



Time Bomb . . . See Page Four.

NORTHWEST ARCHITECT

AUGUST 1950

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VOLUME XIV

NUMBER FOUR

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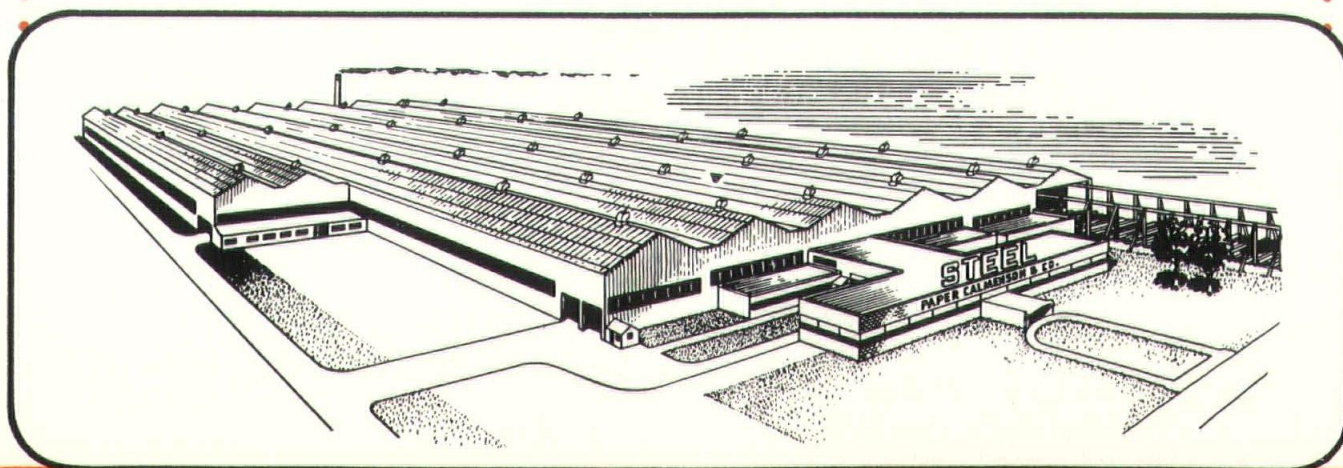
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NORTHWEST ARCHITECT

Official Publication, Minnesota Society of Architects

A. O. LARSON, MINNEAPOLIS, President

HOUSE OF MANY MANSIONS

OUR five senses are responses to stimuli from outside our living bodies, and all of them are "touch."

The sixth sense, and the seventh, and so on, I believe to be responses, within us, to incitements built up of combinations and re-combinations, out of experience-records stored deep in memory by the five material senses. These inner responses make up our subconscious thinking.

Thus is born, and there the dwelling place of intuition.

In audience halls of our minds are sounded new-made tones gathered from far, songs of the good life and the living of it.

W. G. P., 1925 and 1950

H. W. FRIDLUND, A.I.A., Editor
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VOLUME XIV
NUMBER 4 1950



TIME BOMB

- *Slow Fuse Type*
- *Now Ticking*
- *Protect Your City*

● *A PIECE in which we propose some simple procedures to uncover buried gold, stretch time, have more fun and show decent respect for the honest work of forgotten men.*

by WILLIAM GRAY PURCELL

ANY ENTERPRISING ARCHITECT walking up the east side of Clark Street in Chicago forty-three years ago this spring would have been astonished to see that the façades of the new County and City Building, then under construction, were truly an organic design and this in a day when all public architecture had to be Roman. A photograph of what was to be seen is reproduced above. Note the beautiful wall area of cast iron and glass, a block long and six stories high, framed in granite. It appeared as if the days of sincere architecture had arrived at last, that some measure of Louis Sullivan's prophesies were about to be realized in a public building. This, however, was not to be until 20 years later, when William L. Steele, in 1917, with Purcell and Elmslie as associates, made history by producing the first indigenous, free, American public building—the Woodberry County Court House in Sioux City, Iowa.

Nearer inspection of this Municipal Temple of 1906, which you may also study by photograph, showed that the architects Holsbird and Roche were not to be so easily converted. Just above the granite ledge, at the fifth floor and between the lowest windows of the vast steel and glass window-wall could already be seen the beginnings of what plainly were to be fluted tubes of granite, in imitation of the appearance of a giant Corinthian "Order of Architecture." The completed appearance of this vast deception you have seen in the photograph on the cover of this number. The most astonishing part of this cynical, wickedly expensive and highly inconvenient insult to ordinary intelligence is the structural arrangements required to hold up this pompous Fakery and to string along the gigantic

granite ribbons of the imitation "cornice" stone-courses, which blank-out the light and air of three floors at the top of the building.

WHAT PEOPLE call a "cornice," architects refer to as an entablature, which is made up of the lintel, or continuous beam, the friese and the projecting eave or roof edge members. Now the entablature of this building is not "masonry" at all but a *surfacing* of thin stone veneer, which thus covers and darkens the entire eleventh, twelfth and thirteenth floors. No weight at all rests upon the capitals as it appears to do but everything above the top of the *alleged* capitals is *suspended* by wire garters, from the great steel I-beam brackets to be seen in the photograph. These steel look-outs, *projecting twelve feet*, are riveted to the steel cage structural framework of the next to the top floor. What appear to be load bearing capitals carrying continuous granite beams are only hollow stone baskets, eight feet in diameter by thirteen feet high, woven of carved granite chips and interlacing steel rods, all designed to be as light as possible.

We also obtained an erection progress photograph which is reproduced for you. The notes will explain how Holsbird and Roche did not place the actual steel supporting posts of the building within the conveniently available hollow of the imitation columns but offset them back *into* the enclosing outside wall of cast iron and glass.

It is my belief that the architects had intended to have these granite show columns made of great solid stone drums—the usual method—but when the enormous accumulation of weight and expense was disclosed by

the engineering and business executives, the esthetic department of the Holsbird and Roche office apparently retreated to a new arrangement, in which they laid together with steel the thinnest shell of granite bricks into which the flutes and capital foliage could be carved. The wonder is that these six stories of teetering stage scenery still holds together.

◆ Golden Goose Egg ◆

THIS ARCHITECTURAL DESIGN of fifty years ago shows the extraordinary lengths to which owners, public and private, in 1900 could be led by business prestige or by arguments based on mere appearance values. Where, actually, were those "hard-headed businessmen?" See the diagram and read the explanation on the photograph of the giant steel trusses, *ten feet high and twenty feet long*, which were required to carry the structural columns, set back ten feet behind the show "columns."

It is a wacky experience to pass this building at night and see, through the third floor windows, much lighted office *space* — thin air — directly beneath these great "columns" and exactly where the façade architecture declares that supporting masses of masonry are to be expected. At night the whole building becomes unreal, appears a thin cardboard-like carton.

The builders bragged that "these were the largest and heaviest steel trusses ever built into a structure other than bridges or industrial buildings." And to what purpose? The building, as one may see in the picture, would have been much more impressive without all the architectural misery that was piled upon these unnecessary trusses.

Two full stories with practically no windows are lost behind that "cornice" and the top floor is lighted with skylights. The nine-foot diameter columns blot out the sunshine and 50 per cent of the light in the offices. For fifty years the whole silly business has been costing the city the price of that "architecture" every dozen years in electric lights alone. The damaged health of the occupants was never even considered — nor their moral health either, for that matter. The black sun was yet to rise in the brass political sky of Big Bill Thompson's Neonian days. The gloomy building may have aided Beelzebub.

◆ Modest Man — Patient Dynamite ◆

THE DESIGN of this building has an especial significance in the history of ideas. It illustrates very plainly a curious collective blindness that constantly clogs healthy growth in every phase of the world's work. In Religion, Government, Art, War, Education, people suddenly find in their hands the very tool which will solve their pressing need but they do not know it. They toss away the key and remain chained to their troubles. In this Chicago governmental palace, the important minds of the designers were obsessed with the big colonnade which *was* to them *the* building, but in establishing the modest secondary and merely practical enclosing wall behind the "architecture," one of their lowly employees stumbled on the *idea of the light weight, all-glass-and-metal wall* which only within the past decade has come into general acceptance either by architects or engineers. The irony of fate is that it was a mere contractor's timing chance that permitted

this very radical innovation to be actually built complete before the eyes of all. So far as I can learn, only two persons at that time saw this forecast of the new day. It would be just forty years until Belluschi of Portland would give the idea a complete and logical demonstration in his thirteen story glass and aluminum-panel enclosure which so delicately contains that crystal cube which is the Equitable Building and Loan Association. Thus it was that some practical engineering mind became the forgotten prophet and hero of true architecture. Unbothered in his work because it was thought of no importance, a kind fate permitted him to solve a very acute problem. He handed his finished-looking result to the American architectural profession and business community of his day. *Nobody paid the slightest attention to it.* Even these old commercial photographs were taken merely to verify a job progress report called for in the construction contract. "Surely world events move on silent shadows."

Even granting that there is popular interest in this bit of fantastic architectural history, young architects and draftsmen may feel that I am beating a dead mule in reviving these old lantern slides, which I showed to such good purpose in public lectures on architecture in the days before the arrival of "modern." But we can't be so sure that mule is dead. Constructivist architecture of today is not so functional. It is very much less logical and much more given to fashion than its protagonists would have us believe.

◆ Tax Fixed Cities ◆

ASIDE from the historical record, the other lesson to be drawn from this building concerns the several pressures of taxation:

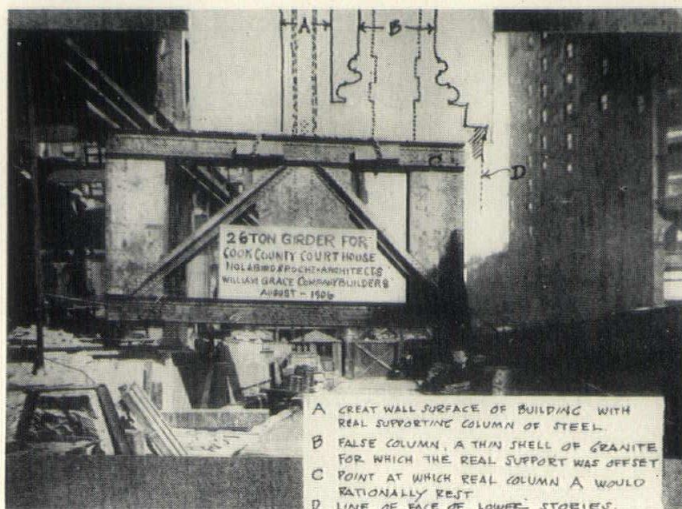
The pressure on rental returns justly due to owners of competing buildings.

The loss to the city of potential taxable property through the tax-implemented demolition of sound and useful buildings.

The waste of man-power and money invested in the buildings which are torn down.

The cost of replacing demolished and still useful buildings at today's inflated prices.

The City of Chicago and Cook County have doubtless several times outgrown the office space assigned to such departments as were originally housed in this building back in 1910. This crowding and moving will continue as auto parking becomes more and more a problem.



The cover photograph taken in 1911 shows 20 parked vehicles, a quarter of which are *horse drawn*. The picture was taken at noon; this must have been a Sunday. Soon will come a demand to demolish this building and build a 30 or 40 story tower in its place, still further congesting streets and transportation.

♦ Ordeal by Taxes ♦

HOW BEFORE moving into a discouraging subject let me make a really practical recommendation to the City of Chicago that will save a lot of money, reduce congestion, increase convenience and improve appearances.

Those useless columns! Do away with them! Unhook the pieces of that blinder-band cornice from the wires on which they hang, restore the third to tenth floors façade of the building to the agreeable appearance shown in the photograph of 1907. Inside the building is a lot more stone, bronze and marble architectural junk that can well be replaced with the new light weight finish materials. With this great load lifted from the footings, let the city proceed to add to the entire building five or six stories built of magnesium or aluminum structural members with feather-weight zonolite concrete floor slabs. Reduce fire hazard in the upper floors by having the contents as well as the structure of non-inflammable, not varnished, equipment.

Clear out all office space from the basement, first, second, third and fourth floors and move these departments up into the sunshine and air. Notice that the fourth floor is also windowless behind that great belt of granite on which the alleged columns are supposed to be standing. Altogether the normal usefulness of six floors of this 12-story building are at present sacrificed to this Roman stage scenery. My proposal would make possible a five-story garage in place of the four lower, dark floors and the cellar. Escalators directly from sidewalk into the heart of the building would supply quick convenience for garage-service patrons. After parking their cars these patrons would continue by escalator to a secondary elevator dispatch area on the fifth floor, being there picked up by skip-stop service. Street level elevator dispatch corridors would give pedestrians skip-stop service to fifth floor and express or local service above that. Above these four automobile transportation-relief floors, which will then need no more daylighting than they now have, there would now be fourteen floors of beautifully lighted, useful space instead of the present six poorly lighted floors.

