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GARLAND ON BANKING ROOM SCREEN

The Adirondack Trust Company

Saratoga Springs, New York

ALFRED HOPKINS, *Architect*

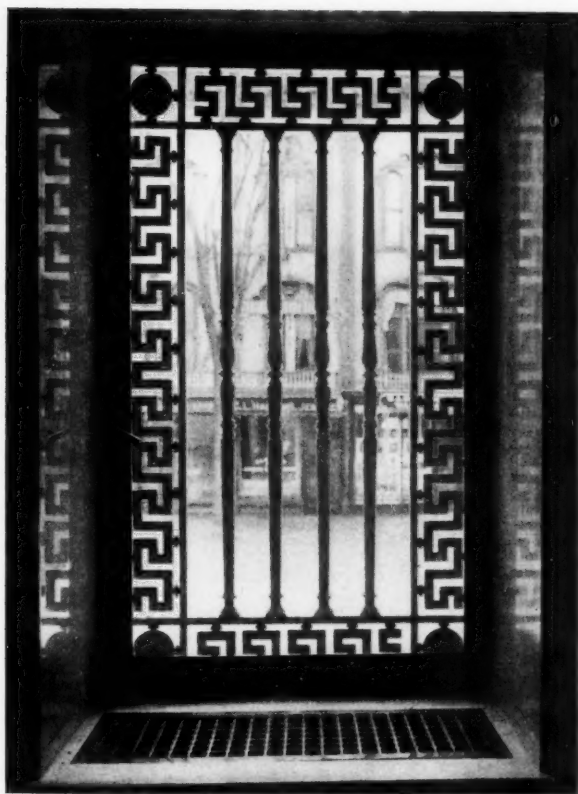
TO the architect with a particle of imagination the possibilities offered by the bank building for sympathetic, appropriate and noble architecture should make an instant appeal. The bank is the backbone of our body politic. Its functions extend to every phase of our business life. Though it usually does not, it well may, advertise the virtues of honesty, industry and thrift, all honorable qualities in the individual which make for stability of character, good judgment, business acumen, and for depositors, as well. Bankers would like to see the entire community imbued with the virtues indicated. It means good business, if such a wish must be dismissed as the direct result of human selfishness, but, as a matter of fact, the bank is becoming more and more the place where

good counsel may be obtained, where practical help for the sound enterprise is given, where records and information that will assist the business man to mature his judgment are kept, tabulated and freely distributed. Such, in brief, is the distinguished position of counselor and friend which the bank has come to occupy in the community. It stimulates and emulates the qualities of safety, security, service and strength.

Along what lines should its house be built? The accompanying text and illustrations form a practical answer to the question.

Like other business houses the best location for the bank is a corner, not only on account of convenience of access, but of the added possibilities of light and ventilation, which such position gives.

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A SMALL GRILLE, FROM WITHIN

The Adirondack Trust Company is fortunate in its site upon a prominent corner. But to increase the natural advantages of the site, which give light on two sides, the plan was devised so that light and ventilation are provided on three.

There is always use for a series of small rooms in the work of a bank, and, in this instance, the public writing room, the ladies' writing room and adjoining toilet, the telephone booth, the coupon room and the stenographers' room were grouped along the inner side, in a space some seven feet in width, running practically the whole length of the building. Being small rooms, these were easily made low ones, and are well contained in a story height of only nine feet. By bringing the main wall of that side of the building on the front line of these rooms, that is, seven feet back from the lot line, a large light well was formed, an advantage giving not only light and ventilation at a point usually dark and without air, but making a room architecturally balanced by carrying the large window motive on three sides. It will be noted that this method of gaining the light well is accomplished without losing any appreciable amount of floor space.

There are other distinct advantages. Such a light well does away with the usual overhead skylight, always a menace from adjoining fire risks and always difficult to keep clean and in repair. In truth, the usual bank skylight becomes, in a few years, a thing which obscures light and renders what might have been a tight roof a leaky one. Again, the light area at the side has this advantage: it is possible to erect a fire wall against the adjoining property with a space to fight fire between it and the bank wall, where the windows can always be protected by the well tested and fireproof wire glass. This much for the very practical considerations of light, air, and security from fire.

Turn now to the possibilities of artistic embellishment. The Adirondack building is of selected white marble and has been conceived in the Greek architecture of Athens, the type of the Parthenon, though not in the strictest interpretation of that intellectual style. We have not hesitated to embellish the side pylons with a Roman garland, signifying abundance, with the winged hour glass below, as a warning symbol to those who may not value the possibilities that lie in the speeding moment and the departing day. The cornice is pure Greek. Above it has been placed an attic story, a notable development of the Roman Triumphal Arch, which recorded the achievements it commemorated.

Above has been placed the crowning ornament of the main façade. A large shield in the center, on which has been placed a stag's head, significant of the name Adirondack, flanked on either side by horns of plenty, and, at the ends, the American Eagle, a noble pose, always a patriotic and effective architectural ornament. It will be seen that, on the exterior, every embellishment shown has a direct significance to the uses for which the building is designed.

Entering the bronze front doors, on which have been modeled a glimpse of the woods, the hills, and the life of the Adirondacks, we note at once the spacious effect of the interior, made possible by the willingness of the directors to hold their meetings, which it is their custom to have outside of banking hours, on an open balcony. This balcony serves the triple purpose of concealing the tops of the vaults, of giving useful rooms below, and of providing ample accommodations for the directors above, and all without diminishing the noble extent of the interior. Actual space, or the next best thing, the effect of space, is the important architectural principle in classic design. The balcony railing has, therefore, been made of bronze, light and delicate, so as to obscure the balcony and rear wall

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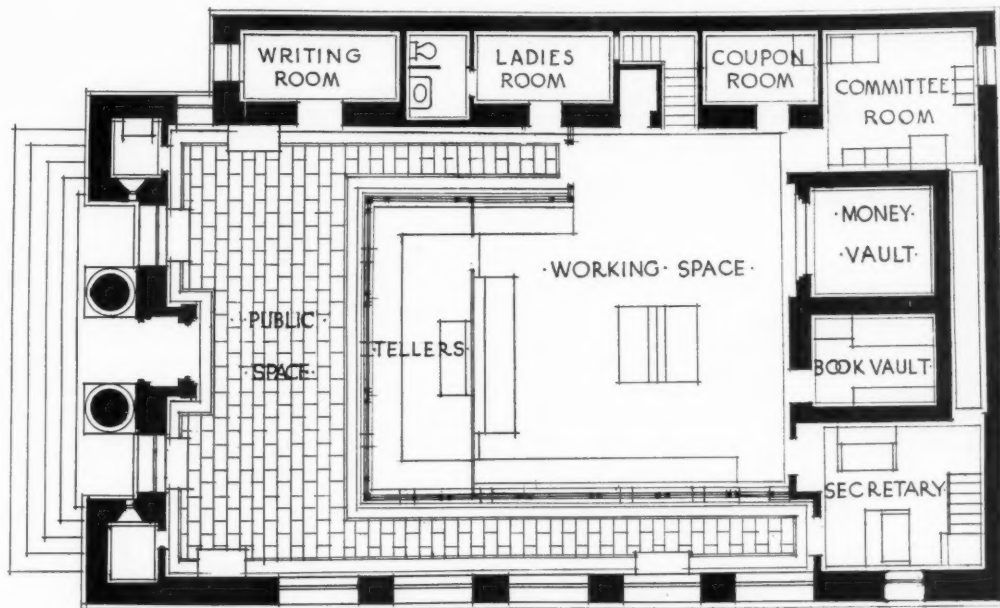
as little as possible. Indeed, one of the most agreeable views of the interior is the sight of the dark walnut furniture of the directors' floor against the soft tones of the Caen stone walls.

