EMPIRE STATE ARCHITECT

MARCH - APRIL
1952
VOLME XII - NUMBER II

There's an easy combination to QUALITY CONCRETE

THERE IS A "right combination" for quality concrete on every job. It is achieved by applying methods and procedures established through years of painstaking research in the laboratory, years of practical construction experience on the job.

These simple, easy-to-follow methods and procedures are described in *"Concrete Facts for Concrete Contractors,"* a non-technical free booklet answering such questions as:

How many gals. of water should go into a mix for public garage floors? (p. 9)

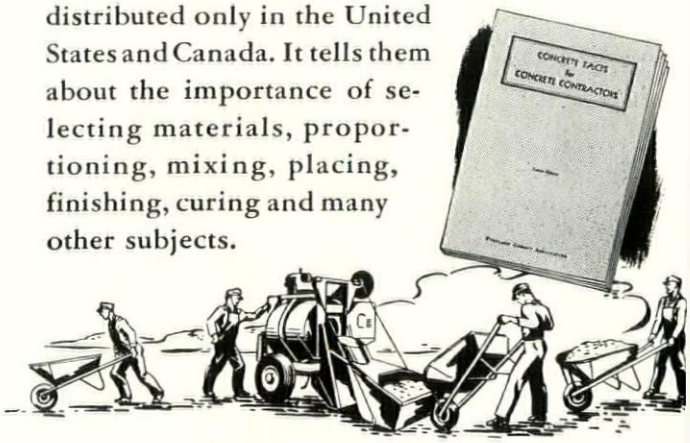
Can I save time—and money—by speeding up the rotation of the mixer? (p. 16)

Why does vibration produce quality concrete more economically? (p. 19)

To obtain quality concrete you must know the answers to these and many other questions covered in this booklet. Remember, delivering good concrete is just good business. A good job is your best salesman. It creates a satisfied customer, spreads your reputation as a quality builder and sells more jobs for you.

If your concrete work does not measure up to quality standards someone is failing to follow good design and construction practice. Often such failures can be traced to new men.

Should you want help in training such men, have them write for the free, 48-page, illustrated booklet, *"Concrete Facts for Concrete Contractors,"* distributed only in the United States and Canada. It tells them about the importance of selecting materials, proportioning, mixing, placing, finishing, curing and many other subjects.



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ART METAL releases the FIRST of its NEW ideas in INCANDESCENT LIGHTING

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WIDE AREA PRISMATIC UNITS
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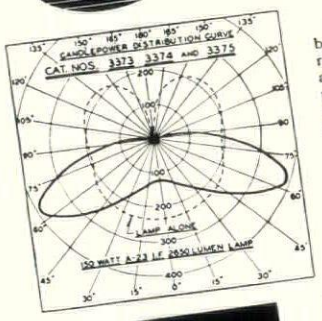


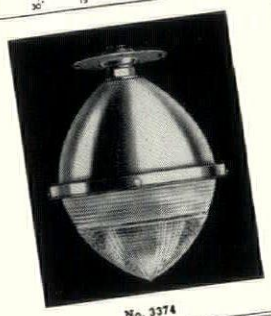
PERFORMANCE

Upward light from the lamp is redirected to useful downward light by the specular inner reflecting surface of the hood. This downward reflected light and the downward light from the lamp is bent upward and outward by the prismatic glass in the extended light distribution pattern shown on the Candlepower Distribution Curve. The radius of effective light coverage is upwards of three times the mounting height above the ground or floor.

APPLICATION

The extended light distribution pattern which so effectively provides protective as well as utility lighting over wide areas, also provides high angle light for effective illumination of upper vertical surfaces. Suggested uses include:

BUILDING ENTRANCES
GATE ENTRANCES
GARAGE COURTS
DRIVEWAYS
LOADING DOCKS
FENCE LIGHTING
SHIPPING AREAS
STORAGE AREAS
WAREHOUSES
YARDS
GAS STATIONS
WALKWAYS



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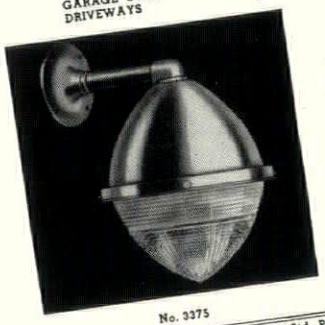

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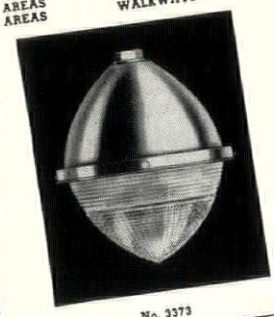


No. 3373

No. 3373	7¾" Dia. 10" Deep O.A. 150W A-23 Lamp Std. Pkg. 4 App. Wt. 18 Terminates in ½" conduit entry. Furnished with porcelain socket only.			
No. 3374	7¾" Dia. 11" Deep O.A. 150W A-23 Lamp Std. Pkg. 4 App. Wt. 21 Terminates in a self-aligning cover for attachment directly to the ears of a 3¼" or 4" outlet box. The 20° swivel action permits installation on sloping surfaces. Wired with No. 16AF wire with 6" leads.			
No. 3375	Wall Clearance 3½". Extends 11¾" O.A. Depth 10½" O.A. 150W A-23 Lamp Std. Pkg. 4 App. Wt. 24 Terminates in a wall plate for attachment directly to the ears of a 3¼" or 4" outlet box. Wired with No. 16AF wire with 6" leads.			
FINISH:	Baked Satin Aluminum on all exterior metal surfaces.			

SPECIFICATIONS

Prismatic glass provides symmetric widespread light distribution. 81 per cent of light output is in 40°-90° zone. The heavy pressed clear prismatic glass transmits light with minimum absorption and resists breakage.

Weather-proof protection is provided by the one-piece aluminum hood and the locked on socket cap together with the felt gasket which is cemented to the hood.

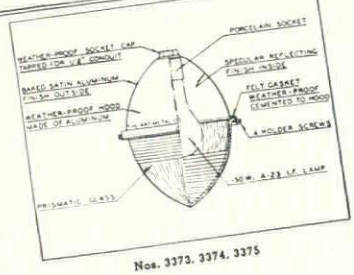
Reflecting surface on inside of hood is specular aluminum.

Dust, dirt and moisture are sealed out as the glass is held firmly against the cemented felt gasket by means of pressure of the four holder screws moving against the bevelled underside of the glass flange.

Lamp position—vertical (150W Max.) A-23.

Finish is Baked Satin Aluminum on all exterior metal surfaces.

Approved by Underwriters' Laboratories, Inc.



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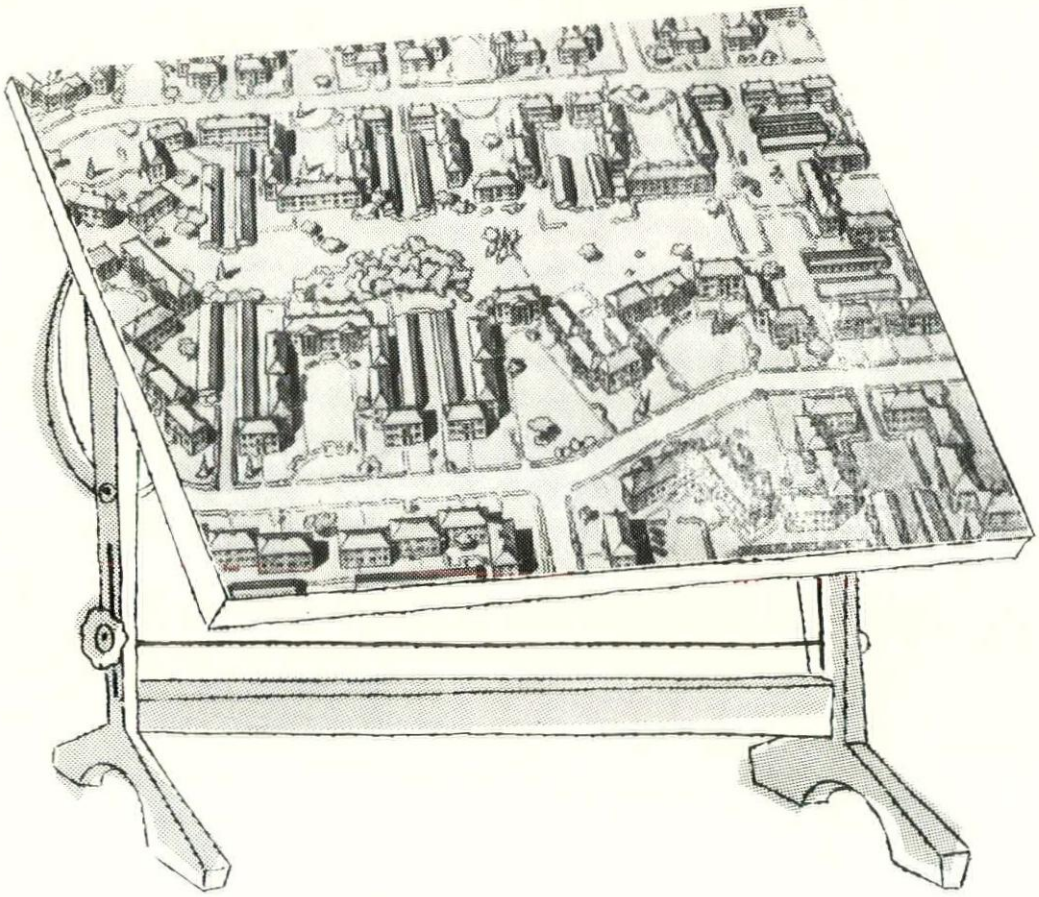

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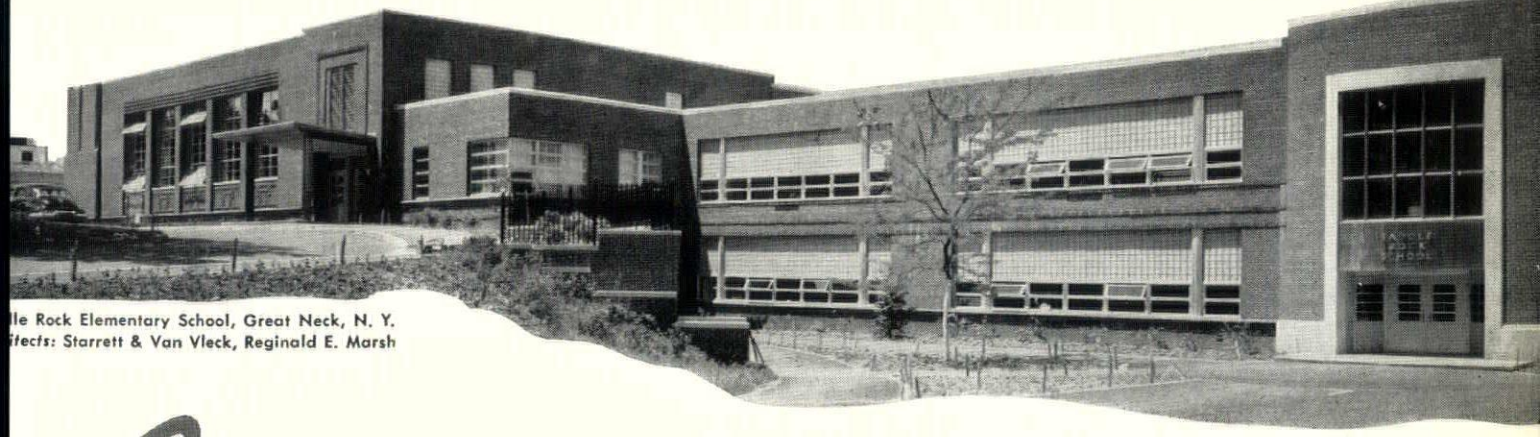

lle Rock Elementary School, Great Neck, N. Y.
itects: Starrett & Van Vleck, Reginald E. Marsh