♦ Liability Becomes Asset ♦

SUCH REMODELING and improvement would add up to only a third of the cost of a new building of the same accommodation at current prices and perhaps cost only a tenth of the 20-story, entirely new building that would be demanded if the present building were razed, as it surely will be. A new very tall building in this crowded area would add more confusion and further lower all values in the competing rental area. It seems to me that a creative sort of civic *thrift* by the city government, as recommended above, would set a wholesome example to the people and provide a measure of justice to adjoining property owners. Here at long last the mad scramble for more and more inten-

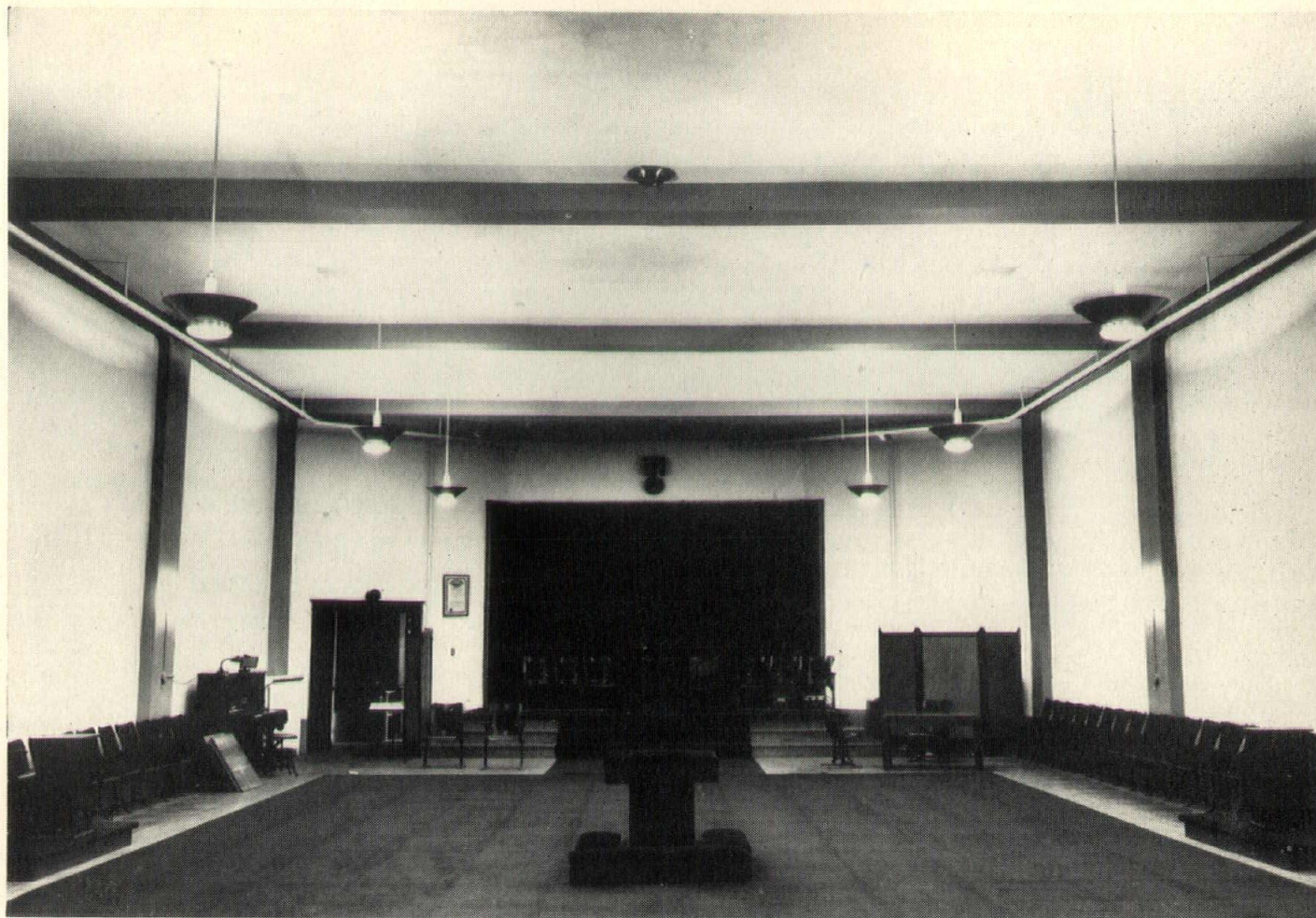
sive use of land area might begin to slow down. In such a procedure the healing sun would at last be acknowledged as a material commodity of capital value and the cubic space of unoccupied air be recognized as public property, something to be guaranteed to citizens as a basic right. Building problems below sidewalk level are increasingly difficult and such foundation construction is especially costly in Chicago, underlaid, as it is, with the mud of the old swamps. The least desirable and often almost unusable space in city buildings has now become the most costly to produce. Why not build all those dark and costly sub-basements *on top of the ground*? No longer is there any vertical travel by foot. People will not even walk up or down one flight, so that former second floor rental premiums tend to be at a discount. Elevator service which is obliged to serve the first few floors with local service is costly. Put the "first floor" up at the fifth floor of all buildings, or at the top of the building for that matter and be rid of the noisy, smoggy, winter mucked street-level office rental space.

Radical and impractical? Come out and have a look at Los Angeles' newest department store. Its *principal* entrance is *on the roof*! The main floor is the top floor; only inconspicuous convenience-entrances at street level. One drives his car up a ramp, parks on the city block roof and goes *down through the ceiling*. What would Carrere and Hastings and the spatted dilettantes of 1900 have done with an architectural entrance to meet that merchant's reasonable but unusual demand? Perhaps they would have laid their columned portico down on its back, where air visitors could have enjoyed its "proportions" and the prone columns serve as stair well railings! They might have planted geraniums in the panel of the skyward gazing pediment.

♦ Nostalgia Looks Ahead ♦

IT IS POSSIBLE that we may have in this proposal for face-lifting and face-saving Chicago's City Building, the beginnings of a new and really significant American tradition of actual value to the community. Notice would be served that the best of our good old buildings are to be retained, that the capital value and spiritual benefits created by former generations of citizens is going to be respected and that the anarchy of unrestrained struggle for usurious use of land values is to be replaced by equalized order and mutual restraint. People would surely be happy if they learned to save the *working* potential of the things they have already paid for and now own. Now they are "pro-moted" by high pressure advertising to exercise a phony "thrift" by saving *only the tokens* of values which have a long history of instability. What I mean is: In 1930, a husband, now deceased, paid a "token" called "one dollar," which was at that time the equivalent of a bushel of grain, to a Life Insurance Company for the benefit of his widow. In 1950, the Insurance Company hands back to the widow what it still calls a "dollar" and which you still let be called "a dollar." But it now takes two "dollars" to buy a bushel of that grain. The *grain* has the same "value" it always had; it will sustain life as effectively as in 1930. Somebody — *certainly not the Insurance Company* — has gypped the needy woman out of the providence her husband

NORTHWEST



Recently remodeled lodge room of the East Gate Lodge No. 314, A. F. & A.M., 891 East Seventh Street, St. Paul, Minnesota. Here Vercoustic was applied over the existing ceiling.

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thought he'd made for her. Perhaps you, as a citizen, are the guilty party. I believe you are.

Certainly the determination of tax rates on the basis of the unrelated factor of *land-area* valuation, plus strange and unreal rule-of-thumb appraisals of the physical value of the buildings, should be replaced by some system resting on the usable multiplex area *created* by the total floor area of the *entire building*, that is to say, the land area multiplied by the number of floors.

The cubic volume of all space occupied by the bulk mass of the very large buildings, denies to use by others air, sunshine, outlook, convenience and physical movement throughout the vicinity on the ground and in the air. These qualities are the most useful of all community property and their private pre-emption should also be taxed in rapidly increasing ratios. This would discourage the tower-like monstrosities which steal the income producing capital values of their neighbours, who in turn are ruined by that building owner who arrives first with the highest possible building. Under existing conditions it is now actually profitable to tear down sound and serviceable buildings and replace them with larger and taller buildings in order to reduce the *tax per square foot* on rentable *land area*. Unwise tax laws are what make such folly possible. The citizens not only suffer physically from the resulting steel and glass slums, but have to pay the mounting costs of transportation. In such ways destructive man is refashioning himself into a new variety of blind mole who forces himself to burrow through the already tangled guts of the city's vast belly. In these dank zones new ingenuities of tube and conduit, of sewer and subway, flush the people and their wastes from where they are to where they must go, until it becomes difficult to distinguish the wastes which are still living people from the ultimate composts which, in the great cycle of nature where nothing is lost, hold the keys to life itself.

♦ More Profits for More People ♦

THE TROUBLE with the profit system is not too many profits but too few. We need smaller unit profits and more aggregate profit—more people enjoying profit, all varieties of profits. And it is certainly possible to devise tax laws such that present owners would find it profitable, instead of wrecking whole buildings, to tear down only the top half or two-thirds of the present parasitical buildings and reinvest their marginal money profits in less congested districts of

the city. For instance instead of permitting the city to penalize owners by taking excess rentals as a source of income for *government*, a better method might encourage tax exemption for all earned returns over and above nominal earnings, providing these funds were reinvested in other income producing real estate under such new equitably adjusted building and city planning laws, as here envisaged. This kind of tax exemption would not shut off the city from needed sources of revenue but actually create new taxable property; more city income from lower tax rates.

But more important a saving would be made through the creation of a more convenient and healthy *horizontal* community, one much less costly to build and maintain. A wholly new kind of city would build itself into better forms as a result of a few potent sentences signed by the citizens' votes. Such a process would put pressure on the improvement of horizontal transportation, to equal in time and convenience what is now supplied to vertical transportation by elevators. We would then see 125 miles an hour monorail service above the roof tops. Stations would be found up on twelfth floor, commuters *descending* into the city from "elevated" wireways supported by the taller buildings or multipurpose city towers. This kind of transportation is silent, clean, very fast, very inexpensive to build and maintain, 100 per cent accident free and casts but fleeting shadows across the workrooms of the citizens below. I say "is" because this proposal is not fantasy but factual descriptive of a system which has been successfully operating for sixty years. In Germany the Elberfeld-Darmstadt monorail freight and passenger service has been operating at 90 miles per hour since 1892. There have been no fatal accidents to passengers or crew in 58 years, and very few accidents of any kind. In 1892 a speed of ninety miles per hour was twice the speed of general interurban transportation and is still well above today's average. There are no experimental factors to be worked out in making this new age convenience available to our harrassed subway victims. Only the private property interests of present types of transportation prevents construction of this effective utility.

♦ "1975 — Here We Come" ♦

THE OPPORTUNITIES for a really good health and a pleasant life for all are in our hands. All we need to do is to push traditional obstructions out of the way, say the potent word and watch streamlined and sanitary destruction change into humane and organic growth.

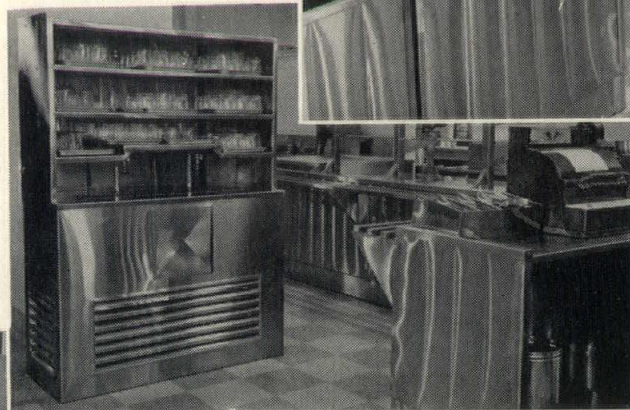
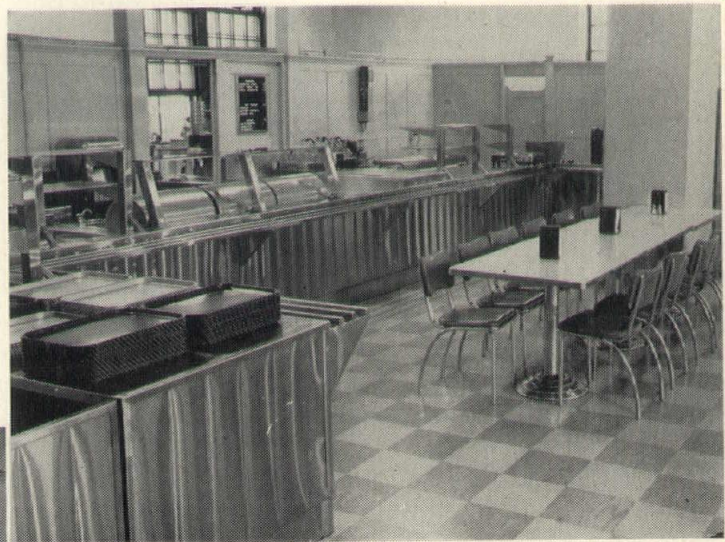
NOW YOU TELL US: What person, living July 15th, in the year 2000 is going to be able to look back and enjoy this today of ours, as we can right here and now. But nevertheless, our day with all its tough problems, will have a fine glow of romance to those men of 2000 A. D. So, let's take action now that will insure children of today, when they are grown men and women, having something really worth remembering us for.

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MINNESOTA CONVENTION

- ***Elects Larson***
- ***Draws 200***
- ***Hears of War***

Echoes of the war in the East were heard during the 16th annual convention of the Minnesota Society of Architects in Duluth as the planners named Albert O. Larson, Larson & McLaren, Minneapolis, president for the 1950 term.

Mr. Larson succeeded Louis C. Pinault, St. Cloud, who became vice president in line with the custom of the society. Max O. Buetow, of the firm of Max and Gerald Buetow, St. Paul, was elected secretary to succeed Otto M. Olsen, Duluth, and C. H. Smith of Duluth was re-elected treasurer for the fourth time. Directors are Richard Cone of Slifer and Cone, St. Paul, Harold S. Starin, Duluth, Harold H. Crawford, Rochester, and Donald P. Setter, Minneapolis.

