

# THE FEDERAL ARCHITECT

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THE ASSOCIATION OF FEDERAL  
ARCHITECTS

WASHINGTON, D. C.

# PUNISHING TRAFFIC



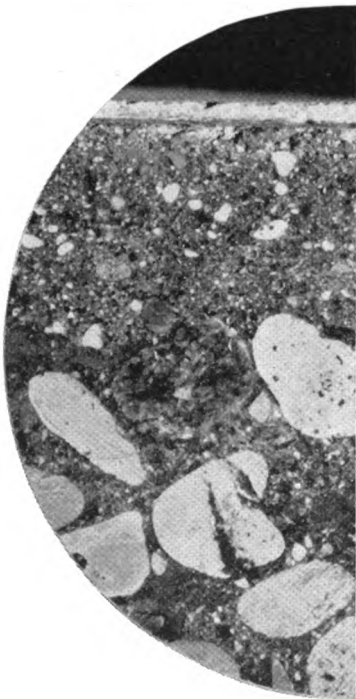
# HOLDS NO TERRORS

## For the Floors You Top This Modern Way

Resistance to wear depends on the way you top a concrete floor. Plenty of coarse aggregate at the surface makes a floor that won't scale . . . won't dust . . . even after years of pounding by heavy traffic.

### WRONG

See that white line? It's a "dust on" type of finish, too soft, too porous to stand the gaff of wear. Picture shows a cross-section cut from a slab that crazed in ten days after finishing.



### Top your floors this simple, modern way:

- 1 Two parts coarse aggregate ( $\frac{1}{8}$  to  $\frac{3}{8}$  in. grade) to one part cement and one part coarse-grain sand for your topping mix.
- 2 Be a miser on mixing water—not more than five gallons per sack of cement.
- 3 Float at once. Then give it a rest (usually about 30 to 40 minutes) until the water sheen disappears. Then trowel to the desired smoothness. Prevent drying by curing under a wet cover.

Easy? Sure it is. Successful? Thousands of jobs have proved it so. Economical? It usually costs less than the old-fashioned sand-cement topping. More information is yours for the asking. Just write to the Portland Cement Association.

### RIGHT

See the coarse material in the surface of this section? This is the kind of concrete floor that gives lasting satisfaction. Yet it is simple to lay and ordinarily costs no more than the old-fashioned method.

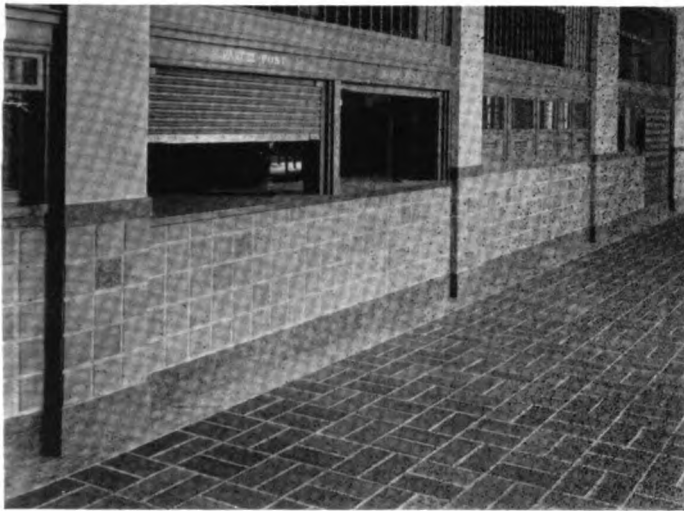


**PORTLAND CEMENT ASSOCIATION**

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# QUARRY TILES for WAINSCOTS

**ECONOMICAL - ATTRACTIVE - DURABLE**



*LOBBY  
UNITED STATES POST OFFICE  
POMONA, CALIFORNIA*

*Wainscot—6x6 Buff, Orange to Brown Quarry Tile with inserts.  
Floor—5¼x12 Red Fireflashed Quarry Tile.*

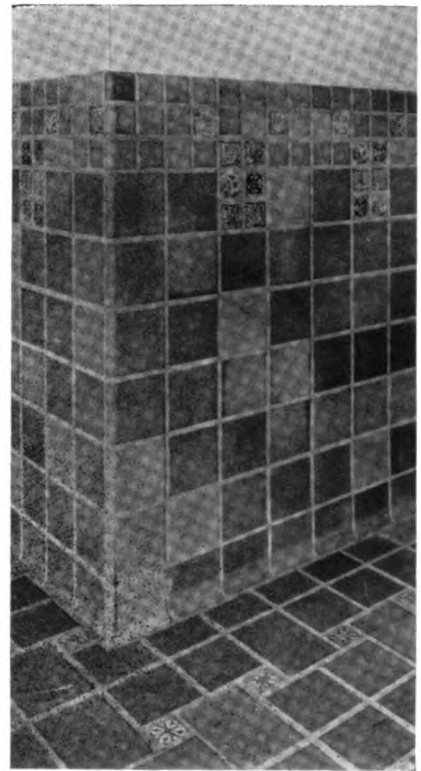
Wainscots of Romany Quarry Tiles will remain attractive as long as the building stands.

New colors and shades developed permit wainscot treatment to suit any requirement.

A number of attractive Quarry Tile Wainscots have been used in Federal Buildings completed or now under construction and have been specified on many others.

Complete data gladly furnished to designers of new projects.

Both projects illustrated were designed by Office of Supervising Architect—Treasury Department.



*CORRIDOR  
UNITED STATES POST OFFICE  
SPRINGFIELD, MASS.*

*Wainscot—6x6 and 2¾x2¾ Quarry Tile with inserts.  
Floor—6x9 and 6x6 Quarry Tile with decorated inserts.*

*Representatives in  
principal cities.*

**ROMANY**  
**TILES**

*Special Booklet  
upon request*

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**UNITED STATES QUARRY TILE CO. PARKERSBURG, W. VA.**  
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*Photo by W. D. Sydney, Kenosha, Wis.*

*UNITED STATES POST OFFICE, KENOSHA, WISCONSIN*

*Office of Supervising Architect, Architects*

*This project was designed to harmonize with the monumental buildings that fronted the Civic Center Plaza. Special study was required for a one-story Post Office that could compete with the Court House and High School, both of which were three stories. All three buildings are faced with limestone and form the main group of an excellent example in city planning.*

# THE FEDERAL ARCHITECT

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■ WE had a great deal of pleasure lately in reading an article by Mr. Will Rogers in which he dipped pleasantly and casually into the Public Building situation.

It must be nice to be a Will Rogers and have the privilege of taking up a subject hitherto unfamiliar to one and laying down an explanation of it for the whole country—knowing first, that the country will read it, and second, that they will mould their opinions upon it.

Mr. Rogers, we understand from our secret sources of information, obtained a copy of the release of buildings under date of August 18th and sitting back with his feet on the table, held the list before him and explained just what was the matter with it.

That is a gift few of us have.

His mind works with lightning rapidity. In the case of the Federal building at New Bern, N. C., he said at once, "Why should that town have a building. I never heard of it."

A very fair basis that, for judging what towns need buildings. If Will Rogers were made the deciding power in choosing buildings, no one could resent his selections, because there would then be no favoritism. There would be no need to bring out any stuffy statements concerning the fact that the present quarters at New Bern are in an ancient, non-fireproof crate, where a heavy court docket is handled. That is too serious—people would not read it. But Mr. Rogers would simply say, "New

Bern. That gives me a laugh. I never heard of it. Throw it out."

There you are. No prejudice. Nothing to it.

We wonder if we couldn't get Mr. Rogers into the Treasury Department to simplify all building problems and make them easy like that.

Everything is so complicated for us. There are so many forces pulling this way and that, so many people to be made happy, so many requirements to be met. If we had a Rogers to knock down all troubles and make big, effortless decisions in a big simple way—let us say every day before ten in the morning—how easy life would become for us.