The bronze cornice of the bank screen has only been made wide enough barely to conceal the system of lighting behind it, here, too, obscuring as little as may be the view of the treatment of the rear of the room.

The design of the screen itself merits attention. Its ornaments are the oak leaves and pine cones of

non-fireproof. Instead, therefore, of imitation wooden furniture it has been made to look what it really is, a product in metal, enameled in a soft, warm gray, to great advantage in looks and usefulness.

The interior has a wainscot nine feet high of plain slabs of Botticino marble, and this architectural basement supports walls, pilasters and entablatures in Caen stone. Above is the fine, simply coffered ceiling, without elaboration save for the pendants at the intersections of the beams.



MAIN FLOOR PLAN

the Adirondacks and in the panels are replicas of old Greek and Roman coins.

The wall check desks are supported on bronze brackets, adorned by the head of Benjamin Franklin, that genius of honesty, industry and thrift. The two massive chandeliers are embellished by stags' heads, which take their place naturally and effectively in the upper part of the design.

The bronze tables and stools have had their inspiration in some old bronze furniture dug from the ruins of Pompeii and now in the Museum at Naples.

The working space is ample and a new treatment has been given to the metal furniture, usually finished in imitation of oak or mahogany. It is a thoughtless imitation on the part of the manufacturer to make his fireproof material appear to be

Instead of the usual trite architectural ornamentation of the frieze it was suggested that inscriptions be placed here, on the ground that the Roman lettering is always decorative and beautiful and that it would not be inconsistent with the dignity of the institution to inscribe here phrases calculated to draw attention to the virtues of economy and proper preparation for the future. There were ultimately five appropriate sentiments with which to embellish the architecture. This was not such an easy task as might be supposed, for the space was limited and the conditions rigid, demanding two shorter phrases for the east and west walls and longer for the north and south. The selections were as follows:

North wall—Saving is a greater art than earning. A penny saved is a pound earned.

East wall—Diligence is the parent of Fortune.

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South wall—The first years of a man must make provision for the last.

West wall—Frugality is the mother of the virtues.

In the center of the west wall, above the balcony, is the stone-faced, bronze clock, under which, in dark bronze letters, is the dedicatory inscription:

To all who love

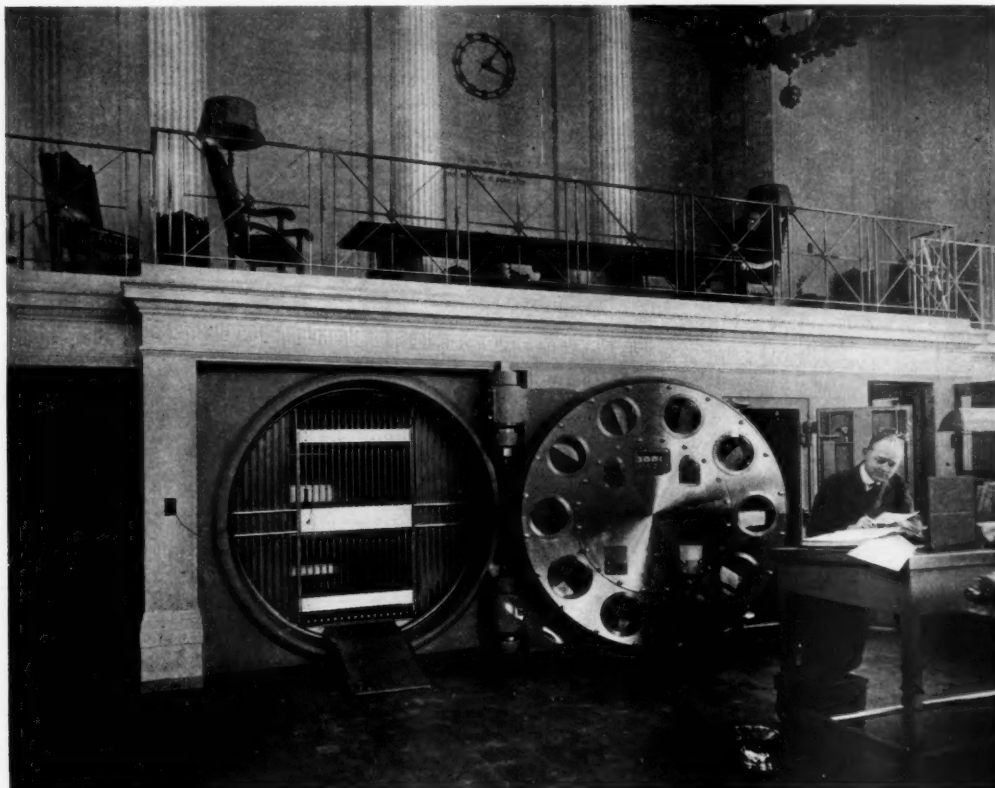
Honesty, Industry and Thrift

This Building Is Dedicated.

In developing the pilaster treatment of the in-

architecture. Every ornament, whether upon exterior or interior, has a definite relation to the work of the company, whether in reference to the traditions of the past, or its aspirations for the future. And that is what was meant when was said, "To the architect with a particle of imagination the possibilities offered by the bank building for sympathetic, appropriate and noble architecture should make an instant appeal."

ALFRED HOPKINS.



VIEW SHOWING LOCATION OF DIRECTORS' ROOM ON BALCONY AND ALSO HOW THE MODERN BANK VAULT OVERPOWERS ANY POSSIBLE ARCHITECTURE

terior the spacing worked out so as to form a grouping of pilasters at the corners. Over these the frieze has been ornamented with designs of old Roman coins and the classic and appropriate Acanthus scroll has been made to hold the pages of an open book, upon the open faces of which have been inscribed, respectively, the words, "Security, Safety, Service, Strength."

From all this it will be seen that both the exterior and the interior are of dignified and restrained

The following note to the above description by the architect was appended by the officers of the bank:

Mr. Hopkins has been all too modest in his description of the building that his genius has produced. He and his partners, Charles S. Keefe and John H. Scarff, have given us what the large percentage of visitors say is the handsomest banking building in the State, in which judgment, allowing much for the great variety in taste, we concur. It

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DETAIL IN PRESIDENT'S ROOM

is not only of remarkable beauty, inside and out, but pre-eminently adapted to every need of a country trust company. We count ourselves peculiarly fortunate that Fate (for it was nothing else) brought us in contact with these gentlemen.

Climate and Architecture

The Literary Digest, in a recent issue, comments on the opportunity found in this country to study the effect of climate on architecture. It states:

"Is there any connection between the one and the other? If you were shown a picture of a house in New Hampshire, one in Louisiana, and a third in California, would you be able to sort them correctly? In many cases, doubtless, there would be difficulty; for the natural tendency of a man to adapt his dwelling to climatic conditions has often been nullified by ambitious architects. Still, it is the opinion of Dr. Andrew H. Palmer, Fellow of the American Geographical Society, who writes on the subject in *The Scientific Monthly* (New York,

September), that our architecture does show the effects of climate, despite adverse influences. One does not prepare for outdoor life in a New England winter, nor provide double sashes and doors in Southern California. Writes Dr. Palmer:

"Numerous causes contribute to the great variety in building design in the United States. For a given type of building the more important considerations which determine the design are the natural environment and the building material available. Climate may properly be considered as a phase of the natural environment. As an influence in determining the design of large structures like hotels, office-buildings, and apartment-houses, climate is a subordinate consideration. Seattle office-buildings resemble those of New York, and San Francisco hotels are not greatly unlike those of Boston. In the domain of domestic architecture, however, that concerned with a detached building used as a dwelling-place, climate is a dominating influence. In the construction of our homes we have learned to adapt ourselves to our environment.