More than 200 architects and others attended the two-day meetings where leaders of the profession spoke on present-day problems and a series of seminars was held.

The war echoes centered in an opening day talk by P. C. Bettenburg, St. Paul, who is assistant commander of the Minnesota national guard division and a member of Bettenburg, Townsend and Stolte. He told architects it is their responsibility to aid in the vital dispersion of homes and factories so any future attacks in this nation



Those who will guide the 1950 affairs of the society are (seated, left to right) W. C. Smith, Duluth, Louis Pinault, St. Cloud, A. O. Larson, Minneapolis, Max Buetow, St. Paul, and Harold Starin, Duluth, and (standing) Harold Crawford, Rochester, Earl Cone, St. Paul, D. P. Setter, Minneapolis, and Tom Ellerbe, St. Paul, and Otto Olsen, Duluth, both retiring.



Minnesota's new officers are (left to right) Max Buetow, secretary, Louis C. Pinault, vice president, A. O. Larson, president, and Bert Smith, treasurer.

will not find prime targets of closely knit communities where a single atom or hydrogen bomb would create widespread damage.

The time to start planning for participation in war work is now, Mr. Bettenburg said. He said information on modern weapons and their effects must be a part of every architect's library and he should plan every building with the damage factors in mind.

Minnesota's state housing director, Stuart Rothman of St. Paul, said Minnesota is leading the Northwest in low rent housing and slum clearance projects with 20 organized housing and redevelopment authorities. Twelve are making progress with plans for their programs, these being St. Paul, Minneapolis, Duluth, Bemidji, Chisholm, Eveleth, Fergus Falls, Hibbing, Red Wing, South St. Paul, Virginia and Winona. Of these St. Paul is one of the first cities in the country to actually start with its program, this being scheduled for start this fall. The project there will include 512 units.

Other subjects on the convention program covered domestic and industrial architecture in this area, plans for the University of Minnesota's Duluth Branch and other topics.

The Producers' Council members showed much of the latest material, methods and equipment in the trade show which was held in association with the convention and sponsored a social hour preceding the annual dinner Friday evening. Various social activities also were on the schedule.

AIA ANNOUNCES FAR REACHING DEFENSE AID PROGRAM

Actively at work on the many ramifications of the aid the architects of the nation can extend to their government during the present national defense period is a new committee of the American Institute of Architects, according to Ralph Walker, AIA president.

The committee is under chairmanship of Past President Douglas W. Orr, New Haven, and the programs

NORTHWEST

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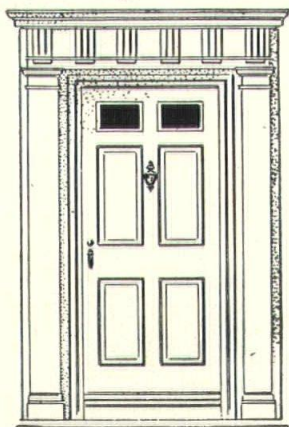
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being developed will have far reaching effects on AIA and chapter activities, it was reported.

Problems of plant and shelter design, dispersal of civilian populations, camouflage and many other important activities fall within the realm of the architect, Chairman Orr said, and a detailed study of every aspect of these problems is now under way. Also within the group's purview is governmental control of building materials, public housing reorganization, development and research, airport and other governmental construction.

Also being considered by the committee is the long-term readjustment to follow the emergency period, Mr. Orr said. The scope of the work is broad and the present program is tentative, both Mr. Walker and Mr. Orr pointed out. It will develop naturally as the various plans are worked into by committee members.

Committee members include Howard L. Cheney, Chicago, John R. Fugard, Chicago, Harold D. Hauf, New York, Harry M. Prince, New York, Perry C. Smith, New York, Glenn Stanton, Portland, Ore., Harold B. Wills, Boston, and Kenneth E. Wischmeyer, St. Louis. Other members will be added to bring into the committee various special fields of architectural design and planning as time goes on.

Polio

Do You Have Children?

BECAUSE THE WARNINGS and advice, recently published in newspapers and magazines on this subject, tend to be either misleading or confusing, I was about to organize for you a lot of good practical data which has been coming to hand. No single convincing safeguard is proposed by the experts. They still continue to sister-kenny the issue. But like the writing of my piece on FOOD, to assemble all the polio prevention data is a six months' job for a research staff. Now it has become unnecessary. The research has been done right, and is available to all. It is a must for anyone with children.

Mr. J. I. Rodale of Organic Gardening fame has covered the whole field of current knowledge about Polio with specific, accurate, fully authenticated advice as to *just what to do*. This report is to be found in the first issue of his new magazine "Prevention" published in Emmaus, Pennsylvania, at \$3.00 a year. The entire issue is devoted to the one objective — HOW TO PREVENT POLIO.

While awaiting your number you might start with the insurance formula of Dr. Benjamin Sandler, M.D. The following is, of course, an over-simplified statement of his recommendation, but will serve until you get his whole story in the first number of "PREVENTION":

"NO STARCH, NO SUGAR, NO SOFT DRINKS, NO CANDY, NO STORE ICE CREAM, NO PROCESSED FOOD.

At any rate that routine will injure no one for a few weeks, until you find out what you *can* do.

(The above is not an advertisement. It is a news-report contribution toward stopping an enemy that is growing daily more dangerous. See confirmatory report in "TIME," under MEDICINE, page 64, issue of July 24, 1950.)

—W. G. P.

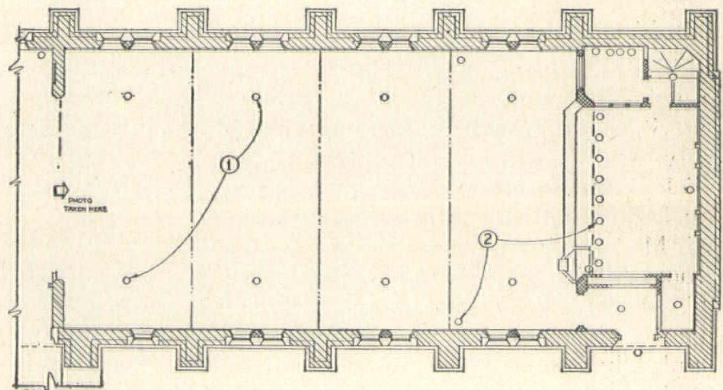
NORTHWEST



PLYMOUTH CONGREGATIONAL CHURCH, Minneapolis; Architects — McEnary & Krafft; Electrical Contractor — Batzli Electric Company; Fixtures—Branham, Mareck & Duepner.

AN EXAMPLE OF INCANDESCENT LIGHTING IN A CHAPEL INTERIOR. COMBINATION OF A LUMINOUS TYPE LANTERN WITH DOWN LIGHTING FOR GENERAL ILLUMINATION PLUS SPOT AND FLOOD LIGHTING OF CHANCEL PROVIDES A COMFORTABLE ATMOSPHERE FOR WORSHIP.

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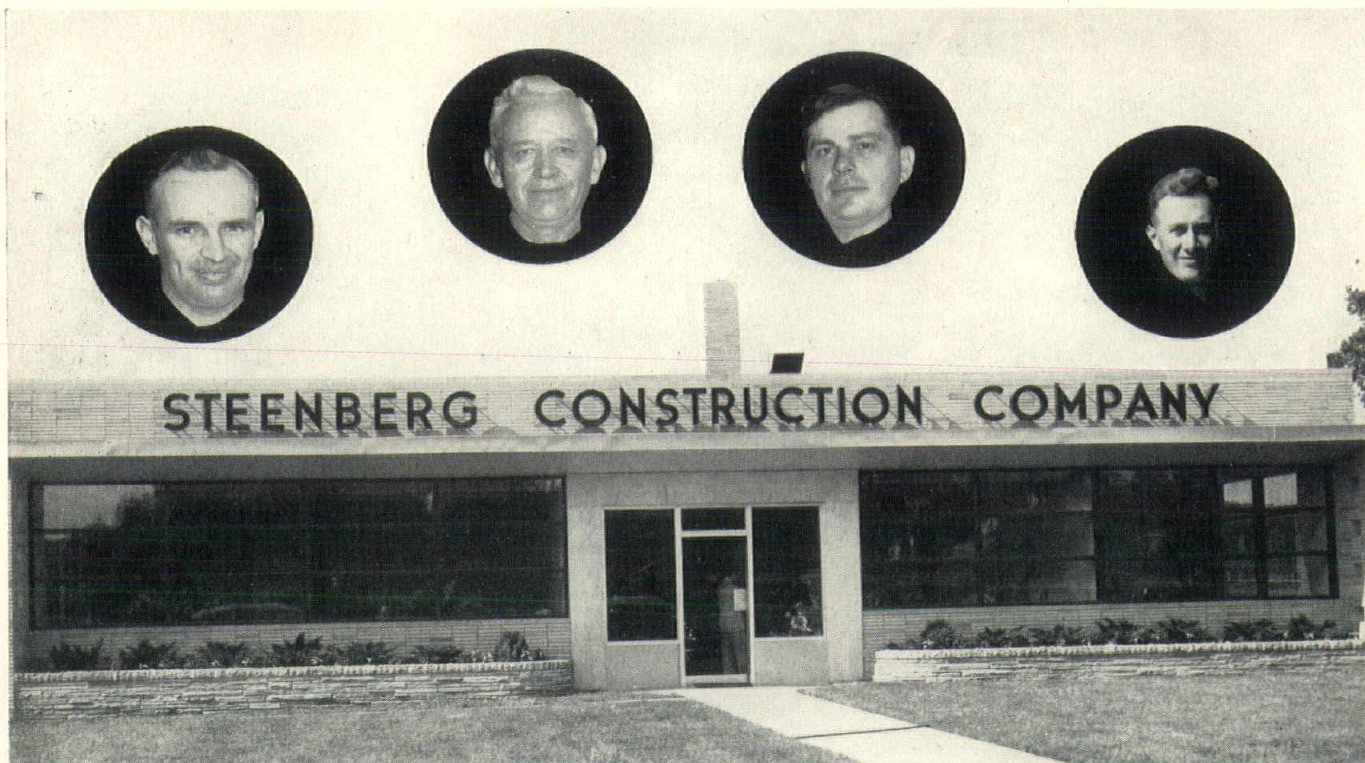
Information compiled by Lighting Service Section

NORTHERN STATES POWER COMPANY



For factual lighting information, technical data on light sources, fixtures, relative costs, etc.
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The new Steenberg Construction Company headquarters is shown above with officers in circles above (left to right) Richard Steenberg, president, Paul Steenberg, secretary-treasurer, E. E. Walsh, assistant secretary-treasurer, and Paul Steenberg, Jr., vice president.

Construction Leaders Attend

STENBERG OPEN HOUSE

An open house held in the new building housing the Steenberg Construction Company of St. Paul was attended recently by many of the Northwest's leading architects and builders and served to mark another milestone in the progress made by the well known building firm.

The company, whose building list includes such notable structures as the First National Bank Building in St. Paul, Northrop Memorial Auditorium, University of Minnesota, Minneapolis, Northwestern Bell Telephone Building in St. Paul, Medical Arts Building in Duluth and others, was founded in 1905 by Paul and C. M. Steenberg. The brothers, born in Denmark, had come to the United States when Paul was seven and C. M. fourteen years of age. They had learned carpentry, brick laying and concrete work in their youth and, while working as journeymen, studied architecture and construction through correspondence courses.

Start of the brothers' own construction work was in 1905 when they began contracting construction as Steenberg Bros. One of their first jobs was erection of the fire station at University Ave. and St. Albans St., in St. Paul, the structure still being in use. Later the firm was incorporated for some 20 years as Paul Steenberg

Construction Co., and then the name was changed to the present designation.

Richard and Paul, Jr., started in the family business when they were 12, lugging water during vacations. They are sons of the founder of the firm. They continued their practical indoctrination into the building business during the remainder of their school days. Richard chose the practical approach to taking on the work as his career and, when he had completed high school, entered the firm full time, learning as a job executive and going on to higher positions. Paul, Jr., took the more formal route and completed a course in civil engineering at the University of Minnesota in 1942. He served during World War II with the famed naval construction organization, the Sea Bees.

During the last war the company broke its peacetime pace of industrial, educational and other buildings to work on government structures, including those at Camp McCoy, Wisconsin, Camp Ellis, Macomb, Ill., housing projects at Hastings and Harvard, Neb., and Rockford, Ill., the Badger Ordnance Works, Baraboo, Wis., and airfields at Harvard and Fairmont, Neb. After the war Steenberg Construction again became active in civil building and has handled the building of many structures in this part of the country.



AT STEENBERG OPEN HOUSE

Shown at the open house ceremonies are some of the industry's leaders. In each picture identifications are left to right:

1—(seated) E. W. Folsom, George Darrell and Jay Ledy; (standing) Gerald Westin, T. J. Minuti and Clarence Christensen.

2—(seated) Mrs. Joan Loretz, Marilyn Steenberg, Bertha Erickson and Verne Chubb (standing) Ken Gnos and Holger Nielsen.

3—Paul Steenberg, Sr., Frank Thill and Mrs. Frank Thill.

4—Al Shiely, Joe Shiely, Jr., Mrs. Joan Loretz, J. F. Gislason, N. Henning and Jim Shiely.

5—Al Shiely, Milton Rosen and Tom Baldwin.

6—A. J. Mikolz, W. F. Gibis, Adolph Minuti, J. F. Schuster, A. J. Brioschi, C. W. Durr and Holger Nielsen.

7—J. Schmid, Bob Hauenstein, Steve Midler and A. J. Brioschi.