Mr. Rogers mentions the border station at Calais, Maine. There was a little creaking of the mental machinery in this case, as it seems he did not know what a border station was, but that sort of thing is to be expected. The main point is that he made up his mind quickly and intimated that it was a great mistake to put a border station, whatever a border station is, at a place like Calais, whatever kind of place Calais is.

The thing that amused us most was that Will became a little serious. The San Francisco-Los Angeles set-up in the list was too much for even a humorist to take humorously. Two million dollars to San Francisco, and to Los Angeles, which is practically a suburb of Beverly Hills, only sixty-three thousand.

At that we have to sympathize with him in that the building given Los Ange-

les was merely a quarantine station, concerned only with the health of the place. Most of us agree that if we could only abolish all quarantine for the fair city of L. A. and let a swift, painless epidemic waft Heavenward some of the faces we see too often on the moving-picture screens, it would be helpful.

Everybody would probably be in favor of appointing Will Rogers to select places for buildings, roads, and dams.

It would certainly be done without seriousness. And what a supreme opportunity it would be to be funny.



■ IT was our pleasure to spend a pleasant lunch period with our genial friend, Mr. Ben Betts of the American Architect, whom we like very much. We don't always like his line of reasoning. We happened to recall that he favors having government buildings designed by private architects.

We explained to him that he had based the above opinion upon the fact that he hoped outside architects could do the work cheaper and better. We begged him to go into that matter and find out what the relative cost of outside architects' drawings, and government drawings actually was. And also to look at some of the government work designed by private architects. We warned him that we feared the architectural profession was letting him down. They wouldn't make the drawings cheaper than the government, they wouldn't build the building cheaper than did the government, and they wouldn't—if we may believe our eyes—make that astounding architectural improvement, which had been promised. In fact—well, we told him to look at the photographs of a few buildings.

■ INSCRIPTIONS are a great temptation to architects. There are few members of our great profession who can take them or let them alone.

The designer looks at an empty space on his elevation, frowns, and then, as the light of a great idea breaks upon him, exclaims "Ah! Just the place for an inscription!"

So he prints neatly upon his sketch: "Now is the time for all good men to come to the aid of their country," admires the decorative quality of the letters—and leaves the wording of the inscription, which is the major part of the problem, to be wrangled over by others.

The flaw in the architects reasoning is that he considers an inscription as a decoration, an appeal to the eye; whereas it is a literary matter, an appeal to the mind and the emotions. The architect seems not to realize that when he writes upon his contract drawing—"Inscription. Three hundred letters"—he is stepping into the field of letters of which his training gives him little understanding.

On the New York Post Office is the very zenith of achievement in inscriptions. We always try when in Pennsylvania Station to go out by the Eighth Avenue entrance and read the sonorous words: "Nor rain, nor snow, nor gloom of night stays these couriers in the swift completion of their appointed rounds."

There is poetry and eloquence in that. But how seldom is that supremacy of expression attained. Most of the inscriptions devised or selected by architects are picked with a thought to their architectural appearance only. They have the requisite number of letters but there, so frequently, the merit of the inscription ends. Too often, its sentiment and its sound value have the flat triteness of a Fourth of July political oration and, unintentionally, the inscription therefore is a painful insult to the intelligence of the public reading it.

When an inscription becomes an ab-

solute necessity we believe there should be some fund set aside for payment to a competent authority to select or compose it. But, generally, under the head of "Advice to architects about to call for an inscription," we believe the proper reply is "Don't."



■ **W**E like to keep the architectural profession up-to-date. It is known that when the tide of prosperity comes in there will be different building requirements, new thoughts, new businesses to be tried. Architects must be prepared to understand and take hold of these newer matters. We therefore mention, for what it is worth, a quite new type of industrial plant.

In one of the large Eastern cities a young man has started a laundry for diapers. Those Ghandi-like pieces of clothing worn by the very young citizens of the republic. This enterprise is astoundingly successful. It will doubtless be repeated in other cities. Architects, we believe, should study up on diapers, diaper laundry machinery, sanitary conditions for diaper laundries and the various ramifications of this highly specialized business. Perhaps study should be given to special decoration—special diaper patterns perhaps. It is well to be prepared.



■ **I**T is hoped that the Construction Engineers will give more instructions to the photographers of "progress" and especially "final" photographs of new Federal buildings. It is evident that local photographers take these photographs at times best suited to their convenience, as but little study for shadows

are indicated. It is regrettable enough when no thought of shadows at 45 degrees are shown, but it is entirely inexcusable to take photos with the sunlight on a side elevation and leaving the front facade in shadow. Hardly any building is so oriented that the front facade is not illuminated by sunlight at sometime during a clear day and the photographer should arrange to take the exposure when the shadows are about 45 degrees.



■ **I**T was with no great feeling of joy that, as of 12.01 A. M., October 16th, we saw the good old Supervising Architects' Office, the oldest architectural office in the country, with its fine record for achievement and ability, buried without flag or volley in the Procurement Division.

The Procurement Division, a gigantic purchasing unit, is organized to perform efficient work and the Supervising Architect's Office will function satisfactorily therein, since it is the opportunity to do the work that is the concern of the office and not the name nor the bracket.

From a purely professional point of view, it is perhaps unfortunate that architecture should be submerged under the purchasing of coal and typewriters, necessary and important though those operations may be.

This eclipsing of government architecture has not been discouraged by the attitude of the American Institute of Architects, who have spread abroad the fact that they are not interested in good architecture unless they design it themselves.

This attitude has tended to convince official circles in Washington that if the architects throughout the country are not interested in the government having a spirited and capable architects' office,

no one else can be—and that scores one against architecture.

As to the Supervising Architect's Office functioning in the Procurement Division, we register no complaint. Aside from the fact that, from the point of view of the professions at large, it is desirable to have a medical unit appear as a medical unit, an engineering unit as an engineering unit and an architectural unit as an architectural unit, we can perform our work in one spot as well as another. In other words, a good team doesn't have to play on the home grounds to win ball games.

We are informed from conservative sources that the situation is such that no drastic organization changes are indicated within the office. The danger signal is not the transfer of the personnel to a temporary status under the Procurement Division. That would make dismissals easy if required, but they could have been made in August in lieu of the furlough system, had such a procedure appeared necessary.

The whole matter hinges on the relation of personnel to work. As to work the situation appears to be well in hand. It might be said that matters are in better shape than for some time past.



■ **W**HEN the new Commissioners are appointed for the District of Columbia it is hoped they inaugurate a new system for the naming of public schools in the City of Washington, by choosing the names of citizens of the city who have rendered civic service. The present practice of naming the senior high schools after past Presidents of the United States does not appear to give proper local spirit. It is understood that the latest senior high school is to be called Woodrow Wilson High School, although the drawings for it have not been finished as yet.

We suggest that the contemplated senior high school for the Manor Park section of Washington be named to honor the late Albert L. Harris. Mr. Harris, as Municipal Architect for the District of Columbia for a number of years, is credited with the architectural style of the new schools that has received so much favorable comment. He used the modern adaptation of the Colonial style and the McKinley High and Roosevelt High are the two most noted examples of recent construction.

Mr. Harris was active in many other civic activities and he taught various subjects of architecture at George Washington University and Catholic University of America. He was a prominent member of the Washington Chapter of the American Institute of Architects. The Association of Federal Architects hopes that the new Commissioners will see fit to so honor Mr. Harris.



■ **T**HE annual banquet of The Association of Federal Architects will be held on Thursday evening, November ninth at the Army Navy County Club, Arlington, Virginia. The guest of honor is Lawrence W. Robert, Jr., Assistant Secretary of the Treasury, but other prominent officials of the Public Works Administration, the War Department, Navy Department and the Veterans' Administration will attend.