"Even in planning the surroundings of a dwelling the architect now considers climate. The typical New England home is surrounded by shade-trees, is often vine-covered. As the foliage is absent in the winter, the desired sunshine is then secured, while in summer its shroud of verdure promotes coolness in the dwelling. In the Middle West, trees serve another useful purpose, in that they act as wind-breaks on the level, wind-swept prairies."

Other climatic factors that must be regarded in planning a house are exposure to sun, wind, and rain. "The proper exposure of chicken-coops was considered long before that of our homes," says the writer. The sleeping-porch—a recent detail—shows that we are paying more attention to the hygiene of climatic influence. Dr. Palmer's conclusion follows:

"The careful architect can not and does not disregard the weather records in planning. Considerations of comfort demand that the type of construction, the arrangement of the rooms, the exposure and the heating system, should be adapted to the climate of the region concerned. Considerations of safety demand that the construction shall be made to withstand extremes greater than any which appear in the recent records. Just how large a margin of safety should be provided for is a complex problem, and one whose ultimate solution rests upon an extended weather-record for the particular vicinity considered. Matters like these have influenced the design of the home, which, like many other things, has evolved rapidly of late, and is even now in a transition stage."

DEPARTMENT OF ARCHITECTURAL ENGINEERING

The Making of Camp Lewis

The War Department's Largest Cantonment, on American Lake, State of Washington

THE War Department's biggest cantonment for the housing, care and training of the great new army of the United States is located at American Lake, in the State of Washington. Built for the immediate occupancy of 48,000 troops, it was completed within eight weeks after the

dent of any serious kind to men or materials, and without sickness of any kind among the host of those employed.

Many years ago the militia of the young State of Washington established the first military encampment at American Lake. It was called Camp Mur-



BARRACKS FOR SUPPLY COMPANY

Volunteer Landscape Gardening by men of the new army

construction chart had been finally approved by the Government authorities. The contractors established a record not only for speed, but one that is unique in other respects. The great work was accomplished, to the complete satisfaction of the Government, without dispute of any kind between contractors and Government or local authorities, without labor trouble of any kind except the inevitable shifting of personnel at pay days, without acci-

ray and has since then been occupied nearly every year, for a fortnight or so, by the small body of State troops brought together for practice and maneuver. Last year the War Department let the fact be known that it was considering the establishment of a large military post in the Pacific Northwest. Citizens of Pierce County, in which American Lake is situated, determined to secure the location of the new post. By act of the State Legislature they were permitted

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to bond their county for the amount needed to acquire the site, and early this year they turned over to the Government and obtained acceptance of the splendid tract of 70,000 acres. When war was declared the improvement of this tract became a matter of immediate consideration. With the passage of the selective draft bill instant decision and speedy construction became imperative. The engineers and cantonment planners of the War Department were put to the work at once. On June 14 the contract for construction was awarded to the Hurley-Mason Company. The chart indicating the number of buildings of each type to be constructed was put in the hands of the contractors on July 2. was modified on July 5, and finally approved on July 10. Soldiers of the new army were to arrive on September 5 and must be taken care of. Eight weeks were thus allowed for the gigantic task. And in that time it was done.

The cantonment at American Lake, the only one west of the Rocky Mountains since the Government abandoned its plan for building at Palo Alto, California, is called Camp Lewis, named in honor of Meriwether Lewis of the historic Lewis and Clark expedition which held the great Pacific Northwest

to the domain of the United States. Camp Lewis includes four brigades of infantry, one of heavy artillery, one of field artillery, engineers' regiment and train, supply train, ammunition train, signal corps, headquarters' buildings, hospital corps, and remount stables.

The cantonment is built in the general shape of a U, the size of which is indicated by the fact that the service railroad, running from one tip of the U around the base to the other tip, is five miles in length. Streets in the cantonment are laid out in orderly fashion and numbered, and each building carries its number and designation corresponding to its use. The buildings are of several different types and include barracks for the soldiers, officers' quarters, mess houses, store houses, lavatories attached to each building, stables and sheds. The number of buildings and their use is indicated as follows:

Infantry	504
Division Headquarters.....	9
Brigade Headquarters.....	24
Field Artillery.....	246
Engineers	20
Signal Corps.....	10



ONE OF THE PUMPING STATIONS



ONE OF THE TWO HUNDRED AND FIFTY BARRACK BUILDINGS FOR ACCOMMODATION OF TWO HUNDRED MEN EACH

Headquarters Train.....	8
Ammunition Train.....	18
Supply Train.....	8
Engineers' Train.....	4
Sanitary Train.....	24
Heavy Artillery.....	228
Telegraph and Signal.....	8
Extra Buildings.....	28

These buildings, a total of 1148, constituted the original plan, but to these have since been added the fifty-eight buildings of the hospital group, and approximately 200 remount stables. The buildings are all constructed upon standard Government plans, most of the larger ones being built on the unit system, by which the length may be increased by simply adding other units.

All of the buildings are of frame construction. The barracks and officers' quarters have double floors with paper lining; the walls are ceiled on the inside and covered with building paper and siding on the outside. Two-ply roofing paper is used throughout the construction. The windows are sliding, and doors and windows are all stock size. The warehouses, stables and other buildings of that kind are finished on the outside with one-ply roofing paper with battens. The hospital buildings are of a better class of construction and have wall-board partitions and ceilings, whereas the partitions in the other buildings are ceiled.

On a work of such magnitude, with everything to be completed and in readiness within so short a

time, it was necessary to attack virtually every part of the undertaking at the same time. While the buildings were under construction, work was also in progress on the improvement of the site, road building, installation of the water system and sewer construction. The generally level character of the cantonment site made little grading necessary. Ten saw-mills, established just outside the "legs" of the U, turned all the lumber into proper dimensions, and this was delivered at the exact point of use by rail or auto truck.

Meanwhile work proceeded on the sewage and water systems. The water for the cantonment is taken from five great springs, located west of American Lake. From these springs the water is pumped a distance of approximately 12,000 feet, through two 10-inch lines of wood stave pipe to three 200,000-gallon wood tanks located on a hill, giving a head of about 125 feet. The water then flows by gravity through two independent lines of pipe, starting with 14-inch, then 12, then 10, and so on, reducing in size. There are in use approximately the following lengths of each size of pipe:

14-inch	20,415	feet
12-inch	10,000	"
10-inch	30,320	"
8-inch	2,600	"
6-inch	20,000	"
Small iron pipe..	50,000	"

