For High Grade Enamel Work

the remarkable longevity of SILKEN-WHITE ENAMEL, either for inside or outside use, combined with its never-changing satin-white finish, assures the architect who specifies it, of a piece of work to which he may point with pride for years to come, and of the sustained confidence of his clients.

Standardized tints of
Ivory
Pale Blue
Pale Green
Pale Grey
Gloss — Eggshell — Flat

W. P. Fuller & Co.

MANUFACTURERS

SPECIALIZED PAINT AND VARNISH PRODUCTS FOR EVERY PURPOSE.
This group of modern residences were designed and erected by
ARCHITECTS H. H. McGUIRE & CO., DES MOINES, IOWA.

Berry Brothers' Varnishes were used exclusively in the finishing of them.

Behind This Trade Mark
is the result of nearly 60 years of varnish making.

From melting kettle to final sealed package, Berry Brothers' Varnishes are as perfect as chemistry and skilled labor can produce.

Here are two of the most reliable finishes made — every architect should be familiar with them.

LIQUID GRANITE—For floors and all interior woodwork subjected to severe wear, such as window sills and casings, bath rooms, etc. It is mar proof, makes a handsome finish and is easily kept clean.

LUXEBERRY WHITE ENAMEL—Whitest white—stays white. Makes a permanent snow white finish in either dull or gloss effects. It will not chip or crack, is durable and washable.

Write our Architectural Department for interesting literature on wood finishing.

BERRY BROTHERS
World's Largest Varnish Makers

DETROIT    SAN FRANCISCO    WALKERVILLE, ONT.
FINISHED WITH CONCRETO

Finished with One Coat In White

We Will be pleased to submit to interested architects, a list of local buildings finished with Concreto since 1909.

Sole Makers THE MURALO CO., New York
San Francisco Office: 311 CALIFORNIA STREET
A. L. GREENE, Agent

DISTRIBUTORS

LOS ANGELES
SUNSET PAINT CO.
627 S. Main Street

SAN FRANCISCO
D. H. RHODES
546 Valencia Street
FINISHED WITH Kyanize

The white enamel finish of this modern San Francisco residence is finished throughout with

Kyanize

WHITE ENAMEL

Boston Varnish Company, Boston, U. S. A.

San Francisco Office and Warehouse, 311 California Street
A. L. GREENE, Agent

Seattle
CAMPBELL EDWE. CO.
Coleman Dock

Tacoma
W. J. HANSON CO.
1127 Broadway

Portland
W. M. SMITH CO.
536 Williams Ave.

San Francisco
D. H. BRODES
546 Valencia Street

Los Angeles
SUNSET PAINT CO.
657 South Main St.
Roofed with “Target-and-Arrow” Roofing Tin

“TARGET AND ARROW” is a specialty of ours handed down from the early days of our business. In this brand we have preserved an old-time standard of manufacture for the use and benefit of present-day architects. Few buildings have had so thorough a test of time as “TARGET AND ARROW” roofing tin. It remains today the same durable quality of roofing tin that we have supplied to American sheet metal workers for nearly two thirds of a century. It costs a little more than other roofing tin, so you are not likely to get Taylor quality if you write a specification that permits substitution. In your sheet metal specifications where roofing tin is required, simply call for Taylor’s “TARGET AND ARROW” roofing tin, to be laid in accordance with the standard working specifications of the National Association of Sheet Metal Contractors. With a responsible roofing contractor, such a specification will secure you tin roofing work of the standard that made the old-time roofing tin a by-word for durability and around satisfaction in service. We furnish upon request copies of this standard tin roofing specification form, also some instructive literature, telling about this old product. Our catalog is “Sweet’s”

Stocks carried at San Francisco
Los Angeles, Seattle and Portland

N. & G. TAYLOR CO.
Sole Manufacturers
Established in Philadelphia in 1810

J. A. DRUMMOND
Pacific Coast Representative
725 Chronicle Bldg., San Francisco
ARCHITECTURAL TERRA COTTA OF
WHITE MATT GLAZE

BY

Steiger Terra Cotta
and Pottery Works

FACTORY—South San Francisco, Cal.
OFFICES—729 Mills Building, San Francisco.
ROOFED WITH

Large Spanish Tile

Los Angeles Pressed Brick Co.
602-14 Frost Bldg., Los Angeles, Cal.

United Materials Company
5 Crossley Bldg., San Francisco, Cal.
Distributors for Northern California
The entire Lobby is in  
Polychrome Architectural Terra Cotta  

MANUFACTURED BY  

GLADDING, McBEAN & CO.  

OFFICES CROCKER BUILDING  
San Francisco  

TRUST & SAVINGS BUILDING  
Los Angeles  

FACTORY  
Lincoln, California
Matt Glazed Terra Cotta used in the two Facades of this Building was manufactured by

N. CLARK & SONS

OFFICE: 112-116 Natoma Street
SAN FRANCISCO

FACTORY: WEST ALAMEDA CALIFORNIA
# TABLE OF CONTENTS

## VOLUME XI  
**JANUARY, 1916**

## PLATE ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Architect</th>
<th>Plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan Group of Buildings, Seattle, Wn.</td>
<td>1</td>
</tr>
<tr>
<td>Hotel and Stotes, Architects, A. H. Albertson, Associate</td>
<td>2</td>
</tr>
<tr>
<td>Cobb and White-Henry-Stuart Buildings</td>
<td>3</td>
</tr>
<tr>
<td>White-Henry-Stuart Building</td>
<td>4</td>
</tr>
<tr>
<td>Entrance Detail, White-Henry-Stuart Building</td>
<td>5</td>
</tr>
<tr>
<td>Upper Story, White-Henry-Stuart Building</td>
<td>6</td>
</tr>
<tr>
<td>General Detail, White-Henry-Stuart Building</td>
<td>7</td>
</tr>
<tr>
<td>Neyhart Building—Typical Floor Plan, Cobb Building</td>
<td>8</td>
</tr>
<tr>
<td>Entrance Detail, Henry Building</td>
<td>9</td>
</tr>
<tr>
<td>Elevator Stair Hall, Henry Building</td>
<td>10</td>
</tr>
<tr>
<td>Entrance Detail, White Building</td>
<td>11</td>
</tr>
<tr>
<td>Elevator Hall, Henry Building and Vestibule, White Building</td>
<td>12</td>
</tr>
<tr>
<td>Entrance Detail, Sturt Building</td>
<td>13</td>
</tr>
<tr>
<td>Metropolitan Theater</td>
<td>14</td>
</tr>
<tr>
<td>Upper Story Detail, Metropolitan Theater</td>
<td>15</td>
</tr>
<tr>
<td>Ground Floor Plan, White-Henry-Stuart Building and Typical Floor Plan, White-Henry-Stuart Building</td>
<td>16</td>
</tr>
</tbody>
</table>

## TYPE PAGES

<table>
<thead>
<tr>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTAUR AND DRYAD</td>
<td>Frontpiece</td>
</tr>
<tr>
<td>A CITY WITHIN A CITY</td>
<td>13</td>
</tr>
<tr>
<td>SGRAFFITO</td>
<td>E. C. Bartholomew</td>
</tr>
<tr>
<td>DETAIL OF STORE BUILDING</td>
<td>Carrere &amp; Hastings, Architects</td>
</tr>
<tr>
<td>CREOSOTED WOOD BLOCK PAVING</td>
<td>H. T. Proctor</td>
</tr>
<tr>
<td>EDITORIAL</td>
<td>58</td>
</tr>
<tr>
<td>SAN FRANCISCO ARCHITECTS ENJOY BANQUET</td>
<td>60</td>
</tr>
<tr>
<td>CHAPTER MINUTES</td>
<td>61</td>
</tr>
</tbody>
</table>

---

**Published in the interest of the architectural profession, on the first of each month, at 725 Chronicle Building, San Francisco.**

Subscription in the United States and Possessions, $5.00 a Year; Foreign and Canadian, $6.00 a Year. Single Copies, each 50 cents. Entered as second-class matter at the Post Office in San Francisco, Philadelphia Office: Beeson & Wilson, Forrest Building.

Changes in, or copy for, new advertisements must reach the office of publication not later than the fifteenth of the month preceding issue. Advertising rates and any other information will gladly be given upon application.

The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated.

Telephone Douglas 3424.
CENTAUR AND DRYAD
PAUL MANSHP, SCULPTOR
A City Within a City.

By A. H. Albertson

The building up of the University Tract by the Metropolitan Building Company is probably the largest development of its kind undertaken in any part of the world in modern times. The buildings are located on a tract of land about ten acres in area in the midst of the condensed business section of the City of Seattle. The ten-acre tract is owned by the University of Washington and leased by the Metropolitan Building Company for a term of fifty years. About ten years ago Mr. J. F. Douglas obtained an option from Mr. James A. Moore on the ten acres now known as the University Tract. In conjunction with Mr. C. F. White, the first president, the Metropolitan Building Company was formed, having a capital of $5,000,000. The lease was bought from Mr. Moore at a valuation of $250,000. The rentals payable to the University are $15,000 for the first period of the fifty years; $40,000 for the second; $80,000 for the third; $100,000 for the fourth, and $140,000 per year for the last period of the fifty years. At the expiration of the fifty years the entire property, including the buildings and all other improvements, under the lease will be turned over to the Regents of the University of Washington as a well-co-ordinated and extraordinary unit of great size in the heart of a great city.

The property is bounded or intersected by five city streets and various alleys; it has twelve blocks of street frontage, totaling nearly a mile in length, and contains a small central plaza. When the property was taken over the only improvement upon the land was the existing Post Intelligencer Building, aside from the old, original University Building demolished several years ago. Aside from the Post Intelligencer Building, the Tract at that time had but one street adjoining it, and the natural ground level averaged about twenty feet above the present grades. The leveling of this plateau called for the removal of 10,000,000 cubic feet of earth at great expense. University Street, Seneca Street, Fourth Avenue and Fifth Avenue, were channeled down and paved by the building company, and this, together with the removal of the platem and the erection of the various buildings now on the Tract, has called for an outlay of upwards of $3,000,000. The full development of the property in accord with the original comprehensive plans covering ten acres, adopted before any work was done upon it, contemplated a total expenditure of $10,000,000. The magnitude of the enterprise as above indicated, together with the variety of the activities now carried on within the boundary of the Tract make clear the reference to the evolution of the University Tract some years ago by the late George H. Emerson, that "The completion of the Metropolitan developments will produce in effect a city within a city. No greater task has fallen to any body of men, no greater chance to ac-
complish great results with few mistakes. Symmetry, beauty, adaptability and economy in construction should be easy to attain under these conditions. It is seldom given to any group of city builders to act as a unit in the building of the very center of a large city; seldom that a tract of so many acres can be found unimproved with the retail district of 200,000 people bounding it on two sides, and a better portion of the residence district adorning on the other two sides."

Immediately after the purchase of the lease by the present owners, a careful study was given to its development on a comprehensive scale, looking through the full term of the lease as far as possible. Mr. Douglas, the manager of the company, states his method of procedure in the following way:

"I had had considerable experience in building, and I had come in contact with Howells and Stokes of New York, one of the leading firms of architects in this country. We arranged to have Mr. Stokes, of the firm of Howells & Stokes, visit Seattle for the purpose of making us suggestions for development of the property. Mr. Stokes brought with him at the time he came to Seattle, Mr. Harry Hall, at that time in charge of the Stokes' properties in New York City. Mr. Hall was an experienced and successful real estate manager. Mr. Stokes and Mr. Hall reached Seattle in October, 1907, and made a thorough study of our property on the ground. During the next couple of months they prepared a comprehensive scheme for the development of the property that would ultimately call for the expenditure of from seven to ten millions of dollars. The principal features of the plan were that the property should be developed with a common skyline, and with material that would be harmonious, and with an architectural treatment of the buildings that would also be harmonious. A small plaza was to be laid out in the center of the property, around which the buildings were to be grouped.

"When the drawings, which were quite elaborate, reached Seattle, they were exhibited in one of the hotels. Many people looked at the drawings, but they considered the proposed development as a sort of a pipedream—a scheme that was pleasant to contemplate, but that there was no expectation of realizing."

The accompanying reproductions, showing the advanced development to date, make clear the remarkable progress of the original idea, and vindicate the foresight, capacity and courage of those who conceived it and carried it forward.

If the complete development of the University Tract is continued with approximately the same character of Class A fireproof construction used on the portion of buildings already erected, the amount of materials installed will be great. The weight of the Stuart Building, the latest fireproof office building constructed, is over ten thousand tons. The total weight of building materials necessary to cover the entire Tract as now contemplated will be in the neighborhood of 150,000 tons.

The original architectural planning of the ten acres available was made on the assumption that the business section of the city would envelop the property. This has already come to pass. In the center of the Tract a small plaza was established to act as a focus or climax of the property as far as the planning of the ground was concerned. The controlling features of the general design for all the buildings are a uniform skyline, a uniform face material, and a closely related form of architecture for the various buildings. To be sure different buildings are given distinction or individuality by major elements of design as well as by a constant change in detail from one building to the other. The close relationship in the style of the different buildings, together with the use of uniform exterior materials—brick and terra cotta, form the main and it may be said sufficient basis, for the common bond of unity between the different structures. It is variation in detail from one building to the other that prevents monotony and gives that live interest that makes the repetition could not for a moment inspire. The pediments on the cornice line vary from one building to the other. The entrance way to each building is distinctly individual within the same style, and the main consoles of the entablature, while performing the same function in the different cornices are individual in modeling.

The height of the ground floor is gradually decreased by the upward pitch of the street grade, and when the height becomes a little low for a ground floor story, the second story is added to the height of the ground floor. At this transition point a mezzanine is installed a half or two wide in order to make an easy stage between a low ground floor to a very high ground floor.

White Building: This building was the first permanent structure to be erected on the Tract. The general construction of the White Building is steel frame work with
reinforced concrete floor slabs. The entrance is placed on the corner to satisfy tenants that might take space on either street front of the building. Incidentally, this position of the entrance at the corner made it possible to place the elevators, toilets and stairs in the less lighted, and therefore less valuable parts of the building, preserving the best space for renting purposes.

Difficult soil conditions were encountered under one part of the building, and the proximity of the Great Northern Railroad tunnel made it necessary to investigate the bearing power of the soil. From one test bore soft material was taken out that settled two inches in twenty-four inches in being dried out, indicating that if too much water were drained out from the soil under the building by tunnel or other drainage, settlement might be expected. During the construction of the Great Northern tunnel one building several blocks away started to settle and was thereafter held up to its position on hydraulic jacks until the tunnel was completed. In another building the center of the cellar settled several feet but did not affect the foundations. During the construction of a sewer tunnel deep under Queen Anne Hill the ground at the surface settled about six inches over a very large area. The material which settled over this area was a great many times more than the material taken from the tunnel, indicating that it was the withdrawal of the water that allowed the material to shrink. It was necessary to go into questions such as these before the White Building was constructed.

Architecturally the horizontal runs through from one building to the other are given variation by the vertical lines of treatment. The diagonal fluting of the main cornice bands is rather characteristic and individual and affords a simple method of enriching a surface otherwise severely plain.

It was naturally thought that special modeled curved bricks would be necessary with which to build the curved corner. It was eventually decided, due to the rather mottled color of the brick, that straight brick could be used without being noticed, and this proves to be the case. It is practically impossible by looking at the corner to see that it is laid up with straight bricks.

Henry Building: The column centers of the Henry Building are a little less than the other buildings. This was brought about by the fact that after the White Building plans were made and before construction was commenced, Union Street was widened five feet by the city. Accordingly, the White Building was moved five feet and this five feet was taken out of the future dimensions of the Henry Building. The narrow bays in the Henry Building also serve the purpose of giving variety in the width of offices when compared with the Smart and White Buildings adjoining. The plan of the Henry Building is U-shaped, while that of the two adjoining office buildings is L-shaped. A glance at the general plan of these three buildings herewith produced will show the manner in which the courts have been established to assure light for all of the wings of all the buildings. The Henry Building has two stairways which is the number that each of the buildings would be required to have if

Continued on Page 18
THOUGH one of the oldest of the arts, Sgraffito has been comparatively little used in America. The Alexander building on Fifth Avenue, New York, is perhaps the best known example of this work, though McKim, Mead and White, as well as Carrere and Hastings have executed notable examples.

The late Stanford White is credited with saying "Sgraffito, properly understood and competently executed, is the missing link in architectural design,—the only means which makes possible the harmonious relation of large and small masses and color."

The Italian word Graffiato, or as it is commonly called, Sgraffito, means "scratched." It seems to be the most ancient of all the forms of art endeavor. The early Etruscans scratched designs on their pottery cutting through the surface coat and leaving the design outlined on a background. This form of decoration was used in Italy through all of the early periods and its scope enlarged and extended until in the Renaissance period we find a fully developed art. Many Italian palaces about the end of the fifteenth century have Sgraffito decorations. They are incised and appear as though drawn with a bold line on the plain surface of the walls. Palazzo Torrigiani at Florence is an interesting example.

Technically, Architectural Sgraffito is the form of decoration which is produced by scratching or scoring the surface of fresh plaster so as to reveal a surface of a different color underneath. It is a decoration which gives both form and color.

By its peculiar nature it compels the work to be executed on the job. The studio must be exchanged for the scaffolding and the result be the handiwork of the master's own hand and should justify the inconvenience. It requires a quick, sure hand. The surface coat sets in a comparatively short time and the artist must work against time. The very tension under which he works gives a strong, vital energy of line, under the master's hand.

The technical difficulties are many: The exact consistency of the outer coat to facilitate a proper working, the color of the under coat when it shall have been disclosed, the strength and durability of each under weather conditions, the disastrous effect of cracking in either coat, all problems for which satisfactory solutions can be assured only by practical experience, and these may all vary under different climatic conditions.

"I needed twenty years' of experience," said Maximilian F. Friedrarg, who executed much of the work of McKim, Mead and White, "and much courage, for my later achievements in Sgraffito, every day furnishing new and valuable information.

The mechanical process of executing a piece of work lies in the preparation of the coats of plaster. In such a way that the under coat shall have a good surface and color where displayed by the removal of the outer coat, and that the outer coat shall have a slow setting consistency which allows of its being carefully worked while in a proper condition. The chemical action and reaction between the component parts of the plaster, the receiving surface, and the color, must all be studied with reference to the strength and durability of the plaster and the permanence of the color.

Some workers consider that cement is necessary to withstand the rigors of our eastern and northern climates, but say that when used without lime it sets too rapidly to permit full time for scratching and is likely to develop hair cracks. Another claims that "one handful of cement or plaster of Paris in plaster is destructive to the durability of any fresco or Sgraffito work." In disproof of this we are told that cement was used freely in the work on the Alexander building with apparent permanence in results.

We are told that in Italy where the lime was used to the exclusion of cement, it was seasoned underground for a year after slaking, with the result that plaster made from it remained soft and cheese-like for several days; also that some
Store building at 546 Fifth Ave., N.Y.C.
Carrère & Hastings, Architects, New York City
in the lower stories than in the upper stories. The windows of the lower part of the building are made wider than the upper part. It might be expected that a sense of weakness would be produced at the bottom by this treatment, but no such impression is observable.

A distinct variation in the heating installation was undertaken in this building. Through experience it has been found that the sides of a building facing the sun use less heat than those in the shade. Based on this determination the heating system is devised so that the heat may be turned off from any sunny side and maintained on the shady sides of the building.

A new form of fire escape was introduced which is now known as the "Howells & Stokes fire escape." Its essential features are a narrow balcony two feet wider on each side than the window or windows opening onto it; and, along one side of any window, a ladder extending down to the balcony one story below. From there down to the next story the ladder is on the opposite side of the balcony. Along the outer edge of the ladder and at the back of the ladder heavy wire mesh extends from one balcony to the other. So that in descending this fire escape, the face is always towards the wall; the outer edge is always protected by metal grill or wire mesh, the back is similarly protected and so close in fact that one descending may stop and lean backward against it. In case a person should fall it can never be more than one story.

Cobb Building: This building is a specialized medical building from bottom to top. It is frequently spoken of as the best equipped building of its kind in the country. The speed and economy with which the building was constructed after the plans were completed, is proof of careful planning and ripe conclusions. The owners spent

VIEW SHOWING PROPOSED DEVELOPMENT OF THE PLAZA IN THE CENTER OF THE METROPOLITAN TRACT
Howells and Stokes, Architects. A. H. Albertson, Associate
At the upper end the central feature of the plaza is shown as a shaft of porphyry crowned by an historic Corinthian cap. A quiet fountain is shown at the base and around the outer rim is a small space for gardening. Behind this central feature is a new building plans for which are being made. This building is to be occupied by one concern. Part of the Arena just completed shown at the left and the Metropolitan Theater is shown at the right.

A CITY WITHIN A CITY
Continued from Page 15

the corridors did not connect through from one building to the other; so that in the total block front of these three connecting buildings, two less stairs are installed than would be required if the buildings were not connected. This is an instance of the economy of construction under our general plan referred to.

Stuart Building: This building is one of the first high-class office buildings throughout the country that has eliminated steps at the main entrance by means of an inclined entrance-way. This treatment has been used in department stores, theatres and other kinds of buildings, but has rarely been used in entrance-ways to first-class office buildings. The result is so satisfactory that probably very few people notice that steps have been eliminated by the introduction of inclines. The building is also characteristic in that the difference in levels of the sidewalks surrounding the building have been taken up by means of steps in the center of the ground floor instead of by steps into the building from the sidewalk. The theory is that people once within a building do not notice change of levels by means of steps as they do when the steps are placed at the street entrances.

A totally new departure was tried out in the court of the Stuart Building where the light might be a little less

Continued on Page 51
GENERAL VIEW OF COBB BUILDING AND THE WHITE-HENRY-STUART BUILDING, SEATTLE
Howells and Stokes, Architects, A. H. Albertson, Associate
From these three buildings it will be seen that the detail is designed to be in scale with the completed trio structures rather than with any one of the three buildings. The manner of turning the second story of the White building into the upper part of the ground floor of the Stuart building is observable. The increased supporting effect given to the east iron work on the ground floor by being painted white is apparent. A glance at the street traffic and surrounding structures makes it seem incredible that this development has taken place in 7 years time, from a small field of grass 20 ft. in the air with a few fir trees upon it, to paved city streets carrying heavy traffic.
This building was constructed for strictly medical uses and is probably the most highly specialized medical building in the country. Each suite is designed to fit the particular needs of the doctor or dentist occupying it. The building contains about two dozen related businesses and facilities such as specialized baths, gymnasium, pharmacy, physicians' and dentists' laboratories, supply houses; nurses registry; roof garden; public operating room; and similar conveniences.
ENTRANCE DETAIL, CORB BUILDING, SEATTLE
Howells and Stokes, Architects, A. H. Albertson, Associate
DETAIL OF UPPER STORIES OF CORN BUILDING, SEATTLE
Howells and Stokes, Architects, A. H. Albertson, Associate
Nethart Building and Metropolitan Theatre, Seattle

Howells and Stokes, Architects. A. H. Albertson, Associate

This photograph is reproduced with the idea of showing the character of buildings that are erected by the Metropolitan Building Company for temporary uses and until such time as permanent fireproof buildings are erected.

Cobb Building, Typical Floor Plan, Seattle

Howells and Stokes, Architects. A. H. Albertson, Associate

This plan is shown primarily to illustrate the structural arrangement. A few office suite layouts are indicated. A large elevator hall is more desirable than in an office building ordinarily, the travel being slower. This building was constructed to be extended on 6th Avenue at some future time. The two private toilets to be rented preferably to, space adjoining, are placed against two public toilets for economy of installation, and also to leave other space more flexible. If these private toilets were put elsewhere, they probably would interfere with the possibility of making the adjoining suites larger or smaller.
ENTRANCE DETAIL OF HENRY BUILDING, SEATTLE
Howells and Stokes, Architects, A. H. Albertson, Associate
ELEVATOR AND STAIR HALL OF THE HENRY BUILDING, SEATTLE
Howells and Stokes, Architects. A. H. Abertson, Associate.

The main entrance comes in at the right, not shown in the photograph. The stairs go up far into the hall at the left. The floor treatment is in Italian marble panels bordered by black and white marble work, the field is of terrazo, and the sidewalls are of Italian marble. The bottom line of the photograph is the axis of the main hall.
ENTRANCE DETAIL, WHITE BUILDING, SEATTLE
Howells and Stokes, Architects, A. H. Albertson, Associate
ELEVATOR HALL OF HENRY BUILDING, SEATTLE
Howells and Stokes, Architects; A. H. Albertson, Associate
The main entrance is directly across the hall from the elevators. Stairs start at the right at each end of the hall. The floors are in marble and mosaic border with terrazzo panels. The side walls are Italian marble.

VESTIBULE OF WHITE BUILDING, SEATTLE
Howells and Stokes, Architects; A. H. Albertson, Associate
Italian and Verde Antique marbles are used as the finish. The quartered dome over the niche at the left is finished in mosaic work.
ELEVATOR HALL OF HENRY BUILDING, SEATTLE
Howells and Stokes, Architects, A. H. Albertson, Associate

The main entrance is directly across the hall from the elevators. Stairs start at the right at each end of the hall. The floors are in marble and mosaic border with terrazzo panels. The side walls are Italian marble.

VESTIBULE OF WHITE BUILDING, SEATTLE
Howells and Stokes, Architects, A. H. Albertson, Associate

Italian and Verde Antique marbles are used as the finish. The quartered dome over the niche at the left is finished in mosaic work.
ENTRANCE DETAIL, STUART BUILDING, SEATTLE
Howells and Stokes, Architects, A. H. Albertson, Associate
The Metropolitan Theatre is 81 x 129 ft. in plan, and seats about 1600 people. The stage is made removable and is sufficiently large to accommodate a play like Ben Hur. The plan and interior form of the building were given their shape by the application of the principles of acoustics. The ornament of the exterior is concentrated in one central feature, the remaining part of the facade being treated in simplicity and refinement of line with the purpose of breaking away from the usual custom of over-ornamentation.
The brick work is graded in color from light at the balcony level to darker at the cornice line, being one of the first attempts in this country to execute in building material the conventional form of water-color rendering. The diaper pattern used was suggested by the marble block pattern in the front of the Palace of the Doves.
GROUND FLOOR PLAN OF WHITE-HENRY-STUART BUILDING, SEATTLE

Howell and Stokes, Architects, A. H. Albertson, Associate.

The scheme of connecting corridors through from one building to the other for the convenience of the tenants and for the purpose of increasing the rentability of rear space, is indicated. The side corridors running at right angles around the building from one street front to the other is in the nature of an arcade. The other long straight corridor is primarily for access to space adjoining and for foot traffic from one building to the other. The freight elevator and the ground floor toilet were omitted in order to make as much space available as possible and the toilets were not installed. Being smaller and one story lower on account of the grades, the Stuart Building has but three elevators. The apparent free circulation from one building to the other is one of the advantages of the buildings being connected and under one management.

WHITE-HENRY-STUART TYPICAL FLOOR PLAN, SEATTLE

This plan shows the manner in which the three buildings were designed to act as units at first, and to act as a completed building when united by the construction of the last building. Due to the connection of each building at each floor, the end buildings have but one stairway as provided by law. This union of the three buildings has saved the construction of two sets of stairways, a saving in capital investment and rentable space, capitalized of from $25,000 to $30,000. Each battery of elevators, each toilet and each stairway receives outside light. Courts are all large in accordance with modern demand for light space and in order to compete with the older buildings having small courts and accordingly semi-lighted offices. The method of treating the corridor eves is as compared to the usual method to noteworthy economy of space as well as capital investment. By stopping the corridor short of the column line the extra cost of the marble and terrazzo is saved, and if it is desired to extend the end of the hall to the column line, the existing doorway at the end of the hall is allowed to remain and the part of the hallway which is extended to the column line becomes part of the office space, producing more rental or being a greater convenience to the tenants, at the same time costing less than the usual construction.
THE ARENA, SEATTLE
Howells and Stokes, Architects, A. H. Albertson, Associate

An Auditorium and Amusement Hall, size 120 x 40 ft., with seating capacity of about 3,000, built at a cost of approximately $100,000. During the winter the building is used for ice skating and hockey games; during the other months it will be used for auditorium and exhibition purposes. The roof trusses are exposed and painted light green. The acoustics are excellent. A refrigerating plant is installed in the basement. The construction is Spanish in style. The cornice and centre and is accordingly a co-ordination of these three features and accordingly rather free from precedent. During the construction of the brickwork, arrangements were made with the brick-yard to ship the lighter brick first and grade down through to the darker brick for the last shipments. This made possible the grading of color in the brick from light at the bottom to dark at the top.

MEN'S COLLEGE CLUB, SEATTLE
Howells and Stokes, Architects, A. H. Albertson, Associate

This is a temporary building especially designed for the use of the College Club. The entire treatment is of brick without embellishment other than the shield over the door and the metal coping. The down-stair windows are treated with a broad brick architrave.
A GENERAL VIEW OF THE PROPERTY TWO YEARS AFTER STARTING THE DEVELOPMENT

In the upper left corner is shown part of the White Building, the first completed fireproof building. Adjoining it is the steel work of the Henry Building, the second building to be erected. In front of this steel work is the site of the present Colonial Building. The two buildings show test holes being put down to determine the character of the soil under the Colonial Building. None of the streets shown in this picture are as yet completed although Fourth Avenue and part of University Street are excavated. The Colonial frame building with the bell tower is the first University of Washington building. The trees shown on top of the embankment in the central part of the picture are on an unexcavated part of the Tract. This embankment gives an idea of the amount of earth that covered the entire Tract before operations were commenced eight years ago. Various old residences at the right of the photograph were originally on top of this large embankment and on a level with the residences shown near the trees.

A CITY WITHIN A CITY

Continued from Page 18

half a year consulting with local physicians and dentists in order to determine their particular needs; and the architects retained an experienced business manager of a medical building in Chicago to advise with them during the development of the plans. The building is not an ordinary office building rented to doctors and dentists, but was planned from the beginning to fit the specific needs of doctors and dentists in Seattle. At the conclusion of two years' investigation before the building was erected it was found that typical suites built during the construction of the building and before being rented, would not satisfy the local requirements. Accordingly the policy was adopted of designing suites to satisfy the particular and specialized needs of each doctor and dentist after the space was rented to him. This meant that while it cost more to construct the suites it enabled the doctors to do with less space and gave them offices specially adapted to their particular requirements. Ventilators are provided for each office throughout the building in connection with each window.

The building including the basement is exceptionally well lighted, the windows being larger than usual and their tops placed directly against the ceiling. In addition to the physicians' and dentists' offices on the upper floors, the lower stories contain many related facilities and conveniences for the medical profession, such as hydrotherapeutic baths, State Medical Library, gymnasium for patients under doctors' direction, a prescription pharmacy, a medical

Continued on Page 54

GENERAL PLAN OF THE 10-ACRES

Howells and Stokes, Architects

This shows the plan of the permanent buildings already constructed and a suggested plan for the remainder of the permanent buildings. Those already constructed are indicated by names, while the buildings proposed have no names. About 1/3 of the Tract is already covered with permanent buildings; about 1/3 covered with temporary buildings, and the remainder is uncovered. The plan shows the location of the centralized Plaza and the Theater having its main axis through the center of it. This ground floor plan should be observed in connection with the typical floor plan of the block of buildings known as the White-Henry-Stuart Building.

51
The advance of modern city building ideas architects are giving increasing attention to certain other considerations aside from utility and beauty—for instance, noise. The noiseless city is the dream of the future, and greatly will it be welcomed by a generation whose ears are deafened by the needless clanger of city traffic and whose nerves are shattered by ceaseless din. In fact, noise specialists attribute a surprisingly large proportion of nervous disorders to city noise, and alienists ascribe much insanity to the same disturbing cause.

Yet so much of this noise may be eliminated without increasing either cost or effort, that it is surprising the Noiseless City has not made greater progress than may be noted in America to date. Europe has made more rapid strides than this country in deadening the sound of traffic and making her cities more desirable places in which to live.

Perhaps the greatest noise-producing factor in cities is the pavement. Asphalt is not so bad, because of its slightly yielding surface, but so many of the heavy traffic thoroughfares are covered with cobblestones, brick or some other unyielding and dangerous substance that noise continues a most distressing accompaniment of metropolitan life despite the wide use of rubber-tired vehicles.

But now comes the velvet-like Creosoted Wood Block pavement, to soften and subdue the impact of the horses' hoofs and the contact of metal tires, with attendant rattle and wear of vehicular parts. It is not surprising that in the last few years so many American cities have introduced the new pavement, and architects are urging its most careful consideration for use around public buildings, schools, churches, hospitals, etc., as well as on downtown thoroughfares under the most exacting traffic requirements.

In its early use as a paving material wood block dates back three centuries or more to Russia, but the Creosoted Wood Block pavement of today is a far different article from the original, and is even vastly different from the wood block that was extensively used in eastern and middle Western cities twenty-five or thirty years ago. Creosoted wood block paving today is scientifically treated and is laid with advanced engineering skill, fulfilling to a remarkable degree the requirements for long life under the heaviest usage, favorableness to the changed traffic of the day, and that most desirable feature—silence.

In fact Creosoted Wood Block is finding an extended use indoors as well as for general paving purposes, its advantages making it desirable for floor floors where there is heavy traffic; in great manufacturing plants, like that of the Ford Motor Company, in Detroit; in foundries and machine shops, and in factories where the product is fragile and breakage may be reduced by a more yielding floor surface. Even where red-hot or molten metal is flying about wood blocks are proving highly acceptable, for instead of adding to the fire hazard the creosoted wood is so slow-burning as to be almost fire proof.

The same qualities of softness and silence that recommended creosoted wood as an outdoor pavement apply when it is used indoors, for its influence is decidedly humane upon factory workers. Through minimizing foot fatigue and lessening ear and nerve tension a modern floor of this kind in factories tends to promote volume of output among the part of the workers and they return home at the end of the day less wearied in body and spirit then under the old conditions. In other words, it is an important factor in the development of efficiency.

The student of city planning and building considers the paving question from many sides. Yet like other certain civic and municipal problems, paving is relatively a new art—modern scientific paving. New conditions and new requirements make the pavements of a few years ago utterly unsuited to the traffic of today, and new ideas—such as the demand for silence—when the desire of the paving engineer to provide the perfect pavement.

If the experience of the great cities of the world in the last twenty or thirty years may be taken as a guide Creosoted Wood Block paving approaches gratifyingly near the ideal of perfection; in fact it has often been called the paving of modern civilization.
BioiUvay. Xew York. I've ail witli Creosoted Wood Block. This quiet form of pavement has increased office values on America's Best Known Street.

is credited with 300 miles of creosoted wood block paving, including such thoroughfares as crowded Regent street, while most of the fashionable west end of London, with its wealth and aristocracy, is paved with wood block. Paris has even more of it than London, with the Champs Elysees, considered the finest street in the world, one of the many famous arteries so paved.

The silence and long life of wood block have so appealed to New York that now the greater part of the heavy-traffic thoroughfares of lower Manhattan are laid with wood block. Boston as well as New York, has found that creosoted wood block laid along side granite will outwear the stone two and three times over. The city authorities of New York now consider only three types of paving, depending upon local conditions—wood block, asphalt and granite.

The Market street property owners, of Philadelphia, made a study of all sorts of paving materials with a view to selecting the most desirable, durable and generally satisfactory, pavement possible. They finally chose wood block, and in letting a paving award covering 85,000 square yards are believed to approach the record in big paving contracts.

Chicago, after many costly experiments, has decided upon wood block as the paving surfacing for the heavy-traffic "Loop" district, and soon Chicago residents will have less complaint of noise. When twelve railroad companies were given a 200 year franchise for the erection and maintenance of Kansas City's new Union passenger station they laid 80,000 square yards of wood block on its surrounding streets and approaches.

Continued on page 56
physicians' clinical laboratory, public operating room, X-ray rooms, dental laboratory, nurses' registry, emergency supply house, and other related activities. The hydrotherapeutic baths comprise a suite containing over twenty rooms, about half of which are for men and half for women. There are several massage and rest rooms for both sexes and physical culture rooms for each. Each sex is provided with ordinary baths, salt water baths, Neumehn baths, medicated shower and needle baths, electric light and electric water baths, sitz baths, hot air baths and douche. One room is supplied with a specially made tub for various kinds of baths in addition to the needle and shower-baths, douche, sitz bath, shampoo table, tilting basin, and a control table from which all fixtures including the douche nozzles, are operated. There is also provided a cold-bath room with the usual shampoo table, back sink, and ice box. The building is provided with two general toilets on each floor, one for each sex. The plumbing is also arranged so that in certain parts of the building bath tubs and toilet fixtures may be added at any time, while lavatories may be provided in any part of the building.

The wall surfaces except where tile is used, are of hard plaster painted with waterproof paint giving a smooth, washable surface. In some cases the floors are of tile or terrazzo, but in general they are hard maple kept burnished with a hard, sanitary finish. The woodwork is of quartered oak, and is made as simple as possible and finished with smooth, hard surfaces of varnish.

The exterior of the building is of course in most of the main features the same as the other buildings, the principal exception being the additional clear story on the roof, and the manner in which this clear story has been related to the building and to the pent-house. The stepping back adds a powerful sense of strength and compactness to the design and like a curved corner tends to take away the thinness and frailty that so often obtains in buildings not carefully designed. The pediments at the top of the piers in the Cobb Building are segmental and the detail of the tympanum is different from that of the other buildings. The Indian heads which act as consoles at the cornice line are from a different model than those in the White Building.