This will afford the members of the Association of Federal Architects the opportunity to learn just what architectural service for contemplated public works will be required.

It behooves every member of the Association to keep in touch with the rapid changes that are being made in the planning of Federal buildings.





HON. LAWRENCE W. ROBERT, JR.  
*Assistant Secretary of the Treasury*

*WE take great pleasure in presenting herewith the portrait of the Assistant Secretary of the Treasury in charge of Federal buildings. He is unusually well fitted for this position in that he was formerly a practicing architect. An erstwhile football player and a person boasting many friends, he is a picturesque as well as a capable person in the stormy office which he holds.*

# The Veterans' Administration Home Biloxi, Mississippi



*THE HOSPITAL*

*Construction Division, Veterans' Administration, Architects*

ON August 10, 1933, there was opened formally the initial construction of the Veterans' Administration Home at Biloxi, Mississippi.

The present group of buildings will form the nucleus of the vast home which will grow up in the future as the needs arise, and, in anticipation of this, extensive plans for the completed scheme have already been formulated.

The present capacity is approximately 557, while the total population of the home, it is expected, within a few years will reach several thousand. Represented within this capacity will be found all classes of patients usually

included in the typical large general hospitals as well as those members classed as domiciliary.

The various stages to be encountered in the anticipated expansion of the home have been studiously charted in order that there shall be maintained at all times the proper relationship between the domiciliary members, the convalescent members and the patient members. The theory of this relationship is a sound one, based as it is upon the knowledge gained by those who, through years of experience, have operated the soldiers' homes.

The second construction, according to this

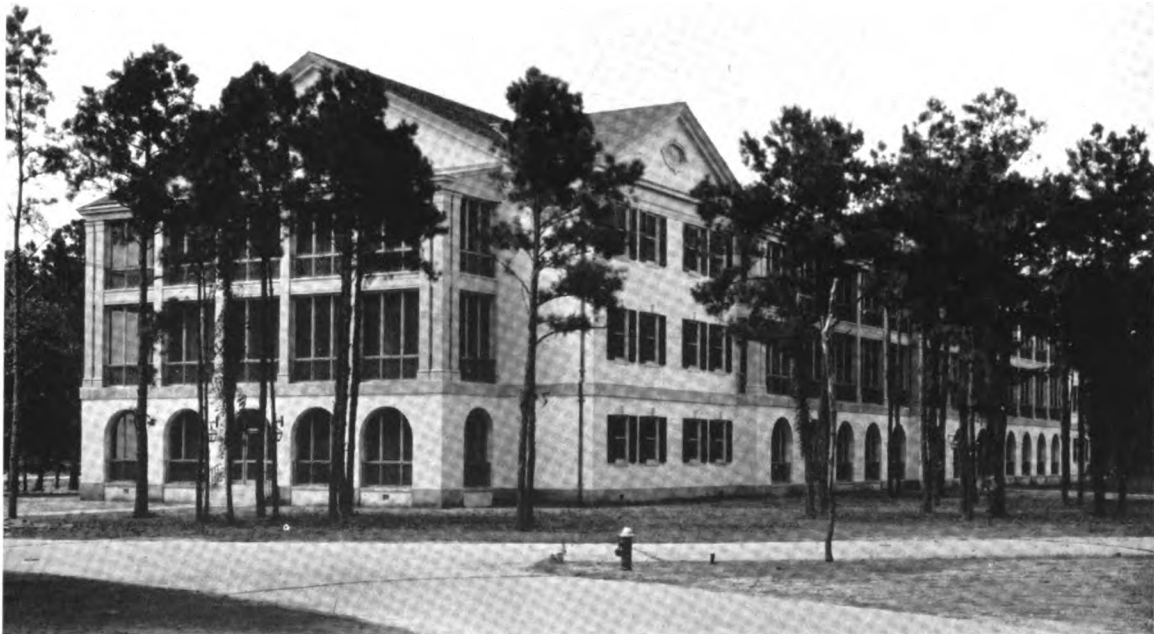
chart, will be one or two domiciliary buildings, extension of the hospital and the addition of another convalescent building. As these domiciliary buildings or barracks, already designed, will provide accommodations for 350 members each, the original Convalescent Building (used in the beginning as a barrack) will assume the role for which it was planned. And so the process of evolution will continue until the goal is attained.

To describe briefly the component parts of the present construction, it is quite obvious that the two largest and most imposing structures are, in the order named, the Hospital and the Convalescent Building.

The Hospital, only the central portion of which was included in the initial construction program, is designed to stand for all time as the dominating mass of the entire group of buildings. It has incorporated within it all of the features encountered in a thoroughly modern hospital, with clinics including the X-Ray suite, the electro and hydro-therapy unit, the dental surgery, the eye, ear, nose and throat treatment rooms, cardiograph, metabolism, the

operating suite, etc., examination rooms, ward diet kitchens and dining rooms, together with wards of various sizes and single rooms capable of accommodating a total of 207 patients at present. One wing, called the Dining Hall portion, is given over to the dining rooms and kitchen, with all of its preparation rooms, refrigerators and other dependencies.

In order to form a clear mental picture of the unique plan of this building it may best be likened to the plan of an aeroplane, the wings representing the hospital proper while the fuselage contains the dining rooms and the main kitchen. The hospital portion proper is a five story building with ample porches on all floors extending almost the entire length of the front and rear. Access to these porches may be obtained directly from most of the rooms, in this manner creating an atmosphere of spaciousness and homelike comfort. All of the wards and single rooms assigned for the use of the patients are designed on a generous scale while every advantage was taken of the prevailing breezes in the arrangement and the location of these rooms. The Dining Hall portion of the



CONVALESCENT BUILDING



MANAGER'S RESIDENCE

building is two stories high, although the exceedingly high second floor, wherein are located the main kitchen and the dining rooms, brings the roof line of this portion practically to the fourth floor line of the larger section. The central heating plant of the hospital is effectively concealed within the heart of the building, the main stack being carried up near the junction point of the two main sections and treated architecturally as a large chimney which fits in admirably with the picture.

Later on two large wings are to be built flanking the central portion on either side and will be connected with it on each floor by covered passageways. These wings will have a capacity of 250 patients each and when completed will raise the total capacity of the hospital to approximately 700.

The second largest building, known as the Convalescent Building, will house about 350 members, being used for the time being as a domiciliary building or barrack. It will be a third part of a future unit of three similar

buildings, each with its own dining hall adjacent. A separate kitchen serving these three dining halls will be constructed.

A nurses' home, several residences for the staff, a storehouse, a laundry, a garage, a pump house and a gate house complete the group. The first unit of the nurses' quarters, which has been built, will have added to it later the remaining two thirds. The central building of this unit will have a wing at the rear to contain a staff dining room and a kitchen.

The future domiciliary buildings will be built to the east of the hospital and convalescent group when the demand for these structures becomes evident.

The materials used in the construction of the buildings are brick painted white, stone bases, sills and trim, etc., and shingle tile roofs generally. The architectural treatment adopted for this Home was that of the Southern plantation type with high ceilings, white woodwork, wrought iron balconies, wide porches and rather low pitched roofs. It was felt that

this style harmonized with the atmosphere and the historical background of the locale.

The approach to the Home is via the Pass Christian Road running west from Biloxi, and, upon reaching the gatehouse and entrance gates, the entrance drive turns northward toward the Bay approximately three-fourths of a mile.

The site contains over 750 acres facing the Back Bay of Biloxi and extending southward to the Pass Christian Road. A portion of this site was contained within the old Naval Reserve Park upon which was located the Coast Guard Station.