8—Alex Bey and Logan Zabel.

9—E. E. Walsh, C. E. Rykken, John Ubelhoer, Stan Wasie, Richard Steenberg and Ed Sandels.

10—John Matthew, R. W. Otto and N. Weber.

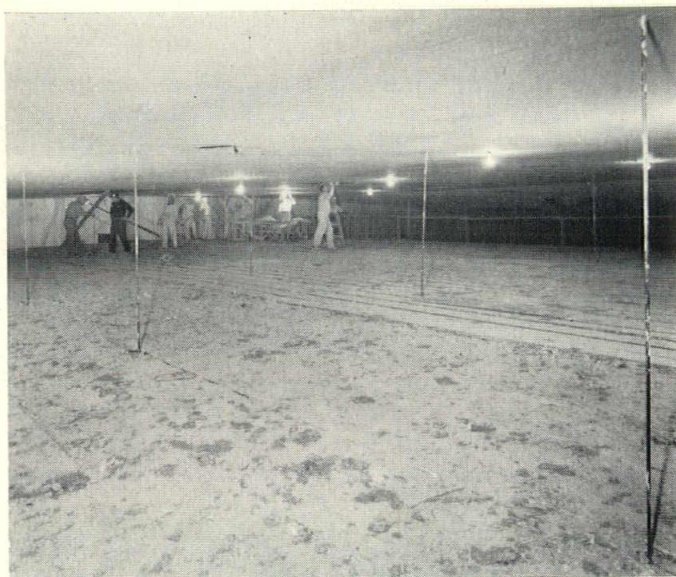
11—Cliff Comfort, Jim Dalgish and Fred Doud, with friends in background.

12—Edward Janneck, Stanley Hunt, William Westerdahl, W. K. Headley and Fred L. Doud.



SIoux CITY AUDITORIUM

Uses Unique Hanging Scaffolding

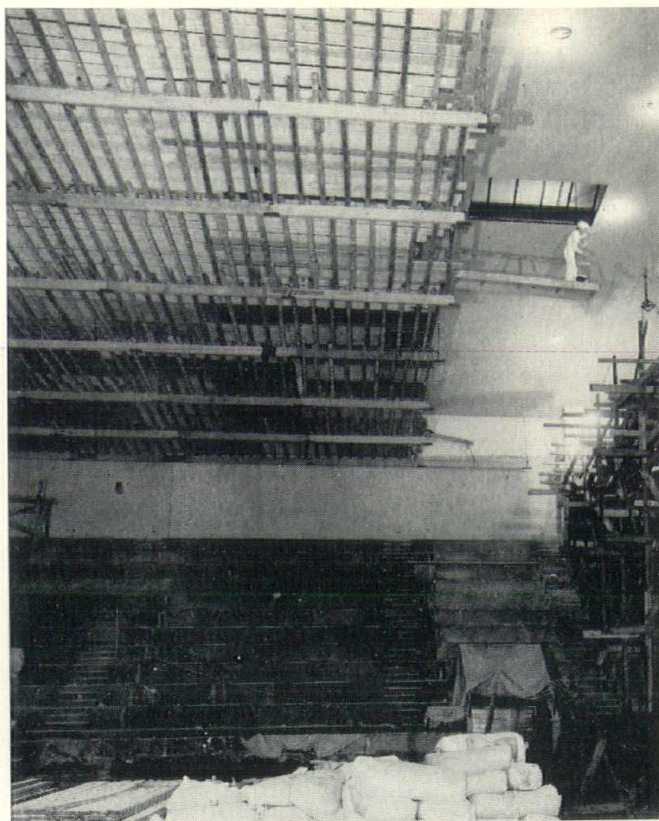


Construction of the new \$3,000,000 municipal auditorium in Sioux City, Iowa, was featured by an unusual hanging scaffold for sound proofing the ceiling and walls.

The structure, which was scheduled for completion September 1, was designed by K. E. Westerlind of Sioux City. It has unusually complete sound control in which the ground floor exhibition hall, first floor auditorium, ramps, offices and work rooms all have fireproof vermiculite acoustical plastic ceilings. The material was also carried part way down the rear wall of the auditorium.

The suspended scaffold used in the auditorium is an interesting feature of the job. The ceiling is 52 feet high, and covers 3,000 square yards. It was found the cost of renting suitable scaffolding would be \$2,500 per month and the equipment would be needed for a minimum of four months. The cost of scaffolding alone, therefore, would have been \$10,000.

It was finally decided to build a hanging scaffold with the material used in forming the concrete work. Double 2 x 10 ledgers were bolted to $\frac{1}{2}$ " steel rods spaced 12'6" on centers, both ways. Across the ledgers, 4 by 4's were placed on 16" centers; on top of these,



The freedom from the usual intrusive scaffolding is clearly shown in the picture above where part of the hanging scaffolding has been removed and the plasterer mentioned in the story is pointing up the holes left by the suspension rods. At the left the working space on the scaffold is shown, with workmen putting in the ceiling. Note how droppage is retained on the scaffold floor.

plywood and plank. The $\frac{1}{4}$ " steel rods screw into nuts welded to the steel roof joists. Although the scaffold hangs from an arch, the floor is level and the rigidity of the steel rods eliminates swaying, making for greater working safety.

The scaffold, 80 by 85 feet, serves one-quarter of the ceiling area. It was moved in the air by tearing up the far side, and building out in the direction of the next quarter of ceiling area to be plastered. The steel rods were unscrewed, removed and re-used. The only time the scaffold was back on the floor, since its initial raising, was when it was taken down for good.

An ingenious method was devised for filling in the small holes left by unscrewing the rods. A railed walk, 24" wide and 22 feet long, was projected out from the scaffold for 10 or 12 feet. Five men sat on the scaffold end to hold it down and a plasterer walked out with a pointing trowel and filled the holes.

The cost of the scaffold, including materials, building, and moving, was only \$2,150. All materials were salvaged. In addition to the large saving in initial cost, there was the convenience of having the floor of the auditorium clear of the mass of timber that would have resulted from a scaffold built up from the floor.

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F.Y.I. (For Your Information)

ARCHITECTS' TALENTS TO BE USED IN "VIGILANCE PERIOD"

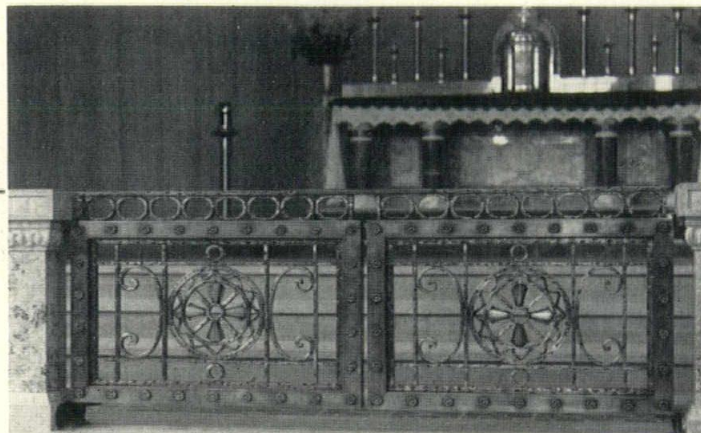
The ways in which architects can aid their nation during the extended "vigilance period" to which this nation is committed even if it is able to bring the Korean situation to a

successful end are plotted and an integrated co-operation is sought between the profession and the government through agency of AIA.

To create an initial understanding of the problem and AIA's position in relation to it, President Ralph Walker, Past President

Douglas W. Orr and Executive Director Edmund R. Purves have held a special meeting in Washington.

"The feeling here is that preparation now should be for any contingency," the institute reported. "The die has been cast for a period of determined vigilance. Our resolution now is to take no chances and to mobilize—and that should mean the early utilization of the services of architects and those of other technical planning professions."



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WOOD AND PLASTER MOISTURE CHECKED BY NEW SMALL METER

An easily portable instrument which indicates the percentage of moisture directly, on touch of a button, in wood and plaster is the new Tag Midget Moisture Meter being produced by the Weston Electrical Instrument Corporation's Tagliabue Division.

In checking wood the electrode points are inserted, the button



pressed and moisture read directly from a large, legible scale. The percentages registered range from 7 to 30 per cent. For plaster the points are removed and the flat electrodes pressed directly against the material.

Light, portable and always ready to use, the Tag Meter is used by lumber yards, wood fabricators, painters, dry kiln operators, paint makers, building operators and others in the building industry. It weighs less than 4 pounds and operates on two common type batteries. It carries like a camera, measures 4½" by 4½" by 3⅛".

ATOMIC PROTECTION SUMMED UP IN NEW GOVERNMENT BOOK

Widely digested in newspapers and magazines, the new government publication, "Effects of Atomic Weapons," is written for experts like architects, doctors, etc., and is purchaseable from the Superinten-

NORTHWEST

dent of Documents, Washington 25, D. C., for \$1.25. This is a routine government publication, long planned and carefully documented, not a spur-of-the-moment thing brought about by the Korean situation.

INTERCHANGEABLE PARTS WIDENS USE OF SWIVEL- ITE FIXTURES

Utilizing an "Adapt-A-Unit" principle of interchangeable parts, Swivelite display fixtures are now easily used for a number of varied lighting purposes in display and regular lighting.

The porcelain shell of the swivel socket is removable to allow addition of either standard or midget hood units and this feature is available in the entire line. Other Swivelite features include double ball swivel for 360-degree horizontal and 170-degree vertical directional focus, retains any easily made position without use of seat screws or wing nuts, finish is heat resistant, retains its luster, and adequate ports assure against overheating.

The line is made by Amplex Corporation, 111 Water St., Brooklyn 1, N. Y.

ODOR CONTROL DIS- CUSSED IN GOVERN- MENT LEAFLET

Control of odors in homes and industrial buildings and the uses of various substances in this relation are the subjects of a new government publication—Control of Odors, National Bureau of Standards Circular 491, available from Superintendent of Documents, Washington 25, D. C., for 10 cents.

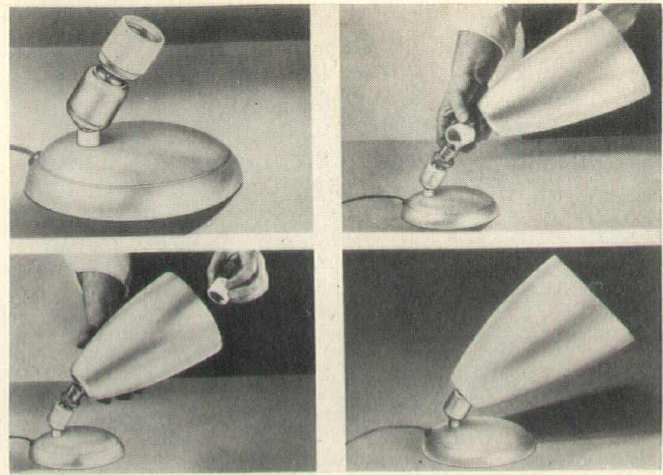
MATERIAL, EQUIPMENT PRODUCTION HIT ALL TIME HIGH

An all-time high for production of building materials and equipment was reached just prior to start of the new defense production program, it was announced in mid-August by Charles M. Mortensen, managing director of the Producers' Council.

"Stimulated by the unparalleled production of housing and the high volume of public works, materials production in May of this year was

ARCHITECT

Successive steps in adapting the Swivelite to a new reflector are shown in the four pictures at the right.



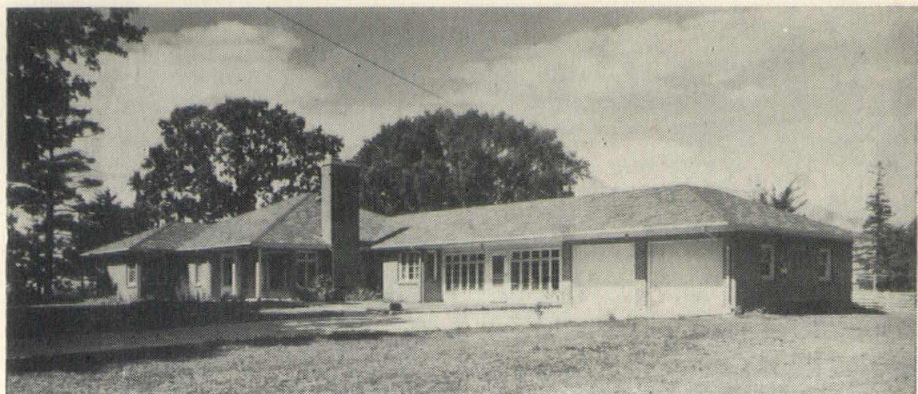
THE SHAPE OF **homes** TO COME

... Today it's the rambling, free-for-all-living ranch house that has the eye of the majority of would-be home builders. Tops, too, in preference is colorful, versatile and economical Clay Face Brick. Architect Norman Hatton satisfies both demands in this residence for W. G. Ride-nour, Stanwood, Iowa. This handsome home boasts brick and clay tile cavity walls and precast tile joist floors for maximum comfort, heating economy, durability and fire safety.

STRUCTURAL CLAY PRODUCTS INSTITUTE

Region 6

Ames, Iowa



67 per cent higher than the average for 1939 and about 4 per cent greater than in October, 1948, the previous record month," he said.

"The overall output has continued at a high level since hostilities began in Korea and will remain near record levels until the building industry's share of steel, copper and other strategic materials is cut back to meet the requirements of defense production. As a result of the record-breaking production of materials and equipment, there should be ample supplies to complete the large volume of housing and other construction now under way.

