ARCHITECTURAL FORUM

MARCH 1938

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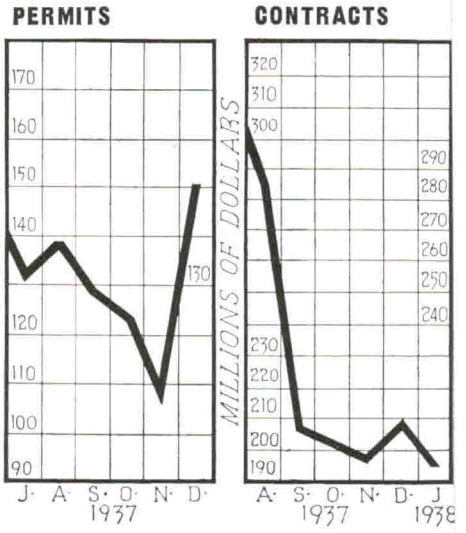
VOLUME 68—NUMBER THREE

THE MONTH IN BUILDING

VOLUME

PERMITS (December)...$150,573,355		CONTRACTS (January)..$195,472,000	
Residential	63,692,062	Residential	36,207,000
Non-residential	59,902,207	Non-residential	57,448,000
Additions	26,979,086	Heavy engineering	101,817,000
November, 1937	105,769,879	December, 1937	209,452,000
December, 1936	121,099,905	January, 1937	242,719,000
Permits from Dept. of Labor		Contracts from F. W. Dodge Corp.	



Permits issued during December 1937 amounted to $150,573,355, registered a contra-seasonal increase of 42 per cent over the November figure, a 24 per cent increase over that of December 1936. Encouraging is the fact that permits at year's end were highest since the heydays of the preceding April. Most important factor was the rise in the non-residential classification, where the December dollar volume was larger than in any other 1937 month, was almost double that of November.

The trend of contracts was not so encouraging. The January 1938 total of $195,472,000 was 7 per cent below that of December, 19 per cent below that of January of last year. Largest month-to-month individual decrease, about 43 per cent, occurred in the non-residential group. Since late summer the volume of contracts has fluctuated around the $200,000,000 level, but not since February 1937 has it dropped as low as in January.

NHA AMENDED. On February 3 President Roosevelt affixed his signature to the Wagner-Steagall amendments to the National Housing Act,* designed to put the spurs to building recovery in particular, to business recovery in general. During their course through two sessions of Congress, extraordinary and ordinary, the amendments themselves were amended (page 259). Out of the final draft was the Lodge prevailing wage clause; in were the following new provisions:

¶FHA insured mortgages on houses costing $10,000 or less may run for 25 years.

¶The basic 5 per cent interest rate on FHA mortgages may be raised in certain localities and at the discretion of the Administrator to 6 per cent.

¶Eligible for insurance are mortgages covering new farmhouses and other farm buildings, provided that at least 15 per cent of the mortgage funds are to be spent for materials and labor.

¶The FHA's revolving fund may be increased at the President's discretion from $2 billion to $3 billion, but no mortgages may be insured after July 1, 1939.

¶In the event of mortgage foreclosure, the FHA may take over the management of the property, issue 3 per cent debentures to the mortgagee.

¶Large scale housing to be eligible for insurance is limited in the amount of the mortgage to $1,350 per room.

¶Middle size housing projects must consist of apartment houses or groups of not less than ten single-family houses, and the amount of the mortgage must not be more than $1,150 per room.

¶Under Title I, providing for insurance of loans for repairs, alterations and additions, mortgages up to $2,500 for new construction are eligible for insurance.

Coincident with the amendments' passage FHAdministrator Stewart McDonald announced that he had accepted up to February 1 under the former law 265,000 mortgages for insurance totaling $1,075,000,000, had encountered a net loss of only $10,000. Monthly income from the accepted mortgages is $600,000, is being used in part to create an insurance fund which currently exceeds $22,000,000.

MBA SURVEYS. Late last year the Mortgage Bankers Association of America put two questions to its members in 68 leading cities: 1) Do you expect an increase in rents? 2) Do you expect a decrease in construction? Answers to both were bearish for Building.

As to rents, results of the survey show that 65 per cent of the replying members anticipate no increases in 1938 for single-family houses, 64 per cent anticipate none for apartments and 77 per cent anticipate none for office space. Strongest predictions against a rise in rents were voiced in the Far West, Mountain and Southern States. Although the majority of the Association's Eastern members expect no advance, their returns were less conclusive than the others.

According to 72 per cent of the people who answered the second question, the trend of all new construction during 1938 will be downward, and a similar percentage believes that new residential building will also decline. Consensus was that the construction figures for residential work would be 16 to 25 per cent below those of 1937. Hopefully, the MBA points out that its sampling took place last December when business blues were bluest, that "by April 1 . . . these statistics may look ridiculous."

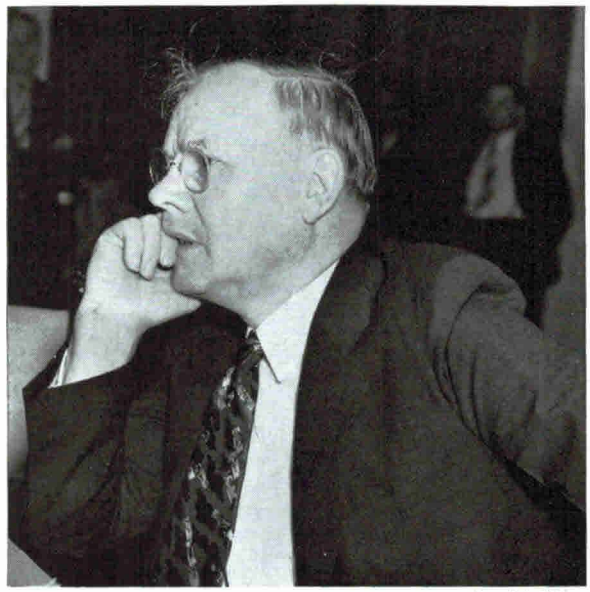
REVIEW BY NAREB. Perhaps those who are rubbed the wrong way by the pessimistic predictions of the mortgage bankers will find relief in what the realtors have to say. Conflicting with the MBA's outlook for rents and new construction (col. 2), is the 30th semi-annual survey of the real estate market conducted by the National Association of Real Estate Boards, indicating that a healthy condition underlies the factors which make for advance. Local boards in 260 cities reported: 1) that sales prices in 1937 advanced, 2) that rents advanced, 3) that the supply of capital for real estate investment was in excess of demand and 4) that interest rates on mortgage money continued steady to slightly lower.

The general business recession has applied the brakes to real estate activity to the extent that in a majority of cities it is notably less than a year ago, but sales prices for real estate remain predominantly higher. Thus, 56 per cent of the reporting cities stated that the price increase was 10 per cent over the 1936 level; one out of ten stated it was as high as 15 per cent. Returns showed that an under supply of single-family and apartment dwellings existed in about half the cities, that the need for new construction was a little less than that indicated in the 1936 survey.

Most encouraging for builders was the NAREB's proof that 1937 rents were on the upswing. For heated apartments they were 10 per cent higher than a year ago in almost half of the cities, 5 per cent higher in a third and as much as 15 per cent higher in others. In the case of detached houses rental increases were found to be similar in amount and distribution to those for apartments. In neither category were there any decreases of more than 10 per cent.

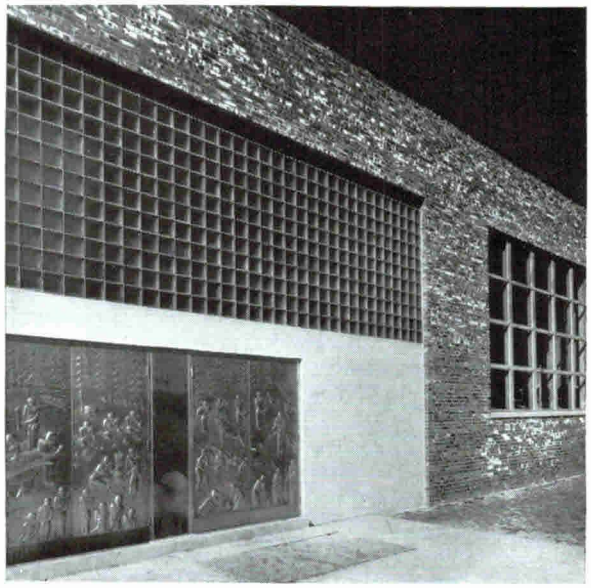
Further paving the way for Realty's ad-

*Analysis of the National Housing Act amendments, as originally proposed in the extraordinary session of Congress, was presented in the January FORUM, page 103 et seq. This month THE FORUM analyzes the changes incorporated in those amendments, page 259.



Associated Press

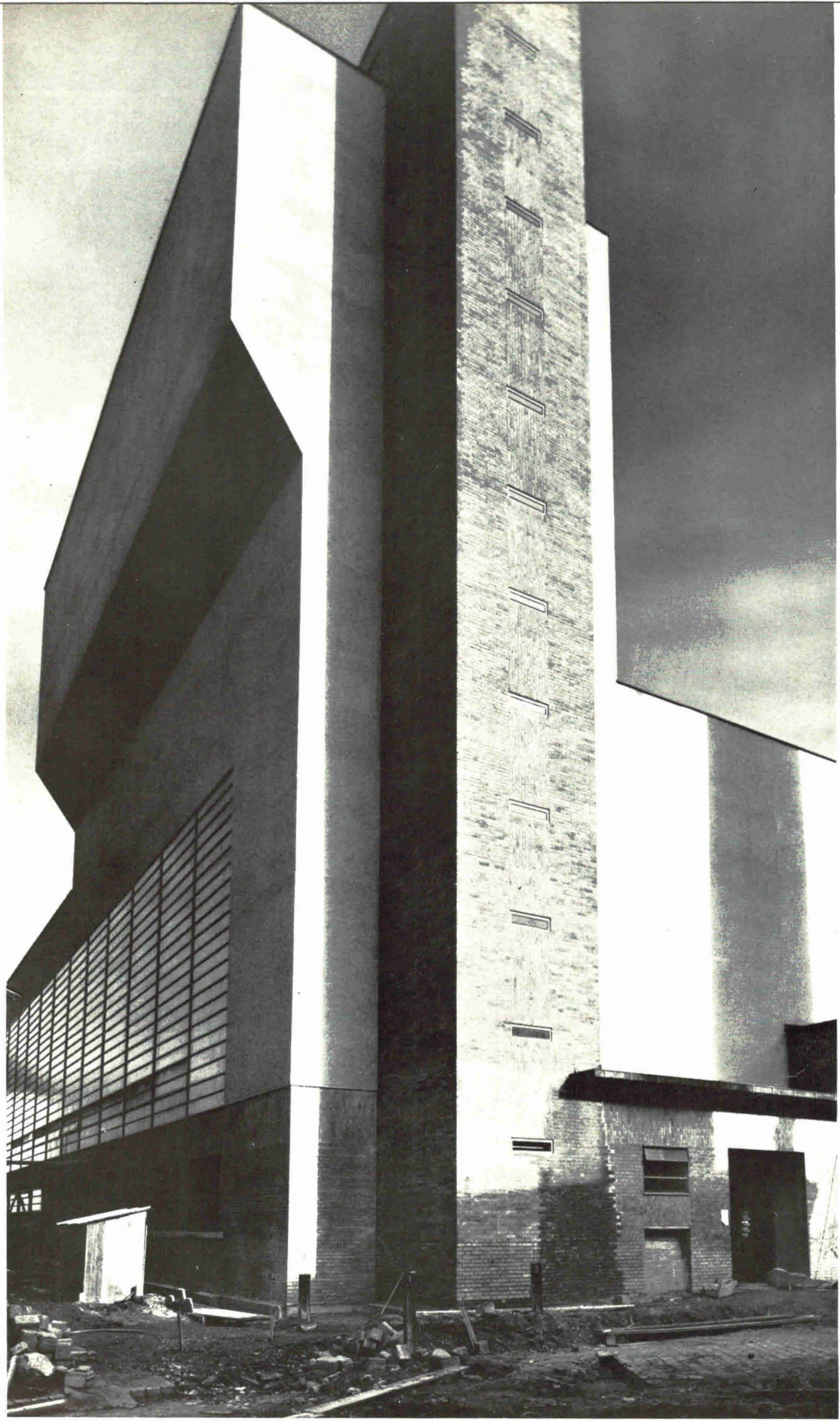
MAN OF THE MONTH ... To Green's pastures goes egg rolling (page 207)



Damora

BUILDING OF THE MONTH ... The three R's a la Kastner (page 227)

PRODUCT OF THE MONTH ... The kilowatt route to sales (page 18)

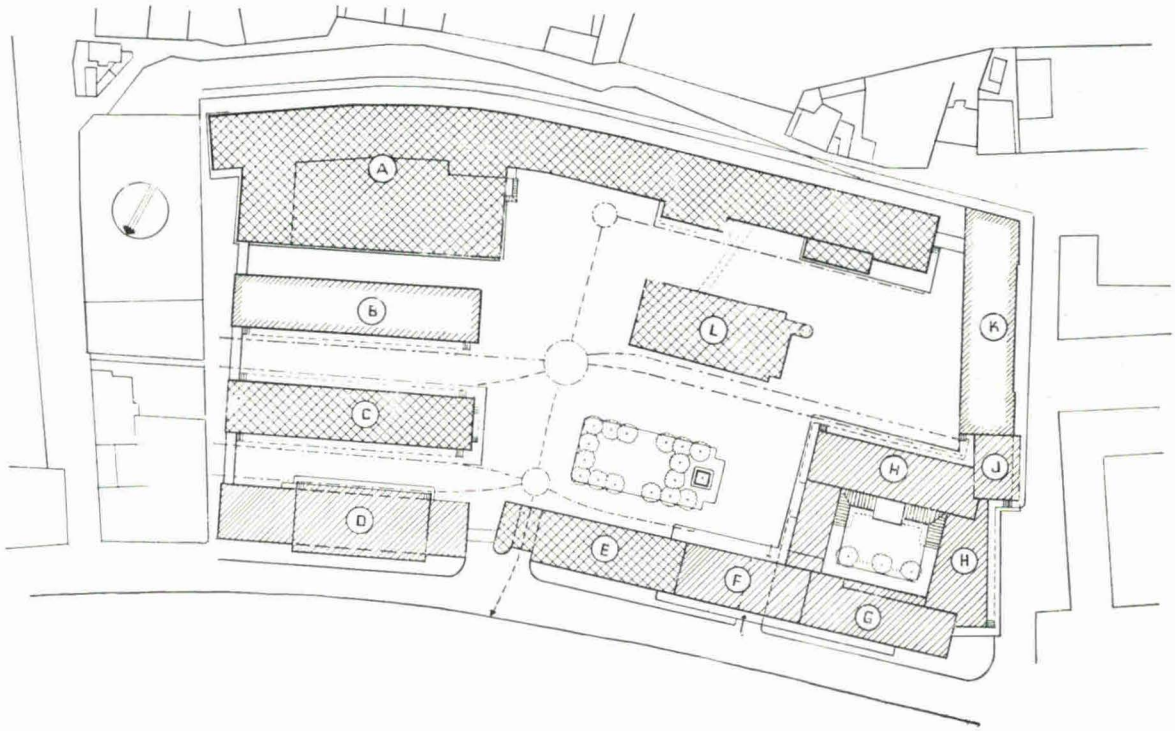


POWER
HOUSE

AUSTRIAN STATE TOBACCO FACTORY

LINZ, AUSTRIA

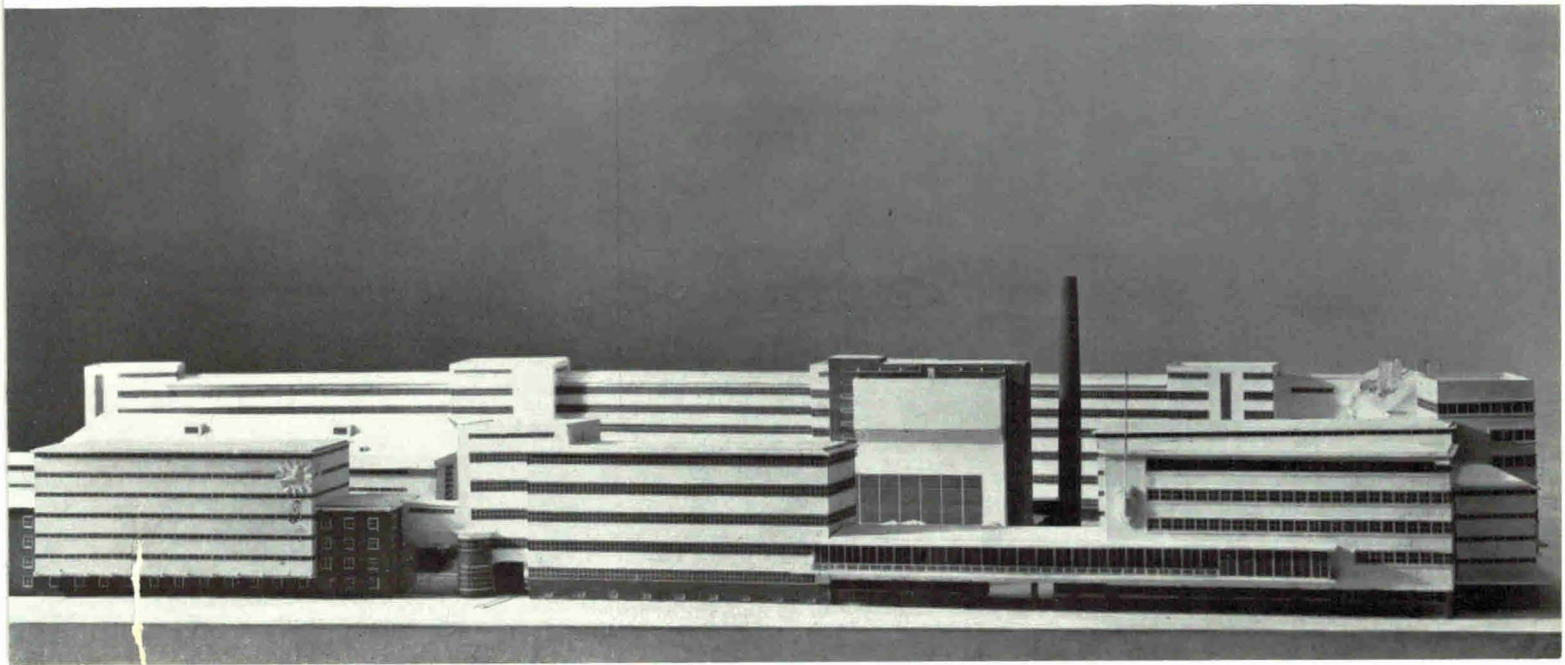
PETER BEHRENS AND ALEXANDER POPP, ARCHITECTS



A CIGARETTE PLANT
B WAREHOUSE (old)
C WAREHOUSE
D WAREHOUSE (future)
E PIPE TOBACCO PLANT
F RECEPTION UNIT (future)
G ADMINISTRATION (future)
H RETAIL WAREHOUSE (future)
J WELFARE BUILDING (future)
K WORKSHOP (old)
L HEATING AND POWER PLANT

MODEL NORTH ELEVATION

J. Scherb Photos

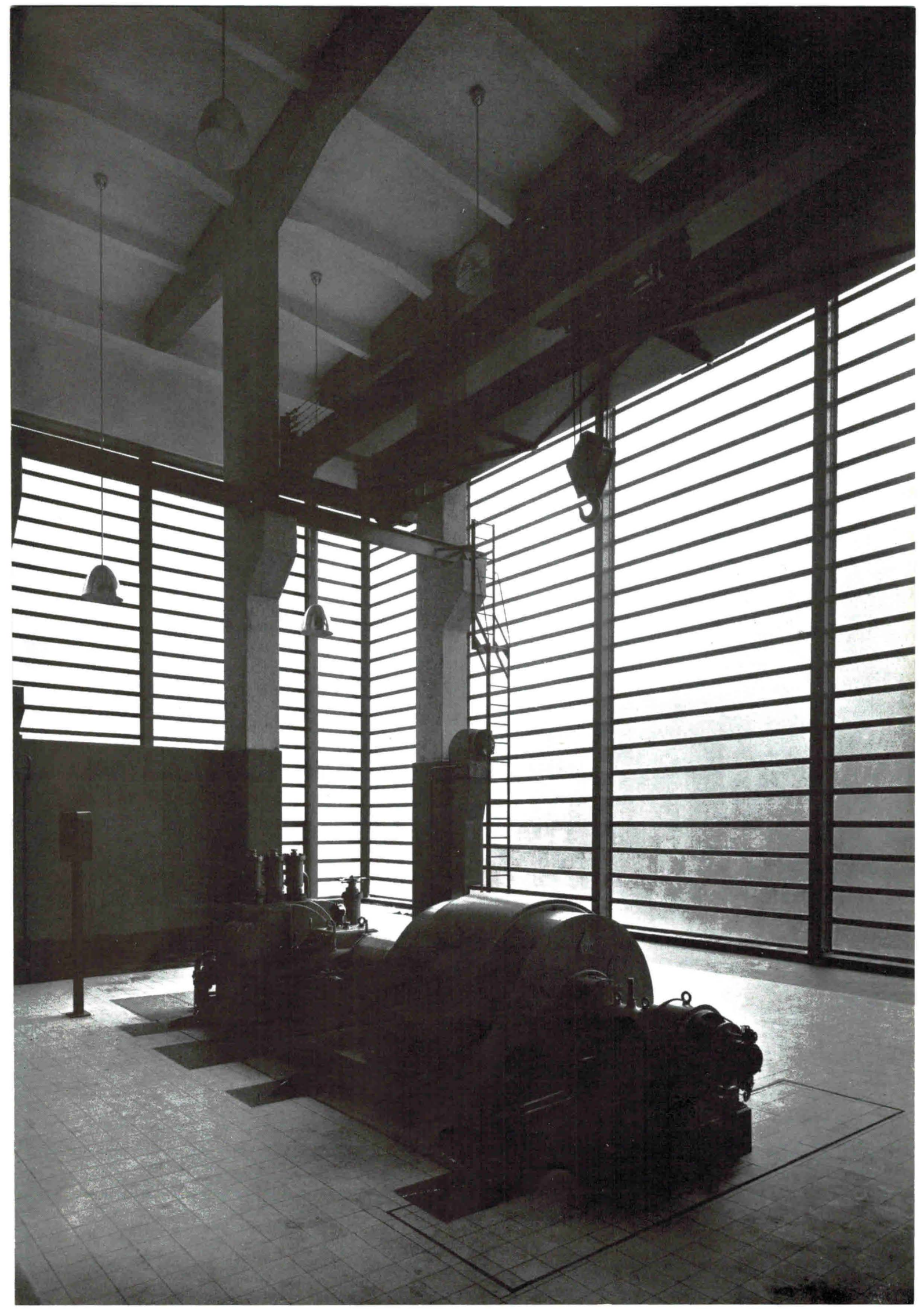


AUSTRIAN STATE TOBACCO FACTORY

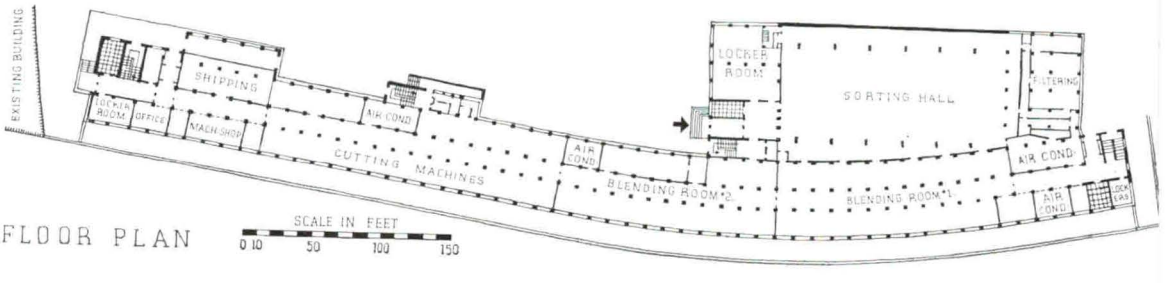
NORTH ENTRANCE

Tobacco has been a government monopoly in Austria since 1784. When most of the state factories were lost after 1918, the factory at Linz gained considerable importance, and was extensively remodeled to meet the increased demands on it. Recently a number of additions were made, including a new cigarette factory, a warehouse, a unit for pipe tobacco, and a power house; these, with the projected structures, completely dwarf the old establishment. Illustrated at the right and on page 192, the power house is a distinguished example of the consummate ability with which the best European industrial architects handle purely utilitarian forms. The interior of the cigarette factory on page 199 is another instance of this brilliant treatment of structural elements and equipment. Most complex of the units is the plant for cigarettes, a steel frame structure with a facing of hollow brick backed by two inches of cork, and an air conditioning system which keeps the air at the proper humidity. Materials in the interior have been selected for permanence and ease of upkeep, with tile used extensively on both walls and floors.

OPPOSITE, POWER HOUSE



CIGARETTE FACTORY

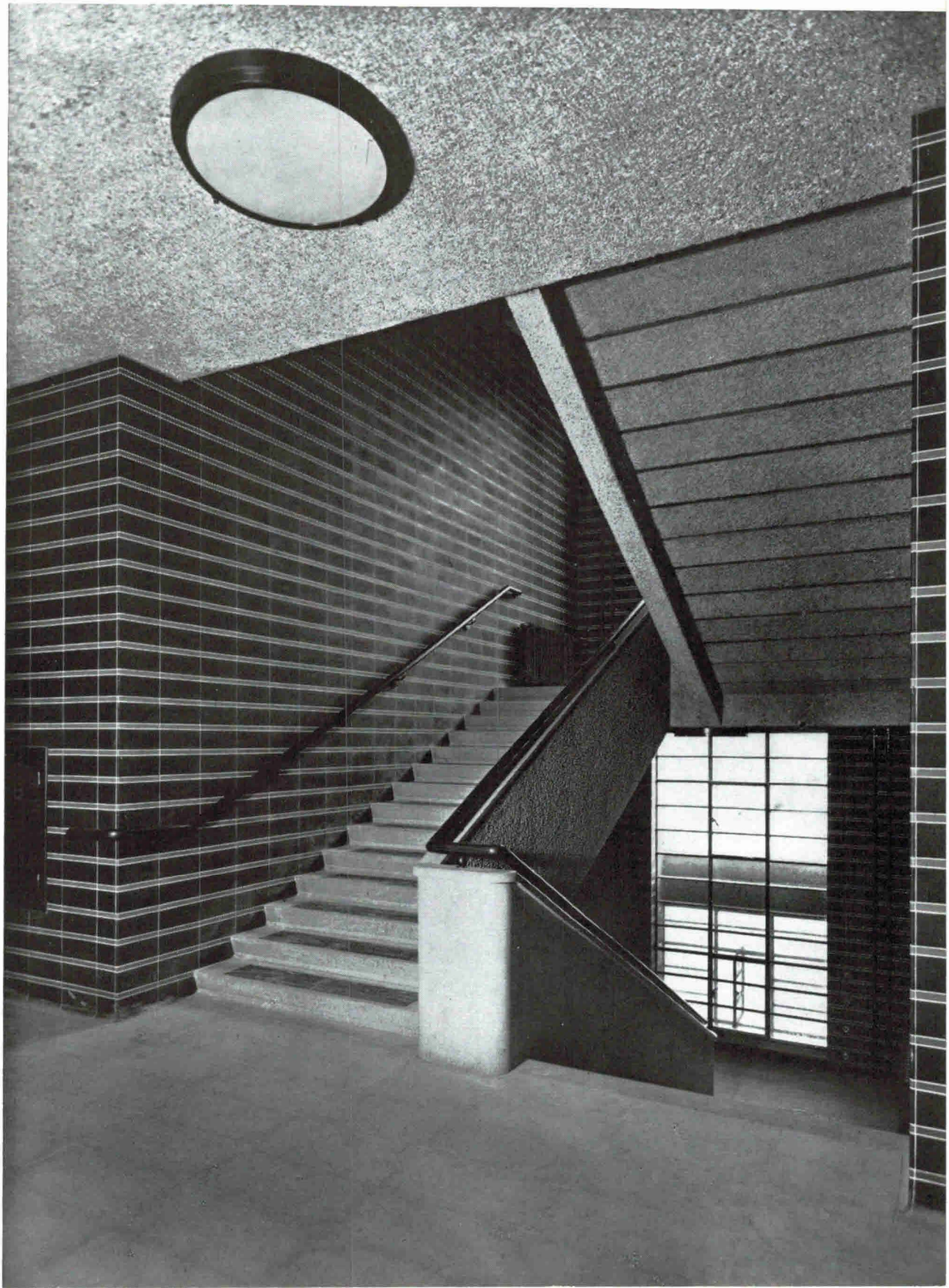


FLOOR PLAN

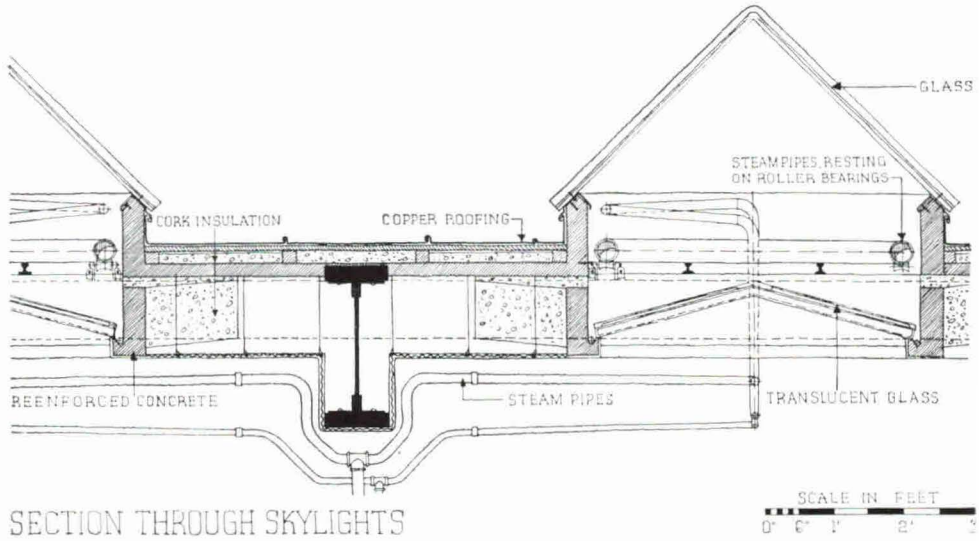
AUSTRIAN STATE TOBACCO FACTORY, LINZ, AUSTRIA

PETER BEHRENS AND ALEXANDER POPP, ARCHITECTS

DETAIL OF STAIR

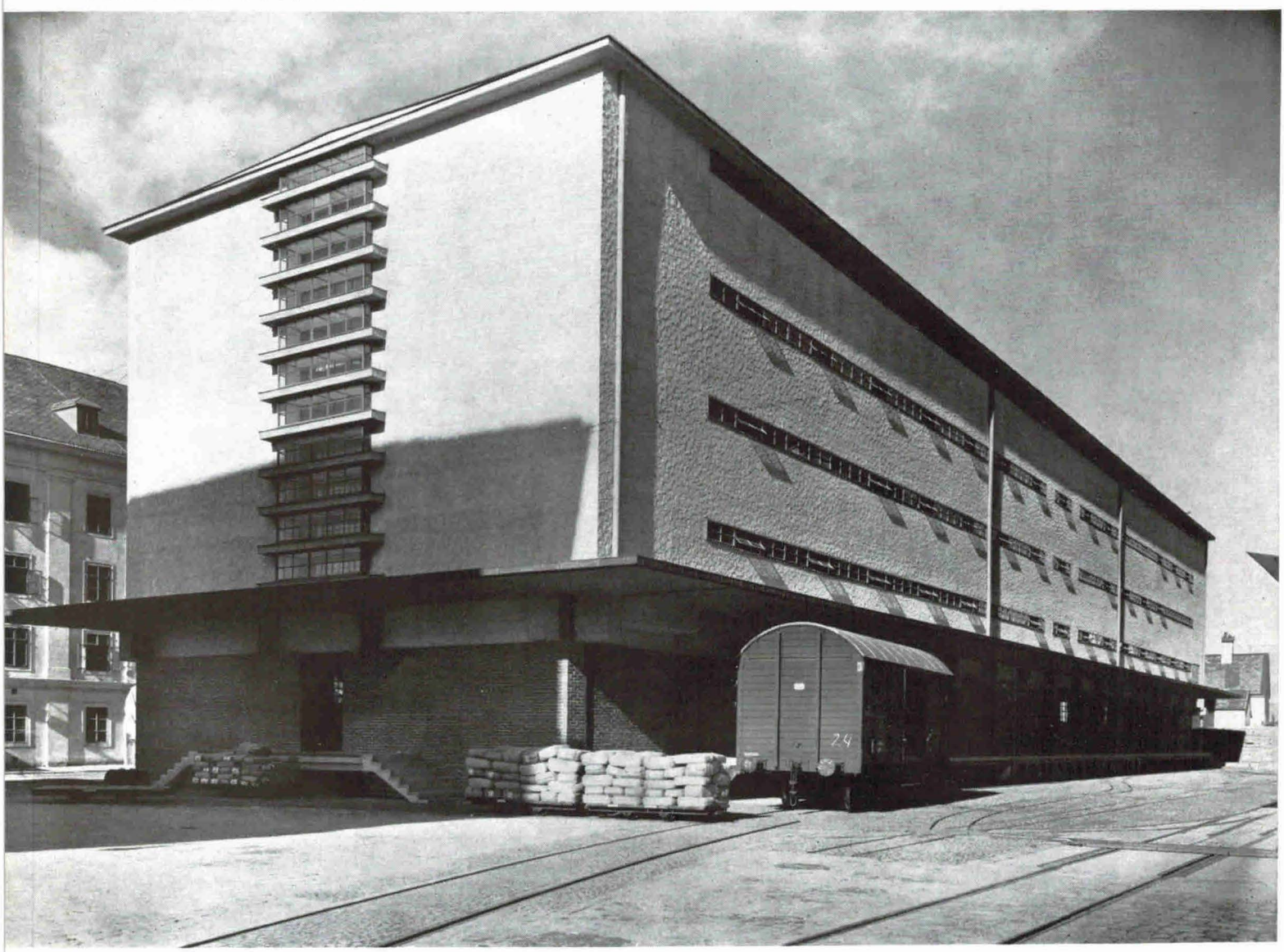


AUSTRIAN STATE TOBACCO FACTORY



SECTION THROUGH SKYLIGHTS

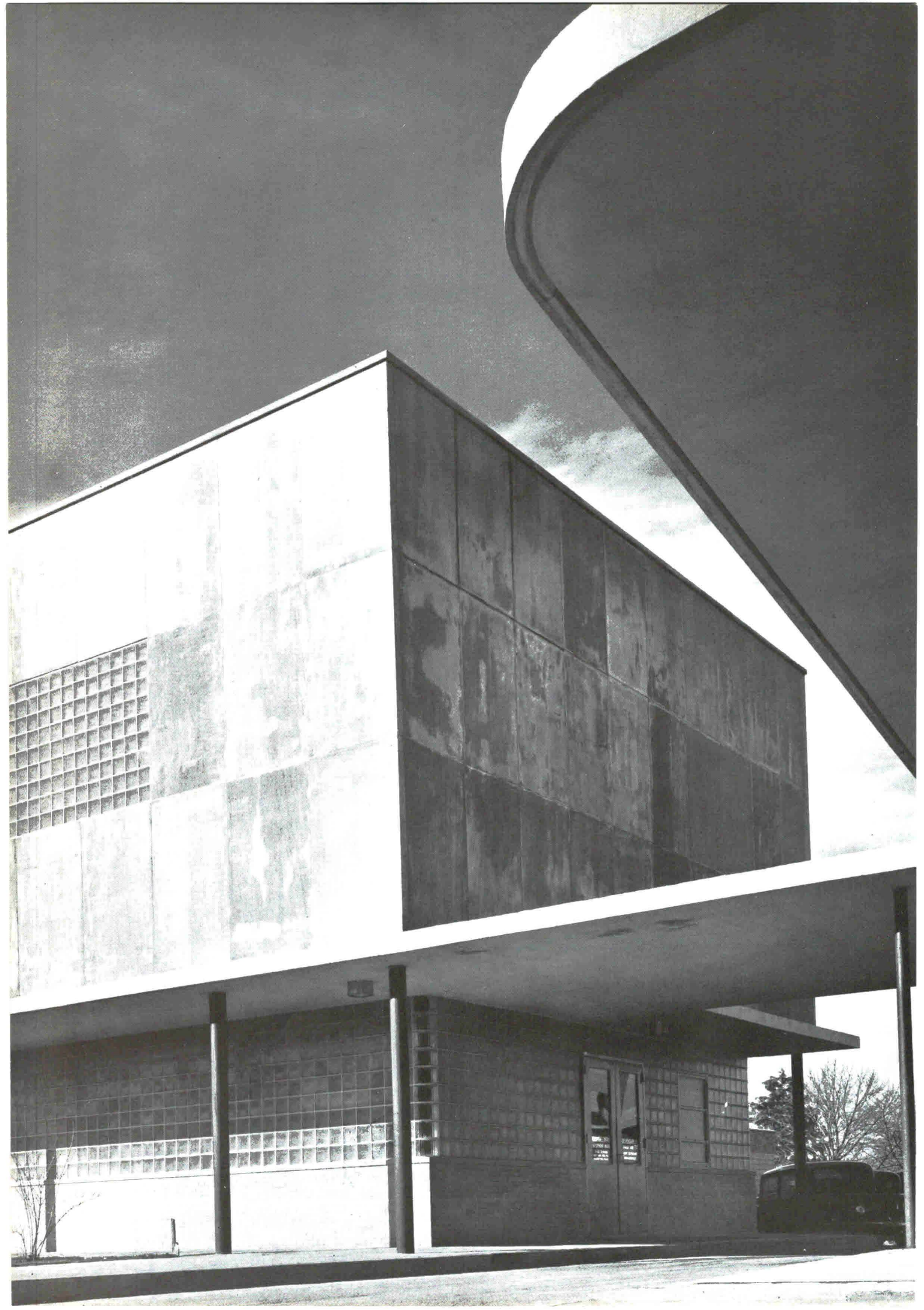
TOBACCO STOREHOUSE



PETER BEHRENS
ALEXANDER POPP,
ARCHITECTS

WASHROOM

SORTING HALL
CIGARETTE FACTORY



OFFICE BUILDING FOR KIMBLE GLASS CO.

VINELAND, NEW JERSEY

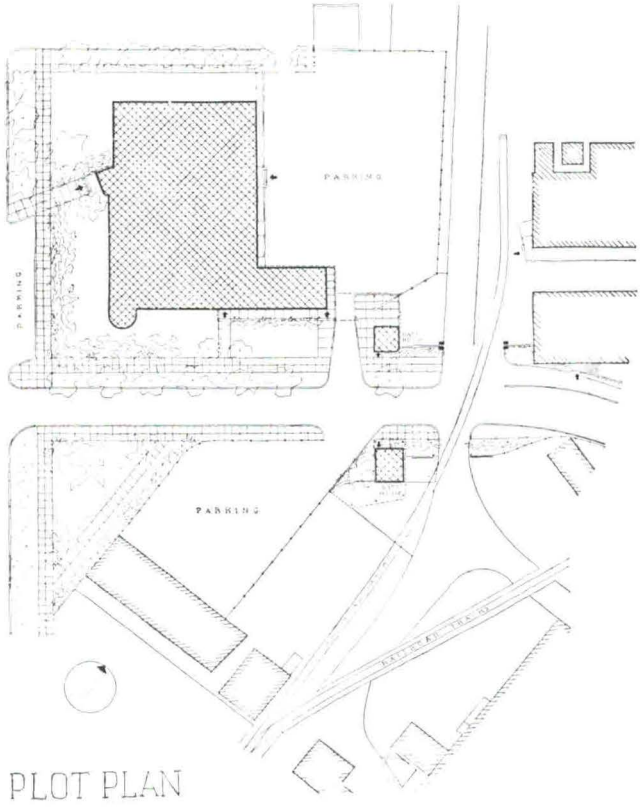
WILLIAM LESCAZE, ARCHITECT

Nyholm Photos

FROM the striking and excellently handled entrance gate for this New Jersey glass plant—as symbolic of our industrial age as the portcullis was of feudal times—to the trade-marked public entrance shown on the following page, the problem and its solution are realistic; realistic, too, is the use of limestone facing slabs and glass block. The office building serves a plant which manufactures bottles, vials, glass rods, and a number of miscellaneous small items. The requirements called for space for a fairly large clerical staff, offices for executives,

OFFICE KIMBLE GLASS CO.