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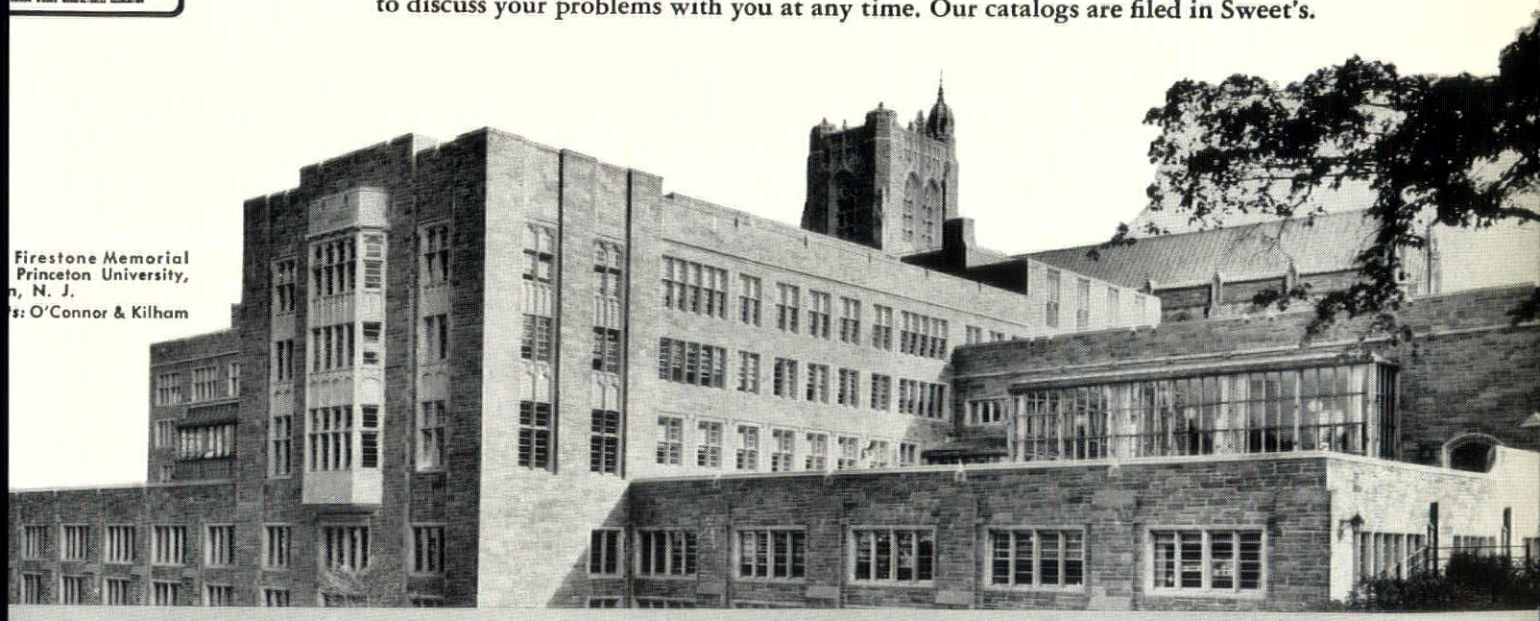

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Empire State Architect

THE OFFICIAL PUBLICATION
NEW YORK STATE ASSOCIATION OF ARCHITECTS

Address all communications regarding the State Association to the Secretary, John W. Briggs, 311 Alexander St., Rochester 7, New York, all editorial comments to Empire State Architect, c/o Charles Rockwell Ellis, Chairman, 108 W. Fayette Street, Syracuse 2, N. Y., and inquiries regarding advertising to the Publisher.

Publisher:
Julian L. Kahle, 21 Clarendon Place, Buffalo 9, New York

March - April Issue — Vol. XII, No. II

"Entered as second-class matter March 6, 1943 at the Post Office at Buffalo, New York, under the act of March 3, 1879."
Subscription Price: 50c per year. Non-Members $1.00
Published 6 Times a Year

1952 STATE CONVENTION AT LAKE PLACID, N. Y.

The Lake Placid Chamber of Commerce takes great pleasure in your Board of Director's acceptance of their cordial invitation to hold the 1952 Convention in Lake Placid, New York on October 2nd, 3rd and 4th. The Chamber of Commerce assures us of a successful and enjoyable meeting because:

1. Lake Placid is surrounded by the most beautiful and awe-inspiring scenery in New York State.
2. Lake Placid possesses unexcelled convention housing facilities.
3. Lake Placid supplies suitable space for commercial and educational exhibits.
4. Lake Placid will handle reservations for convention guests without charge.
5. Lake Placid will furnish complete registration service without charge.

Location

Lake Placid is situated in the heart of the Adirondack Mountains about three hundred miles from New York, a hundred and fifty miles from Albany and one hundred and fifteen miles from Montreal. The advantage of holding a business meeting amid such pleasant surroundings constitutes one of Lake Placid's greatest appeals to the Convention guest.

It is easy to relax between sessions and receive inspiration from the invigorating atmosphere of this delightful region 2000 feet above the sea. This feature is so appealing that many groups return annually to Lake Placid.

Housing Facilities

Housing facilities are more than adequate to care for the needs of our members, with some of the finest hotels to be found anywhere in the world. The American Plan hotels have a total capacity of 2,806.

While they are obliged to hold a certain amount of space for their ordinary guests, there are always accommodations for at least 1600 available for convention guests. Rates range from $7.00 to $14.00 per person per day including meals and rooms.

In addition to the above, there are inns and guest houses operated on the European Plan which offers accommodations for nearly 1000 more at rates ranging from $2.00 to $5.00 per day, per person. This would be more than adequate for our group, and would permit a wide selection to suit individual tastes.

Transportation

Lake Placid is easily accessible by train, plane, bus or automobile from any point in the State and is served by two State Highways, Routes 86 and 86A.

There is direct train service from New York City to Lake Placid, leaving the main line of the New York Central System at Utica. The main line of the Delaware and Hudson Railroad also serves Lake Placid via Westport, thirty-five miles away.

The Colonial Airlines serves Lake Placid via the Saranac Lake Airport with direct limousine service. In addition to its regular flights, special group charter service is available.

Three bus lines, the Adirondack Transit Company, Greyhound Lines and the Watertown Bus Company also serve Lake Placid with modern busses.

Within the village, taxi companies having a total capacity of 140 persons, carry visitors to all parts of Lake Placid and nearby points at reasonable rates.

Cover Photo — Lake Placid, N. Y.

WINDSOR PARK SHOPPING CENTER

LEO V. BERGER, *Architect*

The 30-store Windsor Park shopping center is located at the southwest corner of Bell Boulevard and 73rd Avenue in the Cunningham Park section of Queens. The shopping center was built to serve approximately 33,500 people in the immediate area; 15,000 live within a two-minute walk of the stores.

The center consists of two buildings placed in an L-shape on a 4-acre plot with a 240-foot frontage on Bell Boulevard and a 390-foot frontage on 73rd Avenue.

The structures were designed by Leo V. Berger, with simple functionality in mind. The peach face-brick and crab orchard stone with limestone coping, used on the exteriors, were chosen to blend with the red brick of the surrounding six-story Windsor Park apartment buildings and yet to provide a degree of visual contrast.

Stores have both front and rear entrances; sidewalks are 25 feet wide so that pedestrian traffic may move freely. A parking area for more than 300 cars in the rear of the center features a grassed area equippd with benches.

Shopping needs supplied are markedly above the "neighborhood necessity" level. Tenants of the Windsor Park shopping center include S. E. Nichols, five-and-ten, Whelan Drug, the largest Long Island branch of Food Fair, Inc., self-service grocery chain, and the Thom McAn Shoe Company. Other store tenants, including a branch of the Queensborough Public Library, provide a variety of goods and services.

GLEN OAKS SHOPPING CENTER

LEO V. BERGER, *Architect*

Rear entrance to group of stores in the Glen Oaks Shopping Center built by Gross Morton.

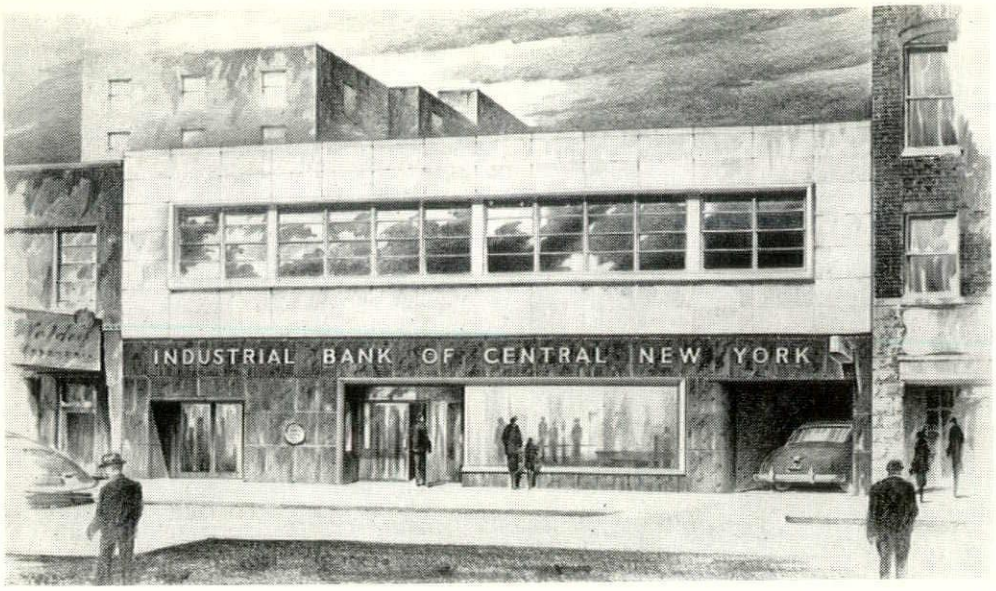
The Glen Oaks Village shopping center consists of 53 stores with a total rentable space area of 185,970 square feet, and a total ground area of 450,000 square feet. A parking field for shoppers accommodates 1,000 cars.

Major tenant in the Glen Oaks mart, the largest one-stop shopping center on Long Island, is the only branch of Mays department store, which occupies a total of 63,900 square feet of selling space. Other important lessees include Whelan Drug, Dan's Supreme Supermarket, Socony Gas Station, (AAA), Father & Son Shoes, Thom McAn Shoes, Loft Candy, F. W. Woolworth, and Miles Shoes. In addition there is a branch of the Queensborough Public Library system, and the Glen Oaks, N. Y. Post Office. Other shops include food stores, bakeries, dry cleaner, shoe repair, news stores, a decorator, beauty salons, hobby shop, appliance and radio store, camera supply shop and accessories shops.

This shopping center was designed by Leo V. Berger, architect. All stores have both front and rear entrances, and sidewalks are 25 feet wide with alternating dark and light concrete strips to minimize glare.

Approximately 93,050 square feet of precast concrete plank were furnished by the Concrete Plank Co., Inc., of Jersey City.

Mays Department Store
Glen Oaks Shopping Center



INDUSTRIAL BANK OF CENTRAL NEW YORK

SYRACUSE, N. Y.

HARRY A. & F. CURTIS KING, *Architects*

The problem presented to the Architects was to design a small bank building for a private banking institution which for many years had occupied inadequate quarters on a secondary street. It was the desire of the Owner to provide services which they heretofore had been unable to offer the public, such as Drive-In Tellers service, Safe Deposit Department, as well as more ample public and officer's space. While the property was on an interior lot it did provide a right-of-way through to a secondary street which allowed the installation of one Auto Teller window at this time with the provision for a second window in the future.