The portion stretching along the Bay is preserved more or less in its natural state and forms a veritable semi-tropical garden. Span-

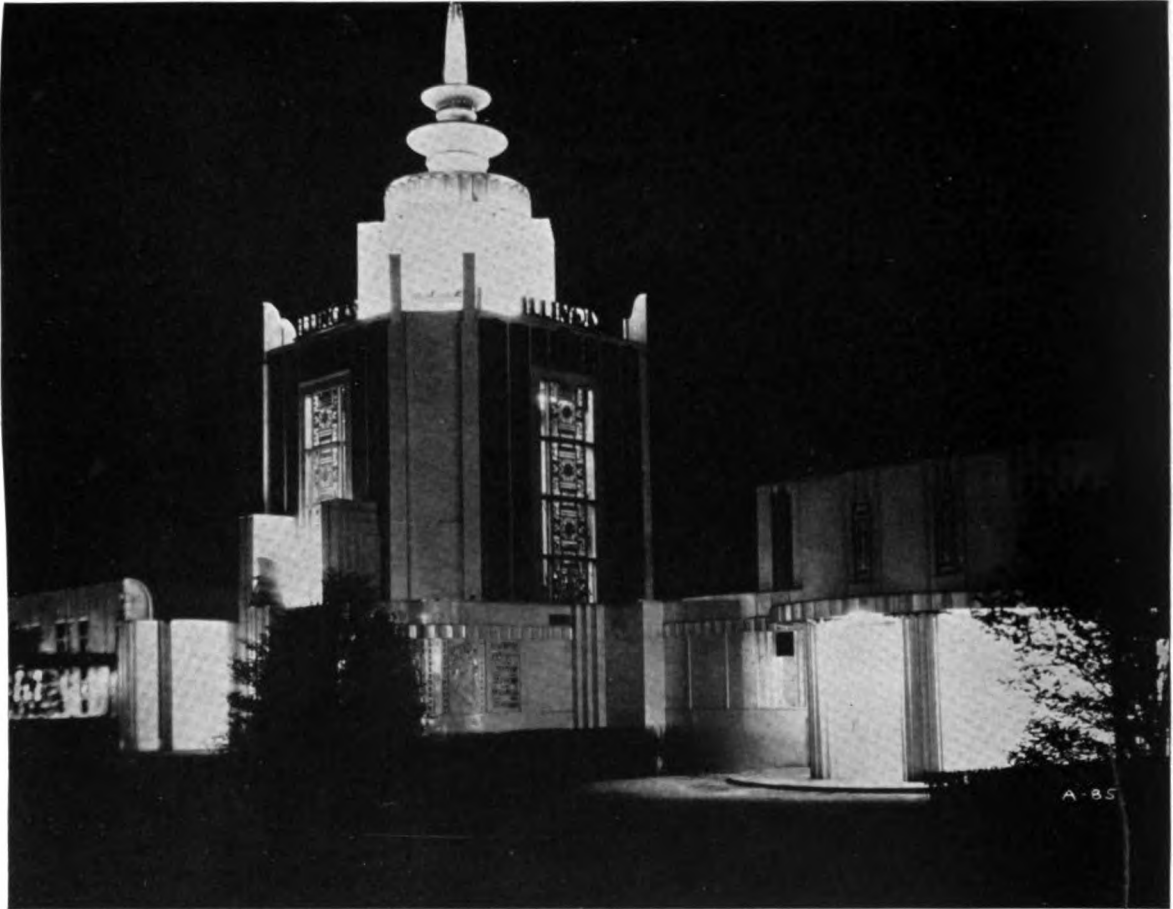
ish moss, hanging draped in heavy festoons from the limbs of trees, is set in motion by every gentle breeze and seems to form a sort of moving frame for every view of the snow white buildings with their moss green roofs. There are live and water oaks, palmettos, flowering vines and shrubs, magnolias, hickories and pines. Some of the largest and most magnificent specimens of magnolias to be found anywhere in this country grow on this reservation. These as well as the age old live oaks inspire a feeling of wonder and reverence in the visitor to these parts. Advantage was taken of this beautiful setting and the principal buildings are grouped immediately to the south of it, enough of the trees being thinned out to allow fine vistas over the Bay.



*DOORWAY OF NURSES' QUARTERS*

## Impressions At A Century of Progress

By WILLIAM T. PARTRIDGE, *Architect*



### NIGHT VIEW OF THE ILLINOIS HOST BUILDING

*Charles Herrick Hammond, Architect*

*A Century of Progress—Chicago's 1933 World's Fair*

THERE have been no better descriptions or photographs published, to my knowledge, as complete or as illustrative of the Chicago exhibit as in the special "Century of Progress Number" of the Architectural Forum. The photographs in this, as in most of the other illustrated magazines, are much better than the original buildings—they flatter the sitter.

Mr. Charles McKim often remarked—I cannot quote from memory the quaint way in which he phrased it—that, "It is not what is in

a thing that counts so much as what *you* see in it." So any description of this outstanding example of the most strenuous efforts of our most noted architects to produce a "Modern Exposition" becomes a sort of "give away." It is not what the Chicago exhibit represents so much as what the comments reveal of oneself. This point is borne out very clearly in the comments of both Mr. Cram and Mr. Frank Lloyd Wright in the article above mentioned.

The writer is frankly not convinced; his atti-

tude is a milk and water one. While there are breath-taking beauty spots, the greater part leaves one cold and one's mind wanders from architecture to note the great number of good-looking blondes among the visitors.

The architectural mind considers first the approach and then searches evidence of a logical plan. The approach from 12th Street is a bewildering maze of cross-over bridges through a county fair sort of entrance into a plaza where one pauses, naturally, to grasp the parti and sense the beginning of a grand plan. Architectural relations are established with the Shedd Aquarium and the Adler Planetarium. On turning to the right the main vista leads the eye through an impressive avenue of huge red flags terminating in a kind of gigantic Wedgewood-ware bas-relief with scalloped

edges. Beyond this, irritatingly off axis, is the parti-colored tower of the Science group. It seems an opportunity for a vista thrown away. To the left of this principal avenue appears the Administration Building, commonly known as the "Wash Board." It is an interesting composition in vertical lines with broad terminal piers which have been ornamented with gigantic ternes, colossal in scale, with a representation of—can it be flowing water? from their thighs!! Lining this principal avenue appears the cleverly designed building of Sears, Roebuck, with a kind of revolving dome, and the very decorative State Building of Illinois, a masterpiece in both composition and detail. The smaller buildings present charm and variety and are of intense interest architecturally; the larger buildings leave one flat.



GENERAL MOTORS BUILDING

*Albert Kahn, Architect.*

The problem of the designers was indeed a difficult one, with a certain amount of land at their disposal on the shore, and with two irregular islands of reclaimed land off shore, presenting a very pretty problem for solution. With little money, and with the requirements of maximum salvage, the architects were rigidly handicapped and have really accomplished an extraordinary piece of work, so it is hardly fair to judge them in the light of previous exhibitions.

To the writer's mind, one of the most interesting buildings, both from point of view of an exposition structure and of an architectural problem per se, is the General Motors Building, by Albert Kahn. It is extremely interesting to note the incorporation of the signs in the architectural design. While they are conspicuous, they seem an integral part of the architecture, and the buildings would be lacking without them. As a well-planned exhibition building it is outstanding, so well lighted that it refutes the strenuous claims of the windowless buildings of the rest of the group.

The Government Building in which the Federal exhibits are housed is one of those designed without windows. One month's personal experience within its walls in the hottest days of the summer weaned the writer from the windowless building idea. The exhibit adjoining that of his Commission was that of the Smithsonian Institution. Part of this exhibit comprised an Arizona desert with live fauna. It was so hot in this upper story that the attendant was compelled to purchase, at his own expense, an electric fan to keep the lizards cool!

The designers of this Government Building seem to have striven to produce the maximum

amount of architecture with the minimum amount of exhibition space. While they were compelled by the condition of the problem to have a large monumental hall for receptions, and an equally impressive approach, the building, to the writer's mind, is a failure as an exhibition building and much of his time was spent in directing lost and strayed visitors.

