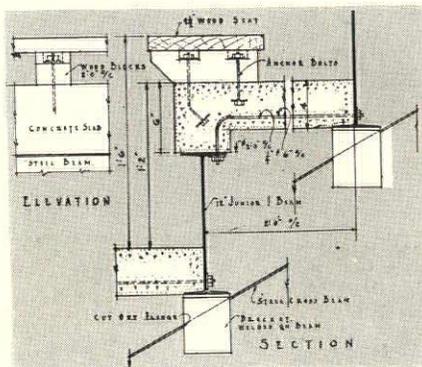
By Benjamin W. Hertel
Grand Rapids, Michigan

MOISTURE from a variety of sources within a show window often causes the flooring of showboards to swell. The resulting pressure may distort the metal sash moulding, warping the plate glass surface until it cracks. This can be prevented by providing a rabbeted wood strip next to the sash moulding. This will allow for swelling and shrinkage of showboards without damage to sash moulding or glass.

• BLEACHER SEATS

By D. Van Reyendam
Detroit, Michigan

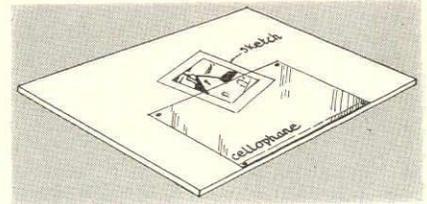
THE sketch shows an economical method of constructing bleacher seats when space is at a premium and lowest costs are essential. The combination of steel and concrete saves the space required by the large cross beams necessary with solid concrete construction. This gives additional headroom below bleachers that can be used for locker, shower or storage rooms.



• BATHING NICHE

By Mike Mebane
Houston, Texas

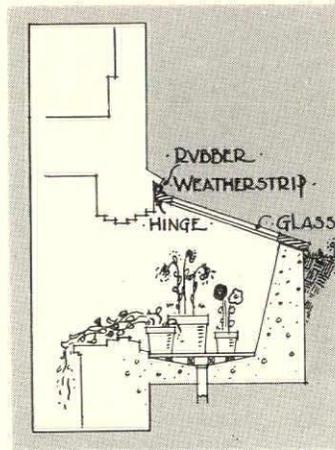
FOR clients who are addicts of the full-tub, steaming bath, a sort of "soaping niche" can be built into the bathroom wall. A sloping seat built flush with the flange of the tub will prove popular with bathers; and to many the double spray outlets in the tiled niche will be preferable to any other form of shower fixture.



• FOR CLEAN DRAWINGS

By Llewellyn Price
Philadelphia, Pa.

A PIECE of Cellophane tacked on a drawing board will be found helpful in keeping drawings clean while they are being made. A small drawing can be moved freely under the Cellophane without smudging, yet it will be entirely visible at all times. For large drawings Cellophane instead of drawing can be moved about.



• BASEMENT WINDOW

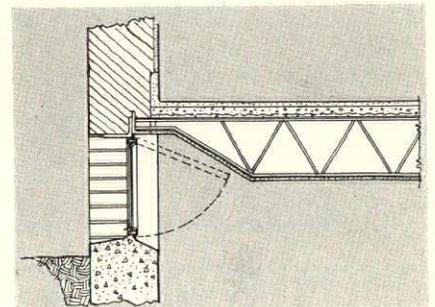
By J. B. Hills
St. Louis, Mo.

WHEN basement window areas are not desirable, standard basement sash can still be used above grade without raising the level of the first floor. Use of standard steel joists makes this possible, the joist construction giving sufficient clearance for the window opening.

• A WINDOW HOTBED

By Robert E. Johnson
East Providence, R. I.

WHEN a basement recreation room is being built, window areas can be easily transformed into small hotbeds of a type indicated in the diagram. Sash muntins should run vertically so that rain will wash off. The whole idea can add much to a remodeled basement and can be successfully developed into an attractive small conservatory job.

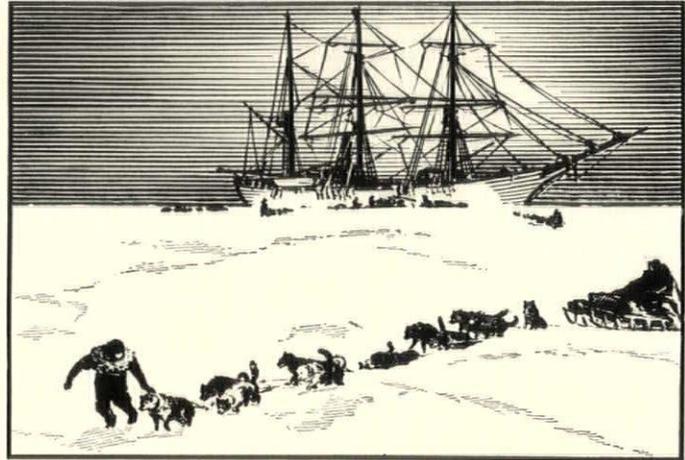


American Architect will pay \$5 for each suggestion published on this page

ANNOUNCEMENTS

- The Sixty-sixth Convention of The American Institute of Architects will be held in Washington, D. C., on May 16, 17 and 18, 1934. No convention was held in 1933. The one this year will therefore be of unusual importance. Information concerning the Convention's headquarters and program of events will be issued as soon as the details have been arranged.
- The 49th Annual Exhibition of the Architectural League of New York will be held in the American Fine Arts Building, 250 W. 57th St., New York City, from May 16th to June 2nd inclusive.
- The School of Architecture of Princeton University announces a competition for two prizes, each of which carries an award of \$500 in addition to tuition for a year's term of residence in the Graduate College. The competition is open to unmarried men not over twenty-seven years of age who have had not less than three years experience in architects' offices. Applications and letters of reference must be sent before May 1, 1934. Full information regarding the competition may be obtained from Shirley W. Morgan, Director, School of Architecture, Princeton University, Princeton, N. J.
- "Art in Industry" is the theme of an exhibition to be held at Rockefeller Center, New York, during the month of April. Organized by a group of leading industrial designers and sponsored by the National Alliance of Art and Industry, the exhibit will illustrate how the element of design has changed the output of factory production.
- The Eleventh Annual Exhibition of the New York Chapter of the American Society of Landscape Architects will be held at the Architectural League, 115 East 40th Street, New York, from March 20th to March 31st, inclusive.
- A home-study course on air conditioning is being offered by University Extension, Massachusetts Department of Education. Complete information regarding the new course may be obtained from James A. Moyer, Director, State House, Boston.
- Preliminary examinations for the Rotch Traveling Scholarship will be held April 2nd and the sketch for the finals on April 14th. Applicants who are expected to register on or before March 26th must be under thirty years of age, and must have had architectural experience in Massachusetts. The scholarship may be awarded for one or two years and carries a maximum value of \$3,000. Full information can be obtained from C. H. Blackall, Secretary, 31 West St., Boston, Mass.
- Samuel H. Gottscho, photographer, whose work has become familiar to readers of AMERICAN ARCHITECT, is exhibiting a series of unusual pictures of New York night scenes at the Museum of the City of New York. The exhibition will run through the month of March and most of April.

Once Again KOH-I-NOOR Goes To The Pole!



Literally, from one end of the earth to the other, Koh-I-Noor Pencils are used and preferred!

Admiral Byrd used Koh-I-Noor for his 1930 expedition to the South Pole. Admiral Peary, on his historic dash to the North Pole used the Koh-I-Noor to keep his records. And when the body of Andree, famous Norwegian explorer, was found after 33 years under Arctic snows, his diary, still legible, contained the Koh-I-Noor Pencil used to make the entries!

Now again, as in 1897, 1909 and 1930, Koh-I-Noor accompanies an important polar expedition. Admiral Byrd has specified Koh-I-Noor for his present expedition!

Wherever important records are made . . . in business centers, as well as far-flung outposts . . . you'll find Koh-I-Noor Pencils! Koh-I-Noor Pencil Co., Inc., 373 Fourth Avenue, New York, N. Y.

KOH-I-NOOR
The Perfect Pencil





This "House of the Future" was built by The Westinghouse Electric & Manufacturing Co., who asked the cooperation of Good Housekeeping in its several departments in determining its architectural, decorative plan and equipment. It is now on exhibition at Mansfield, Ohio, complete in every detail.

A HOUSE OF THE FUTURE

Here is a house expressing the modern feeling in appearance, and affording at moderate cost a multitude of conveniences not yet in general use, as well as many we already know. In the plan was incorporated the wizardry of electricity, a tireless, timeless servant— heating, cooling, lighting and cooking for the family in new, efficient ways. Architects should read about this house in March Good Housekeeping.

GOOD HOUSEKEEPING
Everywoman's Magazine

NEW CATALOGS . . .

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

LOXIT METHOD FOR WOOD FLOORS

362 . . . A method of laying wood floors using patented steel channels and metal clips in place of nails or mastic is described and illustrated by means of isometric drawings and working instructions in a 16-page manual (A. I. A. File 19-E-9) issued by Knapp Bros. Manufacturing Company, Chicago.

VANADOIRS

363 . . . Excelso Products Corporation, Buffalo, has issued a catalog and small folder illustrating and describing Lady Luxury Vanadoirs, embracing a vitreous china lavatory, a cheval mirror, and suitable dressing cabinets in a single unit. Plans, elevations and dimensions are given for each model.

DAHLQUIST COPPER BOILERS

364 . . . A 12-page catalog of Dahlquist copper boilers, automatic hot water storage systems, and related products has been issued by Dahlquist Manufacturing Company, Boston.

MONEL METAL FOR BARS

365 . . . The International Nickel Company, Inc., has just issued a 16-page and cover brochure entitled "Smart Bars" which contains some excellent illustrations of modern bars, service bars, and other wine and beer service equipment employing Monel Metal for the working elements. The advantages of this material are developed in the text.

KALITE SOUND-ABSORBING PLASTER

366 . . . Certain-Teed Products Corporation, New York, has issued a 12-page and cover manual on Kalite sound-absorbing plaster, sound-absorbing casting plaster and sound-absorbing cast stone aggregate. This manual analyzes the problem of sound absorption and gives complete data on the properties, uses, applications and specifications of these Kalite sound-absorbing and acoustical products.