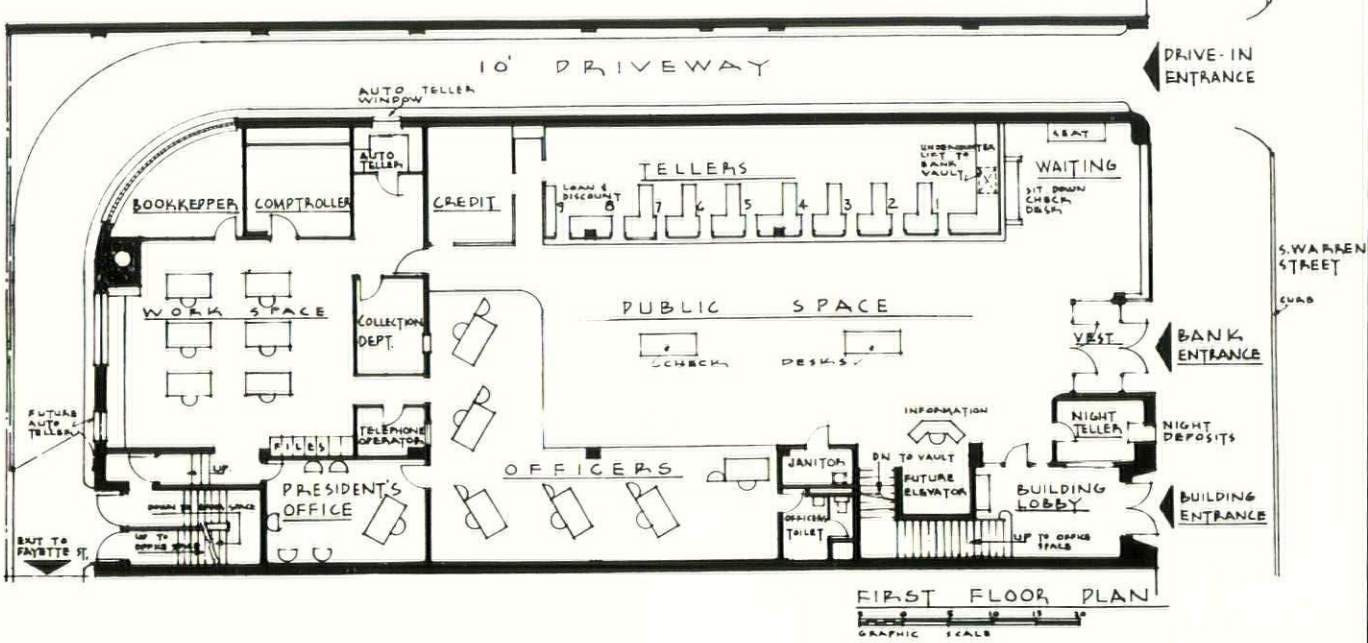
It was the desire of the Owner to provide for future expansion of the building. Therefore, the structure was designed for two additional stories. At the present time the second floor of the building is leased for office purposes. It will be noted that the plan provides for a completely separate banking unit with independent entrances and exits providing adequate circulation control completely segregated from the rental area. It is the intention to ultimately expand the banking space into the second floor and adding two additional stories for rental or bank purposes.

The basement of the building is used entirely by the bank and contains Cafeteria, Safe Deposit Department, Locker Rooms, Conference Room and Library. The vault is connected with the Teller space by a book lift.

The floor and partitions systems were designed for maximum flexibility. The floor system is an open void steel panel providing for maximum flexibility of floor receptacle, telephone, radio and public address system outlets. The partitions, with the exception of the public banking room, are of the metal movable type.

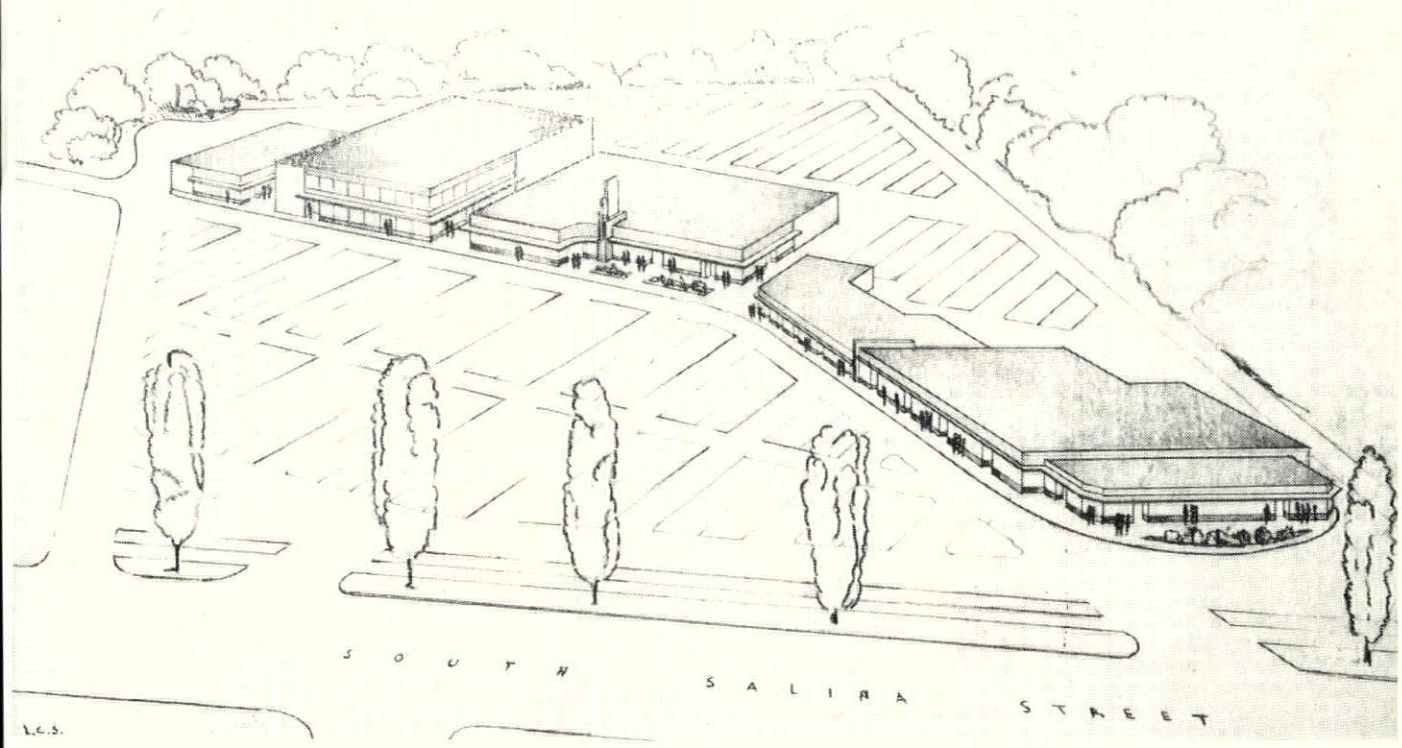
The bank front provides for a large show-window providing an unobstructed view of the entire public space from the street. This large show-window is used for displays of public interest as well as providing a light and cheerful banking room. A unique feature of the public space is a sit-down check desk in addition to the normal stand-up types. The Teller's side of the bank counter provides for metal cabinets with linoleum tops and the public side of the counter is faced with silver oak with marble counter tops.

The street facade of the building is of Indiana limestone with a polished red granite base and aluminum trim and letters. The public space and President's office are finished in silver oak panelled walls with acoustical ceilings.



SOUTH SALINA SHOPPING CENTER

S. Elmer Chambers, *Architect* — Syracuse, N. Y.



The South Salina Plaza Shopping Center in Syracuse illustrates the desire of the architect to create a unified design so often found lacking in buildings of this type. A wise distribution of the larger stores together with a continuous marquee over the smaller shops and uniform signs all help to present a pleasing facade as seen from the parking areas.

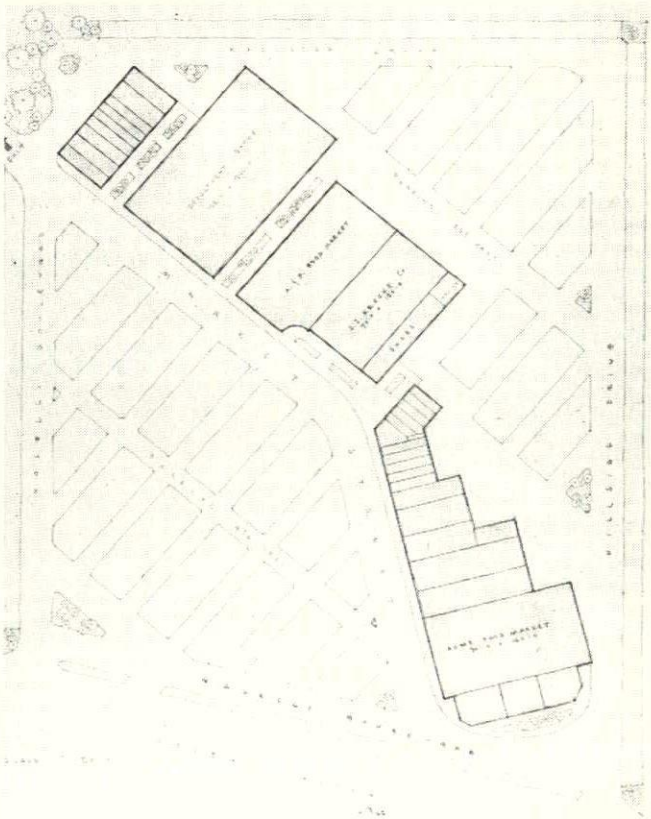
The split parking system gives flexibility to the parking area by providing both service entrances and overflow parking during peak loading. The customers who use the rear lot are guided through open walks between the buildings to the front entrances. Such intensive funneling of traffic through these walkways makes them very valuable for display and sale of impulse goods.

A "slow-down" lane is featured in the front parking lot; running parallel with the main traffic, it facilitates entry to the lot. All parking areas are paved with black top with heavy duty paving in traffic lanes and unloading areas.

Construction is generally open web joists roof structure on steel truss girders and lally columns. Roof deck is poured gypsum. All fire walls are load bearing and all partitions are cinder blocks, plastered. The suspended ceilings are plastered. There are no basements except for one unit.

Heating is generally forced air, however, some of the larger stores have unit heaters. A few of the stores will be air-conditioned. All electric service is under ground.

Incinerators for rubbish disposal, private fire lanes for sprinklers and hydrants, and private storm water drainage all increase the rental value of the individual shops.



TWO BUFFALO BANKS

DUANE LYMAN & ASSOCIATES, *Architects*

Entrance as seen from the parking lot.

The Main-Delavan Branch Office of the Manufacturers and Traders Trust Company of Buffalo is unique in shape as well as solution as may be seen in the accompanying plan.

The architects, Duane Lyman & Associates, were faced with the problem of creating a branch office building of sufficient size in a limited space on a most irregular plot.

The lot faces both Main Street and a large parking lot operated in conjunction with a large retail mail order store. The close proximity of the ample parking space gives the bank a "drive-in" character and definitely adds to the dollar volume of business transacted. For this reason the bank was given two elevations of equal importance, one facing the parking lot and the other facing Main Street. The third and remaining wall butts against an existing building.