The Court of States was very impressive after one found the way in, but the individual exhibits were as varied in tastes as could be conceived. The only two "States" then finished responding to the "modern movement" were Indiana and New York, the first with the remarkable frescoes of Benson, and the second, New York, designed by Eugene Schoen, with the two chief features by Urban. This New York exhibit looks out upon a section of the Adirondack woods brought down intact to the last leaf, and so installed as to defy all traces of removal.

This brings to mind one of the outstanding features of the exhibit, namely, the marvelous transportation of full-size trees, orange groves, palms, and hedges, which, when the writer left, were flourishing and in excellent condition.

The much-advertised Transportation Building is bewildering in the lines of stays and braces on the exterior, is unimpressive and cavern-like and dark on the interior, and while an interesting experiment, is an outstanding example of what to avoid in the future.

For charm and picturesque qualities the Belgian exhibit group is unsurpassed by anything the writer has seen in this or past world's fairs.

The exposition is like Chicago itself, full of beautiful spots, of wonderful opportunities, but separated by the common-place and, at times, ugly monotony.





## Public Works Administrator Allots \$14,208,400 For 86 Post Office Stations

On October 14, 1933, the Federal Emergency Administrator of Public Works made an allotment of \$14,208,400 to the Treasury Department for the construction of 86 Post Office Stations, by the Supervising Architect, in the cities of Boston, Brooklyn, Chicago, Cleveland, New York, Philadelphia and Pittsburgh.

Chicago	Chicago Lawn	Postal Station	New York	L	Postal Station
	Cragin	" "	(Continued)	M	" "
	D	" "		Madison Square	" "
	Fort Dearborn	" "		Morris Hts.	" "
	Grand Crossing	" "		N	" "
	Hawthorne	" "		O	" "
	Hyde Park	" "		S	" "
	Irving Park	" "		T	" "
	Jefferson	" "		Times Square	" "
	Lake View	" "		Tompkins Square	" "
	Lincoln Park	" "		Tremont	" "
	Logan Square	" "		U	" "
	Morgan Park	" "		Washington Bridge	" "
	Pilsen	" "		X	" "
	Ravenswood	" "		Y	" "
	Roseland	" "		W	" "
	22nd St.	" "		Westchester	" "
	Stockyards	" "		West Farms	" "
Boston	Melrose	Postal Station	Cleveland	A	Postal Station
	Brookline	" "		B	" "
	Roxbury	" "		Brooklyn	" "
	East Boston	" "		East Cleveland	" "
Brooklyn	A	Postal Station		D	" "
	B	" "		E	" "
	Blythebourne	" "		H	" "
	Flatbush	" "		Lakewood	" "
	G	" "		West Park	" "
	Kensington	" "	Philadelphia	C	Postal Station
	Pratt	" "		D	" "
	Ridgewood	" "		E	" "
	St. Johns Place	" "		Frankford	" "
	T	" "		Germantown	" "
	Times Plaza	" "		Kensington	" "
	V	" "		Kingsessing	" "
	Y	" "		Nicetown	" "
New York	B	Postal Station		North Philadelphia	" "
	College	" "		O	" "
	D (Annex)	" "		Southwark	" "
	Fordham	" "		West Park	" "
	Fox St.	" "	Pittsburgh	Oakland	Postal Station
	H	" "		South Hills	" "
	Hamilton Grange	" "		Wilksburg	" "
	Inwood	" "			
	Kings Bridge	" "			

## Monolithic Concrete in Architecture

By W. E. HART

*Manager Structural Bureau  
Portland Cement Association*



ST. JOSEPH'S CHURCH, SEATTLE, WASH.

MONUMENTS to the memory of heroic dead are usually erected after their demise. Oddly, a monument to the memory of Horace Greeley was built unknowingly by himself. The renowned editorialist on one of his trips to Europe noted a wide structural use of concrete and resolved to try it out in this country.

Consequently, in 1852 he built a concrete structure on his estate at Chappaqua, New York, that was used as a stable until some time later when the Greeley home burned. Thereupon the stable was remodeled, a few windows were put in, hardwood floors laid, and the family established itself in its new home.

*A. H. Albertson, Architect*

*Monolithic mass of reinforced concrete*

Today the house, which is the home of Greeley's daughter, Mrs. Frank Montrose Clendenin, stands almost in as good condition as it was when built nearly eighty years ago.

This house was one of the first in this country in which concrete was used both as a structural and architectural medium. Today we are living in the age of concrete and steel. So rapid has been the improvement of materials and construction methods that future historians will look back upon this era as one in which a succession of worthy architectural developments took place. Doubtless particular note will be made of the progress made in the

use of monolithic concrete.

The past decade has witnessed the development of a construction method which affords the architect an opportunity to utilize one plastic, versatile material—concrete—throughout an entire structure to meet all decorative as well as structural requirements. With this plastic stone in mind, he can project his ideas onto paper with the assurance that the intricacies as well as the simplicities of his design will be artistically and permanently translated into reality.

In order to appreciate the possibilities that concrete as an architectural medium offers, the architect must think of this material not as an ugly mass of gravel-blotched areas and disorderly form marks, but as a material which, properly controlled and sympathetically handled, has a sturdiness of character and beauty of line that is pleasing in itself. Concrete typical of the day in which men worked with their hands rather than with their minds has fortunately passed into oblivion. Scientific research into the properties of cement, which is the essence of concrete, has developed sound specifications to replace the old "1-2-4 mix" for every purpose. This is the factor which makes possible the new styles in monolithic structures with their intricate embellishments cast in place. Today the average intelligent mechanic can place in the hands of the architect and engineer a concrete that will fulfill his requirements as to faithful reproduction of design with an assurance that it will withstand the elements at least as successfully as any other material within the economic limits of the design. The architect can accept today's concrete as a material having quality and integrity equal to any other material he is now employing.

The essential factor in the making of good concrete is the securing of consistently uniform mixes. Until recent years it was common practice in concrete mixing to add water until the desired consistency was reached. The contractor assumed that a 1-2-4 mix would give a compressive strength of 2000 pounds per square inch at 28 days. As a matter of fact, the resulting strengths of this mix might vary from 1200 to 3000 pounds. However, the development of the water-cement ratio

law changed this. It was found that the amount of water used in a mix was the important factor in determining strength, watertightness, durability and other qualities. For the particular type of construction under consideration in this article, recommended practice calls for not more than six gallons of water per sack of cement. This comprises the water-cement paste to which fine and coarse aggregate are added until the desired consistency is reached. The volume of fine aggregate should be from one-third to one-half the total volume or aggregate. This amount of mixing water will produce a concrete that is watertight. The important point to the architect, aside from structural permanence, is the ability of the concrete to resist weathering. He wants his design to be permanent, not only structurally, but architecturally. Following standard practices in the use of water and cement, a concrete can be made that will more than satisfy his requirements.

And these scientific findings have not been confined to the laboratory but carried into the field where their application in actual use has proved their worth. Monumental buildings have been erected in which the walls, floors, structural frames and exterior decorative embellishments are of concrete alone. Hundreds of such excellent structures testify that in this manner the design and construction of monolithic buildings has passed through the experimental stage. And yet, the possibilities of this monolithic type of structure have barely been touched.

Solid walls, clean-cut lines, long pilasters which carry the eye from ground to skyline and interesting bas-relief work, for the most part cast in place, are the characteristics of this modern type of monolithic building design. Columns, walls and floors are cast as a unit, the forms being built so as to include practically all of the architectural details and trim, as the work progresses.