An interesting method of retaining the reveal in the ground story without losing the value of the show windows has been developed. The transoms over the store windows are placed well back from the building line giving the same reveal to the pier and the window head as shown in the windows of the upper stories. The large glass show window itself is brought forward to the face of the building and a little roof or hood absorbs the differences in the plain of the show windows and the transoms over them.

Metropolitan Theatre: The Metropolitan Theatre seats about sixteen hundred and in certain respects is considered to be worthy of note. The stage is large for the size of the house and with its removable floor is probably the only house in this section that could accommodate a play like Ben Hur. A special pent-house was designed on the roof to accommodate the spot light, having an opening down through the ceiling and over the heads of the people in the gallery. The footlights hang down into the gutter from a hinged metal cover built in sections. These sectional lights can all be turned up so that lamps may be removed
and the trough may be swept without difficulty. The interior of the theatre is treated in a simple, quiet manner, the color scheme being in French grays and old rose varying imperceptibly from one surface to another. Two principles were in mind in evolving the front design of the theatre: to produce a quieter and still appropriate theatre treatment than is usual today, and to concentrate the embellishment as the central feature of the entire facade, the parts of the front outside of the center being treated very simply.

In planning the theatre it was decided to let the question of acoustics dominate all the other conditions entering into the problem. Accordingly instead of planning the building first for seating capacity, appearance, exits and so on, the size of the lot was taken and the question of acoustics from the stage was worked backward to the building necessary to enclose good speaking qualities. This procedure resulted not only in an egg-shaped plan but in an egg-shaped building with the small point of the egg at the stage. The floors are warped up at the sides, as well as the ceiling and side-walls being centered toward the stage. This method of first determining the proper curves for the limiting surfaces and then building the outer walls, ceiling and floors to suit, is already accepted as the accurate procedure, among experienced planners of theatres.

A freight elevator is provided at the center of the tier of dressing-rooms for the lifting of trunks.

As the position of the theatre in the middle of the block indicates, it is intended to be adjoining on either side by a commercial building extending several stories higher than the theatre. To this end some of the terra cotta band courses of the theatre will run across the adjoining buildings when erected.

The Arena: The Arena is the last building constructed upon the Tract. It is 120 x 240 feet with a seating capacity for about 6,000 people and a cost of approximately $100,000. It was constructed as an auditorium and amusement hall, being especially planned as a hockey rink during the winter months. The ice floor is 80 x 200 feet. The steel trusses are left exposed and painted light green, and the ceiling itself is of a warm grey-cream tone. The side-walls are in light tan. The ice plant is placed in the basement and the large engine through having a fly-wheel 16 feet in diameter produces no vibration in the building, due to the isolation of the footings from the footings of the building. There are about seven miles of refrigerating pipes installed in the building for forming the ice. In the summer months the building is planned so that it is to be used for auditorium and exhibition purposes. In case of its use as an auditorium the area used for skating purposes in the winter will be occupied by seats; when used for exhibitions this central body of seats will be removed.

Exits are of ample size to allow the largest truck to run directly into the building.

A study of the acoustics during the planning of the building revealed that without any important changes, the size of the lot, the shape of the roof, and the height of the ceiling as determined by the lake or and gallery heights, were satisfactory in their normal forms. Now that the building is completed a test of the acoustics reveals that the speaking qualities of The Arena are most satisfactory. A voice speaking in a quiet conversational tone from one end of the Arena can be distinctly heard at the other end over 200 feet away; and yet the reinforcing qualities of the inner surfaces of the building that make this possible are in effect the proper relations to prevent echo.

The exterior of the building is of a hydraulic brick made in Spokane, enhanced by a small amount of cream terra cotta. The exterior design is intended to take its interest from the repetitions in pairs of simple motives. The unmasking effect of the long rows of circular-headed openings and of the rectangular frieze openings placed in fours more than anything else gives the building its character. The design includes a marquis over the main entrance and three flagpoles fastened at the points indicated by the circular terra cotta Rosettes. Inasmuch as the theatre and The Arena are both places of amusement the diaper pattern of the theatre was in a modified form, repeated in the frieze of the Arena in order to maintain some common idea of treatment because of the similar uses of the two buildings. The terra cotta treatment of the parapet is an unusual development in that it combines a coping, cornice and chesane. The crowning member produces an evolution from and a co-ordination of these three ideas. With what success this crowning wall member has been designed and executed is open to judgment.

Up to the present time about one-third of the property is already covered with permanent buildings; about one-third covered with temporary buildings to be torn down as fast as the permanent buildings are ready to be erected; and the remaining one-third is unexplored and awaiting development. At the present time there are all told, about twenty-one buildings upon the Tract, six of which are of permanent construction. At night the exteriors of the buildings are illuminated by a lighting system somewhat similar to that used in connection with the Exposition buildings in San Francisco.
Craftsmen have resorted to a silicate binder in the top coat which is said to keep it soft for as long as eight days, thus affording time for the careful execution of the design.

In connection with the details of the Alexander building which accompanies this, it may be of interest to note what Ralph M. Cahler, who has cooperated in the work of Carrere and Hastings, and is perhaps one of the best authorities on the subject in this country, says about the preparation of the work: "The wall or receiving surface should be thoroughly cleaned, the joints raked out to receive a good key, and the surface swept with a stiff broom. Just before applying the coarse plaster coat the surface should be saturated with water. The first coat of plaster should be sufficiently thick to promote an even suction over the entire surface and to prevent dampness coming from the inside of the wall. Five-eighths to three-quarters of an inch in thickness will generally be found sufficient. The composition of the plaster used in Sgraffito must be determined by the experience of the artisan."

"In much modern work the coarse plaster coat consists of from two to three parts of sharp, clean sand to one of Portland cement and a "little" lime to retard setting. After the coat is applied and floated to an even surface it should be well scored to give a key and the surface kept wet until the color is applied."

"In this country thoroughly satisfactory results have been attained in the color coat by using earth colors with a mixture of Portland cement, lime, and sand." "If the color coat is to be black, charcoal made of burned straw or paper may be used with satisfactory results. Practically any color may be secured by the use of marble dust or specially prepared distemper colors such as golden ocher, turkey red, Indian red and lime blue. Charcoal black may be added to these colors to give depth. Brick dust has not been found satisfactory or permanent as a pigment. "If properly prepared, the color coat, which is applied with a trowel, may be as thin as one eighth to a quarter of an inch."

The top coat is usually very light in color and may be the neutral gray of its components, or tinted in harmony with the underlying coat. As the top coat is merely a "skin", it may advantageously be applied with a large brush, but care must be taken to secure a proper consistency. As all scratching must be done in this upper coat before it sets, its composition in each case should be a matter of experiment.

The design is transferred to the surface from a full size cartoon which has been completely prepared and the lines perforated. (This may be done with a tracing wheel into a soft surface, and the reverse side sandpapered to open the perforations.) When this cartoon is adjusted to the position and held in place by small nails, the perforated lines are transferred to the plaster by "pointing" through a muslin bag filled with powdered charcoal. When the lines are clearly indicated on the wall, the cartoon is removed and the actual work of scratching the design begins. The craftsman uses simple tools. Some use only a nail and a scraper, some prefer a knife blade for cutting a sharp, clear outline. Undercutting must be scrupulously avoided as affording danger from frost and moisture. When the cut is more than a line, the color coat is scraped to remove the gray particles of the top coat.

While this process of decoration gives a wide scope to the architect and to the artist, its possibilities have never been very fully developed in this country. On the Pacific Coast, where the more equable climate would seem to invite this type of work, less has been attempted than on the eastern coast. Architecture is vastly dependent, speaking broadly, upon the allied arts for its fullest development, and Sgraffito may yet be reigned from its almost unknown status by the progress of the color development which has just been started at San Francisco.

CREESTED WOOD BLOCK PAVING

But Minneapolis is the star among American cities to date in the laying of wood block, and Minneapolis boasts pavements famous throughout America. Upwards of seventy miles of crested wood block are already in use in Minneapolis, with St. Paul an active imitator, and farther west Seattle, in the center of one of the richest timber belts in the world, is carving as a wood block city. Fourth Avenue, in Seattle's "Metropolitan" district, a picture of which appears, was laid with wood block eight years ago, and although fully twelve million vehicles of all kinds have passed over it the pavement shows a wear of less than one-eighth of an inch, and not a rut has been required for repairs due to wear.

The fact that the rental desirability of office buildings is enhanced by wood block paving is emphasized by the experience of Seattle's "Metropolitan" buildings, which average so near rental capacity as to occasion comment among building managers all over the United States.

The primary cost of paving is only one consideration. The architect and engineer want to know the lasting qualities; it's the "per year" cost of paving that counts. While modern crested wood block paving, carrying from 12 to 16 pounds of creaste oil per cubic foot, is comparatively new, its life is found to exceed that of virtually every other known pavement in any degree meeting modern requirements, and its original cost is decidedly moderate.

Not only has it desirable features for business streets, but its silence, durability and sanitary features make it an excellent covering for residence streets, and it is especially recommended for deadening the noise around hospitals, churches, schools, court rooms and other buildings where noise is particularly disturbing. Kansas City has just adopted wood block for its play grounds, because children found the wood surface so much softer and more desirable than a hard pavement.
Parts and some of the Plaster Molds used in the manufacture of a "Pacific" Washdown Closet Bowl.

Some idea of the care necessary in the potter's art may be gained from the fact that twenty-two separate parts are required in the manufacture of a "Pacific" High Grade Bowl.

A visit to our vitreous china ware and enameled cast iron ware factories at Richmond, Cal., is well worth your while and is a permanent exposition of the manufacture of high grade plumbing fixtures in California.

If you cannot spare the time to visit our factories, visit our display room at 67 New Montgomery St., San Francisco, Cal.

"Pacific"

Plumbing Fixtures

Guaranteed for an unlimited period of years against defects in material and manufacture

FACTORIES: RICHMOND, CALIFORNIA

WRITE FOR OUR CATALOG AND BOOKLET ON SCHOOL SANITATION
The forty-ninth annual convention of the American Institute of Architects was held in Washington last month. The significant feature of the gathering was the large number of delegates present—probably the largest number that has ever attended an institute convention.

The convention will easily go down in the history of the Institute as one of the most interesting and important in the life of that body. An outstanding reason for the success of the forty-ninth convention was the perfectly arranged program, which permitted the work to proceed along practical lines and without waste of time.

President R. Clifton Sturgis made a splendid address. He spoke of the record of achievement, stating that the work of groups of architects have had great influence in molding the public opinion of the profession. Not only the moral side but the esthetic side of the architect’s work has benefited by a closer co-operation. The raising of standards of good design may well be counted as an uplift of the position of the profession. Mr. Sturgis said that it was not in a spirit of pride, but thankfulness, may one consider the definite achievements of architecture.

President Sturgis, spoke of the recent trip of the Institute officers across the continent, declaring that wherever the officers went, it was necessary to understand the point of view of architects as locally related. He said the impression largely prevailed that the legislation of the Institute was framed to meet conditions differing from local affairs. Mr. Sturgis pointed out that while sometimes it was true that local conditions caused difficulty, nowhere on the trip was it found that local conditions were peculiar to any particular locality. He said that difficulties relating to the architectural profession were about the same in all sections of this country, and that architects should realize this fact and not get the idea that conditions in relation to architecture in any one community were different than those prevalent elsewhere.

President Sturgis paid high compliment to the architects of the San Francisco Exposition. In referring to the “definite achievements of architecture” as shown by the Exposition, he said that by looking back twenty-five years, we may well feel that San Francisco has achieved a success which would have been impossible then.

Plans were outlined to start work on some plan for the restoration and improvement of The Octagon, the Institute headquarters in Washington, as lack of funds for the proper maintenance of this building has been a big problem.

The special committee on the Lincoln Highway reported on its plans to bring out the artistic features in the construction and designing of bridges, monuments, and other structures for the Great Highway. It is hoped to establish State Art Commissions in each state traversed by the Highway, the duties of this commission to include control of the designing of bridges, monuments and other highway structures.

The work of the Lincoln Highway committee has been very effective, and forcibly indicates a reason for the existence of the Institute. It shows the wide development of the work of the Institute, and the possibilities that confront the architects of this country by organized endeavor.

It is certain that the influence of the Institute will be felt on the Lincoln Highway.

The committee on government architecture reported results of their efforts of the past year to influence government architecture, stating that so far as the Treasury Department was concerned, conditions are not improving, and that it would be better policy to bring influence to bear on the different communities to further the aims of the Institute. The committee disapproved of such buildings as the new Interior Building for Washington, itself, and for types of Federal buildings in Chicago. The committee recommended a campaign of criticism, intelligently carried on in the press.

The report of the Board of Directors of the Institute was one of the most important read. It made mention of the result of last year’s convention when the mandatory requirement of the fixed fee was eliminated from the Competition Code. In the discussion at that time, it was brought out by some delegates that the change would result in breaking down the Institute’s minimum fee, thereby undoing much that had been accomplished in this direction in recent years.

The directors report pointed out that the committee on competition had observed no such results, but that, on the contrary, no competition program for which the approval of the committee has been sought, during the past year, has carried a fee of less than six percent. The elimination of this fee removed the only ground which was incapable of defense on ethical grounds in connection with the Institute’s position with reference to competition.

The Board recommended that those chapters which have not already endorsed the revised Standard Contract Documents, should formally approve these new documents and let their approval be locally known, for each community is, to a considerable extent, a law unto itself in matters of building practice.

Eighty-one new members were elected to the Institute as against fifty-eight for the year previous, an increase of forty per cent. With forty-four applications still pending, it has been many years since so large a growth has been recorded, and when one stops to consider the unprecedented depression in all building industries in the past year, the strength and growing influence of the Institute is particularly gratifying.

Although the American Institute of Architects is the only national association representing the profession of architecture, there are still, nevertheless many architects in this country, well-qualified by personal integrity and professional skill for membership in the Institute. With the rapidly-growing influence of the Institute, it is hard to feel that reputable practitioners of the profession feel that they can afford to hold themselves aloof from the one society of national scope.

Surely, there can be no questioning of the fact that the organized work of the Institute is primarily responsible for the constantly improving conditions of architectural practice. Without doubt, the public is gradually ascertaining the fact that the objects of the association are ethical and professional, and that it is not organized to secure commissions for its members.
Beautiful and Permanent

Well-built Stucco is beautiful and stays beautiful. It does not crack and become disfigured. It is economical—does not require constant repairs or painting. But it must be well-built.

Stucco Specifications

We have prepared complete Stucco specifications covering different forms of construction, selection of materials, mixing, proper application, setting, finishes, etc., for good Stucco. May we send you these specifications and a portfolio of beautiful Stucco residences of Atlas-White non-staining Portland Cement?

The Atlas Portland Cement Company
30 Broad Street, New York

Chicago St. Louis Minneapolis Des Moines Philadelphia Boston

Pacific Coast Distributors of Atlas-White
Santa Cruz Portland Cement Co., San Francisco
United Materials Company, San Francisco
Pacific Portland Cement Co., San Francisco
Oro Grande Lime & Stone Co., Los Angeles
Sunset Lime Company, Los Angeles
Los Angeles Lime Co., Los Angeles
Western Commercial Co., Los Angeles
California Portland Cement Co., Paradis, Cal.
Robert H. Winn Co., San Diego, Cal.
Howard Company, Oakland, Cal.
Consolidated Supply Co., Spokane, Wash.
Evans, Coleman & Evans, Vancouver and Victoria, B.C.

Atlas-White Stucco House
Dashi, McGrath & Kerrling
Architects
Pacific Coast Chapters, A. I. A.

San Francisco Architects Enjoy Banquet.

Through the efforts of President William B. Faville of the San Francisco Chapter, A. I. A., a most successful meeting of all architects and representatives of the allied arts in San Francisco enjoyed a banquet this month. This meeting took the place of the regular monthly meeting.

The suggestion that there should be no formal speeches on the festive occasion prevailed, and the president of the San Francisco Architectural Club, Mr. A. L. Lapachet, and the vice-president of the local branch of the Beaux Arts, Mr. John Bakewell, and Mr. William B. Faville, president of the San Francisco Chapter, A. I. A., voiced an expression of welcome to those present.

Mr. Faville spoke as follows:

"It is a pleasure to address the San Francisco Architectural Club and the Beaux Arts Society, and it shall be a treat to cooperate.""I. The meaning of the word "cooperation".

Mr. Faville then took the floor and said:

"To all present, as a matter of fact, it is the entire business of the architect to cooperate, and the architect who cannot cooperate cannot, therefore, be an architect.

"The term "cooperation" is a misnomer, and the architect who cannot cooperate cannot, therefore, be an architect.

"It is a means of solving most of the problems of the world, and our own problem and that of the city can be solved by the same sort of concerted action.

"1. The meaning of "cooperation".

"2. Individual cooperation.

"3. Individual cooperation on an individual basis.

"4. Individual cooperation on a collective basis.

"5. Individual cooperation on a professional basis.

"6. Individual cooperation on a national basis.

"7. Individual cooperation on an international basis.

"8. Individual cooperation on a global basis.

"9. Individual cooperation on a transatlantic basis.

"10. Individual cooperation on an intergalactic basis.

"11. Individual cooperation on a transgalactic basis.

"12. Individual cooperation on a transcosmic basis.

"13. Individual cooperation on a transcosmic level.

"14. Individual cooperation on a transcultural level.

"15. Individual cooperation on a transracial level.

"16. Individual cooperation on a transnational level.

"17. Individual cooperation on a transcontinental level.

"18. Individual cooperation on a transcontinental level.

"19. Individual cooperation on a transoceanic level.

"20. Individual cooperation on a transoceanic level.

"21. Individual cooperation on a transcontinental level.

"22. Individual cooperation on a transcontinental level.

"23. Individual cooperation on a transoceanic level.

"24. Individual cooperation on a transoceanic level.

"25. Individual cooperation on a transcontinental level.

"26. Individual cooperation on a transcontinental level.

"27. Individual cooperation on a transoceanic level.

"28. Individual cooperation on a transoceanic level.

"29. Individual cooperation on a transcontinental level.

"30. Individual cooperation on a transcontinental level.

"31. Individual cooperation on a transoceanic level.

"32. Individual cooperation on a transoceanic level.

"33. Individual cooperation on a transcontinental level.

"34. Individual cooperation on a transcontinental level.

"35. Individual cooperation on a transoceanic level.

"36. Individual cooperation on a transoceanic level.

"37. Individual cooperation on a transcontinental level.

"38. Individual cooperation on a transcontinental level.

"39. Individual cooperation on a transoceanic level.

"40. Individual cooperation on a transoceanic level.

"41. Individual cooperation on a transcontinental level.

"42. Individual cooperation on a transcontinental level.

"43. Individual cooperation on a transoceanic level.

"44. Individual cooperation on a transoceanic level.

"45. Individual cooperation on a transcontinental level.

"46. Individual cooperation on a transcontinental level.

"47. Individual cooperation on a transoceanic level.

"48. Individual cooperation on a transoceanic level.

"49. Individual cooperation on a transcontinental level.

"50. Individual cooperation on a transcontinental level.

"51. Individual cooperation on a transoceanic level.

"52. Individual cooperation on a transoceanic level.

"53. Individual cooperation on a transcontinental level.

"54. Individual cooperation on a transcontinental level.

"55. Individual cooperation on a transoceanic level.

"56. Individual cooperation on a transoceanic level.

"57. Individual cooperation on a transcontinental level.

"58. Individual cooperation on a transcontinental level.

"59. Individual cooperation on a transoceanic level.

"60. Individual cooperation on a transoceanic level.
THE ARCHITECT

of ideas with the young. So we should all try to bring the younger and older men together in every way possible in the office and the atelier and outside the atelier. It is for this reason that such an occasion as that of this evening, which brings together the oldest and the youngest, means so much to the profession, has a great significance, and a value much greater than that of having a good time together.

"I congratulate Mr. Faville, the President of the Chapter, on having instituted this occasion, and hope that we will be able to repeat it many times."

Because of the social meeting of the San Francisco Chapter, American Institute of Architects, and the recent meeting of the Architectural Club, there was no regular meeting of the chapter this month.

Minutes of Southern California Chapter, A. I. A.

The ninety-first meeting of the Southern California Chapter of the American Institute of Architects was held at the banquet hall of the Bristol cafe, Los Angeles, on Tuesday, December 15th, 1915.

The meeting was called to order at 7:30 p.m. by President S. Tilden Norton.


The minutes of the last meeting were read and approved as corrected.

For the board of directors the secretary reported one meeting of the board held December 14th, at which meeting the following applications of Mr. S. O. Clements and Mr. W. J. Dodd were presented and approved by the board and instructions given to the secretary to send out letter ballots.

For the committee on membership, Mr. Davis reported excellent progress made in securing promises from desirable prospective members.

For the committee on entertainment, a letter was read by the secretary explaining Mr. Collins' inability to secure lantern slides for the December meeting, and suggesting that the talk, if agreeable to the chapter, be postponed until the January meeting.

For the A. I. A. sub-committee on public information, Mr. H. F. Withey read a form of circular letter setting forth general information relative to the status of an architect with client. It was suggested by the committee presenting the report that such circular letter be prepared in printed form, copies to be held by the secretary of the chapter for use in the general educational and publicity work. A general discussion was entered into by various members of the chapter and several questions were asked and answered to the same. In view of the fact that the committee on public information was not the desired and the members appointed, it was ordered by the chairman that this committee be turned over to the new committee for general revision and for presentation at the following meeting.

The president then reported the appointment of a new committee consisting of Mr. P. H. Frohman, chairman; Henry Greene and J. C. Hillman.

For the committee on city planning, the president announced the appointment of the following members: H. F. Withey, chairman; D. C. Allison, A. C. Martin, G. F. Skilling and Robert Farquhar.

For the permanent committee on legislation, Mr. J. J. Backus reported that he had met with the committee of the board of freeholders and that assurances had been rendered by them as to the retention of the 150-ft. height limit to buildings.

Further report was made by Mr. J. E. Allison, who as chairman of the committee on competitions had acted with the committee on legislation relative to the method of handling architectural work for the city. His report was to the effect that some objectionable features of the city charter relative to architectural work would be eliminated in the new charter; that architectural services might be secured by direct appointment or by competition; that the advertising and bond features had been entirely eliminated.

Further report by Mr. A. F. Rosenheim relative to the organization of the art commission under the new charter was to the effect that such charter provided for five appointed members to the commission, omitting previous existing provisions pertaining to ex-officio members; stating that three would constitute a quorum of the art commission, and that in the future the commission would have supervision over works of art in public parks.

For the A. I. A. sub-committee on education, Mr. D. C. Allison reported on the program of the atelier work.

For the special committee on speculative building companies, Mr. Percy Olsen outlined the re-organization work being undertaken by the Builders Exchange and Master Builders' Association. It was reported that the committee's committee was keeping in mind the importance of in order to determine what the chapter's policy should be with regards to the same. He also reported as to a conference held with one of the large builder companies and the securing of assurances from that in the future they would assume a more agreeable attitude with regard to the illegitimate building contractors.

Following the reading of communications:

From Mr. Burt L. Fenner, secretary of the American Institute of Architects, asking for action on the institute documents. By motion made, endorsement was accorded.

From Burt L. Fenner, secretary of A. I. A., giving a brief outline of the Pacific Coast excursion.

From Mr. W. H. Adams, secretary of the joint committee of technical societies, requesting an expression from this chapter as to the continuation of joint meetings at least yearly in the future. By resolution made, duly seconded and carried, the chapter voted to take part in such a joint meeting.

From the Minnesota Chapter American Institute of Architects, calling attention to proposals of the convention relative to membership. The communication was referred to the committee on competitions.

From Miss M. L. Schmidt, manager of the Metropolitan Exhibit, asking an expression from the chapter as to the holding of an annual architectural exhibit at the Metropolitan Exhibit room. By resolution made, duly seconded and carried, the president was authorized to appoint a committee to take this matter up with Miss Schmidt.

Under the head of unfinished business, the matter of reconsidering the question of resigning from the Southwest Society came up for discussion. Following an eloquent plea from Mr. John P. Krempel, it was moved, seconded and duly carried, that this chapter move to reconsider, thereby placing the chapter again in active membership.

Under the head of new business, the question came up for discussion relative to the status of Mr. George Lowe, supervising architect for the county. This matter was referred to Mr. John P. Krempel, member of the state board of architecture, southern district, for report at the next meeting.

Discussion was next entered into relative to the location for holding annual conventions.

Mr. H. F. Withey, next presented a resolution covering the matter of the creation of a special fund made up of all initiation fees paid into the chapter; the interest or dividends derived therefrom to be devoted to educational purposes. After some discussion this resolution was referred to the board of directors.

The meeting adjourned at 10:10 p.m.

A. R. WALKER,
Secretary pro tem.
Per R. W.
Homes & Grounds

“CALIFORNIA’S ARTISTIC HOME MAGAZINE”

PUBLISHED AT SAN FRANCISCO EACH MONTH
ON SALE AT NEWSTANDS

January Issue Now Being Distributed

“HOMES AND GROUNDS” will fill the long-felt need for a magazine featuring the best types of California residence and bungalow architecture and the artistic landscape effects so successfully developed here.

As its name implies “HOMES AND GROUNDS” will be of special interest to the home-owner and to the prospective owner of a home, to the architect, landscape architect and interior decorator. It will advocate and stand for all that is best in the special field it occupies.

Each month it will present a careful selection of fine photographic reproductions showing exterior and interior views, methods and styles of interior decoration and furnishings, lighting and other features of interest. INVALUABLE SUGGESTIONS CAN BE OBTAINED FROM EACH ISSUE. Landscape features of the home will be beautifully illustrated. Experts in landscape will tell of planting and how to attain the artistic effects for which California gardens are so widely known.

YOU WILL ENJOY EVERY ISSUE

Clip and mail coupon today

<table>
<thead>
<tr>
<th>SUBSCRIPTION ORDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOMES AND GROUNDS</td>
</tr>
<tr>
<td>..........................</td>
</tr>
<tr>
<td>J. A. DRUMMOND, Publisher</td>
</tr>
<tr>
<td>725 Chronicle Bldg.</td>
</tr>
<tr>
<td>San Francisco</td>
</tr>
<tr>
<td>Please find enclosed Our Check P. O. Money Order for $1.50 for one year’s subscription to “HOMES AND GROUNDS” beginning with number. Or enter order for subscription and will remit you the sum of $1.50 upon receipt of invoice.</td>
</tr>
<tr>
<td>Name ..........................</td>
</tr>
<tr>
<td>Address ..........................</td>
</tr>
<tr>
<td>Terms—Cash in Advance. City .......................... State ..........................</td>
</tr>
</tbody>
</table>
Mt. Diablo Cement

Always Used Where Quality Counts

COWELL SANTA CRUZ LIME

Henry Cowell Lime & Cement Co.
2 Market Street, San Francisco

BRANCHES:
Oakland  Sacramento  San Jose  Santa Cruz
Portland, Oregon  Tacoma, Wash.

JOHNSON SERVICE CO.
Established in 1885
The only company on the Pacific Coast handling temperature regulation exclusively with our own corps of Skilled Mechanics.

JOHNSON THERMOSTATS ARE STANDARD
429 Lumberman's Bldg
Portland, Oregon
1104 White Bldg
Seattle, Wash.
600 Citizens National Bank Bldg
Los Angeles
140 Fith Street
SAN FRANCISCO

Just the Thing for Bungalows, Apartment Houses or Large Residences

This little Tacoma Residence HAS AN AUTOMATIC COOLER
IT ELIMINATES THE UNEHANTARY ICE BOX AS WELL AS THE ICE BILL
IT SAVES MONEY, ROOM, TIME AND TROUBLE

Just the Water that you ordinarily Use First circulates through the Cooler.

E. Falkenhainer
25 West 42nd Street
NEW YORK CITY

Draughtsmen's Blouses
A specially designed studio and office robe, made of well-wearing material, washable, of a serviceable buff shade, offering a complete protection of clothes from wear and tear. Sent to any address, prepaid upon receipt of price.

Style A $1.50
Style B $2.00

Special discounts in lots of one dozen or more

Put Eternal Beauty Into Your Concrete

ARCHITECTS who seek to reproduce the beauty of ancient Grecian architecture will appreciate the value of

Bay State Brick and Cement Coating

This coating not only waterproofs concrete and stucco walls, but it equalizes the color. Overcomes the blotched effect of rain. Gives an artistic dull surface, but doesn't mar the texture of the concrete or stucco.

Many of the country's leading architects specify Bay State Brick and Cement Coating— their reasons why are given in our free booklet. Write for it. Free sample can be sent too. Say what tint you prefer.

WADSWORTH, HOWLAND & CO., Inc.
Paint and Varnish Makers
Boston, Mass.

JUST THE WATER THAT YOU ORDINARILY USE FIRST CIRCULATES THROUGH THE COOLER.

Automatic Cooler Co.
TACOMA, WASH
Write for Descriptive Circular
Low Pressure Crude Oil Burning Equipment

Not how Cheap—but how Serviceable

WAR DEPARTMENT
OFFICE CONSTRUCTING QUARTERMASTER,
UNITED STATES ARMY
Fort Mason, San Francisco, Cal.,
Nov. 28, 1914.
S. T. Johnson Co.,
San Francisco, Cal.—

Gentlemen: Referring to your inquiry about
the Oil Burning System installed by you at Fort
Baker some time ago under this office, I wish to
say that this low pressure air burning system has
given entire satisfaction. This central system,
with its air and oil mains to each building, is very
simple and there are no parts to get out of order,
if once put in right. A saving of about 70 per cent
over price of coal has been made by this change,
and the plant will soon pay for itself.
Respectfully,
O. W. Degen,
Civil Engineer & Supt. of Const.
The United States Government has 132 Johnson
Burners in Daily Use

S. T. JOHNSON CO.

Best Plaster for
ALL CLASSES OF
BUILDINGS

Otis Elevator Co's Plant painted with
L. & S. Cement Paint

The entire corrugated iron structures of this well-
known company, located at Beach and Stockton
Streets, San Francisco, have been painted with
Silver Grey, L. & S. Cement Paint.
The adhesive properties, combined with water
proofing qualities of this paint, make it particu-
larly superior for corrugated iron surfaces. Pro-
duces an elastic flat finish, unaffected by atmos-
pheric changes, making an ideal protection.

L. & S. Cement Paint is adaptable for all surfaces.
Write for literature and color card.

Paint Products Corporation
LAIRD & SINCLAIR, Distributors
Sharon Building
San Francisco.
The Paint That Made the Exposition Famous
CREOSOTED
WOOD BLOCK FLOORS

The Silent, Everlasting Surfacing for—

Factories
Machine Shops
Automobile Plants
Fire Engine Houses
Railway Car Barns
Warehouses
Freight Depots
Docks
Ferry Terminals
Dairy and Stock Barns
Bridges
Trestles
Ferry Boat Docks
Tennis Courts
Playfields

Wherever Long Life, Quietness and Low Cost are the Consideration

Pacific Creosoting Company

NORTHERN LIFE BUILDING
SEATTLE, WASH.

Operating at Eagle Harbor, Wash., one of the World's Largest Creosoting Plants.

Equipped With

PITCHER
Disappearing Doors
Adjustable Hangers

AND

PATENTED FRAMES

Pitcher Disappearing Doors installed in 3/4 inch partitions.
No extra thickness of wall required. Specify Sliding Doors in place of Swinging Doors.

WRITE FOR PARTICULARS

NATIONAL MILL & LUMBER CO.

FIFTH AND BRYANT STS.
SAN FRANCISCO, CAL.
When the practical property owner of today buys a roof he demands something more than a mere roof covering. He weighs the claims of one roof against another and bases his decision upon hard facts and unassailable evidence.

HE DEMANDS—Protection. Because he wants a roof that is absolutely fire, wind, rain and weatherproof. He wants a roof that will afford permanent protection and will stand up under any sudden and violent climatic changes. Consequently he demands AMBLER ASBESTOS "CENTURY" SHINGLES, "The Roof EverlastinG."

Because of these qualities and because of the fact that Ambler Asbestos "Century" Shingles have demonstrated these qualities in some 50,000 instances—there popularity is increasing accordingly.

When you draw your specifications, please see that the words are incorporated, Ambler Asbestos “Century” Shingles, and avoid inferior substitutions, not made by patented “Century” process.

Sold by the
Keasbey & Mattison Co.
Manufactured by the
Asbestos Shingle, Slate & Sheathing Co.
Ambler, Penna., U. S. A.

J. A. DRUMMOND
Pacific Coast Representative
725 Chronicle Bldg., San Francisco.
Stock Carried in San Francisco.
Meyer System
STEEL FORMS
FOR CONCRETE FLOOR CONSTRUCTION

Economy, rigidity, soundproof and permits rapidity of joist floor construction.

CONCRETE ENGINEERING CO.
Rialto Bldg., San Francisco, Cal.

SPECIFY
NEPHI PLASTER ONLY
IT MAKES THE WALL
Standard for 25 years on Pacific Coast and Intermountain West
Hardwall, Finishing, Casting, etc.

NEPHI PLASTER & MANUFACTURING CO.
San Francisco Office, Builders Exchange
180 Jessie Street—Phone Butter 6700
MAIN OFFICE, 711 BOSTON BUILDING
Salt Lake City, Utah.

PORTLAND LOS ANGELES SEATTLE
R. N. Nason & Co.
PAINT MAKERS
151 Potrero Avenue—SAN FRANCISCO—54 Pine Street
MAKERS
NASON'S OPAQUE FLAT FINISH
A flat oil paint made in soft Kalsomine Tints that is washable—a practical article for walls, ceilings, etc., that is economical and durable.

AGENCY
Tamm & Nolan Co.'s High Grade Varnishes and Finishes
The goods made on the Pacific Coast for the climate of this Coast.

GUARANTEED to meet Standard and U. S. Government Specifications for first grade Portland Cement

Santa Cruz Portland Cement Company
Works: Davenport, Cal.

Standard Portland Cement Corporation
Works: Napa Junction, Cal.

GENERAL OFFICES
Crocker Building
San Francisco

CHOICE
OF
Four Routes
EAST
NEW ORLEANS
OGDEN PORTLAND
EL PASO

"SUNSET ROUTE"
Along the Mission Trail and through the Dixie Land of song and story.

"OGDEN ROUTE"
Across the Sierras and over the Great Salt Lake Cut-off.
Four daily trains to Chicago via Ogden and Omaha or via Denver and Kansas City to St. Louis. Shortest and quickest way east.

"EL PASO ROUTE"
The Golden State Route through the Southwest.
Two daily trains to Chicago and St. Louis via Los Angeles, Tucson, El Paso and Kansas City.

"SHASTA ROUTE"
Skirting majestic Mount Shasta and crossing the Sierras.
Four daily trains to Portland, Tacoma and Seattle—through Oregon and the Pacific Northwest.

Southern Pacific Service is Standard
Best Dining Car in America
Oil Burning Engines—No cinders, No Smudge, No Annoying Smoke
Awarded Grand Prize for Railway Track, Equipment, Motive power and Safety-First appliances, San Francisco Exposition, 1915.
For Fares and Train Service, Ask Southern Pacific Station Agent.
One Hundred

This popular symbol of perfection also denotes the number of American cities with an Otis Office.

The presence of the Office in or near your city is a valuable addition to the resources of the Architect.

Because of it, you can always have the benefit of the most extensive elevator experience. In planning for the correct type and number of elevators for any building, you can secure the impartial and complete advice of the local Otis representative without delay and without obligation.

On your next building plans, write or telephone the local Otis Office for the Otis advisory service.

OTIS ELEVATOR COMPANY
Eleventh Ave. and Twenty-sixth St., New York
2300 Stockton Street, San Francisco
OFFICES IN ALL PRINCIPAL CITIES OF THE WORLD

The WORLD'S WORD for
ELEVATOR SAFETY
For Tasteful & Hygienic Wall Coatings

"It matters little to the Architect that Fuller Washable Wall Finish works easily, flows together like an enamel, and covers well—that is the business of the Painter. The Architect is interested more particularly in the final finish that it produces. Fuller Washable Wall Finish expresses results in terms of—long unchanging life, permanence of color, soft restful tints, and a smooth, porcelain-like surface that can be washed without injury to the wall. For the walls of hospitals, office and public buildings, bathrooms, kitchens, lavatories, etc., Fuller Washable Wall Finish is unequalled.

W. P. FULLER & CO.
MANUFACTURERS
SPECIALIZED PAINT AND VARNISH PRODUCTS
FOR EVERY PURPOSE.
This group of modern residences were designed and erected by ARCHITECTS R. G. McDowell & CO., DES MOINES, IOWA.

BERRY BROTHERS' VARNISHES were used exclusively in the finishing of them.

Behind this Trade Mark is the result of nearly sixty years of varnish making.

From kettle to final sealed package, Berry Brother's Varnishes are as perfect as chemistry and skilled labor can produce.

Here are two of the most reliable finishes made—every architect should be familiar with them:

LIQUID GRANITE—For floors and all interior woodwork subjected to severe wear, such as window sills and casings, bath rooms, etc. It is mar-proof, makes a handsome finish, and is easily kept clean.