KOPPERS ROOFING

367 . . . In a 4-page folder (A. I. A. File 12-B-11) Koppers Products Company, Pittsburgh, presents the merits and illustrates the applications of Koppers pitch and felt roofs.

FOR MARCH 1934

U. S. GYPSUM PRODUCTS

368 . . . A complete catalog of United States Gypsum Company products, called "The Red Book of Building Material," has been issued by the Chicago headquarters. This catalog is a factual presentation of the company's architectural and building materials, including plaster bases, plastering systems, plasters, wall-boards and sheathing boards, thermal insulation products, fireproofing products, sound control service and miscellaneous materials. 80 pages, file size.

AUTOMATIC HEATING

369 . . . A manual consisting of a reprint of **AMERICAN ARCHITECT** Reference Data No. 7—"Automatic Heating Equipment" and data on Weil-McLain "RO Series" oil-burning boilers and Raydiant concealed radiators, is offered by the Weil-McLain Company, Chicago.

KEYSTONE BEAM STEEL FLOOR

370 . . . A new flooring system manufactured by H. H. Robertson Company, Pittsburgh, and consisting of cellular beams formed of sheet metal in panel units, is described in a 12-page manual. Diagrams show methods of meeting all common structural and finishing problems.

CELOTEX SOUND INSULATION

371 . . . The research and development department of The Celotex Company, Chicago, has issued a 6-page folder on Celotex for sound insulation, which contains a clear, accurate discussion of the

practical considerations and limitations which affect soundproofing. Methods of using Celotex for sound insulation purposes are described.

PACIFIC BOILERS

372 . . . A 3-page folder has been issued by the Pacific Steel Boiler Corporation, Detroit, describing a horizontal tubular type steel boiler encased in a modern, colorful jacket and especially designed for use with horizontal or gun-type oil burners. Ratings and dimensions are given.

TRUMBULL ELECTRICAL DEVICES

373 . . . The Trumbull Electric Manufacturing Company, Plainville, Conn., has issued its "Ready-Reference Catalog No. 16-A" describing and illustrating safety switches, starters, meter service, entrance and combination range switches, open knife switches, industrial circuit breakers and panelboards. Reference tables give capacities, catalog numbers and list prices. The booklet is of 48 pages, standard filing size.

POWER FACTOR CORRECTION

374 . . . A 16-page booklet on Capacitors for power factor correction, which has been issued by the Ideal Electric & Manufacturing Company, Mansfield, Ohio, explains the term "power factor" and the importance of its correction in lowering electric power costs. Tables are given for determining the right size capacitor required for the correction of any low power factor condition.

NO POSTAGE REQUIRED ON THIS CARD

AMERICAN ARCHITECT
New York City

March 1934

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

Numbers

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

Numbers

• I would like to have catalogs and information concerning the following products advertised in this issue. (See advertisers' list on following page).....

Name

Firm name

Address

City

Occupation

These NEW Catalogs may be obtained through AMERICAN ARCHITECT

GUTHFAN CATALOG

375 . . . The Edwin F. Guth Company, St. Louis, has issued its 1934 catalog, No. 5, (A. I. A. File 31-H-5) embracing ceiling fans and fans in combination with ceiling lights.

VENTILATING FANS

376 . . . In a 32-page and cover file-size booklet entitled "Sensible Ventilation," Ilg Electric Ventilating Company, Chicago, shows in photographs and line diagrams the application of Ilg self-cooled motor propeller fans in twenty-two representative types of service.

CONCRETE HOUSE CONSTRUCTION

377 . . . The Portland Cement Association, Chicago, offers a 20-page illustrated brochure entitled "Here's How It's Built with Concrete." This is intended for layman's use, but illustrates, by means of photographs and drawings, the principal details of construction employing concrete in its various forms.

FUEL COST CHART

378 . . . Spencer Heater Company, Williamsport, Pa., has published a fuel cost chart permitting graphic computation of the quantity and cost of fuel for any heating installation with Spencer Magazine Feed Boilers. A tabulation of degree days for 100 cities is included.

SANITAS SAMPLES

379 . . . The Standard Textile Products Company, New York, offers its 1934 sample book of Sanitas Cloth Wall Covering.

UNI-FLO GRILLES AND REGISTERS

380 . . . Data on the use of grilles and registers for air conditioning and concealed radiation installations, wherein the register controls the direction and effusion of the air stream, are presented in Bulletin No. 21 issued by Uni-Flo Grille

Corporation, Detroit. Design and engineering data are included.

TONCAN IRON AND ENDURO STEEL

Republic Steel Corporation, Youngstown, Ohio, offers the following new literature:

381 . . . Toncan Iron Pipe (A. I. A. File 29-B-8): A 64-page booklet in which Part I is devoted to technical data and tests of Toncan Iron Pipe, and Part II, to installations and service records.

382 . . . The Technical Story of Toncan Iron Pipe (A. I. A. File 29-B-8): Substantially similar to Part I of the foregoing booklet.

383 . . . Enduro Stainless Steel: Describing and illustrating the architectural applications of Enduro Stainless Steel with complete information on properties, fabrication, finishes, etc.

CARBONDALE REFRIGERATING MACHINES

384 . . . The Carbondale Machine Company, Carbondale, Pa., has issued an 8-page folder describing their ammonia compressors and combined units for mechanical refrigeration purposes.

WESTINGHOUSE LIGHTING

385 . . . A general publicity booklet of 32 pages entitled "Westinghouse in the World of Lighting" is offered by Westinghouse Electric & Mfg. Company, East Pittsburgh, Pa. It illustrates and describes applications of Westinghouse lighting units to commercial industrial and building lighting purposes.

CELOTEX INTERIORS

386 . . . An interesting file-sized folder (A. I. A. File 37-A-1) containing ten loose sheets showing decorative applications of Celotex as an interior finishing material, has been issued by The Celotex

Company, Chicago. Each sheet shows a perspective drawing in pencil and, on the reverse, wall elevations, ceiling plans and architectural details illustrating how Celotex is used.

ADVERTISERS' LITERATURE

	Page
A87. American Telephone & Telegraph Company—Telephone Installations	3
A88. Armstrong Cork & Insulation Company — Armstrong's Corkboard	94
A89. Armstrong Cork Company—Armstrong's Linoleum	5
A90. Bethlehem Foundry & Machine Company—Bethlehem Automatic Heater	120
A91. Cabot, Samuel, Incorporated—Cabot's Collopakes	121
A92. Chase Brass & Copper Company—Lighting Fixtures	100-101
A93. Cochrane, Charles P., Company—Carpets and Rugs	95
A94. Congoleum - Nairn, Incorporated—Sealex Floors and Walls	93
A95. Cutler Mail Chute Company—Mail Chutes	109
A96. Frick Company—Refrigerating Machines	113
A97. General Electric Company, Bridgeport—Wiring Materials	99
A98. General Electric Company, Cleveland — Refrigerators	1
A99. Jamison Cold Storage Door Company — Stevenson Super-Freezer Door	109
A100. Koh-I-Noor Pencil Company —Koh-I-Noor Pencils	103
A101. Milcor Steel Company—Fireproof Building Materials	121
A102. Minneapolis - Honeywell Regulator Company—Modutrol System	96
A103. Norton Company—Alundum Tiles, Treads and Aggregates	4
A104. Otis Elevator Company — Freight Elevators	2
A105. Portland Cement Association—Concrete for Plain or Moulded Surfaces	6
A106. Railway Express Agency—Express Service	118
A107. Ruberoid Company — 1934 Architects' Catalog	115
A108. Smyser-Royer Company — Cast Iron Verandas	119
A109. Western Electric Company—Program and Radio Frequency Distribution Systems	122
A110. York Ice Machinery Corporation—Cold Storage Doors	121
A111. York Ice Machinery Corporation — Refrigeration and Air Conditioning Equipment	108

FIRST CLASS
PERMIT NO. 5
(Sec. 510 PL & R)
NEW YORK, N. Y.

BUSINESS REPLY CARD
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

2c. POSTAGE WILL BE PAID BY

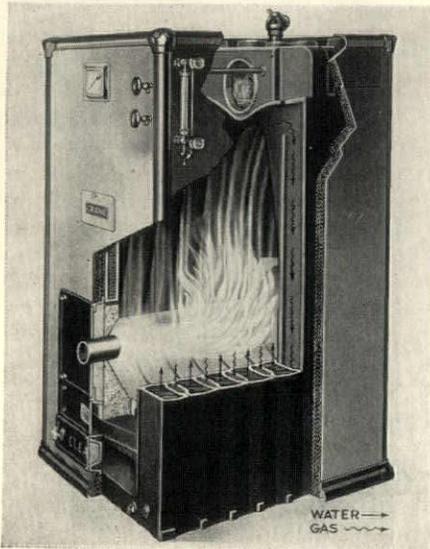
AMERICAN ARCHITECT

57th Street at Eighth Avenue

New York, N. Y.

AMERICAN ARCHITECT

New Materials and Equipment



GE Gas Furnaces

275M The General Electric Company, New York, has introduced a line of gas burning furnaces for steam or hot water supplementing its oil furnace introduced a year ago. The new gas furnace may be interchanged with GE oil furnace in a GE air conditioning system. The burner, boiler and all control elements are enclosed within a metal jacket.

J-M Hard Board

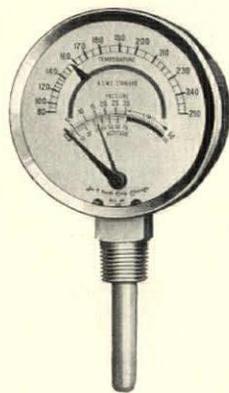
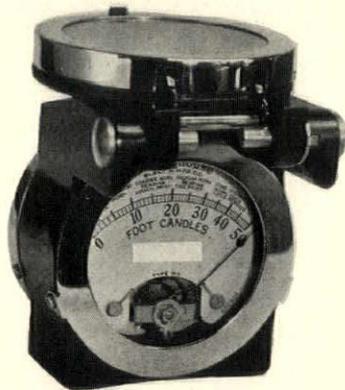
276M Johns-Manville, New York, has introduced J-M Hard Board, which is a wood fibre board having considerable density, strength and toughness. It has a smooth surface showing a mottled or burlled effect which may be painted, stained, varnished or waxed in the same manner as wood. It is made in $\frac{1}{8}$ ", $\frac{3}{16}$ ", $\frac{1}{4}$ " and $\frac{5}{16}$ " thickness, 4' wide and in nine lengths from one foot to twelve feet.