WILLIAM LESCAZE, ARCHITECT

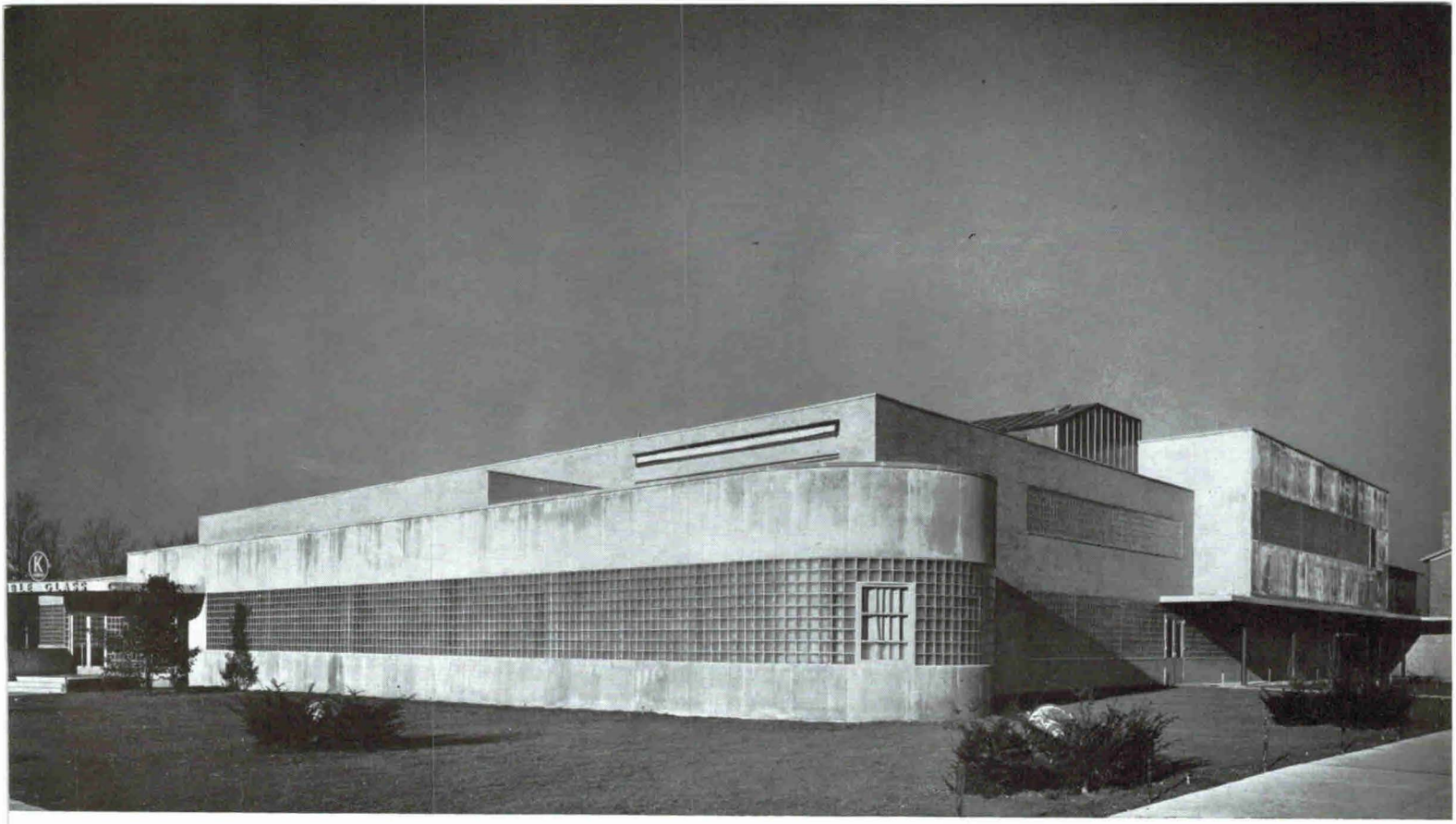


PLOT PLAN

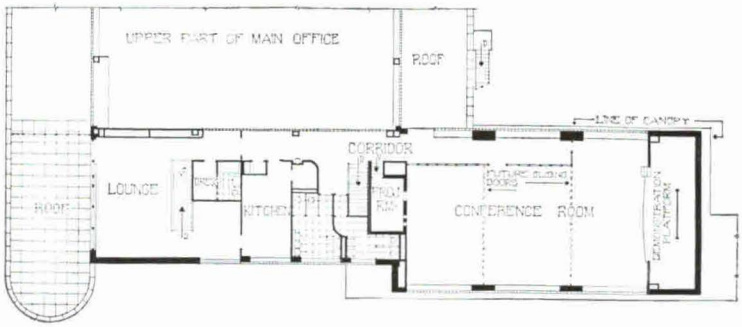
ENTRANCE

VIEW FROM EAST

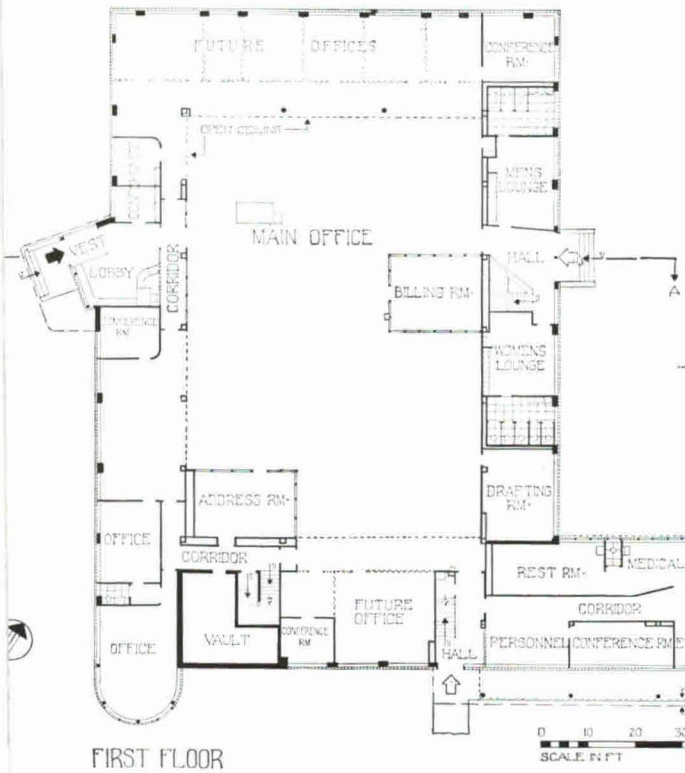
and rooms for various services. The main masses of the building grow—as they should—directly out of its well-organized plan: the central, clerestoried, general office space; the peripheral private offices and rest rooms; the projecting wing devoted to employe welfare, with conference room and auditorium above. The interiors are of particular interest, as the architect had the opportunity of controlling the design, and of selecting or designing the furnishings. Most unusual in its form is the large clerical space, shown on page 204. This room reverses the customary ceiling treatment by the use of an inverted truss, a procedure adopted to better re-direct the light from the clerestory windows. The "spine" down the middle, sharply accenting the form, contains the air conditioning ducts. Thus once again is aptly demonstrated the fact that this fundamental architectural principle—form follows function—means much more than a stylized skin-treatment, and does lead—when properly understood—to contemporary and beautiful forms.



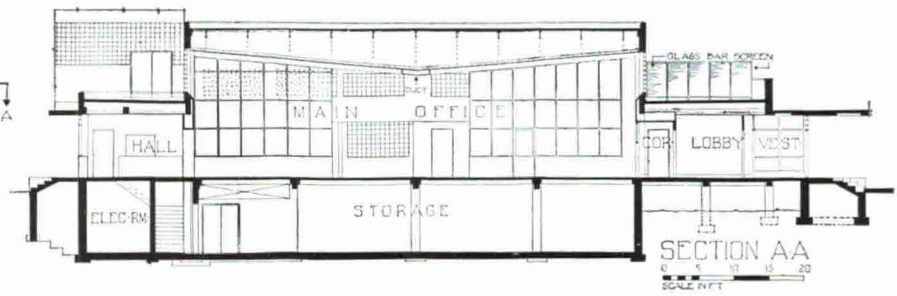
VIEW FROM SOUTH



SECOND FLOOR



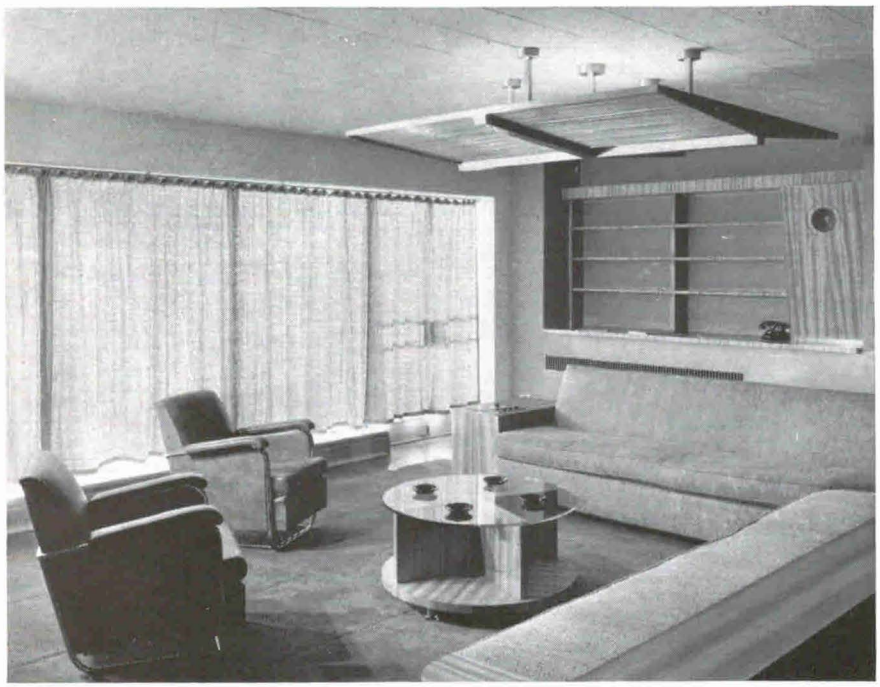
FIRST FLOOR



OFFICE KIMBLE GLASS CO.

WILLIAM LESCAZE, ARCHITECT

EXECUTIVE OFFICE



LOUNGE

MAIN OFFICE

CONSTRUCTION OUTLINE

STRUCTURAL ENGINEER: Elroyer E. Seelys
MECHANICAL ENGINEER: Leslie Hart.
BUILDERS: Frank J. Larkin Constr. Co.

STRUCTURE

Exterior walls for entrance, executive portion and auditorium—faced with limestone; other portions—brick, Glen Gerry Brick Co. backed with back-up tile, furring strips and plaster. Interior partitions—tile and plaster. Floor construction: First—concrete pan. Second—steel beam and concrete arch.

ROOF

Construction—steel beam with U. S. Gypsum Co. roof and deck, covered with The Carey Co. built-up roofing. Deck—covered with tile on concrete.

SHEET METAL WORK

Flashing—copper.

INSULATION

Roof—4 in. glass wool, Red Top, U. S. Gypsum Co. Sound insulation for ceilings—Accoustone U. S. Gypsum Co.

WINDOWS

Sash—steel casement, Hope's Windows, Inc. Glass blocks—Owens-Illinois Glass Co. Plate glass—Pittsburgh Plate Glass Co.

FLOORS

Main office—Masonite, Masonite Co. Washroom—tile, Starter Ceramic Co. Entrance lobby and auditorium—rubber.

FLOOR COVERINGS

Second floor lounge—Carpet, Mohawk Carpet Mills, Inc.

WALL COVERINGS

Washrooms—structural glass in small panels Pittsburgh Plate Glass Co.

WOODWORK

Shelving and cabinets—special. Doors—hollow metal, Dahlstrom Metallic Door Co.

HARDWARE

Interior and exterior—special, Schlage Lock Co.

PAINTING

All paint by Fraser Paint Co.

ELECTRICAL INSTALLATION

Switches—Bryant Electric Co. Fixtures—direct Holophane Co. and some specially made with products of the Kimble Glass Co. from design by the architect.

KITCHEN EQUIPMENT

Sink—Crane Co. Cabinet—Excel Metal Cabinet Co.

PLUMBING

All Fixtures by Crane Co.

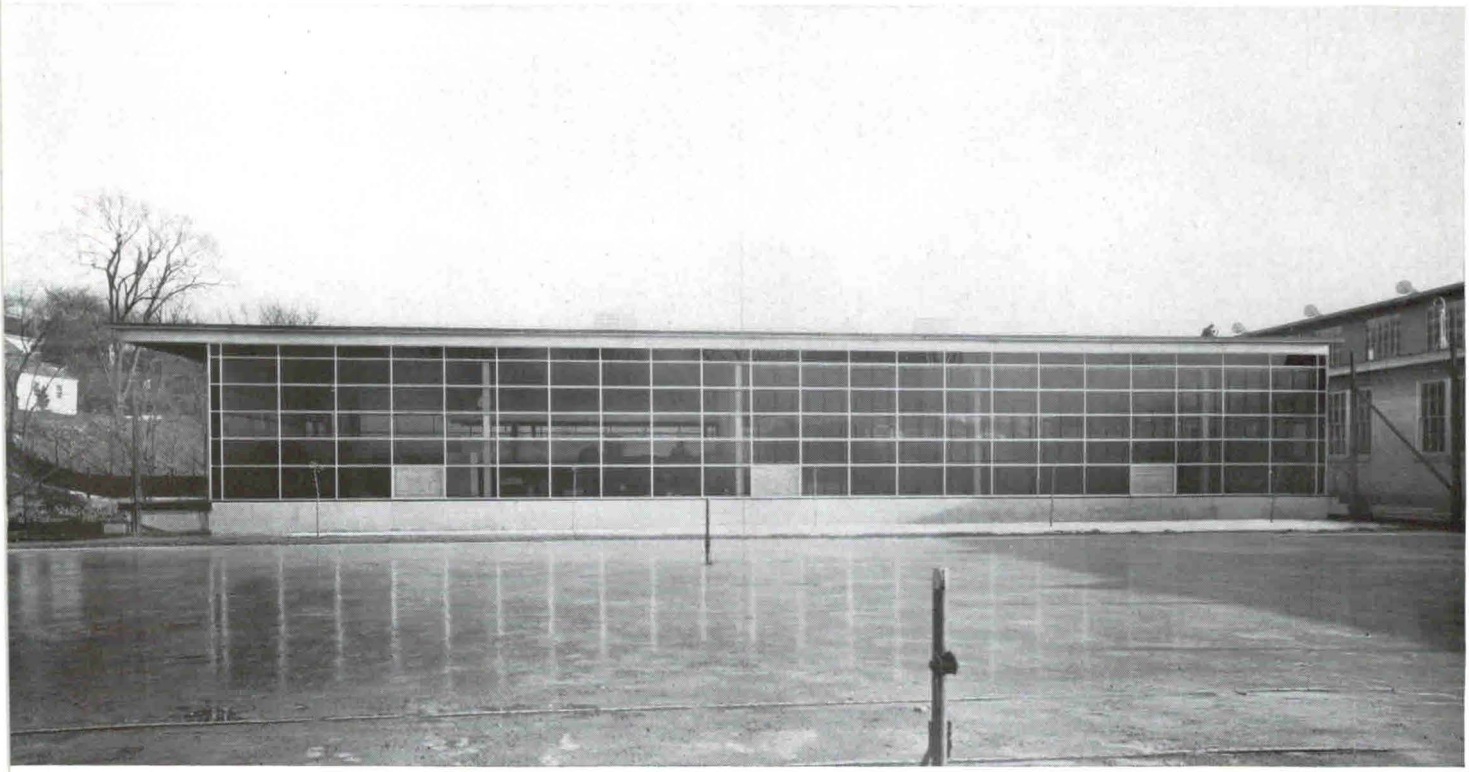
HEATING AND AIR CONDITIONING

All year air conditioning plant. Fans, American Blower Co.; heating and cooling coil, Aerofin Corp.; air filters and insulation, Owens-Illinois Glass Co.; temperature control, Minneapolis Honeywell Regulator Co.; valves, Crane Co. conductors, American Radiator Co.

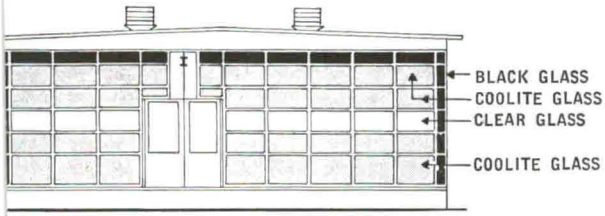
Steam from company's plant. Radiators—American Radiator Co. Control valves—Crane Co. Thermostat—Minneapolis Honeywell Regulator

LABORATORY FOR W. H. NICHOLS, WALTHAM, MASS.

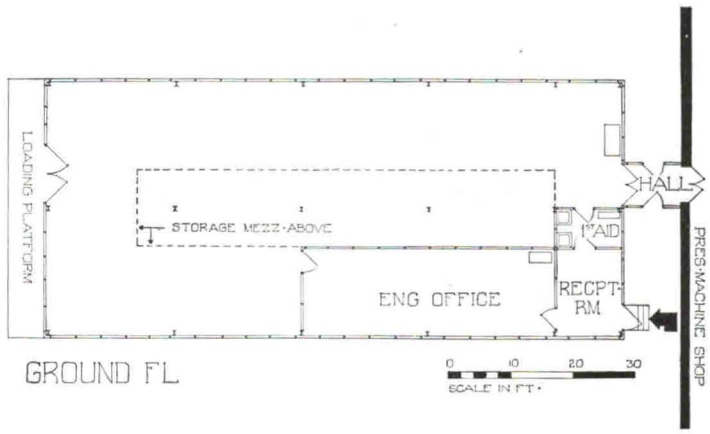
ALBERT J. DANIELS, ENGINEERS



Commercial Photo Service



IDE ELEVATION



GROUND FL

ONSTRUCTION OUTLINE

UNDATIONS: Footings and walls—reen-ced concrete.

RUCTURE: Exterior walls and interior titions—vertical members of 1½ x 2½ in. el tubing, 4 ft. on center, Phoenix Steel Co. rizontal members and caps over exterior ubing—extruded aluminum, H. H. Robert- Co. The first, second, fourth and fifth hts are of Coolite ribbed ¼ in. glass, sissippi Glass Co. The third light is clear in. glass and the top light is black rara glass, Pittsburgh Plate Glass Co. All ss set in gaskets.

OF: Construction—V-Beam Robertson Pro-ed Metal roof deck of aluminum finish, H. Robertson Co., covered with two ½ in. ers of insulation, 5-ply asphalt felt, fin-d with gravel, Philip Carey Co.

EET METAL WORK: Flashing and gut-—copper.

FLOORS: Concrete on gravel fill with wood block finish, Southern Wood Preserving Co.

DOORS: Steel, flush panel type, of special design.

HARDWARE: All locks—P. & F. Corbin.

PAINTING: Interior—all structural steel and V-Beam ceiling painted with Dulux aluminum paint, E. I. Du Pont de Nemours Corp.

LIGHTING FIXTURES: All fixtures by Holophane Co., Inc.

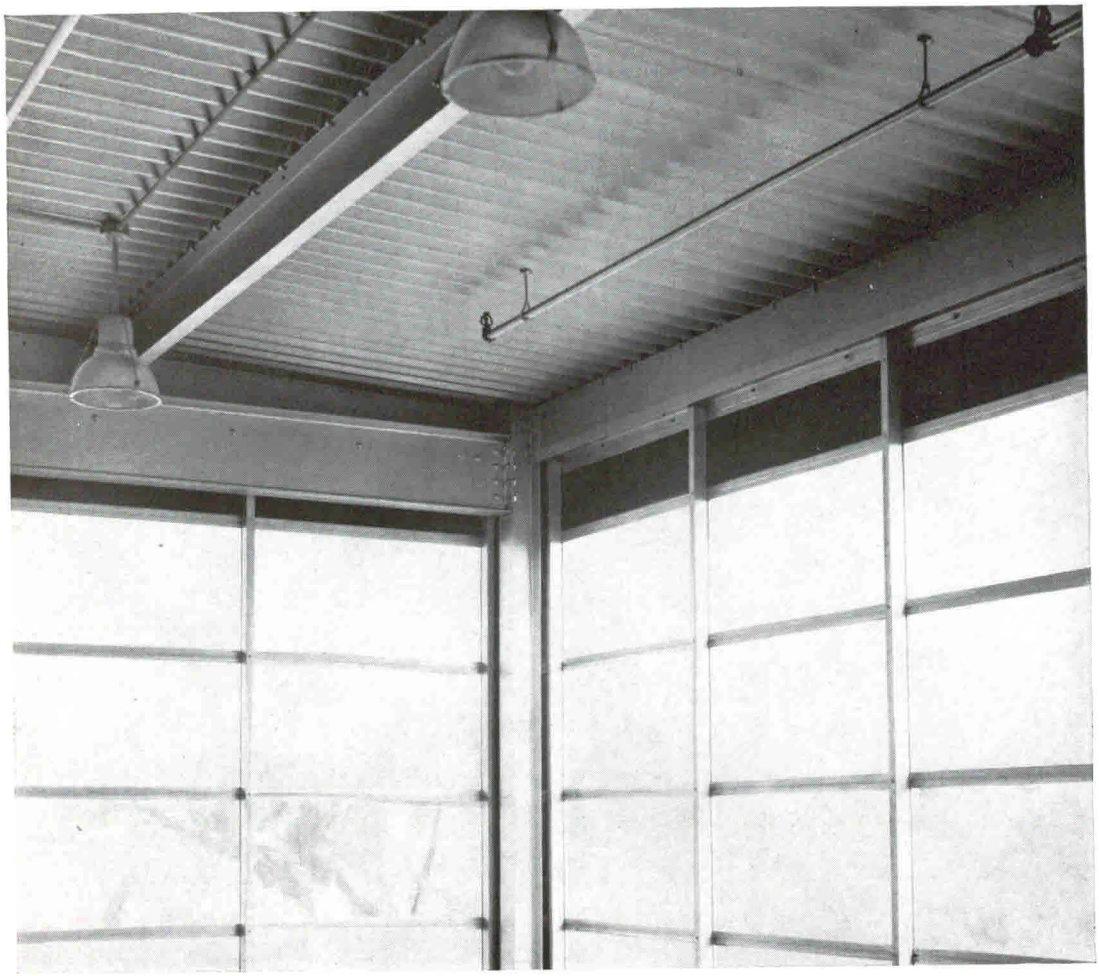
PLUMBING: All fixtures by Humphreys Mfg. Co. Pipes: Soil—standard cast iron. Water pipes—copper. Hot Water heater—10 gallon, General Electric Co.

HEATING AND AIR CONDITIONING: Return air type unit heater, Carrier Corp. Boiler—American Radiator Co. Oil burner—Type C, May Oil Burner Co. Thermostats—Minneapolis-Honeywell Regulator Co. Ventilators—H. H. Robertson Co.

The straightforward simplicity of this laboratory extension to a New England manufacturing plant is largely due to the skillful design of its glass enclosing walls, an unique combination of steel tubing, extruded aluminum glazing bars, and three kinds of glass: diffusing, heat-absorbing glass for the main body of the walls; clear plate at eye-level; and opaque black over structural members. Ventilator intakes, where required, are louver panels set in the frame in the same manner as the glass. The entire struc-

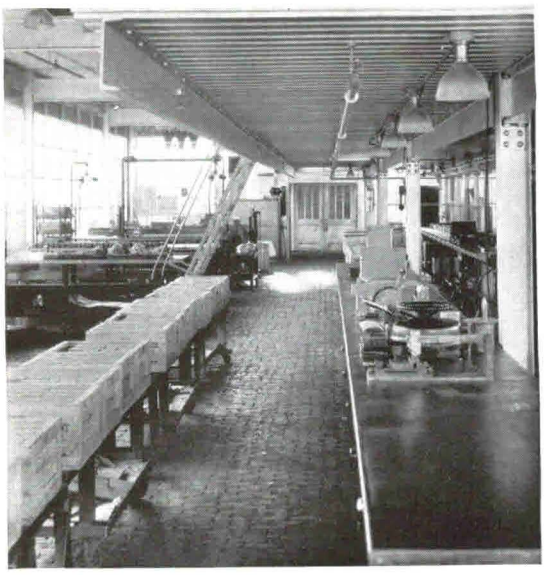
LABORATORY FOR W. H. NICHOLS, WALTHAM, MASS.

ALBERT J. DANIELS, ENGINEERS



ture is demountable, being merely bolted together, and this, together with the exclusive use of metals and glass in identically sized units throughout, means maximum flexibility and unusually high salvage value—important considerations in industrial structures of this type.

WORK SPACE



RECEPTION ROOM

THE GUARANTEED WAGE

. . . New Deal's latest palliative ricochets off Labor with A. F. of L. Green's retort . . . "Our people are practical people" . . . In the background looms the Jurisdictional strike . . .

SINCE the beginnings of the Recession, President Roosevelt has been casting Building as one of its major villains. Last November he singled it out for special mention to the extraordinary session: Building, he said, had been the keystone of recovery—but rising costs had checked its revival at the outset.

That he planned to do something about it was soon demonstrated. On the materials front, the Federal Trade Commission pursued a vigorous cease-and-desist campaign against monopoly prices in the cement, glass, and metal casement industries. On the finance front, the FHA was amended to permit lower down payments, encourage lower money charges. And finally, the President himself entered the fray with a proposal for lowering the costs of building labor.

Proposing to lower labor's cost is an extremely ticklish business, and the President knew it. Broadly speaking, there are two reasons for the fact that building labor costs more than any comparable type of work. The first is that the building laborer is lucky to average 125 work days a year, and must therefore get a high daily rate to make up for the days he is idle. The second is that, for reasons to be examined presently, the building trades are liable to the arrogant wastages of the jurisdictional strike which runs up untold bills in overhead, upsets schedules.

President Roosevelt aimed his first gun at high labor rates—the high daily wage. Addressing himself to Congress last November 30 he wrote: "The success of [Building's] drive will depend ultimately on the willingness of industry and labor to cooperate in putting housing costs within the reach of the mass of the people." Three months later in a press conference he gave this point added weight when he specifically exempted the building trades from his admonition that high wages were a necessary condition of recovery: in building, he thought, wages could well come down a bit. That the New Deal President should voice such an opinion to Labor seemed incredible unless he had some face-saving ace up his sleeve. Which is precisely what he believed he has. The ace is the so-called "guaranteed annual wage," a scheme which inspired sources close to the President had already begun to propose and expound.

A YEAR'S PAY FOR A YEAR'S WORK

In theory the guaranteed annual wage is simplicity itself. John Carpenter now manages to find 120 days of work a year at $10 a day, earns $1,200 a year. In consideration of a *guarantee* of twice as much work a year—200 days—let him agree to accept an *annual* wage of $1,600. This would mean a reduction in his daily wage of one-third to $6.67, but increase in his annual income by $400. Thus the labor costs on a house

GUARANTEED WAGE SURVEY

CITY	LABOR UNIONS	CONTRACTORS
CINCINNATI	would consider	not discussed
LOUISVILLE	in favor	not formally discussed
DENVER	no information	no discussion
MEMPHIS	no consideration as yet, probable resistance	never suggested
BOSTON	no information	not formally discussed
PHILADELPHIA	impractical idea	generally unknown
HARTFORD	ready to discuss	far from minds, good but too ideal
ST. LOUIS	opposed, desirable but impractical	not discussed
PITTSBURGH	no information	no discussion
NEW ORLEANS	no information	no information
HOUSTON	impossible idea, undesirable	not considered
KANSAS CITY, MO.	do not want it	some discussion, no conclusion
PORTLAND, ORE.	won't consider now	won't consider now
BALTIMORE	won't consider until policy is adopted	no information, can't afford
BUFFALO	individuals for and against it	no discussion
CHICAGO	no information	informal discussion
DETROIT	no information, unions are weak	informal discussion
MILWAUKEE	impractical idea	impractical idea
MINNEAPOLIS, ST. PAUL	against it	no serious thought
MIAMI	no action taken, none anticipated, impractical	not discussed
SEATTLE	in favor	discussed
LOS ANGELES	like the idea, think it impossible	discussion indicated
SAN FRANCISCO	probably won't allow it	not discussed, believe it has merit

would be cut by a third, houses would be cheaper, more people would buy them, more would be built, everybody would stand to win.

Clearly, such an arrangement cannot depend merely upon the assumption that a reduction in wage rates will result in increased building. The worker naturally wants to know in advance just how much more employment he can expect in exchange for a wage reduction of a given amount. Advocates of the plan have long ago considered this question and have worked out detailed proposals. The consensus of these is to offer the worker a guarantee of 200 days' work per annum in exchange for a 25 per cent reduction in the prevailing union rate; a 175-day guarantee for a 15 per cent decrease; a 150-day guarantee for a 10 per cent decrease; and so on down to 120 days, below which point there would be no guarantee and no wage-reduction. This is based on the reasonable but not universally accepted assumption that the typical worker averages 120 days' work a year[1], and on this basis would result in increased annual earnings scaling from 12 to 25 per cent.

Assuming such a plan to be put into effect in a given community on approximately the basis outlined above, we get the following result: All of the building trades workers in the locality agree to accept a 25 per cent reduction in hourly rates in exchange for a guarantee of 200 days' work annually. Assuming (merely for convenience) that their annual employment previously averaged 100 days a year, this will mean increased annual earnings of 50 per cent. But it will also mean that there will be work available on the new basis for only half as many workers, unless construction volume doubles. Thus unless the volume of construction increases at least in proportion to the increase in the number of days worked a year, some of the workers will be displaced, continuously unemployed. This is one of the plan's principal hazards, but there are others.

Foremost among them is the question of who precisely is to guarantee the worker increased employment, and what form this guarantee is to take. For this, there are two proposed solutions: let either the individual general- or subcontractor make separate agreements of this type with his own workers, or a number of contractors in a given area, banded together in contractors' associations, make agreements with local labor, generally—presumably with the local trades unions. The third possibility, that of making such agreements on a national scale, is pretty thoroughly scouted by all concerned.

The first of these proposals has the obvious disadvantage that it withholds the benefits of the scheme from all but those contractors whose expectancy of annual business is sufficiently large to provide the necessary amount of work in each of the trades; the advantage that it can be put into effect immediately on the initiative of a single builder. The second proposal meets with the obstacles attendant upon any scheme which demands concerted action of a new type, clearly permits the widest application of the plan in the long run. Both present certain further difficulties in practice which, while not insurmountable, account for the fact that while much has been said and written on the subject, little has actually been done about it.

1. Currently, most information on this subject comes from the AFL itself, deals therefore only with union labor. According to its figures building trades labor works 140 days a year on the average. From 1909 to 1920 a group of bricklayers in Philadelphia kept records of days worked which ranged from a low average of 138 in 1909 to a top of 235 in 1918. Over against this is a table printed by the Department of Labor which shows that the maximum number of days an average bricklayer in the same town could hope to find work was 182.

THE GUARANTEE

Naturally, the first specific question arising in connection with the plan is the form of the guarantee. Realizing that few contractors or contractors' groups are in a position to guarantee in advance any specified amount of employment beyond a minimum estimate of work actually under contract, the advocates of the plan have worked out an arrangement which protects both contractor and worker. This scheme does not require that the contractor actually guarantee any fixed amount of employment at all. Instead, the worker agrees to accept a reduction in wage rate in anticipation of increased employment provided that the contractor agrees to put the difference in escrow. At the expiration of a period specified in the agreement, the fund thus created becomes the property of the contractor only if the agreed number of days employment have been furnished the worker, otherwise the money reverts to him and he has been paid at the old rate.

Some such arrangement, based perhaps on a sliding scale, would seem mutually advantageous to worker and employer alike. In making the agreement, both worker and contractor have little to lose if the anticipated number of days of employment do not materialize. The contractor has paid out the same amount in wages at the same intervals, the worker received the same total wage, a portion deferred, but with interest. And if the specified number of days is actually worked, both worker and contractor stand to gain: the worker by increased earnings and the contractor by reduced labor costs.

PRACTICAL OBSTACLES

There exist, however, a number of excellent reasons why few such agreements have actually been made. Individual contractors find the trade unions unwilling to deal on a job-to-job basis with individual employers. Again, the contractor fears that whatever advantages the scheme has for him are likely to be lost at the last minute through delay occasioned by jurisdictional disputes or arising from other causes such as the weather[2], with Labor pocketing the anticipated savings. Finally, and perhaps most important, is the fact that few individual operations are sufficiently large in scale to make such agreements worth while with any but a few of the trades involved.[3]

Associations of contractors have made few such agreements for still another

CONSTRUCTION EMPLOYMENT

Data from Cost Study, Purdue House No. 5 (All Wood)

CLASS OF WORK	CLASS OF LABOR	No. of Hours
Excavation and footings	Common	96
Foundations	Common	38½
	Mason	50
	Carpenter	3
Framing and Sheathing	Carpenter and Apprentice	268½
Back Filling, Damp-proofing	Common	25½
Concrete Floors and Fill	Common	46½
	Cement Finisher	14½
Chimney (Masonry)	Bricklayer	26
Scaffolding	Carpenter	2½
Heating	Steam Fitter	85½
Fuel Bin	Carpenter	5½
Plumbing	Plumber	83
Excavation	Common	5
Electrical	Electrician	31½
Siding and Shingles	Carpenter	158½
Insulation	Common	21
	Carpenter	2
Millwork	Carpenter	189
Stairs	Carpenter	67½
Floor, Wall and Ceiling Finishes	Carpenter	270
Painting	Painter	136
Total Hours		1,625½
	Common	232½
	Masonry	90½
	Carpenter	966½
	Steamfitter	85½
	Plumber	83
	Electrician	31½
	Painter	136

2. Rain and freezing weather are two oft-repeated and weighty arguments against the possibility of guaranteeing a specified amount of work. These are unpredictable factors which also display wide regional variations. For example: New York City averages 138 rainy days per year, Reno, Nevada but 48; again, Reno scores an average of 147 days when its thermometer is below 32°, Miami seldom has a frost.

To the builder, rain means delay, usually felt the most during the first one-third of building time or until the job is "under roof." The added cost is practically nil, arises largely from restarting his "machine" again. To the laborer a rainy day, like a freezing day, is a lost day. The suggestion has been made that labor could enhance its own guarantee of working days per year by making local arrangements to continue operations on Saturdays after weeks where one or more days have been lost due to rain or freezing weather.

The importance of cold weather varies according to the size and type of building. Residential construction, particularly frame houses, is least affected. After the foundations are in, outside jobs are short in duration, can be squeezed in between the freezing days. Early installation of the heating plant permits plastering. Industrial and commercial jobs, and residences requiring a large amount of concrete or other forms of masonry fail to get off so easily when the thermometer falls. But despite the cost of tarpaulins and special heating arrangements, winter construction is on the increase.

3. In this connection, the chart reproduced on the following page is instructive. It is the work schedule for a five-story apartment building in Washington. The essence of the guaranteed wage scheme is, of course, the assurance of continuous, long-term employment; and yet it is apparent from this chart that a job large enough to give such employment to carpenters is not by the same token also large enough to give it to excavators, or tile setters, or painters. Thus while the carpenters got 30 straight weeks employment on this project, and the electricians, steamfitters, and plumbers came out with 26, at the other end of the scale the roofers got but two, the painters six, the common laborers two, the stone masons ten. And yet these latter groups constitute an important part of the total. While it is theoretically possible more or less to equalize the work period of one craft with another by cutting down the number of workers in one and adding to the other, it is not feasible to perform this juggling act where the variance is as great as it is, say, between the carpenters and the lathers. Nor in many cases is it possible to do certain kinds of work save at stated and limited periods during the construction.

In the light of these facts, it seems permissible to say that under optimum conditions, with a very large project, an individual contractor might be able to apply the savings of the guaranteed wage scheme to some extent on at most about 70 per cent of his pay roll.

CONSTRUCTION EMPLOYMENT data from a 5-story Apartment House, Washington, D. C.

MAN-HOURS worked in week ending—

CLASS OF WORK	Sept. 12	Sept. 19	Sept. 26	Oct. 3	Oct. 10	Oct. 17	Oct. 24	Oct. 31	Nov. 7	Nov. 14	Nov. 21	Nov. 28	Dec. 5	Dec. 12	Dec. 19	Dec. 26	Jan. 2	Jan. 9	Jan. 16	Jan. 23	Jan. 30	Feb. 6	Feb. 13	Feb. 20	Feb. 27	Mar. 5	Mar. 12	Mar. 19	Mar. 26	Apr. 2	Total
EXCAVATING (Common laborers)	442	249																												691
CARPENTRY, FORM (Carpenters)	34	52	142	614	1,146	1,731	2,123	1,937	2,052	1,715	513	60																		12,119
HELPERS (Carpenters)	42	161	346	1,145	1,441	1,575	1,776	2,081	2,264	2,173	1,324	220																		14,548
PILE DRIVING (Pile drivers—carpenters)		193	850	814	599																									2,456
CONCRETE, CEMENT WORK (Concrete-cement workers)				366	950	1,102	1,255	1,774	1,741	1,274	1,031	163	33	1,015	286	35													212	203	11,440
ELECTRICAL WORK (Electricians)				27	104	120	136	160	160	160	160	160	160	160	168	128	128	128	160	152	160	160	160	96	96	96	96	96	96	3,427
STEAMFITTING (Steamfitters)				54	25	94	84	128	176	256	241	211	456	656	552	419	467	502	205	160	160	160	160	160	160	160	160	60	34	5,900
PLUMBING (Plumbers)				68	70	116	266	552	697	701	704	498	584	656	604	413	346	391	299	240	240	240	240	200	200	200	160	80	23	8,788
REENFORCED STEEL WORK (Struc. steel workers)				62	217	426	429	747	522	499	258	30																		3,190
ELEVATOR CONSTRUCTION (Elevator constructors)						3	3	3	4	4	3	—	84	112	87	69	65	—	—	48	54	80	80	80	68	30	—	59	72	7	1,015
REFRIGERATION (Steamfitters)						32	32	32	12	120	120	120	120	72	144	24						19			89	78	225	49	216	112	1,716
BRICKLAYING (Bricklayers)								484	1,693	1,392	1,573	1,129	959	1,082	1,551	603														10,466
HELPERS (Bricklayers)								457	1,513	1,330	1,142	1,336	1,293	1,751	1,969	724	415													11,930
STONE MASONRY (Stone masons)									60	156	184	148	64	16	24	24	16	20												712
CARPENTRY, ROUGH (Carpenters)									38	76	399	570	278	361	359	244	395	297	204	174										3,395
HELPERS (Carpenters)										37	122	198	503	519	551	164	484	701	420	552	300									4,551
SHEET METAL WORK (Sheet metal workers)											3	120	136	132	132	105	108	80	88	100	68	37								1,109
WATERPROOFING											43	25	42	—	24	21	22	6												183
PLASTERING (Plasterers)											161	416	231	192	658	338	592	780	880	475	320	116	80	80	200	160	160	120		5,959
HELPERS (Plasterers)											144	220	175	96	540	174	376	770	880	400	360	184	96	96	140	160	140	120		5,071
BRICKLAYING, PARTITIONS (Bricklayers)											193	679	568	733	768	416	416	564	206	290	227									5,060
HELPERS (Bricklayers)											99	736	712	957	869	515	781	794	402	676	472									7,013
VENTILATION												80	—	64	80	—	—	—	—	—	48	70								342
LATHING (Metal-wood lathers)													100	120	104	64	64	224	175	120	96	56	24	24						1,171
ROOFING (Roofers)														320	320															640
CARPENTRY, TRIM (Carpenters)															64	192	192	386	334	303	219	185	232	274	295	249	197	168	100	24	3,414
GENERAL LABOR																		301	857	315	302	738	1,010	1,128	1,060	682	469	443	278	110	7,693
TILE LAYING (Tile setters)																		216	265	260	279	260	263	144	272	280	188				2,427
MOSAIC, TERRAZZO WORK (Mosaic workers)																		192	244	590	582	406	578	470	369	506	650	429	223	192	5,431
WEATHERSTRIPPING (Carpenters)																		396	396	396	396	120	120	120	120						2,064
CARPENTRY, PARQUET FLOORS (Carpenters)																				396	396	396	440	443	440	412	396	392			3,711
PAINTING (Painters)																								742	742	742	742	742	603		4,313
PAPERHANGING (Paperhangers)																								128	528	576	480				1,712
SCREENS (Carpenters)																												192	182	40	414
SHADES (Carpenters)																												81	9		90
TOTAL NUMBER OF man-hours	518	655	1,338	3,150	4,552	5,199	6,104	8,355	11,032	9,893	8,417	7,119	6,498	9,014	9,854	4,672	4,867	6,748	6,015	5,647	4,679	3,227	3,483	4,185	4,779	4,331	4,063	3,031	2,048	688	154,161
TOTAL MAN-DAYS	62	84	171	394	580	595	692	925	1,293	1,183	1,075	879	813	1,117	1,202	606	626	840	752	704	577	414	440	515	591	531	493	343	229	58	17,784

Data from THE MONTHLY LABOR REVIEW, Oct., 1932

The table above shows, for building of this type and size, the amount of work in terms of man-hours done by each occupation, the rotation of each class of work, the duration of work for each occupation on the job, and the total number of man-days

Clearly evident are the sequence and importance of each class of work. While some occupations must complete or partially complete their part of the work before others can start, other operations go on throughout nearly the whole period of

(form, rough, trim and the laying of parquet floors), was done in every week during the construction, accounted for the largest number of man-hours worked by any skilled trade group. Other lines, such as ventilating work and elevator construc-

preliminary work is done to allow certain other work to be completed.