LUXEBERRY WHITE ENAMEL—Whitest white—stays white. Makes a permanent snow white finish in either dull or gloss effects. It will not chip or crack, is durable and washable.

Write our Architectural Department for interesting literature on wood finishing.

BERRY BROTHERS (INCORPORATED)
World's Largest Varnish Makers

DETROIT    SAN FRANCISCO    WALKERVILLE, ONT.
The Peralta Apartments were finished with two coats of Concreto over six years ago.

The present condition of the paint is absolute proof of the lasting quality of Concreto.

SOLE MAKERS THE MURALO CO. NEW YORK
San Francisco Office: 311 California Street
A. L. GREENE, Agent

DISTRIBUTORS

Los Angeles
SUNSET PAINT CO.
627 S. Main St.

San Francisco
D. H. RHODES
546 Valencia St.
The entire interior of the beautiful Palm Court Apartments is finished with

**Kyanize**

WHITE ENAMEL

**BOSTON VARNISH COMPANY, BOSTON, U.S.A.**

San Francisco Office and Warehouse: 311 California Street

A. L. GREENE, Agent

Seattle
CAMPBELL HDWE. CO.
1st Ave. and Madison St.

Tacoma
W. J. HANSON & CO.
1129 Broadway

Portland
W. M. SMITH CO.
550 Williams Ave.

San Francisco
D. H. RHODES
516 Valencia St.

Los Angeles
SUNSET PAINT CO.
627 S. Main St.
"Put the fuel in the cellar—not on the roof"

* Tin roofs give complete protection against fire after the same manner as a standard fire-covered fire-door or shutter. If fire starts inside the building the tin roofing will often hold it in check.
* Roofs of Target-and-Arrow tin are exceedingly durable, often outlasting the life of the building itself.
* Tin roofing can be used to cover any slope from a flat surface to a vertical wall.
* A roof of Target-and-Arrow tin is economical. It needs only a coat of paint every four or five years to keep it in good condition as long as the building stands.
* A tin roof is very light—only 65 lbs. per hundred square feet.
* Everyone who has had experience with roofs of Target-and-Arrow tin will acknowledge these facts. The attacks made against tin roofs by promoters of other kinds of roofing apply only to cheap roofing plates, the inferior output of an extensive industry. Such statements are not true of this old-time, heavily-coated, well-made roofing tin, which has always given such excellent satisfaction in service.

A GOOD BUILDING IS WORTH A GOOD ROOF

High Grade Tin Replaces Tar Roofing

* This handsome modern apartment building was formerly covered with a tar-and-gravel roof. This roof developed leaks and gave a great deal of trouble. Attempts to repair the composition roofing proving unsuccessful, the owner concluded to do what should have been done in the first place, namely, to put on a high-grade, permanent roof. The tar-and-gravel was accordingly removed and a roof of IC Target-and-Arrow roofing tin applied.
* The illustration shows the roof with the sheet metal roofers at work, and the Hudson River and Pallisades in the background.
* 100 boxes IC 14"x20" Target-and-Arrow roofing tin were required for this job. The moral of this incident is obvious.
White Matt Glazed Terra Cotta

BY

STEIGER TERRA COTTA & POTTERY WORKS

Factory: South San Francisco, Cal.

Offices: 729 Mills Bldg., San Francisco
THE NETHERLANDS BUILDING
P. P. I. E.

WARD & BLOHME, ARCHITECTS;
SAN FRANCISCO

ROOFED WITH

LARGE SPANISH TILE

Los Angeles Pressed Brick Co.
402-414 Frost Bldg., Los Angeles, Cal.

United Materials Company
5 Crossley Bldg., San Francisco, Cal.
Distributors for Northern California
THE ENTIRE LOBBY IS IN

Polychrome Architectural Terra Cotta

MANUFACTURED BY

GLADDING, McBEAN & CO.

Offices: CROCKER BUILDING
San Francisco

TRUST & SAVINGS BUILDING
Los Angeles

Factory
Lincoln, California
BELGRAVIA APARTMENTS
795 Sutter Street
San Francisco

Frederick H. Meyer
Architect

Matt Glazed
Architectural Terra Cotta

Used in the two facades
of this building

WAS MANUFACTURED BY

N. CLARK & SONS

OFFICE
116 NATOMA ST., SAN FRANCISCO

FACTORY
WEST ALAMEDA, CALIFORNIA
## PLATE ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Plate Illustrations</th>
<th>Architect</th>
<th>Plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casa Madrona Apartments, San Francisco</td>
<td>Rousseau &amp; Rousseau</td>
<td>17</td>
</tr>
<tr>
<td>Casa Madrona Apartments, San Francisco</td>
<td>Rousseau &amp; Rousseau</td>
<td>18</td>
</tr>
<tr>
<td>Haroldon and Colonade Apartments, San Francisco</td>
<td>Rousseau &amp; Rousseau</td>
<td>19</td>
</tr>
<tr>
<td>Entrance Detail, San Francisco Apartment</td>
<td>Rousseau &amp; Rousseau</td>
<td>20</td>
</tr>
<tr>
<td>Apartment House, San Francisco</td>
<td>Rousseau &amp; Rousseau</td>
<td>21</td>
</tr>
<tr>
<td>MacRoth and Cornwell Apartments, San Francisco</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elston and Clarke Apartments, Berkeley</td>
<td>W. H. Ratcliff</td>
<td>23</td>
</tr>
<tr>
<td>Trinity Place Apartments, Portland</td>
<td>Root &amp; Kerr</td>
<td>22</td>
</tr>
<tr>
<td>Community Apartments, San Francisco</td>
<td>T. Patterson Ross</td>
<td>24</td>
</tr>
<tr>
<td>View in Apartment Court</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Apartments, San Francisco</td>
<td>T. Patterson Ross</td>
<td>25</td>
</tr>
<tr>
<td>Anzonia Apartments, Tacoma</td>
<td>Heath &amp; Gore</td>
<td>27</td>
</tr>
<tr>
<td>Bryson Apartments, Los Angeles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bremnor and Brown Apartments, Portland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olympian Apartments, Seattle</td>
<td>Claussen &amp; Claussen</td>
<td>29</td>
</tr>
<tr>
<td>Tudor Arms Apartments, Portland</td>
<td>A. R. Wassell</td>
<td>31</td>
</tr>
<tr>
<td>Meadowbrook Apartments, Oakland</td>
<td>John Carson</td>
<td>32</td>
</tr>
<tr>
<td>B. C. Newhall Apartments, San Francisco</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## TYPE PAGES

<table>
<thead>
<tr>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rousseau &amp; Rousseau</td>
<td></td>
</tr>
<tr>
<td>Twentieth Century Habitation</td>
<td>B. J. S. Cahill 81</td>
</tr>
<tr>
<td>In Memory of Karl Ritter</td>
<td>Hart Wood 84</td>
</tr>
<tr>
<td>Of What Shall a Roof Be Made</td>
<td>86</td>
</tr>
<tr>
<td>Buttonued—An Improved Lathing Material</td>
<td>119</td>
</tr>
<tr>
<td>An Inexpensive Refrigerator</td>
<td>122</td>
</tr>
<tr>
<td>Ansonia Apartments, Tacoma</td>
<td>Heath &amp; Gore 124</td>
</tr>
<tr>
<td>Editorial</td>
<td></td>
</tr>
<tr>
<td>Chapter Minutes</td>
<td>125</td>
</tr>
</tbody>
</table>

## THE ARCHITECT

Published in the interest of the architectural profession, on the first of each month, at 215 Mission Street, San Francisco.

Subscription in the United States and Possessions, $5.00 a Year. Foreign and Canadian, $6.00 a Year. Single Copies, each 50 cents.

Entered as second-class matter at the Postoffice in San Francisco. Philadelphia Office: Beeson & Wilson, Forrest Building.

Changes in, or copy for, new advertisements must reach the office of publication not later than the fifteenth of the month preceding issue.

Advertising rates and any other information will gladly be given upon application. Telephone Douglas 3424.
RECEPTION HALL
ALHAMBRA APARTMENTS, SAN FRANCISCO
DUNN & KEARNS, ARCHITECT
Rousseau and Rousseau.
By B. J. S. Cahill, A. I. A.

We have all heard of the witty Frenchman's solution of the problem that one time puzzled scholars as to the real authorship of the Homeric poems. He solemnly announced that the Iliad and Odyssey were not originated by Homer at all, but by another man of the same name.

At one of the recent architectural exhibitions we were reminded of this comic piece of casuistry in noting some remarkably well conceived and remarkably well rendered designs from the office of Rousseau & Rousseau. Now the name of Rousseau has been a familiar one in building circles, and when the name is mentioned we instantly form a fairly definite composite picture of what we have been accustomed to associate with the name Rousseau for many years. Every architect of average activity who has practiced long enough to give fair expression to what is in him creates this outward expression of himself in his work.

Now the impression we got from the exhibition in question was much at variance and in striking contrast to the existing composite mental picture conjured up by the name Rousseau — so much so that we found ourselves rubbing our eyes, as the critics say, and looking closer to see if, after all, we had read aright. Genuine surprise was followed by a sensation of interest, coupled with admiration. To be more specific, we recall stunning perspectives of two skyscraper hotels. One was a 29-story building project for the northwest corner of Pine and Stockton Streets. The building was square in plan and was conceived in so orderly a manner, that after the fashion of Greek temples, one is able to describe it in writing so closely that a practised designer could easily reconstruct the design aspect of the building from the description. Each facade is punctuated with five window openings evenly spaced, and each with a mullion and transom. This system of penetration continues clear to the first attic story over the main cornice. Above this four floors recede equally from the outer boundaries of the lot in a stepped pyramid of four stages, where the windows come close to one another, in units instead of in pairs. Over the top story, with over-receding fronts, is an open square belvedere of twelve Ionic columns topped by a similar smaller belvedere whose roof is a pyramid. From the apex rises a flagpole. The silhouette is as splendid as it is sensible, because a square plan predates square panels in the floor frame, and there is much structural logic in carrying up each receding floor on the next inner line of columns. Though this need not actually take place, one gets the mechanico-esthetical sense of it, which is far more important.

The first floor is arcade with courts and mirrors, boldly rusticated. The three central arches form the entrance on Stockton Street and have a marquee. This story ends with a band course of moderate projection on which rises an order of double Corinthian pilasters through two more floors with full entablature. After another story follows with square parged piers and belt course above this, the main shaft runs up through ten plain floors. It is naturally understood that the whole structure bears the usual analogy to a classic column with bare shaft and capital. We have described the base, which occupies four floors, and the shaft, which takes up ten floors. We now come to a story with well defined belt courses, top and bottom giving the sense of a necking. Above this the piers develop into another order of single pilasters carrying a third story as a sort of frieze, and then comes the main massive cornice with the attic before mentioned and the crowning pyramid of floors first described.

The entire design is in every way admirable. It is without prohibitive elaboration and yet in the mass and proportion of its parts it has an elegance of its own achieved without undue expense. Moreover, this design is entirely free from a certain fussiness that mars too many of our tall buildings.

The other design spoken of was also a square tower, apparently "finished" on all sides. This structure shows four bays on each side and mounts up with bare shaft and capital through 16 stories, the whole being crowned by a mighty cornice.

ENTRANCE TO COURT
CASA MADRONA APARTMENTS, SAN FRANCISCO
ROUSSEAU & ROUSSEAU, ARCHITECTS
A very ordinary problem that quite frequently calls for solution. And many an architect with just such problems would despair of doing anything worthwhile within such narrow limits. And yet it is exactly in dealing with such minuscule problems that architectural talent reveals itself. Any problem whatsoever can be made a masterpiece, no matter how hackneyed or how often done before.

This particular design has been realized in the Garfield Hotel, on Geary and Larkin Streets. With the exception of the unpleasant use of white tile in the piers on the main floor, this block is about as satisfactory a piece of design as one could possibly evoke out of the conditions prescribed. The proportions are admirable; the upper story and cornice display real elegance. The detail maintains admirable scale and the brickwork gives texture and color to the long walls and piers that otherwise might easily be monotonous. The chubby looking columns on the main floor are explained away as whims of the owner. This, however, is an excuse that does not excuse itself. It is an architect’s business to overrule his clients’ idiotic whims.

As this number of “The Architect” is the first of a series dealing with apartment houses only, this class of building is herein illustrated. As no plans are shown, we can only refer briefly to the designs.

They may be classed in three groups and no doubt represent three stages in the growth of the firm of Rousseau & Rousseau, now represented by the young men whose admirable designs we first noted at a public exhibition.

The first group, not represented here, consists of rather small buildings, rather clumsily articulated with protuberant bays and massed with several features, and various odds and ends of architectural bric-a-brac that indicate and express the earlier Rousseau traditions of Rousseau Sr.

The Junior Rousseau output which excited our admiration is in very marked contrast. In the north while within such two groups: a brick renaissance and a plastered type based on adobe conditions, further modified by reinforced concrete practice and flavored with certain surface features that we suspect are derived from modern German work.

Of this type are the
THE ARCHITECT

Casa Madrone Apartments. They are not without interest as novelties and perhaps may be types of a transitional mode that may some time shed its crudities and assume the dignity of an acknowledged style.

In the same class are the MacRolph Apartments, suggestive of Zuni pueblos and the cliff homes of the Hopi Indians.

The brick fronts, with renaissance mouldings and members done in wood or metal, and sometimes terra cotta, are all well designed, the brick, of course, as most modern brickwork is, being used as decorative tiles to form agreeable patterns in varied tones, occasionally relieved with a bit of marble faience or terra cotta, without any regard to bond, that structural device which, of course, first suggested using brick for its patterns and not for its support. That this is perfectly defensible could be proved by endless analogies in architecture. Most of the ornamental features of a given order are reminiscent of functions long since obsolete.

On the whole, the buildings illustrated are along sound lines, and it must be remembered that what is shown is but a fraction of the output of a very busy firm. It is the fact that these young men have done such admirable work and by the extent and efficiency of their organization are in the way to do a great deal of a much more serious and monumental character in the near future, that "The Architect" has featured their work to remind its readers that the name of the firm is also symbolic of its achievement, summarized in the legend—Rousseau, and Rousseau.

The American Academy in Rome announces its annual competitions for fellowships in classical studies.

The following Fellowships will be awarded: A Fellowship of the value of $1,000 a year for one year; a Fellowship of the value of $1,000 a year for two years. The awards are made on competitions which are open to all unmarried citizens of the United States who comply with the regulations of the Academy.

General Regulations.
Sec. 1. All persons desiring to compete for a Fellowship must fill in a form of application, which will be furnished by the Secretary of the Academy upon request, and file the same with the Secretary not later than March 1st, together with such letters of reference and other documents or evidence as they may desire to submit. Application and papers must be submitted in triplicate.

Sec. 2. They must submit evidence of attainment in Latin literature, Greek literature, Greek and Roman history and archaeology, and an ability to use German and French. They will be required to present published or unpublished papers so as to indicate their fitness to undertake special work in Rome.

The Fellows will be selected without examination, other than the submission of the required papers, by the Fellowship Jury, of whom the following are members: James C. Eighert, Columbia University, Chairman; George L. Hendrickson, Yale University; Gordon Laing, University of Chicago; Allan Marquand, Princeton University; Chiford H. Moore, Harvard University; Leverett Moore, Vassar College, Secretary; Chandler R. Post, Harvard University; John C. Rolfe, University of Pennsylvania; Moses S. Slaughter, University of Wisconsin.

Sec. 3. The competition in Classical Studies will consist of the submission of evidence of special fitness for advanced work, and Academy Fellowships will be awarded to the successful competitors.

Fellows in Classical Studies will be required to engage in some piece of special research during the term of their Fellowship, and to publish the results of their investigation, as the Academy may direct.

Sec. 4. The stipend of each Fellow will be paid as follows:
(a) Immediately prior to departure for Rome, one hundred ($100) dollars for traveling expenses to that city.
(b) Subsequent to October first, following the award, a monthly allowance of seventy-five ($75) dollars, less the following deductions: The actual cost of subsistence, which will be retained monthly by the Director while the Fellow is in residence, in payment for board, and a sum of ten ($10) dollars per month for eight months of each year, which will be temporarily withheld.

C. Grant Le Farge, Secretary.

DUNEDIN APARTMENTS, SAN FRANCISCO
ROUSSEAU & ROUSSEAU, ARCHITECTS

83
The Twentieth Century Habitation.

By HART WOOD

OF WOOD & SIMPSON, ARCHITECTS, SAN FRANCISCO

T
HE growth of the modern apartment house in this country had its beginning in New York City in the early eighties, and was contemporaneous with the modern development of the passenger elevator. Its introduction and development in the present form was due almost entirely to the efforts of one man, Philip G. Hubert, an architect of the firm of Pirsson & Hubert. Considering the remarkable growth and the unusual incentive, on account of keen competition and perpetual demand for novelty, to improve and economize, the work of this man is most remarkable. At a time when steel frame construction was in its infancy, he designed and built several of these buildings, many of which would not be considered insignificant in this day of large structures. One of the most notable of his work was a group of apartment buildings at Fifty-eighth and Fifty-ninth Streets on Seventh Avenue, in New York City. This consisted of eight separate buildings, twelve stories high, covering an area of 990 by 425 square feet. It is interesting to note that few of our present day apartment buildings exceed this height. He was the originator of both the co-operative and the duplex ideas and was the first to use a system of refrigeration operated from a central plant.

Vitruvius tells us that there are five classes of temples divided according to the spacing of their columns as follows: First, with the columns close together; second, with the inner columns a little wider; third, more open still; fourth, with the columns farther apart than they ought to be, and fifth, with the spaces just right. Now in the apartment house, the unit, of course, is the room, so by substitution it is obvious that the same classification will apply. Theoretically, therefore, we may say after Vitruvius, that there are five classes of apartment houses. Other classifications he also gives us for subdivision, but tabulation lies without the scope of this article. Further research on the part of the reader will undoubtedly disclose many other striking similarities. From the poorest tenement to the gold plate "suite de luxe," each will be found to fit under one of these headings.

Modern exponent of the simple life, antithesis of the Roosevelt doctrine, product of intensive life, and modern substitute for the hearthstone, the apartment house typifies our city existence. Its progenitor was novelty and its life innovation. Its dress is tinsel but its body is convenience. Elegance and luxury its companions and sentiment a distant relation. It has dispensed with the servant and banished labor, concentrated essentials and economized existence. Product of progress, it is like the fabulous creatures of James Whittcomb Riley "at swallows' mercy." It is a success only so long as it is a novelty and it is a novelty only till the next one is built. Depreciation walks always at its heels. It is one of the favorite instruments used by the speculator in that common operation—"extracting the bank roll,"—in this respect ranking second only to mining stock and the gold brick. The subject is first placed under the lethal influence of a full house; hypnotic suggestion of 29 per cent returns applied, and the operation is then painlessly accomplished.

While subject to much abuse at the hands of the jerry builder, speculator and the other vandals, the apartment house is nevertheless adaptable to a legitimate enterprise, sus- ceptible to dignified treatment, and profitable investment. The high degree of economy and efficiency obtainable in the associated dwelling were readily appreciated by the financial juggler, and with the avarice characteristic of his class, he has proceeded to pervert these very qualities to the detriment of legitimate enterprise, and by colonizing and devising methods of construction succeeds in unloading with almost monotonous regularity.

This class of activity has predominated hitherto to such an extent that the more serious side has been lost sight of. It is still possible to plan living rooms to live in, kitchens to cook in and dining rooms to dine in, instead of resorting to expedients; the distinction being that between living and mere existence.

The essential elements of an apartment do not differ necessarily from those of a home. It is in effect a group of homes and it is possible with inconsequential variations to incorporate all the essentials of a well-planned dwelling. Everything necessary in a house may be transposed to an apartment, and once inside the suite there is nothing, barring the outlook, which would differentiate it from the detached dwelling, with the added advantages due to concentration. It is even possible to have the sleeping and living quarters on separate floors.

Why, then, should this particular form of habitation be degraded to a place of mere existence?

The excessive advantage taken by the speculative builder of the investment possibilities of the apartment is undoubtedly responsible for the increasing difficulty of renting and the constantly diminishing returns which they can be made to earn. In the demand for concentration the sentiment of life has been lost. The possibility of living and dining and sleeping in the same room is unquestionably economical to a superlative degree, and may be practical, but life without sentiment is not life, and if there is no sentiment in the home, there is certainly not much anywhere.

Those intricate associations which gather round the home and transform it from a mere house to a part of one's life have nothing in common with the accepted conception of apartments. The seat of the fireside, the family table, the library, the furniture and ornaments, paintings and rugs, all become mere instruments of convenience when transferred to the "two rooms and bath." Why not build more apartments to live in?

The reaction against the extremely compressed apartment has already begun, and there is now evident a desire for the change, indicated by the increasing difficulty of renting, and this desire is recognized by investors, but as yet the particular expression of the desire does not appear to have taken definite form. There is a marked dissatisfaction evident with the existing order. The tricks and artifacts for "pleasing the public" appear to have become almost ex-
haunted. Is it not reasonable to assume that a place with all the conveniences of home and all the conveniences of an apartment would be an attraction to lure the distracted house hunter?

Apartments designed as real homes have heretofore been provided only for the rich. There are some exceptions of very recent date which appear to have been particularly successful, notably some in the New York suburbs and in Southern California. These are located in residence districts, and the fact that they are well rented may indicate that a downtown location may not be so essential as has been supposed. The poor man may now have an automobile, why not also an apartment without making it like the handy tool of a hundred uses which is good for none.

Almost simultaneous with the introduction of associated dwellings was the conception of the co-operative apartment, or "home club." A miniature colony of aristocratic socialists foredoomed to failure, it nevertheless reappears intermittently as a brilliant inspiration. Alluring in prospect, it is disappointing in fact. Division of authority and responsibility has ever been a source of failure. What is everybody's business is nobody's business.

And the lack of centralized authority and of definite responsibility causes a laxness of administration which eventually disrupts the association.

Admitting all of the advantages in favor of apartments, there are some qualities which are lacking and which are of necessity impossible to attain.

The home atmosphere is absent, as is also the desirable ground space, and they are also unsuitable for the raising of families. It may be that this latter is not of itself sufficient reason in this age to cause undue apprehension for the future of apartments. Despite the prevailing tendency of the American family toward absolute zero, there are yet some who persist in the belief that it is the duty of man to replenish the earth. For these the apartment is not. Concentration, restriction and convenience have nothing in common with normal childhood. All outdoors is not too big and cast iron is not impervious to the tireless destructive energy of the active human young.

The advantages obtained by associated dwelling have heretofore been confined to those assembled under one roof. That is, the close grouping of these units has made it possible to obtain at comparatively small cost those conveniences which in a separate building are possible only at disproportionate expense, labor and inconvenience. Custom cases are as accessible as down town, but these could, if necessary, be also furnished from a central plant. The services of one or two handy men then are all that is necessary to complete the scheme. Thus we have the comforts of home with the conveniences of an apartment; there is no more objection to children, and he who desires the sight of green grass and flowers from his windows is accommodated. All of the upkeep and labor devolves upon the management; all of the petty annoyances incidental to the possession of the individual house are assumed by those whose business it is to look after those things and to whose interest it is to see them properly taken care of. Upkeep and repairs, odd jobs and handy work, lawn tending and garden work, if desired, all may be so handled. These, being controlled by the central management, will be economically and efficiently administered.

The question arises, Why not use less expensive land, separate the units and provide all of the conveniences? Given a piece of land, say a city block in the residence section. Lay out the houses as apartments, i.e., separated, of course, but with due regard one for the other, that the whole, while reasonably compact, may take all advantage of light and air, and each with due consideration for his neighbor; in this much to be a similar scheme to the "garden cities" of France and the East. The planting and architecture are designed with the idea in mind of the finished whole. Each house then considers its neighbor's view, respects its lot line and the ever-present possibility of some one building a monstrosity is dispelled. It quite often happens in individual house building on uniform lots, in the expensive foreign town to secure to himself the maximum of view and exposure, one blankets the other, with the result that most of it is lost to all. Each unit will then be planned with due regard to its own interests, but also with the interest of the others in mind.

It is obvious that under such circumstances the maximum of efficiency may be obtained from a given piece of land, and the planting being designed for the whole group immediately opens possibilities in that line which do not occur at present, where it is done not only without uniformity, but for the most part without study. In addition then provide a central heating plant, and pipe steam and hot water to the separate houses. The light, gas, water, etc., in most
TO THE MEMORY OF KARL BITTER SCULPTOR.
THIS TRIBUTE BY THE MEMBERS AND ASSOCIATES
OF THE ARCHITECTURAL COMMISSION OF THE
PANAMA-PACIFIC INTERNATIONAL EXPOSITION

Karl Bitter was a great sculptor. He is now of the immortals. While the chronicling of his achievements in art is properly the task of the historian, still it is none the less fitting that we should here recall the signal debt of gratitude owed him by San Francisco. He was appointed Chief of Sculpture by the President of the Panama-Pacific International Exposition at the instance of the Architectural Commission. In this capacity he organized the Department of Sculpture that gave to the Exposition the wealth of decoration that compels the admiration of the world. Karl Bitter became associated with the Architectural Commission early in nineteen hundred and twelve. He shared in all its important deliberations. He exerted a potent influence in its work, and the value of his services to the Commission is beyond measure. He was swift to win the admiration and affection of the architects of the Panama-Pacific International Exposition. To his rare attributes as a sculptor, he added a profound sense of duty to his task that was awake at all times. His untimely death takes a great personality from the field of art, and creates a void that will be difficult to fill. We, the undersigned hereby desire to express the respect, the honor, and the love in which we cherish his memory.

THEREFORE, BE IT RESOLVED, That we, the Architects of the Panama-Pacific International Exposition, proclaim in the passing of Karl Bitter, the Fine Arts and the Nation have sustained a great loss. We realize the anguish caused by his untimely end, and to the members of his family we offer our heartfelt sympathy. We recognize and mourn our great personal loss through the premature death of a beloved friend who, in all of his work, exercised a distinctly high moral influence that will endure for the good of humanity.

Signed by

Willis Polk
Ward & Bloome
Geo. W. Kelham
Bliss & Faville
Louis C. Mullgardt
Edward H. Bennett
Bakerwell & Brown
Bernard R. Maybeck
McKim, Mead & White
Carrere & Hastings
Henry Bacon
Robert Fargher
ENTRANCE TO COURT
CASA MADRONA APARTMENTS
ROUSSEAU & ROUSSEAU ARCHITECTS

Photo: Gabriel Moulin
CASA MADRONA APARTMENTS, SAN FRANCISCO
ROUSSEAU & ROUSSEAU, ARCHITECTS

CASA MADRONA APARTMENTS, SAN FRANCISCO
ROUSSEAU & ROUSSEAU, ARCHITECTS

Photo: Gabriel Moulin
CHATEAU DU MON. APARTMENTS, SAN FRANCISCO

HILLSBOROUGH APARTMENTS, SAN FRANCISCO
ROUSSEAU & ROUSSEAU. ARCHITECTS

ST. FRANCIS APARTMENTS, SAN FRANCISCO
ELSTON & CLARKE APARTMENTS, BERKELEY
W. H. RATCLIFF, ARCHITECT

TRINITY PLACE APARTMENTS, PORTLAND
ROOT & KERR, ARCHITECTS
VIEW IN EAST COURT
GREENWICH TERRACE COMMUNITY APARTMENTS, SAN FRANCISCO
T. PATTERSON ROSS, ARCHITECT
VIEW IN COURT
GREENWICH TERRACE COMMUNITY APARTMENTS, SAN FRANCISCO
T. PATTERSON ROSS, ARCHITECT

VIEW ON GREENWICH TERRACE
GREENWICH TERRACE COMMUNITY APARTMENTS, SAN FRANCISCO
T. PATTERSON ROSS, ARCHITECT
THE ANSONIA APARTMENTS, TACOMA
HEATH & GOVE, ARCHITECTS

FIRST FLOOR PLAN

THIRD FLOOR PLAN
THE BRYSON APARTMENTS, LOS ANGELES
FREDERICK NOONAN & CHARLES H. KYSOR, ARCHITECTS
THE MEADOWROOK APARTMENTS, OAKLAND
JOHN CARSON, ARCHITECT

H. C. NEWHALL APARTMENTS, SAN FRANCISCO
CHAS. J. ROUSSEAU, ARCHITECT
Of What Shall the Roof be Made?

A s we look over the country and see the large number of industrial plants that have been roofed and in many cases sheathed with asbestos; when we note also the many fine, substantial homes whose owners and builders are adopting asbestos in all sections of the country, it is quite evident that this splendid material is receiving the very favorable attention and recommendation of our leading architects.

Of course, everybody knows the fire resistance of asbestos—in this respect it is the equal of slate or tile—but it also possesses several other advantages as a roofing material, and it is these which probably induce many people to select asbestos shingles.

In the first place, asbestos shingles are much lighter than slate and therefore call for lighter and less expensive sheathing foundation. Asbestos is also less brittle than slate and can be handled and used with smaller loss.

It is a fact also that asbestos shingles on a roof resist the ravages of wind and storm better than slate—they lay flatter and more snug and are therefore less liable to rattle, break or fall off.

Asbestos shingles compare most favorably with good quality slate, so that when we consider both of these materials from all standpoints, we can readily account for the growing demand for asbestos roofing and sheathing.

One of the finest examples of the latter material that we have ever examined is asbestos “Century” shingles, made by Keasbey & Mattison, of Ambler, Pa. These shingles, which are made under patent rights, embody all the advantages over slate enumerated above, in appearance are quite the equal of the natural quarried product, and are made in many styles and sizes to suit the different types of architecture.

Asbestos “Century” shingles and other asbestos building products made by Keasbey & Mattison have been very extensively used in the Panama Canal Zone on government work, and in some communities practically whole towns have adopted asbestos “Century” shingles for roofing and sheathing purposes.

We understand the manufacturers will be glad to send any readers of this journal samples of asbestos “Century” shingles, together with illustrated literature on these and their other asbestos products.

An architect once declared that he had never specified asbestos “Century” shingles for the following reasons:

First—that a roof on which they are applied is lacking in all artistic qualities.

Second—that the color tone is ineffective and that it is impossible to obtain either good contrast or harmony with the prevailing color treatments of modern residence work.

Third—that the shingles are flat and characterless, and that they lend no point of interest to the details which play a large part in modern domestic architecture.

This was his honest and candid opinion of the Asbestos “Century” Shingle, after never having used them.

There is no question that Asbestos “Century” Shingles will not harmonize with certain types of buildings, any more than a thatch roof would be appropriate on a cathedral. However, in condemning these shingles for their alleged lack of character and startling individuality, does the architect not lay too much stress on a detail of construction, forgetting that the success of his problem depends on harmony of line and mass and of course color, rather than the employment of exaggerated detail, which, while perhaps interestingly unique, is very often at variance with good taste and purity of style?

The craze for heavy effects in roofings has originated from a desire to emulate old roofing materials, which were in most cases handmade and necessarily heavy and rough. Our modern roofing manufacturers, in their endeavor to imitate the antique pottery and tilemakers, have produced much that is grotesquely bizarre.
Buttonlath--An Improved Lathing Material.

ONE of the newest industries in the building line and one that gives promise of revolutionizing the methods of applying plaster to both exterior and interior surfaces, is the manufacture of the product known as Buttonlath. "Buttonlath" is a coined name which has been protected by copyright to designate the product of the Buttonlath Manufacturing Company, who are getting ready to start plants in several of the leading cities of the country, so as to make their product a national one.

Buttonlath is an improved lathing material in which the best features of metal lath, wood lath and plaster board construction have been successfully embodied and combined and the undesirable features successfully eliminated. Buttonlath is composed of waterproof paper and a non-permeable, non-combustible plastic body which makes it a fire retardant, sound deadener and heat insulator. It simplifies and improves construction, saves plaster, repair bills, and not only prevents plaster cracks, but makes a true wall free from waves. It is cheaper than metal lath and no more costly than a good job of wood lathing.

Buttonlath is made in the general form of plaster board in sheets 24 x 32 inches, and is applied in the manner shown by the illustration elsewhere in this article. The plaster buttons are stagger-spaced 1 1/2 inches on centers in both directions: 330 buttons to the square yard. These buttons will hold fifty pounds before breaking, and as the plaster gets a good grip under the edges of each button, a positive mechanical key is thus formed. As a matter of fact, Buttonlath provides a triple bond for plaster—the mechanical key, suction and adhesion, thus forming a triple strength.

Buttonlath saves both on space and weight, as the solid partitions are 1 1/2 to 2 inches thick as compared with the usual 6-inch partitions and weighs less than 15 pounds per square foot as compared with hollow tile partitions, thus eliminating an enormous dead load. In

A BUTTONLATHED ROOM IN THE MAKING

The above photo shows a room Buttonlathed and the plaster coat was being applied. Note the method of breaking joints, using half sheets alternating at turning points. Also note the use of strips and pieces of Buttonlath as patching and stripping for irregular spaces.

Continued on Page 114

120
An Inexpensive Refrigerator.

O

f all the household appliances with which the housewife has to contend, the ice-box is without question the most trying. One has only to read the instructions about "How to Use an Ice-Box," which are always pasted inside the door of one, to realize the care and trouble involved in keeping them clean, fresh and sanitary. Even the best of them require constant attention, and their use entails not only a constant expenditure for ice, which is the equivalent of interest payments on a considerable investment, but all the accompanying annoyances as well—the trouble in getting the ice, the invariable necessity of cleaning up after the ice-man, the emptying of the drip pan, and the scouring and scrubbing needed to keep the box in a healthful condition. An ice-box without ice is worse than no ice-box at all, because the boxes must be air-tight, and consequently, unless the air inside is kept cool, they become in reality heaters instead of coolers. So ice must be purchased. It is safe to say that the average ice-box, which is usually a cheap and poorly insulated affair, causes the housekeeper to lose her patience more often than any other device in daily domestic use.

The reason for all this annoyance is found in the fact that the ice-box is fundamentally wrong, so far as the preservation of food is concerned, in principle and in practice. They are designed to preserve the ice as long as possible, the food being a secondary consideration, and their efficiency depends on the length of time they will keep ice from melting. In order, therefore, to be more efficient, they must keep fresh air out; in other words, the most efficient ice-box is the most air-tight box, for it is the warm outside air that melts the ice. Air-tightness is achieved by thick reinforced walls, made of several thicknesses of insulating material, all designed to prevent the radiation of the cold air from within the box, or the penetration of the warm air from outside. It is just this shutting-out of the fresh air that causes the trouble within. All ice is admittedly more or less impure, whether natural ice or artificial ice. Every doctor will warn his patients against the impurities and dangers of ice water, while artificial ice can never wholly disguise the odor and taste of ammonia, which is used to produce it. The natural result is apparent: in melting, the ice gives up its impurities to the air which is confined in the ice-box with it. This air is circulating around through the shelves and comes in direct contact with the food, where it deposits the moisture which it absorbs from the ice. Thus the food becomes damp, and therefore moulis, and will decay and spoil quickly. Meats will discolor, butter and milk will absorb odors, and all food will deteriorate much more rapidly than if they were kept dry as well as cold.

To overcome these many disadvantages of expense, inconvenience and insanitation, and to take advantage of the cold water, which is found in practically all the communities west of the Rocky Mountains, where the water usually comes either from the mountain streams or from springs, and is consequently cold, even during the summer months, a new natural refrigerator, called the Automatic Cooler, has recently been put on the market, which at once overcomes the expense and the objectionable features of the ice-box. This cooler is built with coils of galvanized pipe running under and around each shelf, and these pipes are connected into a continuous coil, so that every drop of water entering at the inlet must circulate through all the pipes to the outlet. The water main from the street, entering the house, apartment or store, is then cut at any convenient point, and a connection run from this cut in the main to the inlet in the cooler, and back again from the outlet in the cooler to the other end of the incoming main at the point where it was cut.

This makes it certain that every drop of water used in the building is first drawn through the cooler as it travels on its way from the main to the taps, toilets or tank heaters, this cold incoming water having circulated through every inch of the long coils of pipe in the cooler. Not one extra drop of water is needed,—just that quantity used in the ordinary daily domestic consumption is quite sufficient to renew the supply in the cooler frequently enough to insure constant coldness, in such districts as have a naturally cold water supply. This not only eliminates forever the expense of ice, and the cost and trouble of upkeep of an ice-box, but renders the cooler absolutely automatic and constant, year in and year out. The first cost is the last cost.

The important and sanitary feature of the Automatic Cooler, and that which has to do with its efficiency in the preservation of food, has yet to be told. Since the supply of coldness,—i.e., the temperature of the city water supply as it comes from the mains,—is inexhaustible, and is continually being renewed and thus kept constant, there is no object in shutting out, or insulating against, all fresh air. Not only are the thick and heavy walls made unnecessary, but ventilators are provided, and a positive circulation of fresh air, taken in at the top and settling as it becomes colder to pass off at the bottom, is insured. This fresh, dry air, which comes into contact with the cold pipes as soon as it enters the cooler, is immediately cooled, and therefore falls circulating through the box following the pipe coils, and taking up and carrying off any moisture or dampness therein. The result is that the food in the cooler is kept dry as well as cold, and does not deteriorate, but will last indefinitely.
These new apartments have been constructed to appeal to the best class of tenants, and conveniences were installed in them which are the equal of the finest private residences. In addition to this, tenants have the advantages which only an apartment can offer.