York Air Conditioners

277M York Ice Machinery Corporation, York, Pa., announces five new and improved air conditioning units as extensions to its line. These include a floor type compact summer air conditioner, a year round air conditioner for residences and offices, two ceiling type heating and cooling units, and a basement type self-contained air conditioning unit.

Westinghouse Light Meter

278M A portable device for measuring light intensities and making illumination surveys is announced by Westinghouse Electric & Mfg. Company, East Pittsburgh. It is called a "Right Light" meter and contains a cell which transmutes light to electric current without an auxiliary electrical supply. Upon exposure the meter immediately shows the foot candles of illumination.

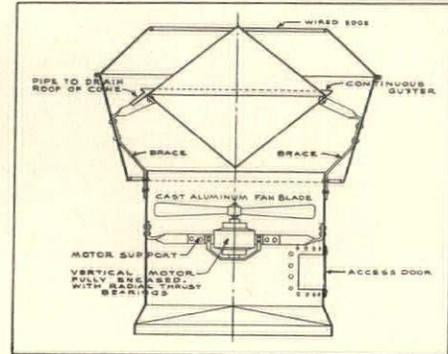


Left: Marsh Ther-Alti-Meter
Right: Pop-up Lavatory Waste



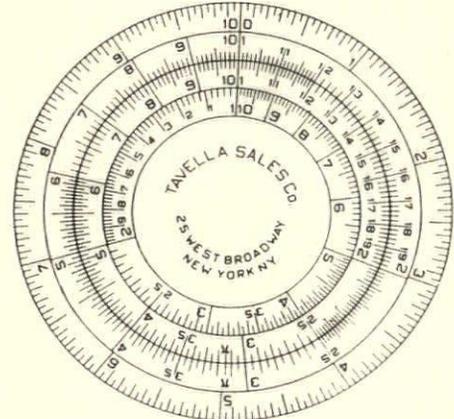
Marsh Ther-Alti-Meter

279M Jas. A. Marsh Corporation, Chicago, has introduced a Marsh Ther-Alti-Meter combining a gauge and thermostat for hot water or low steam temperatures and pressures. As used on hot water heating apparatus, it will register water temperatures on one scale, and altitude reading from 0 to 70 feet of water on another within the same dial.



Electric Roof Ventilator

280M Royal Ventilator Company, Philadelphia, has introduced the Royal Fan Electric Ventilator for roof mounting on industrial buildings, schools, theatres, etc., which combines an efficient gravity ventilator with the forced draft of a motor driven fan.



Tasco Slide Rule

281M A vest-pocket sized circular slide rule of nickel silver is offered by Tavella Sales Company, New York. The scale is on a disc $2\frac{3}{4}$ " in diameter giving a length on the multiplication-division scale of 6.3". Accuracy equal to or better than the usual ten-inch straight slide rule is claimed. Scales are applied to both sides of the rule.

Flexrod Pop-up Lavatory Waste

282M A lavatory waste operated by a flexible bronze wire has recently been put into production by The Chicago Faucet Company, Chicago. The illustration shows the character of the unit.



ON THE *Dotted Line*

You have formed a mental picture of your completed job. You are concerned not only with how it will perform, but how it will look. Will it come up to your expectations in every respect? Will it show evidence of careful planning, proper coordination of parts and sound engineering? Will every detail down to the last pipe and hanger be in keeping with the high quality installation which you have visualized . . . in short, will it look like the job you would like to do yourself if you could put it together piece by piece . . . a job that will not only perform efficiently and dependably but will look the part as well? Satisfy yourself that it will, before you sign on the dotted line.

YORK ICE MACHINERY CORPORATION • YORK • PENNSYLVANIA

NRA REFRIGERATION • AIR CONDITIONING
MILK & ICE CREAM PLANT EQUIPMENT

Colored Water Paints

283M An entirely new type of water paint, in colors, known as Colored Masterseal has been developed by The Master Builders Company, Cleveland. It employs a bituminous emulsion with colors as a base and may be applied on damp or dry masonry surfaces of every description, including plaster, by brushing or spraying. When dry it becomes unaffected by moisture or alkali-spotting and will not rub off, according to the manufacturer's claims. It may be washed, as it produces a waterproof surface.

Bethlehem-Doe Heater

284M The Bethlehem Foundry & Machine Co., Bethlehem, Pa., offer an entirely self-contained automatic heater. Fired by a Bethlehem-Doe oil burner, the unit contains unusually small boiler tubes, an automatic combustion draft control and a system of pipes—called a "tank-saver"—set inside the boiler for production of domestic hot water. The oil-burner, which is also adaptable as a conversion unit, is a gun-type with a rotary diffuser and rubber mountings to reduce vibration noise. Heaters are available in a variety of sizes. Each is with chromium-trimmed steel.

Roof Renovation

285M The Barber Asphalt Company, Philadelphia, has introduced two new products for extending the life of built-up felt roofings. Genasco Resaturator is the saturant used in preparing roofing felts modified to permit application with a brush. Genasco Resurfacer is produced as a final protective coating. It consists of specially prepared soft and relatively non-hardening asphalt with selected asbestos fibres.

Viscostat for Oil Burners

286M Bell & Gossett Company, Chicago, has introduced an automatic electrically heated device to reduce the viscosity of heavy grades of fuel oil so that they may be used in oil burners designed for lighter grades. The Viscostat automatically warms the oil to the proper temperature.

Time-Saver Switches

287M A complete line of switches, receptacles, pilot lights and combinations of these elements small enough to permit three units to be installed in the ordinary switch outlet box is offered by Hart & Hegeman Division, Hartford, Conn. A novel feature of the line is a three-receptacle and plate combination.

Folding Partitions

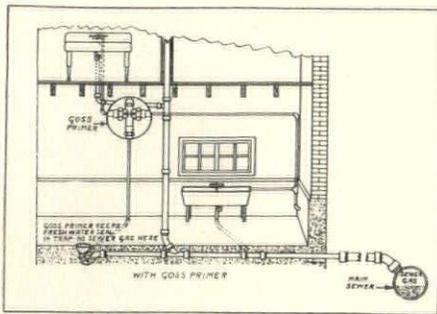
288M The American Car & Foundry Company, New York, offers two new types of a.c.f. Fairhurst patent partitions. Unit-fold type has any given number of doors with concealed hinges, the doors being mounted on heavy ball bearing casters. The Duo-fold type partitions operate on ball bearing casters which move on a small track flush with the floor.

Kohler Cast Iron Convectors

289M Kohler, of Kohler, Wisconsin, has introduced a complete series of cast iron fin-type convector units with a variety of recessed and free-standing enclosures. The fins are of rolled iron cast into the heat chambers. Units are made in four widths and in lengths from 15" upwards in units of 5".

Room Cooler

290M A self-contained room cooler having a capacity equivalent to melting one-half ton of ice in twenty-four hours, has been introduced by Westinghouse Electric & Mfg. Company, East Pittsburgh. The cabinet encloses both refrigerating equipment and the cooling and dehumidifying apparatus.



Goss Primer

291M A device for keeping a fresh water seal in open drains in sewer lines is manufactured by Chicago Faucet Company, Chicago, and is called the Goss Automatic Floor Drain Primer. The device is a cross-shaped brass fitting that is installed in the water supply line to any frequently used faucet. When water is drawn, the Primer permits a small quantity to trickle from the Primer through a line feeding the open trap in the cellar or other open floor drain. The need for a device of this kind has increased with the growing use of humidifying equipment, laundry equipment and other water-using devices in basement areas, also with the tendency of health departments to forbid open floor drains unless means are provided for assuring a permanent trap seal.

Ruling Pen Font

292M An unique font, attachable to any standard ruling pen and permitting automatic refilling of the pen by pressure on the rubber bulb, is offered by R. A. Wood, Cambridge, Mass.

Kitchen Units

293M Colonial Stove Company, Philadelphia, is marketing a line of kitchen units called Colonial-Romance Ensemble Kitchens, consisting of wall and floor cabinets, sink, range and refrigerator unit in a variety of assemblies to meet all normal requirements for the modernization of kitchens and pantries. The complete assemblies become units which may be removed and reused.

Crane Oil Burning Boiler

294M Crane Company, Chicago, announces introduction of a sectional cast iron oil burning boiler in sizes up to 1400 sq. ft. steam and 2240 sq. ft. hot water EDR. A large combustion chamber connected through downdraft flues below the combustion chamber provides extended flue travel and extends the water jacket to the floor. The boiler is designed for use with all gun type burners and, in addition, Crane Company is furnishing this boiler with a matched burner to form a boiler-burner unit.

Self-Cleaning Air Filter

295M Coppus Engineering Corporation, Worcester, Mass., announces an air filter employing a special wool felt for the filter curtain which is equipped with a suction nozzle connected to a vacuum cleaner. The wool felt is moved as an endless belt by a small motor and the vacuum cleaner operates simultaneously to clean the felt while the filter is in use. High cleaning efficiency is claimed.



Scott-Newcomb Humidifier

296M A new cabinet-type humidifier is offered by Scott-Newcomb, Inc., St. Louis. The device will evaporate six gallons of water per day and has an evaporating surface of forty square feet. On an apparent consumption of 50 watts it will deliver 16,500 cu. ft. of washed air per hour, according to the manufacturer.

The Door that SOLVES
Super-Freezer Problems

The Stevenson Super-Freezer Door fits flat against the casing, effectively sealed by a wide, soft pad of double thickness felt, chemically treated to prevent sticking or freezing. Metal coated on back of door and front of casing—or completely metal clad. Works easily, seals tightly—under conditions where infitting doors fail. Other JAMISON-BUILT DOORS to fit every need.

JAMISON COLD STORAGE DOOR CO.
Jamison, Stevenson and Victor Doors
Hagerstown, Md., U. S. A.

BRANCH OFFICES: New York, Chicago.
AGENTS AND DISTRIBUTORS: Atlanta, St. Louis, Minneapolis, Omaha, Detroit, Kansas City, Mo., San Francisco, Cincinnati, Salt Lake City, Los Angeles, Cleveland, Philadelphia.
FOREIGN: London, Honolulu, Japan.