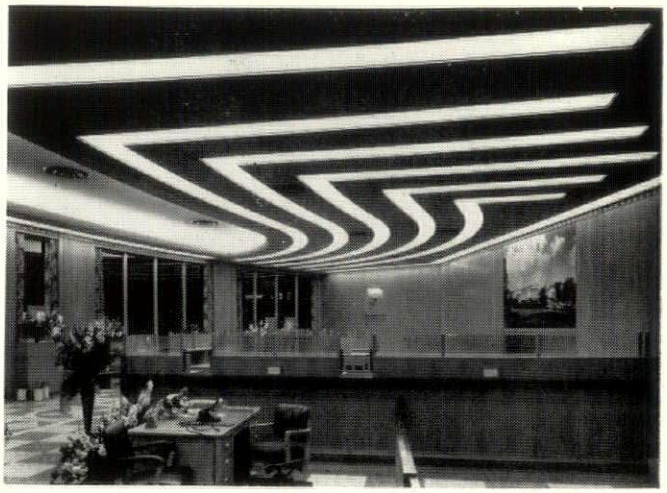
The curvature of the one wall set the theme of design and it may be seen carried throughout the building. Dramatic effect has been achieved by use of recessed cold cathode fluorescent lighting fixtures in sweeping lines as seen in the interior photograph of the bank.

The Erie Savings & Loan Association, located adjacent to a large shopping center is refreshing in its design.

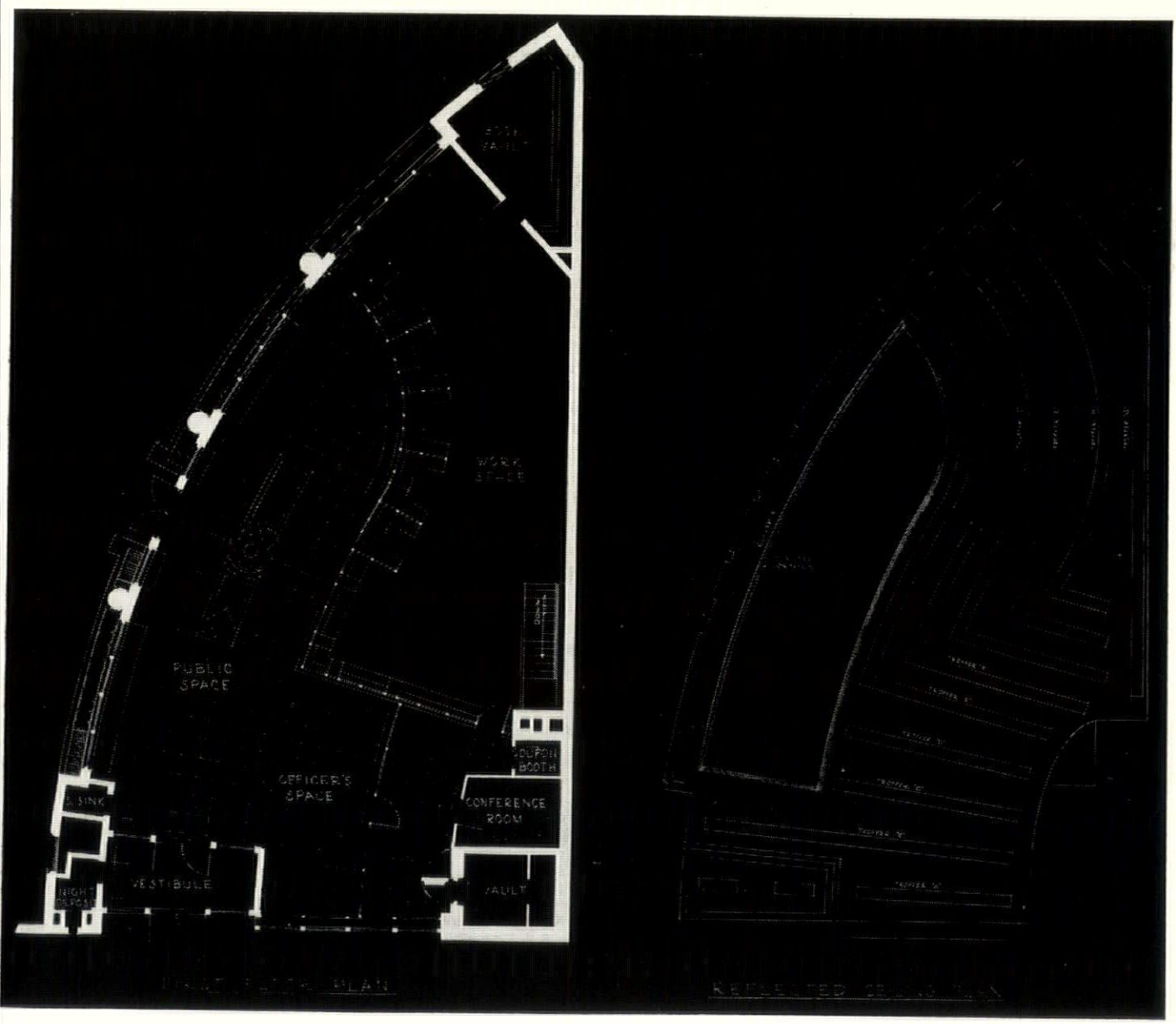
All interior woodwork is light oak, pilasters and wall paneling is also done in oak. The floor in the public space is terrazzo and the remaining floor area is rubber tile. A large photo-mural of Buffalo's Albright Art Gallery is featured on the rear wall of the work space.

Aside from the usual facilities provided on the first floor the building has a partial basement which includes storage space, rest rooms and a meeting room. The meeting room is of sufficient size as to serve the dual purpose of recreation lounge for bank employees.

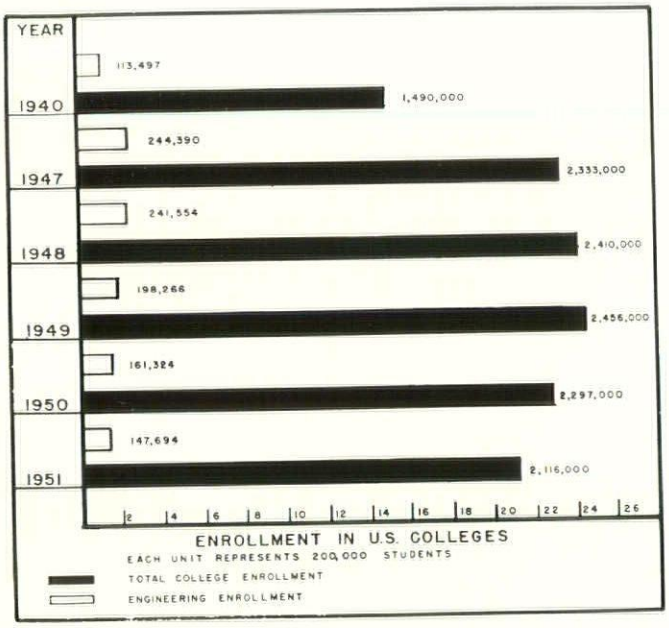
The Erie Savings & Loan Association Branch Office is located adjacent to a large shopping plaza and is a refreshing work of design amidst the "hodge-podge" of shops and business enterprises. Although there is nothing outstanding about the plan, the elevation warrants more than a fleeting glance.



Interior of the Main-Delavan Office of the Manufacturers and Traders Trust Company as seen from the officer's work alcove.



REPORT OF U.S. OFFICE OF EDUCATION



The dangerous gap between the supply of engineers and the need for their services is becoming wider according to a report made by the U. S. Office of Education and issued jointly by that office and the American Society for Engineering Education.

Only 28,000 engineering students will graduate in 1952 to meet the current demand of from 60,000 to 90,000 engineers. There were 38,000 engineering graduates in 1951; consequently the supply of engineers this year will be 10,000 fewer, a reduction of more than 25% (see graph). Since many of the 1952 graduates are either members of ROTC units or are subject to the draft, having been granted deferments to complete their college courses, defense industry is likely to find itself with a deficit of from 40,000 to 70,000 engineers.

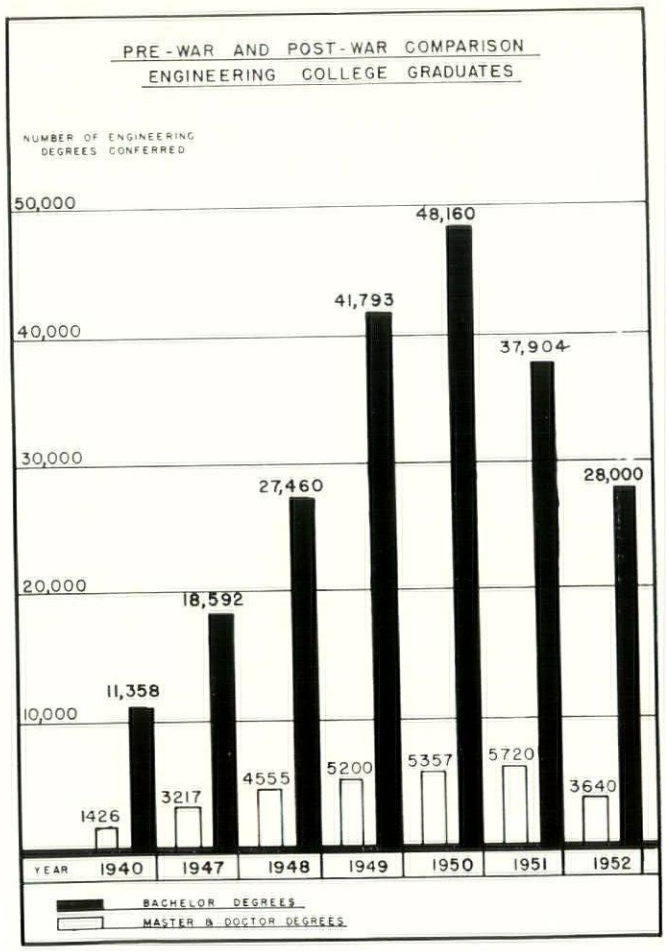
The graduation of the last large group of veteran students has dropped the total engineering enrollment 8.4 percent below that of last year. This decrease, however, compares favorably with the decrease in male student population reported by all higher educational institutions, which is almost 11 percent smaller than in the fall of 1950.

A checking of the decline in engineering enrollment is indicated by an increase in the number of freshman engineering students of 16.2 percent over 1950. Industry will not, however, have a chance to benefit by this increase until four years hence when it will find that it has heavy competition from the armed services, since an increasing number of freshmen are joining ROTC units.

The increasing desire for graduate training in engineering is reflected by the fact that graduate enrollment is now three times what it was in 1940. At that time, the graduate students comprised only 4.6 percent of all engineering students. This fall, 13.1 percent of all engineering students are taking graduate work. For the entire college population, the percentage of graduate students is estimated at about 10 percent. Almost *28 percent of all engineering* graduate students are taking their training in *electrical engineering*. *Mechanical engineering* accounts for about *17 percent*, while approximately *13 percent* are enrolled in *chemical engineering*.

The distribution of bachelor's degrees granted in 1951 among the four principal undergraduate engineering curricula was as follows: mechanical engineering, 9,609; electrical engineering, 8,616; civil, 6,473; and chemical, 3,614. The number of graduates in each of the four curricula was considerably lower than the previous year. In mechanical engineering, 26.4 percent fewer graduated. About 30 percent fewer were graduated in electrical engineering, 11.5 percent fewer in civil, and 18.3 percent fewer in chemical.

The data contained in this report are based upon a survey of engineering schools and colleges made in October, 1951, under the joint sponsorship of the U.S. Office of Education and the American Society for Engineering Education. In accordance with an agreement reached by the joint committee of the Office of Education and the A.S.E.E., all institutions listed in the Office of Education Directory of Higher Education which reported that they conferred degrees in engineering during 1950-51 were requested to supply data. Eight Canadian institutions were also included. Replies were received from all institutions accredited by the Engineers Council for Professional Development, from 44 other U.S. institutions, and from 7 in Canada.



AMONG THE CONSTITUENTS

By Cyril T. Tucker and Charles V. Northrup

SYRACUSE SOCIETY

Under the able chairmanship of Herb Boerner the program committee has turned the luncheon meetings into a special event. By having a speaker or a demonstration at these meetings, he has bolstered the attendance. All speakers are not from commercial distributors but some are taken from the active membership. An interesting discussion on landscape architecture was held by Mr. James Glavin, an active member.