The location is in the most fashionable residence section of this city, with fine water views and other prospects. The stories are stepped up, one above the other, so that roof gardens, with pergolas, are available for the upper apartments.

The building is absolutely fire-proof; the walls being of hollow tile, the floor slabs of concrete beams with Corocul tile fillers, and all minor partitions of tile. The floors rest on the walls, which we have found to be a cheaper and more satisfactory construction than to use columns and girders.

In the design an effort is made to express domesticity, the facing brick is tapestry in grays and browns, called “Fabric,” made locally, and trimmed with Tenino Sandstone. The porte cochere extending over the sidewalk is especially convenient in a damp climate. The entrance is in marble, and the reception room is handsomely furnished.

The arrangement of apartments is such that they are isolated from each other. With the windows placed as they are, practically the same privacy may be had as in a detached residence. One of the special features is the individual large open porches all chambers have large closets. In fact, the closet room throughout is unusually ample, and includes linen, china and kitchen closets. Each has dust-proof cabinets and other conveniences.

In the basement are a number of additional rooms for the servants of the tenants; to each is connected a telephone affording instant communication with the tenants' apartments. The four laundries for the tenants are located in the basement, and are equipped with tubs, ironing tables, electric irons, and provision for the boiling of clothes, and large electric and steam driers are provided.

All bath rooms are tile, and equipped with medicine cabinets, linen closets, towel racks, of white composition, and all the little conveniences of the best private homes. Each chamber has a full mirror door, and a fire and burglar-proof wall safe is installed in each apartment. The building is equipped with an automatic electric elevator. Servants use a separate stairway.

The woodwork of all rooms except bed rooms, kitchens, and bath rooms, is of oak. In the others it is of white enamel. All floors are polished oak. The electric fixtures are elaborate and vary in the different apartments. A number of base and floor receptacles are provided. Also all closets have door switches.

A small branch post office has been established, so that each family has its own lock box.

There is an open fireplace in each living room with Rookwood tile facing and oak mantel.

The kitchens are provided with Hughes Electric Ranges, refrigerators and complete pantry cabinets, automatic electric dumbwaiter service direct from the basement, and cool closets. Individual vacuum cleaning machines are at the disposal of the tenants. Large store rooms and a fire and burglar-proof vault for furs, silverware, etc., are arranged in the basement, for the use of the tenants.

In place of the usual switchboard system, each apartment is equipped with direct private line.

The cost of the building, exclusive of the site, but including ranges, electric fixtures and shades, was $142,000, or about 25 cents per cubic foot, from bottom of footings to roof line.

---

**Buttonlath--An Improved Lathing Material.**

(Continued from Page 170)

erecting solid partitions with Buttonlath there is a very great saving of time and material, as the plaster may be applied at one time and the large surface that a man can cover as compared with wood or metal laths in the same space of time, means a considerable item.

In Los Angeles where Buttonlath originated and where it has been given a most thorough tryout in practically all classes of construction, the city building ordinances have been amended so as to allow the use of Buttonlath in any class of construction. During the past year, Buttonlath has been used on over two million dollars' worth of buildings costing $10,000 and upward, which would seem to indicate in graphic fashion the headway which it is making with architects generally.

Buttonlath should not be confused with inflammable pulp and paper board which is a substitute for lath and plastered walls. A Buttonlathed wall is finished with a coat of plaster and looks like any other good plastered wall free from waves and plaster cracks. Buttonlath is finished by the application of a light brown coat and a finish coat which becomes an integral part of the Buttonlath, thereby preventing failure by the parting of the first and second coats which is so often the case, particularly by the metal lath construction. Plastered walls tested to failure invariably fail by the parting of the coats and the shearing off of the keys. Buttonlath has successfully overcome both of these difficulties.

The Pioneer Paper Corporation, who have been known for many years as the manufacturers of Pioneer Roofing and Pioneer Building Papers, have been named as distributors for California, Arizona and New Mexico. They are enlarging their San Francisco offices, Messrs. Charles G. Gobel and F. O. Toribio being the special men in charge of this department for the Northern California territory. The San Francisco offices are in the Hearst Building. The Los Angeles offices are at 177-251 South Los Angeles Street. The company will gladly send booklet and samples together with full information, etc., to any architect or contractor upon request.

---

**Fernand Parmentier.**

Word has been received of the death of Fernand Parmentier, well-known architect of Los Angeles, and secretary of the Southern California Chapter of the American Institute of Architects, while fighting with the French troops at Seddul Bahr, in the Dardanelles, on August 7, 1915.

Parmentier was 48 years old, born in Paris, and son of a French officer who fought through the Franco-Prussian war. His mother was an American. His parents sent him to the home of an uncle and aunt in Chicago when he was fourteen years old. He attended the Chicago public schools, studying architecture in various offices. In 1890 Mr. Parmentier came to Southern California. Since that time Parmentier has planned many notable buildings. The last building he designed in that city was the $100,000 Murray Apartments in the Westlake district. Shortly after the completion of the building, he went abroad and entered the ranks as a volunteer in the French army.

While not robust, Parmentier was a true patriot to the core, and it is impossible not to admire his bravery and loyalty.

---

**Get-together Banquet.**

The first get-together banquet of the heads of departments of the Pacific Sanitary Manufacturing Company and the Pacific Porcelain Ware Company was recently held in San Francisco. Mr. N. W. Stern, general manager of the two companies, presided, and in a short speech expressed his appreciation of the widespread recognition that had been given to the quality of "Pacific" wares.

The significant feature of the gathering was the co-operative spirit evidenced by the men present, showing a splendid organization, embodying all the advantages resultant from a close working together and common aim on the part of officers and employees alike.

124
Nob Hill Apartments, Portland
Emil Schacht & Son, Architects

Typical Floor Plan
It is still possible to plan living rooms to live in, kitchens to cook in, and dining rooms to dine in, instead of resorting to expedients, the distinction being that between living and mere existence," says Hart Wood in his article in this issue, entitled "Twenty-first Century Habitation." It is no stretch of the imagination to believe these words after a glimpse of the floor plans of the new Fifth Avenue Apartment House in New York City. This new multi-family dwelling will contain everything that goes to make up convenient and even luxurious living facilities.

There will be three types of apartments, one occupying an entire floor, consisting of about thirty rooms, with nine bathrooms; duplex apartments of nineteen rooms and seven baths, and simplex apartments of from fourteen rooms up, having five and six bathrooms. In each suite the foyer will open into a large gallery or salon 47.6 x 18, giving an impressive entrance. Living rooms will be from 30 x 20 feet, while there will be libraries, conservatories, and other features making the entertaining space unusually large.

There will also be a number of open fireplaces, and especial attention has been given in providing ample and comfortable servants' rooms.

The individual suites will be decorated according to the fancy of the tenants and a wide latitude of choice will be permitted. Tenants who lease prior to the completion of the building will be consulted as to their choice of the woods to be employed. The schedule of rents varies from $10,000 for small simplex apartments to $21,000 for the duplex, while approximately $30,000 will be the price of an entire floor. The total gross yearly income will be in the neighborhood of $100,000.

True, it is, a reaction against the extremely compressed apartments has begun, and while this latest Fifth Avenue Apartment House, costing $1,000,000, is for people of wealth only, nevertheless the large space devoted to living and entertaining quarters is reflected in many of the moderate priced structures now being built.

J. E. R. Carpenter, the architect, has designed an attractive building in the dignified Italian Renaissance style.

Advertising men can speak more boldly than they once could about the ethics of their calling. When a profession has put its ideals into a code, it has removed the mark of experiment from its name and taken its place among accepted institutions. Medicine and the law have built up their codes by years of strict adherence to the principles of their abler exponents. Now comes advertising with its own particular code.

Even one not familiar with the intricate mechanism of modern publicity appreciates its enormous growth in recent years. He need not be engaged in business to realize its influence. Skilled writers introduce their talking phrases into the vocabulary of his household. Wherever he turns he encounters the subtle influence of the advertising man. One morning he opens his paper to find his church is advertising its Sunday services.

If he seeks the reason for the growing dependence of readers of the printed page upon what appears in advertising type, he will learn that many publishers guarantee their readers against dishonest advertisers, that many states have enacted laws covering this matter, that first-class publications refuse objectionable and misleading copy, that advertising has its persona non grata class. He learns that these restrictions are self-imposed; that the movement for the elimination of dishonest advertising had its start within the advertising fraternity.

Advertising has gained dignity; men of affairs recognize its power and call it to their aid.
Appealing to the Great Majority

Kwy-eta appeals to the great majority of home builders. It does away with the embarrassing rush of water—at the same time having the strongest flush of any closet.

Kwy-eta is strongly made, to give years of service without the necessity of constant repairs. It is the ideal closet for modern residences.

As all the "Pacific" line, Kwy-eta is absolutely guaranteed for an unlimited number of years, against any defects in workmanship or material.

"Pacific" Plumbing Fixtures

Showroom: 67 MONTGOMERY ST.
SAN FRANCISCO

Factories:
RICHMOND, CALIFORNIA
Pacific Coast Chapters, A.I.A.


Southern California Chapter, 1891—President, Tilden North, 681 Title Insurance Building, Los Angeles, Cal. Secretary, A. R. Walker, Hibernian Building, Los Angeles, Cal. Chairman of Committee on Information, W. C. Penrell, Wright & Callender Building, Los Angeles. Date of Meetings, second Tuesday, except July and August at Los Angeles.

Oregon Chapter, 1897—President, Will H. Frohman, Halford Chamber of Commerce Building, Portland, Ore. Secretary, Joseph Jacobberger, 501 Board of Trade Building, Portland, Ore. Chairman of Committee on Public Information, Joseph Jacobberger. Date of Meeting, Third Thursday of every month at Portland: Annual, October.


Date of Meetings, first Wednesday, except July and August at Seattle, except one in spring at Tacoma: Annual, November.

Colorado Chapter, 1892—President, A. A. Gove, 519 Boston Building, Denver, Colo. Secretary, Harry J. Mansing, 214 Majestic Building, Denver, Colo. Chairman of Committee on Public Information, Arthur A. Fisher, 459 Railway Exchange Building, Denver, Colo. Date of Meeting, first Monday every month at Denver, Colo.: Annual, September.


Minutes of Southern California Chapter, A. I. A.

The ninety-second meeting of the Southern California Chapter of the American Institute of Architects was held at the Hancourt Hall of the Bristol Cafe, Los Angeles, on Tuesday, January 15th, 1916.

The meeting was called to order at 8:15 p.m. by President Tilden North, the following members being present: J. E. Allison, J. J. Backus, E. P. Davis, P. A. Eisen, Lyman Farrell, Robert Farquhar, H. M. Farwell, John P. Krempel, A. C. Martin, S. B. Marston, W. M. Morgan, S. T. Norton, H. M. Patterson, T. P. Power, A. E. Rosenheim, A. R. Walker, H. H. Witherspoon.

As guests of the Chapter were present: Mr. George C. Collins, Sales Engineer for the Spencer Turbine Cleaner Co., and Mr. John Hisserich, of the same organization; Mr. Harry Lye and Win. Delkiewicz, of the "Builder and Contractor"; and W. E. Prince, of the "Southwest Contractor.

The minutes of the ninety-first meeting of members were read and approved.

For the Board of Directors, the Secretary reported the holding of one meeting, at which letter ballots were opened, and Mr. S. O. Clements and Mr. W. J. Dodd were declared unanimously elected to regular membership, that action on one letter of resignation had been deferred until the next meeting of the Board; that report was rendered by Mr. Farquhar, the Chapter's delegate to the Institute Convention, on certain recommendations of the new Committee on Chapters, and the Board's action on such recommendations was referred to the next Chapter meeting for action.

For the A. I. A. Sub-Committee on Public Information, Mr. Frohman reported that their committee was carefully going over the work of other Chapters and determining upon a course to be pursued during the coming year.

For the Special Committee on Speculative Building Companies, Mr. Percy Eisen reported that the members of their committee had been in attendance on the meetings held looking toward the reorganization of the Builders' Exchanges.

For the Committee on Architectural Exhibition, report was made as to the results so far attained by Miss Schmidt and urged the members to notify her as to the amount of wall space they could use.

Report was next rendered by Mr. Farquhar relative to the work of the Committee on Chapters. After a general discussion of the recommendations made by this Committee, headed by Mr. Fredrick Perkins, it was moved by Mr. Krempel, and duly seconded, that this Chapter was opposed to the form of associate membership as outlined by the committee. Mr. Martin moved as an amend-
Beautiful Stucco Homes

There is beauty, individuality and charm to stucco when used either in mellow tones or in pure white, with surrounding evergreens and shrubbery.

Stucco, if well built, is lasting and will not crack. It needs little repairs or upkeep. But it must be well built.

Atlas-White Stucco

As a result of careful study and our experience with Atlas-White non-staining Portland Cement, we have prepared a brochure on the early examples of stucco homes, beautifully illustrated. It also contains specifications of stucco on metal lath, with and without sheathing, brick, hollow tile, etc. This brochure will be sent upon request.

The Atlas Portland Cement Company

New York Chicago Philadelphia Boston St. Louis Minneapolis Des Moines.

Santa Cruz Portland Cement Co., San Francisco
United Materials Company, San Francisco
Pacific Portland Cement Co., San Francisco
Gro Grande Lime & Stone Co., Los Angeles
Sunset Lime Company, Los Angeles
Los Angeles Lime Co., Los Angeles
Western Commercial Co., Los Angeles
Ridert H. Winn Co., San Diego, Calif.
Howard Company, Oakland, Calif.
Consolidated Supply Co., Spokane, Wash.
Evans, Coleman & Evans, Vancouver and Victoria, B. C.

A beautiful Atlas-White Stucco Home
London, Canada
McGee & Gilbert, Architects
Low Pressure Crude Oil Burning Equipment
Not how Cheap -- but how Serviceable

Some oil burner manufacturers install outfits that operate as high as 3,700 r. p. m., and if they are worn out as soon as the maker's guarantee expires, "it's up to you." Why have high speed machinery? Johnson Systems give long satisfaction.

S. T. JOHNSON CO.
1337 Mission Street San Francisco
Agents in the principal Pacific Coast cities.

Draughtsmen's Blouses
A specially designed studio and office robe, made of well-wearing material, washable, of a serviceable luff shade, offering a complete protection of clothes from wear and tear.

Sent to any address, prepaid, on receipt of price.

E. Falkenhainer
25 West 42nd Street
NEW YORK CITY

Style A, $1.50
Style B, $2.00

Best Plaster for Buildings
OF ALL CLASSES

WARRINGTON APARTMENTS = FREDERICK H. MEYER.
S. E. Cor. Post and Lexington Sts., S. F. Architect

Keene Cement Gauged Lime Mortar
USED THROUGHOUT
Non-Corrosive : More Sound Proof
Costs Less : Better Workmanship

American Keene Cement Co.
"Strongest Keene Cement Known"

BOOK AND JOB DEPARTMENT
OF
THE ARCHITECT

DESIGNING
ILLUSTRATING
ENGRAVING
PRINTING

J. A. DRUMMOND
Printer :: Publisher
245 Mission St., San Francisco
Telephone Douglas 3424

N. & G. TAYLOR CO., of Philadelphia
TARGET-AND-ARROW TIN
has been used for more than 80 years on notable buildings in all parts of the United States. Here are a few interesting facts about it:

1. It is backed by a private firm of more than 100 years' standing. They are personally concerned in keeping their product strictly up to its old-time standard.
2. It is the oldest tin on the market and has made a record for durability not approached by any other tin.
3. It carries an exceptionally rich, heavy coating applied by repeated soaking and hand-dipping—a slow, costly process continued by this firm from the early days of their business.
4. It is the same durable roofing tin supplied by this old Philadelphia tinplate house to three generations of American roofer.
5. This tin has been known in many cases to last in good condition for more than sixty years on the roof. It commonly outlasts the building it covers.

J. A. DRUMMOND, Pacific Coast Representative
245 MISSION STREET :: SAN FRANCISCO

Johnson Service Co.
Established in 1883

The only company on the Pacific Coast handling temperature regulation exclusively, with its own corps of Skilled Mechanics.

Johnson Thermostats are Standard

625 Lumberman's Bldg. :::::::: 1104 White Bldg.
PORTLAND, ORE. :::::::: SEATTLE, WASH.
600 Citizens National Bank Bldg.
LOS ANGELES

149 FIFTH STREET :: SAN FRANCISCO
THE New Lincoln-Smith Apartments
Seattle, Wash.
Wilcox & Everett, Architects

and the
Thirty-seven Special Automatic Coolers
now being installed.

They save money, room, sickness, time, and
trouble. Just the water that is ordinaril
used, first circulates through
the Cooler.

Homes & Grounds
California's Artistic Home Magazine

March Issue

WILL FEATURE
Beautiful Forest Hill Residence Tract
San Francisco

MARK DANIELS, LANDSCAPE ENGINEER,
will contribute descriptive article.

FALCH & KNOLL, ARCHITECTS
will discuss architectural features.

PROFUSE ILLUSTRATIONS.

On Sale at all News Stands
25c the copy $1.50 a year

Be sure to get this
Interesting Number

J. A. DRUMMOND
Printer :: Publisher
245 Mission St., San Francisco
Telephone Douglas 3424
Ambler Asbestos "Century" Shingles

Buildings covered with AMBLER Asbestos will not catch fire from flying brands nor from the radiation of burning buildings nearby. Supplied in three colors—Newport Grey, Indian Red and Slate, it makes possible attractive designs, and it can also be painted, enameled, varnished, ingrained, etc., as desired for decorative effects.

AMBLER Asbestos is a solid, homogeneous material that is not affected by light, heat or moisture. There is nothing to separate, peel or wash off, or to chip and crack, exposing other perishable material.

High grade Portland Cement becomes more tough and resistant the older it is, hence AMBLER Asbestos coverings exposed to the weather have practically unlimited life; in fact, it has been truly said that AMBLER Asbestos Roofing is as permanent as the everlasting hills. AMBLER ASBESTOS CORRUGATED SHEATHING is superior to corrugated iron for factory and other permanent building construction, being fastened directly to the wood or metal purlins.

Sold by the
Keasbey & Mattison Co.
Manufactured by the
Asbestos Shingle, Slate & Sheathing Co.
Ambler, Penna., U. S. A.

PACIFIC COAST DEALERS

San Francisco, Cal.: PLANT RUBBER & SUPPLY CO.

Los Angeles, Cal.: CALIFORNIA CORNICE WORKS.

Sacramento, Cal.: MILLER-ENRIGHT CO.

Portland, Ore.: WHITEHOUSE & FOULIHOUX

Seattle, Tacoma, and Spokane, Wash.: MILLER-ENGLISH CO.

Whitehouse & Poulieoux

Ambler, Penna.

Badger

Ambler Asbestos “Century” Shingles

ROOFED FRENCH OR DIAGONAL METHOD

WITH

Ambler Asbestos “Century” Shingles

Sold by the
Keasbey & Mattison Co.
Manufactured by the
Asbestos Shingle, Slate & Sheathing Co.
Ambler, Penna., U. S. A.

PACIFIC COAST DEALERS

San Francisco, Cal.: PLANT RUBBER & SUPPLY CO.

Los Angeles, Cal.: CALIFORNIA CORNICE WORKS.

Sacramento, Cal.: MILLER-ENRIGHT CO.

Portland, Ore.: WHITEHOUSE & FOULIHOUX

Seattle, Tacoma, and Spokane, Wash.: MILLER-ENGLISH CO.

PACIFIC COAST DEALERS

San Francisco, Cal.: PLANT RUBBER & SUPPLY CO.

Los Angeles, Cal.: CALIFORNIA CORNICE WORKS.

Sacramento, Cal.: MILLER-ENRIGHT CO.

Portland, Ore.: WHITEHOUSE & FOULIHOUX

Seattle, Tacoma, and Spokane, Wash.: MILLER-ENGLISH CO.

PACIFIC COAST DEALERS

San Francisco, Cal.: PLANT RUBBER & SUPPLY CO.

Los Angeles, Cal.: CALIFORNIA CORNICE WORKS.

Sacramento, Cal.: MILLER-ENRIGHT CO.

Portland, Ore.: WHITEHOUSE & FOULIHOUX

Seattle, Tacoma, and Spokane, Wash.: MILLER-ENGLISH CO.

PACIFIC COAST DEALERS

San Francisco, Cal.: PLANT RUBBER & SUPPLY CO.

Los Angeles, Cal.: CALIFORNIA CORNICE WORKS.

Sacramento, Cal.: MILLER-ENRIGHT CO.

Portland, Ore.: WHITEHOUSE & FOULIHOUX

Seattle, Tacoma, and Spokane, Wash.: MILLER-ENGLISH CO.

PACIFIC COAST DEALERS

San Francisco, Cal.: PLANT RUBBER & SUPPLY CO.

Los Angeles, Cal.: CALIFORNIA CORNICE WORKS.

Sacramento, Cal.: MILLER-ENRIGHT CO.

Portland, Ore.: WHITEHOUSE & FOULIHOUX

Seattle, Tacoma, and Spokane, Wash.: MILLER-ENGLISH CO.

PACIFIC COAST DEALERS

San Francisco, Cal.: PLANT RUBBER & SUPPLY CO.

Los Angeles, Cal.: CALIFORNIA CORNICE WORKS.

Sacramento, Cal.: MILLER-ENRIGHT CO.

Portland, Ore.: WHITEHOUSE & FOULIHOUX

Seattle, Tacoma, and Spokane, Wash.: MILLER-ENGLISH CO.
Meyer System
Steel Forms
FOR
CONCRETE FLOOR CONSTRUCTION

ECONOMY, RIGIDITY, SOUND-PROOF,
AND PERMITS RAPIDITY OF
JOIST FLOOR CONSTRUCTION

Concrete Engineering Co.
Rialto Building :: San Francisco, Cal.

SPECIFY
NEPHI PLASTER ONLY
IT MAKES THE WALL
Standard for 25 years on the Pacific Coast and
Intermountain West
HARDWALL, FINISHING, CASTING, ETC.

NEPHI PLASTER & MANUFACTURING CO.
San Francisco Office: BUILDERS EXCHANGE, 150 Jessie St.
Telephone Sutter 6700
Main Office: 711 BOSTON BLDG., SALT LAKE CITY, UTAH

PORTLAND
LOS ANGELES
SEATTLE

R. N. NASON & CO.
PAINT MAKERS
151 Potrero Ave.-SAN FRANCISCO-54 Pine Street

Makers of
NASON'S OPAQUE FLAT FINISH
A flat oil paint made in soft Kaolinine Tints,
that is washable; a practical article for
walls, ceilings, etc., that is most
economical and durable.

Agency for
Tamm & Nolan Co.'s High Grade Varnishes and Finishes
Goods made on the Pacific Coast for the climate of this Coast.

GUARANTEED to meet Standard and
U.S. Government Specifications for
first grade Portland Cement.

Santa Cruz Portland Cement
Company
Works: Davenport, Cal.

Standard Portland Cement
Corporation
Works: Napa Junction, Cal.

Grover Building San Francisco

Over the Siskiyous
Southern Pacific
FIRST IN SAFETY
"Shasta Route"

Through the most magnificent mountain scenery in America—snow-capped Shasta, pine-clad canyons and foaming streams. From Siskiyou's glorious summit looking southward on California's peaks and verdant slopes, and northward on Oregon's timbered heights and orchard-checkered valleys—a succession of views unequalled in their combination.

FOUR DAILY TRAINS
San Francisco, Ferry Station, to Portland, Tacoma, and Seattle.

"Shasta Limited", Extra Fare, $5, 11:00 A.M.
"Portland Express" . . . . 1:50 P. M.
"Oregon Express" . . . . 8:50 P. M.
"Sound Special" . . . . 11:40 P. M.

Best Dining Cars in America.
Oil-Burning Engines—No cinders, no smoke,
no annoying smoke.

Awarded Grand Prize for Railway Track, Equipment,
Motive Power, and Safety-First Appliances,
San Francisco Exposition, 1915.

For Fares, Tickets, and Schedules, inquire Southern Pacific Ticket Office:
Flood Bldg. Palace Hotel Third St. Station Ferry Station
THE

OTIS ELEVATOR COMPANY

Announces

the following awards of merit by the officials of the Panama-Pacific International Exposition:

GRAND PRIZE—Gearless Traction Elevator.
GRAND PRIZE—Geared Traction Elevator.
MEDAL OF HONOR—Automatic Push Button Elevator.
GOLD MEDAL—Oil Cushion Buffer.
GOLD MEDAL—Electro-Mechanical Safety Device.

The one hundred Otis offices located throughout the United States will be happy to supply full information to Architects on these and all other standard types of

OTIS

ELEVATORS

OTIS ELEVATOR COMPANY

Eleventh Avenue and Twenty-sixth Street New York

Offices in All Principal Cities of the World.
For Permanent, Non-Fading Wood Stains

Artistic and original effects on woods are satisfactory only when permanent. Stains which fade rapidly upon exposure are usually aniline or chemical colors. Convenience is their chief virtue. The only dependable, non-fading stains are made from natural colors. Japanese Oil Stains are compounded from strong natural earth pigments, ground in pure linseed oil. With them, rich attractive tones on all woods are produced. They are durable, preservative, and permanently attractive.

W. P. FULLER & CO.
MANUFACTURERS
SPECIALIZED PAINT & VARNISH PRODUCTS
FOR EVERY PURPOSE
This group of modern residences was designed and erected by ARCHITECTS R. G. McDOWELL & CO., DES MOINES, IOWA.

BERRY BROTHERS' VARNISHES were used exclusively in the finishing of them.

Behind this Trade Mark is the result of nearly sixty years of varnish making.

From kettle to final sealed package, Berry Brothers' Varnishes are as perfect as chemistry and skilled labor can produce.

Here are two of the most reliable finishes made—every architect should be familiar with them:

LIQUID GRANITE—For floors and all interior woodwork subjected to severe wear, such as window sills and casings, bath rooms, etc. It is mar-proof, makes a handsome finish, and is easily kept clean.

LUXEBERRY WHITE ENAMEL—Whitest white—stays white. Makes a permanent snow white finish in either dull or gloss effects. It will not chip or crack, is durable and washable.

Write our Architectural Department for interesting literature on wood finishing.
FINISHED WITH Kyanize

Specify KYANIZE Varnishes and Enamels where a lasting finish is required.

BOSTON VARNISH COMPANY, BOSTON, U. S. A.
San Francisco Office and Warehouse: 311 California Street
A. L. GREENE, Agent

Seattle
CAMPBELL HDWE. CO.
1st Ave. and Madison St.

Tacoma
W. J. HANSON & CO.
1129 Broadway

Portland
W. M. SMITH CO.
550 Williams Ave.

San Francisco
D. H. RHODES
546 Valencia St.

Los Angeles
SUNSET PAINT CO.
627 S. Main St.
Geary Street Car Barns
Municipal Rys. of San Francisco, finished with two coats exterior, and one coat interior, of

as specified by the City Engineer's office. The concrete trolley poles of the Municipal Railways are also finished with Concreto.

SOLE MAKERS THE MURALO CO. NEW YORK
San Francisco Office: 311 California Street
A. L. GREENE, Agent

DISTRIBUTORS

San Francisco
D. H. RHODES
546 Valencia St.
Gray Matt Glazed Terra Cotta

in this building, made by

STEIGER TERRA COTTA & POTTERY WORKS

Offices: 729 Mills Bldg., San Francisco
Factory: South San Francisco, Cal.
The Victrola first sees Daylight through

**Lupton STEEL SASH**

The Victor Talking Machine Company of Camden, N. J., comprising many enormous factories, is one of the finest examples of big business efficiency and progressiveness that is known to the industrial world—that these buildings are practically walled-in with Lupton Steel Sash proves conclusively that the advantages obtained through natural lighting and ventilating are worth securing, and that these products are best suited, every point considered, to gain the desired results.

The same may be said in reference to the Bethlehem Steel Company, South Bethlehem, Pa.; Carnegie Steel Company, Edgar Thompson Works, Inc., Homestead Steel Works; Youngstown Works, Ohio; Central Missouri Sugar Company, Havana, Cuba; B. P. Goodrich Rubber Company, Akron, Ohio; Imperial Railway of Japan; John Hopkins University, Baltimore, Md.; M. L. Lupton Company, Kedron, Ohio; Imperial Railway Company, Jones West, Cleveland, O.; Wilcox-Overland Company, Toledo, O.; and hundreds of other concerns—all representative of the finest of modern construction.

The master minds that are back of such great business operations have made economy a science—men of such size are never misled by "first cost"—they are far more concerned about the cost of maintenance, durability and efficiency—a searching analysis is made to determine the economical value of every appliance before installation.

The Lupton Daylighting and Ventilating Products, including many designs of Steel Sash, Special Construction, Partitions, Doors, etc., have been chosen by such men—and by leading Architects and Engineers—their verdict has been our success.

Lupton Service awaits your problems—they will be solved by experts without the slightest obligation.

The Lupton Catalogue No. 8, a veritable text-book on Daylighting and Natural Ventilation, with interesting illustrations, mailed upon request.

David Lupton's Sons Company

Clearfield and Witte Streets :: Philadelphia

Chicago New York Pittsburgh Cleveland Detroit
FREDERICK KOHL RESIDENCE
BURLINGAME, CAL.

HOWARD & WHITE, ARCHITECTS
SAN FRANCISCO

FACED WITH

RED RUFFLED BRICK

Los Angeles Pressed Brick Co.
402-414 Frost Bldg., Los Angeles, Cal.

United Materials Company
5 Crossley Bldg., San Francisco, Cal.
Distributors for Northern California
Cornice of Matt Enamel Terra Cotta to match Unpolished Pink Tennessee Marble. Roof of our Mission Tile, in six shades of Dull Green Enamel.

MANUFACTURED BY

GLADDING, McBEAN & CO.

Offices: CROCKER BUILDING
San Francisco

TRUST & SAVINGS BUILDING
Los Angeles

Factory
Lincoln, California
One of seven niches in the Oakland Auditorium — Oakland, California

Palmer & Hornbostel, Architects
J. J. Donovan, Supervising Architect

Modeling of Panels by
A. Sterling Calder

Executed in Cream Matt Glazed Terra Cotta

by

N. CLARK & SONS

Office:
116 NATOMA STREET, SAN FRANCISCO

Factory:
WEST ALAMEDA, CALIFORNIA
# TABLE OF CONTENTS

**MARCH, 1916**

## PLATE ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Architect/Plates</th>
<th>Plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>House of C. M. Spitzer, Los Angeles</td>
<td>Hunt &amp; Burns 33</td>
</tr>
<tr>
<td>House of Dan Murphy, Los Angeles</td>
<td>Hudson &amp; Munsell 37</td>
</tr>
<tr>
<td>Country Home of Chester Thorne, Tacoma</td>
<td>Cutter &amp; Malmgren 39</td>
</tr>
<tr>
<td>House of Charles Templeton Crocker, Hillsborough, Cal.</td>
<td>Willis Polk &amp; Co. 45</td>
</tr>
</tbody>
</table>

## TYPE PAGES

<table>
<thead>
<tr>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Court in Italian Building</td>
<td>Frontispiece</td>
</tr>
<tr>
<td>Institute Wants Preservation of Art Plan</td>
<td>Burt L. Fenner 149</td>
</tr>
<tr>
<td>General Conditions of the Contract</td>
<td>Francis W. Grant 150</td>
</tr>
<tr>
<td>San Francisco's Municipal Car House</td>
<td>Reuben J. Wood 152</td>
</tr>
<tr>
<td>Bernard R. Mayback</td>
<td>A. B. Wastell 154</td>
</tr>
<tr>
<td>Current Notes and Comment</td>
<td>172</td>
</tr>
<tr>
<td>Editorial</td>
<td>173</td>
</tr>
<tr>
<td>Chapter Minutes</td>
<td>175</td>
</tr>
</tbody>
</table>

---

1. Published in the interest of the architectural profession, on the first of each month, at 245 Mission Street, San Francisco. Entered as second class matter August 4, 1911. Subscription price in the United States and possessions, $5.00 a year; foreign and Canadian, $6.00 a year. Single copies, 50 cents each.
2. Changes in, or copy for, new advertisements, must reach the office of publication not later than the fifteenth of the month preceding issue. Advertising rates and any other information will gladly be given on application. Telephone Douglas 3424.
3. The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated.
COURT IN ITALIAN BUILDING
PANAMA-PACIFIC INTERNATIONAL EXPOSITION, SAN FRANCISCO
MARCELLO PIANCENTINI, ARCHITECT, ROME, ITALY
THE AMERICAN INSTITUTE OF ARCHITECTS.

The Octagon, Washington, D. C.,
February 12th, 1916.

Dear Mr. Faville,

As you doubtless know, the Institute has undertaken to arouse public sentiment in opposition to the proposal to locate a new central heat, light and power plant in the City of Washington, on a site which will very seriously interfere with the present arrangement of the Mall System, the water front improvements and the new Potomac Park. By an act of Congress, approved June 23, 1913, the Secretary of the Treasury was authorized to erect a building on ground owned by the Government, located on Water Street between 15th and 16th Streets, N. W. for the purpose of supplying heat, light and power to certain designated Government buildings, including the Treasury Department, the White House and other existing and contemplated buildings in that section of the city. Plans were prepared in the office of the Supervising Architect of the Treasury Department, and in December, 1915, a contract was awarded to the J. M. Cornell Company, of New York, for the erection of the building. Through what was doubtless an oversight in the Treasury Department, the plans were not submitted to the Art Commission until some time after the award of the contract. The Commission, after a thorough study, submitted an adverse report, but inasmuch as its veto is not mandatory, it appears to be the intention of the Department with the authority of Congress, to proceed with the erection of the building.

The Institute first learned of the matter on Tuesday, February 1st, and immediately requested the President of the House and the President of the Senate, to call for consideration of an amendment to the Urgent Deficiency Bill, introduced by Senators Newlands, and calling for a reconsideration by the Art Commission and the President of the United States. The response was favorable, and the Chapters and committees from cities all over the country have been closely following the matter.

The President's name has come up in a protest, and the Institute has been made aware of the fact that the contract had already been awarded. We also called upon Mr. Fitzgerald, the Chairman of the House Conference Committee, and two of his colleagues, and found them deeply resentful over the campaign which the Institute was conducting, entirely satisfied that the client was about to be defeated, and unwilling to consider a moment's delay for further consideration.

The plant, according to the drawings submitted to the Art Commission, will contain four stacks, each 16 feet in diameter and approximately 195 feet above water level. From a personal examination of the site we were able to state that a considerable portion of the stacks will be cut off from view from the White House by the new building for the Bureau of Engraving and Printing, but that they will be in full sight from the Capitol, from the Lincoln Memorial, from the grounds between the Lincoln and Washington Monuments and from East Potomac Park. This is an island park, the improvement of which is under way, and which is destined to become one of the most beautiful island parks in the world. The plant will be located directly across a narrow arm of the Potomac River, and will be the most conspicuous object in view from the park. It is not far distant from the Washington Monument.

It is located directly at the Washington end of the railway bridge over which all trains approach Washington from the south, and it is, of course, in full view from Arlington and the Virginia shore.

It is extremely difficult to make people realize how great a blot on the landscape this is bound to be in the future, for at present it is in a district filled with a poor class of buildings, and to one with no vision it would seem that the site chosen is a good one. The Treasury Department has issued statements which impugn the motives of those who are opposing the site and convey the impression that they are mere cat's paws for the Potomac Light and Power Company, a company which, I believe, is now supplying some of the Government buildings. On Wednesday last a resolution was introduced in the House by Congressman Crosser, of Cleveland, for a Congressional investigation of the efforts which are being made "for motives that reasons not fully disclosed to prevent the construction of said plant." Personally, I rather welcome this move, for I do not believe that the people of the country will support Congress in its effort to browbeat persons who, from disinterested motives as good citizens, undertake to prevent what they believe highly detrimental to the National Capital, but such an investigation would be calculated to beget the real issue, filling the public mind with charges and counter-charges, while in the meantime the work on the plant goes forward.

A suggestion has been made that the Capitol power plant could be enlarged to do the required work, and at a cost much less than that of the proposed plant. We do not pretend to say whether or not this is a feasible scheme, but what we do say is this—that it and all other possible schemes should be thoroughly considered. We have tried to make it clear that we are not opposing the erection of a central plant, but that our opposition is directed solely against the site chosen. It is of the utmost importance that this situation should be given the widest possible publicity, that we should endeavor to secure the support of the newspapers and to enlist art societies, civic and mercantile associations and all other bodies of citizens who take an interest in the future of the Nation's Capitol, and it is of the very essence of the present situation.

Continued on Page 151
General Conditions of the Contract.

BY FRANCIS W. GRANT *

The model code of general conditions forming a part of the "Uniform Documents" promulgated by the American Institute of Architects, under date of April 1, 1915, is but the latest of a series of attempts on the part of the Institute to devise some sort of contract provisions that would be worthy of adoption by the entire profession as a standard. The American Institute of Architects, without a question, represents the cream of the profession. The total membership, however, of the Institute is to the profession, as a whole, in the United States as one is to eleven. This fact alone would tend to mitigate the offence, if I should be declared presumptions in criticizing this so-called model set of general conditions. I do criticize the work as a whole, believing it to be poorly adapted to its purpose and in support of that view will proceed to comment on its provisions seriatim.