Jamison & Stevenson Cold Storage Doors

MODERNIZE with a
CUTLER MAIL CHUTE

Expected as a matter of course in the modern office building or apartment.

It guarantees to the tenant up-to-date service and saves the owner its cost in reduced elevator operation.

Full information, details, specifications and estimates on request.

CUTLER MAIL CHUTE CO.
General Offices and Factory
ROCHESTER, N. Y.

The Readers Have a Word to Say

• UNFAIR COMPETITION

Editor, AMERICAN ARCHITECT:

IN your appeal to the Government asking Federal aid for architects, you state Federal, State and municipal architectural bureaus should cease competing with private business.

This is the first public expression I have seen calling attention to this very serious phase of architectural recovery. In Virginia, due to the activity of the Building Division of the State Board of Education, the situation is very bad, as practically all public school buildings are being built with PWA aid. This Federal aid is intended to provide employment, but the private architect is being denied the opportunity of this intended employment by a public office furnishing so-called free plan service.

I have brought this situation to the attention of the Code Committee of the American Institute of Architects as well as to the Public Works Administration and the NRA administrator. While I have received sympathetic replies to my contention that salaried officials should not be allowed to enter into unfair competition with private architects in planning buildings utilizing funds intended to aid the unemployed, I have been told that the Federal Government cannot dictate to political sub-divisions.

Now the proposed Code of Fair Competition for the Architects Division of the Construction Industry specifically defines "fair competition," prohibits "unfair competition" and states that "no one normally employed to perform architectural service, other than teaching, on a full time salaried basis, shall perform architectural service outside of his salaried duties except in a consulting or advisory capacity." This is very clear.

The Federal Government does, however, dictate to political sub-divisions utilizing PWA funds as to passing on the plans and specifications, as to advertising, as to letting the contract, as to the wages to be paid, and even on State buildings places an inspector to see that these Federal conditions are conformed to. It seems rather hard to understand why or how the Federal Government can dictate to some, but cannot dictate to protect the private architect or to insure fair competition.

I appreciate your article and hope that

there will be sufficient support and sentiment aroused to give the architect, at least, a fair chance.—*Philip N. Stern, President, Virginia Chapter, American Institute of Architects.*

• REALTOR'S VIEWPOINT

Editor, AMERICAN ARCHITECT:

PERMIT us to congratulate you on the editorial page of the November issue of AMERICAN ARCHITECT.

It now seems to be pretty generally admitted that re-employment on a large scale in the construction field is essential to the recovery program, and that the individually owned home must have its important part in that construction activity. Using the Bureau of Standards figures, we can safely conclude that ninety per cent of the families in this country are housed in single and two-family houses.

There is fear, of course, that repossessed houses now vacant would suffer by any great amount of activity in this field. It is our opinion, on the contrary, that, in view of the attitude of the public with regard to repossessed houses at the present time, they cannot come back until new building establishes activity and confidence, thus re-establishing real estate values and drawing along with it the value of the repossessed house. A general uptrend will soon occupy this class of structure.

We are not in favor of speculative building at all. By surveys which we have made, we have proved that there is a widespread desire on the part of individual lot owners to build if they can be aided with governmental financing.—*Charles C. Mullaly, President, The Homeland Co., New York City.*

• BUSINESS MEN

Editor, AMERICAN ARCHITECT:

KNOWING that your editorial policy favors the economic and business man's viewpoint towards architecture, I would like to suggest the following.

I happened to be conversing with a high-class real estate man who said, "It is a good thing for a young architect to find out how hard it is for home owners right now to finish paying for 1st and 2nd mortgages." Also—"When

a real estate man, a banker and a home owner get together, they talk the 'same language.' The architect needs to know a lot about that language."

Two architect friends of mine seem to have done fairly well during this bad "depression." In the last analysis they seem to have had some good, old-fashioned, hard common sense, plus a mighty fine ability to squeeze the most out of a building dollar in the way of value. They are "good business men." I'd like to see that term clearly defined and driven home every month in your journal.—*Harvey B. Johnson, Architect, Memphis, Tenn.*

• CONSTRUCTION FINANCE

Editor, AMERICAN ARCHITECT:

HAVE read your article in the January issue of AMERICAN ARCHITECT titled "Construction Finance." You have undoubtedly reached the proper conclusions. . .

The old method of financing, as you say, is out. I would call it a system which was far extending in all communities; those who controlled other peoples money, whether they were Mortgage Companies, Attorneys, Bankers, Real Estate men with Building Association activities or what not, placed building loans for fees and the basis of the loan in many cases was the fee obtained; that, I believe, was the root of the trouble.

There often was a split of the fee undercover. This procedure would be dangerous now and could not be carried out; therefore, the whole system of obtaining mortgages has broken down. Where would you go to get one?

There could be a legitimate, honest business of placing mortgages. . . Here is a suggestion: Suppose certified accountants were called upon to make a report on mortgages applied for on contemplated new buildings. The report would show the complete status of the project, the value of the ground, the plan and design of the building, its cost, the practical layout of its construction, carrying charges, earning power, etc. and the financial set-up of the owner, with a report on each item from a reputable Real Estate Agent, Architect, Builder and Operator who had no connection with the project.

The accountant would sign the re-



Presented first at the Oil Burner Show in Philadelphia the new BETHLEHEM AUTOMATIC HEATER has met with instant approval. The reasons are obvious: a copper-steel boiler of ample capacity with automatic hot water supply without need for outside storage tank; fired by the well-known Bethlehem DOE Oil Burner; the whole encased in a housing of modern design, with brass or chromium trim. From an engineering standpoint, an achievement worthy of the 100-year-old company back of it; from a design standpoint worthy of the finest residence. Architects are invited to write for details.

BETHLEHEM

Automatic

HEATING

DOE OIL-FIRED

port and receive a fee from the owner and he, in return, would pay a fee to his consultants. The owner would present this report in making application for a loan.

If real estate loans were required to be made on this basis with everything open and above board, do you think fees formerly paid to those controlling money could be eliminated and honest mortgages placed?

Some method of obtaining money for private building construction will have to be worked out, the sooner the better. It should, however, be a system which does not allow of secret conniving and dishonest appraisals of value so that the investor can see and know all the facts. Investors have been gypped so much by lack of facts or misstatement of facts by those promoting issues that they are wary of investing in anything.

New Mortgage Companies should be organized to place mortgages for reasonable fees with first mortgages up to fifty per cent of the valuation for a period of ten years providing amortization of ten to twenty per cent of the amount of the mortgage during its life.

Second mortgages should be placed up to seventy per cent of the valuation at seven per cent interest for a five year period, providing for amortization of the entire amount of the mortgage in five years.

Mortgage exchanges should be organized to buy and sell mortgages and mortgage bonds.

We have been shrinking for four years in spite of a continual yearly increase in population; it is high time we began to expand and to stop judging the conditions of the future on the basis of conditions of past few years.—*Ralph E. White, Architect, Ardmore, Pa.*

• NEW FILING SYSTEM

Editor, AMERICAN ARCHITECT:

IN your January issue of *AMERICAN ARCHITECT* on page 64 under the heading, "What kind of filing system" you ask for suggestions on how to file architectural reference data other than manufacturers' catalogs.

The American Institute of Architects' Committee that is developing a plate filing system will recommend, when this system is completed, that articles from magazines and other data be filed with the plates. In this way when referring, for instance, to the file containing hotel data, any articles having to do with hotel planning or design will be found in that same file. This will obviate the

necessity of having this information in two separate files and will also make it readily accessible.

Our Committee expects to have this system for filing architectural plates for submission to the architects' convention in May. The system, at that time, will not be considered final by the Committee, but more of an experiment that a year's trial by the architects throughout the country will help to perfect.—*W. H. Tusler, Chairman, A. I. A. Plate Filing Committee, Minneapolis, Minn.*

• OF SPECIAL INTEREST

Mr. Thomas M. McNiece,

Editor, AMERICAN ARCHITECT:

YOUR article "The Building Outlook" is one of the best I've read. Having been chairman of a local research committee for the past two years, during which time I dug into causes and effects, your article was of special interest to me.

Our economic structure is a flexible one as I see it, the foundation of which is agricultural income. Industry, transportation, professions expand and contract with farm income—but taxes and debts and railroad rates only expand.

Some day maybe, we will learn how to control credit which in turn should control debts and taxes.—*Paul Hueber, Architect, Syracuse, N. Y.*

• ARCHITECT OR MASTER-BUILDER?

Editor, AMERICAN ARCHITECT:

READ with a great deal of interest Clinton H. Blake's article published in the January, 1934, issue of *AMERICAN ARCHITECT*. While I have always enjoyed his writings in the past, I feel the wide-awake architects should take issue with Mr. Blake on his current subject. Unfortunately, it seems that the present trend is to limit the scope of the architect. I feel that it is high time that the architect realized his predicament. If he is to survive, his powers on a building operation must be increased and broadened and not narrowed down as has been pointed out in Mr. Blake's article.

A line should be drawn between the architect who carries his professional service through to completion and the architect who acts in the capacity of a general contractor. There has been no invading of another's field so far as the architect's actions are concerned. To my knowledge the invading has been

the other way; and these incursions are not limited to the general contractor, but have been made by everyone else willing to assume the architect's burdens.

The architect decidedly should not become a general contractor. As has been pointed out, he cannot faithfully represent his client and himself in a dual capacity. But he can and should have sufficient knowledge at his disposal capably to represent his client from the beginning to the very end.

It is to be hoped that eventually the architect will completely supplant the contractor who acts merely as a broker on the job and who gambles with the credit of his sub-contractors in order to earn a livelihood.

This practice represents one of the serious menaces to the building industry. It is to be hoped that the architect will realize his opportunity in this direction and wake up to the enormous possibilities in this field at present. The general contractor, particularly in residential work, should eventually disappear. In his place should arise a "glorified" architect, fully equipped with the information necessary to act as the owner's agent in all dealings with individual contractors (previously known as sub-contractors).

Why should not the architect be restored to his former high standing of master builder? The architect should become a leader. He should have full control over all the various contractors on the job and settle all matters directly with them and not through the medium of a general contractor.