"In the months to come the ability of manufacturers to meet the demand for building products will be determined, not by their capacity, but by the available supply of raw materials and perhaps manpower."

KNOB PROTECTOR EASILY PLACED DURING CONSTRUCTION

A paper door knob protector which is applied by merely crumpling the sheet over the knob by hand has been introduced to the building trade by Westwood Manufacturing Co., Los Angeles. It saves new-



ly installed hardware from paint, dirt, scratches, corrosion, etc., during final stages of construction.

The protective sheet is made of paper which adheres only to itself so the flat sheet is taken in hand and shaped to the knob, then creased and pressed into shape to cover the knob and stem. The adhesive material does not stick to the knob and the coverings are readily removable when they have served their purpose.

Sheet size is 5 $\frac{7}{8}$ by 5 $\frac{7}{8}$ inches. Details can be obtained from the manufacturer.

MASTERQUICK PATCHES WITHSTAND HEAVY USE, BIND WELL

A new pamphlet which describes in clear step-by-step paragraphs, adequately illustrated, the use of Masterquick to patch floors where the material withstands heavy use and binds well with the adjacent concrete has been released by The Master Builders Company, Cleveland 3, Ohio.

Copies of the bulletin are free on request.

The makers of the material point out that Masterquick does not readily break down under heavy traffic, even where edges are feathered. Resistance to direct and heavy impact is achieved through use of a scientifically graded, ductile, metallic aggregate in place of brittle aggregates, Master Builders report.

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Write for interesting new folder

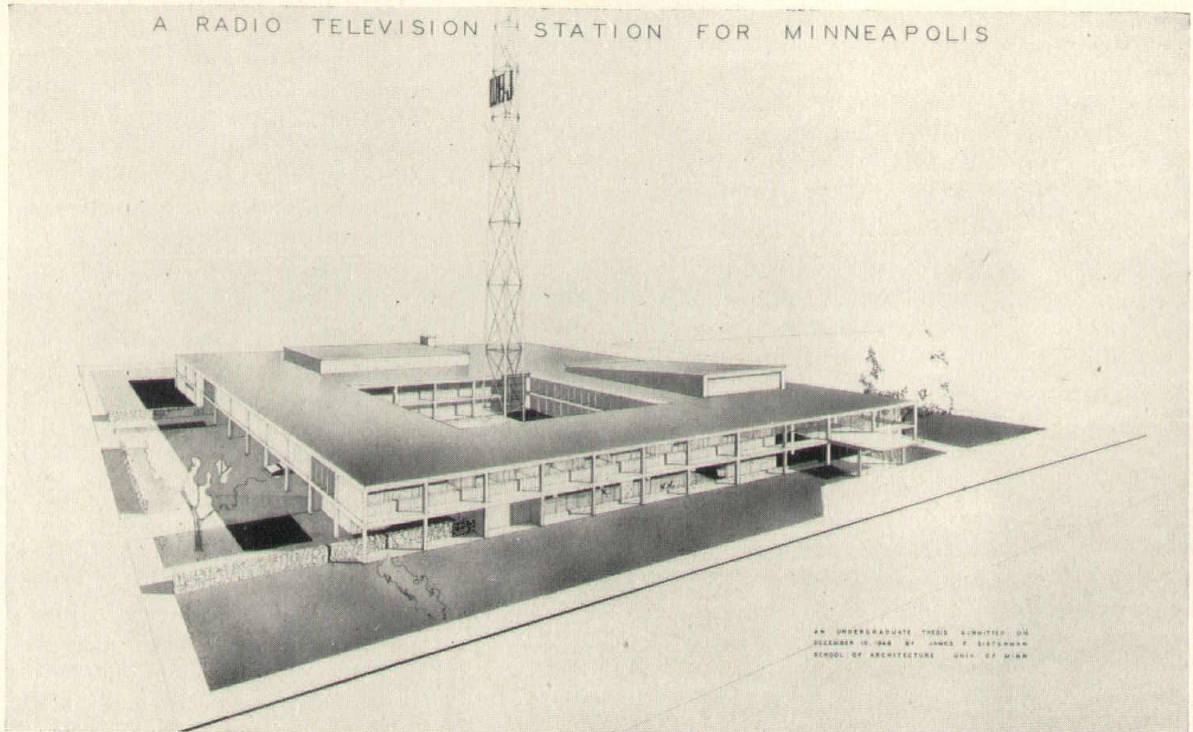
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JAMES SISTERMAN DESIGNS

A RADIO TELEVISION STATION FOR MINNEAPOLIS



This is how the Sisterman station would look in perspective.

AN UNDERGRADUATE THESIS SUBMITTED ON
DECEMBER 10, 1944 BY JAMES F. SISTERMAN
SCHOOL OF ARCHITECTURE - UNIVERSITY OF MINN.

A. Introduction

Similarities between radio and television have caused the building designer to consider the two simultaneously although radio is concerned with sound while television's greatest problem is satisfactory visual reproduction. Visual broadcasting entails not only photogenic scenes and performers; to create its illusion television has borrowed techniques and performers from the legitimate theater and the movies and in many studios properties are literally borrowed from the neighborhood retail store after the fashion of an amateur dramatic club. Radio has borrowed performers from the theater and often from the audience. Radio requires a studio sized and acoustically treated to suit the performance, containing microphones, sound effects and enough light for reading the script.

In the live talent studio, television requires a blaze of lights, stage sets, many props, usually three cameras per show, all movable on dollies, mikes on booms, also mounted on dollies, and a host of performers and production personnel, actors, camera and mike operators, dolly pullers, electricians, property men, stage hands and assistant directors. Cameras, mikes and lights demand complex wiring which usually covers the floor like a mass of snakes; changing the camera cables length causes serious difficulty.

Preoccupation with technicalities of visual broadcasting has been accompanied by a low level of intrinsic quality of television programs. Whatever the opinion of television as a cultural medium (the Navy uses television for teaching), the 2,000,000 estimated viewers of the last presidential election constitute an audience which can not be ignored. Coincidentally, the purely architectural worth of many television and radio buildings also parallels the program quality and if only for the promotional value of a good building, the same

dependence upon public opinion may bring improvement.

Co-ordination of all types of equipment and of spaces and techniques, both borrowed and inherent, in television is an architectural problem about which the television station manager has much to say. He has opinions on the circulation problem. He is an authority as well as a client and his decisions carry much weight, which may account for some makeshifts—even mistakes—which characterize many television buildings. Those stations, however, in the design of which good architects have been employed demonstrate the value of competent architectural effort.

B. Site

One of the major considerations of the location of a radio television building is technical. The television transmitting tower located in the proximity of tall buildings within a city reduces the power required for the television signal to overcome the resistance provided by these structures; the limitations of power allocated by the Federal Communications Commission may also have some effect on the location.

Airport landing approaches within the vicinity restrict the location. In Minneapolis a 10-mile-wide strip (5 miles on each side of the Wold Chamberlain Field approach lane) is the area in which structures such as a television tower are hazardous to airplane approach. The present site is on the edge of this 5-mile strip, north of the northwest-southeast landing strip at Wold Chamberlain Field.

The site also provides supplementary parking, within one block, near the municipal auditorium.

C. Building Requirements

1. Public Lobby and Lounge—

In this type of building, control of the public is essential. The public is allowed only in the theater

NORTH WEST

CONCRETE SEEN AS PART OF ANSWER TO ATOM BOMB BLASTS

Reinforced concrete buildings, designed to include all the best information available on atomic blasts and radiation, are part of mankind's answer to the threat of destruction by atomic warfare, according to Dr. A. Allan Bates, Portland Cement Association's vice president for research and development, who made his comments during a recent dedication of the association's new laboratories near Chicago.

This type structure, "designed properly, possesses a unique combination of impenetrability to deadly atomic radiation, resistance to blast destruction, safety against fires and, last but not least, economic feasibility," Dr. Bates said.

The dedicatory ceremonies for the \$3,000,000 laboratories, said to be the largest and most completely equipped in the world for their type of work, were attended by many notable persons, including Charles F. Kettering of General Motors, Frank T. Sheets, president of the Association, and W. C. Russell, chairman of the board.

"Physically, we know that practicable concrete shelters can be designed to resist the effects of all but a very close hit by an atomic bomb," Dr. Bates pointed out. "Engineering estimates, plus studies of results of atomic attack in Japan, show that fairly adequate protection

for a majority of our city dwellers during an atomic attack can be provided behind concrete walls for an expenditure only moderately greater than the cost of heavy-duty factory construction.

"It is true that a more or less complete dispersal of all of our cities, together with adoption of a policy of putting our principal factories and offices and most of our apartments underground, would give us the greatest immunity against atomic attack. But this would be incredibly expensive and politically impossible. Nothing less than an all-out atomic war with its certain destruction of our civilization would convince our people that they should have adopted such measures.

"Meanwhile, the extensive and well planned use of reinforced concrete in construction of our new buildings and strengthening parts of our old ones in or near cities will minimize the necessity of burrowing underground or of dispersing our centers of population.

"It must be understood," Dr. Bates concluded, "that no precautions that can be taken will make atomic warfare other than what it is—an indescribable nightmare of horror, death and destruction. We cannot construct practicable buildings to resist direct or very near hits by 'ordinary' atom bombs. Therefore any city built above ground can be wiped out by a sufficient number of atomic bombs. The suggestions which I have made will only increase the probability that any individual or group will live through an atomic attack."

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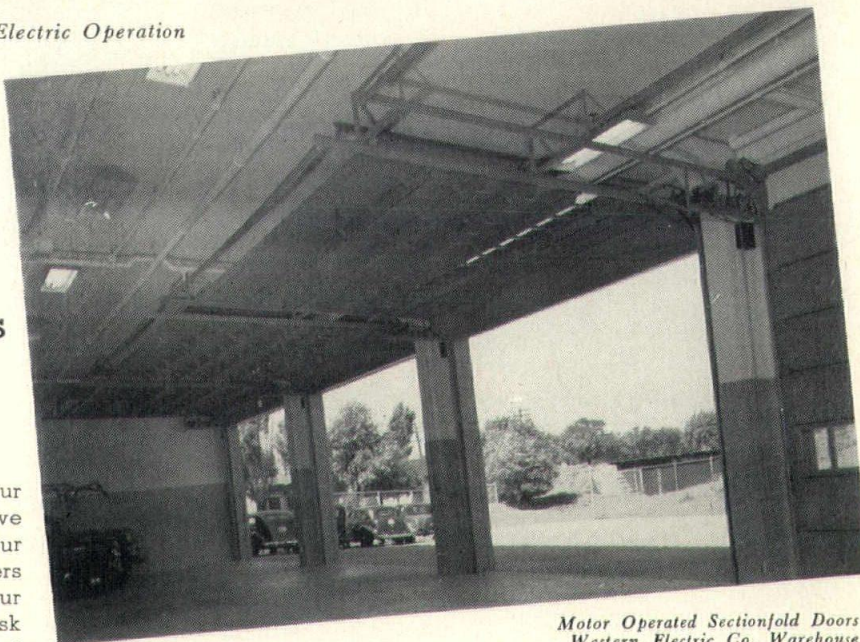
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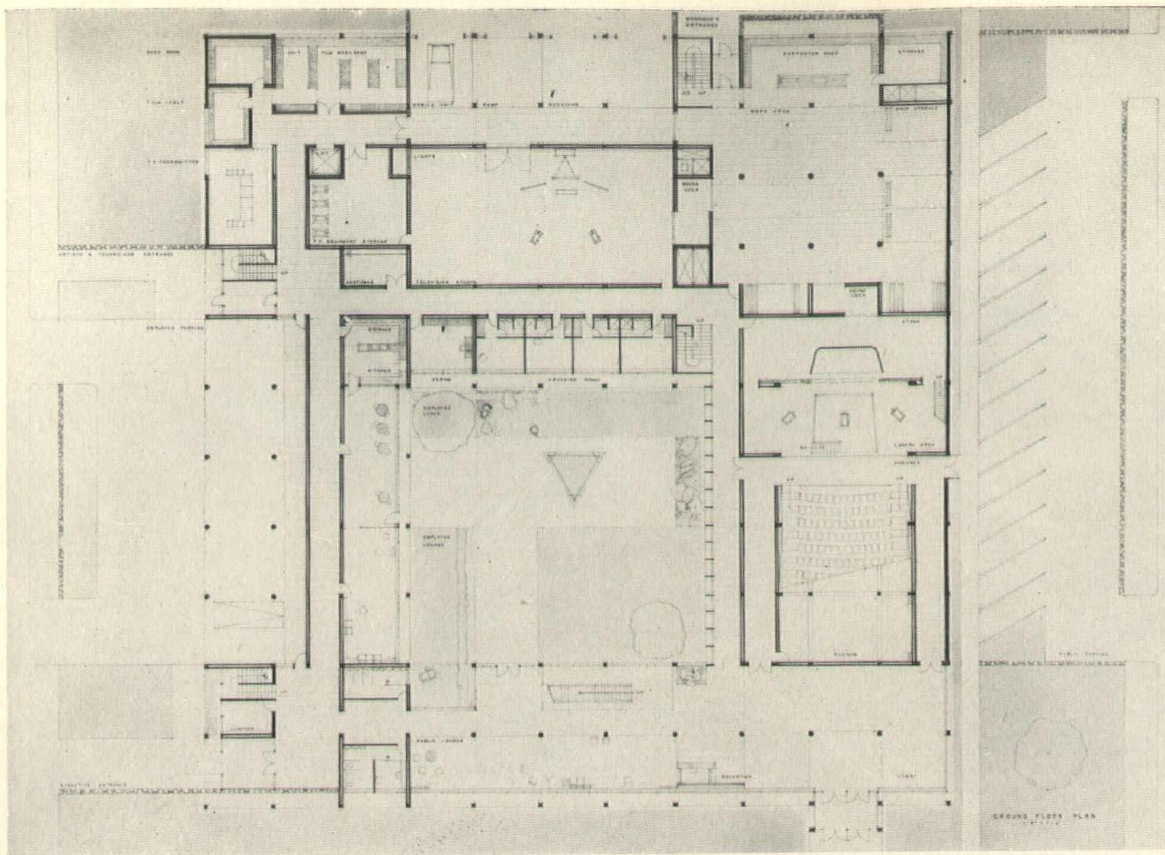
Joel F. Jackson