The greatest number of full man-days in any one week (November 7) was **1,293**. Fairly continuous work on this job was made possible by the mildness of the win-

set of reasons. One of these is that they find it difficult to get a large group to agree on a program, and it is necessary, in order to deal with the unions on an over-all basis, to get the cooperation of virtually all of the builders affected. Another is the fact that they find the unions unwilling to make such overall agreements[4], or, at best, lukewarm in their reception of the idea. Finally, the contractors' associations, equally with the individual contractors, are inclined to suspect that unanticipated delays or stoppages will tend to rob them of any of the gains which the scheme promises.

Thus we find that, aside from the difficulties attendant upon the organization of suitable contractors' groups and the problems arising out of mechanical questions such as interruptions caused by the weather and the small number of days-per-job worked by certain of the crafts, most of the practical difficulties which the guaranteed annual wage scheme must overcome revolve around Labor's attitude.

LABOR'S DOUBTS

Because of the increased earnings and security offered by the guaranteed wage, it might be assumed that Labor would be its strongest partisan. Such is notoriously not the case. As has already been pointed out, the trade union official viewing the immediate effect of the scheme on the total building labor market in his locality is bound to realize that its application would mean the displacement of a considerable number of workers. And if he has not the welfare of this group at heart, his regard for their dues-payments is likely to restrain him from any action he feels is likely to result in continuous unemployment for a substantial section of his membership, whatever the supposed ultimate effect of the plan may be. As a matter of fact, the depression philosophy of most of the building trades unions has been fairly consistently the exact opposite of the guaranteed wage scheme; it has revolved around plans to share-the-work: to divide available work among a maximum number of trade union members.

In addition to this question of broad policy, there are two equally important, if somewhat more emotional arguments which the trades unions advance against the scheme. The most popular of these goes like this. In good times the average worker has made and will again make more than the guarantee could possibly offer him: he still recalls with gusto the halcyon days of '29 when he used to move from one job to another as soon as his earnings touched $950—so that he would not have to report his income tax. But in bad times, on the other hand, there would not be enough work available to form an adequate basis for a guaranteed wage agreement, and if there were he would prefer to cash in on it in the regular manner[5]. Therefore, according to this reasoning, he stands to lose by the scheme more than he could possibly gain.

Less clearly articulated but no less potent is another objection which springs straight from the heart of trade union tradition. Stated in its baldest terms, it is the fear that any change in the *status quo*, as represented by the daily union rate, will somehow, sometime, result in a wage reduction. It is argued that the

4. The apparent inconsistency here (Labor's unwillingness to make such agreements on *either* a single-job or an overall basis) is nevertheless a fact, results on the one hand from tradition favoring overall as against single-job agreements, and on the other from the fact that in an overall agreement the basic fallacy (from Labor's point-of-view) of the guaranteed wage scheme is exposed: the fact that it will almost certainly result, at least at first, in continuous *un*employment for a considerable number of union members.

5. It must be remembered that the building cycle shows more extreme variations than any other: nationally, there was 5½ times more construction in 1928 than there was in 1933, and local variations are even more pronounced.

COMMENT ON THE GUARANTEED WAGE

LOUISVILLE

D. R. Lyman, *Secretary, Associated General Contractors: The guaranteed weekly wage is an "impossible, visionary plan."*

DENVER

James W. Shirley, *representing the Building Trades Council: "Very impractical. Nothing of the sort here, and there won't be anything like that. . . ."*

ST. LOUIS

George W. Jerrold, *President, Building Trades Council: "We talked it over, and nothing was done. The idea sounds okay, but we don't think it would work."*

John J. Church, *Secretary, Building Trades Council: "The Building and Construction Trades Department of the American Federation of Labor has gone on record as being opposed to the guaranteed wage plan. And we in St. Louis are also against the proposal. We will not agree to the slashing of wages under any plan."*

Robert L. Murphy, *Manager, Master Builders' Association (an association of general contractors using only A. F. of L. labor): "The association, as a group, has not discussed the guaranteed wage suggestion. . . . Most of us contractors feel that the idea is not practical, anyway. Our work is far too seasonal, too uncertain, to work out a guaranteed wage for a specific period."*

Ervine Meyer, *Member, the Building Committee of the Chamber of Commerce, President, the Builders Guild (about 70 contractors): "The idea might work if there was enough work—you might say, guaranteed work. . . . But my work, like that of other contractors, is far too uncertain to allow for any such practice."*

COMMENT ON THE GUARANTEED WAGE
(continued)

KANSAS CITY, MO.

Leon R. Reliford, *Secretary, Combined Building Trades Council: "We have discussed the question only in small groups here and there—never in organization meetings—and have not had anyone give us what might be regarded as an authoritative discussion or explanation of just what a guaranteed wage agreement provides. As it stands we feel that, so far as we understand the thing, it is not what we would want. We don't feel that the loss of time on the long jobs, due to inclement weather or other like cause, is sufficient, in the main, to justify a guaranteed wage contract on a scale lower than that now provided.*
"Union labor scales, as worked out, are based on what the 'employment expectation' for a year normally is, and so far we have not been shown any other method of arriving at rates of pay that we would consider any better."

BUFFALO

Henry L. Feist, *President, Builders Exchange: "I don't think it is a practical thing unless with a particular fellow on a specific job. Lumping is the only thing of this nature which has been done here, and that is not to be encouraged. I think the annual wage, as proposed by the President, impossible in any industry, unless a fixed production schedule is possible."*

George R. Riley, *President, Building Trades Council; chairman, board of business agents; business agent, steamfitters union: "I am absolutely against it. The hourly rate always has been used here, and I see no reason to disturb it."*

Henry Reeb Schaefer, *Secretary, Builders Exchange: "We have always held that a guaranteed wage is not very practical, chiefly because of the weather in the Northern United States. That is true despite all sorts of aids devised to overcome the weather handicap."*

lowering of wage rates under the guarantee on one job in a community wil tend to depress the rates on other jobs not subject to the guarantee. It is argue that if the unions have to make new contract agreements for every job, it wil open the way to chiseling by the contractor. It is argued that not one job i 1,000 provides enough work to make it worth the union's while to forsake th high daily rate for the lower guaranteed rate. Says A. F. of L.'s President Willian Green: " . . . the difficulties . . . are extremely great . . . so many difficulties i the way . . . I am not sure that it could be made practicable or workable . . Our people are very practical people."[6]

Various refinements of this basic theory have also been evolved. Among th most newsworthy is that expounded by The Dow Service, under which a centra labor supply bureau, supported by the contractors, would supply all buildin labor, pay enrolled workers an annual salary. Such an arrangement, it is argued would have the advantage of keeping a definite group of workers busy th year round by feeding them all the available work. By the same token it woul also put many workers virtually out of business, unless offset by a sufficien increase in building activity.

THE THEORY IN PRACTICE

Such is the refulgent theory of the guaranteed wage. Casting about for ex amples in practice, commentators have referred in a large way to the Englis example. The fact is that there is no English example. In 1924 the British Gov ernment induced the building trades union leaders to accept a 10 per cen over-all reduction in union rates in the *expectancy* of more work. Since ther was no concomitant guarantee of more work, the only mensurable effect of thi agreement was that British building laborers got 10 per cent less money. Th British building boom, resulting from this among many causes, probably at tracted additional workers to the building trades and left total work-days pe year unchanged.[7]

And so the application of the guaranteed wage theory stands, stalled in a evolutionary stage by the mistrust and bewilderment of its two protagonists– the contractor and the worker. But if the worker mistrusts any departure fro his union rate and the contractor is baffled by the complexities of any oth wage system, nevertheless both parties acknowledge that the objectives a valuable. Out of this conflict between means and ends there has naturally d veloped a body of experiment, of compromises between the existing and th projected system of wage payments. Such straws deserve a brief look, if onl because they may mark the path along which progress may occur in the im mediate future.

One Long Island builder has been able to effect appreciable savings by splittin his labor up into very small sub-contracting units. Typically, one sub-contract will be given the locks, another the kitchen cabinets, to install in a series houses. For this contract he will be given a flat sum to cover both labor an materials; but the builder will make use of his larger purchasing power to g the sub-contractor the best possible price on his material purchase. Such a set-u has several practical advantages. Since the sub-contractor's laborers are pai by the piece rather than the hour, their work is more efficient. Since the sul

6. An interesting note on these speculations and arguments is derived from a survey conducted in 25 cities from coast to coast by THE ARCHITECTURAL FORUM: In 8 cities, the unions opposed the idea; in 18 cities, the contractors had never discusse the idea seriously; and in no city coul any union official or contractor be foun to say that the plan was now feasible.

7. For another opinion, see Letters, p. 3

ontractor must purchase his supplies from the lump contract sum, there will e very little wastage of these supplies on the site. From the workers' point f view the system is not quite so advantageous; but they are less tied down o their specific job, therefore better able to fill in with outside contract work. Needless to say, the operation of such a system is feasible only where the building rade unions are not too strongly entrenched.

n Los Angeles, experimental steps are taking another direction. There one Col. William H. Evans, president of the Building Contractors Association of outhern California and self-styled "California's Master Builder," is currently etting up a central employment agency to supply labor for the home building eld (which is only about 10 per cent unionized.) For his agency Col. Evans as picked Hummel Brothers, an old and large employment bureau. He is urging ll members of his Building Contractors Association to submit to this company list of their building workers, graded from "excellent" to "fair." Such a listing nce compiled, it is Col. Evans' hope to establish the ordinary building needs f the Association, lop the list off at this point. The lucky workers who remain n the list will then be put on an annual salary basis by the Association, be irmed out to members.

gain, in San Francisco, Secretary Bernard Peter Lamb of the Park Commission, nding himself with an annual labor budget of $912,000, is trying to induce his nionized labor to accept an annual wage in lieu of the daily wage. He is making mall progress, partly because his annual wage proposal looks to the unions like deduction from what they are now earning; and partly because the union iembers are still convinced that they can drive their daily wage rate higher ver the next few years, get more than the annual wage could guarantee.

URISDICTIONAL DISPUTES

uch sideline experiments are interesting; but none of them gives immediate romise of achieving the President's objective of lower building costs. That iere does exist another broad front of attack on the problem of costs the Presi- ent knew very well, and in the same speech that he admonished Labor for its ages he said: "Unfortunate divisions relating to jurisdiction among the workers ave retarded production."

he jurisdictional strike and work rules are together a source of waste which iakes the guaranteed wage's possible saving look rather insignificant. They re both external evidence of the fact that the craft set-up has outlived its conomic justification. Both are caused by the scramble of the various unions o assume jurisdiction over new materials as they appear, thus assure to the iembers of the victorious union more work per project; the work rules repre- nt the treaties which have ended old fights, the jurisdictional strike those hich are still being fought out.

Work rules often read like fantasy. In certain places painters may not use a rush over 4½ in. wide; Chicago plumbers have prohibited the machine cutting, ireading, or measuring of pipes more than 2 in. in diameter; electrical workers sist that they must also wire electrical fixtures, with the result that they emove and reinstall wiring in fixtures which are shipped ready to use; putting it tile in mortar is a bricklayer's job, while putting it in asphalt belongs to ie roofers; one union can drill holes up to ⅜th of an inch, but anything larger elongs to another union. And so on into Wonderland.

ere obviously is a profligate source of waste. The craft system of labor organi- tion encourages competition for types of work. The strictures of unemploy- ent and the heavy influx of new materials intensify this competition. The agnosis is pie-simple, and so are the cures. One is to scrap the craft set-up and

COMMENT ON THE GUARANTEED WAGE
(Continued)

BUFFALO, CONT'D

George Adema, *Secretary, Heating and Air Conditioning Association: "My father paid on a weekly basis before 1929, and it worked all right then, but business later became so rotten we couldn't continue operating that way. It's all right for the fellows in Washington to tell us to do it, but they don't have to pay the bills. It is nice on paper, but ——."*

George Sturges, *business agent, plasterers union: "I feel, as my organization does, that if a weekly wage could be set on a basis of 52 or even 40 weeks a year—75 per cent of our pay for the year—there would be much in its favor. It would then be so worth while we would bend over backward to make it work. But I see no benefit from the weekly wage for so short a time as the term of a job."*

Albert Fleischauer, *Secretary, Master Plumbers Association: "I think such a plan impossible. No building trades are busy enough to employ on a weekly basis. I think the situation looks very promising for Spring, but not that promising."*

Gustave W. Hora, *Secretary, Greater Buffalo Sheet Metal and Roofers Association: "It was the unanimous opinion of the employers at our meeting that as long as we are on the prevailing system, with slack periods and busy ones, it's impossible to use a weekly pay system and the hourly pay is the best. Besides, we decided, you couldn't hold the men to an agreement of this nature because when premium jobs come along they simply wouldn't stick to it."*

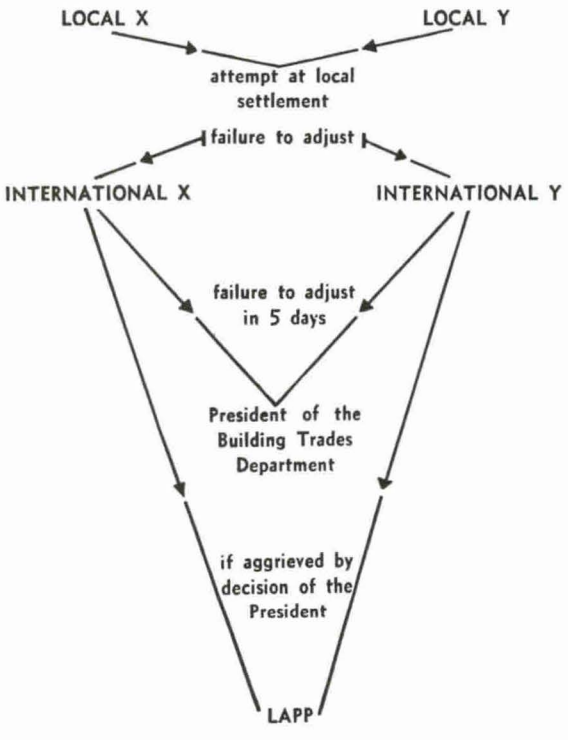
MIAMI

J. L. Kenney, *Secretary, Miami Building Trade Council: "Theory has been discussed but the members have felt it would be impractical and no official action has been taken and none is anticipated."*

LABOR'S UMPIRE

Dr. John A. Lapp, one-time professor at Marquette University in Milwaukee, was boosted into place as Umpire of the Building Trades Department in 1936. Backed by the Williams faction of the Department (see ARCH. FORUM, Nov. 1937, p. 439), the McDonough group of smaller unions was loath to approach him for any decision until almost a year had passed. But last year, as the mighty carpenters of the Williams cortege locked horns with the iron workers in a claim over steel joists, Jurisdiction Arbitrator Lapp was appealed to for his first decision. His ruling defied the age-old adage of "might makes right" in the building trades, the iron workers emerged victorious. And observers remark that such a defiance marked the first step in the collapse of the Lapp regime. But last month in New York City, Board Chairman of the Employers Association Christian G. Norman, who early in the game had declined acceptance of what eventually became Dr. Lapp's job, opined: "I believe that local arrangements subject to national appeal are the most desirable way to bring about peace."

ARBITRATION MACHINERY
JURISDICTIONAL DISPUTES



adopt the vertical or industrial form of organization under which inter-craft com petition might be obviated. The other is to outlaw the jurisdictional strike.

That the AFL high command realizes the cogency of this line of reasoning i amply demonstrated by the long history of its efforts to establish a workabl system of settling these jurisdictional disputes without loss of work-time. Th system now in force consists of a hierarchy of judges running from the loca arbitration board, through the heads of the international unions, up to a cour of final appeals in the person of Dr. John A. Lapp in Washington. There ar several glaring weaknesses in this arrangement, all more or less connected wit the fact that the basis of building labor is still the local craft union. In the firs place such a set-up can only serve its primary purpose of eliminating dolla waste if the strike is withheld pending arbitration; but since the locals ar famous for their love of autonomy, "no strike" clauses are written into unio contracts only at the pleasure of the local—which is a growing but still fa from universal habit. And in the second place the final arbitrator, Dr. Lapp, i the paid employe of the building trades unions; which means to say that h will hold his job only about as long as his decisions pleasure the more powerfu unions. And finally, the process of appeal is lengthy (see chart), and locals ar prone to lose patience waiting for their dispute to be settled.

CONCLUSION

Thus analysis indicates that while the President's diagnosis of Building's labo cost ailment was a sure one, it is perhaps unwise to place much reliance on th palliatives which he has prescribed. His proposed course of treatment touche the patient's sore spot—the jurisdictional dispute—only lightly, and emphasize instead a device which partakes of the nature of a cure-all—the guarantee wage. For reasons of political expediency, or for whatever cause, he has le the question of reducing labor cost about as he found it; it is still Building headache.

And such it is likely to remain, for some time to come. The guaranteed wag must be regarded as a device superficially simple, but fundamentally ver complex; as one resisted for various reasons, sound and unsound, by contracto and worker alike; as one which can be applied only to certain phases of constru tion; as one whose objectives are certainly worth fighting for, but difficu of achievement. The jurisdictional dispute remains perhaps the biggest sing factor among Building's many wastes, a problem which has been with us f a long time, and which will probably be some time in solution.

No possible saving in building cost, however small, whether involving labor some other item, should be ignored, for it is the sum of all such savings, rath than spectacular cost reductions resulting from this or that scheme or devi which will accomplish the fundamental objective of bringing housing cos within the reach of the mass of the people. If building is to revive and thu stimulate general recovery, its revival will be accomplished only by the co certed and intelligent application of lower down-payments and interest rate improved technique, better design, large-scale methods, the guaranteed wag (or some other rational means of reducing unit labor cost), and a simplific tion of Labor's craft structure. If leaders in all groups develop a fixed determin tion to bring about at least some of these potent reforms their accomplishme need not wait interminably. The almost overnight and almost universal adopti of the long-term guaranteed amortized mortgage illustrates what can be do in rationalizing a basic problem which before had seemed as difficult of soluti as any other. At long last the cost problem has been accurately stated an is being aggressively explored.

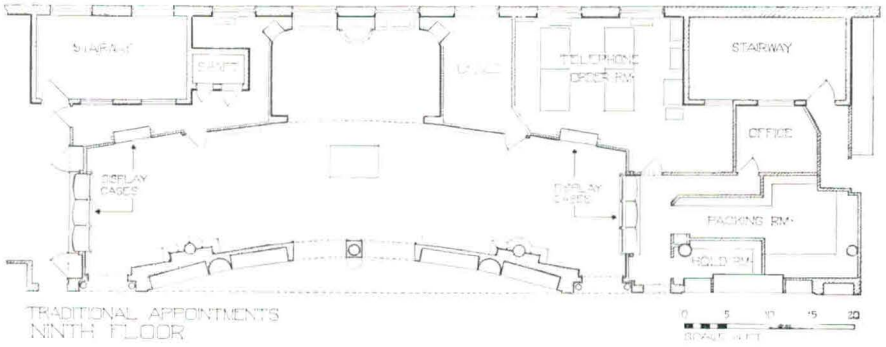
REMODELING FOR LORD & TAYLOR, NEW YORK

RAYMOND LOEWY, DESIGNER C. E. SWANSON, ASSOCIATES, STORE PLANNING ENGINEERS

REMODELING FOR LORD & TAYLOR, NEW YORK

Robert M. Damora

TRADITIONAL APPOINTMENTS . . VIEW



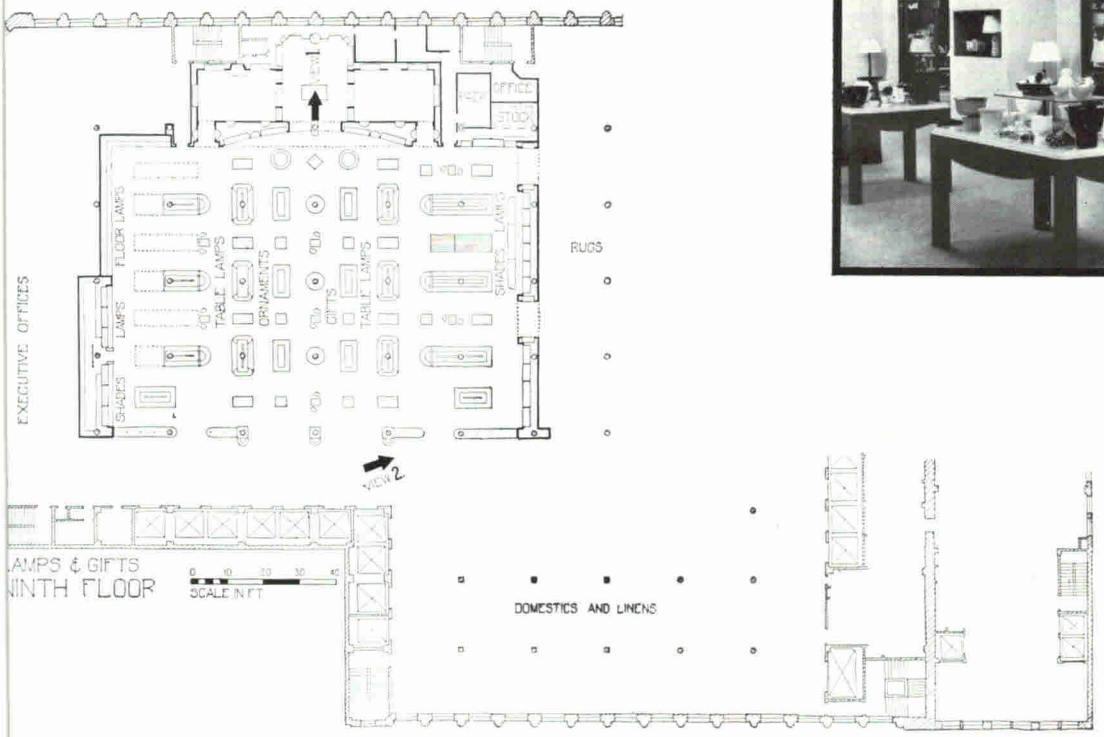
WITH a plan for the eventual modernization of the entire ten floors of the Lord and Taylor store, remodeling begun last year with a few departments, has now progressed to the point indicated by the accompanying plans and photographs. Taken as a whole the work is of unusual interest not only for its efficiency of layout, but for the varied and imaginative backgrounds used to display the different types of merchandise. Shown on these pages are the lamp and gift departments on the ninth floor. By the use of open shelving the lamp displays are made directly visible to the customer as he gets off the elevator. This section is treated as a large open space with lamps so placed that each table is a well-defined area of light. In contrast, the gift shop presents a more intimate atmosphere almost domestic in quality, accentuating the value and small size of the objects.

COLORS: Walls—deep blue; ceiling—d
blue; woodwork—off-white; display case
white, with copper tubing alternately bri
and satin finished; venetian blinds—wh
floor—gray carpeting.
PAINT: E. I. DuPont de Nemours Corp.
CARPETING: Charles P. Cochrane Co.
LIGHTING UNITS: Garden City Plating
Chicago.

AYMOND LOEWY, DESIGNER

WANSON ASSOCIATES, PLANNING ENGINEERS

BEFORE

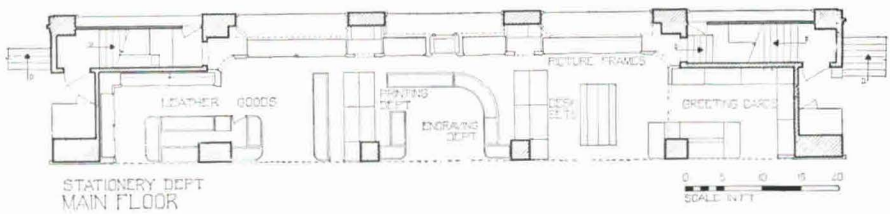


W 2. LAMPS AND GIFTS

Louis Werner

Robert M. Damo

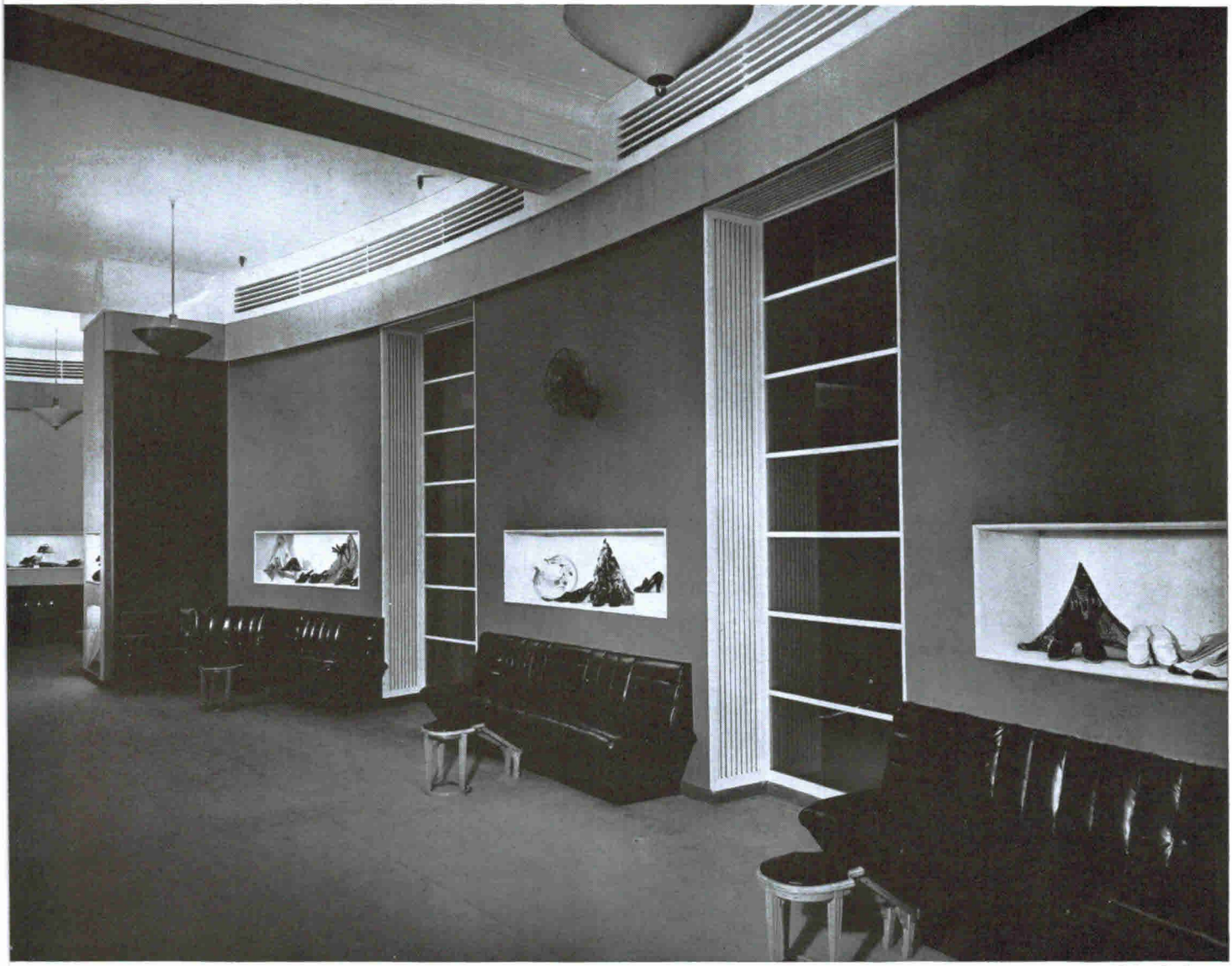
STATIONERY DEPARTMENT



ONE of the first units to be completed was the stationery department on the ground floor. Conservative in treatment, save in its vivid coloring, its design again reflects the nature of the merchandise. The plan, particularly, with its asymmetrical arrangement of small units, is well executed. The luxurious chairs, well-placed wall displays, and excellent show cases combine to form an unusually effective merchandising setup.

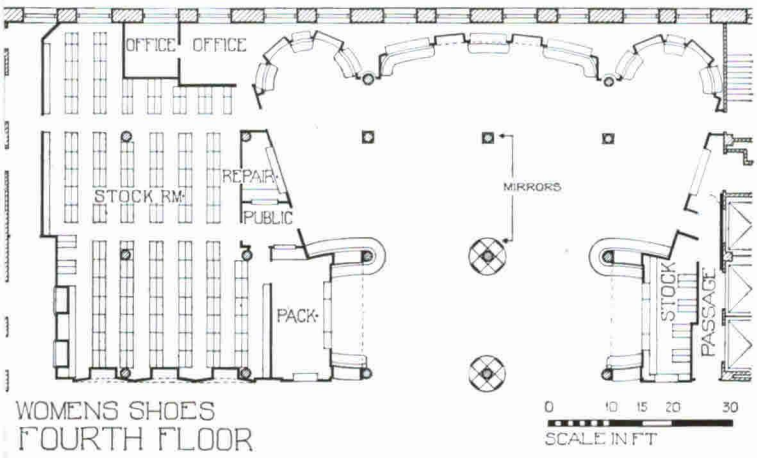
COLORS: Walls—cedar red; columns—beig
ceiling and lighting cove—off-white; displ
case interiors—white.
PAINT: E. I. DuPont de Nemours Corp.
CHAIRS: blond maple upholstered in natu
pigskin. Chairs by Thonet Bros.; leath
from Lehman-Connor Co.

AYMOND LOEWY, DESIGNER SWANSON ASSOCIATES, PLANNING ENGINEERS



Robert M. Damora

WOMEN'S SHOES



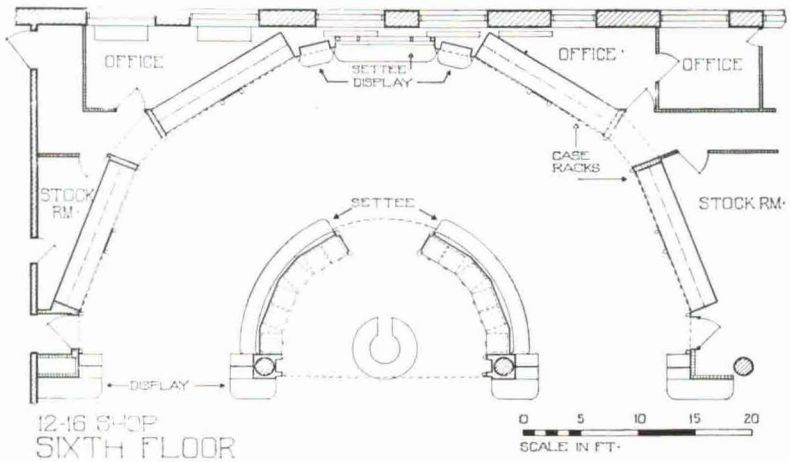
WOMENS SHOES
FOURTH FLOOR

LANS for remodeling called for the reallocation of the various departments of the store. One such move was to devote the fourth floor to various kinds of men's apparel. The shoe department, illustrated above, was designed to gain ling space by providing the maximum seating capacity consistent with the sired illusion of privacy. Here a somewhat irregular plan was adopted, with ovisions for wall and table displays at strategic points. The fixed ventilating vers shown in the photograph are standard for most of the newly designed tions of the store.

COLORS: Walls—painted in alternating peach, beige, and warm deep blue. False windows are acid-etched. Frieze of Garopa Flexwood. Woodwork, ceiling, and trim off-white. Floor —gray carpet.
PAINT: E. I. DuPont de Nemours Corp.
FLEXWOOD: U. S. Plywood Co.
CARPETING: Charles P. Cochrane Co.
GLASS: ¼-inch plate, acid-etched, Pittsburgh Plate Glass Co.
HARDWARE: Albert Voight, New York City.
FURNITURE: Built-in seats from Amman & Goertz. Upholstered in bronze goatskin, Gilford Leather Co.

Robert M. Damora Photos

12-16 SHOP . . . VIEW

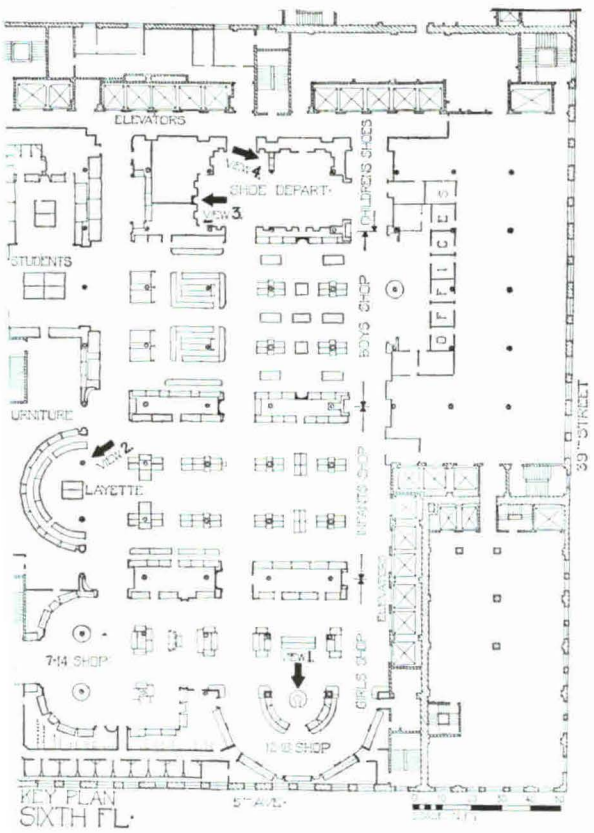


TYPICAL of the ingenuity used in solving the various merchandising requirements is the shop above, for girls between the ages of 12 and 16. A subtly overplayed elegance suggests to the young customer that she is now grown-up, an impression accentuated by the hat bar in the foreground, an enlarged replica of the store's standard hat box. On the opposite page are the layette department, with comfortable chairs at a semicircular counter, and the amusingly designed children's shoe department.

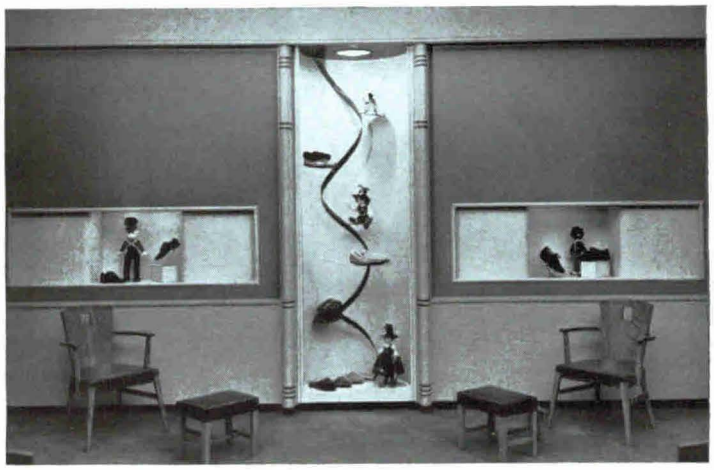
COLORS: 12-16 shop: two shades of gray w lemon yellow. Layette department: bl pink, white, and gray. Children's sho bright red, deep blue, and beige.
PAINT: E. I. DuPont de Nemours Corp.
GLASS: ¼-inch plate, acid-etched, in fa window. Pittsburgh Plate Glass Co.
LIGHTING FIXTURES: Garden City Plat Co., Chicago.
FURNITURE: Bar stools in 12-16 shop—f niture Specialty Co. Layette chairs- Nathan & Son, upholstered in fabric fi F. Schumacher & Co. Children's shoe chairs from J. & G. Furniture Co., leat from J. H. Thorpe & Co.
CURTAINS: 12-16 shop—Cromwell, Inc. L ette—Stroheim & Romann.
CARPETING: Charles P. Cochrane Co.

RAYMOND LOEWY, DESIGNER SWANSON ASSOCIATES, PLANNING ENGINEERS

IEW 2.



VIEW 3.



VIEW 4.

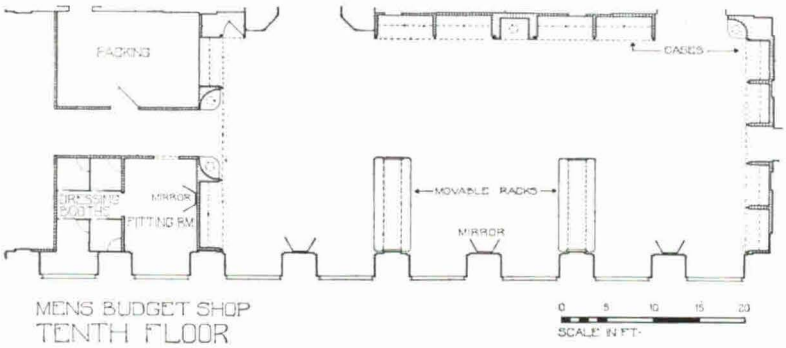
REMODELING FOR LORD & TAYLOR, N. Y. C.

RAYMOND LOEWY, DESIGNE

SWANSON ASSOCIATES
PLANNING ENGINEERS

Robert M. Damora

MEN'S BUDGET SHOP



MENS BUDGET SHOP
TENTH FLOOR

ONE of the new units is the Men's Budget Shop, a design which aims to create a masculine atmosphere by the use of wood veneer, copper tubing, and restrained coloring. The colors chosen are cosily adaptable to both evening and sport clothes. Display and storage cases are conveniently arranged and well lighted.