I might also add that the architect should never be called in to settle disputes between owner and contractor in the capacity of an arbiter; he is decidedly an interested party in that he is paid to represent the owner.—*A. T. Saxe, Consultant on Structures and Costs, Small House Advisory Service, Boston, Mass.*

• ANOTHER TIMELY QUESTION

Editor, AMERICAN ARCHITECT:

THE editorial "Timely Questions" published in the January, 1934 issue is of much interest to me, as I suppose it is to many other architects in my class, or what I would term the small architect.

Some years ago I read in your magazine that 85 per cent of the architectural profession never rose above the designing and planning of residential work or small buildings.

The various questions asked in the above mentioned editorial are all timely, but there seems to be one more question in my mind.

"What is to become of this 85 per cent of small offices?"

It is a foregone conclusion that architects for the Federal construction program are selected from the remaining 15 per cent. The men selected, in my opinion, are no more qualified than others who might be chosen from the 85 per cent except that they maintain an organization. It would not be a big problem for any of the smaller offices to employ skilled specialists, such as designers, engineers, etc., if they should be commissioned to administer services for the Federal Government.

I am not crying on anyone's shoulder about my losses, but I would like to have some encouragement as one of the 85 per cent.—*John M. Peterman, Architect, Ft. Lauderdale, Florida.*

• BATHROOM PLANNING

Editor, AMERICAN ARCHITECT:

I WISH to congratulate you on the comprehensive and informative article on "Bathroom Planning" which appeared in the January issue of AMERICAN ARCHITECT. I think this is a very good piece of work.

In fact, the entire subject is covered so adequately that I hesitate to mention the single point of criticism which occurred to me as I read this article. This is the fact that the writer apparently neglected to refer to the advantage in the use of a lead pan under the shower stall. I believe the advantages of a lead pan under shower receptors are quite generally recognized.—*Norman J. Rader, Plumbing & Heating Industries Bureau, Chicago, Ill.*

• WANTED: MUNICIPAL BUILDING

Editor, AMERICAN ARCHITECT:

WE are informed through the *Waterworks Engineering Department* that you can supply us with the following data:

A municipal building layout with the total cost of construction to be within the range of \$7,500 to \$12,000.

Will you kindly rush all available?

Thanking you for this courtesy, we remain.—*O. H. Recla, City Engineer, Village of Niagara, Wisconsin.*

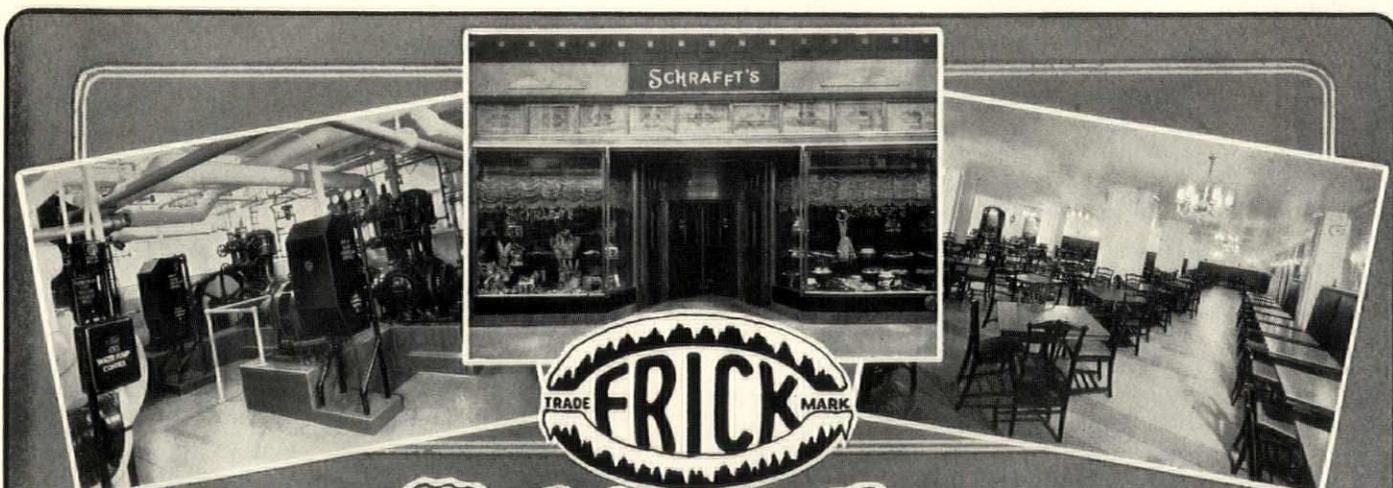
Mr. O. H. Recla
City Engineer
Niagara, Wisconsin

YOU were misinformed as to our ability to furnish plans for buildings of any kind. Stock plans are an evil that

have afflicted the building industry for many years. Such plans rarely meet the requirements of any building problem and more often than not become an uneconomic liability. Their expense is usually wasted many times over during the life of a building poorly designed for its purpose.

A building, no matter how small in size or money value, justifies the services of a person proficient in the art of planning and building design. There are many architects in your state well qualified to study the building problem before you. Not only will your municipality benefit by the services of an architect, but employment represented in this public works project will be distributed in accordance with the recovery program of the Federal Administration.—*Editor, AMERICAN ARCHITECT.*

The letter from the City Engineer of Niagara, Wisconsin, indicates that the stock plan idea is not confined to the small house field. It further shows that prevalence of this idea is losing architects business, the importance and value of which is impossible to estimate. The answer to it sets forth clearly this magazine's stand regarding stock plans. American Architect would like to hear of other instances of stock plan practice. Full publicity on such malpractices is one of the best means of finally doing away with them.



ERICK

Refrigeration

Is used for air conditioning in a series of the famous Schrafft's Restaurants — as well as in hundreds of theatres, hotels, stores, etc.

We furnish refrigerating machines of all commercial types and sizes. Branch offices, distributors and stock points in over 100 cities.

LITERATURE AND ESTIMATES ON REQUEST



Low Pressure Units



WAYNESBORO, PA., U.S.A.
ICE MACHINERY SUPERIOR SINCE 1882



Carbon-Dioxide Machine

Trends and Topics of the Times

(Continued from page 41)

costs \$100. Architects Klipstein & Rathmann had plywood tops 4'-6" x 7' made for their drafting tables and used straight edges attached to cables instead of T squares as special equipment to produce the drawings. The St. Louis Post Office will be 323' x 479' and contains eleven and one-half million cubic feet. It will cost about \$500,000. Construction has been held up awaiting a decision as to whether a new building will be erected or an addition built on the existing Post Office. This enormous structure serves more as a mid-western mail distributing office than as a city office.

- The Frontispiece this month is unusual on two counts. It was reproduced from a photograph that won for Harold Haliday Costain the gold medal of the 1933 International Photographic Exposition at Antwerp, Belgium. The corbel itself—obviously an out-of-the-ordinary bit of carving done with vigorous skill and imagination—is part of a small studio at Pound Ridge, Conn. It was designed and executed by Klir A. Beck.

- Three New York architects have recently been awarded a prize of 15,000 kronor in an international competition held by the City Planning Board of Stockholm, Sweden, for their design for the reconstruction and modernization of Stockholm. The men are William and Geoffrey Platt—sons of the late Charles A. Platt—and John M. Gates. Their prize plan, if followed in its entirety, will require at least twenty-five years to carry out and involves almost every problem of modern city planning except that of subways. The three men had previously received an award from the Phillips Stokes Foundation for low-cost housing. Geoffrey Platt is a member of the Regional Planning Board for the State of New Hampshire.

- Walter J. Kohler, Governor of Wisconsin, was recently presented an award by the Society of Arts and Sciences for his part in the construction and maintenance of Kohler Village near Sheboygan, Wisconsin. Most architects have heard of this model community and know something of Governor Kohler's association with it. In his speech of acceptance, Governor Kohler spoke of the necessity of houses for families whose average income is gained from a forty-hour work week at a wage of 40c per hour, the average minimum in the North under the Codes of Fair Competition. He said, "So important is this problem that provision for long-time loans at low interest rates to finance civilized housing may become an inescapable responsibility of government, irrespective of any unusual economic emergency or employment problem."

- Sixty-seven Chapters of the American Institute of Architects are working to eliminate unsightly roadside structures. The executive committee of the

Institute has urged the establishment, as part of the C.W.A. program, of demonstration highway sections with various types of roadside structures as one way to prevent defacement of national scenic highways and to eliminate unsupervised and unsanitary tourist camps.

- A survey of 273 cities in all sections of the country conducted by the National Association of Real Estate Boards shows that the greatest shortage of single-family houses exists in the west south central section, the New England area and the Pacific Coast. In 27 per cent of the cities studied an actual shortage of such houses existed; and in cities of less than 100,000 population there was an under-supply of apartment space. In 75 per cent of the cities over 500,000 population an over-supply of apartment space was found. Rental rates higher than those of a year ago were reported in 14 per cent of the cities surveyed. In all cities of all sections there was a marked scarcity of capital, but in 68 per cent of them interest rates were steady. Twenty per cent showed a rise in rates and 12 per cent a decrease.

- The January Rental Survey made by the Committee on Renting of the National Association of Building Owners and Managers reveals that the vacancy situation is improving. The Survey covered 35 of the principal cities of the country and included 1900 office buildings with a total rentable area of 175,669,040 sq. ft. Only 718,000 sq. ft. of office space has been added to the market according to "Skyscraper Management," the official organ of the Association. In a number of cities vacancies have actually decreased.

- Commenting on "Bathroom Planning," published in the January issue, an architect states that where economy is most important, he has found a way to make one bathroom meet the needs of two. This is accomplished by placing the W. C. in a separate compartment and providing two lavatories.

- According to the Federal Trade Commission, the United States Supreme Court has upheld the decision of the Commission that the word "white" in connection with the word "pine" must designate true white pine. Some lumber companies have been using "white" in connection with lumber cut from the pine variety known as *pinus ponderosa*. The court held that the use of the words "white pine" to designate lumber that is not strictly such deceives the public and must be discontinued.

- A misunderstanding on our part makes necessary a correction for an article that appeared in the January issue. Therein Keene and Simpson were noted as architects for the Independence Mo. Courthouse, with D. Frederick Wallace associate. Equal credit should have been given Mr. Wallace as designer of the remodeled courthouse. We are glad to do so.