On February 25th the local group of architects met with the Technology Club. The speaker for this joint meeting was G. E. Kidder Smith who gave an excellent discussion on the architecture of Algiers, Morocco and Tunisia. Needless to say it was well illustrated with colored slides and movies.

The local group will soon enter a small house competition to design an ideal home for the Syracuse area. F. Curtis King is to act as the Professional Advisor. Details have not yet been completed but will be announced in the near future.

Our Latin neighbors to the south seem to attract the local architects. Mr. George Ketchum made a trip into Mexico during the Christmas holidays. The Messrs. Sargent, Webster, Folley and their wives made a flying trip into Puerto Rico and some of the Central American countries. We are in hopes these gentlemen will honor us with a luncheon meeting at which time they will present to us their impressions while on these trips.

NEW YORK SOCIETY

New officers for the Society are: Julius Eckmann, President; Simeon Heller, Vice President; Richard Roth, Treasurer and John Jos. Carroll, Secretary.

NEW YORK CHAPTER

The Society of Architectural Historians held its annual meeting in New York this year. Architects and historians met in a three-day series of symposiums commencing on January 25th and culminating in a bus tour of the city, directed by Columbia University's Professor Hamlin.

Presentation of awards, which were given to architects for community improvement through purposeful architecture and to building owners for public service through civic improvement, by the New York State Association of Architects, was made at the Annual Dinner of the New York Chapter of the American Institute of Architects held at the Biltmore Hotel.

Francis Keally, chapter president, presented certificates to the following chapter members: Awards of Merit to Moore & Hutchins for the Village Hall, Garden City, N. Y.; George Nemeny and A. W. Geller for the Al and Dick Restaurant, New York City; Reisner & Urbahn for the Elementary and Junior High School, Lido Beach, L. I. Mention awards went to the following members: Clay, Potter & Coulter for the Lighthouse of the New York Association of the Blind, New York City; Daniel Schwartzman for the residence of Mr. and Mrs. Harry Rosenbaum, Baltimore, Md.; Voorhees, Walker, Foley & Smith for the Charles Hayden Memorial Library, Cambridge, Mass.; and Kelly & Gruzen for the Signal Corps School, Fort Monmouth, N. J. Isidore Rosenfield received Awards of Merit for the North Shore Hospital, Manhasset, L. I. and for the Ponce Hospital Center, Ponce, Puerto Rico.

Principal speaker at the dinner was Rear Admiral J. F. Jelley, Chief of Bureau, Bureau of Yards & Docks, Department of the Navy.

The grant of two 1952 Brunner Scholarships was announced by L. Bancel LaFarge, Chairman of the Committee. The Scholarship was founded in 1940 by the late Emma B. Brunner in memory of her husband, Arnold W. Brunner, A.I.A.

The awards were to Mr. Huson T. Jackson of Pratt Institute, $2400.00 for his project "A Survey of Important Architectural and City Planning Works in the New York Region", and to Mr. Addison Erdman $1000.00 for his proposed book on "An Investigation of Modern Hospital Planning and Architecture Throughout the United States and Canada".

Brunner Scholarships are awarded annually by the New York Chapter for advanced study in some specialized field of architectural investigation. The subject of study may be chosen by the candidate. Awards of this year's scholarships were made after an exhaustive study of applications from all sections of the country.

BROOKLYN SOCIETY

The roster of Honorary members was doubled at the last meeting . . . For many years it consisted of one name . . . Arthur J. Benline . . . The new member is none other than Thomas J. Mirabile, member of the New York City Council . . . Mr. Mirabile has been a staunch friend of the profession for many years and it was fitting and proper that we show our appreciation by electing him to honorary membership.

The Brooklyn Society of Architects has elected Harry Silverman as President for the year 1951-1952. Formerly Vice-President, Editor, and committee chairman, long active in the architectural affairs for the profession, Mr. Silverman succeeds Harry A. Yarish.

The other officers elected are: First Vice-President, Frank Randazzo; Second Vice-President, Sidney H. Kitzler; Recording Secretary, Jacob W. Sherman; Financial Secretary, Harry Finkelstein; Treasurer, Harold G. Dangler. Newly elected directors are Dominick Salvati, Max E. Ungerleider, Anthony J. Amendola, Anthony Salvati.

The Brooklyn Society of Architects has completed a year of activity in professional affairs which has contributed to raising the prestige of the profession. The Society's representatives on the joint Legislative Committee of the New York State Association, Harry A. Yarish, Jacob W. Sherman, and Harry Silverman, were active in formulating the policies of the committee and in drafting proposed amendments to the Multiple Dwelling Law. The Brooklyn Society believes it is a tribute to the entire profession that Senator MacNeil Mitchell sought the advice and counsel of the Joint Legislative Committee of the State Association before his committee submitted its proposals to the State Legislature.

Its representatives to the Architects' Council of New York City, Frank Randazzo and Harry A. Yarish, were active in this newly created organization which already shows promise of unifying the actions of the entire profession in New York City, and of becoming a potent force for the profession in the City.

In local building code matters, which affect the livelihood and practice of the architect, the chairman of that committee Arnold W. Lederer, kept the members informed of, and submitted copies of changes in the laws.

The Brooklyn Society in collaboration with the Brooklyn Chapter, A.I.A. founded the Brooklyn Architects Scholarship Foundation, devoted to raising funds for architectural scholarships in need of assistance.

President Silverman has appointed the following to serve as Committee Chairmen for the year 1951-1952: Architects Council of N. Y. C;—Frank Randazzo; Audit—Dominick Salvati; Building Code—Arnold W. Lederer; Architecture, Allied Arts, Civic Affairs—Anthony J. Daidone; Civil Defense—Aaron Shopsis; Constitution and By-Laws—Anthony Amendola; Fire Prevention—Abraham Farber; Labor Law—Arnold W. Lederer; Membership—Anthony Salvati; Multiple Dwelling Law - State Legislation—Harry A. Yarish; Professional Practice—Louis W. Feldmann; Publication—Sidney H. Kitzler; Publicity—John Tricarico; Social Activities—John Tricarico; State Building Code—M. E. Ungerleider; State Director—Harry A. Yarish; Surveys — Harry Finkelstein; Zoning — Charles M. Spindler.

CENTRAL NEW YORK CHAPTER

Unbeknown to most of us our honorary, and honorable member and illustrious illustrator, John Wenrich, has been on television. On the Barbara Wells show on WOR from New York City, sponsored by The Todd Company, John used his illustrations he made for the checks of the Rapid City, S. D. bank as a theme. These showed the Mount Rushmore Memorial group of famous Americans, the heads of Washington, Jefferson, Lincoln and Roosevelt. He sketched a large picture of the head of Lincoln, and then to convey the size, sketched the figure of a man in the eye of Lincoln, showing that a man could stand on Lincoln's lower eye lid in the actual sculpture and possibly reach up to his eye-lashes.

"They don't know it's a bank since you had us put in television."

In another show he made some rapid sketches showing elevations of houses as they were in 1750, 1850 and 1950 and then how an elevation might look in 2050. We wish we had the copy of these demonstrations to reproduce here as they sound most interesting. How he worked the commercial for The Todd Co. in this last effort we will have to conjecture.

Certificates of awards were presented to those who won them at the 1951 Convention of the State Association and at the Exhibit meeting of the Chapter last fall at Syracuse.

The feature of the meeting was a discussion by Mr. F. Curtis King of Syracuse of the "tilt-up" method of construction being used in the construction of a new dormitory for Syracuse University. His talk was illustrated by colored slides and showed the cast wall and partition sections stacked up ready to be placed in position with a traveling crane. These are cast one on top of the other, using side forms only, and the top of one slab becomes the bottom form for the next one to be poured on top. Anchors are cast in to allow them to be picked up and set on the previously poured floor, where the pour of the next floor binds them in place. Estimates show this to be more economical and result in a tremendous saving in steel.

Following the meeting many of the members visited the Rochester Public Library where the Rochester Society had an Architectural Exhibit during the month of February.

Five new members were introduced, two of whom became members last year, but this was the first opportunity to present them; Mr. William Roberts of Waasdorp and Northrup's office, and Mr. Allan Macomber, new junior partner in the firm of Faragher and Macomber. The other three new members were Bart and Olga Valvano, of Victor, N. Y., and C. F. W. Kaelber, Jr., of Rochester, N. Y. — all three of these fine people are with Waasdorp and Northrup of Rochester. The proposers for Mr. Valvano are Dean Leopold Arnaud, and Talbot Hamlin, of Columbia University, where Mr. Valvano received the medal of honor in design. Mrs. Valvano's sponsors are Walter Gropius and Joseph Hudnut of Harvard University where she received a degree in the Graduate School of Design. The endorsers or proposers for Carl Kaelber were Leo Waasdorp and Charles Northrup. Carl inherits a name that has meant a lot to the Chapter; he has a lot to live up to. His father is William G. Kaelber's cousin.

STATEN ISLAND CHAPTER

Mr. Theodore Koch was installed President of this Chapter, succeeding Mr. Maurice Uslan, at the Meurot Club, on December 22nd. Mr. George Cavalieri, past president of the New York Society, was the installing officer.

With Mr. Koch, the following officers were installed: Albert Melniker, 1st Vice-President; Kenneth D. Wheeler, 2nd Vice-President; Joshua Brown, Treasurer; Harold E. Brown, Secretary.

Mr. Koch was a member of the Narrows Bridge Committee, is a director of the New York State Association, and has announced that Messrs. Milnes, Uslan and Melniker will join him as the Committee for the 1952 Convention in New York City.

WESTCHESTER CHAPTER

We are always indebted to this Chapter for an interesting account of some hegira, whether it be a sum-

(Continued on Page 22.)

REQUIREMENTS, DETROIT BUILDING DEPARTMENT, TO SECURE A PERMIT

By L. Glen Shields, Senior Associate Sanitary Engineer, Bureau of Plumbing Inspection, Department of Buildings and Safety Engineering, City of Detroit

Reprint from Monthly Bulletin.
Michigan Society of Architects—Nov. 1951

As one who has been educated both as an engineer and as a teacher, one approaches the question of changes in curricula with some diffidence.

The student architect or engineer is asked on the one hand to gain a broad education so he will be able to follow the wide ramifications of the fields of architectural engineering, and on the other hand to specialize in that field in which he reveals the greatest aptitude, and also offers opportunities to enjoy life from his earnings.

Lack of vision, or understanding of the bearing of many courses in a technical curriculum on the ultimate practice of the graduate engineer, causes many necessary or useful courses to be absorbed under the heading of sheer drudgery.

Each of you has but to recall your student days to remember at least one such course in your studies, which was roundly berated by you, but when you began to practice you came to realize the wisdom of your student advisers in demanding your exposure to the knowledge available in this or that unpopular course.

The presentation which follows is intended to lead you to believe that there is a gap in your curricula for architectural engineers, which could be remedied by another boring, but useful course.

I have been told, and occasionally experience has led me to believe that architects are the aesthetes of the Engineering Professions. In fact, such mundane parts of a building as plumbing, electrical, boilers, heating systems, elevators, and structural members, may seriously interfere with the finest artistic development of the structure during the process of design and construction. They are to be tolerated by the architect only because people will no longer live or work in structures unless required mechanical features are present.

All joking aside, artistic and beautiful development, where combined with fine mechanical equipment, properly installed so that maintenance problems are reduced to a minimum, would seem to be the ultimate goal of the architectural engineer.

Toward the attainment of public health, safety, satisfaction of the public interest, and the common good and welfare, every self-governing community or state demands regulatory statutes, ordinances, as well as that regulations and restrictions be established. In ratio to the size of the community these regulatory measures will be assigned to an increasing number of agencies for their administration and enforcement.