FACTORY REPRESENTATIVE
ATLANTIC 2585

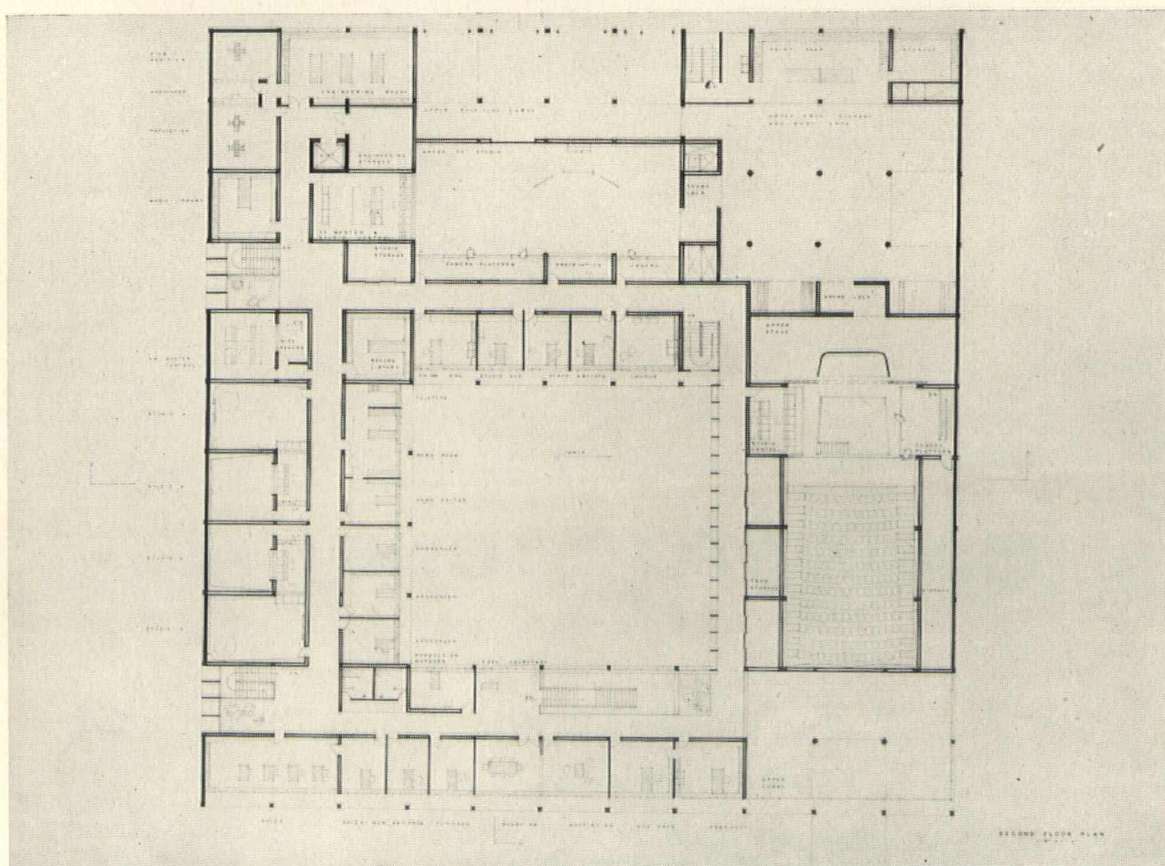
803 PENCE BUILDING

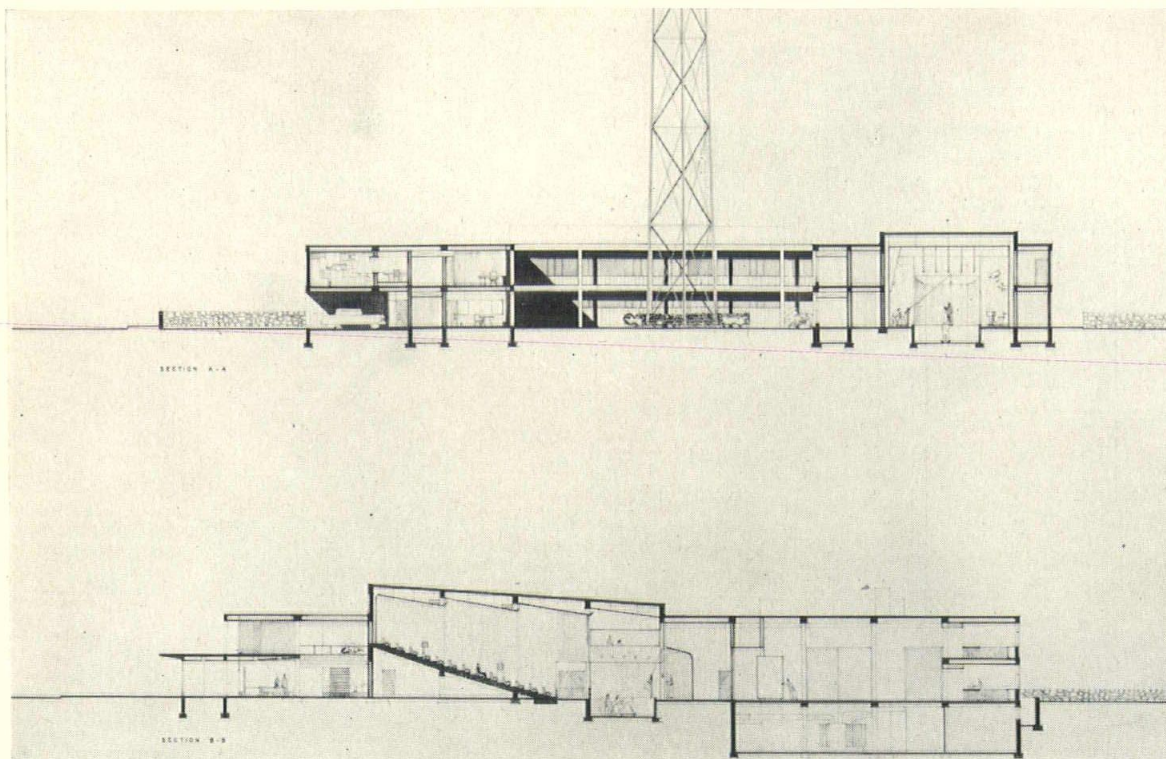
ARCHITECT

MINNEAPOLIS 3, MINNESOTA



The plans of the ground floor and the second floor shown here present the design in all its complete consideration of the various factors involved in the laying out of a radio-television station. The open court where the tower is footed and the patterning of spaces for the related activities of the station are clearly portrayed.





Two sections showing interiors.

studio, lobby and lounges with controlled circulation to other spaces such as the executive offices.

2. Theater Studio—

The theater studio is both a radio and television studio with permanent seating for an audience of approximately 150 persons. The audience consists of sponsors, clients and the public who wish to view the production first-hand. They must be separated from the television performance because the technicians, cameras and microphones must be able to move around freely.

Productions in the theater studio consist mainly of small dramas, lectures, soloists and guest performances. When musicals are broadcast a small orchestra is accommodated in the central camera pit.

Provision is necessary for the desired three television cameras. There is usually one camera in the center; ideally, this should be able to dolly in for close-ups. To give roundness to the televised actors and reality to the telecast performance, the other cameras may be at the sides of the theater, one perhaps lower than the

other. Public reaction to the production is registered on the television cameras from a platform which also provides a "high angle" shot of the performance.

The control room contains facilities for video consoles for both radio AM and television, program director, video operators and often a script girl. The control room must have a direct view of the production. The director and operators are in constant communication with the camera operators, electricians and technicians as well as with the master television control room and master AM control rooms.

3. Television—

a. Television studio: the purpose of this studio is to televise small live talent sets, advertising productions, etc., in an acoustically and light controlled space.

Requirements:

1—Direct access to the outside for the purpose of bringing vehicles, etc., of large size into the studio for televising. Example: telecast of an automobile for advertising purposes.

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2—Access to prop storage and work area for live talent sets.

3—Adjustable and flexible lighting.

4—Control room for supervision of the production through a glass walled booth having a view of the entire studio.

5—Camera platform for high angle camera shots.

6—Slide projector for rear projection of scenery on a suspended screen.

7—Observation booth for clients separate from control room to reduce client interference with the production.

8. Access from artists' dressing rooms.

9—Television equipment storage for cameras, cables, etc.

b. Master television control room: the master control room eases co-ordination of technical facilities, permits operation by one man during long network periods, permits equipment repairs and maintenance without disturbing facilities and one man can keep continuous watch over equipment performance. In this problem the master control room serves as the non-audience television studio control room. In other instances the master control room, required where there are more than two studios, need not have a direct view into the studio.

Requirements:

1—Master control consoles.

2—Electronic equipment.

3—"Turntables" (record players).

4—Monitor television screen on which the actual telecast appears.

5—Space for two or three video operators, audio operator, program director.

c. Projection or telecine room: in this space films, slides and commercials are dubbed into the television program as it goes over the air. It is also used for the purpose of telecasting kinescope recording files (precision photography of actual television programs) received from the network television company.

d. Film audition room with announcers' booth.

e. Film workshop for film processing, airing and editing.

f. Darkroom.

g. Fireproof film vault with outside ventilation.

h. Television transmitter room.

i. Engineering workshop and storage space.

W. L. HALL CO.

CUPPLES ALUMINIUM WINDOWS

Double hung. Fixed, Projected

AETNA HOLLOW METAL

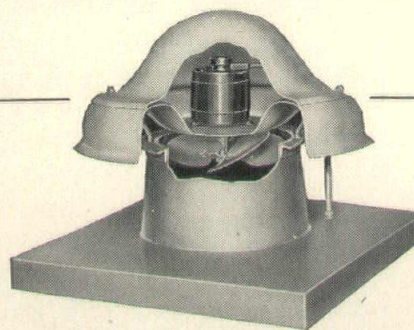
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PRIOR 4691

ARCHITECT

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STRUCTURAL STEEL ORNAMENTAL METAL



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Agents for Keuffel & Esser Co.
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Architects and Engineers Supplies
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523 Second Ave. South Minneapolis 2

4. Radio—

a. Four small AM studios with individual control rooms. These studios will be used for regular network programs, small radio dramas, disk jockey programs, etc.

b. Master AM control room.

c. Wire recording room.

d. Record library.

e. Music library.

f. Teletype and news room.

g. News editor's office.

h. Staff announcers' offices.

i. Chief engineer's office.

j. Studio supervisor's office.

5. Artists—

a. Individual dressing rooms with ready access to the television and theater studio.

b. Small costume storage space.

c. Sewing and dyeing room.

d. Small artists' lounge.

e. Offices of artists on the staff.

6. Executive Offices—

a. President's office.

b. Vice president's office.

c. Production manager's office.

d. Television production manager's office.

e. AM production manager's office.

f. Sales office for sales employees and sales manager.

g. Board and meeting room for executive conferences, etc.

7. Employees—

a. Small lounge.

b. Lunch room.

c. Kitchen.

8. Work Areas—

a. Carpenter shop and storage.

b. Paint shop and storage.

c. Prop storage space.

d. Work space with access to both television and theater studio for movement of stage sets.

9. Services—

a. Truck loading area.

b. Garage for mobile unit for telecasting local events and sports.

c. Boiler and fan room.

d. Janitor equipment and storage.

e. Workmen's locker room.

AIA STARTS EDUCATION AND REGISTRATION SURVEY

A questionnaire being sent out during September is the first step in the 1950 survey of the architects of the country as to opinions on architectural education, professional practices and registration which will be studied by a special committee of the American Institute of Architects.

Short, concise and designed for easy answering, the set of questions will be almost anonymous so architects, both members of AIA and unassociated workers, can speak their minds with assurance only the three members of the committee can identify sources through use of a keyed master list of mailings.

"This factual material," the officials of AIA pointed out, "will be essential background for the most complete analysis of the profession ever undertaken and will

NORTHWEST

provide valuable guidance to educators, registration boards and the institute."

Success of the survey depends on the individual architects and members of the committee have asked that all questionnaires be completed as soon as possible and returned for tabulation. Pilot questionnaires were sent out earlier this year to a selected list of 60 architects and these were studied during a committee meeting in Chicago in July before the final forms were approved.

ACOUSTIC MATERIALS VARY IN ABILITY TO CONTROL SOUNDS

The complex problems of acoustic materials in relation to their control of sounds has been summarized in a recent publication by the National Bureau of Standards, which warns that too many are prone to make selections arbitrarily among materials recommended for this purpose.