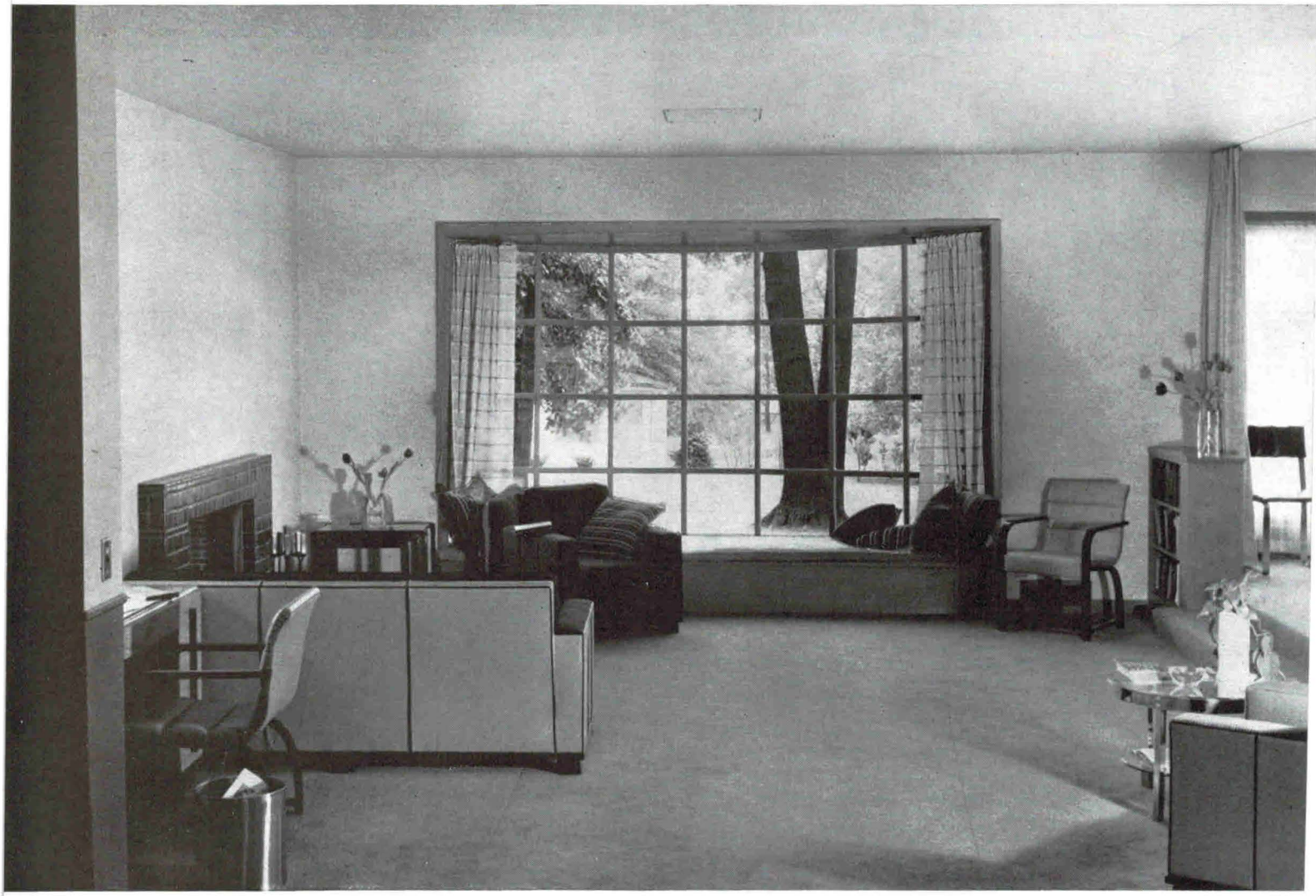
COLORS: beige and terra cotta.
PAINT: E. I. DuPont de Nemours Corp.
WOODWORK: Macassar Ebony veneer, N.
Veneer Corp., Long Island City.
HARDWARE: Hanging rods, mirror fra
and door-knobs—copper plate, brushed
polished finish.
LIGHTING FIXTURES: Garden City Pla
Company, Chicago.
CARPETING: Charles P. Cochrane Co.

HOUSE FOR DR. GEORGE CALINGAERT, DETROIT, MICH.

J. ROBERT F. SWANSON, ARCHITECT

Robert W. Tebbs

HOUSE FOR DR. GEORGE CALINGAERT, DETROIT, MICH.



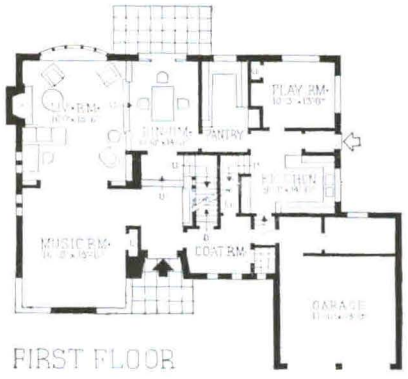
LIVING ROOM

So persistently has the picture of the modern house been built up as a peculiarly limited type of structure, consisting invariably of a flat roof, glass-walled rooms, and pipe railings, that it is always rather surprising to find departures from it. The Detroit residence here illustrated, for example, shows a pitched roof, a conservative brick treatment, even a curved bay window. A glance at the plan, however, will show that nothing has been lost thereby. On the first floor, three rooms—living, dining, and music—have been arranged in one large space which can easily be subdivided by curtains. A playroom is located where the children can be watched from the kitchen, and where they cannot disturb the other occupants of the house. The large coatroom is also used as a passage from the kitchen to the front door, thereby simplifying circulation. Upstairs six bedrooms and three baths are economically disposed in a rectangular area. Taken as a whole, the house is an excellent example of an independent approach to the problems of the modern dwelling. Cubage: 56,000. Cost: $30,345.19 at about 55 cents per cubic foot.

DINING ROOM

HALL

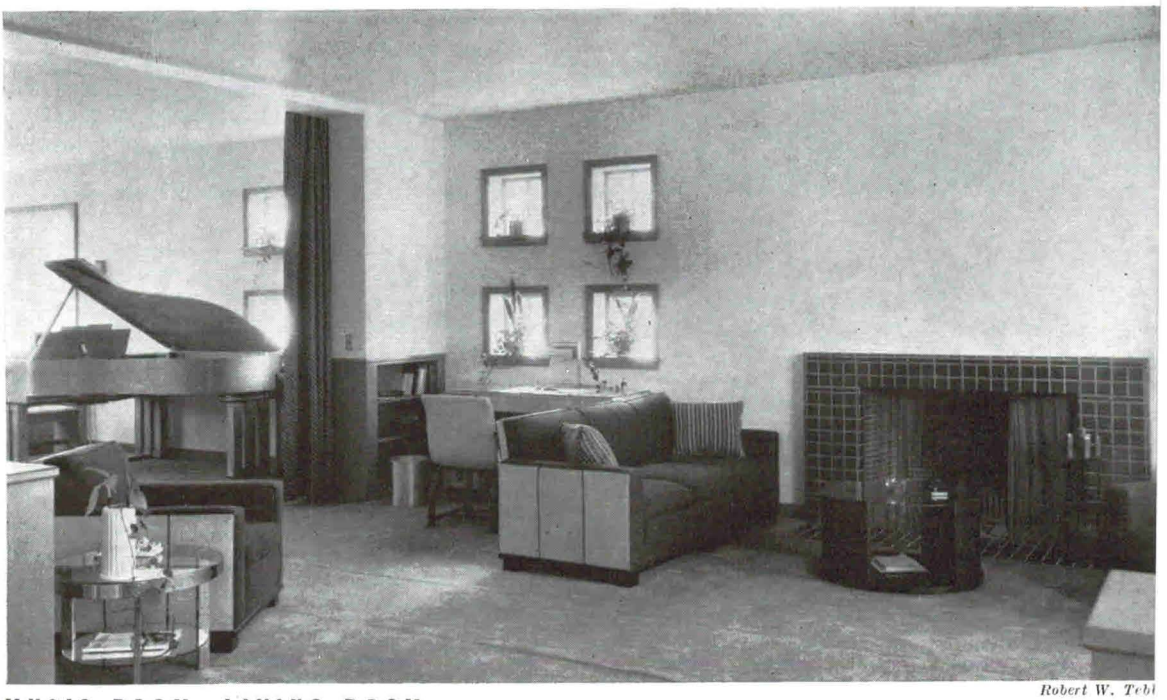
SECOND FLOOR



FIRST FLOOR

BASEMENT

HOUSE FOR DR. GEORGE CALINGAERT J. ROBERT F. SWANSON, ARCHITECT



Robert W. Tebb

MUSIC ROOM—LIVING ROOM

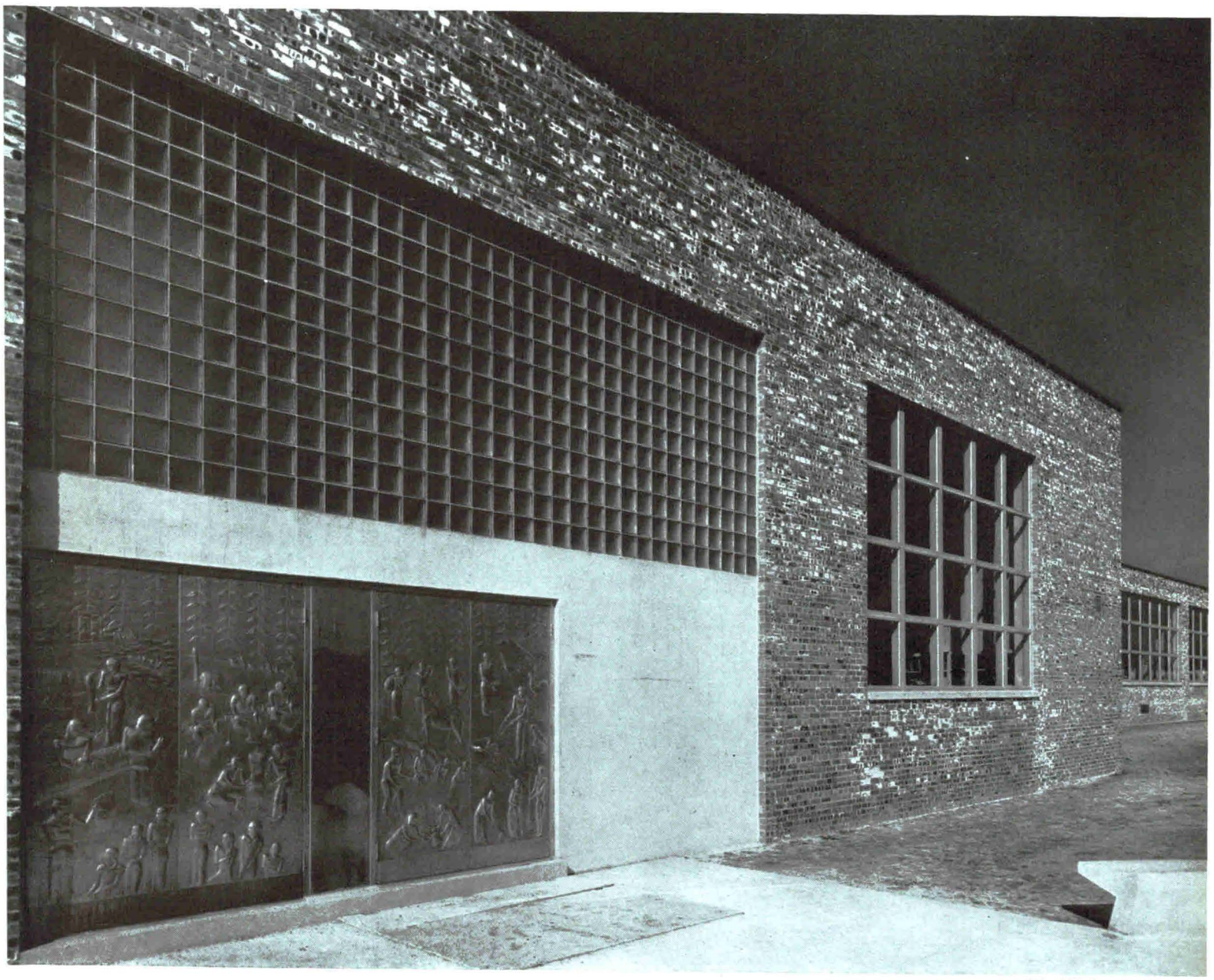
CONSTRUCTION OUTLINE

FOUNDATIONS
Walls—concrete blocks, continuous. Waterproofing—bitumen, Philip Carey Co.
STRUCTURE
Exterior walls—brick veneer; cement plaster on Ecod lath, Reynolds Corp.; frame of Stran-Steel, Great Lakes Steel Corp. with ½ in. felt strips separating lath from steel; 4 in. insulation, Eagle-Picher Sales Co. Inside—plaster walls on Ecod lath. Interior partitions—Stran-Steel frame and plaster. Floor construction—Stran-Steel joists with 2½ in. concrete slab.
ROOF
Construction—Stran-Steel covered with Anaconda Cottage copper roofing, American Brass Co. Decks—concrete slab covered with U. S. quarry tile.
CHIMNEY
Terra cotta flue lining. Dampers—H. W. Covert Co. Fireplaces—ceramic tile face for first floor and Maul Macotta Corp. face on second.
SHEET METAL WORK
Flashing, gutters and leaders—16 oz. copper.
INSULATION
Outside walls, ground floor and attic floor—Eagle-Picher Sales Co. home insulation. Weatherstripping on exterior doors—Chamberlin Metal Weather Strip Co.
WINDOWS
Sash—fixed wood sash. Glass—Thermopane, Libbey-Owens-Ford Glass Co. Venetian blinds—Yardley Co.
STAIRS
Main—birch with structural steel rectangular tubing spindles. Service—birch, linoleum covered with metal nosing; scuttle to attic.
FLOORS
Living room and halls—quarter board laid in mastic on concrete slab; carpets—Twist-weave, Bigelow-Sanford Carpet Co., Inc. Bedrooms—concrete slab for linoleum; quarterboard where carpeted; carpets—washable broadloom, F. Schumacher Co. Kitchen—concrete covered with linoleum. Bathrooms—tile walls and floors, H. H. Robertson Co. Rubber tile by Goodyear Tire & Rubber Co.
WOODWORK
Interior trim—birch. Exterior trim—white pine. Interior doors—birch, Rezo, Paine Lumber Co., Ltd. Exterior—birch. Garage—Crawford Overhead, The Horton Mechanical Doorman.
HARDWARE
Material by Russell & Erwin Mfg. Co.
PAINTING
Interior: Walls—covered with Sanitas, Standard Textile Mfg. Co. and enamel. Ceilings—lead and oil. Exterior walls—Cementico, U. S. Gypsum Co.
ELECTRICAL INSTALLATION
Wiring—BX armored cable, General Electric Co. Panels by Frank Adam Electric Co. Fixtures—recessed.
KITCHEN EQUIPMENT
Range—Dutch Oven. Refrigerator—Frigidaire Corp. Sink—Crane Co. Dishwasher—Westinghouse Electric & Mfg. Co.
LAUNDRY EQUIPMENT
Trays by Standard Sanitary Mfg. Co.
BATHROOM EQUIPMENT
All fixtures by Crane Co.
PLUMBING
Pipes—Anaconda copper tubing, American Brass Co.
HEATING AND AIR CONDITIONING
Delco system with cooling, Delco-Frigidaire Conditioning Corp. Thermostat—Minneapolis Honeywell Regulator Co. Hot water heater Everhot Heater Co.
SPECIAL EQUIPMENT
Incinerator—Detroit Incinerator Co.

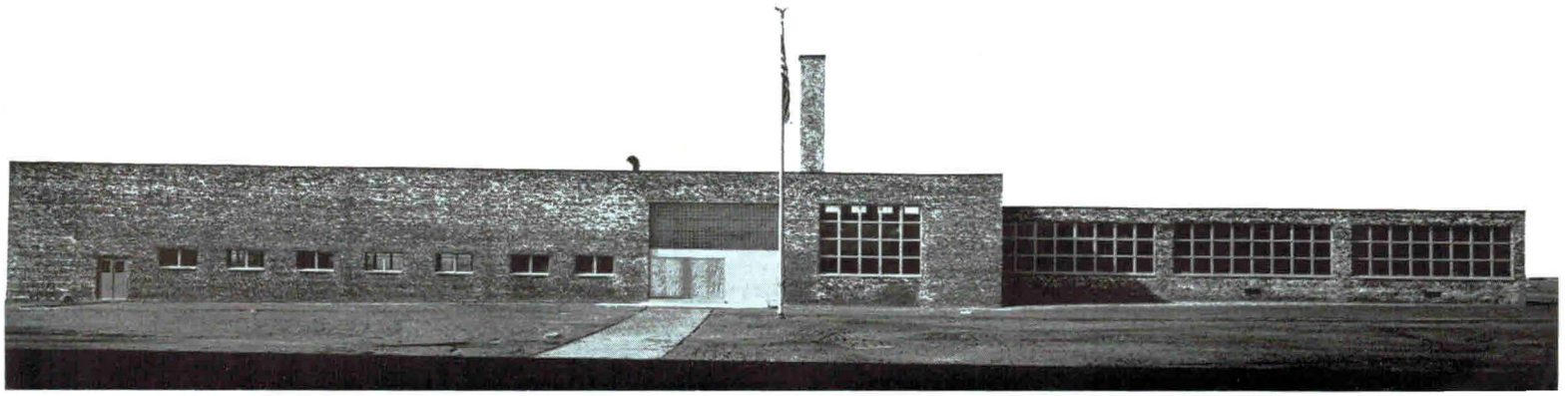
SCHOOLS

COMMUNITY BUILDING, JERSEY HOMESTEADS, HIGHTSTOWN, N. J.

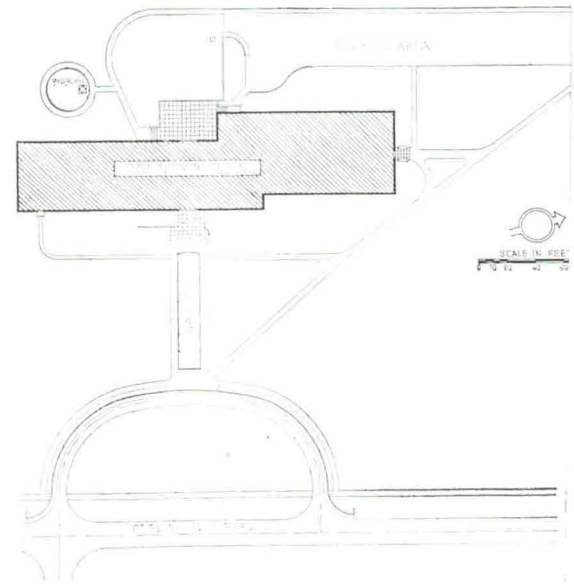
ALFRED KASTNER, ARCHITECT



Robert M. Damora Photos



COMMUNITY BUILDING, HIGHTSTOWN, N.

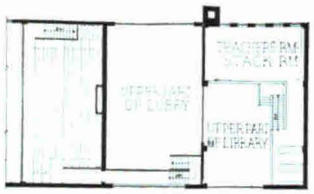


THE trend in small communities toward incorporation of adult recreational facilities with those for elementary education has a distinguished exemplar in the new Community Building at Hightstown. Obviously built with an extremely restricted budget, the building reflects the limitation in its materials and in the almost temporary character of some of the interiors. The vigorous handling of the design, however, and particularly the interiors, indicate that lack of funds is by no means synonymous with lack of distinction. Moreover, it is interesting to see that what little money was available for trimmings has been concentrated—with uncommon success—on a fresco and the main entrance doors of hammered sheet aluminum. The building as it stands is not yet complete; proposed additions will increase the size of the stage, provide a nursery unit, and wading pool; athletic fields are also included in the general scheme.

MURAL IN LOBBY

ALFRED KASTNER, ARCHITECT

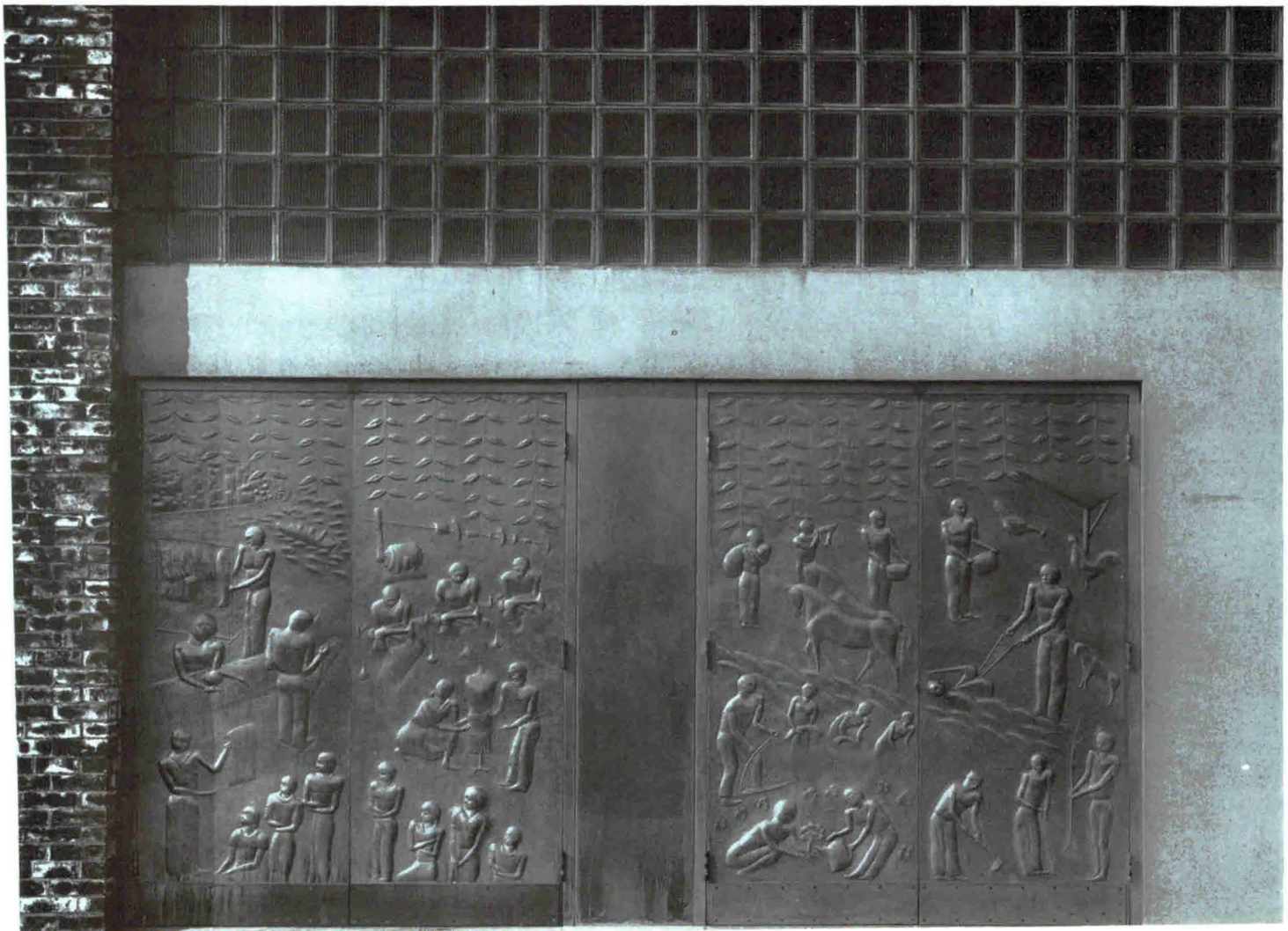
ARTHUR PATTERSON, CONSTRUCTION ENGINEER.
BEN SHAHN, PAINTER.
LENORE THOMAS, SCULPTOR.
OTTO WESTER, METAL WORKER.
THE CONSTRUCTION DIVISION,
RESETTLEMENT ADMINISTRATION, BUILDERS.



BALCONY PLAN

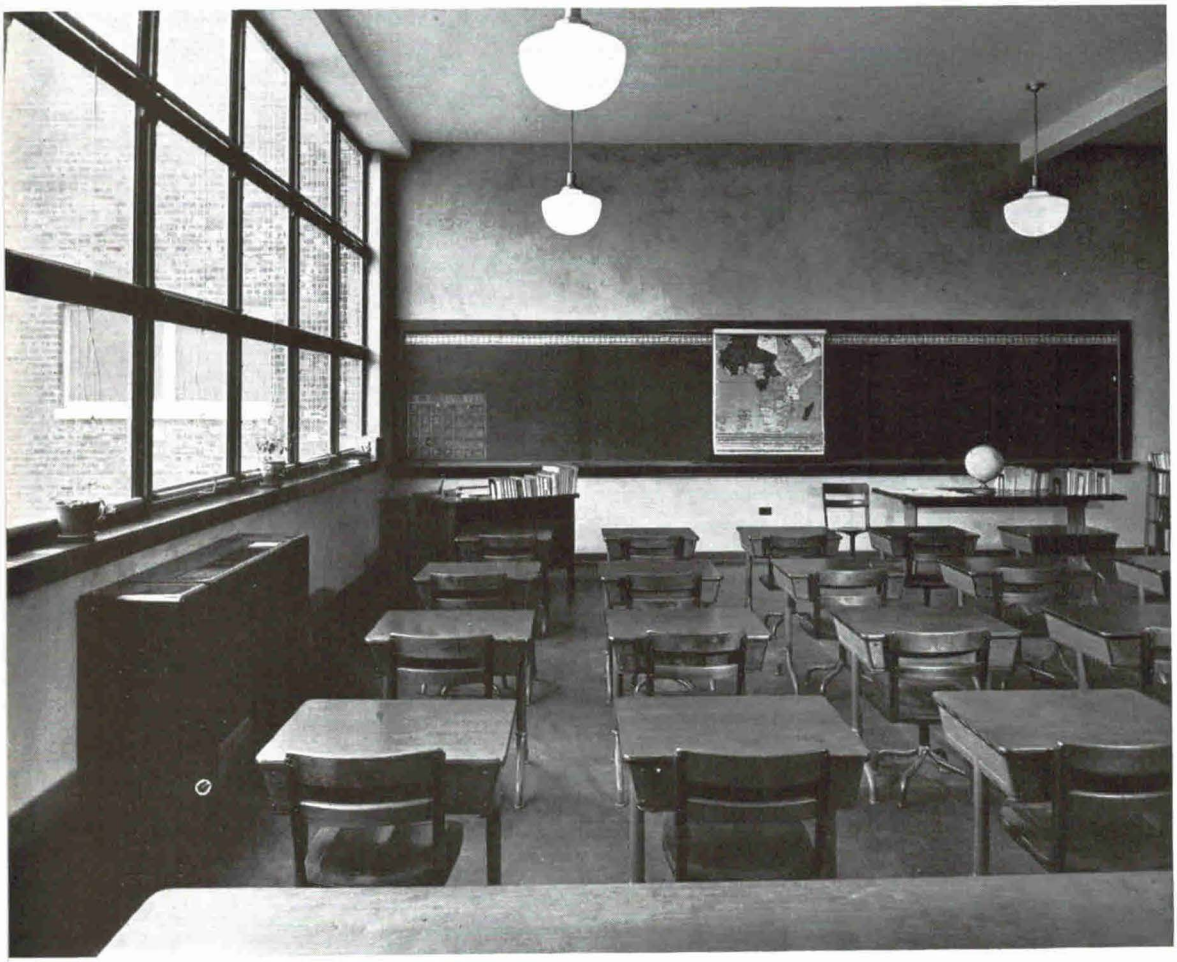
FLOOR PLAN

MAIN ENTRANCE...DOORS IN HAMMERED ALUMINUM



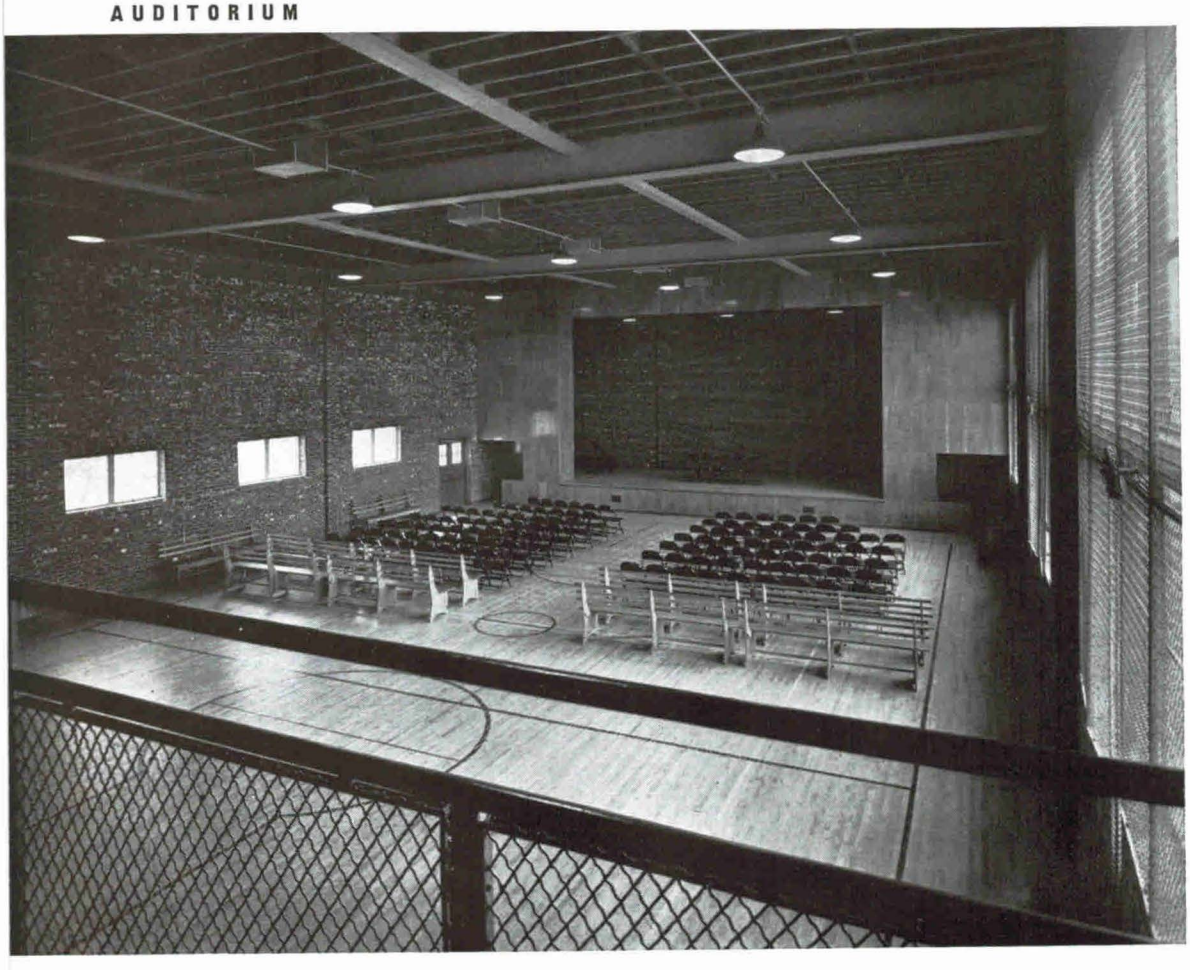
COMMUNITY BUILDING, JERSEY HOMESTEADS, HIGHTSTOWN, N. J.

ALFRED KASTNER, ARCHITECT



CLASSROOM

AUDITORIUM



CONSTRUCTIO

FOUNDATION: Walls and footings reenforced concrete.
FIRST FLOOR: Reenforced concre over air space. Finish—asphalt ti except gymnasium, which has cle maple.
ROOF: Steel girders on steel column shiplap on wood joists, exposed e cept in classrooms; 1½-inch fib board insulation; five-ply asphalt a gravel roofing; flashing: 16-oz. co per.
PLASTER: Three-coat painted f classrooms and toilets; two-coat sa float for halls.
WINDOWS: Awning type project steel sash for gymnasium and clas rooms; projected sash for all oth opening sash; all intermediate weig
PLUMBING: Soil, waste, and ve pipes below ground and outside buil ing—extra heavy cast iron; abo first floor—galvanized steel; wa service—copper tubing.
HEATING: Scotch Marine Type Ste double-pass boiler with heavy du type oil burner for No. 6 oil; cla room heating—unit ventilators; lob and gymnasium—industrial type u heaters, all thermostatically co trolled.
ELECTRICAL: Rigid condu throughout.

HOLLYWOOD HIGH SCHOOL SCIENCE BUILDING

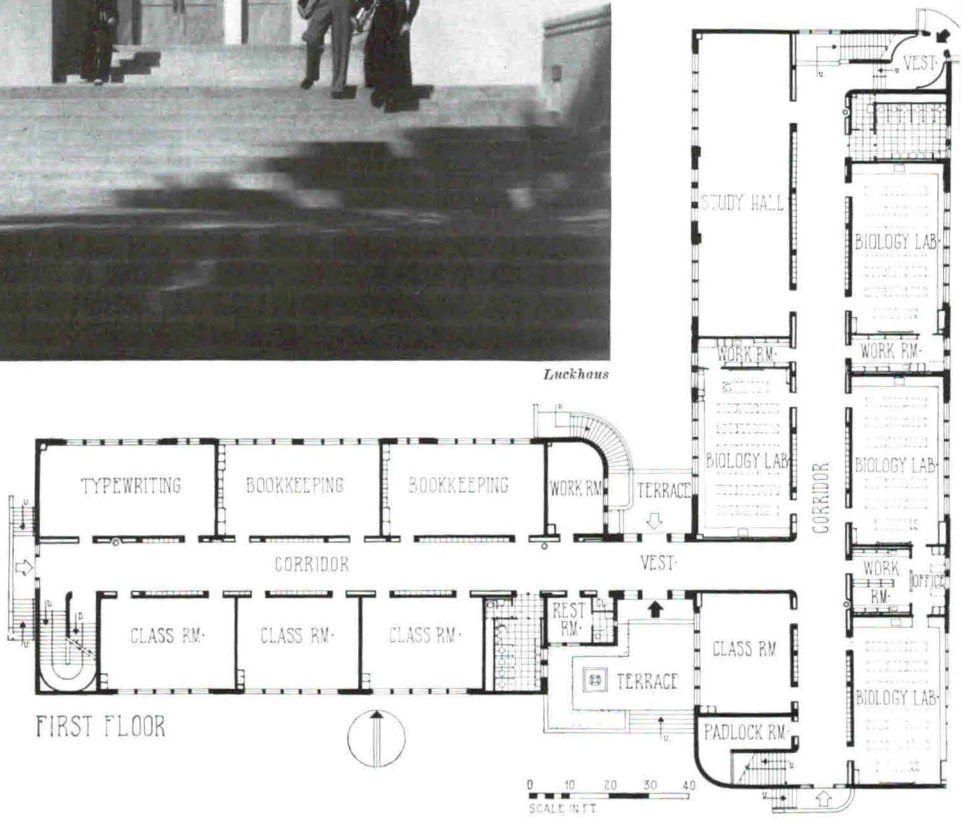
MARSH, SMITH & POWELL, ARCHITECTS

LOS ANGELES, CALIFORNIA

Mott Studios

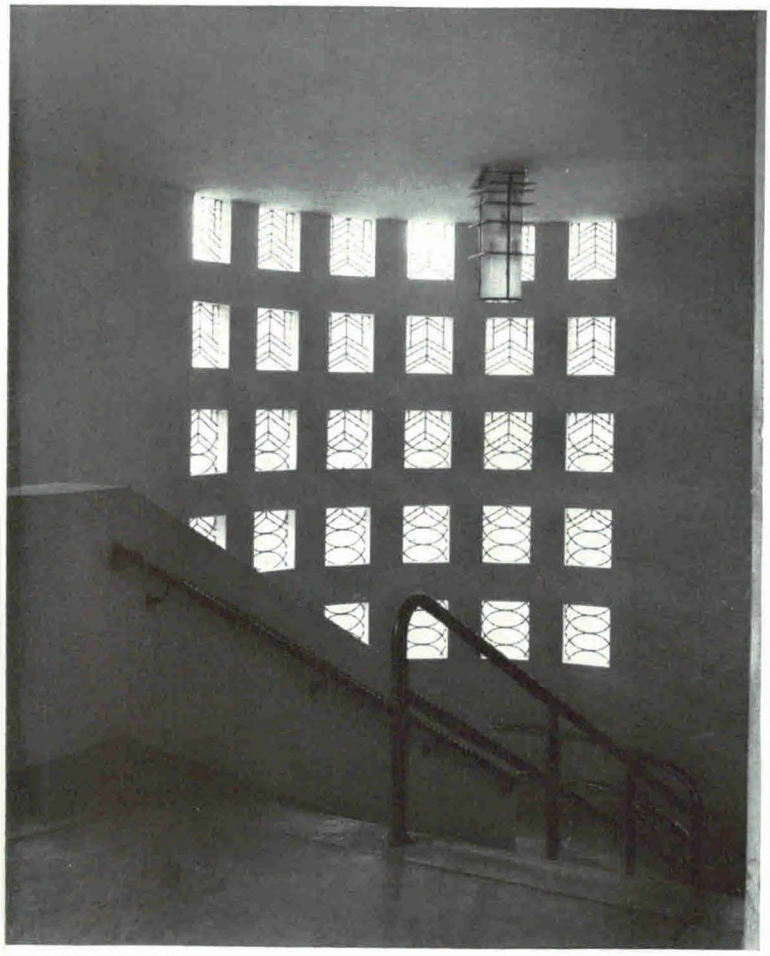
HOLLYWOOD HIGH SCHOOL, SCIENCE BUILDING, LOS ANGELES, CALIF.

Luckhaus

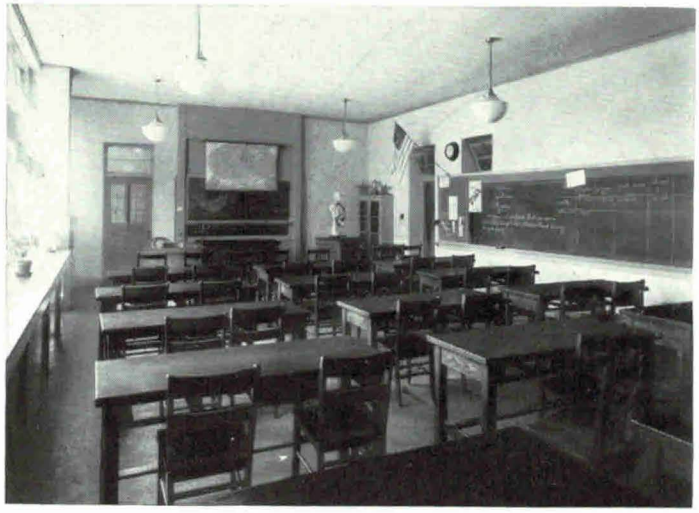


Of reenforced concrete, earthquake-proof construction, this science building is the first unit completed in a program for Hollywood High School. The school accommodates 2,500 pupils, and this building was designed for the use of students taking science and commercial courses. It consists of two blocks, with the entrance in the connecting link, and houses laboratories in one and classrooms in the other. The exterior design represents an attempt to combine conventional fenestration with the requirements of a modern reenforced concrete structure, an approach stipulated by the clients. Cubage: 937,100. Cost: $218,339, at about 23½ cents per cubic foot.