Detroit, being one of the largest cities in the United States, has as complex a system of agencies which have to do with the enforcement of regulations governing the duties and tasks of the Architectural Engineer as one is likely to find. It would seem to be proper to list these agencies and briefly enumerate their scope as they apply to the architect. We will except the Department of Buildings and Safety Engineering which we will give a more detailed presentation.

City Planning & Zoning Commission—(A) The advantageous development of the City. (B) The use and maintenance of property values.

Department of Public Works—Elevation, size and use of public sewers. The cutting of streets, alleys and curbs, access to public sewers and development of entry to property; the paving of streets, alleys and sidewalks; garbage, rubbish and trash removal.

Department of Parks and Recreation—The allocation or removal of trees and shrubbery on public property.

Department of Water Supply—Water service from public mains to building side of meter.

Public Lighting Commission—All overhead or underground communication and power installations on public property.

Fire Department—Bureau of Fire Prevention—Use, storage and handling of flammable materials.

Health Department—Bureau of Industrial Hygiene—Industrial diseases and toxic materials—Bureau of Sanitary Engineering—Substandard Housing, general complaints pertaining to public health.

Finally, there is the Department of Buildings and Safety Engineering which, from the standpoint of the Architectural Engineer, is the keystone of the pattern he must follow when he enters into the business of securing a building permit. From each of the other agencies listed above, it may be necessary for the architect to secure preliminary information before he can develop a good plan for building and its surrounding premises.

The department is composed of the following divisions:

Bureau of Licenses & Permits
Bureau of Building Inspection
Bureau of Plumbing Inspection
Bureau of Electrical Inspection
Bureau of Safety Engineering
Bureau of Structural Engineering
Bureau of Smoke Abatement
Bureau of Laboratory Testing

Under the general direction of the Commissioner and his Deputy, each bureau is headed by a Chief who is responsible for the organization, operation and administration of the bureau and its personnel, and the enforcement of the laws, ordinances and regulations applicable to the equipment and materials inspected by the bureau.

The Department of Buildings and Safety Engineering issues a small pamphlet consisting of 47 pages of small print which is entitled, "Permit, License, and Inspection Fees, also Information Relative to Departmental Activities and Procedures." The pamphlet is gratis, but the twelve codes enforced by the Department may be purchased at prices ranging from ten cents to One Dollar and fifty-cents. (10c) to ($1.50).

The laws, ordinances and regulations enforced are as follows:

Annydrous Ammonia Storage Equipment
Boilers (Steam—Stationary and Portable)
Electrical Code (National Underwriters)
Electrical Rules (City)
Elevator Code
Gas Burning Space Heating Code
General Building Code
Oil Burning Furnaces and Heaters
Plumbing Code
Refrigeration Code
Safety Engineering Boiler & Licensing Code
Smoke and Air Pollution Ordinance
State of Michigan Housing Code (included as part of the building code)
Unfired Pressure Vessels
Wall Paper Steamer Code
Zoning Ordinance

The Bureau of Licenses and Permits issues 36 varieties of certificates or licenses covering inspection, operation and testing of structures and equipment; they issue 17 kinds of permits for installation; 17 trades are licensed by the Bureau and 13 varieties of hazardous businesses are also licensed by the Bureau.

The Department also issues pamphlets entitled, "Building Permits and How to Secure Them" which are valuable not only to the architectural engineer but to anyone who contemplates some simple structure, like a one-car garage and wishes to develop his own plans and do his own building. Our Department has placed 200 copies of these two pamphlets at the disposal of Prof. Blakeslee, University of Detroit, and it is asked that the ones in attendance be given a copy of each of them, and that, if it is desired, he will mail to the absent members copies for their study.

It might be interesting to note that our Department operates almost entirely on a fee basis, and over the long period of years, it will be noted that we have made our own way with only an occasional slump in building causing us to request allocation of funds from the tax-dollar. This will account for the fee schedule, and it is based on the cost of services rendered in plan examination and inspection.

To highlight the instructions and requirements in securing permits to build or alter, it should be noted that building permits are required for the erection of all new buildings and for additions, alterations or repairs to existing buildings, including certain changes in occupancy as prescribed in the building code, as well as the demolition of buildings or structures. Eight types of application forms are provided, according to the type of structure, activity of land use contemplated.

An appropriate application blank for a building permit, completely and legibly filled out, as well as two complete identical sets of plans must be filed with the department. The plans must either be drawn to scale in ink on a good quality of paper, or be in blueprint form.

Public Act No. 240 of 1937 requires that all plans bear the seal of a registered architect or engineer with the following exceptions: residential buildings costing less than $15,000.00; plans and specifications prepared by an owner for construction on his property for his own use; and public works costing less than $2,000.00.

The plans must show the plot plan of the premises, the distance from the new structure of all existing buildings, and the use of the new and existing structures.

The various codes require that front, side and rear yard depths be shown, that structural details, including footings, foundations, piers, pilasters, stairways, walls, ceiling heights and structural members and assemblies be complete and in detail as to materials and dimensions. Front, side and rear elevations are required. Housing code requires that use of each room be shown wtih windows, doors, and accessibility without movement through another bedroom.

Mechanical equipment and its location shall be shown on the plan and details of special equipment, or ordinary equipment having an unusual use must be shown.

In addition to the various codes mentioned earlier, our plan examiners must be satisfied that the plans comply with certain basic State Laws. Provisions of State Laws are usually incorporated in applicable ordinances, if time permits. But in the interim between adoption by the Legislature and action by the Common Council, the Department must require compliance.

Your plans and permit application are routed through the department and examined in accordance with the requirements of the various ordinances for Zoning and Housing. Condition of existing structures to which alterations or additions are made, structural features, plumbing including building sewer and storm drains, electrical wiring and equipment, smoke abatement, safety engineering equipment, Fire Marshall and, in some cases, by the Department of Health or the Bureau of Traffic Engineering are checked.

In the development of mechanical plans, simple conventional installations are not required to be examined and stamped. This can best be illustrated by the exception in the Plumbing Bureau, namely: plans for single and two-family dwellings, or two-story apartments, industrial and commercial buildings having a total floor area of 3000 square feet, and one story structures of same type having a total area of 5000 square feet, unless any of these exceptions have equipment requiring interception of wastes or processing water, then they, too, must be examined for acceptance.

The plans for plumbing shall show fixture layout and spacing; size, material and location of all building sewers, building drains, storm sewers, soil, waste, vent and water piping, and all specialized equipment intended to either intercept wastes or treat them, or both.

Before continuing with the duties of the architect in the presentation of plans and specifications, I wish to briefly mention the manner in which inspection departments have been developed. The personnel was formerly selected because of training and experience in construction fields, and are largely drawn from among the skilled trades. It is only within recent years that men with engineering training have been attracted to inspectional departments, and it is only in the larger cities that Bureau Chiefs are found who are graduate engineers, or registered professional engineers or architects.

It was the rule to find inspectional agencies of the older type quite inflexible in the application and administration of thir codes. This should possibly be attributed to a lack of technical background or training in theory. Therefore, when an inspector was approached to consider a new material, a new assembly, a radical departure in design, or a deviation from the tables and charts set up in his code, and he was without the guide of experience, his answer was "No."

In the administration of the codes in the Department of Buildings and Safety Engineering, City of Detroit, the policy is that when any new material, assembly, design or use, other than those specified in the code, is contemplated, it must be shown that it is the equal of those specifically mentioned in the code or that the intent of the laws or ordinances is met by the deviation. It follows that an architect or engineer who desires to deviate from the code, should first submit some preliminary studies to the proper departmental inspectional agency for determination. If in the judgment of the Bureau, or, in rare cases, the Board of Rules of the Department, his proposal is accepted, then the designer may proceed without fear that his finished plans will be rejected because of failure to comply with the law. For example, in our Plumbing Ordinance we set up tables which cover the capacity of sewers and horizontal drains laid to various common slopes, and if the design is within the scope of the table, no problem is encountered in examination. However, we have frequently found conditions in which large underground drainage systems were contemplated within the premises and the depths of public sewers made it necessary to go back to the fundamental laws or hydraulics and apply them even as they would be used in the designing of a large system of sewers for a city. Likewise, we have the responsibility of preventing acids, debris, sand, fats, oils, flammable liquids and other deleterious materials from entering the public sewer system. In this instance, one has to have a pretty thorough knowledge of hydraulic and physical problems that are involved in flow through interception devices, as well as the chemical and physical reactions that are necessary to prevent harmful wastes discharging to the public sewer.

Our Bureau of Plumbing and, I might say, all of the other bureaus, has the trained engineering personnel necessary to cope with these problems and to pass judgment, in the majority of cases, at the time the plans are submitted. My point of mentioning this policy is to show the architect and engineer that our ordinances and laws do not stifle individuality, progress, or imagination.

After the plans have been accepted and building permit issued, do not think the architect is through. Various other permits are required, and the specifications and plans should be developed so there is no confusion as to which contractor shall be responsible. The plumbing contractor must secure a permit to enter the alley, street, or easement and connect to the sewer. He must also secure a permit for the water service and meter, and the permit for the building sewer or sewers, as well as the plumbing shown on the plan.

Mr. Stiner, the Chief of the Electrical Bureau, will tell you, in detail, about the Electrical Contractor's responsibility and the requirements imposed on him.

Permits are required for electrical work, steam boilers, refrigeration and air conditioning systems other than self-contained plug-in types, for elevators, oil burners, gas-fired space heating, equipment burning solid fuels except in single and two-family dwellings, and for unfired pressure vessels such as air tanks and hydro-pneumatic tanks. Generally all contractors who are required to secure permits other than the building permits, are licensed either by the state or the municipality. In the case of the master plumber, he is licensed by the State after passing a satisfactory examination. He is required to register his license with the agency issuing plumbing permits in any municipality where he contracts or is hired to do plumbing.

Even ten years ago, as a rule, it was found that the mechanical plans covering plumbing were very inadequate. Elevations or typical piping layouts were the exception; spacing and location of fixtures were neglected, and sizing of piping was usually a guess which permitted the contractor plenty of leeway to reduce sizes and thus, increase his profits without justification.

The requirement of complete mechanical plans is an initial burden on the architectural engineer, but it saves money in the long run by reducing or eliminating costly extras, violations, and lost time.

This would seem a long dissertation on the activities of the architectural engineer in his relationship with departments such as ours, but it has seemed necessary to show the need for further training in our Engineering and Architectural Schools in this phase of the architectural engineer's duties.

We know contract law and ethics are stressed, but when the graduate approaches our department trying to secure his first building permit for a client, surely he must say, "Why didn't someone in school let me know about this development?"

He should be trained in basic building law and in an understanding of the duties which the public assign to departments such as ours. Most men at graduation from college are energetic, progressive, ambitious, even radical. So our system of plan examination fees, permits, and inspection may appear as a mass of red tape at first, and his reactions and sometimes his actions are damaging to the school which trained him, his future and his immediate reputation. As he gains experience, the reasons for each step become apparent. He finds the rules are for the public benefit, and thereby he is not subjected to competition with unscrupulous, unethical, and untrained people.

In conclusion, may I ask what is wrong with the idea of including in the curriculum of the Architectural Engineer a course, entitled "Construction codes, Their Development and Application to the Field of Architectural Engineering."

Art Metal Releases New Products

Seventy-five new products for incandescent lighting applications have been developed by The Art Metal Company, Cleveland, Ohio. The first group will be released March 1, and the balance will be released every two weeks through next September.

Detailed information is given on the product release sheets. Illustrations, cross section drawings, photometric curves, coefficient of utilization tables and product application suggestions are included to simplify selection and specification writing.

The addition of these 75 new products will enable Art Metal to offer an even more complete coverage of incandescent lighting applications.