Total 133,335 feet or 25 miles



PLATE 220

THE ADIRONDACK TRUST COMPANY, SARATOGA SPRINGS, NEW YORK
ALFRED HOPKINS, ARCHITECT

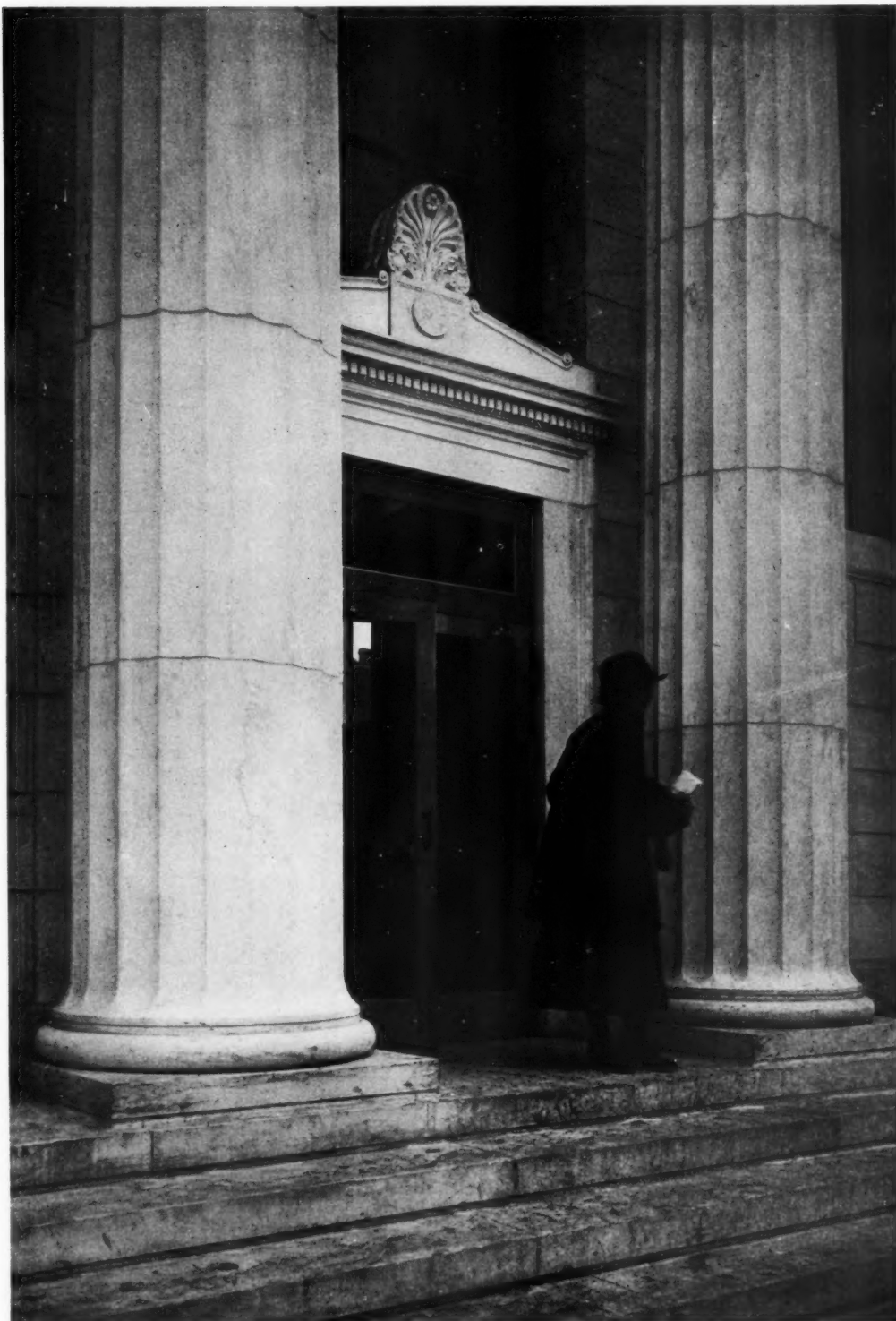


PLATE 221

DETAIL OF ENTRANCE

THE ADIRONDACK TRUST COMPANY, SARATOGA SPRINGS, NEW YORK

ALFRED HOPKINS, ARCHITECT



PLATE 222

BRONZE ENTRANCE DOORS

THE ADIRONDACK TRUST COMPANY, SARATOGA SPRINGS,
NEW YORK

ALFRED HOPKINS, ARCHITECT



PLATE 223

INTERIOR ENTRANCE DETAIL

THE ADIRONDACK TRUST COMPANY, SARATOGA SPRINGS, NEW YORK

ALFRED HOTKINS, ARCHITECT

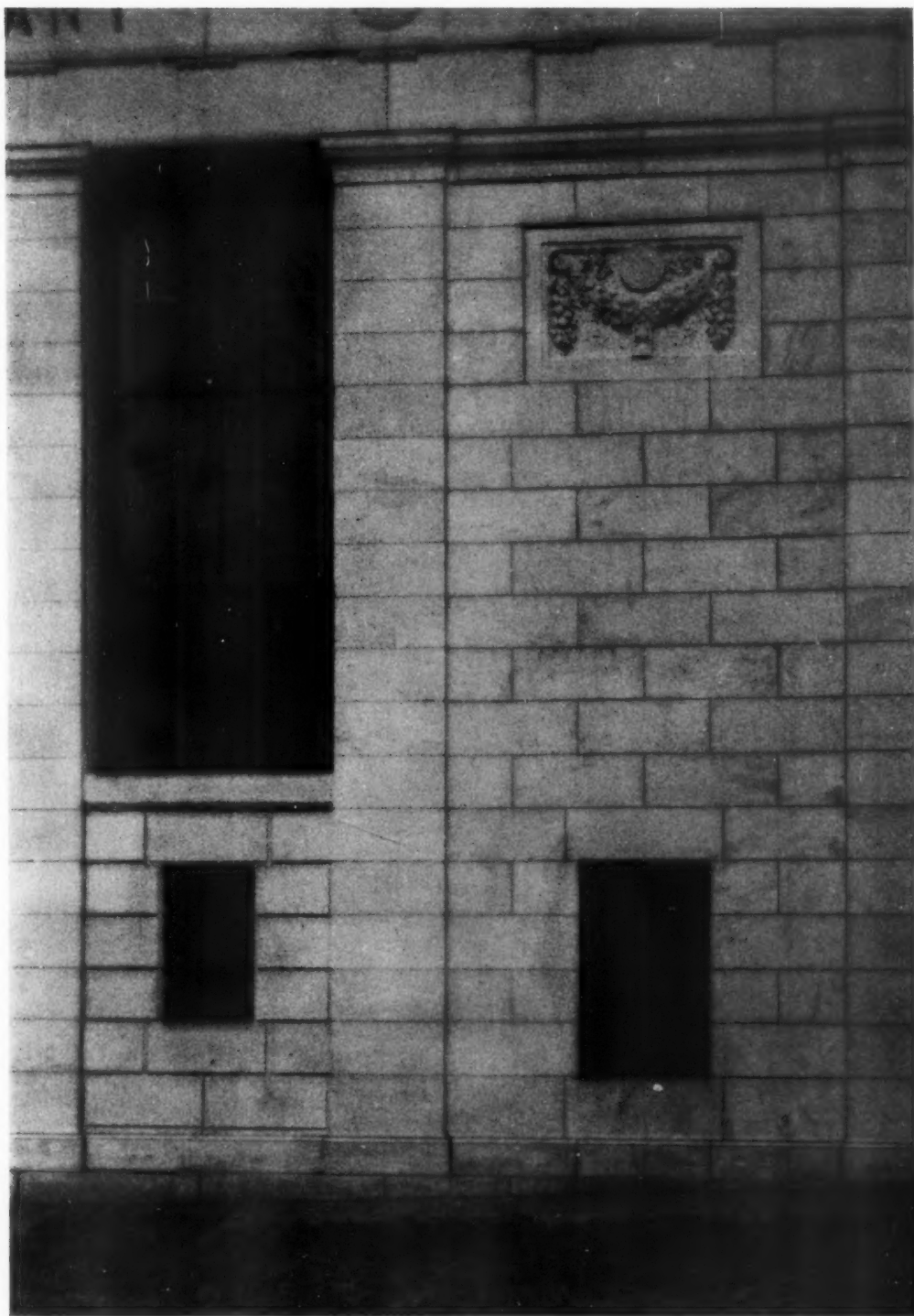


PLATE 224

EXTERIOR DETAIL

THE ADIRONDACK TRUST COMPANY, SARATOGA SPRINGS, NEW YORK

ALFRED HOPKINS, ARCHITECT



PLATE 225

EXTERIOR DETAIL, SHOWING GRILLE

THE ADIRONDACK TRUST COMPANY, SARATOGA SPRINGS, NEW YORK

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PLATE 226

GENERAL VIEW OF BANKING ROOM

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PLATE 227

MAIN VIEW OF BANKING ROOM

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PLATE 228

DETAIL OF ELECTROLIER IN BANKING ROOM

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PLATE 229

DETAIL SHOWING DIRECTORS' ROOM

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PLATE 230

DETAIL IN DIRECTORS' ROOM

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PLATE 231

ENTRANCE TO MEN'S WRITING ROOM AND A CORNER OF THE SCREEN

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PLATE 232

OUTSIDE WALL OF MAIN LOBBY

THE ADIRONDACK TRUST COMPANY, SARATOGA SPRINGS, NEW YORK

ALFRED HOPKINS, ARCHITECT



PLATE 233

SHOWING THE UPPER PORTION OF THE ORDER—ALSO SOME EXCELLENT ADVICE

THE ADIRONDACK TRUST COMPANY, SARATOGA SPRINGS, NEW YORK

ALFRED HOPKINS, ARCHITECT

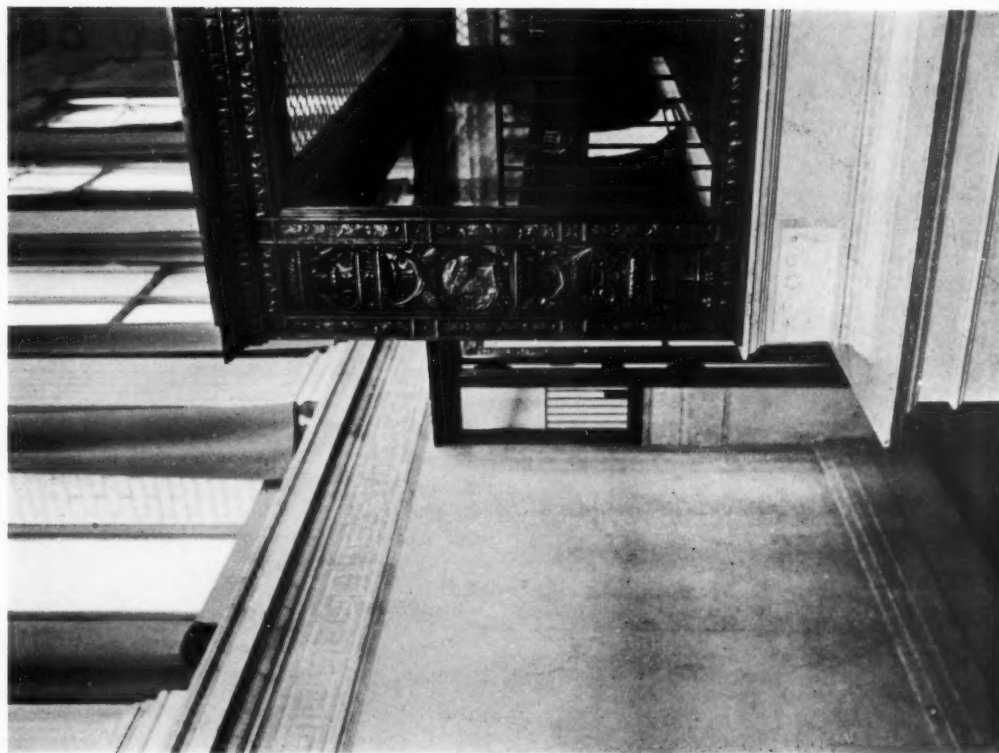


PLATE 234

WOMAN'S ROOM

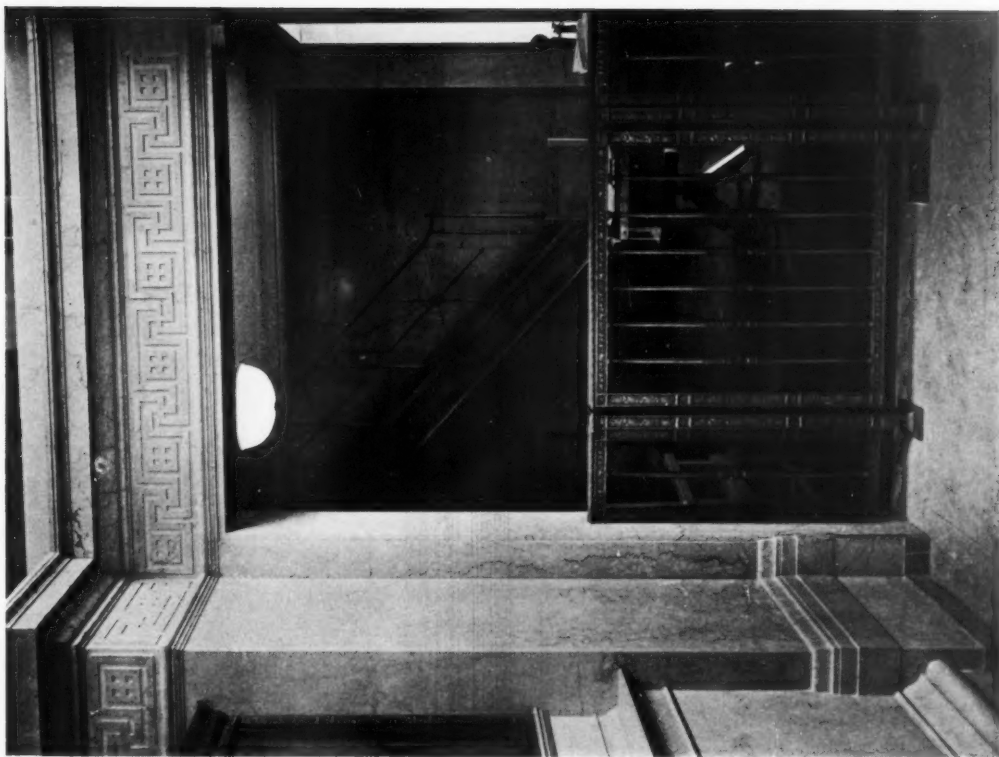
THE ADIRONDACK TRUST COMPANY, SARATOGA SPRINGS, NEW YORK

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DETAIL OF SCREEN

PLATE 235



DETAIL, SECRETARY'S ROOM

THE ADIRONDACK TRUST COMPANY, SARATOGA SPRINGS, NEW YORK

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THE AMERICAN ARCHITECT