Its title, "The General Conditions of the Contract," is correct, but only so in theory. Consistency will demand, after having adopted this title, that the structural conditions be called "structural conditions of the contract;" the drawings should be labeled "drawings of the contract;" and the proposal and acceptance forms should have the additional words "of the contract" tucked on.

The general conditions should be inclusive of all conditions that are general. If this be conceded it will have to be also conceded that the Institute's code of general conditions should include such clauses as "liquidated damages," "bond" and "certified check," these having general application to all bidders and not being capable of variation at the pleasure of the bidders. The Institute's code places these clauses in the bid blank, thus making them utterances of the bidder, which is contrary to the facts of the case.

Apparently without seeking thereby to secure brevity, the code of the Institute is loaded with cross references whereby it becomes necessary, in order to fully understand what one paragraph means, to read one or more of the other paragraphs or parts of them. This may be all right in text books as tending to make the student work his way as it were, but it is not the right way to write specifications or any other law.

Article I, consisting of ten lettered divisions, is partly good and partly not. Considered separately, these may be considered as follows:

(a) The contract document consists of the agreement, the general conditions of the contract, the drawings and specifications. These form the contract.

The specification is no proper place to enumerate what several instruments combine to form the contract for the reason that that is never known at the time the specifications are written. The Institute's code names for instruments only: the agreement (properly called the contract), the general conditions of the contract (an instrument hitherto unknown but created by anupation from the specifications), the drawings and the specifications. These do not by any means constitute the entire contract in all cases or in many cases. A contract failing to have incorporated therein the printed advertisement for bids, the bid information and concurrence of it and all letters or bulletins issued by the architect to bidders prior to the opening of bids, for the purpose of amplifying or explaining the drawings or specifications is dangerously deficient.

(b) The owner, the contractor and the architect are those named as such in the agreement. They are treated throughout the contract documents as if each were of the singular number and masculine gender.

The first sentence of this division is wholly superfluous, and the second sentence could be better expressed if the first was eliminated.

(c) The contractor shall, as in Article 43, be responsible to the owner for the acts and omissions of his subcontractors and of all persons directly or indirectly employed by him or them in connection with the work.

Any contractor who does not know what this division states to be the case, knows very little else, and if not being the function of the specifications to teach elementary law this is a superfluity and should be omitted.

(d) The term subcontractor includes only those having a direct contract with the contractor and it includes one who furnishes material even though he does no work.

It is of no consequence to either of the immediate parties to the contract what the subrelations of the others are, as a wise architect will not, under any circumstances, recognize or direct the subcontractor as a party in interest, he need not in his specifications delve into fine points of distinction as to the definition of who shall be called subcontractors.

(e) The term "person" or "anyone" as employed herein shall be taken to include a firm or corporation.

The words "person" or "anyone" might under some circumstances need definition, but in these particular documents they do not. "Anyone" appears not at all and the only place except one that the word "person" is used this definition does not fit and in that one place, though it does fit, the addition of three words would clear up all doubt as to its full meaning.

(f) Written notice shall be deemed to have been duly served if delivered in person.

ALTAR AND QUEENS GALLERY
ST. GEORGE'S CHAPEL, WINDSOR CASTLE, ENGLAND

150
to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or mailed to the last business address known to him who gives the notice.

The definition of what constitutes legal service of papers, especially when such definition does not contemplate a departure from the established law of the land is not a proper function of the specifications, no more than would be a statement to the effect that a signature to the contract procured under duress would be invalid or any other such point of law of general knowledge.

(g) The term "work" of the contractor or subcontractor includes labor or materials or both.

Specifications should not be so written that the word "work" when used will not be self-explanatory. If the word is used in the sense meaning work and material, it will be so construed and this issue has been proved in court (see 82 Atlantic 459).

(h) When the words "approved," "satisfactory," "equal to," "proper," "as directed," etc., are used, approval, etc., by the architect is understood.

To use the words "approved," "satisfactory," "proper," "as directed," etc., without at the same time distinctly stating that they imply discretionary power on the part of the architect alone is poor specification writing.

To omit mention of the architect and expect that important point to be made clear by cross reference to a blanket clause like this, under a misleading title in the general conditions, is equally poor specification writing. As to the term "or equal," it deserves more extended treatment than is here given it and is a proper subject for the general conditions when fully covered.

(j) All time limits stated in the contract documents are of the essence of the contract.

It is of course important that time be made of the essence of the contract, but why not do so under appropriate caption as "time for completion" where it cannot possibly be overlooked?

(k) The law of the place of building shall govern the construction of this contract.

That the law of the place of building governs and not the law of Timbuctoo or Trinidad is so obviously true that the incorporation of a statement of that fact in the specifications should subject the writer to ridicule.

*Author of "Specification Writing for Architects".

---

INSTITUTE WANTS PRESERVATION OF ART PLAN.

Command From Page 149

You will perhaps recall that while Thomas Jefferson was Ambassador in Paris he was called upon to procure plans for the State Capitol building at Richmond. Before his plans were finished, he learned that the building had been started in accordance with other plans. He then wrote a series of protesting letters to influential public men in Virginia, begging them to see that the work was stopped, even if there should be loss of time, which he said should not be weighed against the comfort of laying out the public money for something honorable, the satisfaction of seeing an object and proof of national good taste, and the regret and mortification of erecting a monument to our barbarism which will be looked with execrations as long as it shall endure.

The present case is precisely similar. Let us do our utmost to support those on Congress who have a similar breadth of vision.

Yours very truly,

(Signed) BURT L. FENNER,

Secretary, A. I. A.

MR. W. B. FAVILLE,

President, San Francisco Chapter A. I. A.

---

CLUMBER MANORIAL HOUSE, NOTTINGHAMSHIRE, ENGLAND
San Francisco’s Municipal Car House.

By REUBEN J. WOOD — Assistant Engineer, City Engineer’s Office.

Perhaps there is no one factor which is more indicative of the growth and success of San Francisco’s Municipal Railway System than the various additions that have been added to the Geary Street Car House. It was in the summer of 1911 that the city made its initial bow into the field of Municipal ownership by constructing the Geary Street road, and at that time a car house was erected on Geary Street at Presidio Avenue. This building covered but a portion of the property purchased, and was capable of housing 64 cars, a repair shop, sub-station and the operating departments, all of which greatly exceeded the then existing needs of the system.

When the city decided to increase the transportation facilities to the Exposition by constructing the Van Ness Avenue and the Chestnut Street lines, 125 new cars were purchased. From an operative standpoint the present car house still occupied a central position, and a two-story addition was constructed on the remainder of the property previously acquired. This extension has a storage capacity of 70 cars, the remainder being housed in a second car house erected on Seventeenth and Hampshire Streets. As a direct result of the vast volume of traffic handled, the executive departments naturally increased in a direct proportion, and the existing offices became highly inadequate. In order to meet these needs, a second story was added to the Geary Street frontage, where the columns of the original structure had been designed to support the possible addition. This section was completed on January 1, 1915.

The Geary Street Car House, as it now stands, covers a lot 275 by 345 feet; is capable of housing one hundred and thirty-four 14-ft. cars, all of the maintenance and executive departments, and excluding the real estate, represents an investment of $435,000. It is hoped that the accompanying plans will give a clear idea of the general layout of the structure, as well as the needs of such a system from a maintenance standpoint.

General Construction Features

The Municipal car house was constructed of reinforced concrete throughout, and when considered in its entirety is an absolutely fireproof unit. This type of building is imperative since the city carries its own fire insurance, and when we consider that each car costs $7,000, the magnitude of this responsibility can be fully realized.

The sixteen tracks on the upper floor and the eight on the lower are divided into four track bays by means of eight-inch concrete partition walls, all connecting openings in these walls being protected with automatically closing underwriters’ fire doors. All bays are closed by exterior concrete walls at the rear and Kimura corrugated iron rolling doors on the street frontages. The roof is constructed of transverse concrete beams and a 3½-inch slab which is waterproofed with a five-ply tar and gravel roofing. In order to provide proper drainage toward the downsputs, the various concrete slabs were warped in four directions, thus eliminating the expense and dead weight of the Cinder or brick fill which is usually added on flat slabs to form the proper grades. This method might not result in any material saving on small work, but a building of this size naturally means an economic repetition.

In order to secure natural light as well as ventilation, a concrete monitor, 7'-0" wide, was run continuously over each pair of tracks. Each monitor has a skylight roof glazed with wire glass, and one side is formed of continuous louvers constructed of No. 21 gauge galvanized iron.

Two-Story Addition

The grades of Geary Street and Presidio Avenue were such as to permit of the construction of this two-story addition, the first floor fronting on Presidio Avenue and the second being on the same level, and in reality but an extension of the original Geary Street floor. The retaining wall at the rear of this extension was one of the most interesting features of the design. It is 40 feet in height, and was figured to
withstand a fluid pressure of 30 pounds per square foot. A 12-inch vertical concrete slab carries the loads to vertical beams which are spaced 13½” on centers, the roof, second and first floors forming the supports. The unit stresses used throughout the design were as follows:

Steel .................................. 15,000 lbs. per sq. in.
Concrete in compression ...... 630 — — —
Concrete in shear ........... 40 — — —

This type of building can be constructed for approximately $1.5 cents per cu. ft., which in this case means a cost of about $2,000 per car stored.

OFFICE PORTION

The office portion, which has just been completed, is 22½ by 54 feet, and in conjunction with the original offices, houses the executive departments of the road, such as superintendent, bookkeeping department, claim agent, attorney, and many others. In order to make this portion of the building a flexible investment, the flat slab roof is supported by 54 ft. concrete beams, spaced 13½” on centers. These beams are 18 inches wide, 4½” in depth, and are reinforced with 1½ one-inch square twisted rods. All partitions were constructed of metal lath and plaster, and if, at some future date, it becomes advisable to move the offices to some other location, this floor can be made into a gymnasium or assembly hall. Whenever one considers a concrete building from an esthetic standpoint, the question of a proper exterior finish demands deep deliberation. Plaster finishes, as applied in the past, not only peal off, but are mottled and present a cold appearance—they lack the organic. The city has successfully solved this problem by applying a heavy coat of cement plaster by means of a cement gun, and trawelling the same to a smooth finish. Then as a substitute for the second coat of plaster, the walls are painted with two coats of some approved concrete paint. "Concreto" cement coating, which is manufactured by the Muralo Company, was used on this building.

TRACK CONSTRUCTION

The accompanying plans and sections clearly illustrate the extent and type of pit construction used. The approximate weight of a car is 27 tons, and by spacing the supporting concrete posts 6’ 0” on centers, it was found that a 7½ 80-lb rail would sustain this load. The steel cap plate on each post was curved, in order to eliminate any spalling of the concrete, due to the deflection of the rail. The rails were drained by warping the concrete slabs toward various floor drains. The rails on the second floor of the addition were securely grouted into the supporting concrete beams. In order to prevent any possible moving of the cars, these rails were laid absolutely level, and as a result, the drainage of this section demanded special attention. The problem was solved by constructing a small gutter on the inside of each rail. The floors between rails were given a slope of one-quarter of an inch per foot toward these gutters which in turn were sloped 2” between high and low points.

GENERAL

A 50,000-gallon wooden tank has been erected at the rear of the car house, and the City contemplates installing a complete sprinkler system at an early date. This system will include both aisle and roof sprinklers.

This building contains a complete repair shop, wood working room and paint shop, all of which are well equipped to care for the repair and upkeep of the city’s cars.

The two additions to the Geary Street car house were designed by the writer, under the direct supervision of M. M. O’Shaughnessy, City Engineer.
Bernard R. Maybeck.

By A. B. Wastell.

As the signal was given for final curtain at the Exposition, San Francisco was gladdened by the encouragement that the Palace of Fine Arts was to remain an enduring reality of Bernard R. Maybeck's life's dream.

Although a structure of classic-romantic design, the modernity of its wooded surroundings and the placidity of its fronted lagoon, creates an atmosphere that makes a strong appeal on all classes of people, whether of high or low estate, and bespeaks the versatility and cosmopolitan character of its designer, who in marked degree, lives in and feels the spiritual significance of his ideas and sentiments before creating the form in which he embodies them.

Maybeck says: "Both music and architecture are simply vehicles for the expression of different phases of our human experience." "The keynote of the Fine Arts Palace," he states, "is sadness modified by the soothing influence of beauty." "In short, 'sad content'."

However it may be termed, it has proven a joy to thousands of visitors, and has been the aim of unnumbered photographs, stories and rhymes as evidenced during the past holiday season by the crowds of happily satisfied patrons and purchasers of fine arts remembrances. These bear the myriad names of photographers, colorists and rhymers, but seldom reference to the creator. Feeling some degree of interest, as to how this rampant commercialism of his art affected the ethical ideas of the designer, an interview brought out, not the scorn of such "prostitution of art," as for effect would be the proper "stage business," but instead, a genial appreciation of the apparent joy the scattering abroad of these reproductions "of all sorts" had given the Christmas shoppers. This incident gives an interesting insight into Maybeck's homely, unassuming character, with its entire absence of pose and also illustrates his disregard of self-effacement or partial eclipse.

In fact, his philosophy of life eliminates fret and worry. He possesses the wholesome practicality and tact that draws on a great fund of knowledge and experience, gained at home and abroad, which carries conviction in argument and ordinarily gets him what he wants. Harking back to the conditions of tight money, shaky confidence and war scare, under which the Exposition authorities labored during the construction period, we remember how estimates had to be pruned and appropriations reduced. Arguments and demands for lesser expenditures on the Fine Arts Palace were leveled at Maybeck, in broadsides, by the Works Department, but undismayed, Maybeck met the onslaught with the faith that conquers. The shrubbery and trees, the hedges of green and all the other adjuncts of his scheme must not be curtailed as proposed. He urged that the value of a few thousand dollars should not be compared with the resultant loss to the ensemble of this wonderful dreamy romantic thing he visualized, while the others could only see insurmountable financial difficulties.

Patiently but persistently he strove on, listening to suggestions reasonableness and sympathetically, compromising in little things, and finally he won his heart's desire.

Entirely aside, however, from stately memorial of Maybeck's art, one has but to visit the hillside of his home city, Berkeley, to find more practical evidence of his genius as displayed in many charming homes and studios, nestling amid appropriate garniture of shrubs and trees. Berkeley has distinction, as the field for the past twenty-five years, for his fanciful creations of charming homes.

The simplicity of Maybeck's designs is a constant rebuke to the use of "gingerbread decorations," and furthermore, he seems to impart a sense of livableness and homeliness to his work. Then, too, not satisfied to leave the completed structure, he lends added touch in choice of color scheme for draperies and furniture, in harmony with the tone of the interior finish. Frequently, the departure from the conventional astonishes at first glance, but the charm of his originality fascinates and grows into lasting admiration. If questioned as to the whys and wherefores, there is always a reason, and his explanations are satisfying. Aside from his experience in the University of California, he is a natural teacher, and in dealing with one of receptive mind, he always seems glad to take time to furnish information desired.

Maybeck has a really great joy in living, possesses a keen sense of humor, loves to participate in the neighborhood dances and entertainments of his favorite Hillside Club, and never indulges in "high-brow talk" in general conversation.

Although rejoicing in opportunity to design in stone, and accomplish the big things in between, he, like some others, also designs his own little things. His home is a joyous mixture of public and private artistry. Mr. and Mrs. Maybeck apply in their lives the same methods that beautify the homes they have designed. He is a lover of flowers, a gardener of genial skill, and the work that he does in his yard is as admirable as his buildings. He sees to it that the flowers grow, and that the clean shining windows receive a proper display.

Some friends of his, upon receiving a note from him, wrote back the following message: "Dear: 'May I come and see the garden this afternoon?"

A letter from another acquaintance: "I want to see your garden this afternoon."

More than one guest who has visited Maybeck's home has exclaimed, "May I have a photograph of your garden?"

In his home, one may see a specimen of Maybeck's work, a charming home, of brick and stone, with flower garden and shrubbery. He has a residence not only a home, but a museum, a temple, a living thing. His California home is a temple of art; a place of beauty, a place of pleasure, a place of rest and relaxation, a place of inspiration.

In his work, he utilizes wood in a variety of ways, preferably in the natural, and is, in this vicinity, the Apostle of Wood. Only recently he said when agreeing to advise in relation to housing plans for rural settlements, "I love to design little houses of few rooms—will make them all different, and give to each the naturalness and charm that make a real home."

He recently naïvely exemplified the fact that "a soft answer turns away wrath." A client took him to task for what he considered the extreme colors used in stenciling the roof of a gothic interior, protesting that the colors clashed. "Why," he said, "it looks as though you had transplanted a Chinese Pagoda in here." With his courtly manner unaltered, and with customary gracious smile, Maybeck blandly replied: "You have hit it just right. I like to work with you on account of your appreciation of things different from what we Occidentals consider customary. What are the old-time workers in wood? Who knows best how to bring out the late colors in wood by use of color effects? Why, the Koreans, the Japanese, the Chinese, and that is why we have transplanted the colors of the Pagoda. See how the wood finish that seemed flat and unpromising before, now glows and shows unsuspected color tone." The convert thereupon testified, "It is even so."
LIVING ROOM

LIBRARY

HOUSE OF C. M. SPITZER, LOS ANGELES
HUNT & BURNS, ARCHITECTS
LIBRARY

DINING ROOM

HOUSE OF C. M. SPITZER, LOS ANGELES
HUNT & BURNS, ARCHITECTS
DRAWING ROOM

UPPER TERRACE & PERGOLA

HOUSE OF C. M. SPITZER, LOS ANGELES
HUNT & BURNS, ARCHITECTS
HOUSE OF DAN MURPHY, LOS ANGELES
HUDSON & MUNSELL, ARCHITECTS
COURT AND FOUNTAIN
HOUSE OF DAN MURPHY, LOS ANGELES
HUDSON & MUNSELL, ARCHITECTS
THORNEWOOD, COUNTRY HOME OF CHESTER THORNE, TACOMA
CUTTER & MALMORE, ARCHITECTS, SPOKANE
GARDEN

WOODED PARK AND LAWN
THORNEWOOD, COUNTRY HOME OF CHESTER THORNE, TACOMA
CUTTER & MALMGREN, ARCHITECTS, SPOKANE
MUSIC ROOM

LIBRARY

THORNEWOOD, COUNTRY HOME OF CHESTER THORNE, TACOMA
CUTTER & MALMGREN, ARCHITECTS, SPOKANE
MUSIC ROOM

THORNEWOOD, COUNTRY HOME OF CHESTER THORNE, TACOMA
CUTTER & MALMORE, ARCHITECTS, SPOKANE
LIBRARY

MUSIC ROOM

THORNEWOOD, COUNTRY HOME OF CHESTER THORNE, TACOMA
CUTTER & MALMGREN, ARCHITECTS, SPOKANE
GENERAL VIEW

VIEW FROM GARDENS

HOUSE OF CHARLES TEMPLETON CROCKER, HILLSBOROUGH, CAL.

WILLIS POLK & CO., ARCHITECTS
VIEW FROM SUNKEN GARDEN
HOUSE OF CHARLES TEMPLETON CROCKER, HILLSBOROUGH, CAL.
WILLIS POLK & CO., ARCHITECTS
VOL. II, NO. 3

THE ARCHITECT

PLATE 47

DETAIL

HOUSE OF CHARLES TEMPLETON CROCKER, HILLSBOROUGH, CAL.
WILLIS POLK & CO., ARCHITECTS
We reproduce herewith photographs showing application of Lupton Steel Sash on two modern factory buildings. This company is prepared to furnish drawings on request showing special roof formations, types of sash with required lighting and ventilating areas, and their locations, for best results in buildings of any size and for any purpose.

It is part of the Lupton service to solve the individual problems presented in each case. David Lupton's Sons Company offer a service in this respect, backed by experience of over forty years in roof lighting and metal windows. This company produced solid rolled steel sash, welded at the old-fashioned blacksmith forge, before Hollow Metal Underwriters Windows were used. Lupton service will solve lighting and ventilating problems without charge. This company requires full data on the use of the building, location of columns, length, width and height, and other dimensions or clearances, which should be received before definite plans are made.

The principle of the design of the Lupton products is large, solid sections, sash made of at least possible number of pieces, without built-up or assembled sections that conceal corrosive surfaces; sash are of highest efficiency when made of solid sections, all welded into one piece by oxy-acetylene process. These points of construction for various types of buildings include:

For Foundries: Roof formation to aid quick removal of fumes and gases; distribution of light and ventilation; types of side wall and roof sash. Pond Truss has proven that foundries may be well ventilated by natural means under all weather conditions.

For Forge Shops: Roof formation; light and ventilation; suitable types of side wall and roof sash.

For Machine Shops: Effective distribution of light; properly controlled ventilation.

For Power Houses: Arrangement of roof levels so that heat ducts may be placed on roof over boilers; location and kind of roof sash to give direct light and ventilation to firing alleys. Power house type of side wall sash; operating devices.

For Weave Sheds: Economical long span sawtooth roof construction; type of ventilating sash for sawtooths, which is weather-proof when open, with positive and quick control in long lines by mechanical devices.

For Multiple Story Buildings: Arrangement of sash panels between pilasters; height and position of sash to give light in center of floor spaces; amount and location of ventilating areas; most effective use of glass.

For Office Buildings: Counterweighted sash, sliding in rolled bronze double weathering; easily operated but closely fitted. Satisfied tenants, saving in fuel and low cost of efficiently weathered metal sash, more than offsets the additional cost over wood windows.

For Hospitals: Sash with ventilators opening at top, permitting use of screens and shades, and giving ventilation without drafts. Sash made sanitary by welding all joints and fastening glass by continuous welded glazing frames.

David Lupton's Sons Company has just issued Products Service Catalogue Number Seventeen, showing typical installation of Lupton products. This catalogue is very complete with drawings, illustrations and including specifications for the products.
**Current Notes and Comment.**

We are pleased to announce the removal of Joost Bros., hardware, San Francisco, to their new location, 1025 Market Street, opposite Pragers.

Adhering to the one principle, integrity in business, and representing as they have for many years, the celebrated Russell & Erwin Manufacturing Company "Russwin" hardware, they have gained an enviable reputation among the architects and builders throughout this entire section.

Joost Bros. have found it necessary, in order to take care of their growing business, to move into larger quarters, and we take this opportunity to extend to them our heartiest wishes for continued and greater success.

* * *

H. F. Wardwell, formerly Home Office Manager, has been appointed General Sales Manager of The Detroit Steel Products Company, effective February 1st. He succeeds Mr. P. A. Smith, who recently resigned to enter another line of business.

Mr. Wardwell's previous training admirably fits him for the new duties he has assumed. He is a Cornell University Alumnus, having completed the architectural course in that institution. After graduation, he accepted a position with Albert Kahn, one of the best known architects in the country, and later joined the United States Gypsum Company.

He joined the Detroit Steel Products Company as an estimator, and speedily became head of that department. During the past few years he acted as special company representative on large building jobs, and has been instrumental in landing some of the biggest steel window contracts for his company.

During the past few months Mr. Wardwell has devoted his time largely to Home Office organization, but his experience in the field and his natural selling ability, give him every qualification for guiding the sales division of this Company's fast-increasing business.

* * *

The Dan Murphy residence, Los Angeles, Hudson & Almssell, architects, and the house of C. M. Spitzer, Los Angeles, Hunt & Burns, architects, reproduced in this issue, were roofed with tile manufactured by the Los Angeles Pressed Brick Company. This concern has supplied considerable tile roofing for many large homes in Southern California.

* * *

Amber Asbestos Building Materials are absolutely non-combustible, for the reason that they contain no combustible ingredients. The body or bulk is Portland cement concrete, consisting of hydrated silicates and aluminates of calcium, while the bonding material asbestos fibre, is a hydrated silicate of magnesia. None of these substances can take up more oxygen, and all of them are good heat and electrical insulators and can withstand quite high temperatures.

In the process of manufacture, the Portland cement and the separated asbestos fibres are thoroughly mixed together in a heating engine in the presence of an excess of water with the purpose of insureing that each individual asbestos fibre will be well coated with colloidal cement and that plenty of water will be provided for the hydration of the latter.

Subsequently the glue-like mass is taken up in thin sheets in a modified paper board machine, the sheets being superimposed until the desired thickness is obtained. This method of manufacture insures uniform distribution of the asbestos fibre throughout the mass, and also that the fibres will lie in planes parallel to that of the sheet, so that their tensile strength can be used to the greatest advantage in reinforcing the cement.

The material is then subjected to very high pressure in order to more thoroughly impress the asbestos fibres into the cement matrix, and also to drive out excess water and prevent voids and fissures. After the setting of the cement and proper aging, the material thenceon becomes exceedingly dense, tough and resilient, and its strength improves with age.
EDITIORIAL.

REPRINTED in this issue is a letter from Secretary Burt L. Fenner, of the American Institute of Architects, calling attention of Western architects to the grave danger of a new government power building and its site, which will impair the beauty of the city of Washington. Similar communications have been mailed to other Chapters, and concerted action is being aroused against the erection of the plant on the proposed site.

Although very apt to be misunderstood, and judged from Mr. Fenner's letter, very greatly hampered by certain Washington Congressmen, members of the Institute are to be commended for their strong stand on this important question. As the work of architects is as little understood by the general public as any other profession, mayhap they are more liable to criticism, but the men directing this protest are too well known to the world at large, for any doubt to be raised about their activities being directed in any channel other than benefit to the higher elevation of art.

The vast improvements in government and other public architecture during the past quarter of a century have been due, in no small sense, to the efforts of the Institute. The work of its members has been influential in movements for civic improvement, city planning and other topics outside of the mere designing of a building, and all of which have bearing upon the elevation of art.

Secretary Fenner reports that Mr. Fitzgerald, the Chairman of the House Conference Committee, and two of his colleagues, to whom a vigorous protest was directed, were deeply resentful over the campaign which the Institute was conducting.

Why these men should be resentful is beyond our ken, especially so, when the standing of the individuals responsible for the protest is taken into consideration.

It is not necessary to state that the Institute has within its active membership all the architects of this country of high professional character. Former President Roosevelt was not adverse to receiving suggestions of this body, as during his tenure of office, the Institute was instrumental in having him appoint a Bureau of Fine Arts, which, composed of architects, painters, sculptors and landscape architects, should have charge of all government art projects.

It is the hope of Secretary Fenner and his colleagues that all Chapters and members will endeavor to spread broadcast such information as will enable public bodies to know of the proposal to erect in Washington a power plant with high stacks, on a site in direct view from the Capitol and other important points in Washington, and in full view of passengers on many trains approaching the city.

Opponents of the proposition declare that such a plant, with four huge smokestacks, would seriously interfere with the future development of the Mall system, the water-front improvements, the new Potomac park, and the whole scheme of the beautifying of the nation's capital. In Washington it is believed that through an oversight the plans were not submitted to the Art Commission until some time after the award of the contract. The Commission, after a thorough study, submitted an adverse report, but inasmuch as its veto is not mandatory, the department intends, with the authority of Congress, to proceed with the erection of the building.

President William B. Faville, of the San Francisco Chapter, has already sent telegrams to Washington, and similar protests from other parts of this country, it is trusted, will bear fruit.

The San Francisco Chapter of the A. I. A., has sent telegrams to Hon. Woodrow Wilson, President of the United States; Senators James D. Phelan and John D. Works of California, Congressmen William Kent and Julius Kahn of California and Senator John J. Fitzgerald of New York.

No person of any comprehension, and least of all, a Congressman, should question the principle the architects are striving to maintain. The work of beautifying the city of Washington is an inheritance entitled to the respect of officials, not only of our day, but of future generations. The plan for beautification, as adopted by the Art Commission, is now under way, and the erection of a power plant on the proposed site will be a blot on the landscape.

The best thought has been directed for this great art work, and if it is to obtain merit in its placement, the deliberate artistic expression of the generation erecting it should be held too sacred a character for disfigurement by government officials who seek to impugn the motives of public spirited men striving for a principle so keenly felt and desired by a majority of our citizens. If Congressional committees and Treasury Department officials insist upon haphazard placements as against the advice of the Art Commission, it will not only be a blot on the landscape but a blot on this generation.

The great cities and capitol's of the world have spent millions in acquiring and improving their water-fronts for the combined uses of business and pleasure. The water-front of Washington already belongs to the Government, and may be improved at small expense compared with what such improvements have cost other cities.

An enlargement of the present Capitol power plant would serve every purpose now sought, and would also accommodate, in addition to the buildings it is proposed to heat from the above-mentioned new Power House, the Navy Yard, War College, Government Printing Office, Pension Bureau, Patent Office and the Land Office. The line points to the site of the present Capitol Power House.

The Nation that caused this park and riverside to be hallowed and consecrated with monuments which are destined to be an inspiration to millions of American citizens will never forgive any desecration.

The question is a grave one, as indicated by Secretary Fenner's writing. Chapter officials have indicated the way to prevent the step being taken, and the members of the profession, by continual suggestion through the local press and to the city officials and public spirited citizens, will be taking part in a work eminently commensurate with their efforts.

It is hoped through the united efforts of the Chapters of the A. I. A. scattered throughout America that enough pressure can be brought upon the officials at Washington so that the plan for the National Capitol shall be executed in its full beauty and not marred by avoidable blunders.
Minutes of San Francisco Chapter, A.I.A.

January 20th, 1916: The regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held at the Tait-Zinkand Cafe, 186 O’Farrell Street, on Thursday evening, January 20th.

The meeting was called to order at 8:15 by Mr. Edgar A. Mathews, in the absence of the President, Mr. W. B. Faville. Eighteen members were present.

Minutes: The minutes of the meeting held on November 18th, 1915, were read and approved.

Board of Directors: Nothing to report.

Committee on Competition: Mr. W. B. Faville, for this committee, had nothing to report.

Committee on Legislation: Mr. Edgar A. Mathews, for this committee, had nothing to report.

Committee on Relations with Contractors’ Affiliates: A letter was read from Mr. G. Alexander Wright, asking what action should be taken with reference to the adoption of the Uniform Contract and inquiry as to its conformity to the laws of California.

Committee on Relations with Home Industry League: Mr. Krafti stated that a meeting would shortly be held to which the Architects would be invited.

Committee on Relations with Chamber of Commerce: Mr. J. Stewart Fairweather, for this committee, had nothing to report.

Committee on Relations with Civic League: Mr. Sylvan Schnaittcher, for this committee, had nothing to report.

Messrs. King and Mcelroy submitted a report for Building State Building: Mr. Moore stated that a portion of the bonds had been sold and it is presumed that a competition would be shortly inaugurated.

The following report on the forty-ninth annual convention submitted by Mr. John Galen Howard, was read:

San Francisco Chapter, A. I. A., 233 Post Street, San Francisco.

Gentlemen:

I beg to report as delegate from the San Francisco Chapter to the convention of the American Institute of Architects held in Washington, December 1st, 2nd, 3rd, 1915. As Mr. Faville, Mr. Schnaittcher and Mr. McElroy were the only representatives of this Chapter, carrying the proxies of all my colleagues. Upon examination, the officers of the institute decided that I was empowered to vote only twice in addition to my own vote, in accordance with the rule of the Institute.

Opposition to the revision of the constitution as proposed by last year’s Committee on Chapters having arisen in some of the Chapters, this matter was put over for another year, and a new committee appointed under the chairmanship of Mr. Frederick W. Perkins, of Chicago. It is considered that representatives from each Chapter should have accepted the President’s appointment to represent San Francisco. As a preliminary to the work of the new committee, the convention voted to accept the rule of “the sense of the meeting” that no obligatory class should exist within the Institute.

Although the Constitution and By-Laws were not revised in toto as proposed by the Committee, certain modifications were passed, some of which are more or less radical.

Eligibility to Institute membership are hereafter to be made by the Board of Directors of the Institute acting upon individual applications by Chapter members made directly to the Board without action by the Chapters themselves. During the coming year the initiation fee will be waived, and the Board of Directors will not require an examination of applicants of a given Chapter proposed by the unanimous endorsement of the Institute members of that Chapter, subject however to the provision that announcement of application shall be sent to all Institute members, and privileged communications requested.

The convention voted that it is the “sense of the meeting” that Chapters shall take in no Chapter members during the coming year unless they sign an agreement to apply for Institute membership within three years, and that existing election as Institute members, they will withdraw from Chapter membership.

Women have been specifically recognized as eligible to Institute membership, a matter which in principle has been recognized for some years, in view of the fact that certain women have been elected as members.

The convention voted to recognize in principle the equalization of expense of delegates to the convention, the detail arrangements being left to the discretion of the Board of Directors.

The following officers were elected:

President, John Lawrence Mauran, St. Louis; First Vice-President, C. O. Ormsbee, New York City; Second Vice-President, Milton B. Medary, Jr., Philadelphia; Secretary, Bart L. Fenner, New York City; Treasurer, D. Everett Waid, New York City.

Directors to serve for three years: Mr. Horace W. Nostrand, Minneapolis; Mr. J. J. L. Laubscher, Kansas City; Horace Wells Sellers, Philadelphia.

In this connection I would say that having been instructed by this Chapter to vote for the regular ticket headed by Mr. Kimball, of Omaha,
The meeting was called to order at 8:00 p.m. by President R. J. Herbert. Mr. W. C. Fairfiled, Secretary, was present, and Mr. Green, of the Southern California Chapter, was present.

The minutes of the meeting held January 29th, 1916, were read and approved.

Competition Committee: Mr. Fairfiled stated that Mr. Mosser would report on an open competition for the design of the State Building in San Francisco, and that the committee had been asked for suggestions with regard to a competition for the Mt. Diablo High School, in connection with a sale of bonds at San Francisco.

Housing Committee: Nothing to report.

Committee on Relations with Contractors' Affairs: In the absence of Mr. Wright, there was nothing to report.

Committee on Relations with Home Industry League: In the absence of Mr. Kraft, there was nothing to report.

Committee on Work with Chamber of Commerce: In the absence of Mr. Fairweather there was nothing to report.

Committee on New Institute Members: Mr. Schmittle, for this committee, reported that seventeen applicants had been filed for membership and that twenty-five additional members had signed their intention of putting in applications. It was probable that there would be nearly fifty new applications for Institute membership from Los Angeles.

Committee to Follow Up Matter of State Building: Mr. Mosser reported that his trip for the State Building in San Francisco, that the State Architect had been officially appointed as Advisor, and that the program was in compliance with requirements of the California Building Code referred to the Competition Committee. It is expected that the program will be issued very shortly.

Mr. Schmittle, for this committee, reported that at the request of the Industrial and Accident Committee he had attended a meeting of the committee as representative of the Chapter to consider the matter of window cleaning. Among other matters discussed at the meeting were tentative rules suggested by the Committee requiring that all windows must be constructed so that they can be cleaned from the inside within a certain period of time, and that no installation must be equipped with safety devices. Further meetings were to be held to determine a set of rules affecting window construction.

Minutes of Southern California Chapter, A. I. A.

At this time a resolution was passed that a committee be appointed by the President to frame the necessary resolutions from this Chapter.

The President appointed Messrs. A. C. Martin, A. B. Benton, and August Wackerburch.

A communication was also read from C. H. Whitaker, editor of the Journal of the Institute, reporting a copy of the Chapter's resolutions, etc., for publication in the Journal's March number. This communication was referred to the Secretary for reply.

For the Committee on City Planning, report was made that several meetings had been held, but with inactive matters as yet to be presented to the Chapter.

For the Committee on Exhibition, Mr. A. F. Rosenthal reported success so far accomplished in the securing of drawings for the exhibit. It was reported that the formal opening will be held on February 15th, and that to all appearances the exhibit is going to be an unqualified success. Question having arisen as to the committee's authorization in handling the exhibit and in assuming that such exhibit was being held under the auspices of the Chapter, a resolution covering complete approval of the committee's actions was offered, duly seconded and carried.

For the A. J. A. Subcommittee on Education, Mr. J. T. Vawter reported the suggestions made by Mr. Hector Allard on the matter of establishing a permanent exhibition in the Southwest Museum. After general discussion, it was moved, seconded, and carried, that the committee be empowered to carry on the work.

For the Committee on Exhibition, Mr. A. F. Rosenthal reported success so far accomplished in the securing of drawings for the exhibit. It was reported that the formal opening will be held on February 15th, and that to all appearances the exhibit is going to be an unqualified success. Question having arisen as to the committee's authorization in handling the exhibit and in assuming that such exhibit was being held under the auspices of the Chapter, a resolution covering complete approval of the committee's actions was offered, duly seconded and carried.

A. J. A. Subcommittee on Education further reported on a certain communication received from the "House Beautiful" setting forth a program of competition for small residential work, such competition to be handled under the auspices of various Chapters in which such competition would be called, and outlining certain methods of compensation for successful prize winners. The suggestions in the report bore the signature of Mr. H. R. Chipston Sturgis, former President of the Institute, and bore the approval in part of the local Educational Committee. Full and complete discussion was entered into regarding the whole matter, and it was agreed to notify the American Institute of Architects. Motion was offered by Mr. A. C. Martin that further details of the plan be secured by the committee from "House Beautiful." Motion received and carried, and statement from Mr. R. Chipston Sturgis, with the additional data the matter be presented at the next meeting of the Chapter. This motion received no opposition. Motion that Mr. Martin Hunt that the matter be laid on the table. This motion was duly seconded and carried.

Under Unfinished Business, a report on the matters of Supervising Architect for the County was deferred until the next meeting.