Issued as Building Research Summary Report 72, the discussion points out that the basic qualities of the materials themselves are important but that these factors can be influenced by the rooms or spaces in which they are placed and the originating quality of the sounds to be controlled. In some rooms with some materials the sounds are controlled quite differently from the same materials used in other rooms.

The modern building interior which is hard and smooth is notoriously poor in absorbing sound and reverberation is a serious problem. However, under certain circumstances reverberation, serving to reinforce the original sound, can be used to advantage.

In the absence of any other absorption process, a porous sound control material can absorb sound only if its interior is permeated by interconnecting pores and voids and if the surface is open to permit direct access to the interior. This explains why some cellular materials like foamed glass do not absorb sound readily. Air must pass from one void to another. Perforations in acoustic materials vary from 1/16 to 1/4 inch and penetrate deeply into the material. As long as the total area of the perforations is greater than 10 per cent of the total surface, the surface of the material behaves as if it were transparent to sound.

Numerous instances have been noted, according to the study, where absorption was not materially decreased even when the surface openings were closed by a membrane. Methods of mounting also have a definite effect on qualities of acoustic materials; for instance, increased air space behind the material frequently increases its absorption powers. Materials are used in the form of prefabricated materials, plasters, spray material and baffles, each being evaluated in relation to the purpose to which it is to be put.

Although acoustic materials must be painted to preserve their appearance, paint application is not always good for sound absorption. Some materials with perforated and fissured surfaces and some sprayed on materials are not affected materially by painting but porous and similar substances sometimes are completely ruined by one injudicious coat of paint.

The complete Report 72, summarized here, can be obtained from the bureau by addressing it at the U. S. Department of Commerce, Washington 25, D. C.

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Edited by William Gray Purcell

♦ Give or Keep ♦

Exfoliating or Ingrowing Art

NORTHWEST ARCHITECT,
GENTLEMEN:

Banning, California

Thank you very much for the extra copy which we sent on at once. May we say that we also found these articles about Mr. Chapman, and art in general, most interesting.

For many years we have been in the position of perplexed laymen. As charter members of the Yakima Valley, Washington, Art Association, we were trying to achieve a more thorough understanding of all the arts.

The person who has never had an opportunity to see or study the old masters will be quite open to conviction that such art has something to offer him—he can at least approach it in an objective manner. But exposure to some of the "masterpieces" of modern art will often arouse in that same person, such a feeling of distaste that it's quite impossible to ever get him near another such exhibit. Admittedly art should be challenging—but should it be antagonizing?

For our real preference, we'll take Chapman! Art is surely many things for many people; for us it needs to be an enlarging and enrichment of our own experience and observation, a contact with a personality which has greater feeling and understanding than we, so that we may feel moved to look about us and increase our own understanding. And an artist like Chapman is therefore more the man for us rather than the one who turns his thoughts inward for the purpose of constructing a mystic set of symbols of how the world appears to him.

Very truly yours,

RUTH AND MILLARD HENNING

♦ A Potent Sentence ♦

May double our circulation

IN A LETTER from Mrs. Turbese Fiske, daughter of Charles F. Lummis, the inspirational writer of the 1880s, who first brought to the Tourist East the glamour of Arizona and Southern California. Mrs. Fiske says:

"NORTHWEST ARCHITECT has something so naive and worthwhile that I send it on to a fine young man who wants to be an Architect."

The many compliments about each issue of this JOURNAL, generally include, . . . "We always send our copy to friends" or some similar disposition. Many back numbers are now collectors' items—the Scandinavian number, for example, the Giddings number, and several others.

♦ Education ♦

Has come a long way

HEADLINING the evening's program was the talk by Dr. Steinhof, internationally known architect and educator, recently returned to Southern California from Brazil, where he has been teaching at the State University at Porta Alegre.

Dr. Steinhof discussed architectural education, the value of research, the great opportunities to the architect in the expanded world of today and the future. A few of his ideas, as nearly as they can be rendered:

"The Beaux-Arts system is for the training of tasteless mediocrity, not of genius."

"Twenty years ago students were taught to copy Vignola. Today it is Le Corbusier. It is still copying, not education."

"For a student to work under a brilliant designer who is not a teacher means only the patron system. The

student will learn only to copy his patron; he will not learn design."

"Research is the province of the specialist, to provide tools for the architect. The architect should not engage in specialized research."

"The architect who moves to a new environment to practise must take regional conditions and ways of living into account. The processes of design may be international but the products must always be regional to be successful."

from BULLETIN
Southern Calif. Chapter A.I.A.
Dec. 1949

♦ The Double Life ♦

*"He who seeks to serve another,
best serves himself."*

That far-off divine event toward which we grope, is not that men shall "see themselves as others see them . . ." which is to see LESS;

but they shall see *others* as they see themselves— . . . which is to see MORE:

that they shall enter into the lives of other men, and there see, and, feel and understand.

ANONYMOUS

Quoted, from a Yale alumnus'

letter, by Clarence Day, author of

"LIFE WITH FATHER," in his autobiography,

"96, THE HALF WAY BOOK."

It sounds like Stewart Edward White

♦ Reply to a New Zealand Friend ♦

Dear Bob: (in part) ***

In general, the design pitfall which must be by-passed is the creation of another style-form architecture. When you say "a jewelry shop like Corbusier" etc., etc., you are getting dangerously close to the substitution of contemporary design patter for the classic historic materials formerly swiped by designers. Such procedure is no advance however clever.

Forget Wright, Dudok, Corbusier, Maholy Nagi and the whole modern bunch. Integrity of construction is fine—stay with it!

But integrity in the relation between building and people is more important—and a lot more difficult, and now, economic and social integrity, to be expressed in architecture, still more necessary.

To be literal minded about trusses, posts, roofs, and so on is intellectually not too difficult, and I am told that in your land (in Australia, at least) they insist upon hanging the building's plumbing guts over the main entrance. Such official insanity is hard to imagine. But for the designer to really move up from the integration of construction and craftsmanship into the area where architecture operates is another problem entirely. In saying this I wouldn't want any of the old self-labeled "traditionalists" to think that this means any return to their old trash and the quaint deportment which they used to call "architecture." Those old boys

NORTHWEST

missed the boat at both ends and are now asleep in the overstuffed club lounge.

And so facing a new project—since you have no need to admonish your own intentions with respect to sound construction, I recommend that you first study all the psychological reactions. In your jewelry store for example; I would consider:

Elegance
Gaity—but not too gay
The conventions
Tradition of deportment
Buying habits of women
General “costliness” atmosphere
Scale of articles to be sold
Relation to printed advertising

So that entire presentation of store to public eye could change with season and merchandising plans. A “store” is not a static system of aesthetic building materials. It is itself an advertisement *to be re-written weekly.*

Relation to calendar recurring dates
Relation to signs
And so on!

Then consider materials

methods
patterns that will say those things
lettering
movement
texture
color
LIGHT

Don't forget cost—it's difficult to make a jewelry business pay!

And finally, of all things, in every building get away from this cursed “Pavilion Parti” in which you find something for a major “axis” and for one or two balanced minor axes. There are 10,000 variations of this obsolete and silly pattern invented some hundred years ago in Paris and still stupifying our designers. This “Grande Palais” system of meaningless graphic design “balance,” symmetrical or unsymmetrical, is forced into tall buildings, into factories, into costume jewelry and printing design. One can say in general, as a first step away from this disease, that a door or entrance really needs no special architectural emphasis—every road leads to it. The sense of **ingress** is sufficiently announced by the opening itself. The last place to put “decoration” or architectural emphasis is at the doors, windows and roof edges which are already shouting too importantly without any help from “design.”

Determine what is really the building's chief importance and then say **THAT** with pattern in color-light-sound-surface-form and mechanics. And don't make an axis out of it symmetrical or unsymmetrical.

♦ Organic Creation ♦

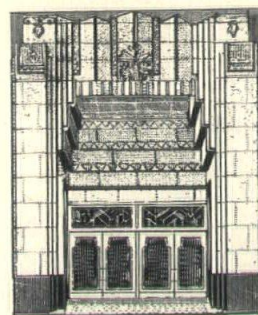
Not otherwise in the building arts

IN TRANSACTIONS with untamed life, my father made an offering of his whole nature. When he called a deer, he was a buck himself. It is perfectly clear to me now that he opened the way for me to become a musician by showing me how to offer my body, in imitation of him, to receive the music which he taught me to discover in the natural world. I learned from my father how the body follows the imagination.

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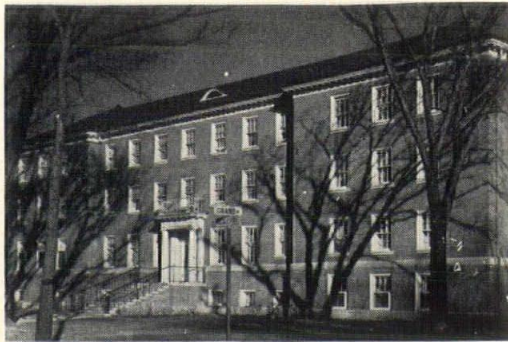
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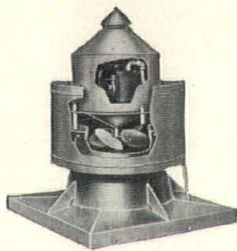
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If singing is to be a really imaginative art it must give off, on each occasion, the effect of a fresh creation in which mind and body act together. The body must respond freely and newly to the mind's momentary act of recreation.

I early learned from my father to let my imagination do fluently what many singers have learned to do only through the repetitive use of destructive vocal exercises. I am fifty-five years old now, and yet, because my father taught me that the body follows the mind without stress and strain, I am conscious of no wear and tear on my vocal equipment.

"ANGEL MO' AND HER SONS ROLAND HAYES"
by MacKinley Helm

Atlantic Monthly, August, 1942

♦ The Cure for Polio ♦

Just as an example

In conducting a scientific enterprise. The adventure must be pursued in a private mind quite unrelated to the vast technical equipment which has come to be, in the public estimation, necessary for that thinking which issues in discovery."

"No Retreat from Reason"
pp. 259

ALFRED E. COHN, M.D.
Harcourt Brace, 1948

FOR SOME YEARS Dr. Cohn of Columbia was the directing personality of the Medical Profession in the United States. Reinforced with this quotation of his, one may venture to question, time being a factor, the vast sums being spent on multi-storied laboratories for cancer and polio research. Much essential information will, of course, come from these investigations, but we already have more data than Dr. Cohn's "private professional mind, in scientific adventure" has been able to put to use. What we desperately need is polio prevention, so that the 3500 children who will otherwise have it the coming summer—need not have it. Very capable, "private minds" are working on prevention—but public and professional attention is centered on the big money and glamorous buildings. Some simple modest person, like Sister Kenny will turn up with the answer—in my opinion has already appeared—and like Kenny will have a tough fight to have his procedures accepted.

I am gathering some specific information on this for you.

♦ The Healthy Irish ♦

one hundred fifty years ago

"IT IS little the shoe or stocking was worn in those days, (1830s) not even a drop of tea to be had, nor any thought of it."

"What used you to have to eat?"

"Indian meal, oatmeal, potatoes and fine fish from the sea; and they left their mark on the people. Little sickness or infection came to them."

"TWENTY YEARS A-GROWING"
Maurice O'Sullivan

Viking Press, Original written
in the Gaelic language.

♦ Hollywood ♦

Dear Mr. Purcell

Again, sincere appreciation for that "horse-sense" Northwest Architect.

I always enjoy your articles, but this month I think you will have to take second place, or runner-up to Mr. Newton Holland.

Yours truly

JOHN MESCALL

Camera Man to Sonia Henie,
Will Rogers, John Barrymore,
etc.

"It Can Be You"

Comment on Our Editorial Page

SOME OF OUR READERS will recall that in the February, 1948, number of *NORTHWEST ARCHITECT*, Volume XII, No. 1, we outlined a method of study and personal record which we recommended as a basis for the continuous development of one's own ideas. This number brought very interesting responses from people who had employed similar methods. The editorial page of this issue is the fruit of this system.

In the summer of 1925, when I was sitting on a Minneapolis porch, looking out over the lake, a passing thought struggled into my mind and I jotted it down on a 3 x 5 card from my Memindex pocket holder. This card went into my file and was more or less forgotten. Every few years it would come to the surface and I would think about the idea. Just now tragic world events have revived it for new uses as you see it on the editorial page.

At this point modesty should be honored. So please do not run off with the idea that we think some very profound and original piece of philosophy to have been announced. Quite otherwise some such idea has been stated by many good men of the past. But however well organized and familiar such statements become, new events and new situations in the world bring new meanings. Just now we begin to see that Man himself, standing half way between the very smallest of created things, and the very largest, must see that if he is to comprehend the biggest things, he needs also to look with penetration at the very smallest. He finds that the universe we view when we search the heavens, can also be found, in those vast galaxies of the atom.

For these reasons it seemed to me that at this time it would be good to restate such a very simple formula. It can be understood by anybody.

Think about this issue. Put down your thoughts on

a 3 x 5 card or on a sheet of 8½ x 11 paper and file with your studies. Many natural minds, reinvestigating very simple ideas, may come to think more exactly about their jobs, whatever they may be, may find some better thinking tool to apply to business, to society, and the tough world problems that we now face.

We constantly mislead ourselves. Each of us sets up words which we believe will describe or picture in our working imagination the circumstances with which we have to deal. We then proceed to draw conclusions, to form opinions, and worst of all to base action upon the image which our world has built. The word and resultant picture may be incomplete; it may be hazy and sentimental; it may be downright inaccurate. If we proceed upon such premises we are certainly going to make serious blunders. Let's be generous to those who differ with us. Let's be hopeful that someone may find at our elbow some good we have overlooked.