• Willard L. Thorp, Director of the Bureau of Foreign and Domestic Commerce, is Head of the Real Property Inventory now underway as a C.W.A. activity. In an address before a meeting of the National Association of Real Estate Boards, Mr. Thorp said recently, "There has been much talk in Washington about giving aid to building, but when several persons get together to discuss the matter they quickly divide into two groups: those who argue that there is a shortage; those who insist that there is a surplus. Which of these groups is right? That is exactly what we hope to find out along with a great deal more from our real property inventory." At the present time the inventory is confined to some sixty-three cities throughout the country. If the inventory is important enough to furnish the basis for future stimulation of the building industry, it is fervently to be hoped that its scope will be expanded to cover every representative section of the country. Perhaps continuation of C.W.A. activity and the additional funds recently made available for this work will make this possible.

• Architects might gain inspiration for some personalized promotion by examining a pamphlet issued by the Penn Mutual Life Insurance Co. It was written by Julius Gregory, architect, and is entitled "How to Build Within Your Budget." Mr. Gregory has outlined for the layman the important points of economical home building. In doing so he has automatically stressed the value of the architect's services in the home building field.

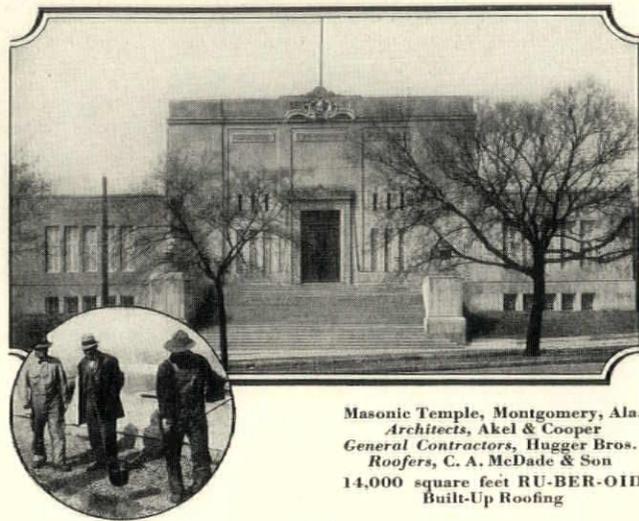
• The natural patina of a weathered copper can now be produced within a few hours according to William A. Crane, Jr. of the Copper and Brass Research Association. A spray consisting largely of ammonium sulphate is the important part of the process.

• On February 11 Mrs. Julia Wynne fell to her death from a window of her apartment on the fifth floor. The theory was advanced that "... she had opened the window and accidentally toppled over the low sill." It has long been recognized that sills of most large apartment buildings are too low. In view of the fatalities that have occurred because of this fact, it seems high time that architects cooperate with owners at least to provide proper window guards in all necessary instances.

• Compressed air becomes almost daily a more important commodity. It has long been used in pneumatic tubes in buildings, but so far New York is the only city with an extensive underground mail delivery of this kind. Fifty-four miles of eight-inch pneumatic tubing lie under the city's streets; and a plan is now under way to extend the tubes to adjacent air mail terminals. Carriers are propelled by air exerting a pressure of five to eight pounds per square inch and are said to travel at a speed of thirty miles per hour.

(Continued on page 121)

East — West .. North .. South



Masonic Temple, Montgomery, Ala.
Architects, Akel & Cooper
General Contractors, Hugger Bros.
Roofers, C. A. McDade & Son
14,000 square feet RU-BER-OID
Built-Up Roofing

Architects Remember RU-BER-OID'S Remarkable Record of Roofing Service

IF YOU have a roofing problem entrust it to The Ruberoid Co.'s wide range of time-honored products. No matter what type of construction you desire to build, re-roof or modernize, if the job requires a good roof you can safely centralize your roofing responsibility on The Ruberoid Co.

For over 40 years The Ruberoid Co. has devoted its entire energy to providing quality roofings and building products in types, styles, weights and finishes to fit every class and price construction. How well this company has succeeded may be judged by Ruberoid's constant widening of its line and the reception of these products by the nation's leading architects.

Specification data will be found in 1934 Sweet's or if you desire complete architect's catalogue, write any Ruberoid office.

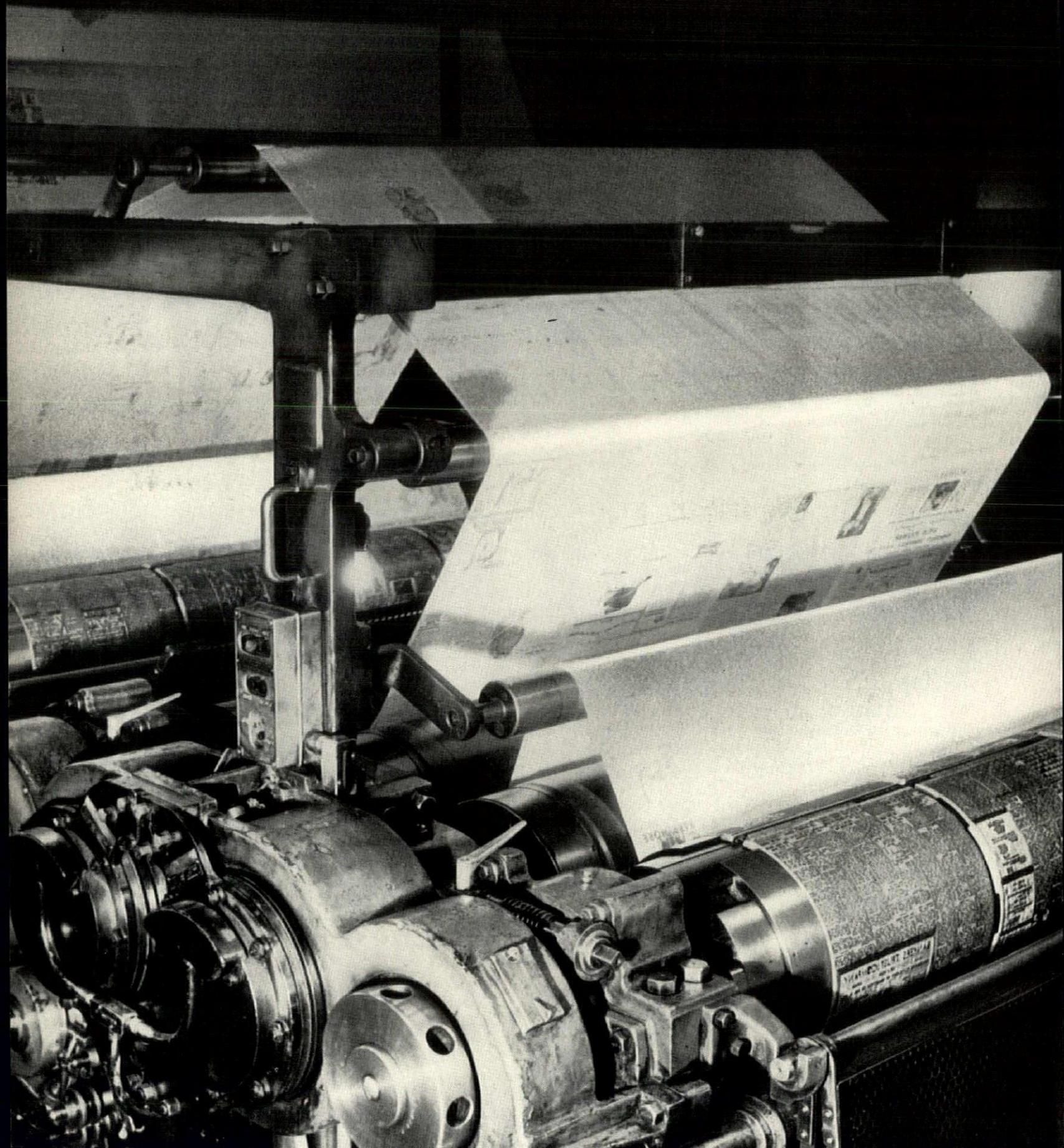
The RUBEROID Co.

ROOFING MANUFACTURERS FOR OVER FORTY YEARS

Sales Divisions: RUBEROID MILLS—CONTINENTAL ROOFING MILLS—SAFEPACK MILLS—H. F. WATSON MILLS—ETERNIT MILLS. Offices and Factories: NEW YORK, N. Y.—CHICAGO, ILL.—MILLIS, MASS.—ERIE, PA.—BALTIMORE, MD.—MOBILE, ALA.



THE POWER



OF THE PRESS

AT WORK FOR ARCHITECTS

Advocating new building and modernization and the release of money for financing building construction, the Hearst publications are stimulating *new business for architects*. • Influencing good taste in building and creating the desire for new and better homes on the part of the American people, the magazines and newspapers published by the Hearst Organization constantly *improve and expand the architect's opportunity*. • Read by many millions, these publications, powerful moulders of public opinion, support the constructive achievements of *American Architect*.

THE HEARST ORGANIZATION

Magazines

American Architect
Good Housekeeping
Home & Field
Town & Country
Cosmopolitan
Harper's Bazaar
MoToR
Motor Boating
American Druggist

Newspapers

The American Weekly
The Comic Weekly
New York American
Boston American &
Sunday Advertiser
Chicago Herald & Examiner

Los Angeles Herald & Express
Chicago American
Syracuse Journal-American
Boston Daily Record
Washington Herald
Omaha Bee-News
Oakland Post-Enquirer
San Francisco Call-Bulletin
Detroit Times
Seattle Post-Intelligencer
Los Angeles Examiner
New York Journal
Rochester Journal-American
Albany Times-Union
Atlanta Georgian-American
Pittsburgh Sun-Telegraph
Baltimore News &
Sunday American
Washington Times

San Francisco Examiner
Wisconsin News
San Antonio Light

News Services

Hearst Metrotone News
International News Service
King Features Syndicate
Universal News Service
Central Press Ass'n
International News
Photo Service

Radio Stations

KYW—Chicago
WISN—Milwaukee
WINS—New York
WCAE—Pittsburgh
KYA—San Francisco

AMERICAN ARCHITECT

is read by more architects and engineers than any other publication

Ship Plans and Blue Prints **SWIFTLY** **- SAFELY**

You can't afford to take chances when plans or blue prints are needed in a hurry at some distant point. A day's delay often means a substantial loss. Eliminate all risk of delay, damage, or possible loss en route by shipping by Railway Express. That means transportation at passenger train speed, absolute safety during transit, and quick delivery on arrival. Pick-up and delivery service in most cities and towns.