The sewer system, like the water system, is of permanent construction. Terra cotta and concrete pipe have been used, ranging in size from 5 inches to 30 inches, and roughly divided as follows: 50,000 feet of laterals on the south trunk; south trunk proper, 7,700 feet; north trunk laterals, 44,384; north trunk proper, 8,452. These two trunk lines empty into the outflow sewer, 15,725 feet in length, crossing the highway and the main railroad line near the American Lake station, and thence crossing private property to a point on Puget Sound, where it is carried to deep water, making a total of 126,261 feet, or twenty-four miles of sewers.

The cantonment, streets and buildings are lighted by electricity. Electric current is purchased from the Puget Sound Traction, Light & Power Company and is distributed throughout the cantonment on Government poles.

All of the barracks are heated by stoves; the officers' quarters are heated by individual steam plants and the hospital buildings are all heated from one central steam plant.

The materials used in the construction of this cantonment have come from all parts of the United States. Inasmuch as the buildings are all of frame construction, the biggest single requirement in the way of material was lumber, and lumber being one of the biggest basic resources of the Pacific Northwest, the local product was used. The Government made contracts in Washington, D. C., for much of the other material. All of the cantonments were taken care of in this way, so that those nearest to sources of supply were not permitted to interfere with the supplies of those farther distant.

Except where the contracts were made at the National Capital, materials of all sorts for Camp Lewis were purchased as near to the work as it was possible to procure them. With so little time in which to complete construction it was absolutely essential to get the materials on the ground without delay. This involved, first, getting the orders out immediately; secondly, placing the orders with those who were able to fill them at once; and finally, obtaining speedy delivery through the contractor's transportation department.