Am I psychic?

Since making up the editorial page for this issue and the above note about it, a couple of friends dropped in who are all fired up about "Dianetics," and last night I open up this week's *Time* (July 24, 1950, page 64) and find three columns on the subject.

So my proposal of 1925 that "here was material for further study" has proved a considerable understatement. At any rate it scooped the press and Mr. Hubbard by twenty-five years in setting up the research target.

I make no recommendations in this matter. Some psychotherapists believe that "the treatment can do harm." And that might prove an understatement. The harm might come from now wholly unsuspected factors.

On the other hand Dianetics may indeed be "a milestone for Man comparable to his discovery of fire" (which can also be very destructive). I know nothing more about it than you can read for yourself. But let's not make it a cult.

—W. G. P.

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Painting

Brick and Tile Walls

The cost of painting a brick or tile wall must be charged to appearance alone and cannot be offset by increased permanence or resistance to the weather. While there are many who contend that the warm natural colors of facing brick or tile make additional embellishment in the form of paint unnecessary, in the final analysis whether or not the wall should be painted is mainly a question of personal taste on the part of the owner or designer. If painted brick or tile walls are preferred and the owner is willing to pay the additional cost (both first cost and future maintenance), there appear to be no good reasons why the wall should not be painted, *providing proper attention is given to the selection and application of the materials—both paint and masonry.*

The claim that painting will prevent the penetration of moisture through masonry walls is based on the assumption that the paint will seal the pores of the masonry units and the mortar. Conclusive tests show that very little dampness, even under the most severe exposure conditions, will penetrate the clay masonry units themselves. Likewise, tests have shown that mortars are highly resistant to the penetration of moisture. All authorities who have studied the question of moisture penetration through masonry walls agree that, in practically every case, water finds its way to the in-

terior through openings *between* the mortar and the units rather than through the materials themselves. This theory is amply substantiated by conclusive tests at the Bureau of Standards and other recognized testing laboratories.

Very few paints will seal these openings between the mortar and units. Cement-water paints, however, do have that property of sealing such openings in the joints of masonry work and their proper application can be considered as one means of remedying a leaky wall.

If water is forced into a wall through such openings by wind pressure, it is very necessary that the pores of the exterior facing material be kept open to permit the water to travel to the outside where it will evaporate. Such construction is frequently called a "breathing wall." If the pores in the face of the wall are sealed, as they would be by an impervious film of paint, water which may enter the wall through openings in the mortar joints can reach the outside only through the same openings and may be retained within the wall until a sufficient quantity accumulates to force its way to the interior, or to cause damage due to subsequent freezing and thawing.

Claims that painted walls are superior to unpainted ones from the standpoint of insulation are too theoretical to warrant serious consideration. While it is true that saturated materials have higher coefficients of heat conductivity than dry materials, clay masonry units are rarely, if ever, saturated in a wall even under the most adverse conditions.

Increases in reflected light and reduction of exterior exposed wall surface temperatures obtained by the use of white paint on dark masonry surfaces can be easily verified by test. However, painted masonry walls are difficult to keep clean and the effectiveness of the painted surface decreases rapidly with weathering and the accumulation of soot and dirt. If light reflection and the reduction of exterior wall surface temperatures are factors in the design, a permanent treatment, and one less expensive to maintain, would be the use of light colored clay facing units.

Selection of Masonry Materials

If, for a purely architectural or design effect, it is still desired to paint the exterior surfaces of a clay masonry wall, careful consideration should be given to the selection of both the masonry materials and the paint. One point that both research and field observations seem to prove is that if brick or tile are to be painted, they must be harder burned and more resistant to weathering than if they are to be left unpainted. Unfortunately, this fact is frequently overlooked and second-hand or other materials which would not be considered suitable for use in exposed walls are often used in such locations and painted. The use of such material accounts for much of the unsatisfactory performance of exposed painted walls, such as the spalling of the units in locations subject to freezing and thawing in the presence of moisture, or the flaking and staining of the paint.

Experience on the resistance of painted clay masonry to weathering indicates that a hard burned brick meeting the requirements of Grade SW of either ASTM Specification C62- for Building Brick or C216- for Facing Brick and having a total absorption of not over 10 to 15 per cent will give satisfactory performance. If tile are to be painted, they should at least meet the requirements for Grade LBX of ASTM Specification C34- for Load-Bearing Wall Tile. Some brick meeting the requirements for Grade SW and having total absorptions approaching the maximum permitted (20 per cent) have also given satisfactory performance. If it is desired to use materials of this grade whose absorptions approach the maximum permitted, it is recommended that their

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Several studies of the number of people who really read each number of our Journal make us feel good. Readers in many offices and homes pass on their copy to others asking for it. It goes to North Cape in Norway, Pakistan, South Africa, Alaska, Greece, England, Holland, France—everywhere but to Russia and Co.

field performance under similar conditions be investigated first.

Selection of Paint

In addition to the careful selection of masonry materials suitable for painting in exposed locations, the type of paint used is of great importance. Mention was made earlier in this bulletin of the desirability of a breathing wall. Therefore, the paint selected should also have this breathing property.

Cement paint has that property and, in general, is the best type to use in painting exterior masonry wall surfaces. In addition to permitting the breathing of the wall, cement water paints appear to be the most durable of the several types of paints used on exterior masonry walls and help seal any openings that may occur in the mortar joints. Tests conducted at the Bureau of Standards and reported in Building Materials and Structures Report BSM110, titled "Paints for Exterior Masonry Walls," rate cement water paints, as a class, first in durability, with oil-base, resin-emulsion and synthetic rubber-base paints following in that order. The tests consisted of applying the paints to masonry wall specimens under practical painting conditions and then exposing them to weathering for periods of 24 to 33 months.

Both proprietary brand and field mixed cement-water paints were used and tested and were found to be decorative and durable coatings. It was found that the method of applying and curing such paints and the conditions under which the painting is done are more important than the paint composition, although it is recommended that the portland cement content be at least 65 per cent by weight of the total paint.

Portland cement paint should be mixed and applied in accordance with the directions of the manufacturer. The wall should be carefully cleaned so that all dirt, oil, grease and efflorescence are completely removed. If the wall has been previously painted with an organic paint, such paint must be entirely removed. The surface should be uniformly damp, but not wet, when the paint is applied. An easy way to dampen the wall is by the use of a garden hose fitted with a "fog" nozzle. The same equipment can be used in curing each coat of paint.

Cement-water paints should be applied with a brush having short, stiff fiber bristles. An ordinary scrub brush is satisfactory. Soft-bristled or whitewash brushes are not recommended as they will not produce as good mechanical bond between the paint and the unit as will the stiff-bristled brush. Using the scrub brush, the cement paint is worked well into the damp wall using a scrubbing motion.

The first coat should be permitted to harden sufficiently to prevent injury to the surface, after which it should be kept damp for at least 24 hours by spraying at necessary intervals. Before the second coat is applied, the surface should be dampened again and the same procedure followed except that it should be damp cured for at least 48 hours.

During hot and windy weather the cement paint may dry out before it has hardened. When being applied under such conditions, the paint should be dampened as soon as possible after it has been scrubbed on the wall. If possible, the painting should also be done in the shade rather than in the bright sunshine.

Oil paint should never be applied to a damp wall or to a wall that is not constructed so as to exclude the entrance of moisture. If such paint is applied to a wet wall, or one that becomes wet because of structural faults, the paint will fail by scaling or flaking. Subsequent freezing and thawing of the moisture trapped in the wall by the impervious film of oil paint may also result in damage to the masonry units—particularly if they are of the type not suitable for painting.

Before oil paints are applied to new masonry, the walls should be thoroughly dried out and cleaned of all dirt and mortar particles. The new wall should be allowed to age for a period of from 6 to 12 months before painting. If oil paint is desired for any reason on new masonry within 6 months after construction, it is usually necessary to apply a wash coat of zinc sulphate solution (2 pounds to a gallon of water) to neutralize the alkali in mortar joints. This

ARCHITECT

treatment, however, is not always completely effective, particularly if moisture finds its way into the wall. In any case the paint manufacturer's directions should be carefully followed since some oil paints can be applied over a zinc sulphate wash while others cannot.

If there is any efflorescence on the wall, it should be thoroughly removed by brushing while dry. It should be washed

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with clean water and then with a 10 per cent solution of muriatic acid, after which the wall should be washed again with clean water.

In order to secure satisfactory results, the masonry should receive three coats of paint—a priming coat or first coat, a

body or second coat and a finishing or third coat. At least four or five days should be allowed between coats. A typical primer coat consists of exterior spar varnish containing an equivalent volume of house paint or color in oil.

In some cases two coats of oil paint will provide a satisfactory job; however, the third coat will give a more uniform and much higher finish.

If the oil paint is to be applied to brick or tile masonry with joints which have not been tooled, it is recommended that a base coat of portland cement grout be first applied and allowed to age for at least 90 days. The grout is composed of portland cement and sharp sand and may be applied any time during the wall aging period of from 6 to 12 months. If there is a possibility that the wall is damp or contains soluble salts, a protective primer, such as a rubber-solution paint, should be used as the first coat over the grout. In this case, one coat of oil paint will be sufficient to give a good finish, although two coats will provide more durability.

Resin-emulsion paints may be applied to either damp or dry walls by means of brushing or spraying. New masonry walls should be permitted to age for at least 3 weeks before painting. As in the case with oil-base paints, a prime coat of portland cement grout is recommended where the joints are not tooled or when cracks appear between the mortar and the masonry units. Tests at the National Bureau of Standards indicated that such paints tend to fail by blistering and flaking when applied directly to new masonry without a base coat of grout or cement-water paint.

Rubber-solution paints may also be applied to either dry or damp surfaces. They may be used as a protective primer under oil-base or resin-emulsion paints, or as the complete paint system, in which case, two coats are usually adequate. If grout or cement-water paint is necessary to seal the un-tooled mortar joints or cracks between mortar and masonry units, it should be allowed to dry from 3 to 6 days before the rubber-solution is then applied.

In conclusion, we again emphasize that the painting of structural clay masonry walls is primarily a question of taste and can best be answered by the architect or the owner himself. No one should be misled, however, into believing that painting of clay masonry walls adds to the structural qualities of a building. Its cost must be charged to appearance alone.

Where the appearance seems to justify the added cost, painted clay masonry walls will give satisfactory performance, providing care is taken in the selection of the materials used and in their application.

When the wall is to be built in an area where it will be subjected to freezing and thawing in the presence of moisture, the brick or tile must be harder burned and more resistant to weathering than if they are to be left unpainted. In such cases, an impervious paint, such as an oil-base paint, is not as desirable as cement-water paint which has the property of breathing. In general, cement-water paints appear to be more durable as masonry paints and have the added advantages of being effective waterproofers and somewhat simpler to apply. The fact that they are brushed on a damp wall is a distinct advantage, permitting their application as soon as the wall is constructed.

There are many commercial paints produced expressly for masonry surfaces, many of which have given satisfactory service. When considering the use of any particular type or brand, it is recommended that its performance under similar design conditions and service be investigated and, in any event, its application be made in accordance with the directions of the manufacturer.

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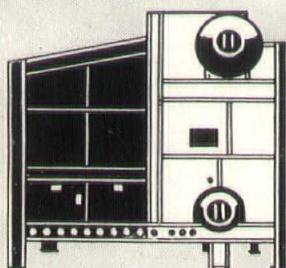
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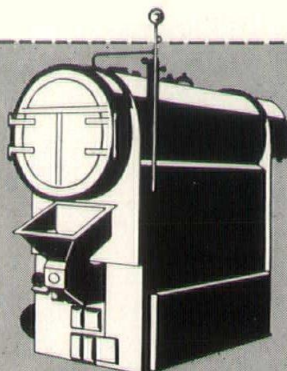
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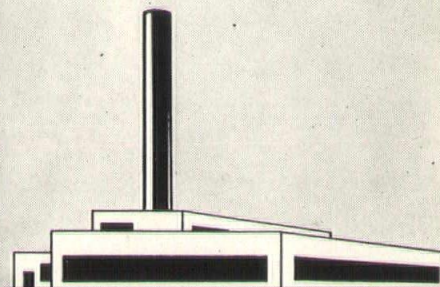
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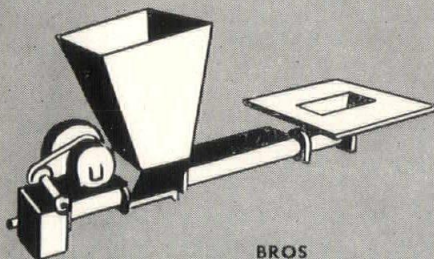
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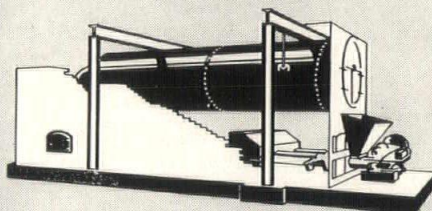
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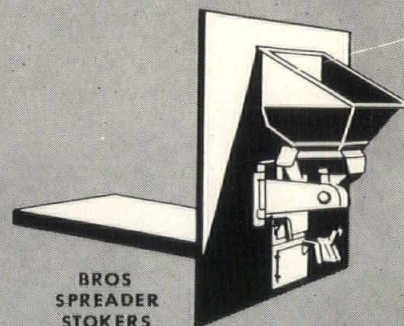
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