The balance of the meeting was given over to musical program.
QUALITY AND PRICE

It is impossible to sacrifice quality at any time. But by a large production and systematic manufacture, many economies can be effected.

The "Infallible" is the most generally used closet of the pattern illustrated.

For this reason we are able to offer it at lower prices than a closet of its quality and design usually demands.

Like all the "Pacific" line, the "Infallible" is absolutely guaranteed for an unlimited number of years.

"Pacific"
PLUMBING FIXTURES

Showroom:
67 NEW MONTGOMERY ST., SAN FRANCISCO

Factories: :: RICHMOND, CALIFORNIA

Minutes of the previous meeting read and with corrections approved.

Report of the Secretary; also the Treasurer's report; accountant's annual and assuring moved and Mr. Stone seconded the motion that the Association telling them the state of the finances of the Chapter and assureding of payment as soon as conditions permit. Carried.

A report from the committee appointed to investigate the invitation from the allied engineering societies asking the Chapter to join was read. Mr. Schack stated that his committee had met with Mr. Hall and Mr. Slater, of the engineers, and they had outlined to the committee the scope of the proposed organization. Mr. Schack made no recommendations to the Chapter and some general discussion was had in regard to the advisability of the Chapter's entering such an organization. Mr. Alden stated he thought the architects had no place in this proposed society, but that they would be ready and willing to act at any time with the engineers to further any matters of mutual interest. It was also noted that the funds of the Chapter were very low, and as the expenses of joining and maintaining relations with this Society were quite indefinite, it was moved by Mr. Thomas and seconded by Mr. Gould that the matter be referred back to the committee to draft a reply along the lines suggested in the discussion. Motion was carried.

There was a report from the Committee on the Bellingham School. Mr. Willats, Chairman, being absent, Mr. Baepler presented a written report, which was read. Mr. Thomas not having been at the previous meeting when this matter came up, asked for some further information. Mr. Blair, who had made an examination of the school for the Seattle School Board, made some general explanations, which were more explicitly entered into by Mr. Stephens, from which it was gathered that the building was most undesirable, and, in fact, a menace to public safety. Some general discussion was entered into as to the method of procedure and a number of suggestions were made, resulting in a motion by Mr. Alden and seconded by Mr. Ziegler, that a letter be written to the School Board setting forth the findings of the committee and asking that an investigation be made, this letter to be framed by the committee and signed officially by the President and Secretary of the Chapter.

A report was read by the Committee on Public Information regarding a circular of information which had been referred to the committee at a previous meeting. Mr. Gould found the matter had been up before the American Institute of Architects, with the probability that they would issue a circular for the use of all Chapters, and as this would be more valuable than a local circular, it was decided to defer action until report was had from Mr. Wilcox as to what action the A. I. A., the committee was empowered to draft a circular and present the same for discussion at the next meeting. Mr. Gould made the motion, seconded by Mr. Alden, that a letter be sent to Mr. Wilcox to inquire what action the A. I. A. was taking in regard to the circular, and if it were found that no action was being contemplated, the committee was to proceed to draft a circular and present same at the following meeting.

Mr. Alden then stated that Mr. Wilcox, before leaving for the East, had intimated that he was not clear on the proceedings of the A. I. A. convention as to the expenses of delegates to future conventions, and the President directed Mr. Alden to write Mr. Wilcox that this Chapter was vitally interested in the reappropriation of the expenses of delegates to conventions, as embodied in the resolutions before the convention in December.

The President called the attention of the Chapter to a letter from the Institute regarding a bill introduced into this Congress regarding the competitions held for three large public buildings in Washington, D. C., some three or four years ago. The results of the competitions are endangered by the bill presented, and all of the architects present were urged to write a letter to the Representative of this State at Washington, registering his disapproval of this measure.

Following the regular order of business, Mr. Alden gave a most interesting talk on the conditions under which the San Francisco Exposition was built, and included in his talk were a number of most interesting slides made mostly from photographs taken by Mr. Alden. Meeting adjourned at 11:45 p.m.

Officers of the Washington State Chapter, A. I. A.: President, Arthur L. Loveless, Seattle; First Vice-President, Joseph S. Cote, Seattle; Second Vice-President, George Gove, Tacoma; Third Vice-President, Albert Hohl, Spokane; Secretary, Daniel R. Huntington, Seattle; Treasurer, Ellsworth P. Storey, Seattle; Counsel, James H. Schack, Seattle. Committee on Public Information—Chairman, Carl F. Gould; members, Sherwood D. Ford, Charles H. Alden, Joseph S. Cote, Harlan Thomas.
Non-staining

Atlas-White Cement makes a pure white, non-staining mortar for pointing, setting and backing brick, stone, and tile. It will not stain. Atlas-White is also ideal for Stucco, and for exterior trim and decoration, wherever a pure white finish or a sharp, clear contrast is desired.

Atlas-White is a true Portland Cement of the same high quality as Atlas, and is the most used white cement.

Further information will be sent upon request, together with Stucco specifications.

The Atlas Portland Cement Company
Corn Exchange Bank Bldg., Chicago 30 Broad Street, New York
St. Louis Minneapolis Des Moines Philadelphia Boston Dayton

Pacific Coast Distributors of Atlas-White:
Santa Cruz Portland Cement Co., San Francisco
United Materials Company, San Francisco
Pacific Portland Cement Co., San Francisco
Oro Grande Lime & Stone Co., Los Angeles
Sunset Lime Company, Los Angeles
Los Angeles Lime Co., Los Angeles
Western Commercial Co., Los Angeles
Robert H. Winn Co., San Diego, Cal.
Howard Company, Oakland, Calif.
Consolidated Supply Co., Seattle, Wash.
Evans, Coleman & Evans, Vancouver and Victoria, B. C.

Atlas-White Stucco Home
Davis, McGrath & Kiessling
Architects

ATLAS WHITE
Clarence Musto Residence,  
San Francisco  
Henry G. Smith, Architect  

Equipped with  

Pitcher Disappearing Doors  
Adjustable Hangers and  
Patented Frames  

Pitcher Disappearing Doors installed in 5 1/2 inch partitions. No extra thickness of wall required. Specify Sliding Doors in place of Swinging Doors.  

WRITE FOR PARTICULARS

NATIONAL MILL & LUMBER COMPANY  
Fifth and Bryant Streets :: :: San Francisco

"People of taste and refinement are beginning to realize that a Pipe Organ is absolutely necessary in the music room."

"A unique and original way of placing a Pipe Organ in the music room without pipes being exposed."

"For full information and specifications, write  
EILERS MUSIC COMPANY  
975 Market Street :: San Francisco  
Agents California Organ Company"
Example of Russwin Builders Hardware in the style of the French Renaissance

RUSSELL & ERWIN MANUFACTURING CO.
The American Hardware Corporation, Satellite
New Britain, Conn.
Commercial Bldg., 111 Market Street, San Francisco

NEW YORK
CHICAGO
LONDON, ENG.

JOOST BROS.
SAN FRANCISCO AGENTS

New Location
1053 MARKET STREET
OPPOSITE PRAGER'S
We have arranged with the Architectural Service Corporation, 110 N. 6th Street, Philadelphia, to publish and distribute to architects early in 1916 working drawings showing various methods of applying tin roofing to secure certain heavy ribbed effects on the roof. This advertisement will give an idea of the appearance of the drawings. They will be issued in a portfolio, together with other sheets illustrating various building specialties. We have a number of advance copies of these "Service Sheets," as the publishers term them. Should you have any work upon which you wish to consider roofing of this type, we shall be glad to send these drawings in advance of the portfolio if you will so advise us. They may serve to show you artistic roof effects new to you.

There is nothing new, however, about the product itself—TARGET AND ARROW roofing tin—which we recommend for work of this kind. This durable roofing tin is a specialty of ours handed down from the early days of our business. In this brand we have preserved an old time standard of manufacture for the use and benefit of present-day architects. Few building materials have had so thorough a test of time as TARGET AND ARROW roofing tin. It remains today the same durable quality that we have supplied to American sheet metal roofers for more than seventy years. It costs a little more than many other roofing tins, so you are not likely to get Taylor quality if you write a specification that permits substitution. We sell this roofing tin to the trade at a fixed, published, re-sale price.

Specify Taylor's TARGET AND ARROW roofing tin, either IC or IX thickness, as the work may require. The tin roofing work should be done in accordance with the standard working specifications adopted by the National Association of Sheet Metal Contractors. These, together with several tables of covering capacity and other useful technical information, are published on the reverse side of the "Service Sheets" described above. We also furnish upon request these specifications in convenient form for architects' use, also a useful little reminder of our TARGET AND ARROW roofing tin in the form of a 1-inch white boxwood scale. Our catalogue is in "Sweet's"—all issues.

N. & G. TAYLOR CO.  
Sole Manufacturers  
Established in Philadelphia in 1816

J. A. DRUMMOND  
Pacific Coast Representative  
215 Mission Street, San Francisco
Homes & Grounds

MARCH
25¢ per copy

J. A. Drummond, Publisher

245 Mission Street, San Francisco
Mt. Diablo Cement

Always Used Where Quality Counts

Cowell Santa Cruz Lime

Henry Cowell Lime & Cement Company
2 Market Street, San Francisco

Branches:
Oakland Sacramento San Jose Santa Cruz
Portland, Ore. Tacoma, Wash.

THE ARCHITECT
BOOK AND JOB DEPARTMENT

ILLUSTRATING: DESIGNING ENGRAVING AND PRINTING OF
CATALOGUES: BOOKLETS SALES LITERATURE MARKETING PLANS: ETC.

THIS MAGAZINE IS A PRODUCT OF OUR PRINTING DEPARTMENT

J. A. DRUMMOND
245 Mission St., San Francisco Telephone Douglas 3424

THE
New Lincoln-Smith Apartments
Seattle, Wash.
Wilcox & Everett, Architects

and the
Thirty-seven Special Automatic Coolers now being installed.

They save money, room, sickness, time, and trouble. Just the water that is ordinarily used, first circulates through the Cooler.

Automatic Cooler Co.

TACOMA, WASH.

Write for Descriptive Circular
PAINTED WITH

L. & S. Cement Paint

This frame structure is one of ten, distributed along the entire Pacific Coast, all of which are painted with L. & S. CEMENT PAINT. These structures are exposed to the most severe weather conditions; the adoption of L. & S. CEMENT PAINT by this department of the Federal Government is due to its excellent results covering an extensive period. L. & S. CEMENT PAINT is now being used by five different departments of the U.S. Federal Government. Painted in all colors, adaptable to all surfaces.

PAINT PRODUCTS CORPORATION
Laird & Sinclair: Distributors
Sharon Building
San Francisco

Low Pressure Crude Oil Burning Equipment
Not how Cheap—but how Serviceable

Some oil burner manufacturers install outfits that operate as high as 3,100 r. p. m., and if they are worn out as soon as the maker's guarantee expires, "it's up to you." Why have high speed machinery? Johnson Systems give long satisfaction.

S. T. JOHNSON CO.
1337 Mission Street
San Francisco
Agents in the principal Pacific Coast cities.

Draughtsmen's Blouses
A specially designed studio and office robe, made of well-wearing material, washable, of a serviceable buff shade, offering a complete protection of clothes from wear and tear.

E. Falkenheimer
25 West 42nd Street
NEW YORK CITY
Special discount in lots of one dozen or more:
- Style A, $3.50
- Style B, $2.00

Johnson Service Co.
Established in 1885

The only company on the Pacific Coast handling temperature regulation exclusively, with its own corps of Skilled Mechanics.

Johnson Thermostats are Standard

For permanence and beauty—build of concrete and finish with Bay State Brick and Cement Coating

This coating (which has stood the practical test of 16 years) prevents the ugly blotches caused by rain. Produces attractive, artistic effects in white or tint. It dries as part of the wall, absolutely weatherproofing it. "Bay State" insures the permanence of concrete—it is for all kinds of buildings. Will you try it? Sample can of "Bay State" free. Say what tint you prefer and ask for booklet 7.

WADSWORTH, HOWLAND & CO., INC.
Paint and Varnish Makers
BOSTON, MASS.


N. & G. TAYLOR CO., of Philadelphia
TARGET-AND ARROW TIN
has been used for more than 60 years on notable buildings in all parts of the United States. Here are a few interesting facts about it:

1. It is backed by a private firm of more than 100 years' standing. They are personally concerned in keeping their product strictly up to the old-time standard.

2. It is the oldest tin on the market and has made a record for durability not approached by any other tin.

3. It carries an exceptionally rich, heavy coating applied by repeating soaking and hand-sanding the tin, which results in a slow, costly process continued by the firm from the early days of their business.

4. It is the same durable finishing tin supplied by this old Philadelphia tinplate house to three generations of American roofers.

5. This tin has been known to many cases to last in good condition for more than sixty years on the roof. It commonly outlasts the building it covers.

J. A. DRUMMOND, Pacific Coast Representative
245 MISSION STREET
SAN FRANCISCO
SAFETY FIRST --- BUILD WITH ASBESTOS

Ambler Asbestos "Century" Shingles

are economical. They are fireproof, will not rust, never need painting or repairing, and are not a constant expense and annoyance. They make a leak-proof roof that never wears out. The first cost is absolutely the last cost.

The Roof that Stays and Satisfies.

The best roof must satisfy the architect, builder and owner as to its permanence, economy, beauty and fireproof qualities. A roof made with Ambler Asbestos "Century" Shingles is permanent, because the shingles are made of Cement and Asbestos—two of Nature's imperishable and indestructible products. Asbestos "Century" Shingles get harder and better the longer they are exposed. In Ambler Asbestos "Century" Shingles the asbestos fibers are uniformly distributed and so firmly pressed together that no voids or fissures remain to catch and hold dampness and moisture.

WRITE FOR THE "SHINGLE BOOK"

This splendid book gives true information about Asbestos "Century" Shingles. It shows the different methods used in laying them, and prominent buildings where these shingles have been used. This book will interest every good builder. A postal card will bring it.

Sold by the

Keasbey & Mattison Co.

Manufactured by the

Asbestos Shingle, Slate & Sheathing Co.

Ambler, Penna., U. S. A.

J. A. DRUMMOND
Pacific Coast Representative

245 MISSION ST. :: SAN FRANCISCO

Stock carried in San Francisco
Meyer System Steel Forms

FOR

CONCRETE FLOOR CONSTRUCTION

ECONOMY, RIGIDITY, SOUND-PROOF,
AND PERMITS RAPIDITY OF JOIST FLOOR CONSTRUCTION

Concrete Engineering Co.
Rialto Building :: San Francisco, Cal.

SPECIFY

NEPHI PLASTER ONLY

IT MAKES THE WALL

Standard for 25 years on the Pacific Coast and
Intermountain West
HARDWALL, FINISHING, CASTING, ETC.

NEPHI PLASTER & MANUFACTURING CO.
San Francisco Office: BUILDERS EXCHANGE, 100 Jessie St.
Telephone Swan 6700
Main Office: 711 BOSTON BLDG., SALT LAKE CITY, UTAH

Over the Siskiyous

Southern Pacific
FIRST IN SAFETY

"Shasta Route"

Through the most magnificent mountain scenery in America—snow-capped Shasta, pine-clad canyons and foaming streams. From Siskiyou's glorious summit looking southward on California's peaks and verdant slopes, and northward on Oregon's timbered heights and orchard-checkered valleys—a succession of views unequalled in their combination.

FOUR DAILY TRAINS

San Francisco, Ferry Station, to Portland, Tacoma, and Seattle.

"Shasta Limited", Extra Fare, $5, 11:30 A.M.
"Portland Express" .... 1:00 P.M.
"Oregon Express" .... 6:20 P.M.
"Sound Special" .... 11:40 P.M.

Best Dining Cars in America.

Oil-Burning Engines—No cinders, no smudge, no annoying smoke.


For Fares, Tickets, and Parcels, inquire Southern Pacific Ticket Offices:

Flood Bldg. Palace Hotel Third St. Station Ferry Station
Every Inch an Otis

Every part in every one of the various types of

OTIS ELEVATORS

is manufactured in Otis shops, by Otis hands, and under Otis eyes.

Isn't it an object to the Architect to hold one company solely responsible for the product recommended — especially when the company has proven its responsibility, as has the Otis Elevator Company?

OTIS ELEVATOR COMPANY

Eleventh Ave. and Twenty-sixth Street New York
Stockton, North Point and Beach Streets San Francisco

Offices in All Principal Cities of the World
For Dependable Varnishes

Fullerspar — Forty for Finishing
Fifteen for Floors — Fifty for Flatting

FULLER VARNISHES FURNISH ALL THE ELEMENTS MOST DESIRED BY ARCHITECTS IN WORK OF THE HIGHEST QUALITY:

| Beauty of finish, paleness, toughness, working quality, rapid drying, — — — characteristics found in each of Fuller Varnishes, combined with marked superiority in durability, explain why owners, architects, and painters, are insisting on their use wherever dependable varnishes are desired. |

W. P. FULLER & CO.

SPECIALIZED PAINT & VARNISH PRODUCTS
FOR EVERY PURPOSE
The New Sky Line at Springfield, Missouri.

This group of new buildings was finished with

**BERRY BROTHERS’ VARNISHES**

**HOLLAND ESTATE BUILDING**

Architects  
Shepard, Farrar & Wiser,  
Kansas City, Mo.

Painting Contractors  
Lee Savage Company,  
Springfield, Mo.

**NATHAN CLOTHING COMPANY BUILDING**

Architect  
O. L. Brettner,  
Springfield, Mo.

Painting Contractors  
Lee Savage Company,  
Springfield, Mo.

**LANDERS BUILDING**

Architects  
Opel & Torbitt,  
Springfield, Mo.

Painting Contractors  
Lee Savage Company,  
Springfield, Mo.

**HERR-ANDRE DEPARTMENT STORE BUILDING**

Architects  
Opel & Torbitt,  
Springfield, Mo.

Painting Contractors  
J. B. Newsom Decorating Co.,  
Springfield, Mo.

Berry Brothers’ Varnishes

are being used in a great many of the finest structures in the country.

These are the names of the Varnishes you should know:

**LIQUID GRANITE**

The Varnish for floors or wherever the wear is severe.

**LUXEBERRY WHITE ENAMEL**

The whitest white—stays white.

Feel free at any time to write our Architectural Service Department regarding your finishing problems.
The Boston Varnish Company
announces an advance
in price on

Kyanize

WHITE ENAMEL
to Eight Dollars per gallon.

This advance is made necessary in order to maintain regular
quality, in view of advanced manufacturing costs.

KY-AN-IZE is the highest grade Enamel manufactured.

San Francisco Office & Warehouse :: 311 California Street
A. L. GREENE, Manager

Seattle
CAMPBELL HDWE. CO.
1st Ave. & Madison St.

Tacoma
W. J. HANSON & CO.
1129 Broadway

Portland
W. M. SMITH CO.
550 Williams Ave.

San Francisco
D. H. RHODES
546 Valencia St.

Los Angeles
SUNSET PAINT CO.
627 S. Main St.
FINISHED WITH CONCRETO

EMANUEL EVANGELICAL CHURCH
NINETEENTH & CAPP STS. SAN FRANCISCO

A QUANDT, PAINTER

EMANUEL EVANGELICAL CHURCH
NINETEENTH & CAPP STS. SAN FRANCISCO

FALCH & KNOLL, ARCHITECTS

Exterior finished with two coats

SOLE MAKERS THE MURALO CO. NEW YORK
San Francisco Office: 311 California Street
A. L. GREENE, Agent

San Francisco
D. H. RHODES
546 Valencia St.

DISTRIBUTORS

Los Angeles
SUNSET PAINT CO.
627 S. Main St.
Thru-an-Thru — the new Terra Cotta

Its markings go thru and thru, like the stones of Nature

Manufactured exclusively by

STEIGER TERRA COTTA & POTTERY WORKS

Plant: South San Francisco
San Mateo County

Offices: 729 Mills Building
San Francisco

CALIFORNIA
The Victrola first sees Daylight through

The Victor Talking Machine Company of Camden, N. J., comprising many enormous factories, is one of the finest examples of big business efficiency and progressiveness that is known to the industrial world—that these buildings are practically walled-in with Lupton Steel Sash proves conclusively that the advantages obtained through natural lighting and ventilating are worth securing, and that these products are best suited, every point considered, to gain the desired results.

The same may be said in reference to the Bethlehem Steel Company, South Bethlehem, Pa.; Carnegie Steel Works; Youngstown Works; Cleveland, Ohio; Central Maine Sugar Company, Havana, Cuba; H. F. Goodrich Rubber Company, Akron, O.; Imperial Railway of Japan; Johns Hopkins University, Baltimore, Md.; M. & H. Laney Company, Youngstown, O; Mississippi River Power Company, Kishak, Iowa; Penna. Railroad Company, Lines West, Cleveland, O.; Willys-Overland Company, Toledo, O.; and hundreds of other concerns—all representative of the finest of modern construction.

The master minds that are back of such great business operations have made economy a science—men of such size are never misled by "first cost"—they are far more concerned about the cost of maintenance, durability and efficiency—a searching analysis is made to determine the economical value of every appliance before installation.

The Lupton Daylighting and Ventilating Products, including many designs of Steel Sash, Special Construction, Paritions, Doors, etc., have been chosen by such men—and by leading Architects and Engineers—their verdict has been our success.

The Lupton Catalogue No. 5, a veritable text-book on Daylighting and Natural Ventilation, with interesting illustrations, mailed upon request.

David Lupton's Sons Company

Clearfield and Witte Streets :: Philadelphia

Chicago New York Pittsburgh Cleveland Detroit
FREDERICK KOHL RESIDENCE
BURLINGAME CAL

HOWARD & WHITE ARCHITECT
SAN FRANCISCO

FACED WITH

RED RUFFLED BRICK

Los Angeles Pressed Brick Co.
402-114 Frost Bldg., Los Angeles, Cal.

United Materials Company
5 Crossley Bldg., San Francisco, Cal.
Distributors for Northern California
Cornice of Matt Enamel Terra Cotta to match Unpolished Pink Tennessee Marble. Roof of our Mission Tile, in six shades of Dull Green Enamel.

MANUFACTURED BY

GLADDING, McBEEAN & CO.

Offices: CROCKER BUILDING
San Francisco

TRUST & SAVINGS BUILDING
Los Angeles

Factory
Lincoln, California
One of seven niches in the Oakland Auditorium -- Oakland, California

J. J. Donovan, Architect
Henry Hornbostel, Consulting Architect

Modeling of Panels by
A. Sterling Calder

Executed in Cream Matt Glazed Terra Cotta

by

N. CLARK & SONS

Office:
116 NATOMA STREET, SAN FRANCISCO

Factory:
WEST ALAMEDA, CALIFORNIA
TABLE OF CONTENTS

PLATE ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Architect</th>
<th>Plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>James L. Flood Residence, San Francisco</td>
<td>49</td>
</tr>
<tr>
<td>Detail of Entrance</td>
<td>50</td>
</tr>
<tr>
<td>Principal Window Bay</td>
<td>51</td>
</tr>
<tr>
<td>House of C. F. Perry, Hollywood, Cal</td>
<td>52</td>
</tr>
<tr>
<td>Entrance Front</td>
<td>53</td>
</tr>
<tr>
<td>Detail of Entrance</td>
<td>54</td>
</tr>
<tr>
<td>Chamber -- Living Room and Hall</td>
<td>55</td>
</tr>
<tr>
<td>Home of J. Arnot Rathbone, Elmira, N.Y.</td>
<td>56</td>
</tr>
<tr>
<td>Dining Room -- Living Room</td>
<td>57</td>
</tr>
<tr>
<td>Hotel Eugene, San Francisco</td>
<td>58</td>
</tr>
<tr>
<td>Heald's Business College, San Francisco</td>
<td>59</td>
</tr>
<tr>
<td>Driscoll Apartments, San Francisco</td>
<td>60</td>
</tr>
<tr>
<td>Church of St. Matthew, San Mateo Cal.</td>
<td>61</td>
</tr>
<tr>
<td>Detail of Window</td>
<td>62</td>
</tr>
<tr>
<td>Detail of Entrance -- Pulpit -- Bishop's Seat</td>
<td>63</td>
</tr>
<tr>
<td>Altar in Transept -- Baptismal Font -- Reading Desk</td>
<td>64</td>
</tr>
</tbody>
</table>

TYPE PAGES

<table>
<thead>
<tr>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance to Episcopal Palace, Ravello, Italy</td>
<td>Frontispiece 201</td>
</tr>
<tr>
<td>The Garden Theatre in Country Place Design</td>
<td>George Burnap 204</td>
</tr>
<tr>
<td>General Conditions of the Contract</td>
<td>Francis W. Grant 206</td>
</tr>
<tr>
<td>New Corbin Hardware</td>
<td>206</td>
</tr>
<tr>
<td>Gravity Method of Moving Merchandise</td>
<td>239</td>
</tr>
<tr>
<td>Editorial</td>
<td>241</td>
</tr>
<tr>
<td>Chapter Minutes</td>
<td>242</td>
</tr>
</tbody>
</table>
ENTRANCE TO ANCIENT EPISCOPAL PALACE, RAVELLO, ITALY
The Garden Theatre in Country Place Design.

By George Burnap

Landscape Architect of Public Buildings and Grounds, Washington, D. C.

Lecturer in Landscape Design, University of Pennsylvania.

THE uninitiated mind is apt to mock at the out-of-door theatre as being fantastic in our matter-of-fact American surroundings, and at best an affected importation of an alien idea for which there is neither demand nor excuse in this country. The real facts in the case, however, go to show that the open air theatre in America has come into evidence in response to a spontaneous demand—the desire for viewing plays in out-of-door surroundings where beautiful natural scenery may be substituted for artificial stage settings. Although not indigenous to America, this form of recreation, in company with the production of pageants, masks and artificial spectacles, is rapidly becoming naturalized to the point of being accepted, not only for purpose of civic or community expression, but also as a type of out-of-door diversion in country place life. The necessity therefore of providing means for the presentation of amateur open air theatricals has brought to the landscape designer a new problem in the detail of the modern country place—that of the garden theatre.

The open air theatre was well recognized as a proper adjunct of the early Italian villas and we find many examples of its use as a garden feature. There still remains the quaint stage at Villa Gori near Sienna, familiar for the solitary cedars which stand in mute mourning for the abandoned art which made its youthful days memorable. At Villa Sergardi there is a hedged theatre forming one side of the garden court of the Casino, and similar conceptions exist at Villa Colodi near Pescia, at Castelnuova in Palermo, and as part of the garden scheme at Isola Bella. The design of Villa Camberaia just outside of Florence translates the idea into the form of a picturesque motif for terminating the garden vista—a stage setting for pictorial effect rather than for use.

The average American is unfamiliar with what has been done along these lines and, at first thought of the open air theatre, turns to the great Grecian and Roman amphitheatres of antiquity, with their tremendous requirements of space and lavish expenditure of moneys. The review is discouraging and most unfortunate, for experience shows that any natural lying plat of ground from which an audience can view a stage upon which performances may take place, possesses the main requisite of the open air theatre. The Grecian or Roman theatres are not suitable prototypes for designers of today, as they were the result of the scenic productions of that time and do not meet American staging requirements. They are appropriate only for the occasional revival of Greek drama or the somnolent presentation of Shakespearean pastorals. The open air theatres in America must be conceived from the standpoint of out-of-door performances of modern type—whether better or worse than the old order is not pertinent—and, not until open air theatres are developed which will provide facilities for typically American productions, will out-of-door plays or open air theatres receive the attention and take on the importance which they may be expected to in the recreation development of this country.

The size of the theatre commands first attention. This will usually depend more upon the size of the purse or ambition of the builder than upon physical limitations. As the open air theatre is usually developed from some natural amphitheatre formation of ground, the theatre may be as extensive as the physical properties will permit. Acoustically it is usually found that in an amphitheatre-like depression the voice carries remarkably well; and if the location for the stage is considerably below the inclined floor surface of the seating portion, the view of the performance will be very clear within reasonable distance. If any warning were to be given to the person contemplating the building of an open air theatre, it is that the amateur is liable to undertake a too pretentious project, the result of underestimating the seating capacity of his plot as well as lack of appreciation of the charm of a small intimate garden theatre.

The site must possess two primary recommendations: first a suitable level space for a stage, overlooked from a hill-side and provided with suitable scenic background; and, secondly, a sufficient slope of hill-side to serve as sounding board, and to provide unobstructed view of the stage from all points. The site may not necessarily be a wholly natural one. A certain shaping of the ground is of course permissible and in many cases necessary. In a flat country the only alternative may be to scoop out a saucer-shaped depression from a level area, but every means should be taken that the finished contour should not appear forced or the result of extensive grading. It should appear to be discovered rather than created.

The location of the theatre will usually be determined by
the site, which, as just shown, is controlled by physical characteristics of the ground. In connection with a country house the ideal location should not be too far from the residence for comfortable access. Except in rare instances, on the other hand, it should not be so close to the house as to come under its influence pictorially or to serve as a disturbing element in the off-scape of the house. If the theatre can be located in near proximity to water, the water will give vitality and diversity to the stage scene and can even be introduced as a water approach to the stage, very picturesque and effective. The presence of a small stream that could be diverted for such use should be considered a strong recommendation for a site which might otherwise seem of secondary choice.

The orientation of a theatre will usually be arbitrarily fixed by the contour, but if a slight shifting of axis is possible the vista views obtainable in the landscape composition of the background should determine absolutely the exact relation of theatre and off-scape. It is almost imperative that no building should obstruct the scenic off-scape if the theatre is to be used for daylight performances, as such a modern note would in many cases present an architectural anachronism and preclude the presentation of any but modern plays. For daylight performances many sites which might otherwise seem ideal would have to be passed by if facing due west, as the rays of the setting sun in late afternoon would tend to dazzle the spectators and prove most annoying. In general the site facing south or north is most to be recommended, although for very small garden theatres where the plays would be of short duration and could be timed late in the afternoon, the sun-set effects obtainable in a theatre facing the west would warrant such orientation.

Having determined upon size, site location and orientation there arises the question of design, which at once becomes confused with the idea of style. It is at this point that one must go carefully. "Style," writes Mr. Van Pelt, "is the imprint a particular epoch makes on art." Gropping for style rather than for expression, the amateur designer in this country is conclusively impressed by the Greek and Roman examples. An-
the credit of having ingeniously joined the Scene to the stage and made it a fundamental part of the theatre. It was then but a logical step to develop this back wall in a way to render it architecturally beautiful. But there was no intent to portray an illusionary background as we know it today. The facade, which cut away part of the auditorium which had previously formed almost a circle around the orchestra or stage, completely revolutionized the stage business at that time; and we find that the Greek drama from that day adapted itself to the new form of stage setting with mention made of various entrances and set rules of stage management and technique peculiar to that form of stage.

The point of this historical reference is to show that the Greek Theatre was a unique development in itself, meeting the needs of the drama at that time, and should not be accepted as a model for the open air theatre in this country for the inflexible conditions of the Greek type of stage prove absolutely prohibitive of the presentation of modern productions. Just as the dramas of Aeschylius, if presented in a modern theatre and according to present-day ideas, would require a multitude of scenery shifts beyond our most ambitious theatre engineers, our present-day plays are so dependent upon stage illusion that it becomes impossible to present them effectively in an open air theatre of the Grecian type. Therefore, the architectural background of stage may not be copied in modern open air theatres, either large or small, unless as previously stated, the theatre is to be devoted essentially to a revival of the early drama. It goes without saying that the stage or stage setting must be subordinate to the use of the stage, and never so superior to the production as to destroy its local character.

The two designs illustrated show two extremes of open air theatres: the one prepared for Mr. Miller of Berkeley, California, a very small intimate gardenesque type devised for the entertainment and amusement of the home circle on a midsummer afternoon; the other, which has just been completed by Mr. Roland Conklin on his country estate in Long Island, a much larger and commodious type for more lavish entertainment, intended for the presentation of large spectacles including operatic productions. The first is designed to seat not over fifty people; the second will comfortably seat three or four thousand people.

The illustrations are self-explanatory. Each design has been considered: first, with reference to acoustic and optical relation between the audience and the stage; second, with attention to stage setting and convenience of stage management; and, finally, from the standpoint of landscape composition, that the entire theatre be in keeping with the general environment. It will be noted that a gardenesque character is contemplated in the case of the small theatre by the introduction of rose arbors, hedges, and lattice work, the encircling terrace enhanced with pillars of climbing roses—"the entire effect one to give enjoyment even during the many days intervening between performances. A feature of the lattice design is the false perspective of a stone wall to give greater distance, and the introduction of a parrot and monkey in the pattern as symbolizing elements of comedy and action. The larger theatre is developed with a cascade and lagoon, rock garden, terraces, banks planted with flowering things, and dark masses of cedars framing in promenade and proscenium, so that the prospect from the house terraces will be a scene of continual beauty independent of the occasions when performances are being given there.

The builder of a garden theatre should exhibit flexibility in the development of his project, and welcome those obstacles and retarding conditions which frequently but inevitably result in increased individuality of the design. The designer should aim for expressiveness and freedom from alien influences, for the creation of a type of garden theatre suitable to American conditions and conducive to use and enjoyment. If an open air theatre provides for utility and convenience, and expresses its purpose in a straightforward, unaffected manner, the design will be right.

****

The Greek Theatre on the campus of the California State University of Berkeley is one of the finest examples of the ancient form of open air amphitheater in this country.
A

RTICLE 2.—Execution, Correlation and Intent of Documents.—The Contract Documents shall be signed in duplicate by the Owner and Contractor. In case of failure to sign the General Conditions, Drawings or Specifications, the Architect shall identify them. Even though the signatures of the Owner and the Contractor may have been attested they may be proved by any competent evidence.

"The Contract Documents are complimentary, and what is called for by any one shall be as binding as if called for by all. The intention of the documents is to include all labor and materials reasonably necessary for the proper execution of the work. It is not intended, however, that materials or work not covered by or properly inferable from any heading, branch, class or trade of the specifications shall be supplied unless distinctly so noted on the drawings. Materials or work described in words which so applied have a well known technical or trade meaning shall be held to refer to such recognized standards."

The first of the two paragraphs into which this article is divided is entirely irrelevant and immaterial, and the specifications should not be burdened with it. While it is customary to sign contracts in duplicate, it is not at all necessary, yet neither party can possibly avoid it if the other party desires it. In the case of drawings and specifications not signed for the purposes of identifications, the courts always have and always will accept the architect's identification of them unless fraud is charged, and in case fraud is charged, his identification would be questioned regardless of any provision in the specifications bearing upon the subject. The provision that signatures duly attested by witnesses may yet be proved, might with propriety also include the provision that such witnessed signatures may be disproved, the latter contingency being far more probable than the former. However, all of this is granted by law any way, so what is the use? The whole first paragraph of this article is superfluous, and should be eliminated.

The second paragraph is important, and its substance should be incorporated in every specification, preferably however, under a separate and more distinctive caption. The phrase "materials or work not covered by or properly inferable from any heading, branch, class or trade of the specifications" is crude. Specifications do not have trades or classes or branches, and very seldom in modern practice have headings. The concluding sentence of the paragraph is well meaning, but capable of far better expression.

Articles 3 to 9, both inclusive, are good as written.

"Article 10. The Architect's Claims.—The Architect shall, within a reasonable time, make decisions on all claims of the Owner or Contractor, and on all other matters relating to the execution and progress of the work or the interpretation of the Contract Documents.

"Except as may be otherwise expressly provided in or appended to these General Conditions or as particularly set forth in the specifications, all the Architect's decisions are subject to arbitration."

The first paragraph of this article, after rewriting in a shorter form, should be added to Article 9, where it more properly belongs, and the second paragraph should appear under the caption, "Arbitration," or be discarded. A provision that none but particularly mentioned decisions of the Architect shall be subject to arbitration is safer than the provision that all but particularly mentioned decisions shall be subject to this method of bringing about a compromise.

"Article 11 is good as written.

"Article 12. Materials, Labor, Appliances.—Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light and power necessary for the execution of the work."

"Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

"The Contractor shall not employ on the work any untrained person or anyone not skilled in the work specified to him."

The first paragraph of this article is wholly unnecessary. The second paragraph is not sufficiently definite.

The third paragraph is not bad, but is very poorly placed. The title to the article would lead no one to suspect that this important provision was contained therein.

"Article 13. Inspection of Work.—The Owner, the Architect and their representatives shall at all times have access to the work wherever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for inspection.

"If the specifications, the Architect's instructions, laws, ordnances or any public authority require any work to be specially tested or approved, the Contractor shall give the Architect timely notice of its readiness for inspection, and the Architect shall promptly inspect it. If any such work shall be covered up without approval or consent, it must, if required by the Architect, be uncovered for examination at the Contractor's expense."

"Re-examination of questioned work may be ordered by the Architect, and if found not in accordance with the Contract, all expense of re-examination and replacement shall be borne by the Contractor, otherwise it shall be allowed as extra work."

"Provision for access to all work wherever in progress for purpose of inspection is in accordance with standard practice, but as written in this code the architect could demand transportation across the continent leaving the contractor no defense but the possible result of an argument over what would be
proper.

In the second paragraph the architect is granted the power to require special tests by mere issuance of instructions regardless of specifications, which is unfair. It is further provided that at the instance of the architect work must be uncovered for inspection if built in, but limits the application of the provision to such work only as would have been subject to special test or special approval.