MARSH, SMITH & POWELL, ARCHITECTS D. D. SMITH, STRUCTURAL ENGINEER

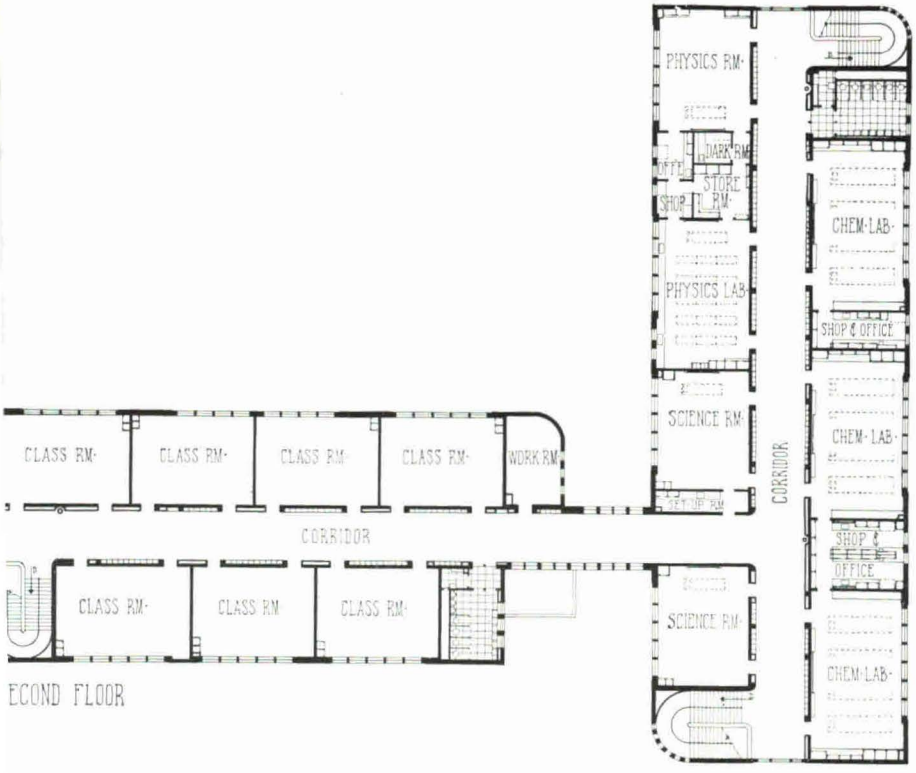


STAIR HALL



CLASSROOMS

Luckhaus Photos

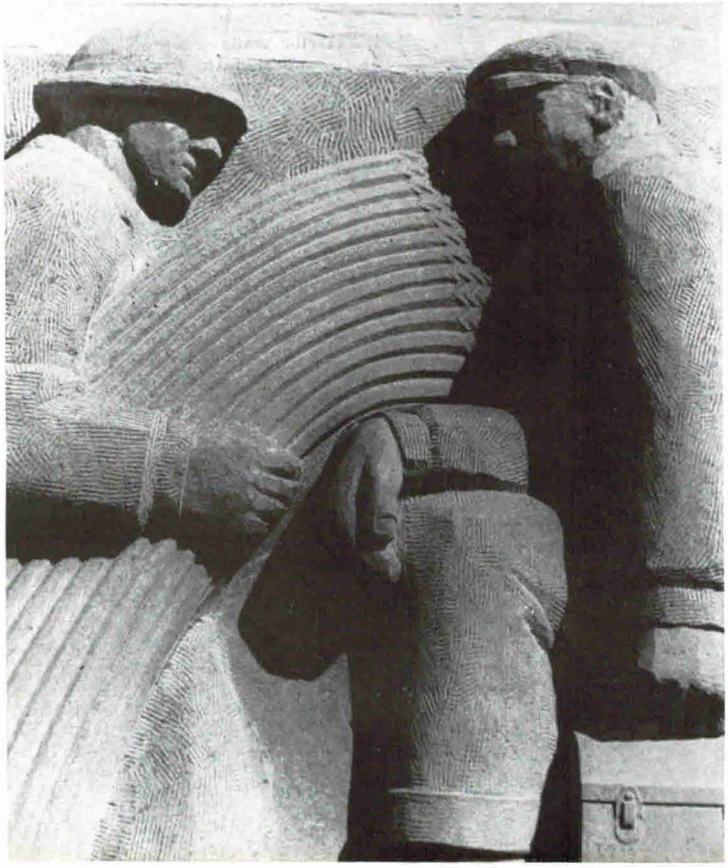


CONSTRUCTION OUTLINE

FOUNDATION: Footings and walls—reenforced concrete.
STRUCTURE: Exterior walls—reenforced concrete. Interior partitions—metal lath and plaster, Blue Diamond Co. Columns—reenforced concrete. Floor construction—reenforced concrete joists.
ROOF: Tar and gravel, Pabco, Paraffine Co.
SHEET METAL WORK: Flashing—copper, Anaconda, American Brass Co.
SOUND INSULATION: Acoustic plaster, Lavalite Co.
WINDOWS: Sash—wood; steel at stairs with leaded glass. Glass—quality A, Pennvernon, Pittsburgh Paint Glass Co.
STAIRS: Reenforced concrete.
FLOOR COVERINGS: Linoleum throughout, except Gladding-McBean Co. tile for toilets.
WOODWORK AND TRIM: Trim—metal, Superior Metal Co. and Oregon pine. Interior doors—oak, Pacific Mfg. Co. Exterior doors—Kalamein, New Orleans Door Co.
HARDWARE: Interior and exterior—Russwin, Russell & Erwin Mfg. Co. Special—Von Duprin Panic bolts, Vonnegut Hardware Co.
PAINTING: Interior: Walls—2 and 4 coats washable wall paint, Sherwin-Williams Co. Trim and sash—4th coat enamel, stain and varnish, W. P. Fuller Co. Exterior: Walls—2 coats Cemolith. Sash—3 coats lead and oil, W. P. Fuller Co.
ELECTRICAL INSTALLATION: Wiring system—conduit, National Enameling & Mfg. Co. Switches—Arrow, Hart & Hegeman Electric Co. Fixtures—Sweitzer Bros.
PLUMBING: All fixtures and pipes by Crane Co.

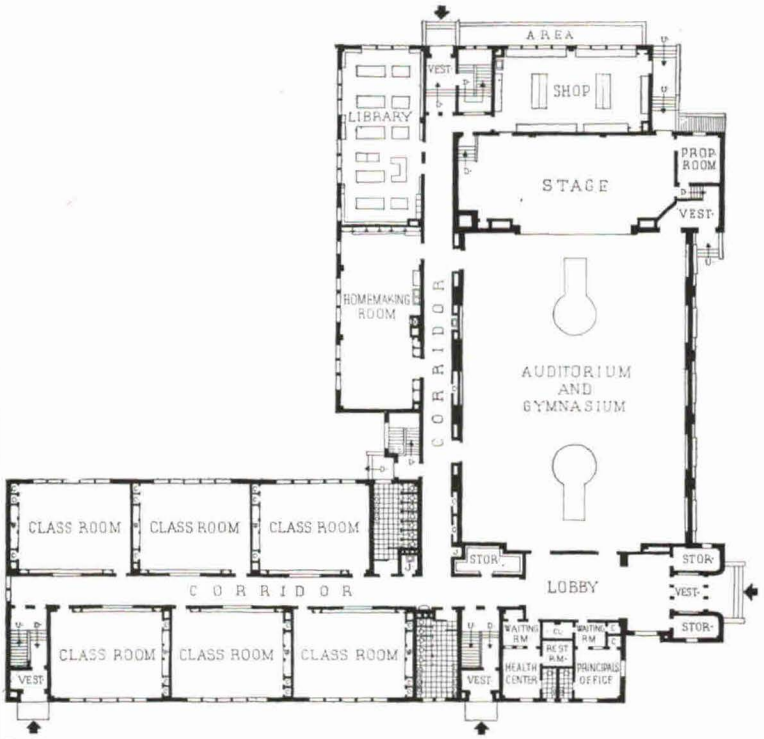
ELEMENTARY SCHOOL AND COMMUNITY BUILDING, GREENBELT, MD

Rothstein

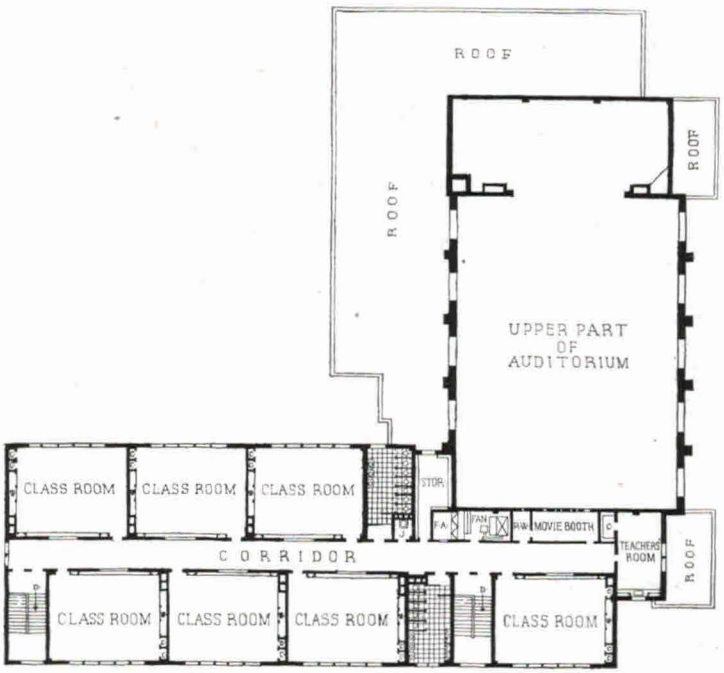


ARCHITECT IN CHARGE OF PLANNING OF THE ELEMENTARY SCHOOL AN
COMMUNITY BUILDING: AUGUST SEIDER.
PRINCIPAL ARCHITECTS OF THE GREENBELT PROJECT: DOUGLAS D. ELLINGTO
AND REGINALD J. WADSWORTH.
TOWN PLANNER: HALE WALKER.
PRINCIPAL ENGINEER: HAROLD B. BURSLEY.

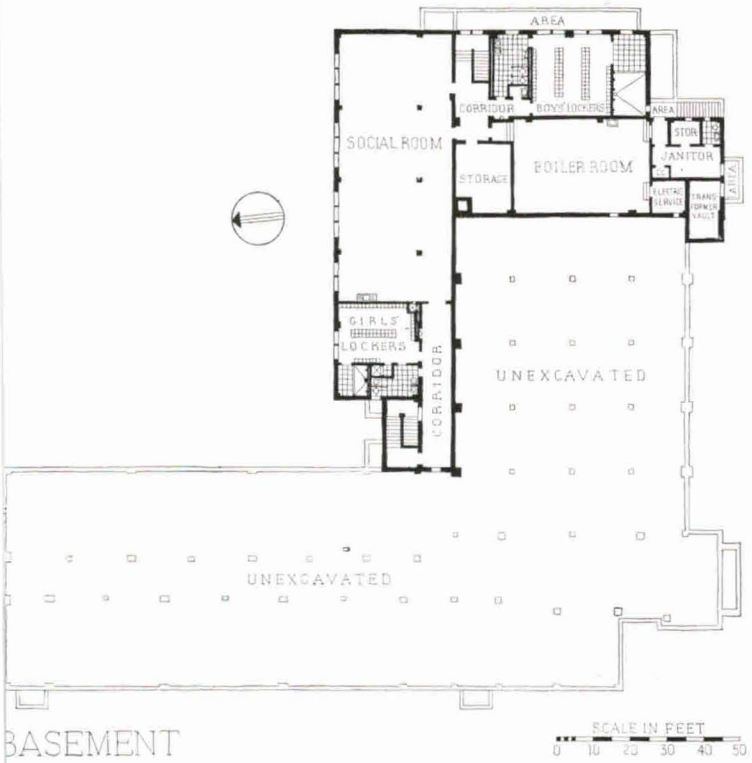
SCULPTURE BY LENORE THOMAS . . . Preamble to the Constitution



FIRST FLOOR



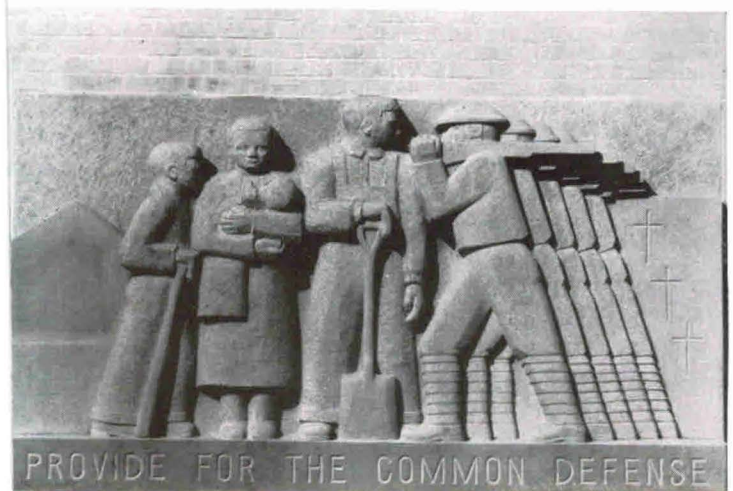
SECOND FLOOR

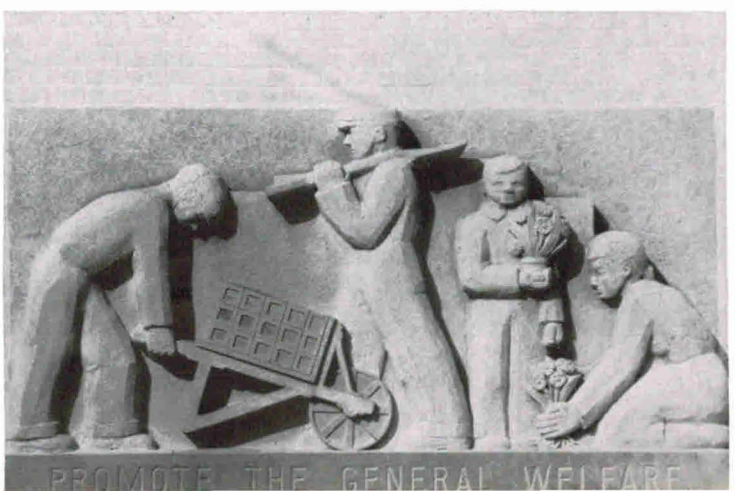


BASEMENT

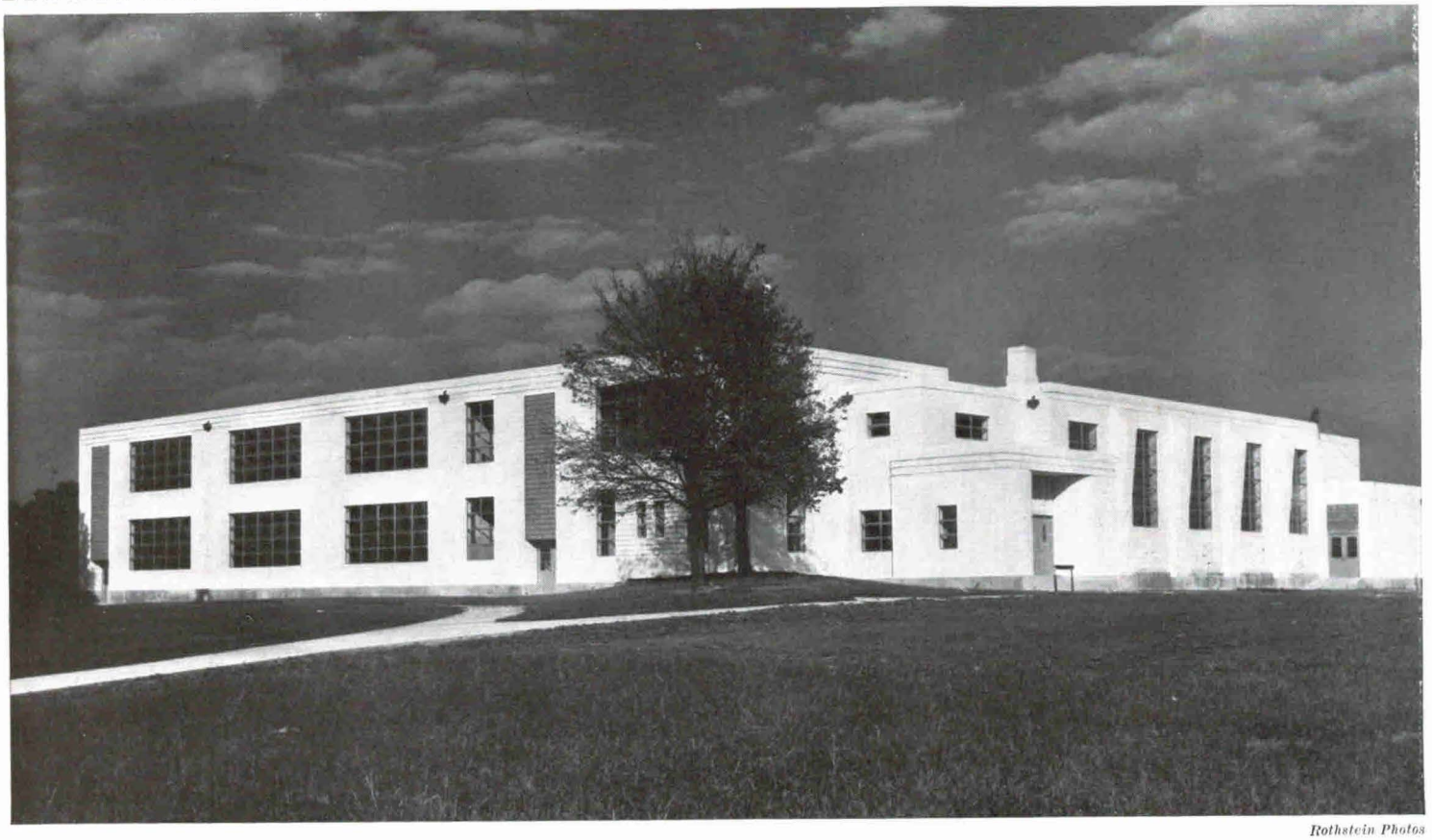
EDUCATIONAL and community facilities are combined in this new building at Greenbelt for reasons of economy in construction and maintenance; an additional advantage of such a scheme in the small community is that a greater range of equipment and accommodations is possible when the units are combined. The school contains classrooms for seven grades, and the usual offices. Overlapping facilities include the combined gymnasium and auditorium, the homemaking room, and the shop, used for both manual training and scenery building. Standard equipment in the classrooms consists of built-in wardrobes for children and teachers, tackboards, and storage space for books and accessories. The auditorium-gymnasium shows great ingenuity in its design; space between the floor and stage level is occupied by storage trucks 20 ft. deep which contain both gymnasium equipment and chairs; heavier equipment such as basketball stops can also be put out of the way with ease. An interesting feature of the exterior is the use of the rigid trusses exposed as shown on the opposite page.

The sculpture by Lenore Thomas illustrates the Preamble to the Constitution.





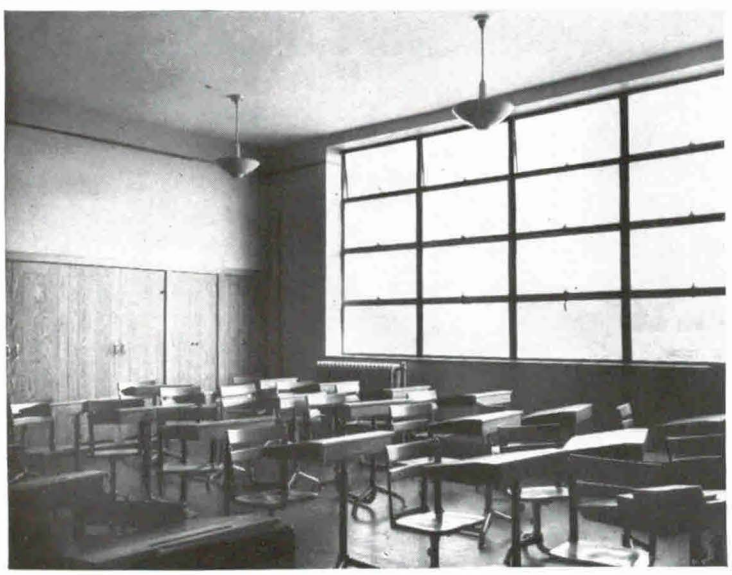
ELEMENTARY SCHOOL AND COMMUNITY BUILDING, GREENBELT, MD.



Rothstein Photos

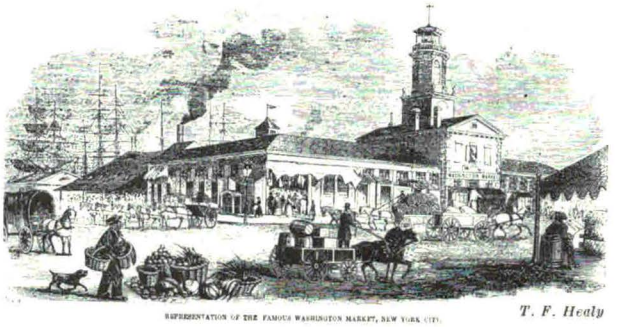
The exterior of the building is brick painted white, and has greater textural richness than can be indicated in a photograph. Glass block panels form dark accents over the doorways, and fenestration is simple and generous. A commercial-type sash is used, and as arranged not only admits ample daylight in the classrooms, but permits any desired degree of ventilation as well. Lighting in the classrooms, as shown, is indirect. The rigid trusses in the auditorium-gymnasium have a vigorous architectural quality and provide a maximum of unobstructed space for games.

CLASSROOM



GYMNASIUM

NO. 9. FOOD STORES



REPRESENTATION OF THE FAMOUS WASHINGTON MARKET, NEW YORK CITY. *T. F. Healy*

The story of retail food distribution centers shows a curiously complete cycle from earliest times to the present day. The primitive open-air market, which finds its counterpart in the general store of rural communities, is today recalled by the so-called super-market, a new type of merchandising unit large in size, highly departmentalized, in which almost every conceivable variety of foodstuff is sold.

Between these two historical extremes one finds a trend toward specialization, which reached a peak in the 18th century. At this period one finds fruiterers, greengrocers, butchers, wet salters, costermongers, cheesemongers, etc., with almost every item of food sold in a separate shop. Since that time the process has been reversed, with a slow tendency toward amalgamation of the various lines of merchandise, and culminating in the grocery store as it is found in the average community.

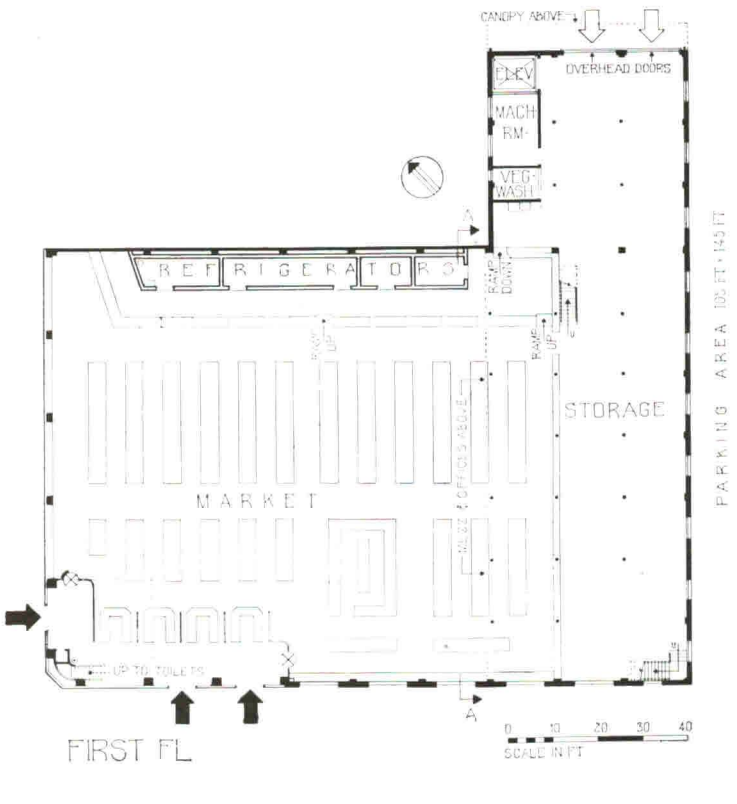
The outstanding development in the field of specialized retailing during the past decade has been the chain store, characterized by decreasing service (delivery and credit), standardization in equipment and goods, and by large-scale purchasing and distribution. The main facts in the business during the past decade have been the bitter struggle between independents and chains, the discovery by the former that they could compete effectively by forming buying cooperatives, and finally the formation of a united front between chains and independents to fight the newest threat—the super-market.

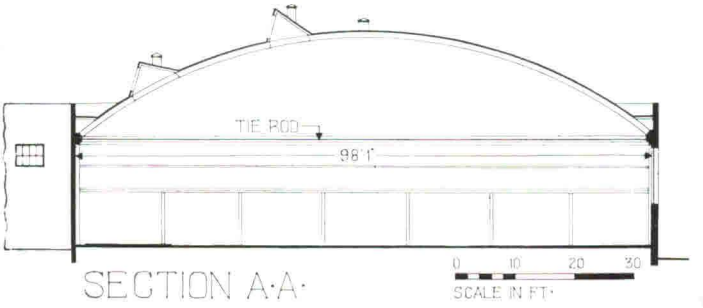
While the furious competition has had many deplorable results, chief of which has been the wasteful duplication of selling units, there can be no question that it has also led to a remarkable development in selling and distributing techniques, and material advances in planning and equipment design. Whether chains, cooperatives, or independents will eventually dominate the field is still a matter of conjecture; at present each type, and its various modifications, seems to have enough advantages to ensure continued existence. Examples of the latest work in each of these categories are shown on the following pages.

Previously published in this series: NO. 1. SERVICE STATIONS, February 1937; NO. 2 SHOE STORES, March 1937; NO. 3. CAFETERIAS AND LUNCHEONETTES, May 1937; NO. 4. WHOLESALE SHOWROOMS, June 1937; NO. 5. DRUG STORES, July 1937; NO. 6. BOOK STORES, September 1937; NO. 7. HOTEL AND RESTAURANT BARS, November 1937; NO. 8. FURNITURE STORES, February 1938. Readers wishing specific detailed information on Food Stores and other subjects previously published are invited to address inquiries to the Forum's Editorial Research Department.

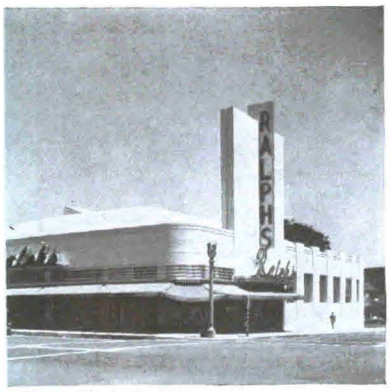
RALPH'S GROCERY, SANTA MONICA, CALIF. MORGAN, WALLS & CLEMENTS, ARCHITECTS

The Mott Studios





An excellent example of the super-market. This type of establishment has been in existence for a comparatively short time; it entered the field as a price-cutting store, rapidly developed on a more solid basis, and today is represented by 3,200 outlets 1,000 of which have been opened during the last year. It is generally a mixed owner- and concession-operated store, although many are only large, highly departmentalized food stores, operated by a single owner. The market shown is typical in its use of clear-span roof construction, here the Lamella system, wide aisles and a large, completely exposed stock



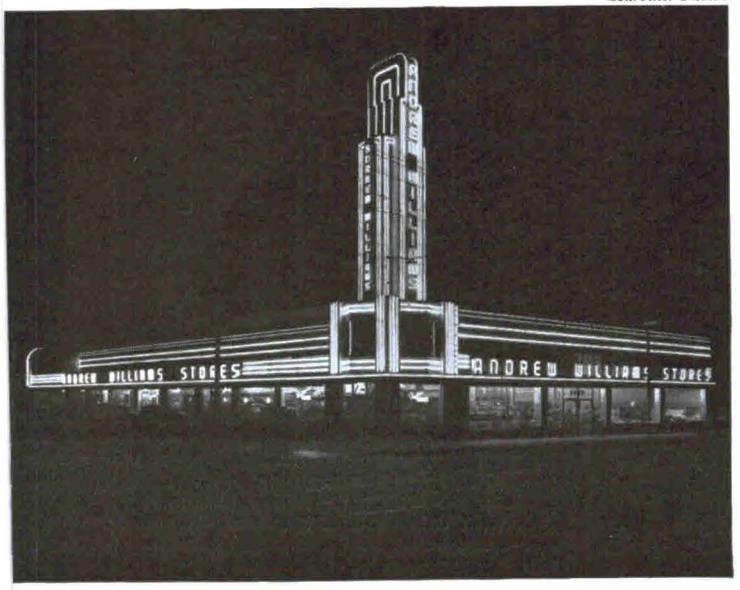
Photos, The Mott Studios — *Courtesy Super-Market Merchandising*

The use of more or less standard exteriors, an almost invariable chain store practice, is continued in the new chain markets. The three Ralphs Markets above are a characteristic example. The open-type front has been abandoned, a certain uniformity of design is maintained, and emphasis is placed on large signs and ample show window area.

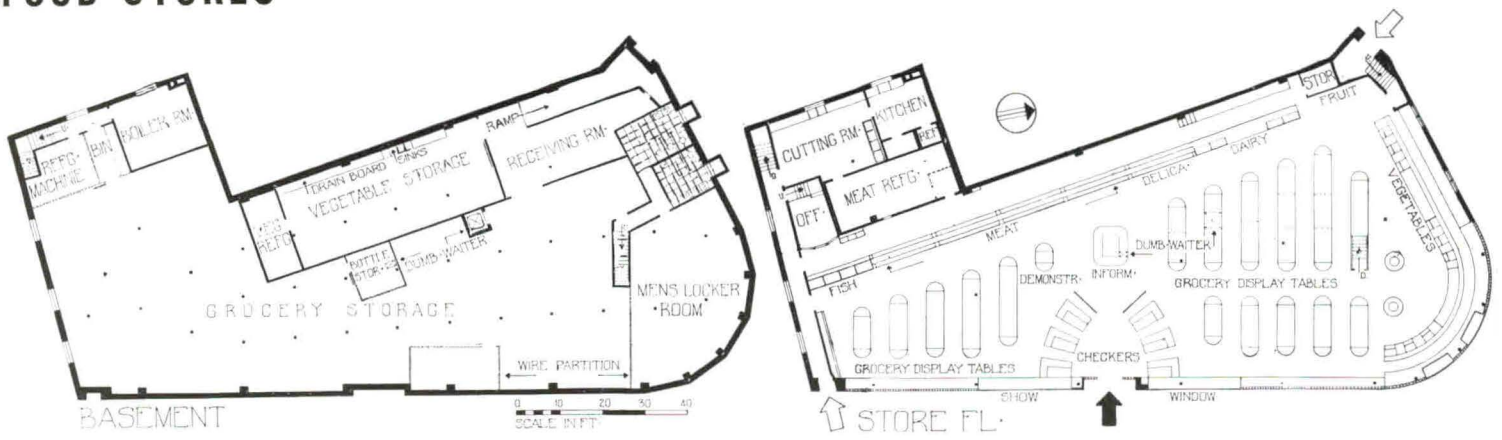
ANDREW WILLIAMS STORE, OAKLAND, CALIFORNIA, EDWARD T. FOULKES, ARCHITECT

Super-markets have been most successful in southern California; the size these establishments sometimes attain is well illustrated by the photograph on the right. The customer serves herself, using a basket furnished at the entrance. Display stands are particularly well worked out in this instance, consisting of fourteen-foot units with setback shelves and detachable ends. A vast quantity of merchandise can be effectively displayed in this manner, and the orderly appearance contributes to the generally favorable impression. Checking units, consisting of counters and cash registers, are located at each entrance.

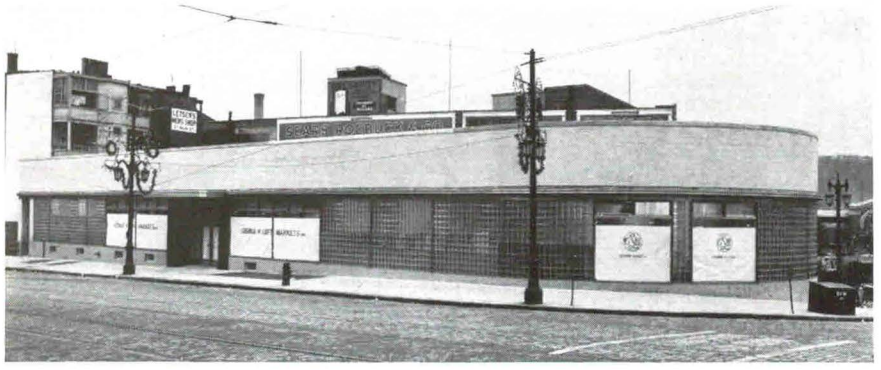
Schreiner Photos

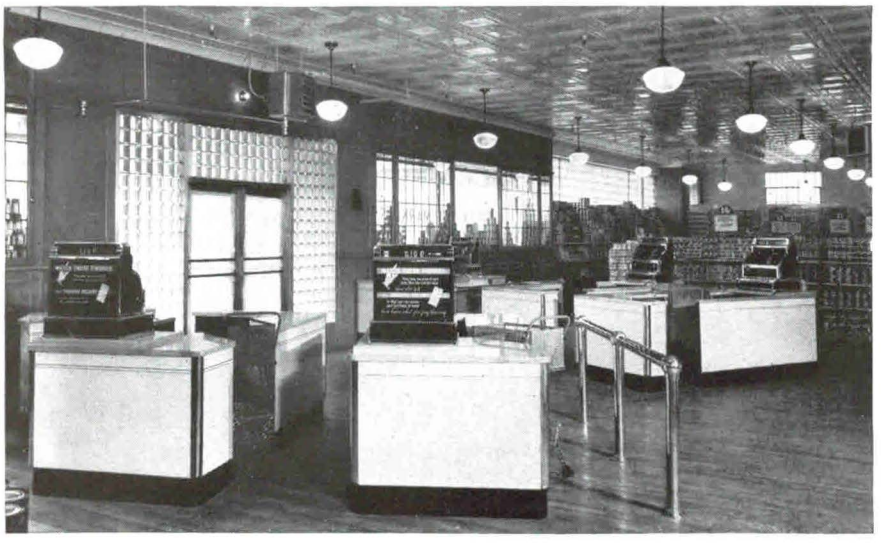


FOOD STORES



GEORGE W. LOFT MARKETS, INC., YONKERS, N. Y. WILLIAM HIGGINSON & SON, ARCHITECTS

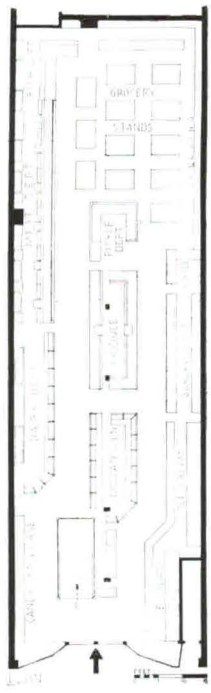


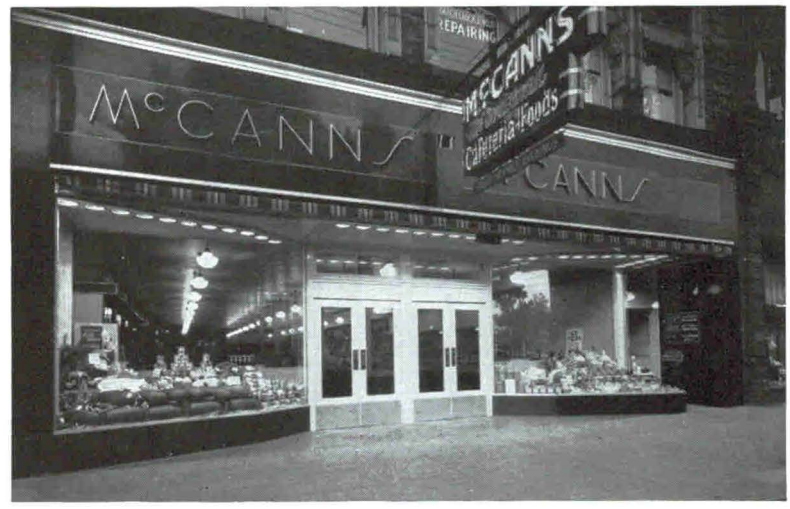


The Loft markets show some interesting innovations made by a firm of industrial architects, who applied their specialized knowledge to a new problem. The checking counter arrangement was an attempt to provide a less forbidding entrance, and the unit includes an information desk as a novel addition to the customary facilities. As these supermarkets buy in large quantities direct from manufacturer and farmer, ample storage space must be provided. In this case ramps to the basement have been installed, greatly increasing the convenience of circulation between basement and selling space. To aid customer circulation, standard glass lettering has been adopted for each department.

FINISHES AND EQUIPMENT

Floor: Maple treated with Minwax, Minwax Co. Walls Plaster and porcelain enameled metal, Glass block or front, Pittsburgh Corning Corp. Interior signs: Garcia Refrigerator equipment: York Ice Machinery Corp Heating: Petro Oil Burner, Petroleum Heat & Powe Co. with unit heaters. Radiators in basement. Cases for meat, baked goods, delicatessen; also shelving an display tables, C. V. Hill & Co.





McCANNS, WASHINGTON, PA.

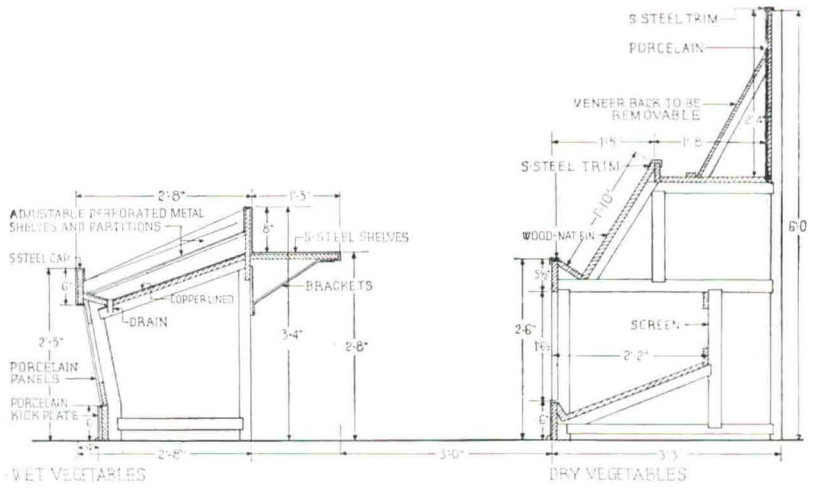
PRACK & PRACK, ARCHITECTS

A large neighborhood service store, catering to highest-income families as well as budget-minded shoppers. The shop includes a quick-lunch counter as well as complete food departments, and has a cafeteria with accommodation for 250 in the basement. It is a particularly good example of cooperation between architect and equipment company, and shows unusual simplicity in design and arrangement. The store is air conditioned throughout.

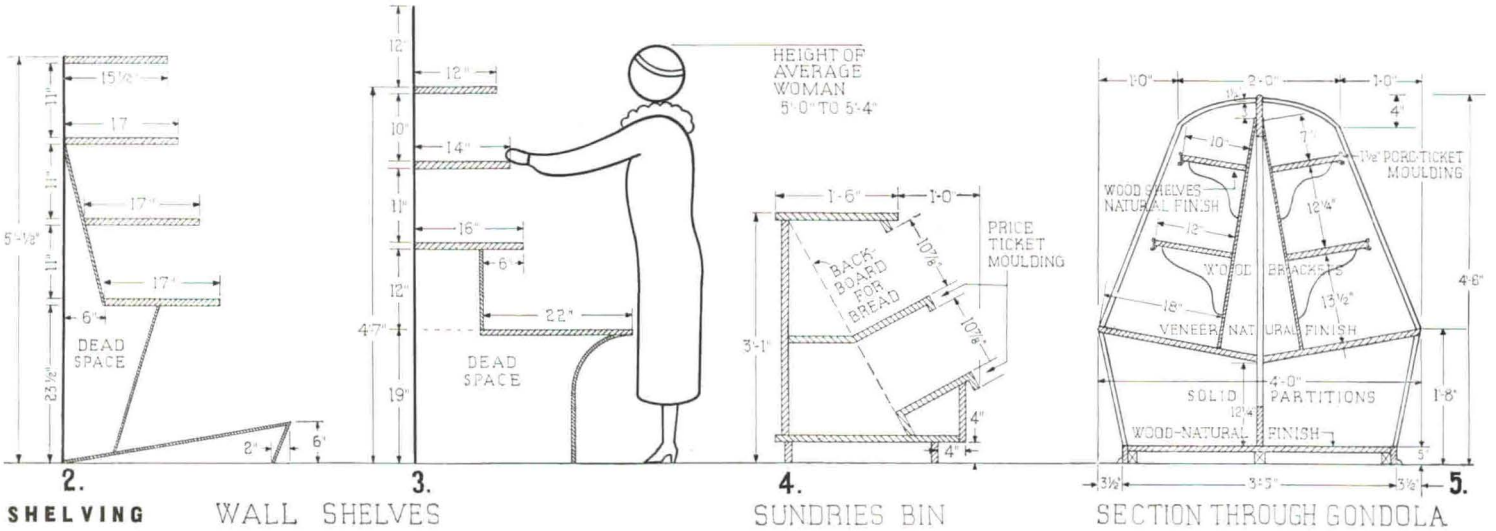
All photos Rembrandt Studios, courtesy C. V. Hill Co.