You'll find Railway Express service useful in many other ways, too. When you want samples or supplies quickly, have them shipped by Railway Express. No matter how large or small the shipment, they'll come through swiftly and safely. The facilities of this single, nation-wide organization consisting of 213,000 miles of railroads, 23,000 offices, 9,000 motor trucks and more than 50,000 trained employees, are equal to any emergency.

Your local Railway Express agent will furnish complete information on rates. You will find the cost is surprisingly low for the quality of the service offered.

SERVING THE NATION FOR 95 YEARS



NATION-WIDE SERVICE

PERSONALS

- If you change your address, please report the change direct to American Architect five weeks before the change is to take effect, sending both old and new addresses. The Post Office will not forward copies to your new address unless extra postage is provided by you. Our request is made to save you this expense and to assure the receipt of your American Architect promptly.
- Colonel Horatio B. Hackett, partner in the firm of Holabird & Root, Chicago architects, has been appointed by Secretary of the Interior Ickes as head of the Emergency Housing Corporation. He will work in cooperation with Robert D. Kohn, Administrator of the PWA Housing Division on slum-clearance and low-cost housing projects.
- Roy A. Benjamin, architect, announces the removal of his office from 21 Ocean St. to the Bisbee Building, Jacksonville, Florida.
- The firm of Lundeen, Hooton, Roozen & Schaeffer has been dissolved. Archie N. Schaeffer and Philip R. Hooton announce the formation of a new firm under the name of Schaeffer & Hooton, architects, with offices at 710 Peoples Bank Building, Bloomington, Illinois. They will carry on the practice of architecture as successors to the old firm.
- S. Harold Fenno, architect, formerly associated with the late Harold Jewett Cook has opened an office for the practice of architecture at 438 Delaware Avenue, Buffalo, N. Y.
- Marvin Fine, architect, has become associated with Porcelain Metals, Inc. of Brooklyn, N. Y. He will act in an advisory capacity for the company.
- The firm of Jones and Root, architects of Worcester, Mass. has been dissolved. William C. Root will continue the practice of the firm at 120 Austin Street, Worcester, Mass. He requests manufacturers' samples and literature for his files.
- The firm of Kenyon, Frost & Braden has opened an office for the practice of Industrial Design at 75 East Wacker Drive, Chicago. Manufacturers' samples and literature are desired.
- Erwood P. Eiden, architect has opened a new office at 106 East Wilson Ave., Glendale, California and would like to receive manufacturers' literature.
- David A. Giller, architect, Room 225, 27 School St., Boston, Mass., desires manufacturers' literature and samples to complete his files.
- Clair W. Ditchy was elected president of the Michigan Society of Architects at the organization's twentieth annual convention at Detroit. Professor Emil Lorch of the University of Michigan was elected first vice president.

DEATHS

- Leon H. Lempert died at his home in Pasadena, California, on January 14th. Mr. Lempert who was sixty-six years of age was the originator of the "bowled auditorium" type of theatre after which most modern show buildings are patterned. He had designed many theatres in New York, Buffalo, Boston and other cities.
- Richard Mildner, of the Detroit firm of Mildner and Eisen, architects, died February 11th at the age of 64. Mr. Mildner had spent most of his life in Detroit and had been actively engaged in the practice of architecture for forty years. He had been a director of the Michigan Society of Architects and the Detroit Chapter of the A.I.A.
- George Carnegie Palmer died at Morristown, N. J. on February 28th. He was seventy-two years old and had been a member of the firm of Palmer, Hornbostel and Plonsky, architects. The firm was changed in 1923 to Palmer and Plonsky.
- Harry Burger Wheelock died at his home in Evanston, Illinois, January 8th. Mr. Wheelock, who was seventy-three years old, had studied at the University of Michigan. He was one of the founders of the Illinois Society of Architects and was a prime mover in the passage of the Architects' Registration Act in Illinois, serving on the Board of Examiners of Architects for many years. He was a fellow of the American Institute of Architects and a past president of the Chicago Chapter.
- James M. MacQueen died in Pittsburgh, Pa., on January 30th. He had been a practicing architect there for many years and was at one time associated with Alden and Harlow. Mr. MacQueen was a member of the American Institute of Architects and was a past president of the Pittsburgh Chapter.
- Dudley Strickland Van Antwerp died in Montclair, N. J. on January 17th at the age of sixty-six. Mr. Van Antwerp had designed more than 500 buildings in that vicinity. He was a member of the American Institute of Architects.
- Percival Gallagher, member of the landscape architectural firm of Olmsted Brothers, died in Brookline, Mass. on January 8th at the age of sixty.
- Charles Thompson Mathews died January 11th at his home in New York City. Mr. Mathews, who was seventy years old, was noted as the designer of the Lady Chapel in St. Patrick's Cathedral in New York. He was born in Paris, receiving his preliminary education in France and later studying at Yale and Columbia Universities. At one time he was associated with the architectural firm of Sybil, Henderson and Brown. Mr. Mathews was also noted as author of the "Renaissance under the Valois" and "The Story of Architecture" both of which are used as textbooks in several schools and universities. He was a member of the American Institute of Architects, the Architectural League of New York, the Municipal Art Society and the Metropolitan Museum of Art.

SMYSER-ROYER COMPANY

CAST IRON VERANDAS



Smyser-Royer Company cast iron verandas are designed to harmonize with many types of architecture to produce remarkably striking results. This Smyser-Royer veranda, design No. 72, was used by architects Seeburger and Rabenold in a residence for A. Atwater Kent of Philadelphia. The Smyser-Royer Company line of Cast Iron Verandas is shown in Sweets, Volume A, page 756. A complete catalogue of designs, prices or estimates furnished on request.

SMYSER-ROYER COMPANY

Main Office and Works, York, Pa.
Philadelphia Office, 1700 Walnut St.



House in Hempstead, L. I. Architects, Godwin, Thompson & Patterson, New York. Painted with Cabot's DOUBLE-WHITE and Gloss Collopakes

"Collopakes" Keep This Prize House Young

In 1931, when this house won the House Beautiful 3rd prize, the brick walls were painted with one coat of Cabot's DOUBLE-WHITE and the iron work and trim with Cabot's Green Gloss Collopakes. When this picture was taken in 1933, all the painted surfaces were still fresh and bright.

Collopakes are modern colloidal colors, made by the patented Cabot Colloping Process. They mark a new era in painting, giving a beautiful and lasting finish to shingles, brick, stone, iron, wood or plaster. Their texture is finer, their color values richer. They are economical to use, because their great covering power makes fewer coats necessary, and because of their non-fading qualities and unusual durability. DOUBLE-WHITE is a brilliant non-gloss white with tremendous hiding power. Gloss Collopakes keep their bright color and gloss even under severe weather conditions.

Send coupon below for full information

Cabot's Collopakes

FOR EVERY PAINT USE

Made by the Makers of Cabot's Creosote Shingle and Wood Stains

Samuel Cabot
Inc.
Manufacturing Chemists



141 MILK STREET
Boston, Massachusetts

Gentlemen: Please send me Color Card and information on Cabot's Collopakes.

Name

Address

AA-3-34

INDEX TO ADVERTISERS

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

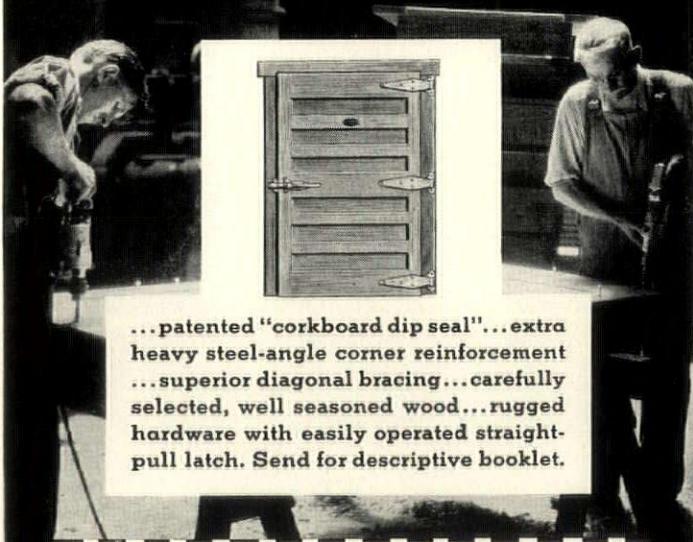
American Telephone & Telegraph Co.....	3
Armstrong Cork & Insulation Co.....	5-94
Bethlehem Foundries & Machine Co.....	111
Cabot, Inc., Samuel.....	120
Chase Brass & Copper Co.....	100-101
Cochrane Co., Chas. P.....	95
Congoleum-Nairn, Inc.....	93
Cutler Mail Chute Co.....	109
Frick Co.....	113
General Electric Co.....	1-99
Good Housekeeping.....	104
Graybar Electric Co.....	122
Jamison Cold Storage Door Co.....	109
Koh-I-Noor Pencil Co.....	103
Milcor Steel Co.....	121
Minneapolis-Honeywell Regulator Co.....	96
Norton Co.....	4
Otis Elevator Co.....	2
Portland Cement Association.....	6
Railway Express Agency, Inc.....	118
Ruberoid Co., The.....	115
Smyser-Royer Co.....	119
York Ice Machinery Corp.....	108-121

(Continued from page 115)

• Before the Northeastern Retail Lumbermen's Association at New York, John H. Fahey, Chairman of the Federal Home Loan Bank Board, characterized the almost complete cessation of home building as a direct result of the refusal to invest in home mortgages by banks, insurance companies, building and loan associations and private investors. In speaking of the need for future home building and modernization financing, Mr. Fahey stated his belief that the Federal Home Loan Bank system, the Home Owners Loan Corporation and the Federal Savings and Loan Associations had already paved the way for restoration of confidence in home financing by investors. He indicated that these governmental agencies might fill an increasingly important place in future financing methods and emphasized the fact that they could not be used for speculative enterprises. The Federal Savings and Loan Associations in particular were designed as a form of local savings institutions to handle long term mortgage loans with safety to the investor and with business-like economy to the borrower, Mr. Fahey said.