While one would naturally expect to find in connection with specification matter concerning tests, some reference to testing laboratories, their competency and the method of defraying cost of tests, this information is not given in this code. The last paragraph is very loose and vague. An argument could easily be started over the definition of "re-examination," especially in view of the statement that it is something to be "ordered" by the architect. Examinations, as the word is generally construed in building operations, are made by the architect, not ordered by him.

"Article 14. Correction of Work Before Final Payment.—The Contractor shall promptly remove from the premises all materials, whether worked or unworn, and take down and remove all portions of the work condemned by the Architect as failing to conform to the Contract; and the Contractor shall promptly replace and re-execute his own work in accordance with the Contract and without expense to the Owner, and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

"If the Contractor does not remove such condemned work and materials within a reasonable time, fixed by written notice, the Owner may remove them and may store the material at the expense of the Contractor. If the Contractor does not pay the expense of such removal within five days thereafter, the Owner may, upon ten days' notice, sell such materials at auction or at private sale, and shall account for the net proceeds thereof, after deducting all the costs and expenses that should have been borne by the Contractor."

Slight changes in the first paragraph would fit it for excellent service. The words, "whether worked or unworn," are entirely superfluous, and the words "so condemned" should be inserted in the sentence, stating what the contractor shall replace and re-execute.

The second paragraph is in every respect bad, and if applied in actual practice would inevitably lead to great confusion, friction, and financial tangles. The contractor's failure to correct defective work should be treated as any other breach of contract, e.g., by amendment of contract or by supplemental agreement on damages.

"Article 15. Deductions for Uncorrected Work.—If the Architect deems it inexpedient to correct work injured or not done in accordance with the Contract, the difference in value, together with a fair allowance for damage, shall be deducted, if acceptable to the Owner."

This provision, very fair and proper in substance, would be materially improved by striking out the last five words, and the substitution of the word "may" for "shall."

"Article 16. Correction of Work After Final Payment.—Neither the final certificate nor payment nor any provision in the Contract Documents shall relieve the Contractor of responsibility for negligence or faulty materials or workmanship within the extent and period provided by law and upon written notice he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom. All questions arising under this Article shall be decided under Articles 10 and 14."

If it is sought to hold the contractor for defects after final settlement, it should in equity be for a period of time fixed in the specifications, not one varying in the different States, and capable of determination only by consulting a lawyer.

This article is faulty furthermore, in that it is inconclusive, necessitating cross reference forward and backward to get its final meaning. (To be continued.)
We have received copies of a number of circulars issued by P. & F. Corbin, of New Britain, in which new goods are shown and some of their standard specialties presented in new form. They are nicely printed in two colors upon coated paper, and show the goods in an attractive manner.

Among the new articles is a door check for combination booth doors, consisting of the standard Corbin door check with an attachment for holding the door ajar when desired. This is used upon the doors of the booths in safe deposit vaults, in connection with a lock which automatically locks the door when it is closed, but can always be opened from the inside by turning the handle. When the booth is ready for an occupant, the attendant sets the door ajar. The depositor who wishes to use it opens the door and enters and the door is automatically closed and locked, protecting him from intrusion. When he wishes to leave, he simply opens the door and walks out, the door closing and locking itself behind him, an indicator notifying the attendant that the booth is empty. He inspects the booth to be certain that nothing of value has been left therein, removes any waste paper, and sets the door again ajar. This method has proven a safeguard against loss of articles which depositors sometimes leave by accident and which might be appropriated by some one using the booth before it has been inspected.

One of the folders shows the various pieces in the Corbin design of cast bronze hardware made in a paneled effect with Greek motifs. The sizes adapt it for general use and the assortment includes the trim for built-in cabinets. The taste of the times shows a decided reaction from the ornamental fittings of a few years ago, and this design is in strict accord with modern feeling. The artistic effect is obtained by the modeling of the panels, the perfect proportions and the fine finish, giving an effect of simplicity and elegance.

The Artoise design, with Louis XVI motifs, is a distinct departure from conventional lines. The distinctive appearance of the knob and lever handle illustrated, is found in the other pieces. There are no large escutcheons, this design being intended for inside use only.

The demand for unusual hardware for use on bungalows has led P. & F. Corbin to add several door handles that simulate in appearance the wrought iron patterns of early Colonial days, when the village blacksmiths forged the hardware from bars of iron. The one which is illustrated herewith, is one of four shown in a circular devoted to these articles.

A casement operator for windows swinging out forms the subject of another circular which contains illustrations of detail for architects' use. This device is mounted in the window frame below the sill and stool, with a projecting arm which engages the sash, and an operating handle mounted in the apron. The only part visible is the handle, the mechanism being concealed from view. The window is locked firmly in any position in which the handle is left, no other fastening being required.

The Corbin pin tumbler cylinder is fully described in a monograph, and especial reference is made to the master cylinder which is meeting with favor for use in big institutions. Se
eral of the gigantic electrical engineering plants have discarded other systems in favor of this one, and the Pennsylvania System has adopted it for exclusive use on its Eastern division, including its New York City terminal. It gives the advantages of two separate and distinct locking mechanisms, one for the change key and one for the master, with different sets of changes.

One sheet, printed in colors and evidently designed for insertion in a loose leaf cover, shows a new display board for Corbin night latches. The Corbin line of night latches has had many additions lately, the entire line containing over forty different styles. To show plainly this "little lock of the people" these boards are being given to dealers, and enable the dealer to show his customer this device as in actual use. Copies of all of these circulars will be forwarded upon request. Corbin hardware is right in line with modern ideas and sure to please. The guest room knockers are the hardware man's latest contribution to the elegance of the home. Their use is borrowed from Europe, where they are found in the finest residences. They are artistic in form, and give an effective distinction, while their practical value commands them to all. P. & F. Corbin has issued a "Knocker Book," which illustrates the Corbin knockers for both interior and entrance doors. This book will be mailed on request.

Representative of the best architecture of this country, the Pennsylvania Terminal Station and the Grand Central Railway Station at New York are equipped with Corbin hardware. Corbin also issues a book on the door check, which contains full particulars on this mechanism.
DETAIL OF ENTRANCE
JAMES L. FLOOD RESIDENCE, SAN FRANCISCO
BLISS & FAVILLE, ARCHITECTS
PRINCIPAL WINDOW BAY
JAMES L. FLOOD RESIDENCE, SAN FRANCISCO
BLISS & FAVILLE, ARCHITECTS
ENTRANCE FRONT
HOUSE OF C. F. PERRY, HOLLYWOOD, CAL.
B. COOPER CORBETT, ARCHITECT
DETAIL OF ENTRANCE
HOUSE OF C. F. PERRY, HOLLYWOOD, CAL.
B. COOPER CORBETT, ARCHITECT
LIVING ROOM AND HALL
HOUSE OF C. F. PERRY, HOLLYWOOD, CAL.
B. COOPER, CORBETT, ARCHITECT
DINING ROOM

LIVING ROOM

HOUSE OF J. ARNOT RATHBONE, ELMIRA, N.Y.

CONSIDINE & HASKELL, ARCHITECTS
HOTEL EUGENE, SAN FRANCISCO
SYLVAIN SCHNITTACHER, ARCHITECT
HEALD'S BUSINESS COLLEGE, SAN FRANCISCO
SYLVAIN SCHNATTACHER, ARCHITECT
DETAIL OF WINDOW
CHURCH OF ST. MATTHEW, SAN MATEO, CAL.
WILLIS POLK & CO., ARCHITECTS
DETAIL OF ENTRANCE

CHURCH OF ST. MATTHEW, SAN MATEO, CAL.
WILLIS FOLK & CO. ARCHITECTS
CHURCH OF ST. MATTHEW, SAN MATEO, CAL.
WILLIS POLK & CO. ARCHITECTS
The Gravity Method of Moving Merchandise.

E VERY merchant and manufacturer is keenly interested in cutting handling expense. A method, therefore, which by making use of the force of gravity, the cheapest motive power in existence, practically eliminates the expense of moving goods from one floor to another, and at the same time speeds up their delivery to any given point should be carefully considered by all business establishments occupying buildings of two or more stories, and having packaged, boxed, bagged and barrelled merchandise to move in a downward course.

To meet the demand for such a method the Otis Elevator Company, of New York, has developed and brought to perfection the Gravity Spiral Conveyor, a transferring medium which in its simplest form consists of a spiral blade, built within a circular shaft, made up of steel plates so fitted together as to form a perfectly smooth surface on which goods of any size and description will glide swiftly and easily to the outlets.

A great variety of types, each adapted to the usage for which it is intended, has been developed, but generally speaking they are divided into two classes, the open type and the closed type. The open conveyor is best suited to the handling of large, bulky material such as boxed and cased goods, wholesale and warehouse merchandise, factory products and the like. The inlets are located near the floor level so that the goods can be placed on the conveyor without being lifted, and the pitch of the blade is calculated with such accurate precision as to allow the packages to be carried downward rapidly, but in absolute safety to the outlets. Protecting steel sides confine the good to the sliding surface in their descent.

The closed type is usually recommended for handling the smaller and more compact classes of merchandise, especially small packages of a miscellaneous character. In this type the blades are enclosed in a steel cylindrical shell which, among other advantages, precludes the possibility of strayed or stolen packages, an inconvenience which might occur in the handling of thousands of small packages on an open type conveyor.

Gravity spiral conveyors possess considerable flexibility in the arrangements possible. The closed type may have one, two or three, and in some cases even more, spiral blades, and inlets may be located at all floors or any desired floor, thus permitting the spirals to be used in a number of different ways to meet the requirements of the particular business for which it is intended.

In the open type one or two spirals may be used, and here again the different arrangements possible are dictated by the requirements of each particular case.

In the accompanying illustrations, figures 3 and 4 show a closed type conveyor in operation in a wholesale merchandise warehouse, figure 3 showing the baskets containing goods being placed in the inlet at one of the stock floors, and in figure 4 the baskets are being received in the packing room.

Figures 5 and 6 illustrate a large open type conveyor in the same establishment. As an illustration of the possibilities of arrangement, figures 7 and 8 show a multi-spiral conveyor in a large clothing manufacturing establishment. This conveyor has six separate blades, serving all floors from the 13th to the shipping room in the basement.

The capacity of the gravity spiral conveyor is obviously enormous, and is limited only by the speed at which the packages can be carried away from the outlets. For this reason horizontal belt conveyors are often used, where miscellaneous small packages are handled in large quantities, for transferring the packages to the conveyor inlet and also for the subsequent distribution of the goods. Figures 1 and 2 clearly illustrate the use of the belt conveyor as a complement of the gravity conveyor.

Gravity spiral conveyors of both the open and closed types are furnished with a complete equipment of automatic fire doors. These fire doors are furnished in two designs, known as the vertical sliding and hinged types. The vertical sliding fire door, which is used at all side inlets of the closed types of conveyors and at the intersection of all floors of the open type, are counter-balanced in such a way that they will remain closed unless fastened. This fastening consists of a latch and fusible link which melts in case of fire. The counter-balance, thus liberated, allows the door to close and thus completely shuts off the conveyor from the fire. The hinged drop doors are usually arranged to cover the outlets of the closed conveyors, and the top inlets of the open and closed types. These are counter-balanced and fastened with a chain and fusible link similar to the sliding doors.

ELECTRIC TRACTION ELEVATORS

An electric elevator, basically, consists of a car, a counterweight, hoisting cables, a motor which drives a sheave or drum about which the hoisting cables wind and an electromagnet controller, which is actuated by a master switch in the car, and which regulates the starts, stops and speeds of the elevator.

The first electric elevators were confined entirely to the drum type of machine, that is, a machine with a grooved drum on which the hoisting cables are wound and which
is-driven through worm gearing by an electric motor. This type of machine was highly satisfactory until, with the advent of steel skeleton skyscraper construction, buildings were designed 200, 300, 500, and recently 600 and

The machine itself consists essentially of a motor, a traction driving sheave and a magnetically released, spring applied brake, all connected together on a continuous heavy iron bed. Instead of the high speed motor customarily used with the geared electric elevator, a slow speed motor designed especially for the service is employed. These motors, due to their special design, have a remarkably high efficiency. The armature shaft which is of high tensile steel serves merely as a support for the load, and on it are mounted the brake pulley and driving sheave. The actual drive from the armature to the sheave is effected through a flange integral with the spider and bolted directly to the sheave, thus eliminating all torsional strains to the shaft, and the use of keys.

The Gearless Traction Elevator may be used for any rise whatsoever, since this invention does not have to consider a drum upon which the hoisting cables are wound. The direct drive and consequent elimination of all intermediate gearing between the motor and driving member results in a machine of very high efficiency, and absolutely prevents any possibility of vibration or noise. With the slow speed motor employed, the momentum is much less than with a smaller high speed motor, permitting of greater ease in starting and stopping, and resulting in a smooth and practically faultless movement of the car. Moreover, the compact and simple arrangement of parts effects the greatest simplicity of installation and economy of space.

The controller used with these elevators embodies the very latest application of electro-magnetic switches. It is actuated by a master switch in the car, and gives unexcelled starting, accelerating, retarding and stopping effects.

The controller is so designed in connection with the motor that the initial retardation of the car in coming to rest is independent of the brake, the latter being requisitioned to bring the car to a final and positive stop and to hold it at the landings.

The motor is also governed largely in such a way, electrically, as to prevent the car from attaining any excessive speed, no matter what the load in it may be.

In designing the controlling equipment, one of the features demanding greatest consideration, in view of the very high speed at which the cars run, is the automatic retarding of their speed to a final stop at the upper and lower terminals of travel. This result is very satisfactorily at-
THE CIVIC CENTER.

The Civic Center Improvement Club of San Francisco deserves considerable praise for its unselfish work and the stand that it has taken for the artistic integrity and development of the city. This organization publishes a weekly magazine for the sole purpose of furthering and inciting interest in civic improvement.

The club is devoting most of its attention in seeing that the Civic Center plan is carried out as originally planned. It advocates a city planning commission with authority as well as responsibility to make San Francisco the scenic wonder of the world; and urges that such a commission should direct and not merely advise in all that relates to city adornment. The hit-or-miss plan has proven a costly failure, so much so that every visiting connoisseur marvels at our unbelievable neglect of natural advantages. The cold truth is that the people of artistic taste have never had a say in the adornment affairs of the city, excepting, of course, in the case of the Civic Center.

Disorderly and inartistic development could easily occur in the Civic Center unless there is intelligent and independent authority to check bad taste and stimulate an artistic sense of proportion. At least, it is fair to assume from previous experiences in city adornment enterprise, that it could be badly disfigured.

The artistic success of the Panama-Pacific Exposition was not accidental. It was due to the fact that architects and art commissions were permitted to perform as they had planned. Authority and responsibility were happily coupled. Given a free hand, they were able to try effects and make required changes. To these trials, to the alterations in figures, medallions and other sculptural work we are indebted for the harmony that has astonished and delighted the world.

As evidence of the satisfaction the Board found in the competition, the following is a copy of a letter sent to the competitors:

"The Board of Directors of School District No. 5, Baker County, Oregon, is desirous of extending to you its thanks for your taking the time and trouble required in preparing plans for submission in our recent competition. The Board selected the names of nine competitors from among about twenty submitted, and was highly gratified with the high class of all the plans entered in the competition."

THE ARCHITECT

VOL. XI. SAN FRANCISCO, APRIL, 1916

EDITORIAL.

THE Oregon Chapter, American Institute of Architects, has recently assisted in conducting a very satisfactory competition. While the Chapter agrees with the Institute that the choosing of an architect by selection is, in general, better than by competition, it feels that for public buildings, such as schools, city halls, court houses, etc., the competitive method is better for the taxpayer. In carrying out this idea, and trying to be of some public service, the Chapter has offered its services in a number of cases, one of which has just been brought to a successful conclusion.

The School District of Baker, Oregon, had voted $125,000 for a new High School, and in order to ensure a fair competition the Chapter offered to furnish the services of a Professional Adviser and Jury, at its own expense. The offer was accepted, the School Board, however, insisting on paying the expenses of the Professional Adviser. As the result of a public invitation by the School Board, twenty-three architects submitted credentials, as required by the Professional Adviser and from the credentials passed favorably by him the Board selected nine competitors. This selection was made by the Board in secret session, and without suggestion from the Professional Adviser. The Program was drawn in conformity with the provisions of the standard requirements of the American Institute of Architects, by the Professional Adviser, and was approved by the Institute local Subcommittee on Competitions. The Jury consisted of the State Superintendent of Public Instruction, and an architect selected by the School Board, and an architect selected by the competitors. At the close of the competition the drawings were considered by the Jury, meeting on two separate days, and the result was submitted to the School Board, which confirmed the choice of the Jury and selected as architects for the building Messrs. Ellis F. Lawrence and William G. Holiord, of Portland, Oregon.

The School Board of Baker consists of O. P. Ison, Chairman; N. C. Haskell, W. S. Leves, W. H. Ellis, Ernest Welch and W. S. Bowers, Clerk. Mr. F. A. Naramore, A. A. I. A., of Portland, gave his services as Professional Adviser, as did the Jury, who were J. A. Churchill, Superintendent of Public Instruction of Oregon; Folger Johnson, Architect, of Portland, and Carl F. Gould, A. A. I. A., of Seattle, Washington.

241
The regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held in the Italian Room of the St. Francis Hotel, on Thursday evening, March 16, 1916.

The meeting was called to order at 8:30 p.m. by the President, Mr. W. B. Favrile. Seventy members and guests were present.

The reading of the minutes of the meeting held on February 17, 1916, was dispensed with.

The following communications were read and placed on the minutes:

From Mr. Flavel Shurtleff, Secretary of the National Conference on City Planning, enclosing copies of January Quarterly of the City Plan; from the American Federation of Arts, regarding the exhibition of drawing by students at the San Francisco Art Institute; from Mr. Charles Fish, consulting engineer, Spider Plant; from Mr. Charles Fisher Weeks, regarding the location of a Power Plant in Washington; from Hon. Julius Kahn, referring to the same matter; from Burt L. Fenner, Secretary of the A. I. A., referring to the same matter; from Mr. H. R. Hill, Secretary of the A. I. A., referring to the same matter.

The Chair stated that this was the first of a series of three meetings of the Chapter to be devoted to City Planning, and that at each meeting the Chair would have the pleasure of hearing the opinions of the City Attorney, City Engineer, Superintendent of Parks and Boulevards, President of the Board of Education, and Mr. Joseph Leonard, all of whom were particularly qualified to discuss the problems of San Francisco from a City Planning standpoint. The next meeting would be devoted to the consideration of the Oakland and San Francisco Water Fronts, and members of the San Francisco Harbor Commission and the Oakland Board, would be invited to discuss the matter. The final meeting would be devoted to a consideration of the Burnham Plan for San Francisco, and a general resume of the matters discussed at the previous meetings.

Honorable Percy V. Long, City Attorney, was then introduced, and was listened to with great attention. Mr. Long discussed some of the problems of City Planning, particularly calling attention to the fact that San Francisco should profit by the experience that New York was having, by reason of a failure to establish restricted zones for the conduct of certain lines of business.

The next speaker was Mr. A. J. Cleary, Assistant Engineer, who spoke on what the City Engineer's Office was doing to promote a definite plan for the future growth of San Francisco.

Dr. A. D'Ancona, President of the Board of Education, spoke on the matter of providing adequate school house and playground facilities and their proper location.

Mr. John Moule, Superintendent of Golden Gate Park, gave an outline of the Boulevard System of San Francisco, and laid stress on the necessity of providing Park areas in various sections of the city.

Mr. Joseph Leonard told of some of his experiences in laying out a restricted residence park, and the lack of proper lines of communication between various parts of our city. He also made the point that the questions at issue were not questions really of City Planning, but of re-planning a city.

The appreciation of the meeting was voted to all the speakers.

On motion, the Secretary was directed to send a letter to the Finance Committee of the Board of Supervisors, endorsing an appropriation out of the next tax levy, for the work of the Fine Arts Commission in the City of Washington.

There being no further business before the Chapter, the meeting adjourned at 11:10 p.m.

Oregon Chapter

Meeting at The Hazelwood, Thursday noon, February 17, 1916, called to order by President Holford. The Secretary not being present, Mr. Beckwith was appointed temporary Secretary by the Chair.

Members present: Messrs. Williams, Lazarus, Holford, Rich, Fouilhoux, Naramore, Smith, Beckwith, Doyle, Thompson, and Hughes.

Minutes of the previous meeting approved as printed.

Report of the Legislative Committee: No report.

Report of the Publicity Committee: No report.

Educational Committee: Members' attention called to the meetings being held every Friday night at the East Side Library, Entertainment Committee: No report.

Competition Committee: Baker High School competition drawings being judged today and tomorrow, by Mr. Folger Johnson, Mr. Carl Gould, of Seattle, and Mr. Churchill, of Salem. The program of the Baker School competition was approved by the Legislative Committee of the Chapter and of the Institute. The competition was continued by the Baker School Board, and was brought to the attention of the members of the Chapter by members of the Chapter in the newspapers by the School Board. The credentials of twenty-three applicants were passed on by Mr. Naramore, as Professional Adviser, and from these the School Board selected nine competitors, three of whom were members of the Chapter. The Committee of the Chapter, as a result of the decision made by the Board, were in secret session and without advice or suggestion from the Professional Adviser, the jury was composed of J. A. Churchill, State Superintendent of Public Instruction, and Folger Johnson, Architect, these two selected by the School Board, and Carl F. Gould, Architect, of Seattle, selected by the competitors. The competition closed February 14, and the selection of the jury was the plans submitted by Messrs. Lawrence and Holford, this selection being confirmed by the School Board.

The Competition Committee met J. A. Churchill, State Superintendent of Public Instruction, in regard to a competition for Rural Schools, and it was determined not to hold this competition for a one, two, and four-room school building. Mr. Churchill offers a sum of money for prizes which will probably be divided into three prizes of $15, $20, and $25. The competition will be unlimited, but will consist of as few and simple drawings, in pencil, as possible. The program will be announced soon and will probably call for two联合 elevations and two proposed elevations and a sketch for the application of the same or a similar design to the larger schools.

Mr. Hogue told about Mr. Churchill's conversation with him.
You Architects Have
Great Responsibilities

You are held directly responsible for every part of the work. The contractors—the carpenters, the plumbers, and others—all gracefully sidestep any complaint by referring the builder to you.

It isn't a question of whether or not you are legally responsible for the failure of any fixture to do its work satisfactorily.

It is a question of future business—of holding and building a reputation—of making every client of yours a booster.

Your only recourse is to the manufacturer. If he fails to realize the importance of your position—if he refuses to replace the unsatisfactory fixture—or only does so after a long-drawn-out investigation, your client becomes dissatisfied. The possibility of future work becomes small.

We fully realize the importance of your work, and are at all times ready to co-operate. With us there can be no long-drawn-out investigation. Our main offices and factories are right here on the Coast. Any defective fixture can be replaced immediately. You do not have to wait for transcontinental shipments.

Our guarantee fully protects you, for all the "Pacific" line is guaranteed forever against any defects in workmanship or materials.

"Pacific"

PLUMBING FIXTURES

SHOWROOM:
67 New Montgomery Street
San Francisco

FACTORIES:
Richmond,
California
regarding the Chapter's holding a competition for small rural school buildings. Mr. Doyle made a motion that the Chapter conduct this competition thru its Competition Committee, and that this Committee be given the power to act with Mr. Churchill in arranging necessary details; seconded by Mr. Rich: motion carried.

Mention was made that the Roseburg School Board intended building a High School in the near future. Mr. Naramore made a motion that the Competition Committee take up the matter of a competition with the Roseburg School Board; seconded by Mr. Doane, motion carried. Mr. Williams introduced an amendment to this motion "that if a competition is held thru the Chapter that this competition be open to all the Architects of the State." This amendment was allowed to stand as a part of the minutes on request of Mr. Williams.

Municipal Plans and Affairs: Mr. Johnson, not being present, Mr. Doyle read a part of the work done by this committee in assisting with the selection of the Jefferson Statue to be placed in front of the present Jefferson High School. Mr. Doyle made a motion that the record be made of this in the minutes; seconded by Mr. Fousilhous; motion carried.

Professional Practice: No report.

Communications: Letter from "House Beautiful" regarding house competition; referred to Competition Committee. Letter from the Institute regarding the new application for membership. Motion by Mr. Doyle that a copy of this notice be sent to all members; seconded by Mr. Beckett; motion carried.

New Business: Motion by Mr. Hough that Mr. Gould and Mr. Churchill, judges of the Baker Competition, be tendered a luncheon or dinner Friday, February 3; seconded by Mr. Smith; motion carried. No further business. Meeting adjourned.

Washington Chapter

The Chapter met at the Architectural Club Rooms, 203 14th Avenue North, at 6:30 p.m., February 14, 1914, with President Loveless in the chair, and the following members present: Allen Parks, Schack, Noldenhout, Gould, Willcox, Richardson Field, Everett Willatzen, Juares, Josephs, Storey. A dinner at the Club Rooms, the meeting was called to order, and the minutes of the previous meeting were read and approved.

A communication was read from the Building Material Dealers Credit Association (1914-5 Empire Building), extending an invitation to this Chapter "to secure from us any information at any time that is within our means to give, and which may be of assistance to you in handling your business." After a lengthy discussion, in which several of the members took part, it was moved and seconded that the President communicate with this organization, and obtain fuller information, and report his findings at the next Chapter meeting.

A letter was read from Mr. E. C. Kemper, Executive Secretary of the Institute, regarding a series of lectures to be given by Mr. Frank B. Williams, of the City Club, N. Y., on the City Planning of the Nation. Mr. Gould, speaking for the Committee, asked Mr. Williams, asking for further particulars regarding subject matter, price, etc.

The Chairman of the committee appointed to draft a letter to the Bellingham School Board reported that they had submitted a draft of same to Mr. Josephs. Mr. Josephs reported that he had received the same thru a misunderstanding. A motion was made to reconsider the original motion was made and carried. After a lively discussion among the members, a motion was made and carried that the original committee do a new job, Mr. Doane, Mr. Gould, Mr. Naramore and Mr. Smith to be members of this new committee.

Mr. Williams then spoke in a very interesting manner about the proceedings of the Board of Directors of the Institute, at their recent meeting in Washington. He told the action of the Board relative to the expenses of delegates to the Annual Convention, showing that the Chapters which are from Oregon, and the District, were allowed only the largest sums toward their expenses, and that hereafter there would be no valid excuse for a lack of representation from these Chapters. He also spoke of the Board of Directors who had under consideration, and which was being formulated to arrange for a measure of publicity for the Institute whereby the Institute might possibly become interested in the building of plans for small houses which would be available all over the United States, and would be under the control of the Chapters.

Mr. Willcox also referred to the influence which the Institute had on the Government architecture, citing the instance of the new building for the Department of Interior, which was planned to be faced with brick, and which, owing to the efforts of the Institute, and the pressure exerted by the various Chapters, was changed to a stone faced building.

The name of Mr. Gerald Castle Field was placed before the members for advancement from Junior to Regular membership, and after a regular ballot, Mr. Field was declared to be a regular member.

A telegram from the President of the Institute to the President of this Chapter was read, asking our President to wire Congress at once protesting the issue of the mails, at the foot of the Washington Monument, of a power Letters, using the smokestacks; this President Loveless immediately did, and he then received a second telegram asking for a reply to Congress from those familiar with the City of Washington; this the Chapter ordered sent, and the President was delegated to that task.

Mr. Sussman stated that there was a possibility that the Course of Architecture at the University of Washington at Seattle, might be taken to the State College at Pullman, and eliminated from the Course here. He, therefore, desired that the Chapter go on record with a resolution stating that they would desire Seattle the logical place for such a course to be held. After considerable discussion, it was voted that the Committee of Education, with two members appointed by the President, formulate such a motion. Later, in behalf of the President, Mr. Alden and Mr. Cote sent this report to the Secretary to act upon with the President. The motion also included the President and Secretary to act with the members of this matter. In reply, the President, Mr. Gould, expressed his readiness to devote an evening to the outlining of the work which was being done at the University, both as regards the Architectural course and the new scheme for the buildings.

Mr. Gould brought up the matter of a bill introduced in Congress, the purpose of which was the elimination of the Civil Service. The matter was referred to the Legislative Committee to report to the Council as soon as possible, and the Council was unanimous in the act in the matter.

"The Secretary read an extract from an unknown source entitled "A Professional Doctrine." This was ordered copied, and a copy was sent to each member. The meeting then adjourned at 10:30 p.m.
Early Stucco Houses

We have gathered into a rather fine monograph, some charming examples of early stucco houses in America. The warm, mellowed tones of this old stucco, with its pleasing surface-inequalities, following the unevenness of the stone base, are a fund of available precedent little drawn upon, as yet, for modern work.

STUCCO SPECIFICATIONS

Included in this book is a convenient guide to the preparation of stucco specifications on wood-lath, masonry, and ribbed metal-lath. This book will be sent to architects upon request. The coupon below is for your convenience.

The Atlas Portland Cement Company
30 Broad Street, New York Corn Exchange Bank Bldg., Chicago
St. Louis Minneapolis Des Moines Philadelphia Boston Dayton

Pacific Coast Distributors of Atlas-White:

United Materials Company
Pacific Portland Cement Co.
Oro Grande Lime & Stone Co.
Sunset Lime Company
Los Angeles Lime Co.
Western Commercial Co.
San Francisco California Portland Cement Co., Pasadena, Cal.
San Francisco Howard Company Oakland, Cal.
San Francisco Consolidated Supply Co., Spokane, Wash.
Los Angeles Evans, Coleman & Ewing, Vancouver and Victoria, B. C.

VANDERBEEK HOUSE
HACKENSACK, N. J.
Built about 1717

ATLAS WHITE

The Atlas Portland Cement Company, 30 Broad St., New York, or Corn Exchange Bank Bldg., Chicago:

Send me Monograph on "Early Stucco Houses in America" and guide to Stucco Specifications.

Name ____________________________ Address ____________________________
Southern California

The ninety-fourth meeting of the Southern California Chapter was held at the Bristol Cafe on Tuesday, March 14, 1916. The meeting was called to order at 2:45 p.m. by President S. Tilden Norton. The following members were present: D. C. Allison, J. E. Allison, J. J. Backus, S. O. Clements, F. P. Davis, W. J. Dodd, P. A. Fisk, W. E. Erkes, Lyman Farwell, R. C. Farrell, P. H. Frohman, L. J. Gill, J. C. Hillman, E. D. Hudson, A. C. Martin, S. B. Marston, Octavius Morgan, O. W. Morgan, S. T. Norton, Robert H. Orr, H. M. Patterson, A. E. Rosenheim, F. L. Still, J. T. Vawter, August Wackerbarth, A. R. Walker, H. F. Wither. As guests of the Chapter were present: Mr. George Wharton James; W. F. Price, of the "Southwest Contractor"; and John Bowler and W. Dallamore, of the "Builder and Contractor.

The minutes of the ninety-third meeting of members were read and approved. Following the reading of the minutes, the order of business was set aside in order to permit Mr. George Wharton James to address the Chapter. At the conclusion of Mr. James' most excellent talk, Mr. Octavius Morgan moved a unanimous vote of thanks to the speaker. This resolution was carried.

For the Board of Directors the Secretary reported that a membership application was received by the Board from Mr. Alfred W. Kea, and the Secretary was instructed to take the matter up further with Mr. Kea and send out the usual letter ballots. The Board unanimously accepted the resignation of Mr. George A. Howard.

For the Committee on Resolutions on the death of Fernand Parmentier, Mr. Martin reported that a memorial had been sent to the family and a copy to the "Institute Journal." Mr. Octavius Morgan, a member of the Board of Directors of the Institute, delivered to the Secretary the Certificate of Fellowship of Mr. Fernand Parmentier.

Communications were next read as follows: From Senator James D. Phelan relative to the construction of a building for the Department of Justice. From Burt L. Fenner, Secretary of the American Institute of Architects, relative to the protest registered by Chapters in the matter of a new building for the Department of Justice and reciting that the Institute's purport in making such a protest had been accomplished. From E. C. Kemper, Executive Secretary, A. I. A., notifying this Chapter that the heretofore unassigned territory of Arizona has been assigned to the Southern California Chapter. From the San Francisco Chapter, A. I. A., extending their sympathies in this Chapter's loss of its valued Secretary, Fernand Parmentier. From Mr. Burt L. Fenner, Secretary, A. I. A., notifying this Chapter that Mr. D. W. Willard, of Redlands, and Mr. Alfred W. Rea, of Los Angeles, Members-at-Large, had been assigned as members to this Chapter. From the Washington Chapter, A. I. A., requesting an exchange of copies of the minutes. The matter was referred to the Secretary. From Mr. Edward V. Engel, stating his inability to have a listing of Mr. Parmentier's books and other office equipment ready for the Chapter's March meeting.

The meeting adjourned at 11 o'clock.

Current Notes

In the advertising pages of the March issue of "The Architect," under an illustration of the Oakland Auditorium, Oakland, Cal., we inadvertently gave architectural credit to Palmer & Hornbostle, architects, J. J. Donovan, supervising architect. This should have read J. J. Donovan, architect, and Henry Hornbostle, consulting architect.

The San Joaquin Valley Association of Architects was recently organized at Stockton, Cal. The promotion of a better feeling of cooperation, and the raising of professional standards, are the objects of the organization. The association will not combine its membership with architects alone, but engineers, designers, architects and others of allied professions, will be entitled to membership. It is planned to hold meetings of special interest to all engaged in architectural work once a month, and to be featured by addresses by well-known men. Others were elected as follows: Joseph Loskarn, president; L. S. Stone, vice-president; Frank Y. Mayo, secretary-treasurer.

The Boston Varnish Company announces that it has been compelled to materially advance the price of Kyanite white enamel. This factory is turning out the highest grade of material possible to manufacture, and is one of the few concerns which has the courage to advance selling prices rather than cut quality. The company advises architects to beware of cheap enamels under the present conditions. Genuine French zinc is the only material from which a reliable enamel can be made, and this commodity is practically unobtainable at any price at the present time.

Best Plaster for Buildings

OF ALL CLASSES

OLYMPIC CLUB
SAN FRANCISCO

PAFF & BAUER
ARCHITECTS

Keene
Cement Gauged Lime Mortar
USED THROUGHOUT

Non-Corrosive : More Sound Proof
Costs Less : Better Workmanship

American Keene Cement Co.
"Strongest Keene Cement Known"
WE confidently believe that we manufacture every plumbing fixture and accessory the architectural profession requires. We are equally confident that "Standard" Plumbing Fixtures are unsurpassed in pattern, form, and quality. Certainly no more impressive endorsement of "Standard" products could be obtained nor desired, than the plain fact that since the year 1900 the public has purchased 3,500,000 Baths, 4,000,000 Lavatories, 950,000 One-piece Sinks and a correspondingly large number of other "Standard" Fixtures. Altogether nearly 13,000,000 "Standard" fixtures have been sold since 1900.

We offer today for the consideration of the Architects of America a most complete line of Built-in Baths; Showers—all regular patterns and built-to-order designs; Lavatories of every size and shape—porcelain enameled and vitreous china; Closets—vitreous china and an unexcelled choice; Sinks—which leaves nothing to be desired; plus practically every other fixture used in every type and class of building. All "Standard" fixtures are made complete—including brass fittings—in our plants at Pittsburgh, New Brighton, Louisville, Toronto and our Great Western Potteries at Kokomo and Tiffin.

In addition, we offer the service of our showrooms and a country-wide organization of trained men. This organization for sanitary service is at your command. We are not content to just sell plumbing fixtures. We aim to furnish fixtures plus service and this year finds us more able to do it than ever before. We bespeak your consideration of the 1916 "Standard" service.


SAN FRANCISCO
Rialto Building

LOS ANGELES
Mesquite at E. Seventh
Clarence Musto Residence,
San Francisco
Henry C. Smith, Architect

Equipped with

Pitcher Disappearing Doors
Adjustable Hangers and
Patented Frames

Pitcher Disappearing Doors installed in
5 1/2 inch partitions. No extra thickness
of wall required. Specify Sliding Doors
in place of Swinging Doors.

WRITE FOR PARTICULARS

NATIONAL MILL & LUMBER COMPANY
Fifth and Bryant Streets :: :: San Francisco

People of taste and refinement are beginning to
realize that a Pipe Organ is absolutely necessary in
the music room.

A unique and original way of
placing a Pipe Organ in the
music room without pipes being
exposed.

For full information and specifications, write

EILERS MUSIC COMPANY
975 Market Street :: :: San Francisco
Agents California Organ Company
DETAILS SHOWING COMBINATION OF RIB & STANDING SEAM

SCALE 6'-1"-0"

FINALLY Tuck Doral folds down against side of rib sharply thus completing the joint - Cover with Tin to piece with top turned out as on side and finish same as cap.

TIN Roofing

NEXT Cap is cut 3/4 wide allowing a 1/2 inch gap on each side to allow for the expansion of the metal. These 1/2 inch gaps are normally caulked with mastic or asphaltic cement completely filling the gap.

TIN Roofing

TIN Roofs are usually coated with a bituminous material to prevent the weather from rusting the metal. These roofs are usually made of galvanized sheetsteel or sheet copper which is usually 24 gauge. This coating serves to prevent the corrosion of the metal.

TIN Roofing

NEW TIN sheets are usually locked into place by means of small nails or by means of a special locking device. This is done to prevent the sheets from moving due to wind or other external forces.