Labor for the construction of Camp Lewis was obtained, in the first place, from Tacoma, the nearest city. When that source was exhausted the contractors reached into Seattle, Spokane, Portland, and even as far as San Francisco, to get the number of men necessary to complete the work on time. The work began with approximately 5,000 men employed, but the number was steadily increased until it reached a maximum of more than 10,000 men. Eight hours constituted the day's work, and the standard scale prevailing in Tacoma at the time the contract was awarded prevailed throughout the

period of construction. The commissary department of the contractors fed and housed all the men who wished to live in the camp, and those who preferred to live in Tacoma, about eighteen miles distant, went back and forth on special trains or by motor cars and auto trucks. Progress of the work was at no time disturbed or even threatened by labor troubles. Men quit from time to time for reasons of their own, and new men came to take their places, but the work swung through to completion without friction.

A very complete and effective system of organization was naturally required in order to carry on the big undertaking and turn the cantonment over to the Government, ready for occupancy, within the time allowed. The contractors' administration department dealt directly with the army administration, represented by Major David L. Stone, U.S.A., constructing quartermaster. The plans for all the work were furnished by the Government, and the entire construction was under the charge of Major Stone, to whom great credit is given for administrative ability, good judgment and practical common sense by all with whom he has had to deal in the course of the work. The contractors' administrative department directed and controlled the activities of all other necessary departments, as auditing, building, sewers, plumbing, heating, quantity survey, lighting, water, and commissary, out from and inter-related with which were the labor bureau, information bureau, time keepers, purchasing department, plant and plant transportation and repairs, stores and transportation, and bookkeeping.

Without the co-operation of Major Stone and the officers assisting him and the close co-relation in the workings of all the department of the contractors organization the work at Camp Lewis might have been seriously delayed and perhaps not completed with the time allowed. Major Stone was ably assisted by specialists in their various lines. The sewer and water systems were under Engineer W. J. Roberts; buildings under Captain Louis M. Lang and Captain Charles H. Alden; electric light and power under Captain James S. Irvine; the surveying under Captain Howard M. Smitten while, due to the vigilance of Captain Eugene G. Northington, there was absolutely no sickness during the construction of the cantonment.

And so it happened—chiefly for the reason that all concerned were determined it should so happen—that the work on Camp Lewis, the greatest of all the cantonments, ran smoothly and without interruption from its start to its finish. Some time before the date fixed for completion officers of the new army, fresh from the various officers' training camps, were moving into their quarters, and on September 5

(Continued on page 359)

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Mr. Malcomson's Address

COMMUNICATIONS printed in the October issue of the Bulletin of the Illinois Society of Architects referring to an address by Mr. Malcomson, president of the Michigan Society of Architects, at the annual dinner of the Illinois society, indicate the divergent opinions of their writers on the important subject discussed. The keynote of Mr. Malcomson's address was the lack of understanding by the majority of laymen, including those who are members of national and other legislative bodies, of the province of an architect. He urged as a remedy that a campaign be entered into to overcome this deficiency, supplementing the work now being done by the Institute.

The majority of the members of the profession will agree in this, the principal point of disagreement being in the methods employed to accomplish this result. The method proposed by the president of the Michigan society is the formation of a society distinct from the American Institute of Architects, although in close alliance, making the education of the public its particular object.

The majority of the correspondents whose letters are printed in the *Bulletin* rally to the defense of the Institute, claiming it is now doing all that can possibly be performed in the education of the laity to the real meaning of architectural practice. The

Institute already possesses sufficient machinery to serve for probably twice the activities it controls. The addition of further parts would only add to the complication of the work to be done and, as stated by President Mauran, would injure and possibly undo much of what has already been accomplished.

The fundamental note, individual concerted action by every member of the Institute in the place of a similar effort by a society, is sounded in a communication from Mr. George L. Pfeifer of Miami, Fla. There are a number of reasons for the lack of knowledge as to the true meaning of the functions of an architect, and the profession is not altogether blameless for these conditions. Many men fail to take the decided stand they should on questions arising between them and their clients. Self-respect begets a like quality in others. Architects by their attitude toward their clients should command the same respect that is accorded to members of other professions.

The absence of general art instinct in the majority of the people of this country is a contributing complication to this question and the failure to understand just what an architect stands for adds to his difficulties. The people of Europe are brought up in an atmosphere of art and absorb it naturally, while the average American is apt to deride anything suggesting it, or smugly denies any artistic tendencies. The Institute is, as President Mauran states, encouraging as far as possible the introduction into all grades of school, courses that will be of cultural and artistic value. Meanwhile, this lack of appreciation of art and its true application to architecture accounts for the indifferent interest that our legislators show in such questions. The problem before the profession is how to overcome this deficiency, and when a way is found, appreciation of the true meaning of the architect's function will have been acquired.

No amount of committee work, no amount of argument from outsiders, will convince legislative bodies of American representatives. Popular sentiment as expressed by constituents is the only argument to which legislative bodies lend a listening ear. This is evident in the fact that as a profession architects have no standing on the floors of legislative bodies. Their opportunities are limited to committee hearings and it is a certainty that the information placed before such committees rarely reaches the main body. If, perchance, it does, it is stated in so perfunctory a manner as to arouse little if any interest. It will therefore be apparent that the cure does not lie in the multiplication of societies or committees, but in concerted individual effort by members on individual members of legislatures.

Every member of the Institute should get in touch with his national Senator or Representative and con-

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stitute himself a committee of one on the education and enlightenment of that particular man. He should insistently bring these matters to his attention and by importunity convince him of the importance of this subject and the necessity for better attention. He should be made to understand the subject in its proper light and be brought to a point where he is as vitally interested in it as he would be were the question one that affected his future political life.

By this means there would soon be found in each House of Congress certain men who, when any subject of interest to the architectural profession arose, could and would speak with authority and work with effect. If in connection with this education of representatives there could be added a general effort to arouse the constituencies of these men to the importance of the subject, their opinions would carry so much additional weight.

During sessions of Congress members are extremely busy and have no time to devote to what to them are unimportant questions. The time to perform this educational work is during the intermissions of Congressional activity and not when their attention is fully occupied with other and to them much more important matters.

It has been charged that the members of the profession are lacking in public spirit. There is to a certain degree truth in this charge. It would no doubt help if they would at times enter the field of politics or public service. It is the duty of every man to serve in this way, and he owes it to his membership in a democracy. But that alone would not accomplish the desired result. It is concerted action along the lines laid down that will attain the ends

sought. We need to educate those to whose influence we look for intelligent legislative co-operation, but first of all we need to educate ourselves to the broadest possible view of the true meaning of our work as professional men. We can very profitably forego the discussion of academic problems now so common and busy ourselves with matters that have a much greater influence on our professional standing, now and in the future.

The Schuyler Mansion in Albany

IN the recent dedication by Governor Whitman of General Philip Schuyler's one-time home in Albany, we have the comment of the *New York Times* that New York has made a generous contribution to what might be called the "land-mark" history of the State. Excepting perhaps Fraunces Tavern in New York and Washington's Headquarters at Newburgh, there is possibly no house in the State of New York of greater historic interest than the Schuyler Mansion. This building has stood since its erection as one of the notable land-marks of the best period of Colonial architecture in the United States. Its history is connected with some of the greatest movements of our Revolutionary period, and among the guests who have sat about the table of General Schuyler were Washington, Franklin, Lafayette and Baron Steuben. In fact, the more important figures in the War for Independence at one time all were guests at the Schuyler Mansion. It will be a source of gratification to every architect familiar with this old land-mark in New York to learn that its preservation is assured.



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The Making of Camp Lewis

(Concluded from page 356)

came the first thousands of men chosen through the selective draft. Everything was found to be in readiness for them. The huge, short-notice construction feat had been accomplished. The job was done, and done on time.