The most remarkable advantage gained through the use of the monolithic wall structure is that architectural decorations and embellishments may be cast as an integral part of the wall or column and at the same time as the member is cast. Inexpensive plaster of paris molds, which are discarded after using



*PAVILION DETAIL—LIFE SCIENCE BUILDING  
UNIVERSITY OF CALIFORNIA, BERKELEY, CALIF.*

*George W. Kelham, Architect*

*Example of monolithic concrete wall*

once, are built into the forms and filled with the same concrete as the rest of the structure. When the walls are complete, all of the architectural decorations are in place, thus saving the additional cost of erecting scaffolds and setting stone.

Molded decoration, as this may properly be called, offers the widest possible range of treatment of architectural ornamentation. The most minute details in columns, flutes, bas-reliefs or panel surfaces may be carried out. The fact that the same mold may be easily copied makes it simple to repeat a given ornamental design many times without materially increasing the cost.

Industrial buildings having exterior walls of monolithic concrete construction have been in use for many years and from a structural, although not always aesthetic, point of view they have been highly successful. It remained

for the architect to take this sturdy and efficient type of structure and use it as a foundation, from which to develop a design for office buildings, hotels, schools, churches and monumental public structures. That this has been effectively accomplished is witnessed on the Pacific Coast, where from Seattle to San Diego, may be found striking examples of monolithic concrete buildings. In England, France and Germany the practice of using concrete as the complete building material has existed for many years and many remarkable structures of this type have been erected.

It is an interesting fact that each age has surrounded itself with a type of architecture which is characteristic of the principal material available at the time. No other material can be secured so readily and in such abundant quantities in any part of the world as concrete. The creation of the monolithic type has also

been favored by other economic conditions. The cost of construction and construction materials has placed certain limitations upon the manner in which buildings shall be erected. The simplicity of design of our office building and the minimum amount of architectural treatment used is due somewhat to the high cost of carving and setting ornamentation. The fact that such ornamentation can now be produced in concrete at a low cost is changing the situation. While the use of ornamentation has declined greatly the desire for it on the part of architects and their clients has not. The economies with which concrete simultaneously carries out both the structural and ornamental requirements of the architect is stimulating this desire.

Given a structural design in keeping with the nature of the material, the next important consideration is the exterior surfacing. The method of treatment, of course, will depend largely on the effect that the architect desires to produce. One of the most interesting developments in the method of treating exterior surfaces has been the practice of leaving the concrete just as it comes from the forms. This practice emphasizes the rugged character of the structure and gives it a unique individuality. Excellent concrete and careful form work, using high quality tongue and groove lumber of size in keeping with the design of the building, enable designers to achieve artistic results which a few years ago might have been thought impossible.

Many notable structures in which the marks of the forms have been left exposed have been given a slight added treatment by grinding down the surface to remove projections, giving the concrete a smooth appearance. This grinding should not remove the form marks, for this would destroy the decorative effect originally intended. This process should only be used to remove slight irregularities which might prove displeasing. The application of a cement paint, cement wash or stucco can be used to dress up the exterior without destroying the rugged character of the surface.

The application of stucco in pure whites, creams and varied colors to the monolithic exterior walls makes it possible to develop a remarkable variety of architectural effects at a low cost. On the western coast from Wash-

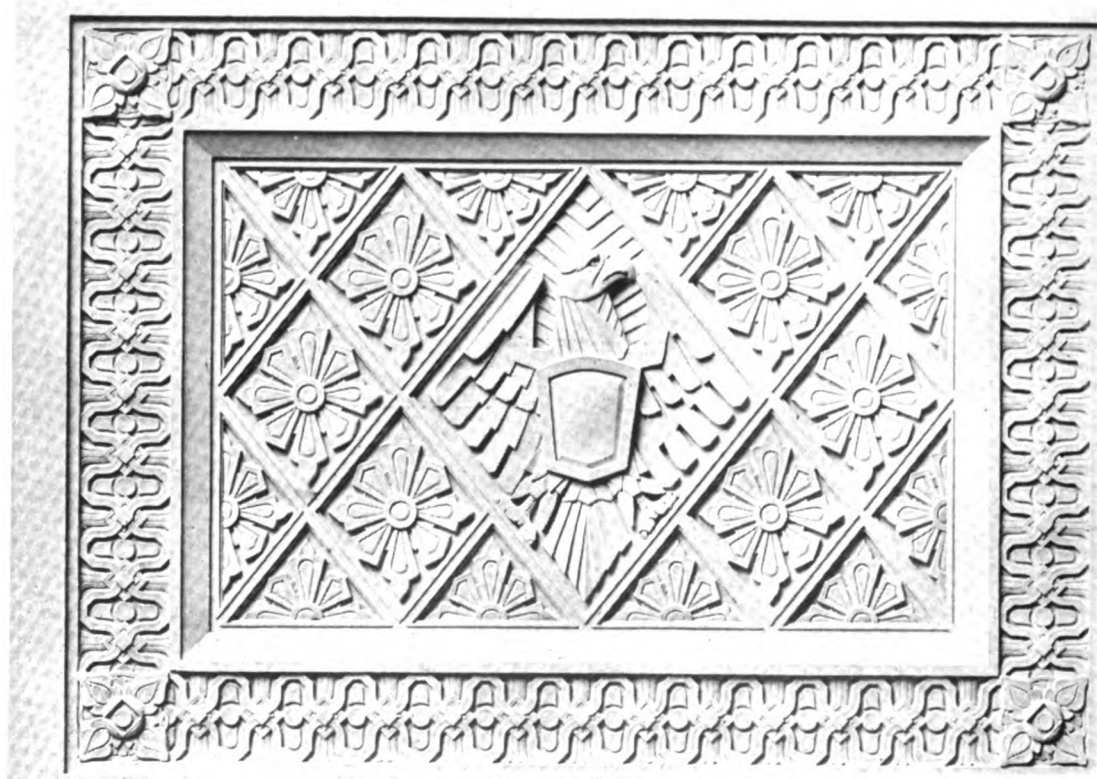
ington to California where climatic changes and moisture are often unusually severe, this method of surface treatment has proved entirely satisfactory. Good workmanship in the application of the stucco has proved to be a more important factor than climatic conditions. Stucco surfaces properly prepared and bonded to the concrete have proved to be just as adapted to the changing climates of Chicago and New York as to those of Florida and California.

Another desirable feature of the monolithic structure which helps reduce costs is the use of the concrete beams, girders and other structural members inside the building as part of the architectural scheme. Stains and paints may be applied directly to the load-bearing members giving a dignity and frankness of expression not possible with any amount of superficial ornamentation. This feature has been particularly well demonstrated in the treatment of lobbies and lounging rooms of hotels and clubs, interiors of theatres and elevator lobbies of large buildings. Stenciled designs on ancient walls and ceilings, sacred to the architect and artist, may now be revived and placed in our modern buildings with the assurance that they will be at least as permanent as the ancient examples from which they were drawn—and this at an entirely moderate cost to the owner.

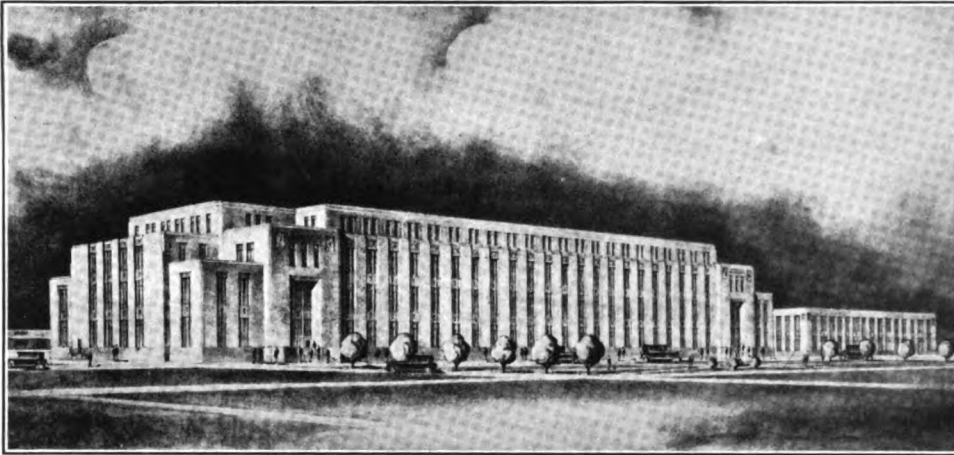
The new styles in monoliths open a new field in building decorations, both interior and exterior. The modern high-quality, low-absorption concrete places no restraint on the architect. Rather, this material offers him a greater freedom in design than any other. It has the enduring characteristics of stone; it can be molded and fashioned to any form; it can be finished with any color or texture desired. In short, it possesses the three great qualities necessary to a universal building material—structural strength, fire and weather resistance and decorative ability. Nothing about the monolithic type is more appealing than the fact that it is so elastic, varied and interesting. It calls for more intensive study, thoughtful consideration and exercise of true artistic merit than the older architectural forms, but in the hands of the imaginative, versatile architect, it offers new possibilities for noble and lasting achievement.