Write to Art Metal Company, Cleveland 3, Ohio, to get the information on the new products.

1952 N.Y.S.A.A. CONVENTION

The Dates — October 2-3-4, 1952

The Place — Lake Placid

An Ideal Spot for a Real Gathering of the Clans

THAT NECESSARY EVIL — THE ARCHITECTURAL ENGINEER

By Thomas H. McKaig

My attention has been called recently to two jobs where settlement took place, but in the one job, the wall settled more than the interior columns,—in the other the interior columns settled more than the wall. Inasmuch as you learn only from a job where something goes haywire, it is worth while to analyze in words of one syllable what happened in the two jobs so that if possible we won't let it happen again—we hope.

The first building was a 5 or 6 story building, well designed — (I didn't do it) — with footings on sand, which thru years of flood water conditions had apparently been pretty well fluffed up at times. The foundation pressure was only two or two and a half tons per square foot under full design load. The trouble was, that under the wall columns, the footings carried about three quarters of the design load all the time due to the dead weight of the walls,—and the interior footings were probably never loaded to over half the design load, because it was largely live load, of an amount much greater than it ever received. The result was a uniform differential settlement between the exterior and interior columns of about three eighths of an inch,—enough to cause some nasty cracks in the cross partitions.

The other case is a very light load condition,—only one story with a crawl space below, and founded on a good grade of clay. It could not possibly compress under the load applied by one story and roof only. In this case, the inner footings had gone down an inch—almost uniformly—with relation to the exterior walls. A laboratory shrinkage test on the clay indicates that it is a material with a very high shrinkage factor, and while the clay under the outer wall stays moist from outside weather conditions, the clay under the inside footings shrinks as it dries out.

In the first instance, it is obvious what to do in your future designs—base your design on dead load only rather than live and dead load. The solution of the second may not be so simple. I am told by soil mechanics specialists—(That subject was invented long after I finished college.)—that some clays will shrink ten times as much as others. I think we found that one in the job referred to. Obviously, hereafter I will recommend that we not only get test borings, but that the material be analyzed for shrinkage. Then, by comparison with one we know is bad, we can determine whether the risk of such settlement is great enough to warrant spending additional money to put our footings deeper, or to otherwise provide against such an aggravating occurrence.

I have been wondering since finding out about these two jobs, if some of the plaster cracks over doorways,—the kind we have blamed on the inevitable shrinkage of materials,—may not to a small degree have been due to one of the two causes cited above. Maybe it could be!

84th NATIONAL CONVENTION OF THE AMERICAN INSTITUTE OF ARCHITECTS

The 84th annual convention of the American Institute of Architects will meet in New York City, June 24 to 27.

The importance of the design of buildings in forming environments for human activity will provide the theme of the convention and will be developed to illustrate the formative influence of the architect's work, whether in the design of a individual house or of an entire city. The meeting will be addressed by leading members of the profession and guests especially chosen for their ability to contribute to the theme.

Arthur C. Holden, New York architect and convention committee chairman, heads a group that is arranging visits to buildings in New York, tours, inspections of architectural offices and other activities that will further illustrate the idea of architecture as a factor in man-made environment.

The great gain in building technology which has given today's architect's unparalleled resources with which to create new environments, will receive special emphasis. The theme of the building products exhibit, "Structural Resources for Architectural Design" will carry out this idea. Over sixty leading manufacturers of building materials and equipment will show their products in the Waldorf-Astoria hotel during the convenion making this the largest exhibition ever to be shown at an A.I.A. convention. The Producers' Council, an organization of manufacturers in the building field, is actively cooperating in the exhibition.

Technical sessions of the convention will follow the general theme, but with greater emphasis on structural resources of the architect. A major focus of interest this year is the relation of structure to materials conservation objectives required by the defense effort. The program will include material on pre-stressed concrete, thin shell vault and dome construction, prefabricated structural unit construction in concrete, reinforced brick masonry, aluminum as structural frame material, and trends in structural design theory applied to reinforced concrete and steel, including welded steel. The American Institute of Architects wishes to acknowledge the Centennial of the American Society of Civil Engineers, and will invite members of that society to present certain aspects of the theme.

"The quarter-century since the American Institute of Architects last met in New York City has been rich in illustrations of the architect's work in housing, redevelopment and city planning," Mr. Holden said.

"Our work in designing airports, terminals, shopping centers and similar types of modern buildings has required the development of the architect's understanding of human activities, routines, and processes. Our buildings today are designed to strengthen and support these activities. Today's architecture has become dynamic as it deals with the movement of people, the flow of traffic, or the requirements of people doing things. Whether we are designing a kitchen or a department store, our planning is responding to a new understanding of the importance of buildings as the place where things happen."

"In his analysis of such problems the architect enlists the contribution of many specialists—economists, engineers, analysts and experts of many sorts. These consultants are increasingly valuable. But in arriving at his solution and expressing it in design, the architect has to make his way pretty much alone. That is why architects are trying to strengthen and broaden their conception of their job."

"The idea of the organized man-made environment as a device for synthesizing and expressing the many functions of a building is one of our most productive concepts. It is equally important to our clients, those who build today, have a better appreciation of what is possible and desirable from the art of building in their own time."

A final program with the names and subjects of all speakers will be published in the May-June issue of the EMPIRE STATE ARCHITECT.

Branch—Security Trust Co.
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AMONG THE CONSTITUENTS *(Continued)*

mer picnic or not. Winter must have its hazards, too, from an interesting account of the Christmas party written by Bart Walther.

"The Christmas party of December 14th, 1951, will go down as the date marking off the 'Never-say-die' men from all others. That night, everyone came up to the line and either stepped forward or stepped back.

"But 19 architects, filled with zeal and high expectations, defied the elements, their wives, the traffic and the police, to uphold the traditions of low-these-many-years. Their indomitable spirit defied all opposition and forced the path to the rendezvous.

"That night some men ate one steak, some ate one and one-half and some ate two steaks. The entertainers came by dribs and drabs, and at long last all but one arrived. For the first time we had a lady magician. (I tried to look up the word 'predigitator' but since I did not know how to spell it could not find it, and this must do). By unanimous vote, James E. Cook, that honorary assoociate who has done so much for the chapter, was presented with a handsome wrist watch, appropriately engraved, and presented with many kind expressions of appreciation for work well done.

"The party broke up about 11:00, and the hardest part of the way home was the first hill, where most everyone landed in the gutter at one time or another. Gosh, that sounds bad, what I meant was that the CARS landed in the gutter."

BRONX CHAPTER

The "Bronx Architect", the publication of this chapter, is replete with decisions and interpretations of the New York building code, and other announcements of interest to the members.

They stress one thing, however, that we think everybody in the State Association should be thinking about, and that is the coming Annual Convention at the Waldorf-Astoria in New York City, June 23-27. It is really up to the up-state organizations to begin to plan sizable groups, not only to make the Convention a success, but to return the compliment of those large delegations from the metropolitan area to the recent up-state conventions.

ROCHESTER SOCIETY

On Thursday evening, January 25th, the members enjoyed cocktails and a movie on "Baylaun" Philippine mahogany. Sound pictures in color showing the lumbering of the mahogany in the Philippines, and the Douglass Fir in Oregon, were like a travel picture, and very clear pictures of the manufacturing processes such as the peeling machines, turning a mahogany log into hundreds of square feet of beautiful veneer, gave one an understanding of the meticulous operations necessary to produce this modern panelling.

The Society has during the month of February held its meetings in collaboration with the Rochester Engineering Society, with the Architects providing the speakers. Don Faragher presented his housing project. Waasdorp and Northrup talked about the Wayne Central School. Walker Lee and George Cummings climaxed the series with a talk on the new code.

BUFFALO - WESTERN NEW YORK CHAPTER

Four new members were welcomed into membership at the last regular meeting of the chapter. Allan C. Brenton of Jamestown and Arthur D. Whitcher of Orchard Park were initiated as new Corporate Members. George Goetz and Warren Wuentz, both of Buffalo, were accepted as Associate Members. Mr. Goetz is with the city building department serving as city Structural Engineer. *(Continued on Page 24.)*

PANEL HEATING . . . By Malcolm B. Moyer, *Engineer*

Radiant heating dates back into antiquity. The Romans used a fireplace whose chimney passed beneath the floor of their baths. In present Italy, buildings can be found with hollow walls which carry smoke from the stove through the side walls of the room.

About 1912 a patent was granted the Sayles Company covering heating pipes embedded in concrete floors for use in rooms where chemicals were dried. About 1917 steam pipes were placed in the thick concrete floors of hog farrowing houses to keep the newborn pigs warm and away from the mother who might roll on one and crush it. This was the idea of a practical hog raiser.

In the early Twenties hot water pipes were embedded in the floor of the Johnson Soap Company by Frank Lloyd Wright, who received wide publicity for his "revolutionary" form of heating. Hot water coils in floor or ceiling have become increasingly popular.

Hot water pipes should be completely embedded in a concrete or Terrazzo slab. An average of 85° floor temperature is desirable. Uniform spacing of the pipes keeps an even temperature. Another form of panel heating uses copper pipes either attached to the underside of metal lath or placed directly above it; in either case, securely embedded in the plaster. Smaller pipe and higher water temperatures can be used. This method is gaining popularity.

Warm air furnace manufacturers recommend blowing heated air through under floor ducts. The warmth derived is not as even as when hot water pipes are used. Another method of warm air panel heating uses flues about 2" high formed directly under the normal ceiling. Strong fans and baffles force the air to flow over the ceiling. This requires careful design and has some limitations.

The strong appeal of panel heating is its invisibility. Most forms of heating are open to the criticism that the heat source intrudes into the space being heated. Efforts have been made to conceal these heaters. Panel heat does this completely.

The main problem in hot water panel heating is proper coil venting. This is not a serious matter in floor panels, but requires care in ceiling panels.

The type of insulation placed below the floor or above the ceiling is of vital importance, as heat will radiate downward or upward with equal facility unless stopped by proper insulation. Many forms of insulation are available. Insulating heat cut-offs are essential around the wall of a floor slab.

The use of copper tubing in the floor slab is advocated by the manufacturers. However, copper does not have the same coefficient of expansion as concrete, and is subject to distortion and flattening by those pouring the concrete. The better practice is to use iron pipe with welded joints in the floor. Copper is ideal in ceiling panels because the coefficients of expansion of plaster and copper are comparable.

The relationship between the floor area and the side wall heat losses is vital. A shallow room with a large picture window is difficult to heat with a panel. While floor panels emit a small amount of convected heat, ceiling panels are totally without convection. If there is a large window with a shallow room behind it, use some other form of heating or supplement the panel with a long baseboard convector.

Panel heating has been the subject of much mathematical discussion. Theorists have rushed into print telling how to compute and install panel heat, offering methods not practical for use by the average mechanic. These studies have their place, but they are not much used by experienced designers. Panel heat is becoming standardized, but is still an art which must be practiced with intelligence and care to insure success.

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AMONG THE CONSTITUENTS *(Continued)*

LONG ISLAND SOCIETY CHAPTER

Ward Melville of Stony Brook, Long Island, and New York City and president of the Thom McAn shoe stores, was awarded an honorary membership in the Long Island Society Chapter of the American Institute of Architects at the chapter's annual dinner Feb. 15.

The award was made by Daniel Perry of Port Jefferson, Long Island, chapter president, before more than 100 members and guests, at the Garden City Hotel, Garden City, Long Island. James Carpenter, president of the Long Island Association and vice president of the Long Island Lighting Company, spoke on "The Development of Long Island."

In making the award to Mr. Melville, Mr. Perry stressed the shoe company executive's life-long interest in and contributions to architecture. Exhibits were shown of three major architectural achievements accomplished under Mr. Melville's direction. One was the redevelopment of the shopping center of Stony Brook. The second exhibit was of the Thompson House in Setauket, Long Island, Circa 1700.