FOOD STORES

VEGETABLE STAND, SHOWN IN SECTION



1.



2. SHELVING

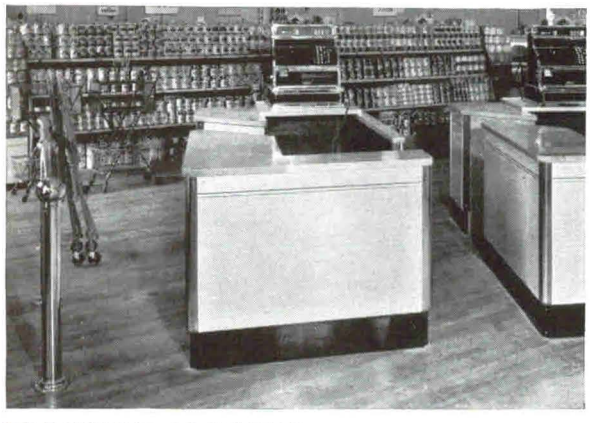
3. WALL SHELVES

4. SUNDRIES BIN

5. SECTION THROUGH GONDOLA

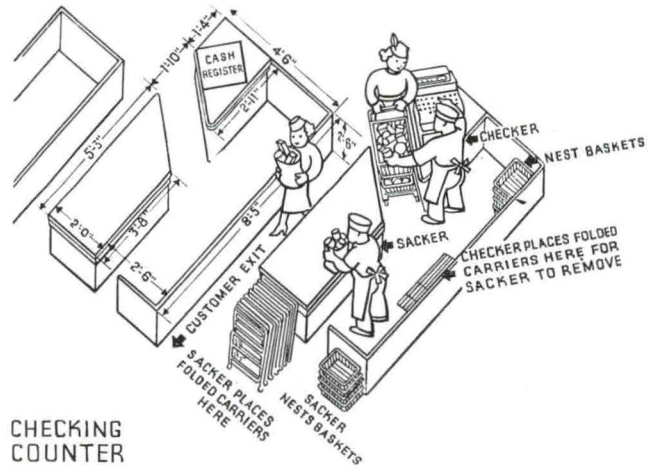
FOLDING CART

6.



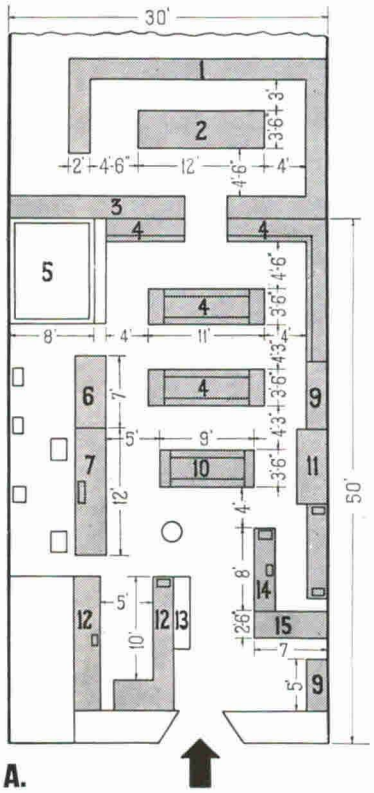
7.

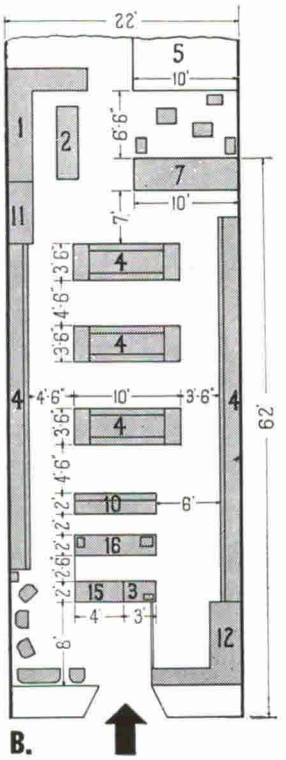
CHECKING COUNTER



8. CHECKING COUNTER

1. William Higginson & Son, Architects. 2, 3, and 4. Courtesy "Progressive Grocer." 5. William Higginson & Son, Architects. 6. Courtesy The Folding Basket Carrier Co., Inc. 7. William Higginson & Son, Architects. 8. Designed by Humpty-Dumpty Stores.





1. ORDER STOCK
2. ORDER COUNTER
3. PRODUCE COUNTER
4. GROCERIES
5. COOLER
6. FISH
7. MEAT
9. PLATFORM
10. BAKERY
11. REFRIGERATOR
12. FRUIT AND VEGETABLE
13. BASKETS
14. COUNTER
15. CANDY CASE
16. CHECKING

FRUIT AND VEGETABLE DISPLAY STANDS

The nature of the merchandise makes the produce department a service feature, even in a self-service store. For this reason provision must be made for clerk access to all sections. Illustration **(1)**: clerk and scales out of customer circulation, provides shelf behind front stand for wrapping and packaging, space beneath for wrapping supply. Stand gives the effect of one continuous mass display.

Where the produce department cannot make use of wall space, a three or four sided island with clerk space within can be made of continuous front stands.

SHELVING

Women buy almost entirely through their eyes in service as well as self-service stores and shelving should be arranged accordingly. The setback shelves make it possible for the eye to take in the entire shelving, provided that the lowest shelf is not below 19 inches from the floor. Space below this area has no sales value and should be used only when size of store is inadequate for stock. The bottom shelf must project and the top shelf must be within easy reach. The bin arrangement for bottom shelf provides opportunity for bulk goods or packaged merchandise arranged so that labels read upwards. There is no good reason for an overhang above the top shelf—which only encourages piling merchandise higher yet—unless for support of directional signs.

Shelving **(3)** is adequate for medium size store, and recessed base permits women to step closer to reach higher shelves. Shelving **(2)** is for markets which need extremely large capacity. Shelving **(4)** for packaged goods and cracker tins can also be used for breads by inserting slanting backs. By assembling two units of this type back to back and edging the flat top with 2-inch strip of gondola for aisle use can be erected. Gondola **(5)** dimensions are for super market use. Some merchants find level shelves more practical, but for self-service stores, especially those with large stock, the slanting shelves make it easier to unload. Platforms set at the ends provide mass display space for special or feature items. Curved platforms widen aisles and are especially good where carts are used.

FOLDING CART

The folding cart is the outgrowth of self-service needs, particularly the super market and large neighborhood combination store; and has increased shoppers' purchases twenty-five per cent over the earlier basket. Not all customers will use them, however, so they must be supplemented by the regular wire basket with folded arms which can be nested when not in use and also used on lower level of cart for additional cart capacity. Its folding characteristic is a 1937 invention, improving on the rigid type cart which took up nine times as much storage space.

CHECKING COUNTER

An important principle in checking counter design is the placement of cash register so that cashier uses right hand for machine and left to lift out packages. Where traffic requires two or more cash registers, each should be on a separate counter.

Photograph of checking counter illustrates correct cash register placement, but could be improved by locating clerk's entrance where there is no interference with other aisle passage.

In large stores a diagonal series of checking counters is preferable as it provides access from more than one direction to the narrow aisle passage.

Often desirable to have sacker's counter lower than cashier's for ease in wrapping large orders.

STORE LAYOUT

Wherever space limitations permit, the produce section should be near the front as it is colorful, attracts customers, and needs the best ventilation.

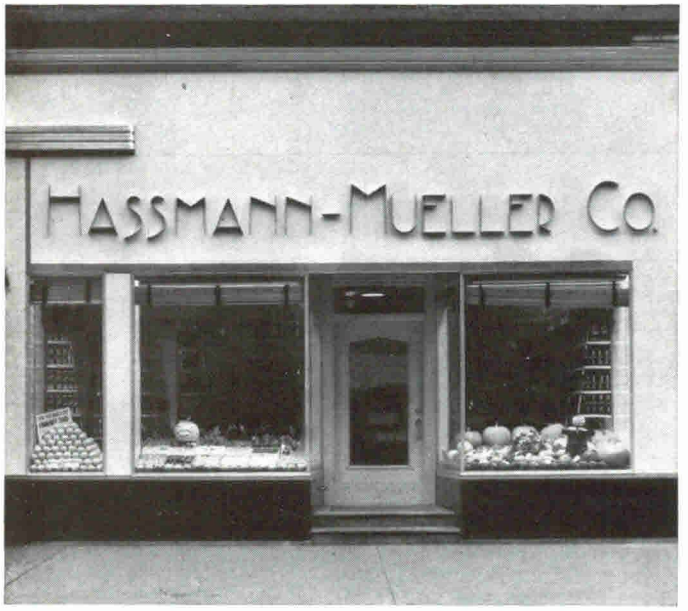
The meat department is generally placed on the left side with its counter extending to cooler at rear of store. This enables passerby to see from exterior that meat department is included in store's facilities.

Two theories dominate placement of dairy goods—a demand item. One claims it should be located in front to relieve traffic, the other at the rear in order to induce traffic to pass other departments.

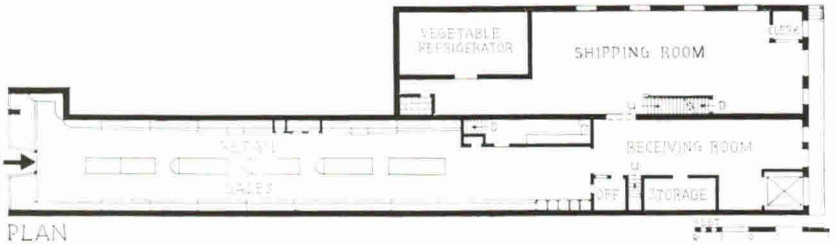
Remaining space for groceries.

Plans (A) and (B) include complete self-service salesroom with order space for delivery or phone orders. (A) large space for store with more than 50 delivery orders a day and (B) smaller order service, but separated from rest of store to avoid confusion.

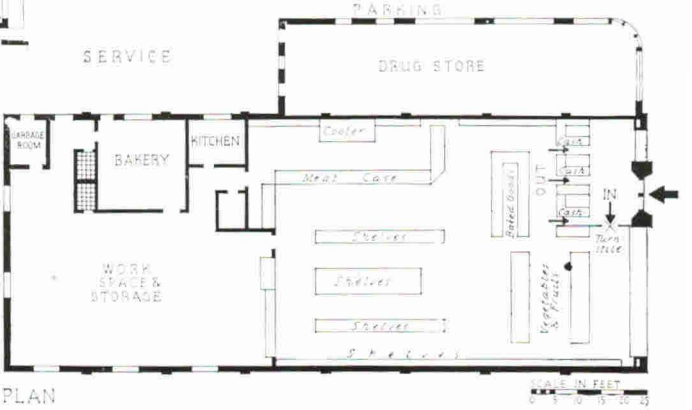
(B) provides rest space, very important in small town stores catering to rural trade, providing meeting place for husband and wife in town for supplies, and adds neighborly note to 1938 efficiency.



HASSMANN-MUELLER CO. MILWAUKEE, WIS. C. F. RINGER & SON, ARCHITECTS FOR THE EXTERIOR

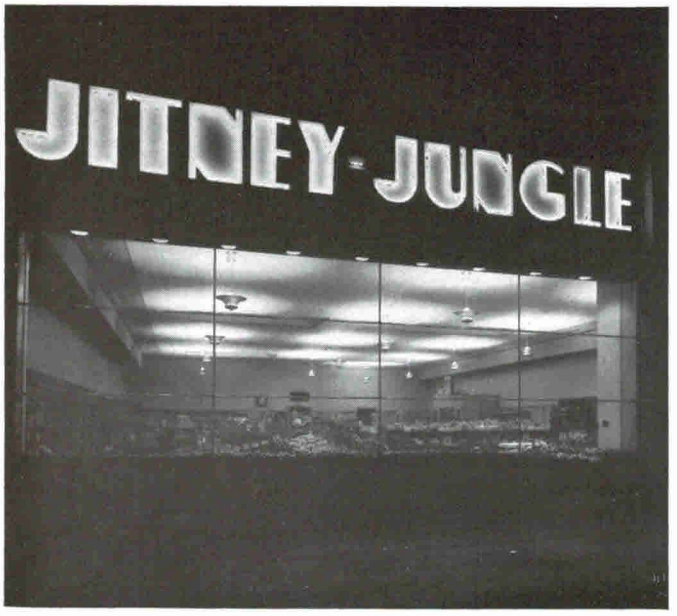


PLAN



PLAN

JITNEY-JUNGLE STORE NO. 12, JACKSON, MISSISSIPPI. R. W. NAEF, ARCHITECT



Hiatt Studios

Tyler & Murphy

FRED WOLFERMAN, INC., KANSAS CITY, MISSOURI. EDWARD W. TANNER, ARCHITECT

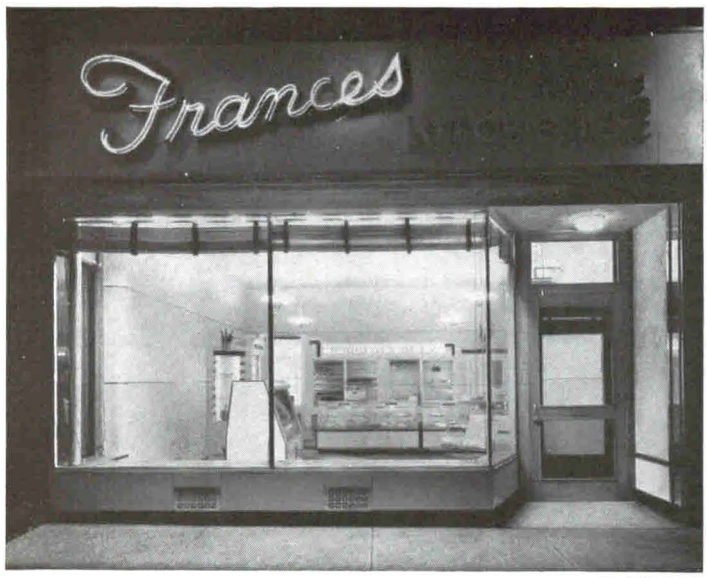
Illustrated on these two pages are three neighborhood stores, each with a different space problem. The Hassmann-Mueller shop, recently remodeled, occupies a very narrow and deep plot which necessitated a straight-line plan for shelves and stands. The design of the shelving, with bins underneath for vegetables, conforms to the latest accepted standards for such equipment. The Jitney-Jungle is a self-service store, with the characteristic wide aisles, accessible stock, and prominent markers and price tags. Its large show window is properly designed to leave the interior as visible as possible. Wolferman's differs from the others in that it carries higher-priced merchandise and does about 75 per cent of its business over the telephone. In consequence selling space is small in comparison with storage and delivery rooms, and less emphasis is placed on the display of large quantities of stock. The small display windows also reflect the special nature of the shop's trade. Parking space is provided.

FINISHES AND EQUIPMENT

HASSMANN-MUELLER CO.
Floor: Johns-Manville Heavy Duty Asphalt Floor Tile. Walls: Johns-Manville Asbestos Wainscoting. Ceiling: Johns-Manville Decorative Flexboard, with chromium plated snap-on moldings. Interior doors: Enameled steel. Hardware: Chromium plated, Russell and Erwin Mfg. Co. Lighting Fixtures: Graybar Electric Co. Show window lighting by Holophane. Lighting trough at top of shelving by E. V. Bulman Mfg. Co. Radiators: Trane convectors. Cases: All cases, bins, shelving, etc., of enameled steel, by E. V. Bulman Mfg. Co.

JITNEY-JUNGLE.
Floor: Asphalt tile, Uvalde Rock Asphalt Co. Walls: Plaster, painted. Sherwin-Williams Flatwall paint. Trim and interior doors: Yellow pine. Hardware: White metal, P. & F. Corbin. Plumbing fixtures: Kohler. Heating: Clow Gasteam Mfg. Co. Refrigeration: Frigidaire. Equipment: by owners.

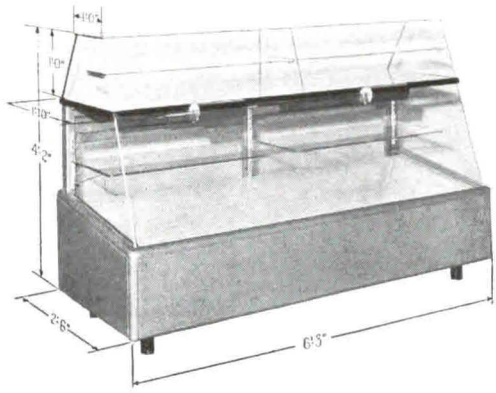
FRED WOLFERMAN, INC.
Floor: Ceramic tile in sales area. Order filling department, maple. Linoleum on balcony. Armstrong's Asphalt Tile in rest rooms.
Walls: Four-foot wainscot of Masonite, order filling room. Main salesroom, walnut paneling to height of fixtures. Ceiling: sales area, Sabinite plaster; ½-inch Acousti-Celotex blocks in four departments off center space, Celotex Corp. Trim: Birch. Doors: Rezo slab doors on interior, M. & M. Woodworking Mfg. Co. Paint: Pittsburgh Paint Co. Lignophol Penetrating Finish by L. Sonneborn Sons, Inc., on floors. Plumbing fixtures: Crane Co. Boiler: Ideal, by American Radiator Co. Refrigeration: York Ice Machinery Co. Refrigerator rooms by Armstrong Cork Co. Equipment: Meat cases by Koch Butchers Supply Co. Other cases and shelving by Kansas City Show Case Works. Bakery equipment, stainless steel, by Smith-St. John Co.

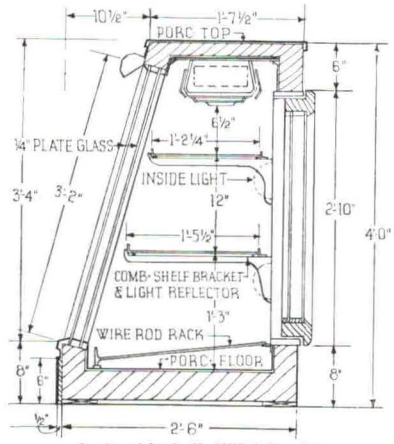


Paul W. Davis

Lodder Photo Service Co.

FRANCES KITCHENS, INC., ROCHESTER, N. Y. DESIGNED BY H. F. HINES, CABLE-WIEDEMER, INC.





Designed by C. V. Hill & Co., Inc.

The two bakeshops on this page show the importance given to sanitary appearance as a factor in merchandising. With well-designed modern cases, good lighting, and restrained but effective use of lettering, both shops represent the new trend in this field. The display cases shown are two of the five non-refrigerated and refrigerated types in current use for baked goods. Basic rules for such equipment are (1) no displays below knee level, (2) adequate illumination for all shelves, (3) bottom shelf tilted for visibility, (4) smooth, flush surfaces, preferably extended down to the floor, for an appearance of maximum cleanliness.

SALTZMAN'S BAKE SHOP, BUFFALO, N. Y. C. THEODORE MACHERAS, DESIGNER

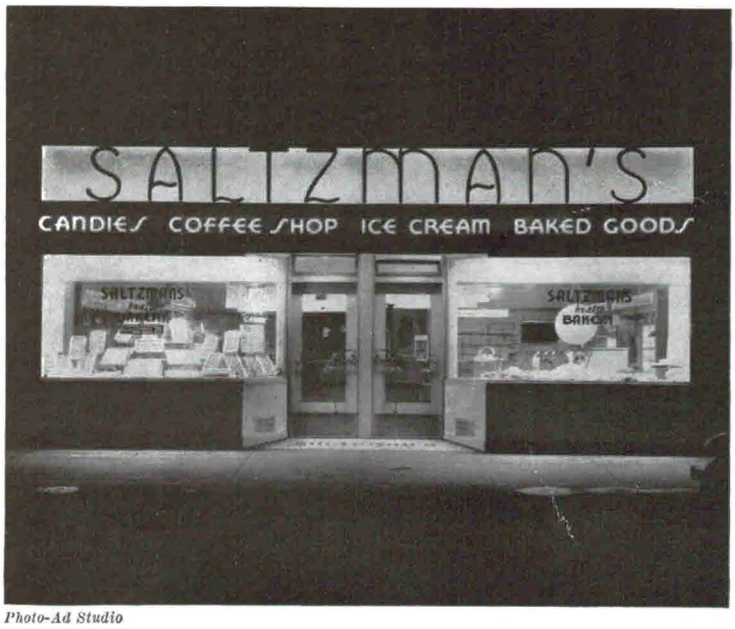
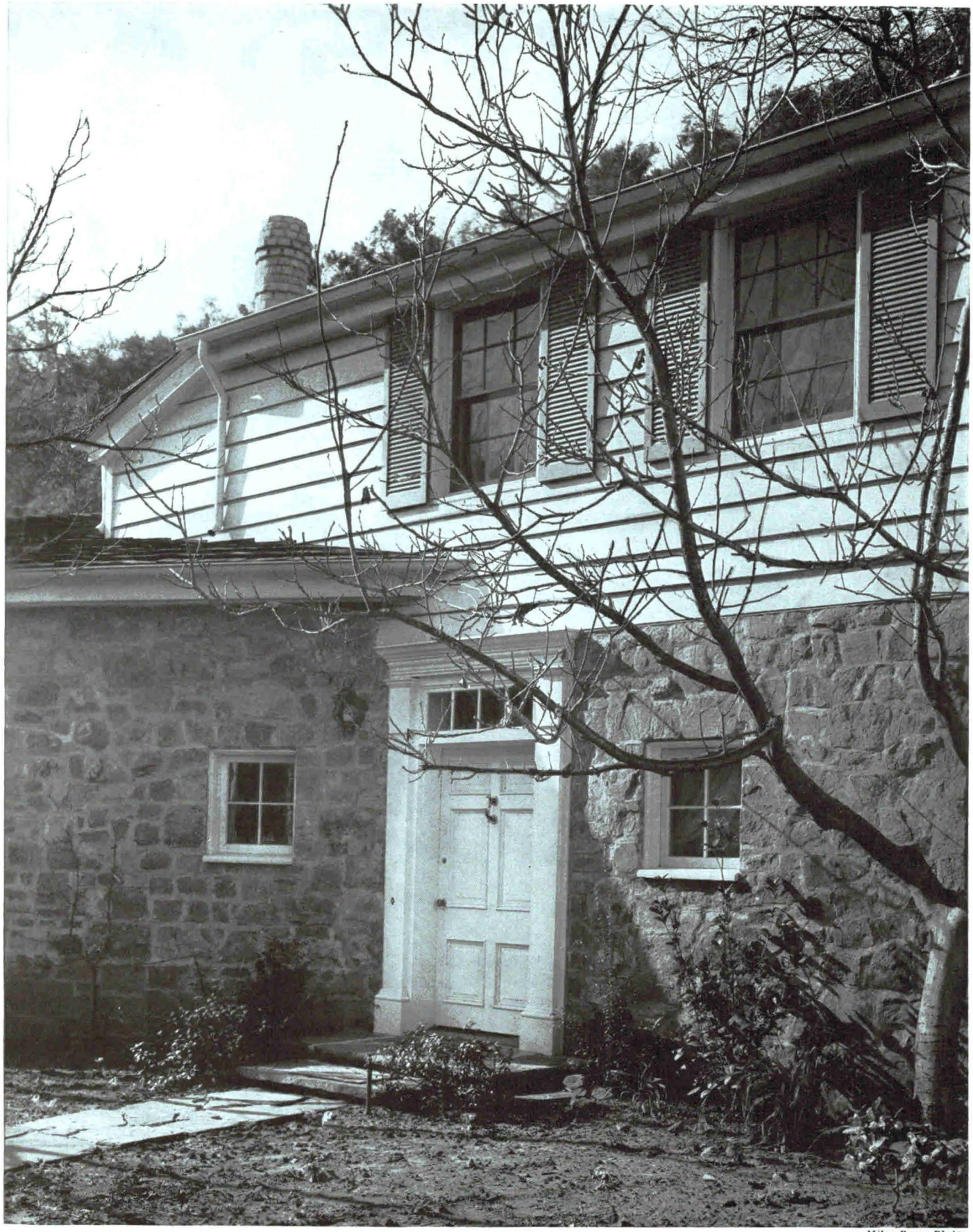


Photo-Ad Studio

All photographs courtesy Columbus Show Case Co.

HOUSES

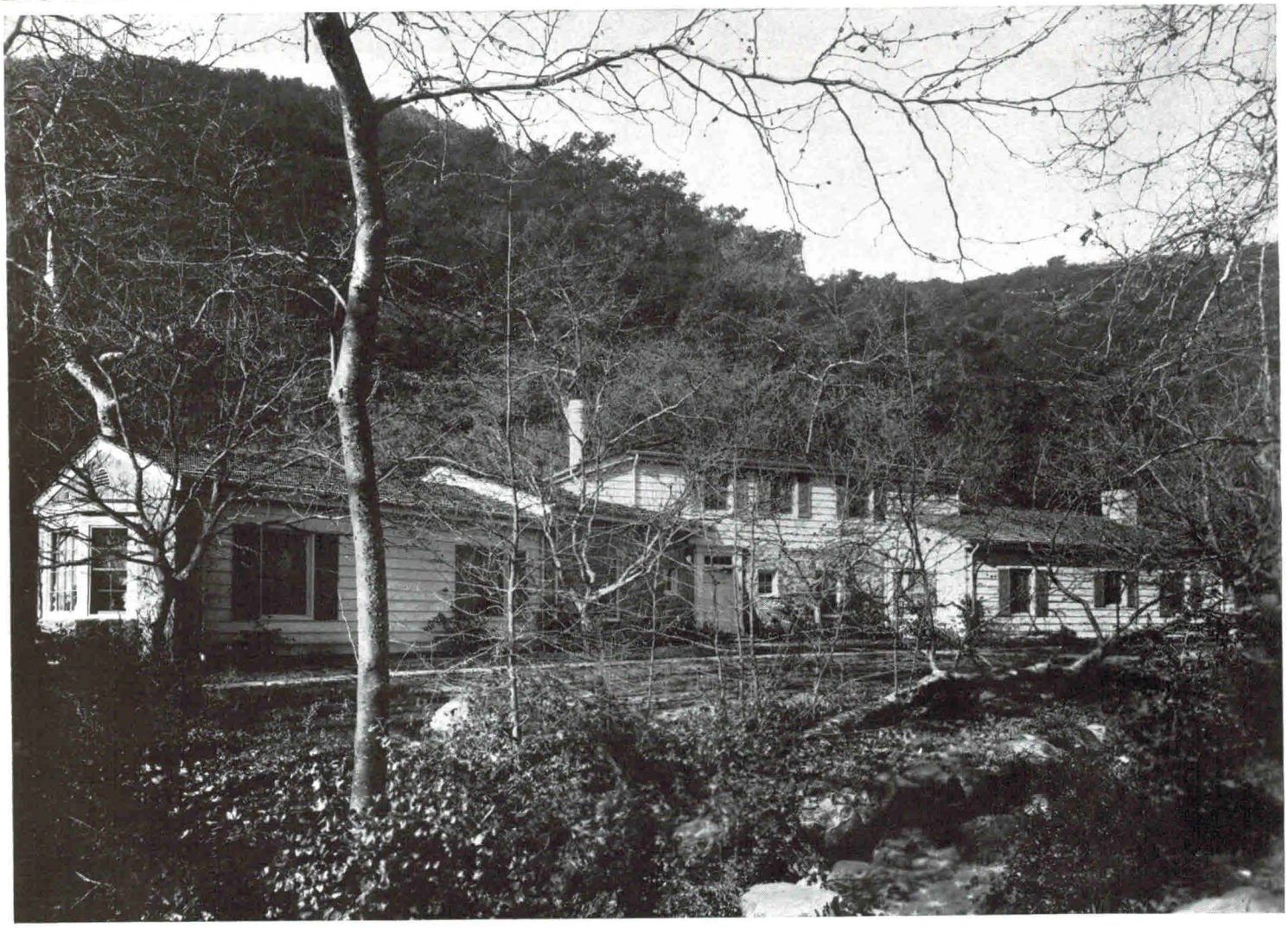
HOUSE FOR DR. AND MRS. R. G. KARSHNER, BEL-AIR, CALIFORNIA

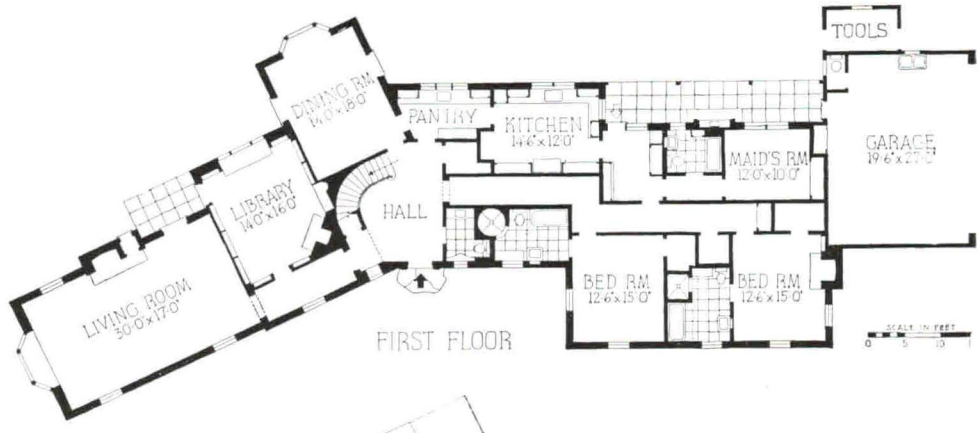


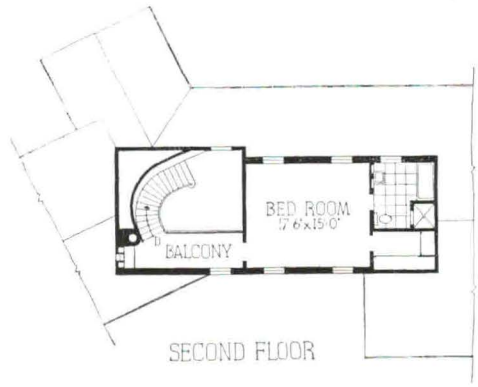
JOHN BYERS, ARCHITECT; EDLA MUIR, ASSOCIATE

Miles Berne Photos

HOUSE FOR DR. AND MRS. R. G. KARSHNER, BEL-AIR, CALIFORNIA



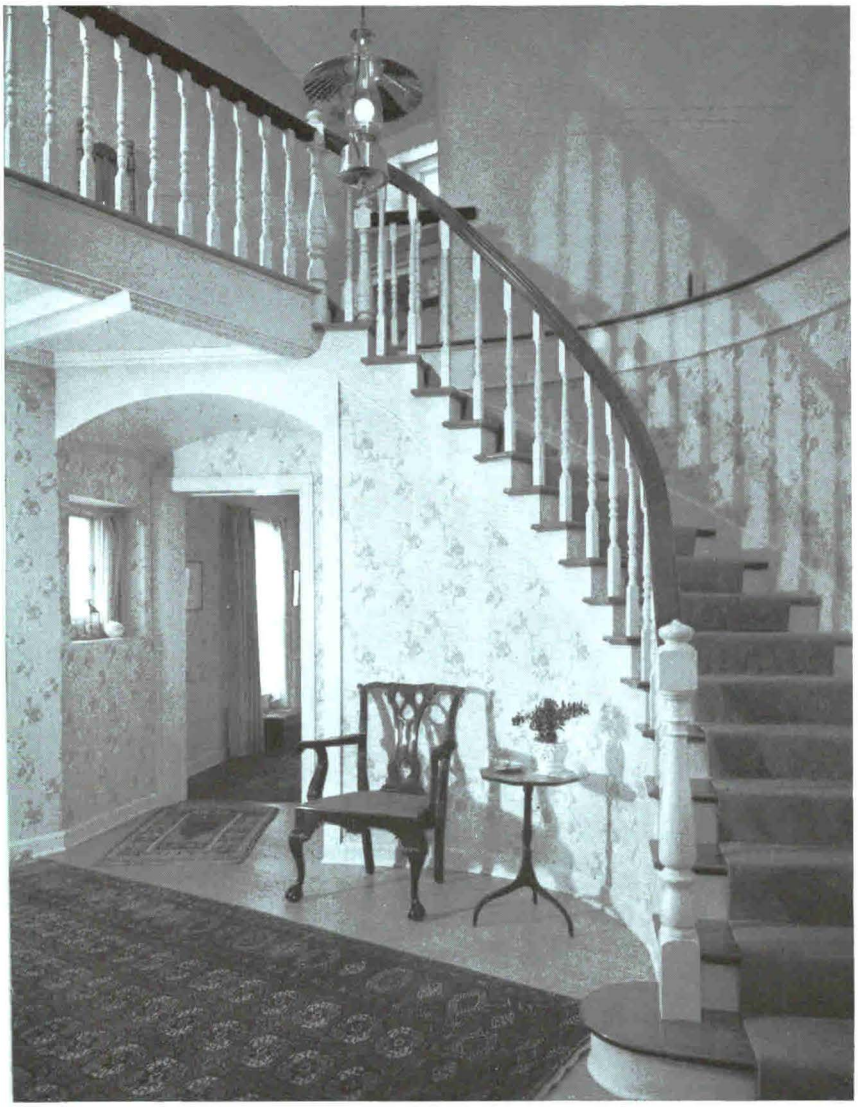




THE modifications the traditional Colonial house has undergone in the hands of California architects have more than academic interest. With favorable climatic conditions it is possible to extend the plan without undue expense, to lower roof slopes, and to use a lighter construction than is customary. In this example, while detail is fairly conventional, the general arrangement is not. Here is provided an excellent illustration of the fairly uniform development, irrespective of stylistic differences, of residential design in California. The house is predominantly a one-story structure, with a single bedroom and bath on the upper level. The long narrow plan simplifies the problems of light and ventilation, and the living room is provided with windows on three exposures. Cubage: 50,547. Cost: $17,000, at about 34 cents per cubic foot.

JOHN BYERS, ARCHITECT EDLA MUIR, ASSOCIATE

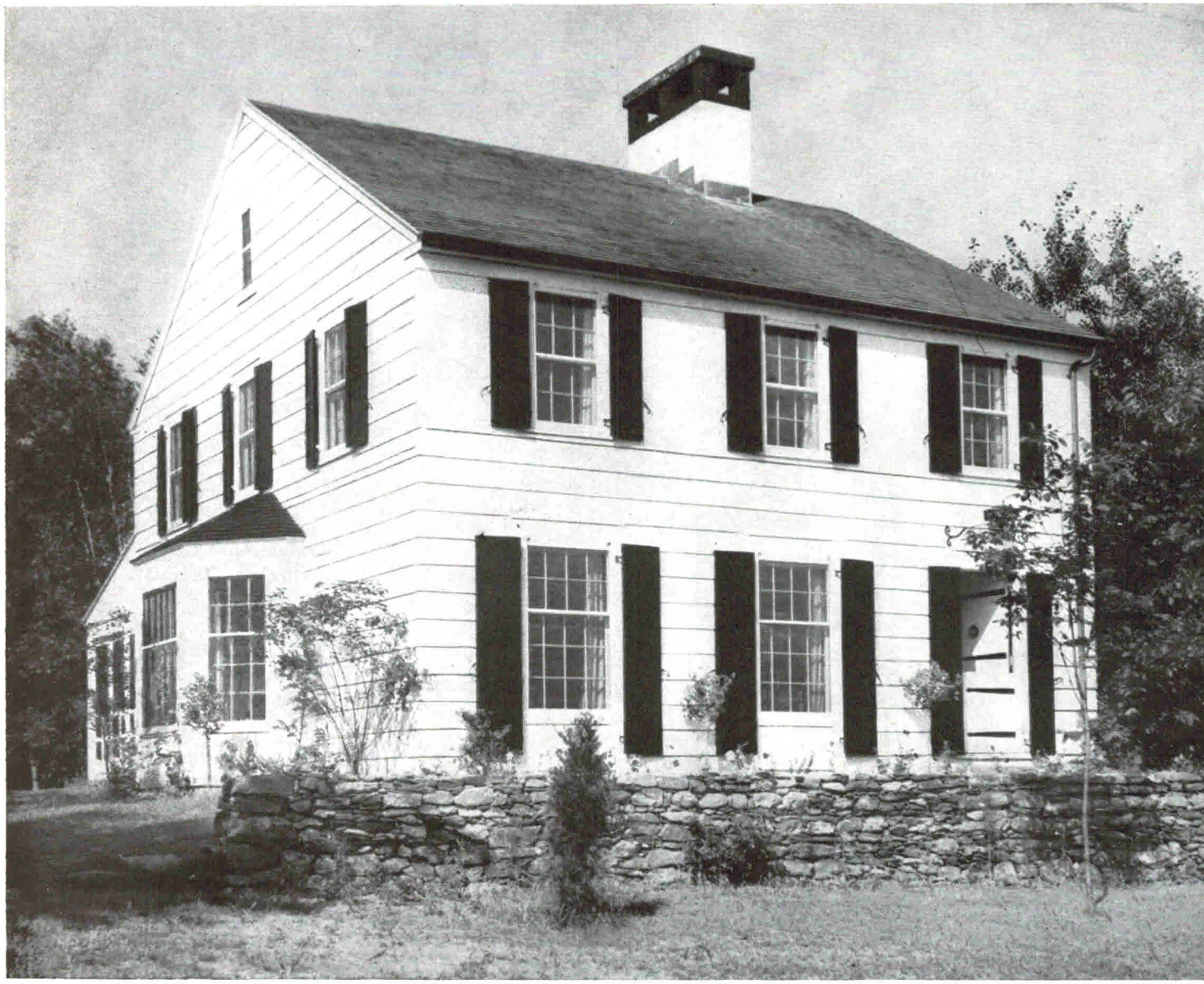
LIVING ROOM



CONSTRUCTION OUTLINE

FOUNDATION—concrete piers. Cellar Floor—concrete. Waterproofing—Bitutect paint on walls, Bitutect, Inc.
STRUCTURE: Exterior walls—wood frame, sheathing and siding. Inside—plaster. Interior partitions—studs and plaster. Floor construction—wood beams, subfloor and finished flooring. Ceilings—plaster.
ROOF: Wood rafters, O.P. roof boards covered with No. 1 Western red cedar shakes, clear and vertical grain.
CHIMNEY: Vitrified terra cotta flue lining. Dampers—Richardson.
SHEET METAL WORK: Flashing—Armco 28-gauge galvanized sheet iron, The American Rolling Mill Co. Gutters and leaders—Armco 24-gauge galv. sheet iron.
INSULATION: Attic floor and interior walls—Dagonite, Daggett Insulating Co.
WINDOWS: Sash—double hung, 1¾ in. clear sugar pine. Glass—single strength, quality A, Libbey-Owens-Ford Glass Co. Screens—16-mesh copper, Hipolito Screen Co.
FLOORS: Living room and halls—No. 1 clear, v.g., T. & G. Douglas fir planks. Bedrooms—½ x 2 in. clear white oak. Kitchen and bathrooms—linoleum.
WALL COVERINGS: Bedrooms and halls—wallpaper, C. W. Stockwell. Kitchen and bathrooms—Sanitas, Standard Textile Products Co.
WOODWORK: Trim—v.g. Douglas fir. Shelving and cabinets—Oregon pine. Doors—sugar pine. Garage doors—Holmes Overhead Door Co.
HARDWARE: Harper & Reynolds.
PAINTING: Interior: Walls and ceilings—4 and 5 coats paint, Oakley Paint Mfg. Co. Floors—stain, 2 coats shellac and S. C. Johnson & Son, Inc. wax. Roof—stained, Samuel Cabot, Inc.
ELECTRICAL INSTALLATION: Wiring system—Steeltubes, Sheet & Tubes, Inc. Switches—Despard, Pass & Seymour. Fixtures—Meyberg Co.
KITCHEN EQUIPMENT: Range—Magic Chef, American Stove Co. Refrigerator—Frigidaire Corp. Sink—stainless Hydrocrat, Bossert Co. Laundry sink—Standard Sanitary Mfg. Co.
BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co. Seat—C. F. Church Mfg. Co. Shower—Crane Co.
PLUMBING: Pipes—galvanized steel pipe, American Pipe Co.
HEATING: Warm air system, Pacific gas furnace. Radiators and thermostat—Payne Furnace & Supply Co. Hot water heater—General Fittings Co.