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Carville, La., National Home for Lepers—Construction—Murch Brothers Construction Co., 4111 Lindell Blvd., St. Louis, Mo. ....	\$165,000.00	St. Paul, Minn., P. O. & CU. H.—Elevator plant—The Haughton Elevator & Machine Co., 1103 Vermont Ave., N. W., Washington, D. C.; completion coincident with construction .....	\$222,160.00
Logan, Utah, P. O.—Extension and Remodeling—W. J. Dean & Sons Co., 1007 Garfield Ave., Salt Lake City, Utah...	36,843.00	Boston, Mass., Quarantine Station—Stone breakwater, timber piling, etc.—M. J. Crowley Company, 61 Pershing Road, Boston, Mass. ....	31,662.00
Norton Mills, Vt., Insp. Sta.—Construction — Thompson & Son, Inc., 8 East 41st St., New York, N. Y.....	39,250.00	Stapleton (S. I.), N. Y., M. H.—Construction — Stapleton Construction Co., Inc., 103 Park Ave., New York, N. Y..	1,957,426.00
Independence, Mo., P. O.—Extension and Remodeling—Mr. C. E. King, Box 1293, University, Va. ....	42,580.00	Memphis, Tenn., M. H.—Construction—Owen Engineering Company, 11 So. LaSalle St., Chicago, Ill. ....	141,583.00
Hazleton, Pa., P. O.—Extension & Remodeling—The R. B. McDaniel Company, New Brighton, Pa. ....	59,980.00	New Bern, N. C., P. O., CT. H. & CU. H.—Construction—Murch Brothers Construction Co., 4111 Lindell Blvd., St. Louis, Mo. ....	212,800.00
Canaan, Vt., Insp. Sta.—Construction—Salem Construction Company, 35 New Derby St., Salem, Mass. ....	21,800.00		



# MINNESOTA DOLOMITIC LIMESTONE



UNITED STATES  
POST OFFICE  
MINNEAPOLIS,  
MINN.

MAGNEY & TUSLER  
Architects  
Minneapolis, Minn.

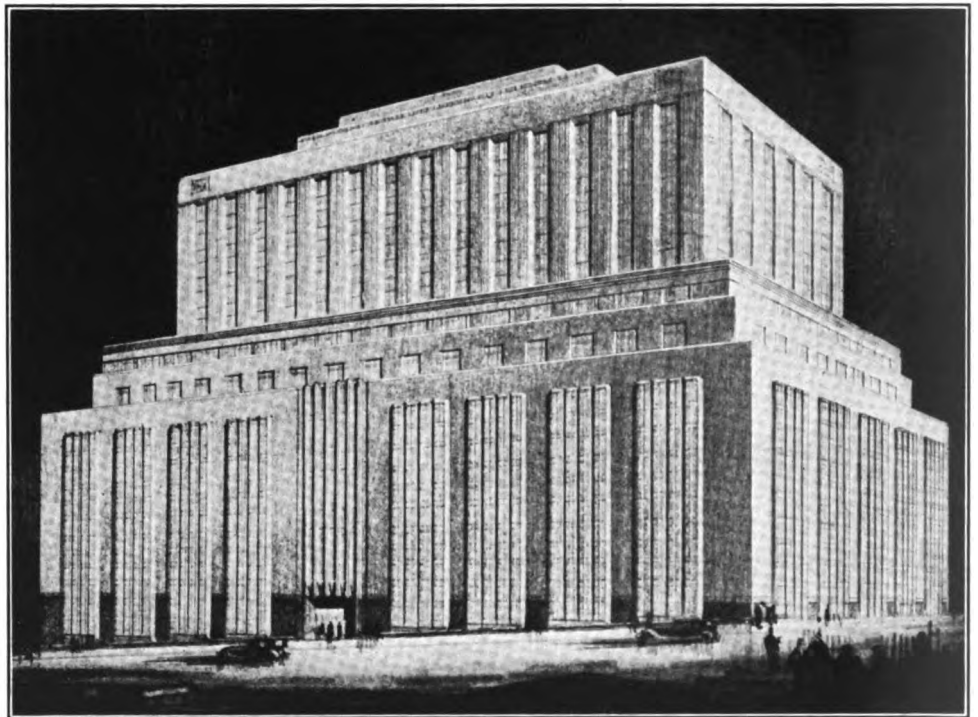
Grey Mankato Dolomite  
Limestone being used  
for exterior walls

UNITED STATES  
POST OFFICE &  
CUSTOM HOUSE  
ST. PAUL, MINN.

LAMPERT  
BASSINDALE  
Architect  
St. Paul, Minn.

HOLABIRD & ROOT  
Assoc. Archts.  
Chicago, Ill.

Yellow Mankato Dolo-  
mite Limestone being  
used for exterior walls



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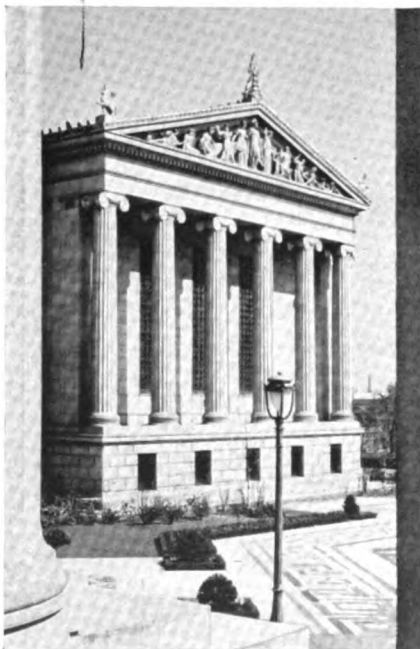




*Miami City Hall and Dade County Courthouse,  
Miami, Fla.  
Entirely faced with Atlantic Terra Cotta.*



*U. S. Post Office and Courthouse, Tucson, Ariz.  
Faced with Atlantic Terra Cotta and brick.*



*Pennsylvania Museum of Art, Philadelphia, Pa.  
Extensively decorated with polychrome  
Atlantic Terra Cotta.*

# ATLANTIC TERRA COTTA ~ PUBLIC

Terra Cotta, used for the construction and decoration of the public buildings of ancient Greece and Rome, is as appropriate for such uses today as in the past. Whenever extensive modeled ornament, the beauty of color or the use of a thoroughly modern yet traditionally correct building material is desired,

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FEDERAL BUILDINGS: SUPREME COURT BLDG. AGRIC. EXTENSIBLE BLDG. and others in Washington, D. C.	VETERANS' HOSPITALS AT: Somerset Hills, N. J. Hartford, Conn. Tuscaloosa, Ala. and other locations.	Insane Asylums & Institutions
POST OFFICES AT: Camden, N. J. Brownsville, Tex. Prescott, Ariz. Clearwater, Fla. Pikesville, Ky. Shreveport, La. Springfield, Mass. Passaic, N. J. Tuscaloosa, Ala. Bethlehem, Pa. and many other localities.	COURT HOUSES AT: Baton Rouge, La. Greensboro, N. C. Staten Island, N. Y. Deland, Fla. and other cities.	CITY BUILDINGS: CITY HALLS AT: Asheville, N. C. Dallas, Texas Detroit, Mich. and other cities.
	STATE BUILDINGS: State Capitol Buildings Administration Office Buildings Armories Jails & Penitentiaries	Power Houses Water Works Municipal Swimming Pools Sewage Disposal Plants Airports Police & Fire Stations Railroad Stations Schools & Libraries

## FOR THE EXTERIOR OF THE SMALL PUBLIC BUILDING:

Atlantic Terra Cotta, with its almost unlimited choice of colors and textures, may be used for the entire exterior facing. Colors especially recommended for this purpose are grays, creams and the new Abbochromes which are a combination of two or more tones blended harmoniously, giving rich and softly luminous mottled effects. Where terra cotta is used in this manner polychrome should be used for the decorative features.