Amounts of material used for the American Lake cantonment:

BUILDING MATERIAL

Lumber, feet, B.M.	55,000,000
Sash	84,900
Doors	13,050
2-ply roofing felt, squares	78,644
1-ply roofing felt, squares	16,933
Building paper, rolls	15,586
Wall board, square feet	519,560
Cement, barrels	10,010
Sand, cubic yards	4,751
Gravel, cubic yards	5,690
Nails, kegs	7,426

HEATING MATERIAL

Radiation, square feet	82,584
Steam boilers	147
Stove pipe, L.F.	33,771
Elbows	3,924

WATER PIPE

Wood stave pipe, 6" to 14", feet	95,000
Iron pipe, 3/4" to 2", feet	125,000

ELECTRICAL MATERIAL

Lamps	20,000
Drop cord, feet	57,000
Fuse plugs	15,000
Wire cleats	240,000
Screws	545,000
Insulated wires, feet	1,300,000

SEWER PIPE

Vitrified, 6"-24" feet	115,000
Concrete, 6"-30", feet	50,000
12" steel pipe, feet	568



TYPICAL BUILDING FOR A POST EXCHANGE

There are forty-five of these at Camp Lewis

The Art of Camouflage

The Problem of "Low Visibility" as Applied to Ships

A correspondent of the *Providence Journal*, writing from New York, describes at some length the work of William Andrew Mackay, the mural painter, in imparting to ships a "low visibility" that prevents their being either easily distinguished or accurately located. He writes in part:

Experiments which began at Newport more than four years ago are now culminating in the work of rendering merchant ships as nearly invisible at sea as the art-science of camouflage can make them. Vessels in certain ports of transatlantic trade are gradually changing their hues into curious medleys of color. But as one goes further away they quickly recede into the background in an astonishing way.

The transformation, in so far as it affects vessels in New York harbor, is under the direction of William Andrew Mackay, the mural painter, whose work in the creation of low visibility at sea was begun before the European war, and has now been carried to a stage of scientific perfection, which inclines certain Government officials and maritime men to the belief that in his application of color Mr. Mackay has devised one of the most effective preventives of successful submarine attack that has been put forward to date.

The basic theory is the merging of the hull and upper works with sea and sky. Even the non-military mind will appreciate in some degree the difficulties which attend accurate range-finding when the objective presents a vibrating or hazy outline, or alternately fades and reappears. The argument in this case is against successful shell-firing, while in the case of torpedo attack the chances of missing even under favorable conditions indicates most vitally the employment of low visibility as a means of increasing the average of inaccuracy.

Mr. Mackay's scheme of invisibility may be presented in a way easily grasped by taking as an example the rainbow. Now the phenomenon of the rainbow teaches us that what we know to be white light, or daylight, is composed of rays of various colors. If an object, say the hull of a vessel at sea, prevents these rays from coming to us, that hull naturally is clearly defined, the reason being that the iron mass shuts out the light rays behind it. The artist in question discovered as a result of his tests that by applying to the sides of a ship representation in paint of the three light rays shut out by the steam-

ship's hull, that hull is less visible than a similar body painted in solid color.

In a series of experiments made under supervision of the Navy Department an oil tank ship was so successfully painted in imitation of the color rays of light that at three miles the tanker seemed to melt into the horizon. This effect was noted in the morning, at noon and in the evening. In the case of ocean steamships more than 500 feet long and with funnel tops 200 feet above the water, no accurate range could be made for shelling at from three to five miles—the usual shelling distance—while at eight miles the vessels melt into the ocean mists.

Semi-Permanent Building

An article recently in the *Times* takes up the subject of semi-permanent building, that is, all buildings not intended to last longer than is required for the particular purpose and conditions for which they were built. The writer correctly points out that many buildings of widely different uses might well be built more cheaply and less solidly without being uncomfortable and unsightly. Proportion, color, light and shade, grouping, and the arrangement of surroundings, as he says, contribute much to the final effect of buildings, and they may be given full play in semi-permanent construction. There is here a problem for our most thoughtful designers, as the writer shows in his peroration when he says, "We cannot lay down what materials and styles should be used, for trade conditions constantly change. Semi-permanent work may therefore be of almost any material, and circumstances may lead to the invention of new combinations. But it cannot be left to the less expert designers. It is worthy of the best thought that can be brought to bear on it. It requires the highest skill to do well. The problem is to give good accommodation at low cost, in attractive form, and to provide it rapidly. Originality and quick response to continually changing conditions are necessary. The solution calls for a thorough knowledge of materials (not only of those in common use, but of all possible new ones and new combinations), clear-minded architectural thinking, and for organizing ability. Semi-permanent architecture involves science, art, and business ability, and it should therefore receive the attention of the architect and the engineer." One important point to which the writer does not allude is that under our present system of building acts and by-laws, semi-permanent construction is practically prohibited, and a drastic revision of our building enactments is required to give the necessary elasticity and freedom.—*The Builder, London.*

Cathedrals and Their Builders

Commenting on how seldom the architect of a great cathedral lives to see it completed, and the thankless task that falls to his successor, *The Architect and Builder* of London states:

"To finish another man's work is rather a thankless task; but it is a fairly common occurrence with architects, especially when the work is extensive and takes many years in the execution. St. Paul's Cathedral, thirty years a-building, and finished by the same three men—architect, master mason, and another henchman—who began it, is a marvelous example to the contrary. Too often the architect of a great building does not live to see it completed; not because, as someone has hastily said, 'great buildings kill their architects,' but obviously because the architect must have lived long enough to achieve eminence before he is entrusted with the building of a cathedral, and may therefore reach his natural term while the building is still incomplete. It is one of the advantages of the open competition that, by often bringing forward men who are quite young, it minimizes this risk of posthumous buildings, and it occasionally prevents the embarrassments that arise when the original architect dies without leaving any very clear indication of how he would finish the work. For usually a great building is designed by successive instalments; and architects differ as much as writers in their methods of creation. Some conceive the whole thing in their minds before drawing a line, and then seem to have arranged mentally every line that is to be drawn, and almost every detail of construction. They are apt to produce only the drawings required for immediate use, and if, unhappily, a man of this type is cut off in the midst of his work, his intentions perish with him. Another and much more common type of architect hastens to produce rough sketches of the whole scheme, and is apt to modify them radically in making the working-drawings. In either case, the architect who takes up the work that his predecessor did not live to complete is left without any very positive guidance, and in neither is he to be envied. In the former he has to work pretty much in the dark; in the latter he must decipher and develop as sympathetically as he can the sketchy hints that are apt to confuse rather than illuminate. In the rare case of complete designs being left for his guidance, what he gains in ease he loses in glory, for he is simply a supervisor of another man's work.

"In any case, it is a thankless task. It is probably best performed when the architect is able to

throw off courageously the restraints of a servile attempt to carry out literally the intentions—expressed or imaginatively assumed—of his predecessor, and to complete the building in his own way. Being an artist, he will, of course, secure a fine congruity with the work already done, will work in the spirit of his predecessor, without tamely essaying literal interpretation. But he will be fully aware of the impossibility of investing himself with the other man's mind—of the futility, indeed, of subordinating his own ideas to those which are neither his nor another's, but only a shadowy go-between. These difficulties do not arise when the originator is a master like Inigo Jones and the interpreter is the creature of his own mind, like Webb, having but little individuality of his own, but being of ductile and derivative intelligence. This may be unjust to Webb's strength of character; but certainly Inigo and Webb seem to have been as Svengali and Trilby; although, alternatively, it may be possible to assume that they combined as perfectly as Beaumont and Fletcher, and that Jones, a natural tyrant, inordinately fond of imposing his will on everybody, made, as tyrants often do, a solitary exception, and lavished on Webb the indulgence denied to all others. Wren and James Gibbs were in different case; Wren being of placable though tenacious mind, and Gibbs a sturdy though reverent disciple, interpreting the spirit of the master, but being no slave to the letter that killeth."