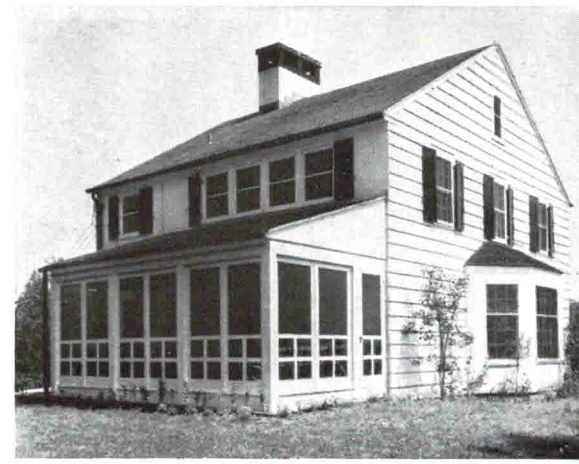
HOUSE IN POUNDRIDGE, NEW YORK



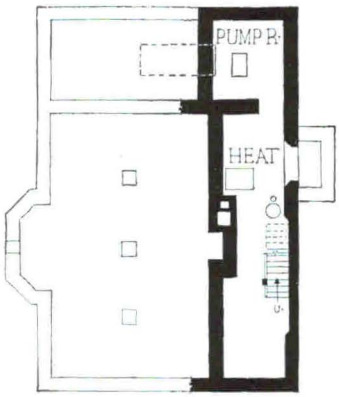
J. W. Runyon Photos

SHELDON D. WERNER, CONSULTING ENGINEER

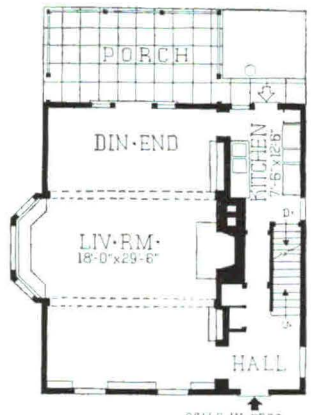
THE small community of Poundridge has been the scene of much conscientious remodeling of old houses in the past few years, and has attracted attention by the consistency with which new dwellings have been made to harmonize with the old. Regardless of the merits of so faithfully perpetuating the mannerisms of 18th century work, the uniform effect is certainly better than that of the average chaotically designed suburb. This example, with few but spacious rooms, follows the local tradition of comfortable simplicity. It might be noted that the modern designer of Colonial houses invariably has the greatest difficulty with the rear elevation. Here the enclosed porch is one problem where lack of precedent is obviously troublesome. Cubage: 27,400 ft. at 47 cents per foot, covering selling price of $13,000, exclusive of landscaping.



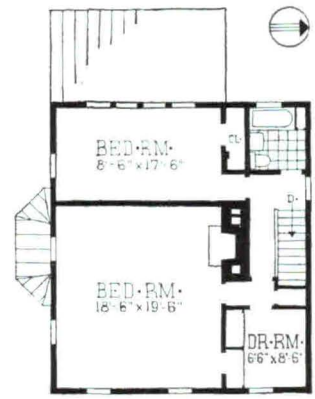
WALTER B. KIRBY & GERALD K. GEERLINGS, ARCHITECTS



BASEMENT



FIRST FLOOR



SECOND FLOOR

BEDROOM

LIVING ROOM

CONSTRUCTION OUTLINE

FOUNDATION: Walls—8 in. cinder concrete block, continuous. Cellar floor—4 in. stone concrete on earth and rock.

STRUCTURE: Exterior walls—24 in. red cedar shingles and flush boards, N.C. pine sheathing, 2 x 4 in. studs, treated Sisalkraft paper, The Sisalkraft Co., U. S. Gypsum Co. rock wool, No. 2 knotty pine paneling or ¼ in. fir plywood and wallpaper. Interior partitions— 2 x 4 in. and 2 x 8 in. studs with pine paneling or plywood. Floor construction—2 x 8 in. and 2 x 10 in. fir joists, pine sub-floor, knotty pine and plywood ceilings.

ROOF: Construction—2 x 8 in. rafters, 16 in. o.c., and 1 x 2 in. shingle lath, 5 in. o.c., covered with 16 in. red cedar shingles.

CHIMNEY: Lining—4 flues, terra cotta; two common brick fireplaces. Dampers—H. W. Covert Co.

SHEET METAL: Flashing and gutters—16 oz. copper; copper termite shield.

INSULATION: Outside walls—4 in. rock wool, U. S. Gypsum Co. Attic floor and roof—½ in. waterproof balsam wool, Samuel Cabot, Inc. Weatherstripping—rubber tubing for casement.

WINDOWS: Sash—double hung and casement, 1⅜ in. fir, Sears, Roebuck Co. Frame—cypress casings, solid frame with Unique balancers, Unique Window Balance Co. Glass—Clearlite, single thickness, common, Fourco Glass Co. Screens—wood, bronze wire, full length frames.

FLOORS: Living rooms—wide red oak select hollow backed, grooved 6, 8 and 10 in. Bedrooms and halls—select red oak, 2¼ in. Kitchen and bathrooms—flat grain yellow pine covered with linoleum.

WALL COVERINGS: Bedrooms—wallpaper.

WOODWORK: Trim—select white pine, special, Sears, Roebuck Co., except living room cornice, Hussey, Williams 1300. Interior doors—batten pine. Exterior doors—special white pine, Sears, Roebuck Co.

HARDWARE: Interior and exterior—hand-made wrought iron, Schlage Lock Co.

PAINTING: Interior: Walls—Devoe & Raynolds Co. enamel and Minwax Co. Ceilings—wallpaper or 6 coats enamel, except Fabrikona prepared canvas in living room, H. B. Wiggins Sons Co. Floor, trim and sash—wax, Minwax Co. Exterior: Walls—lead and oil, Sears, Roebuck Co. Roof—stain, Samuel Cabot, Inc.

ELECTRICAL INSTALLATION: BX and conduit. Switches—toggle, Sears, Roebuck Co. Fixtures—special hand-made wrought iron.

KITCHEN EQUIPMENT: Range—electric. Refrigerator—Coldspot, Sears, Roebuck Co. Cabinet—pine, special.

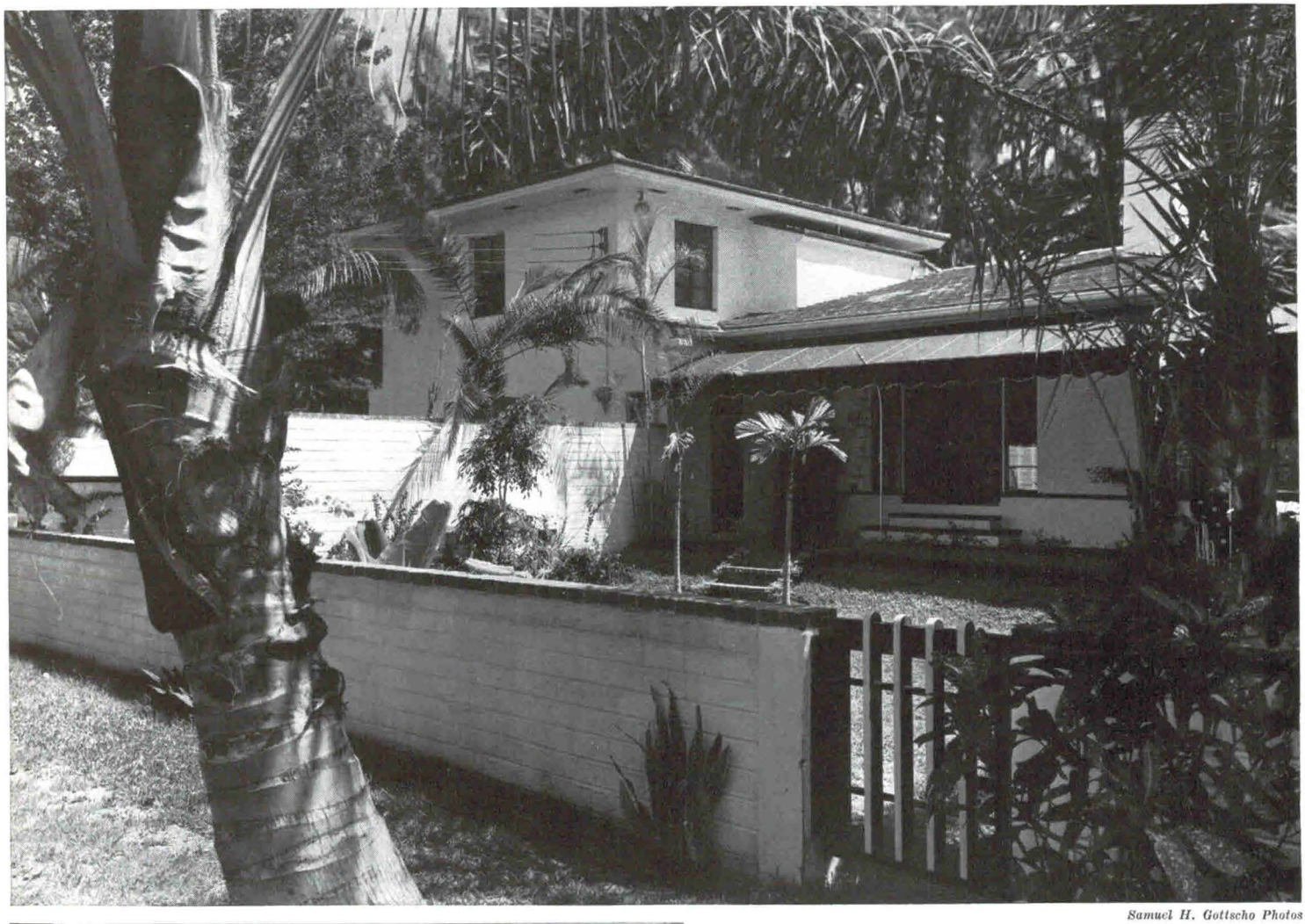
BATHROOM EQUIPMENT: All fixtures by Sears, Roebuck Co. Seat—C. F. Church Mfg. Co. Cabinet—pine, special.

PLUMBING: Pipes—extra heavy cast iron, 85 per cent brass, copper bearing galvanized for vents.

HEATING AND AIR CONDITIONING: Specially designed forced hot air, filter built entirely on job. Boiler—Indestructo 26 in. firepot, oil burning, Sears, Roebuck Co. Hot water heater—66 gallon electric, 4,000 watt, Westinghouse Electric & Mfg. Co.

SPECIAL EQUIPMENT: Incinerator — Kernerator, model T, Kerner Incinerator Co.

HOUSE FOR MRS. RUTH NORTON NATELSON, MIAMI BEACH, FLA.



Samuel H. Gottscho Photos

IN addition to illustrating the trend of Florida residential work toward less stylistic modes of expression, this house has a number of features of unusual interest. Sleeping accommodations while concentrated in one compact unit, have been designed to give privacy to parents, children, and guests. The sharp overhangs, necessitated by the climate, serve to further accentuate the horizontality of the one-story design. The L-shaped plan gives full scope to the possibilities of year-round outdoor living. Cubage: 41,000. Cost: $15,800 at about 39 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION: Walls and footings—reenforced concrete.

STRUCTURE: Exterior walls—hollow concrete block, 2 coat stucco exterior, treated wood furring, 16 in. o.c. Inside—wood lath and plaster. Interior partitions—wood studs, wood lath and putty finished plaster. Floor construction—wood joists for wood floor; concrete slab supporting terrazzo floor.

ROOF: Wood rafters with sheathing, covered with slate surfaced felt under Ludowici-Celadon Co. interlocking roofing tile.

SHEET METAL WORK: Flashing—copper. Gutters and leaders—Toncan metal, painted, Republic Steel Corp.

WINDOWS: Sash—steel casements, Bliss Mfg. Co. Hardware—white bronze, H. S. Getty & Co., Inc. Weatherstripping—spring bronze four edges for exterior doors; weatherproof thresholds. Glass—quality A, double strength, Libbey-Owens-Ford Glass Co. Venetian blinds—Rolscreen Co.

STAIRS: Treads—oak. Risers—pine.

FLOORS: Living room, dining room and solarium—terrazzo. Bedrooms and halls—oak. Kitchen—pine, linoleum covered.

WOODWORK: Trim—magnolia. Shelving and cabinets—cypress. Interior doors—Rezo flush, fir veneer, M. & M. Woodworking Co. Exterior doors—cypress. Garage doors—slide up, 1-piece, stock design, cypress.

HARDWARE: Sargent & Co.

PAINTING: Interior—3-coat work; paint by Benjamin Moore. Floors—shellac and wax. Exterior: Walls—lime wash, stucco paint. Sash—3-coat enamel.

ELECTRICAL INSTALLATION: Wiring system—steel tubing, conduit, Steel & Tubes, Inc.

KITCHEN EQUIPMENT: Range—Estate Stove Co. Refrigerator—Westinghouse Electric & Mfg. Co. Sink—2-compartment, Standard Sanitary Mfg. Co. Laundry trays—Standard Sanitary Mfg. Co.

BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co.

PLUMBING: Soil pipes—cast iron. Water pipes—galvanized mild steel.

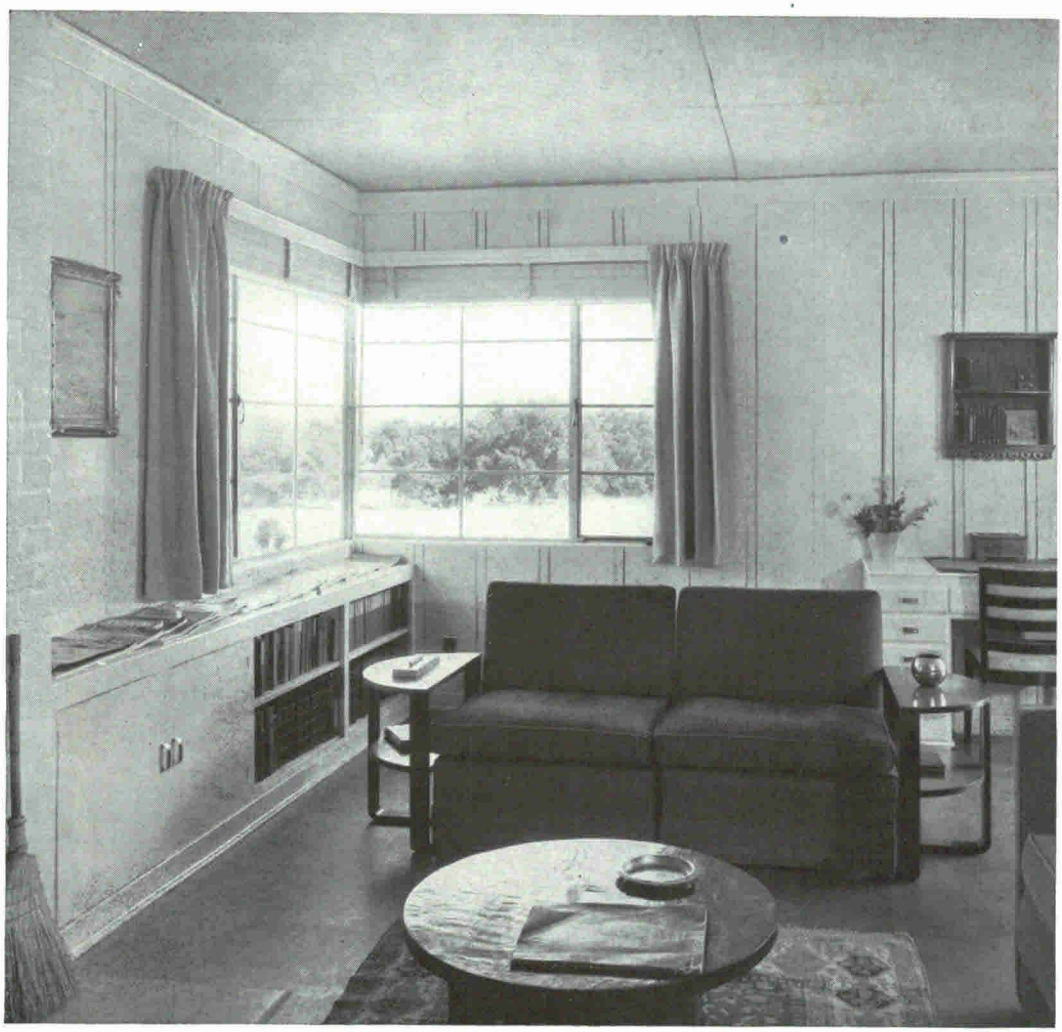
HEATING: Individual gas radiators, Pittsburgh Gasteam Co. Hot water heater—Solar tank on roof.

HOUSE FOR MR. AND MRS. CHALFANT HEAD, OJAI, CALIF.

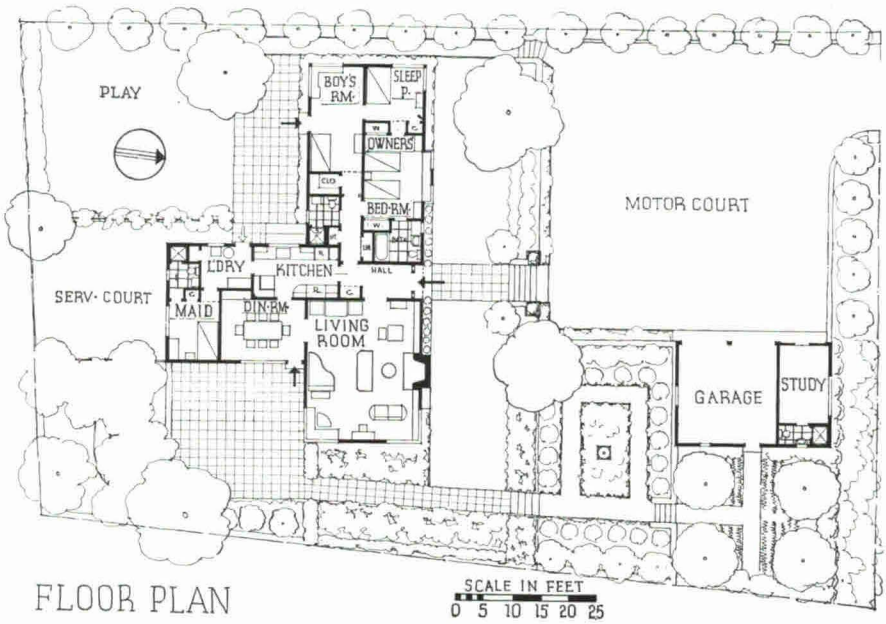
Woodcock Photos

ENTRANCE

To an extent not common in small house work, this example shows not only a house plan, but a carefully studied plot plan. While it would be unfair to comment on the landscaping in its obviously unfinished state, the arrangement of the various elements, as indicated on the plan, is excellent. The relation of the entrance to the ample motor court is good, and provision has been made for terraces, flower bed, and a vegetable garden. The house offers an unusual degree of convenience and privacy, while the study has been given the desired seclusion by the simple expedient of attaching it to the garage instead of the house. Composition board has been used extensively, both inside and out. Cost: $8,500.



LIVING ROOM



FLOOR PLAN

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—1 x 12 in. to 14 in. redwood T. & G. with 2 x 3 in. redwood studs flush on inside. Outside, below window sill—1 in. Grayolite and cement plaster; above—15 lb. felt on studs, 1 x 3 in. horizontal stripping and 1 in. Grayolite board, Insulite Co. with 26 gauge galvanized iron T's in vertical joints.

ROOF: Covered with pre-dipped cedar shingles, Royal, Peoples Roof Service.

CHIMNEY: Damper—Superior Fireplace Co.

SHEET METAL WORK: Flashing, gutters and down spouts—26 gauge Armco galvanized iron, American Rolling Mills Co.

WINDOWS: Truscon 1 in. standard steel casements, Truscon Steel Co. Screens—bronze mesh, chrome finish Artex operators. Glass—single strength, quality A, Libbey-Owens-Ford Glass Co. Glass blocks—Insulux, 8 x 8 in., Owens-Illinois Glass Co.

FLOORS: All cement finish concrete, unmarked. Waterproofing—Dehydrotine, integral, in 1 in. topping and Colorundum; integral color troweled in, A. C. Horn Co.

WALL COVERINGS: Bathrooms and dining rooms—wallpaper over insulation board.

HARDWARE: All chrome plated, Schlage Lock Co. Garage doors—Overhead Door Co.

PAINTING: Interior woodwork—primer and 3 coats. Insulation board—glue sized and 2 coats Siller-Glo, Siller's Paint Co. Exterior: Insulation board and cement plaster wainscot—3 coats Siller's waterproof cement paint.

ELECTRICAL INSTALLATION: Wiring system—BX. Switches—toggle, General Electric Co. Fixtures—direct, Incandescent Supply Co.

KITCHEN EQUIPMENT: Refrigerator — Frigidaire Corp. Sink—acid resisting with Duo-strainer, Standard Sanitary Mfg. Co. Medicine cabinets—Dura Steel Co.

PLUMBING: Copper tubing on hot water line; others cast iron and galvanized steel.

HEATING: Warm air furnace, 100,000 B.t.u. gravity system, Pacific Furnace Co.

HOUSE FOR DONALD CADY, MONTCLAIR, N. J.

FIRST FLOOR

SECOND FLOOR

HOOTON & TIMPSON, ARCHITECTS

Due to a drop in level at the service end of the house, an otherwise conventional design was somewhat complicated. Advantage was taken of this condition, however, to provide inconspicuous and economical storage for two cars. The plan is arranged with utmost simplicity, and includes a service stair, a convenience uncommon in houses of this size. Cubage: 44,800. Cost: $15,000, at about 34 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION: Walls—concrete blocks, continuous. Cellar floor—cinder fill, 4 in. concrete cement finish. Waterproofing—waterproof cement and asphalt emulsion from footings to grade on exterior, tile drains around footings.

STRUCTURE: Exterior walls—red cedar shingles and brick veneer, frame, rock lath and gypsum plaster, U. S. Gypsum Co. Floor construction—wood joists, sub-floor, paper and finished oak. Ceilings—plaster on metal lath; Insulite Co. board on game room ceiling.

ROOF: Wood rafters and shingle lath, covered with cedar shingles.

CHIMNEY: Lining—terra cotta; fireplace facing in living room of black Alberene stone. Damper—H. W. Covert Co.

SHEET METAL WORK: Flashing and leaders—16 oz. copper. Gutters—wood. Termite shield—2 oz. Copper-clad roll roofing, Anaconda Copper Co.

INSULATION: Outside walls and attic floor—4 in. rock wool, Johns-Manville Co.

WINDOWS: Sash—pine, double hung Unique Balances, Unique Window Balance Co. Weatherstripping—Andersen Frame Corp. Glass—quality A, single strength. Screens—wood frame, full length, bronze mesh.

FLOORS: Living room, bedrooms and halls—first grade plain red oak, covered with Broadloom carpet, Bigelow-Sanford Carpet Co. Kitchen—yellow pine, covered with linoleum. Bathrooms—ceramic tile.

WALL COVERINGS: Living room, bedrooms and halls—wallpaper. Kitchen and bathrooms—4 x 4 in. tile wainscoting and paint.

WOODWORK: Trim—glued pine, stock design. Cabinets and doors—pine, stock. Garage doors—pine, stock, overhead type, hardware—Frantz Mfg. Co.

HARDWARE: Interior and exterior—brass, Schlage Lock Co.

PAINTING: Interior: Walls and ceilings—3 coats lead and oil on portion not papered. Floors—2 coats shellac, waxed and polished. Trim and sash—3 coats lead and oil. Exterior: Walls—3 coats lead and oil. Roof—2 coats oil stain.

ELECTRICAL INSTALLATION: Wiring system—BX. Switches—toggle. Fixtures—Emil Ammann Co.

KITCHEN EQUIPMENT: Sink—Tracy Mfg. Co. Cabinet—Oxford Cabinet Co. Laundry sink—Ford's Mfg. Co.

BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co.

PLUMBING: Soil pipes—extra heavy cast iron. Water pipes—brass.

HEATING AND AIR CONDITIONING: Warm air, Round Oak Oil Master air conditioning system, including filtering and humidifying, Round Oak Co. Hot water heater—automatic oil hot water heater.

BUILDING MONEY

CONTENTS:

Realistic Realtor Nichols *Sol Studna*

REALTY'S SHARE OF THE TAX BURDEN

is more than it wants to carry. How heavy it is, what Government and Business are doing to lighten it.

NINETEEN THIRTY-EIGHT may yet come to be known as the year in which the U.S. Learned About Federal Taxes. Before the War they were small. During the War they were higher—but there was an emergency. In the Twenties they mounted steadily—but there was lots of money around. And during the Depression they continued to mount—but there was another emergency. Today, in 1938, they are still mounting. But this time the emergency of the Depression appears to have become a permanent institution. The result is that the U.S. has for the first time faced the fact that high taxes are here to stay.

In turn, this has brought a crescendo of protest. And, significantly, the voice of Realty (which had been wailing for years about local taxes) was heard for the first time in the national chorus against Federal taxation. The reason is not far to seek.

In round numbers, the total tax bill of the U.S. is $12 billion. Of this, $5 billion are Federal taxes, $2.5 billion are State taxes, and $4.5 billion are local taxes. Virtually all the local taxes are derived from real property.

In the Committee on Ways and Means of the House of Representatives last month Under-Secretary of the Treasury Roswell Magill explained that this year's tax bill ought to raise something more than $5.7 billion, hinted that next year's requirements would be even higher. Of this $5.7 billion, he explained, a bit more than half would be raised by the income tax, the estate tax, and the gift tax. It was with certain of the provisions designed to raise money within this group that Realty found its troubles.

Holding Companies. Until last year personal holding companies, subject to an especially high tax rate, were defined as companies which received more than 79 per cent of their income from dividends, royalties, annuities, provided that 50 per cent or more of the stock was held by five or less individuals. Since rents were not specifically mentioned in the Act, many a cagy man shuffled his investments to include 21 per cent from rents, thus exclude himself from the heavy taxes imposed on personal holding companies. Last year the Treasury decided to make this dodge impossible. What was done was to insert a provision specifying that rents which amounted to less than 50 per cent of the total income of a personal holding company were also taxable, did not exclude a company from the personal holding company tax. It was the assumption of the Treasury that any legitimate real estate business would get more than 50 per cent of its income from rents, so exclude them from the highly taxed category of personal holding companies into which they would otherwise fit.

Trouble was that at certain times in the realty market many real estate firms found that less than half their income came from rents. The rest might come from second mortgages. If rents comprised 40 per cent of the firm's income and mortgages comprised another 40 per cent,

this meant that 80 per cent of the firm's income came from sources which classed it as a personal holding company, made it subject to heavy surtaxes. The only way to escape this tax is to distribute these earnings as dividends to stockholders. But realty firms are frequently unable by the nature of their business to do this.

Thus, for instance, suppose that a realty firm showed a profit of $30,000. If $12,000 of this came from rents and $12,000 more from interest on second mortgages, it was taxed as a personal holding company to the staggering amount of $24,423. Were it subject simply to the normal tax and surtax, it would have paid only $8,493. The only way in which this company could avoid the heavier tax was to have at least $15,000 (or 50 per cent) come from rents.

Since the realty firms manifestly did not approve of such taxation and since the Treasury was not interested in placing such heavy imposts on bona fide realty firms, proponents of a modification of the law found sympathetic ears on the Ways and Means Committee. Relief currently proposed and almost certain to be enacted is to class income from interest on realty debts (i.e., interest on mortgages) as rent money, provided the company receiving the interest can show that it is a true realty firm. The effect of this change will be to put all realty firms definitely beyond the heavy surtaxes for personal holding companies, since it appears impossible that the income from rents plus interest on realty debts (i.e., mortgages) should ever dip below 50 per cent in a realty firm's books.

Two other solutions to this problem have been advanced by Realty. The first is to change the Act so as specifically to exclude bona fide realty firms from all personal holding company surtaxes. The second is to revise the definition of a personal holding company so as to exclude from its provisions companies whose income from rents is greater than 25 per cent, instead of the current 50 per cent. Neither of these suggestions appears to have so good a chance of adoption.

Debts Are Taxable. Under existing law, realty firms which qualify as either personal holding companies or as corporations, are subject to a heavy surtax over the normal tax on that part of their earnings which is not distributed as dividends. Although not aimed at realty firms, this tax may cost them particularly heavy tax bills since it catches them two ways at once.

In the first place, it is often difficult for a realty firm to distribute its earnings in the same fashion as a shoe company. Typically a realty firm has its earnings tied up in first mortgages on lots or second mortgages on houses; and these earnings can only be converted into cash for dividend distribution by selling these instruments at a discount. In the second place, realty firms must by the long-term nature of their business assume debts of a long-term character. *But unless these debts were contracted before Jan. 1, 1934, they may not be paid out of earnings without being subject to a surtax.*

Thus Realty's dilemma: that part of a firm's earnings which is in the form of mortgages cannot be distributed as dividends, and is therefore subject to the surtax; but if that part of the income which can be distributed is used to pay debts, it is also subject to surtax. To cure this

Associated Press

Under-Secretary Magill

situation it is now proposed 1) to make payments of bona fide realty debts out of earnings exempt from all save normal taxes; and 2) to make all corporations netting less than $25,000 exempt from paying surtaxes on undistributed earnings.

Capital Gains. Under-Secretary Magill's subcommittee has also, as is very well known, recommended considerable revision of the capital gains tax. As phrased, these revisions will have a direct effect on the realty market, although the whole tax applies only to individuals, and at that only to individuals not regularly engaged in selling property. Under present law, when a person sells a piece of property he is able to apply a sliding scale to the tax on the profits. If he has held the property for one year he pays taxes on 100 per cent of the profit; if for two years, on 80 per cent; if for ten years, on 40 per cent; and for any period thereafter, on 30 per cent. This has had the effect of inducing people to hold on to property for a longer time in order to reduce the tax on their profits, a practice which works a hardship on a real estate dealer who wants to assemble several parcels of land at once, but is faced with the reluctance of the owners to assume the high tax rate an immediate sale might entail.

To obviate this, three changes have been recommended by the subcommittee. The first is to make the exemptions operative by months instead of by years. Thus, under the old plan a property owner got no increase in exemption on his profit if he held the land from one year and a day to one year and 364 days; under the new plan his exemptions would be scaled up month by month, so that if he sold his property after one year and eleven months he would get nearly the full two year exemption. Further, the rate of exemption has been stepped up so that it reaches 60 per cent at the end of five years instead of ten as in the old law; and no further exemptions are made, so that there will no longer exist any incentive to hold a property more than five years for purposes of gaining further tax relief on the profits.

And last of all, the subcommittee recommends that an individual may elect to have his profits from realty (or other) sales taxed separately from his income. Should he elect to have his profits from the sale of property separately taxed, the individual can, if the subcommittee's suggestions are adopted, pay on the profits a flat 40 per cent minus the deductions allowed for holding the property for a period of years.

Protagonists. When Under-Secretary Magill lectures the subcommittee on taxation on the changes they ought to make, his recommendations spring from two sources: either he has found a certain tax unworkable by himself or he has been convinced that it is unworkable by the hard work of some pressure group. This year's recommended changes affecting Realty are in large part the work of such a pressure group—the National Association of Real Estate Boards, the only body in Building which has shown any ability to become vocal about its taxes.

This year's drive against the provisions in the Federal tax law affecting Realty was signalized in Washington by the appearance before the Ways and Means Committee of Mr. Frank R. Grant. Said Mr. Grant: "I am appearing before you as a representative of the National Association of Real Estate Boards. I am not an attorney. I am not an expert. What little I know about the real estate business has been gained by 29 years of continuous service with the J. C. Nichols Companies of Kansas City, Mo."

It is doubtful whether Mr. Grant could have given himself more impressive introduction to the Committee. The J. C Nichols Companies are and have been for some years the seven-day wonder of the real estate business (ARCH. FORUM, Oct 1934, p. 302) with their famed Country Club District. And Mr. Grant's boss, big bald Jesse Clyde Nichols, has long ago demonstrated not only his general acute

(Continued on page 50)

NEW BENEFITS FOR BUILDING

enacted by the President. A final word on the amended amendments to the National Housing Act.

As it finally emerged from Congress and was signed by the President, the legislation streamlining the FHA differs in many respects from the form in which it was submitted back in the extraordinary session (ARCH. FORUM, Jan., 1938, p. 103). From start to finish, the course of the measure was beset with amendments from friendly as well as hostile sources, climaxing in the bitter but successful fight in the conference committee to eliminate the sabotaging prevailing wage rider. Contrasted with the original draft of the new program, the completed legislation shows the following changes:

Yielding to a desire that it has had for some time, Congress decided to throw Title I open to new construction, the theory being that loans for very small low-priced houses could be handled under this section without all the fuss and bother incidental to mortgage insurance. But while modernization loans may be made in amounts up to $10,000, loans for new structures under this title may not exceed $2,500. Another distinction is that new dwelling loans may have a maturity of ten years plus 32 days. Improvement loans or loans to erect nondwelling structures may not be extended over more than five years and 32 days.

Maturity extended. A basic feature of the new program was originally the provision permitting mortgages to range from 80 to 90 per cent of appraised values on homes costing from $10,000 down to $6,000 or less. The Senate decided to make this provision even more attractive to borrowers by tacking on an amendment extending the maturity limit for loans to 25 years. Loans on larger homes have a twenty-year limit.

Always anxious to give legislation a rural twist, Congress wrote in a rather meaningless clause specifically authorizing insurance of otherwise eligible mortgages for the construction of farmhouses or other farm buildings; provided the construction involves the expenditure for labor and materials of not less than 15 per cent of the amount of the mortgage. A more important change over the original draft authorizes the Administrator to raise the maximum interest charge permitted under the general residential section of Title II to 6 per cent, if he finds that in certain areas or under special circumstances, the mortgage market demands it. Otherwise, the interest may not exceed 5 per cent.

The legislation as introduced gave Title II a permanent status by repealing the limitation shutting off the program after $2 billion worth of insurance had been written. The law was changed so as to make this figure only the limit of the volume of mortgage insurance that could be outstanding at any one time. The limit was then raised still more by authorizing the President to raise the aggregate amount to $3 billion. Thus the program could be expanded up to this new maximum and could then rotate indefinitely, new insurance being written as fast as other loans were retired.

Cost per room. Under the principal section of the large scale housing portion of the bill, it was proposed to limit the amount of the mortgage per room to $1,200 and to do away with the somewhat uncertain definition that projects must be for persons of low income. During its legislative journey, the measure was softened a bit more so as to raise the room cost limitation applying to the face amount of the mortgage to $1,350. The other phase of the program dealing with the large scale projects is designed to encourage the building of smaller developments—projects with mortgage loans ranging from $16,000 up to $200,000. Here also the limit on the amount of the mortgage per room has been raised. It was originally placed at $1,000, has been upped to $1,150 per room.

Debentures. A further modification of the large scale or rental housing sections gives the financing institutions the option of following two courses in the event of default. Foreclosure proceedings may be started by the lender, as was provided in the original form of the measure, or the mortgage may be immediately assigned to the Federal Housing Administrator. In the case of such assignment, the lender will receive debentures equal to 98 per cent of the unpaid balance. If the financing institution elects to do the foreclosing, it will receive debentures equal to the entire amount of the unpaid balance after it has recovered the property and conveyed the title to the FHA. However, the foreclosure costs would most likely eat up the larger amount recovered in debentures.

Mortgage associations authorized under Title III will be permitted to make direct loans on projects under both of the large scale sections. This provision was batted back and forth in Congress but was finally restored by the conference committee.

Thus while the amendments to the housing act as originally proposed were changed in detail, their fundamental objectives have been preserved intact in the legislation as finally adopted. Of the two serious threats to these objectives which arose during its consideration, the first and most serious—the prevailing wage amendment—was dropped altogether, and the second—the proposed limitation of large scale housing's cost-per-room — brought within reason.

COMPARISON OF AVERAGE MONTHLY PAYMENTS ON A $5,000 NEW HOME ON A 90% AND 80% 20-YEAR MORTGAGE, AND A 90% 25-YEAR MORTGAGE

		ORIGINAL FHA Plan 80% Mtg. 20 Years	REVISED FHA Plan 90% Mtg. 20 Years	REVISED FHA Plan 90% Mtg. 25 Years
1st Year	PRINCIPAL AND INTEREST PAYMENT	$26.40	$29.70	$26.33
	AVERAGE MONTHLY SERVICE CHARGE	1.64	—	—
	AVERAGE MONTHLY FHA PREMIUM	1.67	.89	.91
	TOTAL	$29.71	$30.59	$27.24
3rd Year	PRINCIPAL AND INTEREST PAYMENT	$26.40	$29.70	$26.33
	AVERAGE MONTHLY SERVICE CHARGE	1.54	—	—
	AVERAGE MONTHLY FHA PREMIUM	1.67	.83	.87
	TOTAL	$29.61	$30.53	$27.20
5th Year	PRINCIPAL AND INTEREST PAYMENT	$26.40	$29.70	$26.33
	AVERAGE MONTHLY SERVICE CHARGE	1.42	—	—
	AVERAGE MONTHLY FHA PREMIUM	1.67	.77	.82
	TOTAL	$29.49	$30.47	$27.15
10th Year	PRINCIPAL AND INTEREST PAYMENT	$26.40	$29.70	$26.33
	AVERAGE MONTHLY SERVICE CHARGE	1.08	—	—
	AVERAGE MONTHLY FHA PREMIUM	1.67	.56	.68
	TOTAL	$29.15	$30.26	$27.01
15th Year	PRINCIPAL AND INTEREST PAYMENT	$26.40	$29.70	$26.33
	AVERAGE MONTHLY SERVICE CHARGE	.64	—	—
	AVERAGE MONTHLY FHA PREMIUM	1.67	.30	.50
	TOTAL	$28.71	$30.00	$26.83
20th Year	PRINCIPAL AND INTEREST PAYMENT	$26.40	$29.70	$26.33
	AVERAGE MONTHLY SERVICE CHARGE	.07	—	—
	AVERAGE MONTHLY FHA PREMIUM	—	—	.27
	TOTAL	$26.47	$29.70	$26.60
25th Year	PRINCIPAL AND INTEREST PAYMENT			$26.33
	AVERAGE MONTHLY SERVICE CHARGE			—
	AVERAGE MONTHLY FHA PREMIUM			—
	TOTAL			$26.33

LOTS AT $250, HOUSES AT $2,500

are the highlights of a successful subdivision. Louisville's Smock builds on pre-developed land.

WHEN the waters of the spring floods had receded from the cellars of Louisville last year, Contractor W. M. Smock perceived what seemed to him a fool-proof idea. That idea has materialized in the form of a subdivision called Garden Acres consisting of 36 house and lot units, each of which has since been sold at the newsworthy price of $2,750. Equally newsworthy is the down payment asked by Contractor Smock: $275.

Garden Acres, located seven miles south of Louisville's business center in the direction of industrial expansion and middle class housing, is the revival of a development begun in the early Twenties when streets, sidewalks, and all utilities were installed. The depression stopped actual building, and, when Smock found this partially developed land conveniently situated near new industrial plants, a new school and the famed Churchill Downs race track, he felt sure he had made a real discovery. When he found that the property could be bought for $250 per 40 x 150 ft. lot, he knew it.