If the walls are of other building materials terra cotta may very successfully be used for the following:

Entrance features	Panels in piers
Entrance portico	Quoins and corner blocks
Entrance lobby walls and ceiling	Rusticated ashlar
Arches and colonnades	Beit courses
Columns and column capitals	Cornices and pediments
Pilasters and pilaster capitals	Parapets and balustrades
Spandrel panels	Urns and vases
Inscription panels, date panels and corner stones	Copings
Colored or ornamented insert panels	Cupolas and towers
Sills and lintels	Domes and spires

Note:—If the shafts of the pilasters and columns are of stone and if ornamented capitals are to be used it is economical to use terra cotta (in colors to harmonize with the stone) for the capitals. In fact, all repetitive modeled ornament can be executed in terra cotta and at a cost far below that of other permanent building materials.

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ATLANTA TERRA COTTA CO.,

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*Berks County Prison, Reading, Pennsylvania. Coursed concrete ashlar, built with colored and textured units, is the basis for the architectural interest in the walls of this building. Alfred Hopkins and Associates, Architects.*



*An office interior of concrete masonry, the surface decorated with a base coat of reddish brown and a top coat of light buff portland cement paint.*

\*The term Concrete Masonry is applied to block, brick or tile building units molded from concrete and laid by a mason in a wall.

# Concrete Masonry

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**T**he terra cotta on the San Juan Custom House is a salmon buff glaze—with decoration in brilliant polychrome.

The ornate Spanish Colonial style is not expensive when executed in terra cotta — repetition of decorative features tending towards economy.

The terra cotta on the Post Office at Ponce is a glazed multi-chrome color. Note the accurate jointing and large scale of the terra cotta entrance.

**BOTH—**  
Federal Seaboard Terra Cotta.

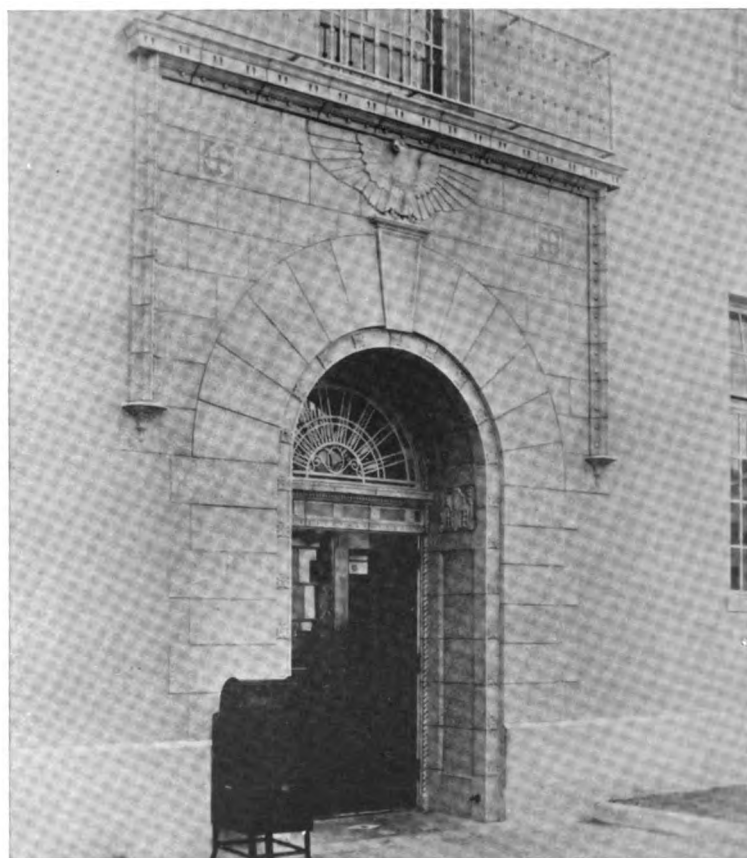
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**FEDERAL  
SEABOARD  
TERRA COTTA  
CORPORATION**

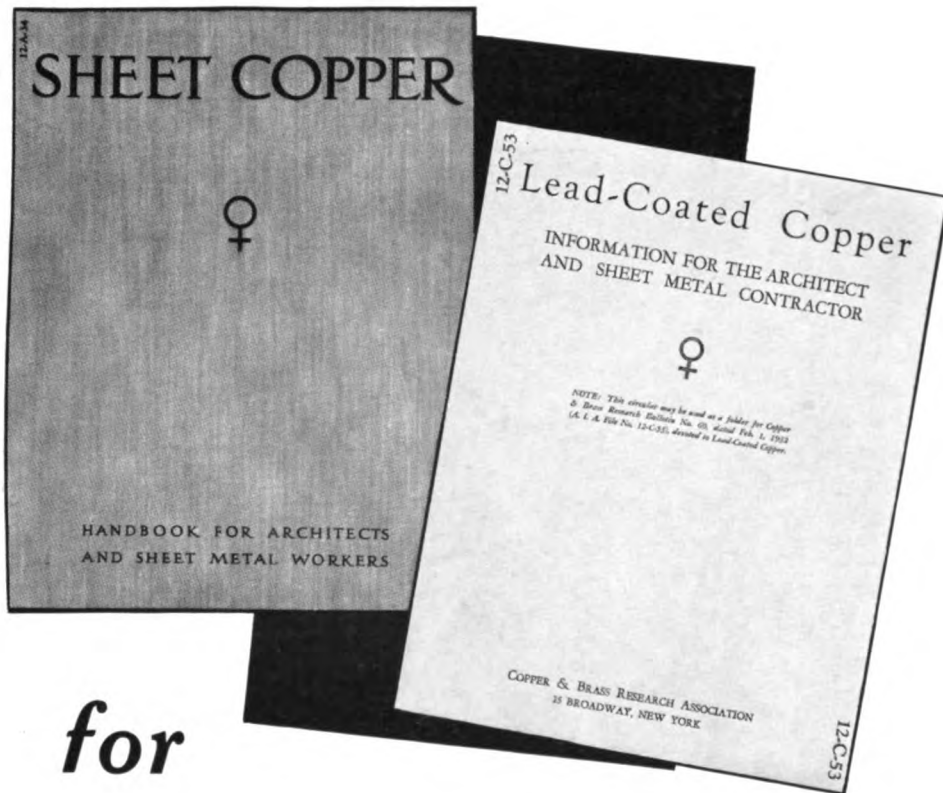
10 EAST 40th STREET  
NEW YORK, N. Y.



UNITED STATES CUSTOM HOUSE, SAN JUAN, PUERTO RICO  
Albert B. Nichols, *Architect* J. C. Besosa, *Builder*



UNITED STATES POST OFFICE AND COURT HOUSE  
PONCE, PUERTO RICO  
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