Most original of Mr. Melville's architectural contributions was shown in an exhibit of the first Thom McAn shoe store in 1922, the first store to abandon cornices and hanging signs. The evolutionary stages of store design from the initial unit at 128 Third Avenue, New York, to the most modern store in Hempstead, Long Island, also were depicted. It was pointed out that virtually all stores have adopted this basic design since it was first introduced by Mr. Melville. Richard Haviland Smythe, architect, was associated with Mr. Melville in the Stony Brook restoration and the store designs. Mr. Perry was the architect on the Thompson House project.

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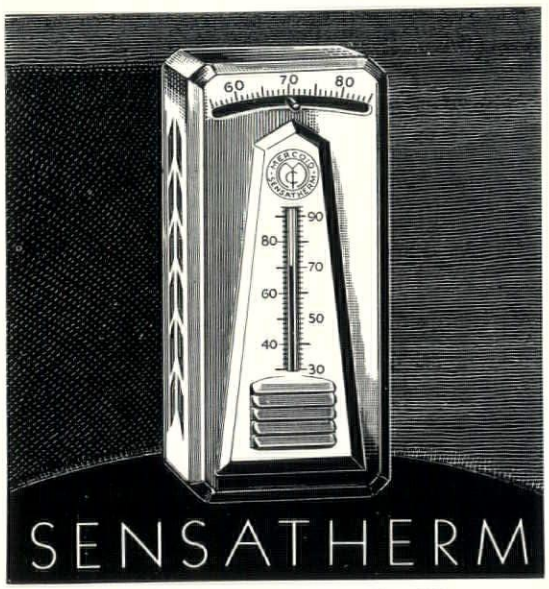

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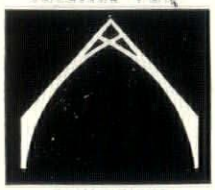

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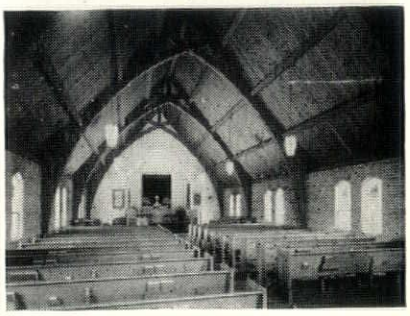

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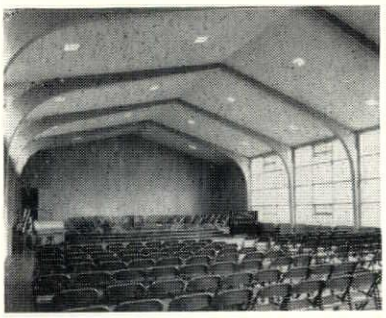

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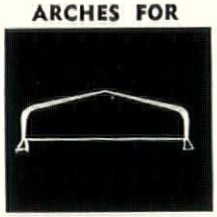

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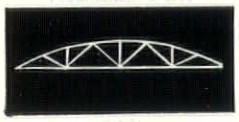

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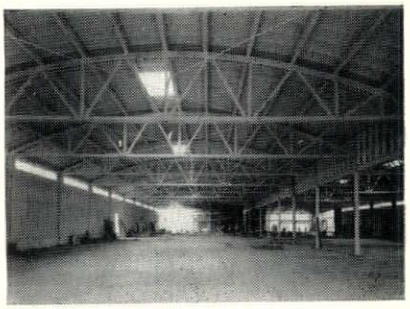

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BOOK REVIEW . . . By George Dick Smith, Jr.

ARCHITECTURAL AND ENGINEERING LAW

by Bernard Tomson

124 Pages—Reinhold Publishing Company—New York—$7.00

"A trust relationship exists between owner and architect or engineer. In undertaking to render professional services the architect represents that he has and will exercise reasonable care and skill without negligence." "The Architect . . . owes to his client a fiduciary duty to act loyally and in good faith." . . . While the architect may properly delegate duties, the responsibility for proper performance remains his, and the owner has a right to look to him for proper execution of the entire project committed to him."

The foregoing quotes are from two chapters of Mr. Tomson's book, which book belongs in every architect's library if for no other reason than that it will remind him of his professional duties and limitations within the proper frame work of the law.

The book is divided into seven parts covering the complete analysis of architectural engineering law, including Licensing laws, Architect-Owner relationship, Rights and Liabilities of Architects, Property of Plans, Copyrights, Decision and Compensations.

Each chapter's subject mater is clearly titled in a brief consummation—followed by the detailed description of the subject and then a list and brief of pertinent cases from the various states. The latter briefs probably being more important to lawyers than architects so that the book will be valuable to lawyers involved in architectural legalities.

"With this book at hand, there is no longer any excuse for ignorance about architectural and engineering law." — thus ends Thomas Creighton's introduction to this valuable book.

SHOPPING CENTERS

by Geoffrey Baker and

Bruno Funaro—288 Pages—Profusely Illustrated

Reinhold Publishing Corp., New York—$12.00

If you have a shopping center to design—this book will serve as your best reference and will save you many steps. The book was compiled by Bruno Funaro while a recipient of the McKim Fellowship for advanced professional research. His collaborator on this book was Geoffrey Baker.

While the book has many plans and photographic illustrations—valuable to the non-reading architect—the meat of the book is in the editorial matter which covers Organization of a planned center, Market Analysis, Parking, Automatic Merchandising, Freight Handling, Service Areas, Site Planning (both authors are experienced city planners), store buildings and dimension data for all the above. This covers the first 78 pages. The remainder of the book contains illustrations of 63 shopping centers, both large and small in all parts of the U.S.A. Included are all types of centers completely illustrated. It is recommended highly as a source of inspiration and is hoped that some of the really good centers will have a progressive effect on the design of shopping centers in New York State.

THE COUNTRY BUILDER'S ASSISTANT

A first edition of the earliest American architectural book written and published in the United States has been added to the Columbia University Libraries, it was disclosed recently by Professor James G. Van Derpool, librarian of the Avery Architectural Library.

The book, "The Country Builder's Assistant," written and published in 1797 by Asher Benjamin and

containing "new designs in country building and architecture," received wide distribution throughout the colonies and exerted a profound influence on the development of architecture in the United States.

"The importance of early American books of the period, such as 'The Country Builder's Assistant,' cannot be over-emphasized in the study of our native architecture," Professor Van Derpool declared. He explained that it is through such works that the scholar can often learn the exacting techniques from which current procedures have evolved.

"In addition," he stated, "such works are often invaluable as a source of accurate information concerning details necessary for careful restoration of historic properties."

In the 1797 volume, for the first time, there were designs for specific American use which would be executed by builders in remote areas where architects, as such, were not available.

The Avery Architectural Library, the ranking architectural library of its kind, has in its possession practically every rare architectural book published since 1485.

CONNECTICUT ARCHITECTURE BOOK

"Architecture and Town Planning in Colonial Connecticut" by Anthony Garvan has been awarded the annual gold medal of the Society of Architectural Historians as the outstanding contribution to architectural history by an American author in 1951. Mr. Garvan's book, published last November by the Yale University Press, tells of the English and Continental backgrounds of the early settlers, relates the history of their transformation of the wilderness into a habitable colony, and shows the particular influences that formed the singular features of Connecticut architecture. It is a book which has proven to be of great interest to those who have read it, and it is a book which will become basic in architectural history. Seventy-seven maps, photographs, and collotype inserts illustrate the text of this large and handsomely designed volume.

Leonard Labaree, professor of history at Yale, recently wrote of this book; "His work should appeal not only to specialists but to everyone who has learned to appreciate the friendly charm of a New England village green or the beauty of line and proportion of a Connecticut salt-box house."

"Architecture and Town Planning in Colonial Connecticut" is the latest volume in the Yale Historical Publications, a noted series now in its fortieth year. Mr. Garvan is associate professor of American Civilization at the University of Pennsylvania and editor of the American Quarterly.

GOLD MEDAL CATALOG

The Gold Medal Committee of the Architectural League has this year resumed publication of its Gold Medal Catalog which enjoyed such popularity in the years preceding the war. Edition will be ready at the time of the A.I.A. Convention in New York where copies will be on sale. If you prefer, you may reserve your copy now, contacting the Architectural League of New York, 115 East 40th St, New York 16. Price of the catalog is $1.00.

1952 N.Y.S.A.A. CONVENTION

Lake Placid, N. Y.

October 2-3-4

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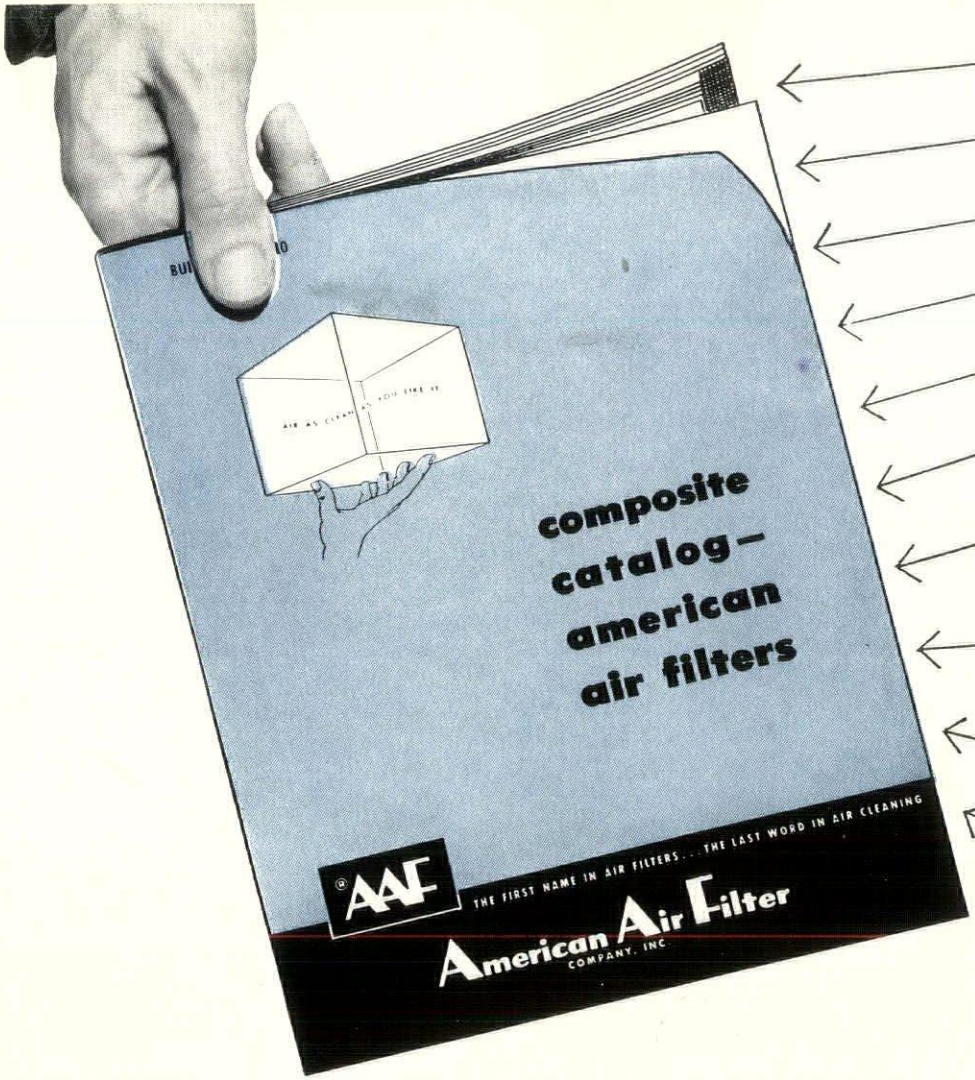

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