Construction. Forthwith he began his building program. Architect George Alfred was called in to put on paper ideas already formulated by Smock. A single floor plan evolved which, by minor changes and different orientations, produced four types of houses—one story and without basement. Contractor Smock supervised all construction work, except plumbing and wiring for which contracts were sublet. His profits ranged from $200 to $250 per house. Labor was non-union and comparatively cheap, consisted chiefly of twenty carpenters and five painters who were engaged most of the time. The building program was so planned that when carpenters had finished work on one house the next house was ready for them; likewise, the painters.

Heating equipment was supplied after a house was sold and at the owner's expense. Although coal-burning circulators consuming about three or four tons of fuel a year proved most popular, eleven buyers dug their own cellars and installed hot air gravity furnaces at an additional cost of $500 each. Four preferred gas furnaces which, like the coal burners, required no excavation. Interesting is the case of the only house that originally was built with a basement and furnace: requiring larger down and monthly payments, it remained unsold three weeks longer than any of the others.

TABLE OF COSTS

LABOR AND MATERIALS	
Lumber and millwork	$ 640
Plumbing	350
Carpentry	300
Foundation and chimney	175
Plastering	150
Painting	125
Wiring and fixtures	75
Roofing	75
Concrete stoop and walks	65
Wallpaper, shades, linoleum	60
Finishing hardwood floors	35
Hardware	25
Grading and shrubbery	25
Gutters and flashing	20
Tile floor (bathroom)	17
TOTAL labor and materials	$2,137
COST OF LOT	250
SELLING EXPENSES	138
PROFIT	225
TOTAL SELLING PRICE	$2,750

Publicity. Despite conservative sales promotion, all houses in the subdivision have been sold. Publicity consisted of one newspaper story and ordinary classified listings inserted by several local banks and savings and loan associations that assumed the mortgages. The Kendall Company, real estate agents, also undertook sales on a 5 per cent commission basis. Houses were open to the public on Sundays. The interiors of the houses were unfinished until purchased, buyers being permitted to choose woodwork colors, wallpaper, shades and linoleum of their own liking, within specified price brackets.

Financing. Most outstanding attraction of a Smock house, however, was the 10 per cent down payment. This was made possible through the use of second mortgages. Due to the small investment required, local banks dealing in FHA insured mortgages were willing to lend 80 per cent of the purchase price to qualified buyers against a twenty-year first mortgage. Local building and loan associations made first mortgage loans up to 75 per cent. They also took twelve-year second mortgages for the balance in each case (10 and 15 per cent respectively) for which they charged $1 per $100 per month.

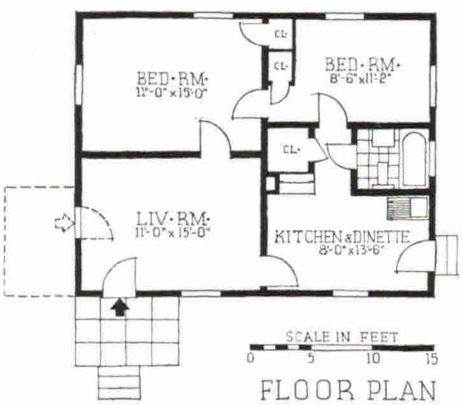
Wade Photos

Smock houses are all fundamentally alike, differ only in orientation. Thus, the two houses to the left are twins, the further having done a left face. This use of one floor plan for 48 houses figured prominently in reducing building costs of each to a noteworthy $2,137—shrubbery in front yard and window boxes included.

Results. At the turn of the year, Smock's building program in the Churchill Downs section of Louisville came to a close. Reason: financing companies did not want to invest more funds in that locality. Record: 48 houses built; 48 houses sold (36 in Garden Acres, 12 in a nearby subdivision where higher land prices necessitated an increase of $150 in the price of the house and lot units).

With an eye to giving Louisville still more low-cost housing, Smock has commissioned his agent to buy sites in other areas within the city limits. He prefers those that have been developed partially and then abandoned, for he figures that by carrying out this second-hand developing scheme, as he did at Garden Acres, he is able to offer his units at about $250 below the market. Meanwhile, Subdivider Smock cruises the Mediterranean, contemplates a 100-house building program for 1938.

Cheap land which had been partially developed was the beginning of Garden Acres (above). Its subdivider purchased lots for $250, sold house and lot combinations for $2,750, netted $225 per unit. The plan (below), showing the alternate entrance, was readily adaptable to the flat terrain.



FLOOR PLAN

CONSTRUCTION OUTLINE

FOUNDATION
Walls—18 in. concrete footing to top of grade; 3 layers of concrete blocks. Concrete block piers with concrete footings.
STRUCTURE
Exteriors walls—2 x 4 in. studs, 16 in. on centers with ½ in. insulation board for storm sheeting, 10 in. redwood siding. Inside—rock lath with 3 coats plaster. Interior partitions—2 x 4 in. studs, 3 coats plaster on rock lath. Floor construction—tongued and grooved red oak nailed directly to joists.
ROOF
Construction—2 x 6 in. rafters, 16 in. on centers; 1 x 8 in. sheathing, covered with 185 lb. Certainteed slate surfaced shingles, Certainteed Products Co.
SHEET METAL WORK
Flashing, gutters and leaders—28 gauge galvanized iron.
INSULATION
Outside walls—½ in. Evenair insulation board, Plastergon Wallboard Co. Weatherstripping on outside doors—bronze.
WINDOWS
Sash—double hung; yellow pine cypress sills. Glass—single strength, quality A. Screens—full length, wood frames, bronze wire.
WALL COVERINGS
Living room and bedrooms—40 cent wallpaper, selected by buyer.
WOODWORK
Trim—molded yellow pine, put up on job, Brickley Lumber Co. Interior doors—1⅜ in. thick, white pine, 6-panel Colonial. Exterior doors—1¾ x 6 ft. 8 in., nine-light.
HARDWARE
Interior—dull brass, plated, mortised locks. Exterior—cylinder locks, 3 hinges, Russell & Erwin Mfg. Co.
PAINTING
Interior: Walls and ceilings—3 coats washable wall paint, Porter Paint Co. Floors—1 coat filler, 2 shellac, 1 wax. Exterior—2 coats titanium paint, Porter Paint Co.
ELECTRICAL INSTALLATION
Cable—BX. Switches—Bakelite, all by General Electric Co. Fixtures—direct; 5 lights in living room; 2 in bedroom; indirect in kitchen; over medicine cabinet in bathroom; outside brackets front and rear door.
KITCHEN EQUIPMENT
Sink—42 in. Duo-strainer cabinet type, Kohler Co. Cabinet—built-in, drawers, biscuit board and work top; built-in ironing board.
BATHROOM EQUIPMENT
Lavatory—hanging type, Kohler Co. Tub—5 ft. Paron. Toilet—vitreous china. Cabinet—steel, plate glass mirror, glass shelves.
PLUMBING
Soil pipes—cast iron. Water pipes—copper, Revere Copper & Brass Co.
HEATING
Flue provided with outlet for circulator to be placed in living room. Hot water heater—Hoffman 20-gal., insulated, thermostatically controlled gas, Hoffman Gas Electric Heater Co.

NEW YORK TACKLES

its housing problem with $8 rents, $3 subsidies.

THE $18,000,000 which the U. S. Housing Authority will make available to New York City during the next three years is barely enough to scratch the surface of the local housing problem. Realizing this, American Laborite B. Charney Vladeck, once member of the City Housing Authority, now majority leader of the City Council, put his broad housing knowledge to work on a plan for rebuilding New York's slums with funds other than Federal. Later, the finished product was presented to the Board of Estimate by blustering Mayor LaGuardia, has since been known as "the Mayor's plan."

Gist of the proposal is the sale to private investors of New York Housing Authority bonds to supply cash for the construction of projects and the servicing of these obligations by annual appropriations in the city's expense budget adequate to take care of interest charges and, in certain cases, amortization.

Operation of the plan is best explained by Vladeck's anticipated per-room-per-month expense figures based upon a typical project which he believes will be built for about $1,200 per room, including land: maintenance and operation, $4; taxes, $2; bond interest at 3 per cent, $3; 50-year amortization at 2 per cent, $2; total, $11. Thus if $8 rents are charged, the city's appropriation will have to be $3, enough to cover the interest item. For tenants who cannot pay $8 rentals, smaller projects to be rented for $6 are contemplated.

Appropriations for the current year could be provided by modifying the 1938 budget to include about $500,000 of accruals and unexpended items. This sum would pay 3 per cent interest on a little more than $16,000,000 of housing bonds, would at least start the ball rolling. In following years the suggested ½ to 1 per cent appropriation would service annually an investment in housing of from $100,000,000 to $200,000,000.

Therein lies the catch, for the city is now within $130,000,000 of the limit of its debt-incurring power. The nest-egg appropriation guaranteeing interest on $16,000,000 of bonds would not be hindered by the debt limitation, but, if the Board of Estimate makes the proposed continuing appropriation, Housing Authority bonds would necessarily enter into the city's debt structure, would be restricted in amount to the unreserved margin of its debt-incurring power. Enabling legislation, such as an amendment to the State constitution relaxing the debt limitation of cities actively interested in housing and slum clearance, is necessary to the plan's complete operation.

DESIGNERS, LENDERS, DEALERS

organize in Memphis, supply a home-building service which features a portfolio of plans.

YEAR ago a pair of Memphis big-wigs diagnosed the ailments of the local building industry, found that 1) green pine was being transferred from living tree to house in less than a week, 2) architects' fees were not considered justifiable on houses costing less than $5,000 and 3) the undistinguished label, "cheap," had been tacked on the city by the building industry. Doctors on the case were Tennessee FHA Director B. W. Horner, former banker, realtor and railroad man, and Architect J. Frazer Smith, three times president of the A. I. A.'s Tennessee chapter, currently chairman of the State's Construction League. Their remedial suggestion was the organization of all of the city's building interests in a cooperative set-up, not unlike that devised by the Buffalo and Baltimore pioneers of the FHLBB's Home Clinic Plan (ARCH. FORUM, March, 1936, p. 206).

Outcome was the Memphis Small House Construction Bureau, Inc., which, through a variation of the "one package" idea and the cooperation of its members, offers to the home-building public a complete planning, financing, and constructing service. Despite business recession which, like the Bureau, got under way last October, seven houses have been started under its auspices, two for demonstration purposes.

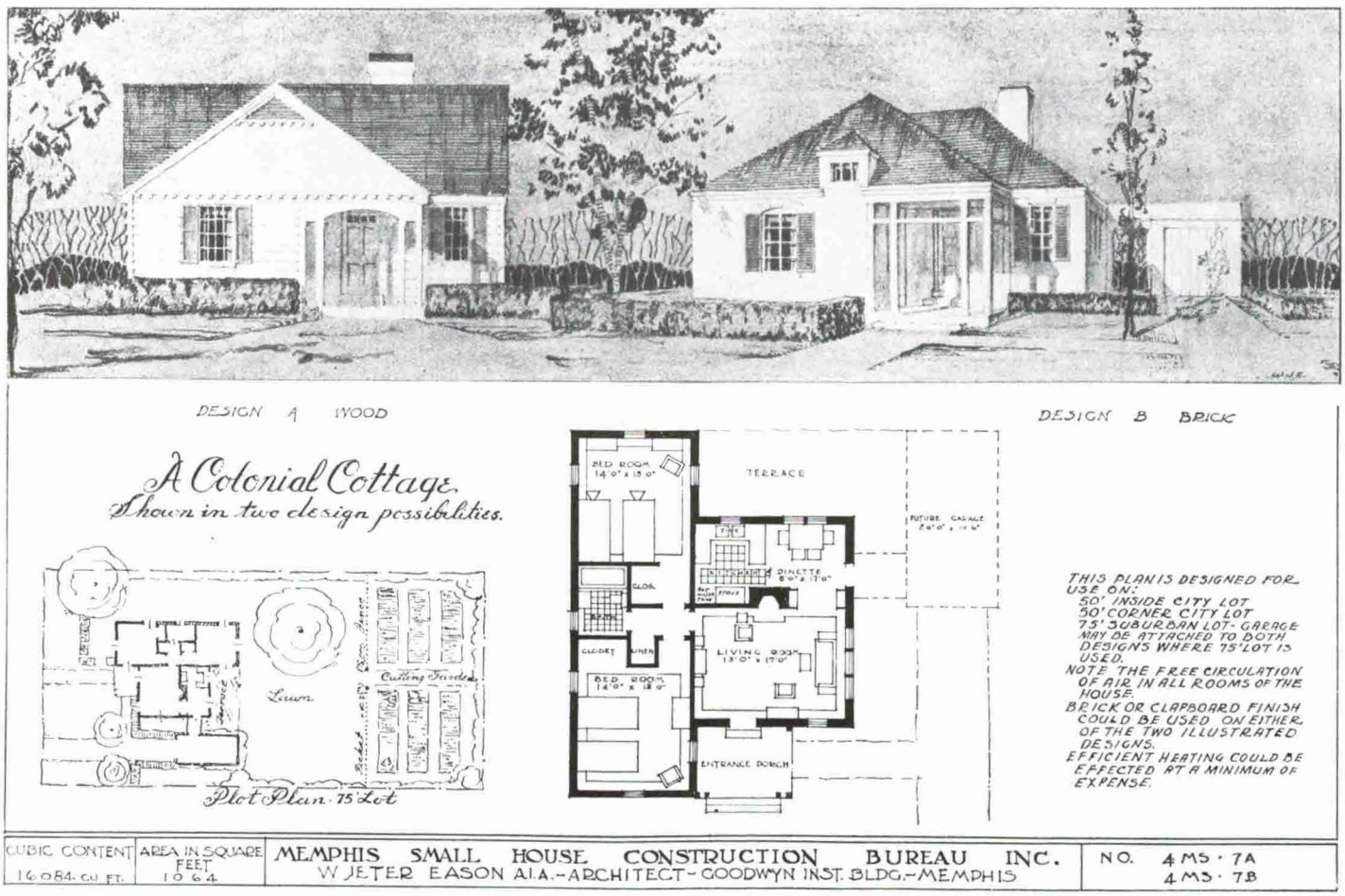
Designers. These seven houses were not begun, however, until the Bureau had emerged from a long period of organization. First task of Messrs. Horner and Smith was to sell the idea to local architects. While fees were to be small (2 per cent per job), possibilities of future profits were attractive. They believed that the Bureau would create local architectural consciousness, that more and larger commissions would result through public realization that the architect is essential. Further inducement to the architects was the Bureau's plan to use the same blueprints over and over again. Thus, in spite of his small commission, the designer of a popular house will come out ahead in the long run.

Lenders. Once the architects had given their almost unanimous approval, the mortgage bankers were easy to persuade. They realized that professionally designed and supervised building would enhance realty values, increase demand and provide good mortgage security. Recalling their depression difficulties incident to contractor-built houses, every mortgage banker in the city was quick to join this campaign for better building.

Dealers. Lumber and material dealers presented the next and greatest problem. Jealous, highly competitive and suspicious of the plan's feasibility, they were afraid that membership in the Bureau would break up their established contractor relationships. In time, however, most of them signed.

With these three important bodies behind the Bureau, other divisions of the local

(Continued on page 52)



Nub of the Bureau's home-building service is a portfolio of small house designs prepared by architect-members. Its 35 pages, like the one above, are attractively bound in leather-like paper, designed to catch the eye of any prospective builder. Code at lower right refers to a price list, revised monthly, helps the client make a choice within his means. Mortgage banker or dealer may use the portfolio to sell a house, but the banker alone deals with the client once a design has been selected.

TAXPAYERS FROM LOS ANGELES

abide by the rules. A panel of five that will pay for themselves in two and a half years.

In preceding issues, THE ARCHITECTURAL FORUM *has presented three panels of taxpayers covering Manhattan, Philadelphia and Chicago, together with a summation of their finances, and has examined them with a view to their essential character as hedges on real estate futures* (ARCH. FORUM, *Feb., July, Sept. 1937*). *This month* THE ARCHITECTURAL FORUM *looks at five from Los Angeles, expects in the near future to examine a like number from Miami.*

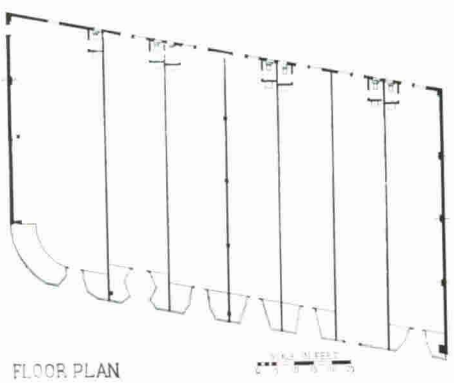
Los Angeles in 1931 was spotted with close to 600,000 vacant lots—enough to care for a population increase of from five to seven million. Her growth since the last official census in 1930 is estimated at 251,000, is comparatively large but still leaves much to be desired by local realtors.

Two of the taxpayers presented herewith are examples of one solution to this vacant lot problem in that they have been built on property not previously developed. The other three attack the problem posed by low rent returns; in these cases, an unsuccessful gasoline station, an old frame dwelling and a decrepit office building. Since rents from these demolished eyesores had covered taxes, the new buildings are not taxpayers in the true sense of the word. Otherwise, all five of the structures conform to the few rules-of-thumb and generalities common to most taxpayers (ARCH. FORUM, Feb. 1937, p. 158).

That these Los Angeles stores have proved good investments is indicated by the relationship between their average costs, rents and taxes. Mean cost of the five buildings was $18,268, while the average yearly rent-less-tax figure amounts to $7,036. Thus, if rents and taxes remain constant and operating expenses are excluded, these taxpayers on the average will have paid for themselves in a little more than two and a half years.

Particularly interesting are Nos. 1 and 2, for they are largest and their plans most flexible. Architect Lee trussed his seven-tenant building lengthwise with two 60 ft. spans (see plan), to make it readily adaptable to use by fewer and larger enterprises. Similarly, taxpayer No. 2, by Architect Clements, roofed with a single span, may be converted from its present use into one large store.

Luckhaus

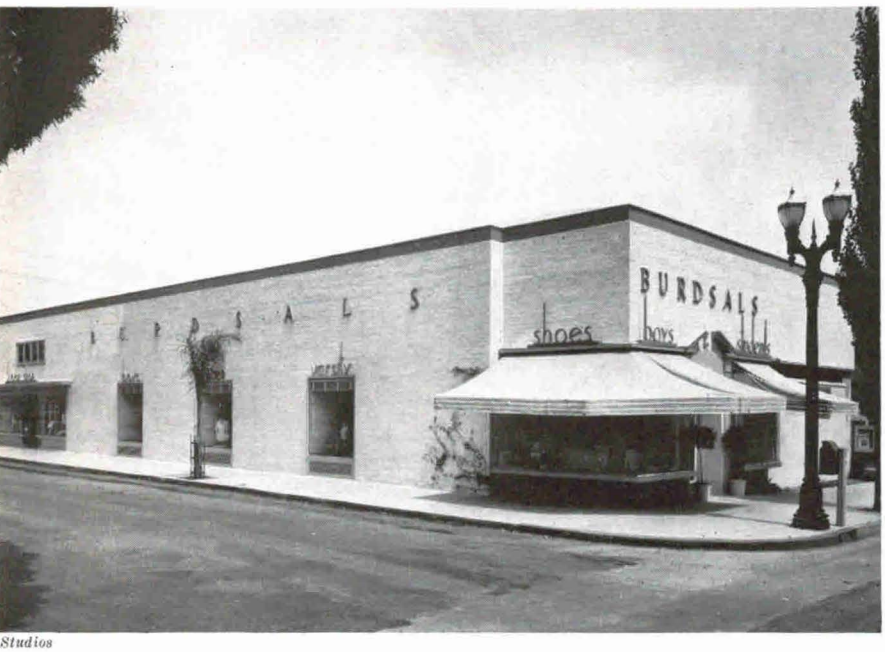


FLOOR PLAN

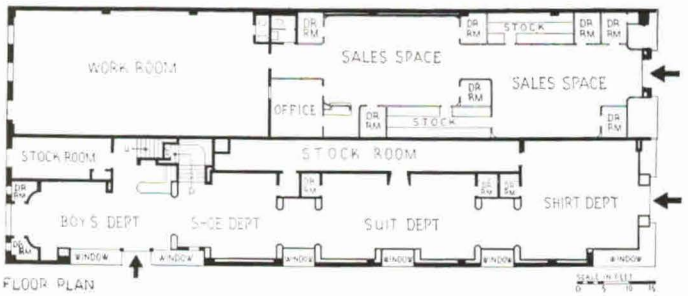
1. COVERS TAXES 18 TIMES

Most typical taxpayer in the Los Angeles panel of five is the one above. Successor to an unsuccessful gasoline station, it is a highly productive undertaking, netting $14,000 in excess of taxes from its seven tenants. Its removable store fronts and the single row of columns supporting roof trusses between its brick walls make the 120 x 70 ft. plan exceedingly flexible. Major ornamental detail is the porcelain band whose three shades of blue are separated by chromium strips. It conceals a trough of floodlights for the three signs. Standardization of the latter would have improved the facade considerably. The building was fully rented two months after completion. Architect: S. Charles Lee.

	BEFORE	AFTER
ASSESSED VALUATION	$12,000	$20,000
TAXES	480	880
RENTS	1,200	14,880
MORTGAGES	none	none
COST of demolition and new building	20,000	



Studios

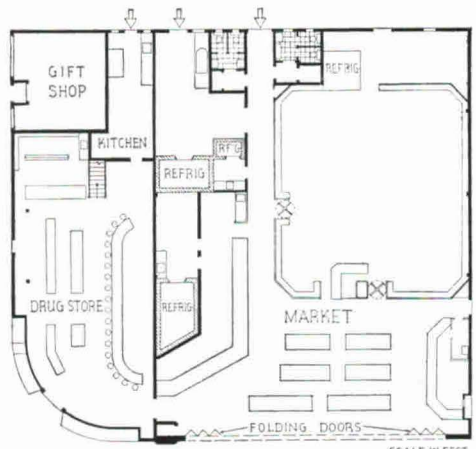


FLOOR PLAN

2. MOST EXPENSIVE: MOST ATTRACTIVE

When in 1932 Mr. C. Widemann purchased this property in the Beverly Hills business center at a price less than the current assessed land value, it held an ancient frame dwelling. Today a taxpayer covers the lot, houses two smart clothing shops (one for boys, one for women), which pay Widemann fifteen times as much rent as did the old house, against twice as much tax. The design requires no supporting members within the earthquake-proof brick walls, makes the building easily convertible into space for a single tenant who may require the entire premises. The exterior features ample display areas and conservative signs. Architects: Stiles O. Clements and Associates.

	BEFORE	AFTER
ASSESSED VALUATION	$14,370	$25,650
TAXES	590	1,070
RENTS	600	8,800
MORTGAGES	none	none
COST of demolition and new building	31,000	



FLOOR PLAN

B. R. Paxton

3. TAXPAYER OF NECESSITY

Booming land values in the North Hollywood district o Los Angeles called for the erection of this taxpayer, th Eyth Building, on a vacant lot. With its open air marke drug store, and gift shop, it serves as a so-called "tradin center" for a community inhabited by such film favorite as Crosby, Disney, and Mary Astor. In design it reflect the movies' version of modern; in construction, th economies characteristic of most taxpayers. Exterior wall are faced with stucco; the interior of the market ha been left unfinished in that lath and plaster do not hid structural members. Unfortunate in design is the build ing's focal point, a combination lighthouse and signpost also unfortunate is its little brother to the right. Architect J. A. Murrey.

	BEFORE	AFTE
ASSESSED VALUATION	$ 2,600	$11,5(
TAXES	115	4(
RENTS	none	7,2(
MORTGAGES	none	non
COST of new building	16,600	

4. RENTED AT HALF THE COST

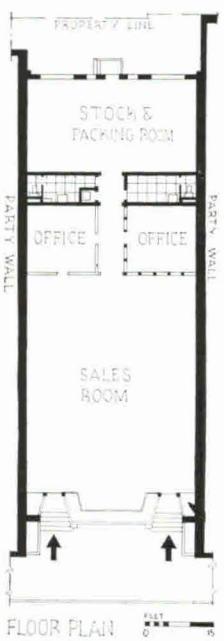
Like the Eyth Building, the structure above was built in the North Hollywood area to serve the prime purpose of a true taxpayer—to pay taxes. The following table of financial data indicates that it serves this purpose well and provides its owner with an extra $3,335 a year. Annual rent is equal to half the cost of the wood frame and stucco construction, a noteworthy ratio. Window displays are large, and a simple plan adequately solves the problem of an irregular lot. The tenant at present is a hardware dealer. Architect: J. A. Murrey.

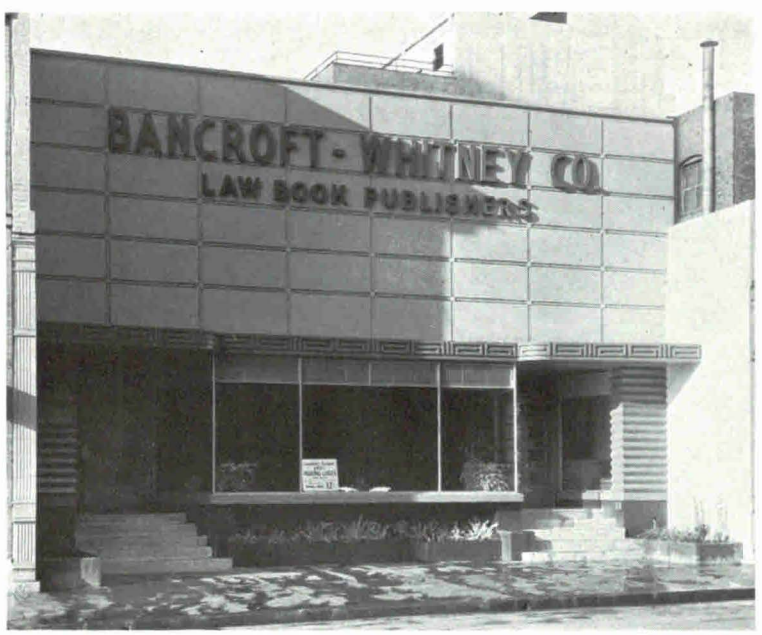
	BEFORE	AFTER
ASSESSED VALUATION	$2,500	$6,100
TAXES	105	265
RENTS	none	3,600
MORTGAGES	none	none
COST of new building	7,200	

5. SECOND HAND FOUNDATIONS AND WALLS

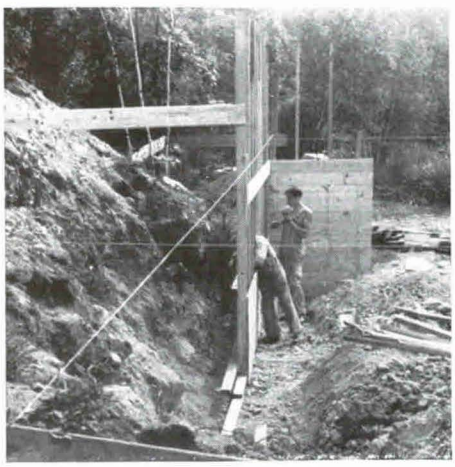
The building of the Bancroft Whiting Company is the third step in the cycle of office building to parking lot to taxpayer, is also an example of the Los Angeles *Times*' policy of getting the last penny from all of its properties. This particular property is situated downtown near the City Hall, Hall of Justice, Hall of Records, Federal Building and State Building, a location ideal for a publisher of law books. Costs were minimized by using old foundations and party walls reenforced in conformance with earthquake laws. Architect: Gordon B. Kaufmann.

	BEFORE	AFTER
ASSESSED VALUATION	$10,070	$16,700
TAXES	485	885
RENTS	2,400	4,200
MORTGAGES	none	none
COST of new building	16,540	

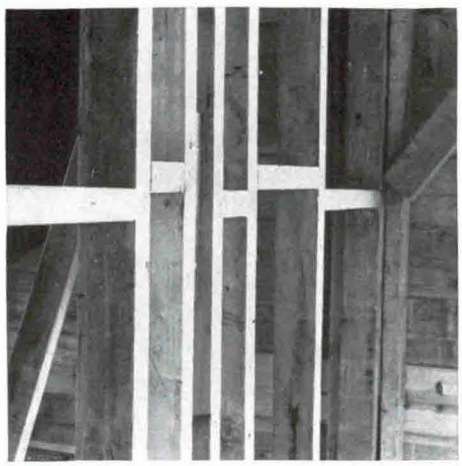




Woodcock Photos



"STRAIGHT AS A STRING, THOSE FOUNDATION FORMS. And the architect has ordered they shall extend 'not less than 4 ft. below the surface of the graded lawn.' "



"SOLID BRIDGING BETWEEN PARTITION TIMBERS. Section of partition at right of fireplace. Such bridging, full timber-width, spiked through upright timbers at both ends is sturdier than diagonal bridging with lighter pieces."

"SOLID BRIDGING BETWEEN FLOOR JOISTS. You are looking upward at the inner structure of the living room ceiling and second floor. Note the staggered bridging of solid, timber-width pieces spiked through the joists (center)."

GOOD CONSTRUCTION PROVED

by a publicity-wise group of mortgage bankers. A cameraman enters the building field.

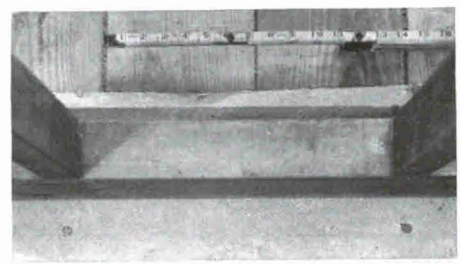
No more aggressive group of mortgage bankers exists than that comprising the Massachusetts Cooperative Bank League. Latest stunt of the League is a candid camera history of a house under construction—a publicity scheme which attracted more than 1,500 visitors on two stormy Sundays, sold the house before the plaster was dry.

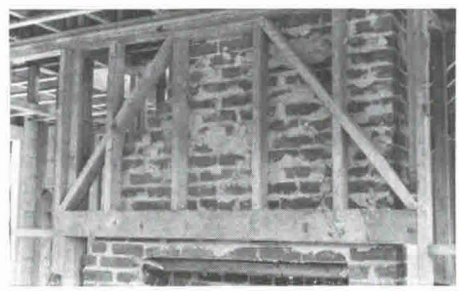
When the Massachusetts Cooperative Bank League decided to build its "Cooperative Cottage No. 1" near the Brookline-West Roxbury line, it selected Architect Frank W. Crimp to do the designing and supervising, Contractor Hosea M. Walsh to do the building and Photographer H. Lyman Armes to make a pictorial record of all phases of construction. The cameraman is an editor of *Home Owner*, an official League publication.

From the pile of films exposed, 100 of the best were chosen to cover large plywood panels exhibited in the dining room of the Cape Cod cottage. Appropriate captions frequently quoted the architect's specifications, thus proved with pictures that each of the requirements had been followed to the letter. Presented herewith are seven typical photographs together with their original captions.

In addition to this exhibition of X-rayed construction, interest in the building was promoted by articles in *Home Owner* and local newspapers. Visitors were encouraged to visit the site, were showered with folders outlining specifications, materials and their makers, equipment used and a simplified cost breakdown.

So successful was this "house built under a public microscope" that plans are now under way for construction of Cooperative Cottage No. 2, a larger Georgian Colonial.





"'UNDER-FLOORING NOT OVER 8 IN. WIDE' (above). The carpenter's rule here shows it was exactly 7 in., as the architect had ordered. Note the strip of heavy asbestos sheeting under the foot of this partition. Another fire-stopper, used on mid-floor partitions. ARCH CONSTRUCTION OVER FIREPLACE (directly above). This strengthens and supports the floor above. The flues of this generous chimney are spacious and lined throughout with fireproof terra cotta tile."

"EVERY NOOK AND CRANNY COVERED. The entire frame is covered with Johns-Manville tough, black building paper, made to resist wind, weather, and the passing years."

"ENTRANCE DETAILS. Two old-style, bulls-eye glass windows, shutters, monolithic steps and a brass lantern copied from whale-oil days. A flagstone walk winds across the lawn."

LABOR AND MATERIAL COSTS

register general decline. FHLBB's January index was lower in 17 of the 22 reporting cities. Wobbly trend predicted.

THE Federal Home Loan Bank Board's monthly small house cost index for January covers the New York, Indianapolis, Des Moines and Portland Districts, indicates for the first time since compilation of the index two years ago a general downward revision of labor and material costs. Thus, in thirteen of the twenty-two reporting cities costs of the Board's base house were lower in January, 1938, than in October, 1937; in only five cities costs were higher; and in four cities, where no October sampling was recorded, costs were lower than those of July, 1937. Averaging the price changes in the four Districts, it would have cost $112 less to build the six-room house in January than in October.

Best examples of this reaction from higher prices are in the Portland District where costs are above the average. Bids returned from contractors in the city of Portland showed the largest variation in the January cost survey, were $470, or 7.7 per cent, below the October figure. Other significant price changes in this area took place at Boise and Spokane where decreases of more than $300 and more than 5 per cent were reported.

Second largest decline, $436 or 7.2 per cent, was registered by Atlantic City's house in the New York district. On the other hand, bids from Albany, also in the New York District, showed the largest increase, advanced 4.2 per cent from $6,120 to $6,374, a new high for that city. Reporting minor increases, two other cities established similar records: Grand Rapids in the comparatively low-priced Indianapolis District and Sioux Falls in the Des Moines District.

Despite the general downward trend, cubic foot costs of the Board's hypothetical house at the turn of the year were still well above those of January, 1937. Exceptions to this statement and therefore noteworthy were unit costs at Atlantic City and Boise, which showed slight year-to-year declines, and at South Bend and St. Louis, which were unchanged.

Coinciding in trend with the FHLBB's cost index is that compiled by the Dow Service, "a composite or an average of many component classified parts," based on 1926 equaling 100. For metropolitan New York and New Jersey this index number declined from 97 in October, 1937, to 95.5 in January, 1938, was only half a point above the figure for July, 1937. Applying these numbers, a house which cost $10,000 to build last mid-year could have been reproduced in October for $10,211, in January for $10,053.

In forecast the Dow Service comments: "It is very questionable that there will be any noteworthy increase (in building costs) for the first half year. On the other hand there is a good chance for mongrel decreases—decreases which are 'off the record.'"

The House on Which Costs Are Reported is a detached 6-room home of 24,000 cubic feet volume. Living room, dining room, kitchen, and lavatory on first floor; 3 bedrooms and bath on second floor. Exterior is wide-board siding with brick and stucco as features of design. Best quality materials and workmanship are used throughout.

The house is *not* completed ready for occupancy. It includes all fundamental structural elements, an attached 1-car garage, an unfinished cellar, an unfinished attic, a fireplace, essential heating, plumbing, and electric wiring equipment, and complete insulation. It does *not* include wall-paper nor other wall nor ceiling finish on interior plastered surfaces, lighting fixtures, refrigerators, water heaters, ranges, screens, weather stripping, nor window shades.

Reported costs include, in addition to material and labor costs, compensation insurance, an allowance for contractor's overhead and transportation of materials, plus 10 per cent for builder's profit.

Reported costs do *not* include the cost of land nor of surveying the land, the cost of planting the lot, nor of providing walks and driveways; they do not include architect's fee, cost of building permit, financing charges, nor sales costs.

In figuring costs, current prices on the same building materials list are obtained every three months from the same dealers, and current wage rates are obtained from the same reputable contractors and operative builders.

FEDERAL HOME LOAN BANK DISTRICTS, STATES, AND CITIES	CUBIC-FOOT COST		TOTAL BUILDING COST								
	JAN. 1938	JAN. 1937	JAN. 1938	OCT. 1937	JULY 1937	APR. 1937	JAN. 1937	OCT. 1936	JULY 1936	APR. 1936	JAN. 1936
NO. 2—NEW YORK:											
NEW JERSEY											
ATLANTIC CITY	$0.234	$0.254	$5,627	$6,063	$6,173	$6,702	$6,107	$5,641	$5,725	$5,768	$5,860
CAMDEN	.236	.229	5,670	5,878	5,866	5,875	5,504	5,247	5,073	5,170	5,102
NEW YORK											
ALBANY	.266	.232	6,374	6,120	6,048	6,098	5,569	5,303	5,341	5,198	5,218
BUFFALO	.260	.243	6,244	6,465	6,501	6,108	5,820	5,661	5,680	5,483	5,487
WHITE PLAINS	.275	.256	6,607	6,408	6,857	6,100	6,137	5,777	5,779	5,718	5,652
NO. 6—INDIANAPOLIS:											
INDIANA											
EVANSVILLE	.240	.230	5,769	....	5,816	5,816	5,518	5,586	5,585	5,570	....
INDIANAPOLIS	.241	.231	5,786	....	5,890	5,921	5,540	5,558	5,802	5,755	5,740
SOUTH BEND	.258	.258	6,198	....	6,395	6,349	6,180	5,906	5,849	5,844	5,894
MICHIGAN											
DETROIT	.260	.226	6,245	6,111	6,379	6,278	5,419	5,297	5,293	5,265	5,136
GRAND RAPIDS	.240	.221	5,770	5,598	5,560	5,547	5,294	5,138	5,174	5,174	....
NO. 8—DES MOINES:											
IOWA											
DES MOINES	.260	.254	6,248	6,468	6,483	6,444	6,090	6,246	6,130	6,072	6,003
MINNESOTA											
DULUTH	.264	.237	6,338	6,391	6,373	5,990	5,697	5,765	5,671	5,616	....
MISSOURI											
KANSAS CITY	.244	.224	5,854	6,018	6,198	5,731	5,387	5,240	5,311	5,304	5,229
ST. LOUIS	.259	.259	6,211	6,437	6,512	6,590	6,227	5,918	5,915	5,976	5,997
NORTH DAKOTA											
FARGO	.251	.239	6,019	6,028	6,062	6,002	5,743	5,524	5,614	5,530	5,491
SOUTH DAKOTA											
SIOUX FALLS	.269	.243	6,446	6,442	6,263	5,999	5,839	5,716	5,711	5,688	5,655
NO. 11—PORTLAND:											
IDAHO											
BOISE	.250	.252	6,001	6,324	6,273	6,214	6,045	5,691	5,604	5,784	5,750
MONTANA											
GREAT FALLS	.297	.273	7,126	7,174	7,134	7,125	6,548	6,540	6,598	6,474	6,457
OREGON											
PORTLAND	.234	.224	5,619	6,089	5,990	5,883	5,365	5,379	5,307	5,277	5,278
UTAH											
SALT LAKE CITY	.264	.242	6,339	....	6,375	6,166	5,820	5,915	5,793	5,793	5,778
WASHINGTON											
SEATTLE	.271	.252	6,511	6,517	6,642	6,659	6,045	5,977	5,690	5,587	5,575
SPOKANE	.269	.266	6,461	6,851	6,796	6,543	6,375	6,173	5,712	5,712	....

INCREASE IN PERMITS

climaxes improved year in construction. Building stocks unsettled, marriages off.

Surprise development in December building permits recorded by the U.S. Department of Labor was a contra-seasonal rise to $150,573,355 from $105,769,879 in November. Responsible for the increase were healthy boosts in residential and non-residential construction. Safe prediction would seem to be that residential building gains would continue in view of recent enabling legislation that has come out of Washington. Total value of permits issued in 1937: $1,650,840,000; in 1936, $1,489,639,000.

Number of marriage licenses issued, barometer of future residential building, stepped up slowly in the early months of 1937 to a three-year peak of 44,000 in June. Year-end, however, found them lagging behind both 1936 and 1935.

Despite feeble attempts to get off to a good start in 1938, building and general stocks during the first six weeks of the year failed to rise above 90 per cent of 1926 prices.

Financing in 1937 by both life insurance companies and building and loan associations hit the highest marks since 1933. Investments in urban mortgages by life insurance companies increased steadily throughout the year, by year's end had gone beyond the $450 million mark. Though building and loan associations found themselves hit by the business slump in the second half of the year, their 1937 record betters any chalked up since 1930. Approximately $1,217,000,000 was loaned to half a million families in 1937 for home construction, purchase, repair, remodeling and refinancing.