A Most Wise Precaution

We learn from a recent issue of the *Philadelphia Ledger* that Director Datesman of the Department of Public Works has asked the Finance Committee of Councils at its next meeting to appropriate \$1500 for the preparation of plans and photographs of Independence Hall, that its exact reconstruction may be provided for if the buildings were destroyed by fire.

Director Datesman said there were no official plans or photographs of Independence Hall. He asked to be authorized to employ through the city architect architectural, drafting, photographic and other assistance for an accurate survey of Independence Hall. A scale of full-sized and detailed drawings are provided for, with photographs of the interior and exterior. The plan provides that all drawings shall be subject to the approval of the committee on preservation of historic monuments of the Philadelphia Chapter of the American Institute of Architects.

Industrial Information

Bath Room Supplies

Supplies that will retain the general appearance of whiteness and cleanliness are especially desirable in bath room equipment. A catalog illustrating and describing White Pyralin closet seats and bath room supplies manufactured by the C. F. Church Mfg. Company, Holyoke, Mass., is recently issued and will prove of interest. Many styles of closet seats, low and overhead tanks, medicine and shaving cabinets, mirrors and various minor accessories are illustrated and described. These accessories are coated with Pyralin, a white substance applied by a patent process in sheet form and stated to be impervious to either heat or cold and warranted not to crack, chip or turn yellow, and to have a non-porous surface easily cleaned with soap and water.

Ethyl Alcohol from Wood

There is no reason for discriminating against ethyl alcohol made from wood in favor of that from grain or molasses, according to the Government chemists of the Forest Products Laboratory at Madison, Wis. The amount of impurities in commercial ethyl alcohol, they say, is very small, and the impurities are probably less objectionable when wood is used as a base than when grain or molasses is used.

The prejudice against the use for some purposes of ethyl alcohol made from wood is probably accounted for, the experts say, by a confusion with methyl or "wood" alcohol, which is poisonous. Both products are derived from wood, but are radically different. The ethyl, or grain alcohol, is made by reducing the wood to sawdust, treating the sawdust with an acid to produce chemical sugars, and converting the fermentable sugars into alcohol by fermentation, as in the case of grain or molasses. Wood alcohol is obtained by condensing certain gases which are liberated when the wood is heated in air-tight retorts, so that it decomposes without burning.

Ethyl alcohol has, it is stated, been commercially manufactured from wood for several years in this country. It is suitable for any use to which ethyl alcohol from any other base is put. Improvements on the processes which have been developed at the Forest Products Laboratory have made it possible to decrease the former cost of production.

Rare Woods

"The trouble with architects is that varnish makers have not been able to get them to take enough trouble to assure themselves that the right material is specified and used, so the material which preserves and develops the beauty of the woodwork is neglected, probably because of its small comparative cost."

The above quotation is from a letter from Franklin Murphy, Jr., president of the Murphy Varnish Company, received by THE AMERICAN ARCHITECT some time ago. Mr. Murphy's statement is true as to varnish, as it is also true for the vast number of things of minor cost that enter into the fabric of the completed building.

The ensemble depends so largely in its final and satisfactory result on these small matters that it is only those architects who realize the necessity for taking infinite care in all these petty matters of cost and the selection of the proper materials who achieve the most artistic results.

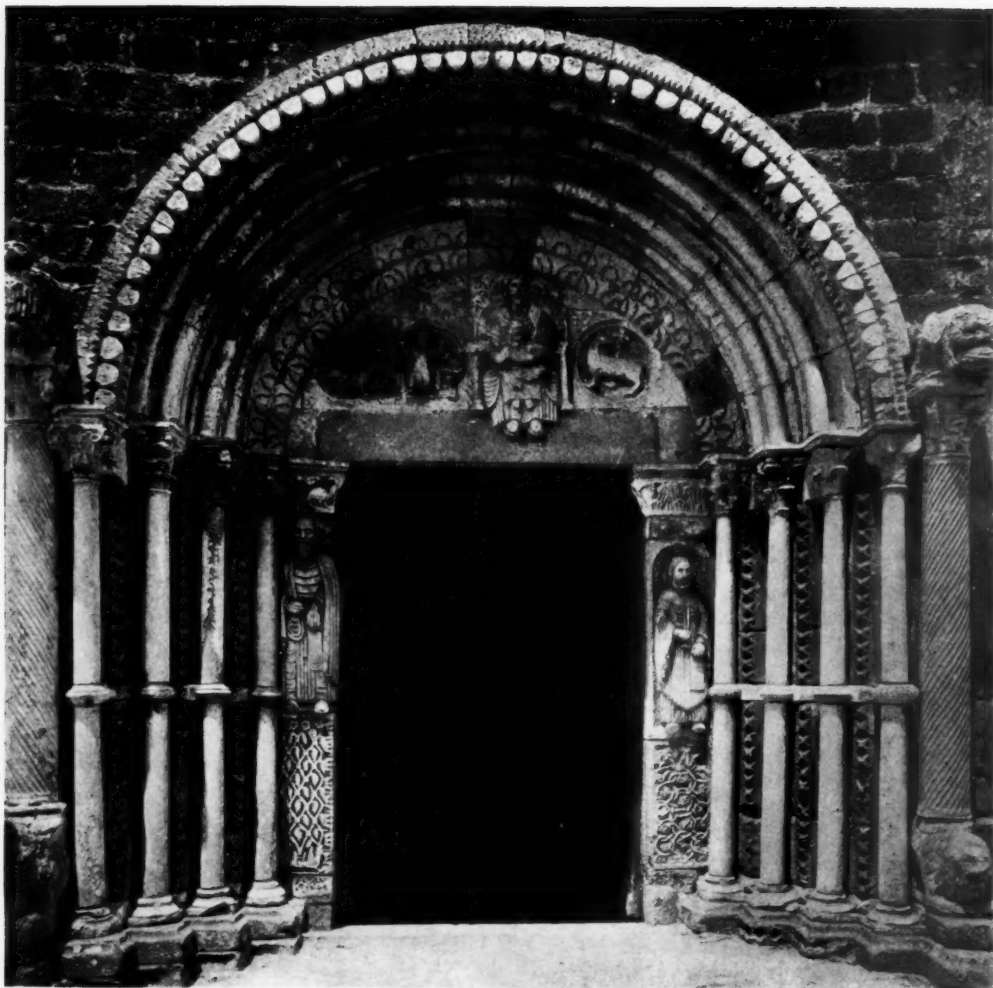
Probably it was with the intention of impressing the necessity of proper selection of materials that the Murphy Varnish Company has prepared and distributed a pamphlet entitled "Rare Woods."

Every argument will have the most direct appeal when presented in a dignified and thoughtful manner. Hence, believing in this axiomatic premise, this company has spent considerable money and expended a large amount of artistic knowledge in the preparation of a monograph that will have a very direct appeal to every architect and give him in the manner in which he likes to secure it information that is of much value.

The pamphlet is printed on a high quality of paper and is a fine example of modern typography, but its most valuable feature is the introduction of a series of plates representing the rare woods used in decoration. These various woods have been so cleverly imitated that in each case they might be taken for tissue—thin veneers from the woods themselves.

They afford an accurate means of identifying the rare woods used in decoration, while the accompanying text, prepared with fine technical knowledge, describes the various physical characteristics, presents some historic allusion, with but brief reference to the best varnish that will preserve and enhance the artistic qualities of these woods when used decoratively.

The pamphlet may be had by application to Murphy Varnish Company, Newark, N. J., or Chicago, Ill.



ENTRANCE DETAIL, CHURCH S. MARIA MAGGIORE, ROME

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