• Those who have complaints about the N.R.A. can learn how to present them from a study of a pamphlet recently issued from the United States Government Printing Office. It is entitled "Manual for the Adjustment of Complaints by State Directors and Code Authorities" and constitutes bulletin No. 7 of the National Recovery Administration. It is for sale by the Superintendent of Documents at Washington, D. C. The price is 5c.

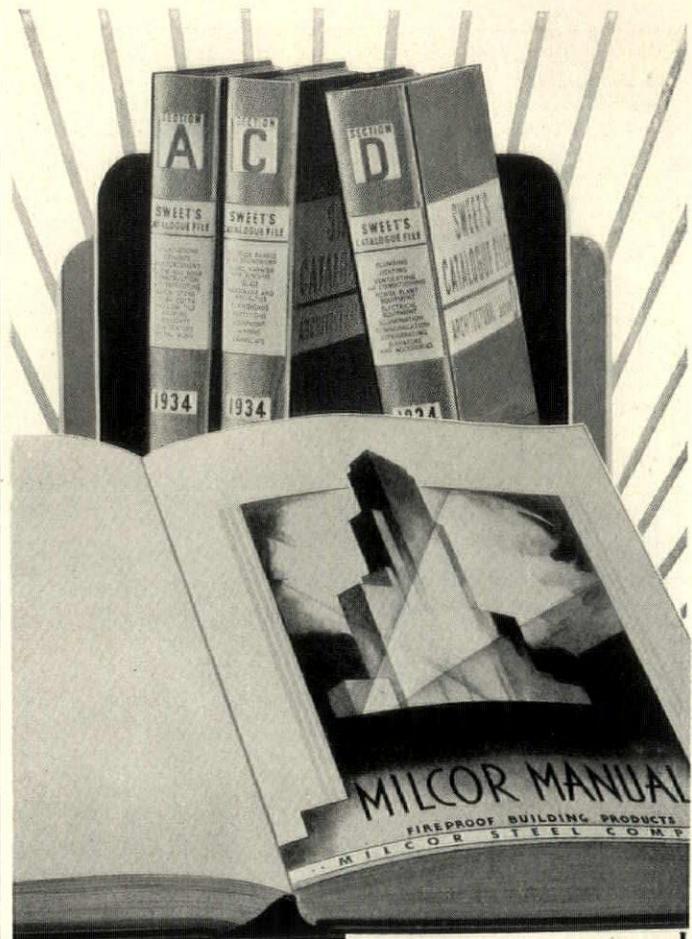
COLD STORAGE DOORS ... As York Builds Them



... patented "corkboard dip seal"... extra heavy steel-angle corner reinforcement ... superior diagonal bracing... carefully selected, well seasoned wood... rugged hardware with easily operated straight-pull latch. Send for descriptive booklet.

York Ice Machinery Corporation, York, Pennsylvania
Send booklet describing York Cold Storage Doors

Name _____
Street _____
City _____ State _____

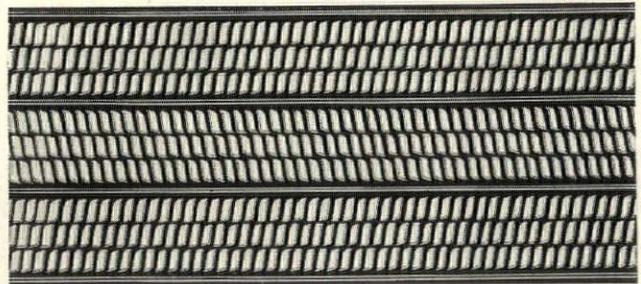


Metal Lath?
Corner Bead?
Metal Trim?

The **MILCOR**

MANUAL in Sweet's Catalogue File

contains by far the most complete and desirable information for the architect on Fireproof Building Materials. The 1934 edition includes illustrations of many new products, specification data and descriptive material, exactly as you would like to have it.



KUEHN'S SPECIALMESH METAL LATH

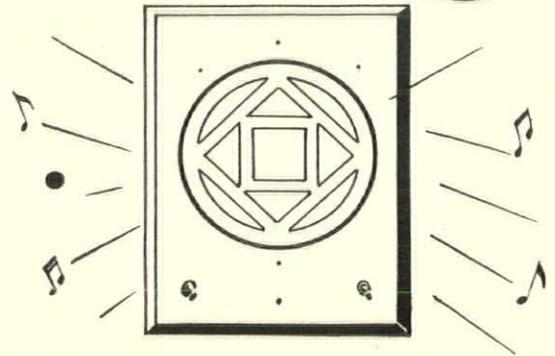
Kuehn's Specialmesh Metal Lath is a scientifically designed mesh, insuring positive rigidity and economy. See specification data in Sweet's.

MILCOR STEEL COMPANY

4010 W. Burnham Street
MILWAUKEE, WIS. CANTON, OHIO
Chicago, Ill. Kansas City, Mo. La Crosse, Wis.

Sales Offices: New York, 418 Pershing Square Building; Boston, Mass., 136 Federal Street; Atlanta, Ga., 92 Fairlie Street; Los Angeles, Calif., 409 So. Cocran Street; Little Rock, Ark., 120 W. Markham Street; Minneapolis, Minn., Bldgs. Exchange Bldg.

A *Sound* way to bring old buildings up to date...



Give them **BUILDING-WIDE HEARING!**

In modernizing hotels, apartment houses, schools, hospitals—you face problems of many kinds. One way to make these buildings more useful, more completely modern is to provide for *building-wide hearing*—via Program Distribution System.

This Western Electric equipment picks up sound (speech or music)—amplifies it as desired—distributes it through loud speakers. Program source may be microphones, a Reproducer Set for playing phonograph records, or a Radio

Receiver. Uses are many and varied—reproduction is always clear and natural.

Also to be considered is the Radio Frequency Distribution System. Using only *one antenna*, this System provides antenna and lead-in facilities for as many as 3000 radios, assures highest quality reception.

Graybar's sound transmission experts will gladly assist you in planning installations to meet specific needs. Why not send the coupon for full information?

Western Electric

PROGRAM DISTRIBUTION AND PUBLIC ADDRESS SYSTEMS

Distributed by GRAYBAR Electric Company



GRAYBAR ELECTRIC CO. AA-3-34

Graybar Building, New York, N. Y.

Gentlemen: Please send me complete information on:

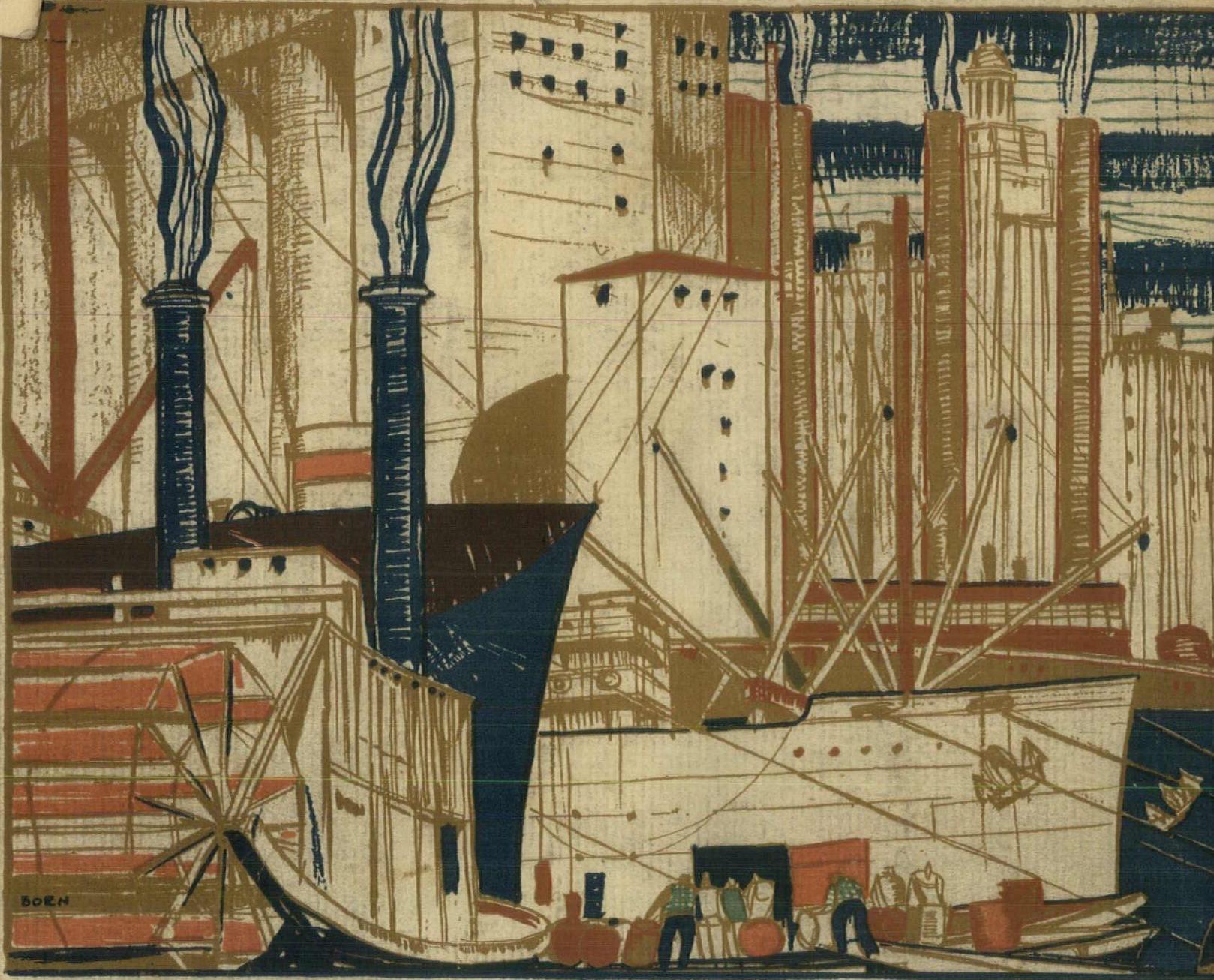
Western Electric Program Distribution System

Western Electric Radio Frequency Distribution System

NAME.....

ADDRESS.....

CITY..... STATE.....



FOUNDED 1876

AMERICAN ARCHITECT