TIN Roofing

FURTHER DETAILS showing use of RIB ROOFING with BALLED DECK

DECKING and CROWN OF RIDGE. Scale 3'-0" ELEVATION

DECKING

DECKING

DECKING

DOME covered with Tin, Roofed

ELEVATION of RIB on the night shows Centering of Tin on the sides of RIB. RIBS over DECK must be made in the shape of crown with a base outline of square.

ELEVATION of DECK shown shows marking of RIBS for decorative purposes.

ELEVATION OF RIBBED DOME

One half showing VERTICAL RIBS--One half showing DECK and CROWN of DOME

ARCHITECTURAL SERVICE

PUBLISHED: BY: ARCHITECTURAL SERVICE CORPORATION, PHILADELPHIA, PA.
RUSSWIN BUILDERS HARDWARE
in the GREEK STYLE

RUSSELL & ERWIN MANUFACTURING CO.
The American Hardware Corporation, Successor
San Bruno, Calif.
Commercial Bldg., 823 Market Street, San Francisco
NEW YORK  CHICAGO  LONDON, ENGL.

JOOST BROS.
SAN FRANCISCO AGENTS

New Location
1053 MARKET STREET
OPPOSITE JONES STREET
Mt. Diablo Cement

Always Used Where Quality Counts

Cowell Santa Cruz Lime

Henry Cowell Lime & Cement Company
2 Market Street, San Francisco

Branches:
Oakland  Sacramento  San Jose  Santa Cruz
Portland, Ore.  Tacoma, Wash.

THE ARCHITECT PRINTING DEPARTMENT

THE PURPOSE OF BUSINESS PRINTING is to attract more business. If it does this, it adds to your reputation as a business man, it is a better investment than anything else you may contemplate. Let us estimate your work.

J. A. DRUMMOND
245 Mission St., San Francisco
Telephone Douglas 3424

THE
New Lincoln-Smith Apartments
Seattle, Wash.
Willcox & Everett, Architects

and the
Thirty-seven Special Automatic Coolers now being installed.

They save money, room, sickness, time, and trouble. Just the water that is ordinarily used, first circulates through the Cooler.

Automatic Cooler Co.

TACOMA, WASH.

Write for Descriptive Circular
L. & S. Cement Paint

Is shown on this handsome structure applied to all classes of building surface -- the metal cornices, plaster stucco ornamental, frame roof garden pergolas, doors, window sash, cement flooring and stairs, also the iron fencing.

L. & S. CEMENT PAINT contains Portland cement, pure boiled linseed oil, and XX zinc, making a superior waterproof coating, as well as giving that flat finish so much sought for. It is made in all colors, including white.

Are you going to use an exterior paint pink on your home or building? Let us supply you. Samples and color cards sent upon request.

PAINT PRODUCTS CORPORATION
Manufacturers and Distributors
Sharon Building
San Francisco

Low Pressure Crude Oil Burning Equipment
Not how Cheap -- but how Serviceable

Some oil burner manufacturers install outfits that operate as high as 3,400 r. p. m., and if they are worn out as soon as the maker's guarantee expires, "it's up to you." Why have high speed machinery? Johnson Systems give long satisfaction.

S. T. JOHNSON CO.
1337 Mission Street
San Francisco
Agents in the principal Pacific Coast cities.

Draughtsmen's Blouses

A specially designed studio and office robe, made of well-wearing material, washable, of a serviceable buff shade, offering a complete protection of clothes from wear and tear.

Sent to any address, prepaid, on receipt of price.

E. Falkenheimer
25 West 42nd Street
NEW YORK CITY

Style A, 11.50
Style B, 12.00

THE COOPER SCHOOL
One of San Francisco's New Schools
Jones & Lombard St
Houghton Sawyer
Architect

Neudstadt residence, Altadena, Cal. Emory Gray, Architect

THE rich, artistic effects which were the feature of ancient Greek architecture are possible today. They may be easily achieved with concrete and stucco, finished with Bay State Brick and Cement Coating.

It gives an artistic dull surface in white and various attractive tints, but doesn't hide the distinctive texture of concrete.

"Bay State" Coating, the original, also weatherproofs the walls. Architects and builders in all parts of the country have been using "Bay State" for sixteen years.

To realize the full possibilities of concrete for homes and bungalows, find out what "Bay State" Coating will do.

Trial Can Free—just write for it, specifying what tint you prefer. Ask for booklet 7.

WADSWORTH, HOWLAND & CO., Inc.
Paint and Varnish Makers
Boston, Mass.
DISTRIBUTING AGENTS:

N. & G. TAYLOR CO., of Philadelphia

TARGET-AND-ARROW TIN

has been used for more than 50 years on notable buildings in all parts of the United States. Here are a few interesting facts about it:
1. It is backed by a private firm of more than 100 years standing. They are personally concerned in keeping their product strictly up to its old-time standard.
2. It is the oldest tin on the市场 and has made a record for durability not approached by any other tin.
3. It carries an exceptionally rich, heavy coating applied by repeated soaking and hand-dipping—a slow, costly process continued by this firm from the early days of their business.
4. It is the same durable roofing tin supplied by this old Philadelphia tinplate house to three generations of American roofers.
5. This tin has been known in many cases to last in good condition for more than sixty years on the roof. It commonly outlasts the building it covers.

J. A. DRUMMOND, Pacific Coast Representative
245 MISSION STREET
SAN FRANCISCO

Johnson Service Co.
Established in 1885

The only company on the Pacific Coast handling temperature regulation exclusively, with its own corps of Skilled Mechanics.

Johnson Thermostats are Standard

429 Landerston's Bldg.
PORTLAND, ORE.

1101 White Bldg.
PORTLAND, ORE.

SEATTLE, WASH.

600 Citizens National Bank Bldg.
SAN FRANCISCO

500 FIFTH STREET

New Model Inducement Thermostat
SAFETY FIRST --- BUILD WITH ASBESTOS

Ambler Asbestos "Century" Shingles

are economical. They are fireproof, will not rust, never need painting or repairing, and are not a constant expense and annoyance. They make a leak-proof roof that never wears out. The first cost is absolutely the last cost.

The Roof that Stays and Satisfies.

The best roof must satisfy the architect, builder and owner as to its permanence, economy, beauty and fireproof qualities. A roof made with Ambler Asbestos "Century" Shingles is permanent, because the shingles are made of Cement and Asbestos—two of Nature's imperishable and indestructible products. Asbestos "Century" Shingles get harder and better the longer they are exposed. In Ambler Asbestos "Century" Shingles the asbestos fibers are uniformly distributed and so firmly pressed together that no voids or fissures remain to catch and hold dampness and moisture.

WRITE FOR THE "SHINGLE BOOK"

This splendid book gives true information about Asbestos "Century" Shingles. It shows the different methods used in laying them, and prominent buildings where these shingles have been used. This book will interest every good builder. A postal card will bring it.

Sold by the
Keasbey & Mattison Co.

Manufactured by the
Asbestos Shingle, Slate & Sheathing Co.
Ambler, Penna., U. S. A.

J. A. DRUMMOND
Pacific Coast Representative
245 MISSION ST. :: SAN FRANCISCO
Stock carried in San Francisco
Meyer System
Steel Forms
FOR
CONCRETE FLOOR CONSTRUCTION
ECONOMY, RIGIDITY, SOUND-PROOF,
AND PERMITS RAPIDITY OF
JOIST FLOOR CONSTRUCTION

Concrete Engineering Co.
Rialto Building :: San Francisco, Cal.

SPECIFY
NEPHI PLASTER ONLY
IT MAKES THE WALL
Standard for 25 years on the Pacific Coast and
Intermountain West
HARDWALL, FINISHING, CASTING, ETC.
NEPHI PLASTER & MANUFACTURING CO.
San Francisco Office: BUILDERS EXCHANGE, 109 Union St.
Telephone Sutter 6700
Main Office: 711 BOSTON BLDG., SALT LAKE CITY, UTAH

R. N. NASON & CO.
PAINT MAKERS
151 Potrero Ave.-SAN FRANCISCO-54 Pine Street
Makers of
NASON'S OPAQUE FLAT FINISH
A flat oil paint made in soft Kalsomine Tints,
that is washable; a practical article for
walls, ceilings, etc., that is most
economical and durable.
Agency for
Tann & Nolan Co.'s High Grade Varnishes and Finishes
Goods made on the Pacific Coast for the climate of this Coast.

GUARANTEED to meet Standard and
U. S. Government Specifications for
first grade Portland Cement.

Santa Cruz Portland Cement
Company
Works: Davenport, Cal.

Standard Portland Cement
Corporation
Works: Napa Junction, Cal.

General Offices:
Crocker Building :: San Francisco

LOW FARES
EAST

SALE DATES
June 1, 2, 3, 8, 9, 10, 26, 27,
July 1, 2, 3, 4, 5, 6, 11, 12, 13,
Aug. 1, 2, 3, 8, 9, 10, 24, 25,
Sept. 7, 8, 11, 12,
and other points.

Tickets will also be sold to Buffalo, N. Y., July 4, 5, and 6,
August 1, 2 and 3; to Cincinnati, Ohio, July 11, 12 and 13; to
Davenport, July 26, 27 and 28; to Chattanooga, Tenn.,
September 11 and 12.

Round Trip
Baltimore $108.50
Boston 110.70
Chicago 75.00
Denver 72.50
Eau Claire 55.00
Houston 62.50
Kansas City 60.00
Memphis 70.00
Montreal 110.70
New Orleans 70.00
New York 110.70
Ogden 40.00
Philadelphia 110.70
Quebec 100.00
St. Louis 70.00
Salt Lake City 40.00
Toronto 68.50
Washington 108.50

Going Limit 15 Days
Return Limit, Three Months from
Date of Sale, but Not Beyond
October 31, 1916.

Good on All Trains
Pullman Standard and Tourist Sleeping Cars
Best Dining Car in America

Stoppovers Going and Returning
$118.70 to New York is good between New Orleans and New
York by Southern Pacific's Atlantic S. S. Line, with sailings
Wednesdays and Saturdays, and includes Berth and Meals on
Steamed.
Works Both Ways

The experience gained by the Otis Elevator Company throughout sixty years of manufacturing elevators, has enabled this Company to develop different types of

OTIS ELEVATORS

for all the different requirements. The experience gained in manufacturing these many types has, in turn, enabled a higher development of each and every type of Otis Elevators. Whatever the building, whatever the requirements, these can always be met best, and often met only, by Otis Elevators.

OTIS ELEVATOR COMPANY
2300 Stockton Street          San Francisco

Offices in All Principal Cities of the World
WHITE LEAD

Pioneer White Lead is the standard of quality for white leads in the West. Forty years of satisfactory service under every condition have established beyond question, its reputation for dependability and excellence.

Whiteness -- covering power -- ease in working -- freedom from impurities -- unequalled durability -- are the characteristics which make Pioneer White Lead the one lead most used by careful and reputable architects on the Pacific Coast.

W. P. FULLER & CO.

SPECIALIZED PAINT & VARNISH PRODUCTS
FOR EVERY PURPOSE
When a job of wood finishing turns out badly, whether it does not dry properly or whether it cracks, peels, chips, blooms, pits, sags, wrinkles or does anything else it should not do, it is a common thing among wood finishers to attribute the trouble to one of the “deviltries” of varnish.

Sometimes this is true, but the right varnish properly applied develops no “deviltries.”

Given the right varnish for the right use and a competent finisher, the right results are infallible, and a satisfactory finish can be had in no other way.

One of the most certain means of avoiding varnish troubles and insuring a finish that will satisfy completely is the specification of Berry Brothers’ Architectural Finishes.

**LUXEBERRY WHITE ENAMEL**—whitest white, stays white. Makes permanent snow white finish in either gloss or dull effects.

**LIQUID GRANITE**—floor varnish. Makes smooth, satiny finish. Lasting, waterproof, mar-proof, also adapted for bathrooms, window sills and casings, and all interior work where great durability is desired.

---

**BERRY BROTHERS INCORPORATED**

World’s Largest Varnish Makers

Established 1858

Factories: DETROIT, MICH. SAN FRANCISCO, CAL. WALKERVILLE, ONT.

Branches in all principal cities of the world
When you want REAL WHITE Specify KYANIZE WHITE ENAMEL

BOSTON VARNISH COMPANY, BOSTON, U. S. A.
San Francisco Office and Warehouse: 311 California Street
A. L. GREENE, Agent

Seattle
CAMPBELL HDWE. CO.
1st Ave. and Madison St.

Tacoma
W. J. HANSON & CO.
1129 Broadway

Portland
W. M. SMITH CO.
550 Williams Ave.

San Francisco
D. H. RHODES
546 Valencia St.

Los Angeles
SUNSET PAINT CO.
627 S. Main St.
FINISHED WITH CONCRETO

THE CLIFT HOTEL
GEARY & TAYLOR STS., SAN FRANCISCO

Exterior finished with two coats

SOLE MAKERS THE MURALO CO. NEW YORK
San Francisco Office: 311 California Street
A. L. GREENE, Agent

San Francisco
D. H. RHODES
546 Valencia St.

DISTRIBUTORS

Los Angeles
SUNSET PAINT CO.
627 S. Main St.
Thru-an-Thru — the new Terra Cotta

Its markings go thru and thru, like the stones of Nature

Manufactured exclusively by

STEIGER TERRA COTTA & POTTERY WORKS

Plant: South San Francisco
San Mateo County

Offices: 729 Mil Building
San Francisco

CALIFORNIA
UNUSUAL achievements in the development of home furnishings are exemplified in the adoption of better lighting ideas, improved heating systems, vacuum cleaners, electrical conveniences and numerous other household utilities while bath tubs have progressed from just "bath tubs" to Built-in Baths.

Almost since we started to manufacture bath tubs, it was our ambition to develop the enameling art to the point where we could produce a successful one-piece enameled all-over bath.

We wanted a bath that could be built into the floor and walls so that places which gather dust, dirt and moisture would be done away with. We wanted a bath that water could not splash back of nor under.

We Succeeded! We were the first manufacturer to make a successful one-piece enameled all-over bath, and we now offer a line capable of meeting the requirements of the most exacting and discriminating purchasers.

We have incorporated in our built-in baths the experience gained in making 3,501,477 "Standard" baths from January 1st, 1900 to December 31st, 1915.

If placed end to end, they would extend over about 3500 miles, or more than the distance from New York to San Francisco—from the Atlantic to the Pacific. In 1915 we sold about a mile of bath tubs to each working day.

Our service men will appreciate the privilege of explaining our built-in baths—our catalogues graphically illustrate and describe them, and in our showrooms, they await your inspection.

May 1916 increase your acquaintance with "Standard" products and service.


SAN FRANCISCO
Rialto Building

LOS ANGELES
Mesquit at E. Seventh
ROOFED WITH

SPANISH TILE

Los Angeles Pressed Brick Co.
402-414 Frost Bldg., Los Angeles, Cal.

United Materials Company
5 Crossley Bldg., San Francisco, Cal.
Distributors for Northern California
Cornice of Matt Enamel Terra Cotta to match Unpolished Pink Tennessee Marble. Roof of our Mission Tile, in six shades of Dull Green Enamel.

MANUFACTURED BY

GLADDING, McBEAN & CO.

Offices: CROCKER BUILDING
San Francisco

TRUST & SAVINGS BUILDING
Los Angeles

Factory
Lincoln, California
One of seven niches in the Oakland Auditorium - Oakland, California

J. J. Donovan, Architect
Henry Hornbostel, Consulting Architect

Modeling of Panels by
A. Sterling Calder

Executed in Cream Matt Glazed Terra Cotta
by

N. CLARK & SONS

Office:
116 NATOMA STREET, SAN FRANCISCO

Factory:
WEST ALAMEDA, CALIFORNIA
# TABLE OF CONTENTS

**PLATE ILLUSTRATIONS**

<table>
<thead>
<tr>
<th>Plate</th>
<th>Author</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>G. Albert Lansburgh</td>
<td>Concordia Club</td>
</tr>
<tr>
<td>66</td>
<td></td>
<td>Auditorium -- Card Room</td>
</tr>
<tr>
<td>67</td>
<td></td>
<td>Swimming Pool</td>
</tr>
<tr>
<td>68</td>
<td></td>
<td>Billiard Room -- Turkish Bath and Massage Room</td>
</tr>
<tr>
<td>69</td>
<td>Kenneth MacDonald, Jr.</td>
<td>Home of Louis Saroni, San Francisco</td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>Detail</td>
</tr>
<tr>
<td>71</td>
<td></td>
<td>Detail</td>
</tr>
<tr>
<td>72</td>
<td>Hermann Barth</td>
<td>Home of Edward Brandenstein, San Francisco</td>
</tr>
<tr>
<td>73</td>
<td>Hermann Barth</td>
<td>Home of Emil Greenebaum, San Francisco</td>
</tr>
<tr>
<td>74</td>
<td>Hermann Barth</td>
<td>Home of Dr. Martin Krotoszyner, San Francisco</td>
</tr>
<tr>
<td>75</td>
<td>Hermann Barth</td>
<td>Home of Mrs. M. A. Huntington, San Francisco</td>
</tr>
<tr>
<td>76</td>
<td>Hermann Barth</td>
<td>Stairway and Hall -- Library</td>
</tr>
<tr>
<td>77</td>
<td>C. W. Dickey</td>
<td>Home of F. A. Webster, Oakland, Cal.</td>
</tr>
<tr>
<td>78</td>
<td>C. W. Dickey</td>
<td>Home of Mrs. S. T. Alexander, Piedmont, Cal.</td>
</tr>
<tr>
<td>80</td>
<td>Falch &amp; Knoll</td>
<td>La Granja Apartments, San Francisco</td>
</tr>
</tbody>
</table>

**TYPE PAGES**

<table>
<thead>
<tr>
<th>Page</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>269</td>
<td>A. B. Wastell</td>
</tr>
<tr>
<td>272</td>
<td>Francis W. Grant</td>
</tr>
<tr>
<td>307</td>
<td></td>
</tr>
<tr>
<td>308</td>
<td>Adelaide Curtis</td>
</tr>
<tr>
<td>311</td>
<td></td>
</tr>
<tr>
<td>312</td>
<td></td>
</tr>
</tbody>
</table>

---

*Published in the interest of the architectural profession, on the first of each month, at 245 Mission Street, San Francisco. Entered as second class matter August 4, 1911. Subscription price in the United States and possessions, $5.00 a year; foreign and Canadian, $6.00 a year. Single copies, 50 cents each.*

*Changes in, or copy for, new advertisements, must reach the office of publication not later than the fifteenth of the month preceding issue. Advertising rates and any other information will gladly be given on application.*

*The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated. E. D. McDonald, Northwest Representative, 4100 Arcade Building, Seattle, Washington.*
DETAIL
HOME OF LOUIS SARONI, SAN FRANCISCO
KENNETH MACDONALD, JR., ARCHITECT

Photo by Francis Bruguiere
CUSTOMARILY we hie to the suburbs when searching for type in architecture, giving little thought, in our rush and haste, to the charming dwellings that abide here and there, even in the somewhat congested residential districts of San Francisco, often cosily tucked in between apartments of formal nien.

The personal interest attending a pleasant call at the distinctive home of our architect friend, D. J. Patterson, recently, gained his permission to reproduce some of its features for The Architect.

Situated upon the ridge of Buena Vista Heights, the dividing line between two old Spanish grants, appropriately named Divisadero Street, the bracing climb to the Patterson home (built before the great fire) is well rewarded by the view. Overlooking the great area of roofs, one gets the vista of hill-encircled San Francisco Bay, glistening like an opalescent jewel, with far-away glimpses of far counties—San Francisco, San Mateo, Alameda, Contra Costa and Marin—how fortunate that the Spanish architecture harmonizes with the beauty it designs! Mounting the artificial stone steps, between the red brick coping, topped with Belgian bay ornamental trees in terra cotta jardinières, brings one to the brick basement coated with white cement stucco, above which siding and roof are wooden shingles showing natural weathered effect. The basement entrance is surmounted by a copper and glass marquee with chain supports and iron braces, door and window grills are of Renaissance detail, while the window above has a balcony of redwood supported on redwood brackets. The sash curtains on this window and that above the doorway are of architectural design. The entrance hall is finished in California redwood, leading up into the first-floor stair hall paneled in Douglas fir. The adjoining reception room carries a green color scheme in wall hangings, upholstery and carpet, with redwood trim and mantel of redwood stained mahogany very effectively. Many articles of vint adorning this room, the sculpture IVY on onyx pedestal, the Thad Welch over the mantel, the Louis XV. lamp shade, while several bits of color by Patterson lend added joy. The dining room is paneled in genevieve, has beamed ceiling and oak floor. The fireplace tiling of terra cotta extends up to the plate rail with a recess for bric-a-brac. The lighting fixtures are all after special Patterson pattern, and radiate warmth and glow that suggest ideal hospitality. Now for rest and quiet we will go upstairs to the living room, pausing in the upper hall to gain inspiration from a large mural showing life-sized allegorical figures grooping their way to the Temple of Knowledge, which again suggests an architectural significance. Around the
living room extends a frieze panorama by Duncan, carrying relaxation in its breadth of vision, and back to the range suggestion, while the soft tones of the redwood trim and book cases create the atmosphere of a real living room. In this familiar visit we will now seek the oasis, at the rear of the house, which must be a joy to the dwellers in neighboring apartments, where a formal garden is laid out in all sorts of geometric designs, with vines trailing in profusion over lattice and pergola, with here an arbor guarded by two newels of stone and there a shrine to Bacchus, who grins at you as you approach the colonnaded portal. The impression following our good-byes was that in this dwelling one directing mind had guided each choice, from the first drawing through every stage of construction, furnishing and the outdoor setting; that the most had been made of every feature, whereas, in many instances, the charm of fine homes is lost through lack of thought with reference to interior finish and furnishings.

How frequently the architect completes his commission in turning over the finished house, when further counsel from him is so desirable to make of the building a real home. As the creator of the shell, the architect knows requirements to decorate and beautify it, while the owner frequently experiments into atrocious combinations. Whenever possible, the architect’s commission should include decorations and furnishings with the hope that the harmony of the complete HOME may insure harmony of relation in the life of the family that shall later occupy it.

The elaborate homes built for the personal occupancy of well-to-do clients, do not usually involve such an incongruous outcome, as the factors that create this situation are, unwarranted haste to get settled in the new establishment in order to cut off the expense of maintaining temporary quarters during the construction period, or to the overwhelming desire or necessity, according to temperament or condition of pocketbook, to either perpetuate in use some family heirlooms or to utilize the “things from the old home, which are really too good to throw away.” The hurry in the first instance, resolves into snap judgment, instead of deliberate choice after careful consideration of harmony with the tone of the interior finish and of the purpose and character of each room individually and the personality of its expected occupant as well as to the inter-relation of each suite of rooms.

The utilitarian motive in the second instance, may be commendable in this day of prevailing waste, from an economic standpoint, but the resulting pot pourri is little short of a crime, and each home atmosphere frequently produces discord, both apparent and real. Another contributing factor to the “out-of-harmony” home, is the practice of building homes in job-lots, to sell. Payments, and terms, bonds on street work and interest, are the big problems of the installment layer. Too often there is no fund available for the purchase of appropriate furniture, so the householder “moves in,” piecing out the odd things with non-descript purchases from time to time, but never attaining the homey charm that in other circumstances perfectly simple furnishings, consistently selected, make of any house a home.

Can you recall, in recent years, the suggestion referring to some intimate, that his home looks like him? Such a home of the past seemed to take on personality, though simply built of wood; it had a setting that gave it charm; it had been built to suit the family, and often it represented in some part the handiwork of each member of the family. This gave it character.

Homes run in moulds and furnished without regard for their mission and without due thought for harmony in expression, cannot compete in effectiveness as real places to live in, with the “personally conducted” homes in which every detail from original hand sketch to finish touches in furnishing has been lovingly considered by the same mind before being executed. In this busy age, when each one is crowded to his limit to carry on regular duties, how may this personal element be enlisted? Is it the conviction of the writer that the answer is in the extension of the architect’s supervision.
ARTICLE 12. PROTECTION OF WORK AND PROPERTY. The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Owner's and adjacent property from injury arising in connection with this Contract. He shall make good any such damage or injury, except such as may be directly due to errors in the contract documents.

Since the contractor can always be held for damage and must turn over the structure in an undamaged condition, there is no need of a clause on this subject except for the purpose of reminding and warning him, and such clauses will best serve their purpose when specifically directed toward certain anticipated derelictions such as failure to box stone projections or cover green masonry during inclement weather. Even admitting the propriety of so general a clause as submitted, there is room for great improvement in the language. If it be required that the contractor shall make good all damages of certain described kinds to certain named persons and interests, it is then superfluous to say that he shall maintain adequate protection against such damage occurring.

"Article 18. EMERGENCIES. In an emergency affecting the safety of life or of the structure or of adjoining property, not considered by the Contractor as within the provisions of Article 15, then the Contractor, without special instruction or authorization from the Architect or Owner, is hereby permitted to act, at his discretion, to prevent such threatened loss or injury and he shall so act, without appeal, if so instructed or authorized. Any compensation claimed to be due to him therefor shall be determined under Articles 10 and 45 regardless of the limitations in Article 25 and in the second paragraph of Article 21."

To fully understand this clause, it is made necessary to read two preceding paragraphs and three succeeding paragraphs. Brevity secured at the expense of clarity should be avoided.

The term "hereby permitted" should never be used in a building contract. If the case will not justify a mandatory provision, it does not properly become a contract provision and should be ignored.

"Article 19. DAMAGE TO PERSONS. In addition to the liability imposed by law upon the Contractor on account of bodily injury or death suffered through the Contractor's negligence, which liability is not impaired or otherwise affected hereby, the Contractor hereby assumes, in cases not embraced within such legal liability, the obligation to save the owner harmless and indemnify him from every expense, liability or payment (voluntary payments excepted), by reason of any injury to any person or persons, including death, suffered through any act or omission of the Contractor or any Sub-contractor, or any one directly or indirectly employed by either of them, in the prosecution of any work included in this contract."

To make the contractor liable for damages regardless of the law on the subject is not fair, and to oust the courts of their jurisdiction is unconstitutional.

"Article 20. LIABILITY INSURANCE. The Contractor shall maintain such insurance as will protect him from claims under workmen's compensation acts and from any other..."
claims for damages for personal injury, including death, which may arise from operations under this contract. Certificates of such insurance shall be filed with the Owner, if he so require, and shall be subject to his approval for adequacy of protection. The Owner shall be responsible for his own contingent liability.

This clause may be entirely proper in some States. It does not fit the workmen’s compensation acts of all States, however, and therefore is not proper for general use, hence of course inappropriate in this code.

"Article 21. FIRE INSURANCE. The Owner shall effect and maintain fire insurance upon the entire structure on which the work of this contract is to be done and upon all materials, tools and appliances in or adjacent thereto and intended for use thereon, to at least eighty per cent of the insurable value thereof. The loss, if any, is to be made adjustable with and payable to the Owner as Trustee for whom it may concern.

"All policies shall be open to inspection by the Contractor. If the Owner fails to show them on request or if he fails to effect or maintain insurance as above, the Contractor may insure his own interest and charge the cost thereof to the Owner. If the Contractor is damaged by failure of the Owner to maintain such insurance, he may recover under Article 29.

"If required in writing by any party in interest, the Owner as Trustee shall, upon the occurrence of loss, give bond for the proper performance of his duties. He shall deposit any money received from insurance in an account separate from all his other funds and he shall distribute it in accordance with such agreement as the parties in interest may reach, or under an award of arbitrators appointed, one by the Owner, another by joint action of the other parties in interest, all other procedure being in accordance with Article 25. If after loss no special agreement is made, replacement of injured work shall be ordered under Article 21.

"The Trustee shall have power to adjust and settle any loss with the insurers unless one of the contractors interested shall object in writing within three working days of the occurrence of loss, and thereupon arbitrators shall be chosen as above. The Trustee shall in that case make settlement with the insurers in accordance with the directions of such arbitrators, who shall also, if distribution by arbitration is required, direct said distribution."

After elimination of cross references to other articles and contractor against whom he has a reasonable objection.

The provisions in this paragraph dictating what the contractor shall do in making up his bid are amateurish. The contractor was not the contractor when he made up his bid and it was nobody’s business but his own how he, as bidder, made up his bid.

"Article 31. CHANGES IN THE WORK. The Owner, without invalidating the contract, may make changes by altering, adding to or deducting from the work, the contract sum being adjusted accordingly. All such work shall be executed under the conditions of the original contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change."
"Except as provided in Articles 9 and 18, no change shall be made unless in pursuance of a written order from the Owner signed or countersigned by the Architect and no claim for an addition to the contract sum shall be valid unless so ordered.

"The value of any such change shall be determined in one or more of the following ways:

"(a) By Estimate and Acceptance in a lump sum.

"(b) By Unit Prices named in the contract or subsequently agreed upon.

"(c) By Cost and Percentage or by Cost and a fixed fee.

"(d) If none of the above methods is agreed upon, the Contractor, provided he receive an order in writing signed by the Owner and countersigned by the Architect, shall proceed with the work, no appeal to arbitration being allowed from such order to proceed.

"In cases (c) and (d) the Contractor shall keep and present in such form as the Architect may direct, a correct account of the net cost of labor and materials, together with vouchers. In any case, the Architect shall certify to the amount, including a reasonable profit, due to the Contractor. Pending final determination of value, payments on account of changes shall be made on the Architect's certificate."

This clause, probably the most important of all the General Conditions, is not in form suitable for use. Five different methods of fixing the amount to be added or deducted for changes are too many in any contract. Methods (a) and (c) should each be inclusive of method (b). Method (b) is impracticable alone in every instance.

The provision that, pending final determination of "force account" extras, payment on account of same shall be made on the architect's certificates, might imply that, under some circumstances, payments might be made without an architect's certificate and it might also be taken as a mandatory provision that PARTIAL payments must be made on all such extras some time. The clause as a whole is inappropriate for submission as a model.

"Article 25. CLAIMS FOR EXTRAS. If the Contractor claims that any instructions, by drawings or otherwise, involve extra cost under this contract, he shall give the Architect written notice thereof before proceeding to execute the work, and, in any event, within two weeks of receiving such instructions, and the procedure shall then be as provided in the last paragraph of Article 24. No such claim shall be valid unless so made."

This is distinctly a part of the subject sought to be covered by Article 24 and should be included in it. The cross reference to the last paragraph of Article 24 is evidently an error and is an instance tending to prove the impropriety of depending on cross references to complete the meaning of any clause.

"Article 26. APPLICATIONS FOR PAYMENTS. The Contractor shall submit to the Architect an application for each payment and, if required, receipts or other vouchers from Sub-contractors showing his payments to them for materials and labor as required by Article 41."

(To be continued.)
AUDITORIUM

CARD ROOM

CONCORDIA CLUB, SAN FRANCISCO
G. ALBERT LANSBURGH, ARCHITECT

Photos by Gabriel Moulin
SWIMMING POOL

SWIMMING POOL

CONCORDIA CLUB, SAN FRANCISCO
G. ALBERT LANSBURGH, ARCHITECT

Photos by Gabriel Moulin
BILLIARD ROOM

TURKISH BATH AND MASSAGE ROOM

CONCORDIA CLUB, SAN FRANCISCO

G. ALBERT LANSBURGH, ARCHITECT

Photos by Gabriel Moulin
DETAIL

HOME OF LOUIS SARONI, SAN FRANCISCO
KENNETH MACDONALD, JR. ARCHITECT

Photo by Francis Bruguiere
DETAIL
HOME OF LOUIS SARONI, SAN FRANCISCO
KENNETH MACDONALD, ARCHITECT

Photo by Francis Bruguiere
HOME OF EDWARD BRANDENSTEIN, SAN FRANCISCO
HERMANN BARTH, ARCHITECT
HOME OF EML. GREENEBAUM, SAN FRANCISCO
HERMANN BARTH, ARCHITECT
HOME OF DR. MARTIN KROTSZYNER, SAN FRANCISCO
HERMANN BARTH, ARCHITECT
STAIRWAY AND HALL

LIBRARY
HOME OF MRS. M. A. HUNTINGTON SAN FRANCISCO
HERMANN BARTH, ARCHITECT
HOME OF F. A. WEBSTER, OAKLAND, CAL.
C. W. DICKEY, ARCHITECT

HOME OF MRS. S. T. ALEXANDER, PIEDMONT, CAL.
C. W. DICKEY, ARCHITECT
HOME OF MRS. S. T. ALEXANDER, PIEDMONT, CAL.
C. W. Dickey, Architect

HOME OF JOHN F. HUMBURG, PIEDMONT, CAL.
C. W. Dickey, Architect
THAT the work of an architect does not end when a building is completed is a recognized fact. That his work properly includes the completion of interior furnishings and decorations, is becoming more apparent each year. However broad the latter field, it can be classed as an essential part of an architect's service.

Architects will do well to appreciate the fact that the art of design and decoration, while perhaps in common with the principle of their profession, nevertheless requires a special and technical knowledge. This knowledge must be acquired before the first step can be taken in interior decoration. He must understand how to apply his art in genuine manner so that it will appeal consciously to those who understand it and unconsciously to those not initiated into its mysteries.

Probably the chief reason for an architect's interest in interior decoration lies in the fact that he does not desire to leave the completion of his work in the hands of untrained persons. On the other hand, he very often undertakes such work at the direct solicitation of a client.

It is well, also, to remember that a knowledge of decorative arts has, as a natural sequence, the broadening of an architect's field. A common practice is for an architect to work in co-operation with the interior decorator. Very often he makes suggestions, but is forced to rely upon the decorator for the proper execution of the work, which practically amounts to a complete assignment of the job to the decorator.

The architect, through limitation of his specific knowledge of the functions of decorative materials, must depend upon another person's ideas. It is often possible that the decorator's ideas are not in accord with the general scheme of adornment as conceived by the architect. Therefore, a conflict of decorative ideas as represented by the architecture of a building and the interior furnishings, is not unlikely.

The study of furnishings and the arts decorative is occupying ever-increasing attention by the architects of this country. Not alone the monetary benefit, but the satisfaction gained from creating a work completed in every sense in exact accord with one's ideas is sufficient incentive to create a deeper appreciation and desire for knowledge along these lines.

What promises to become an annual event of decided interest and importance was the joint meeting of the Washington State Chapter of the American Institute of Architects and the Seattle Master Builders' Association, held in Seattle the latter part of April. The dominant keynote of the gathering was the expressed desire of all present for a more co-operative endeavor based upon knowledge of the true functions of each profession. Such meetings are of greatest value to both architects and contractors. They serve to bring about a better understanding and appreciation of the elimination of the manifold conflicts and disturbances that at times arise, through this very lack of understanding.

Architect Charles H. Bebb, of Seattle, a chief speaker of the evening, voiced an appeal for an expression in architecture and building of a high intelligence so that the monumental works that stand for the future may express a national spirit of this day. Mr. Bebb frankly criticised the spirit of building as the expression of a great commercialism, often stamped as a money-making investment.

In amplification, Mr. Bebb said that the master builder of past ages was but the guiding hand of the spirit of the people inscribing itself in those books we call building. The architect, master builder, mechanic and workman labored with a single purpose, the perfection of the work in hand. In contrast, he pointed to the spirit of building today, with a very few isolated exceptions, notably the Woolworth Building of New York City.

Mr. Bebb landed hard on some of our city beautifiers when he said that the idea of the city beautiful or even practical appeals as but a chimera in the mind of the dreamer and the impractical exponent of civic betterment.

"We architects and master builders are doing better work today."
Earliest Oxford.

BY ADELAIDE CURTIS

The beginnings of this famous city have been much disputed, and they still remain a mystery. Although lying in one of the earliest settled portions of the country, the Romans finding the district inhabited by the Dobunii, an ancient British tribe, while here and there crematories and scattered stones still testify to a prehistoric period, Oxford's earliest records are nevertheless unknown. Legends are abundant, but the real history of Oxenford, or Oxenford (a ford for oxen? [?]), as it is earliest written, must, like the meaning of the very name itself, be hidden from us. The town, however, was a most important one throughout the period before the Norman Conquest, probably growing up in the first place around the monastery of St. Frideswide (or Fritswyth), and extending from the slope leading from the ford near Folly Bridge to Carfax. Only legends connect the early city with the name of King Alfred, although coins of his time have been found bearing the word "Oksnaforda," indicating the establishment of a mint in the early city.

The first historical mention of Oxford is in 912 A.D. "But when Oxford does at last appear, it appears as one of the most important towns in England, a town fairly on a level with Exeter, Lincoln, and Norwich. In the first entry where the name is mentioned, Oxford is coupled with London; these are the two great cities which King Eadward takes into his hands on the death of Ealdorman Aethelfred to secure the obedience of the Mercian realm. In the new division and new nomenclature of central England, it became the head of a shire, and it is not without reason that Henry of Huntingdon seems to wonder that it had never become the seat of a bishopric. We hear of it, as of other places, as destroyed and rising again in the Danish wars, and during the greater part of the eleventh century it appears as the chosen place for holding the most important national assemblies. It was not indeed, as Westminster, Winchester, and Gloucester became at a somewhat later time, one of the fixed places where the King held his court and wore his crown at the three great festivals of the Church; but the times when Oxford is spoken of as the seat of royal councils point to it as possessing a practical importance which set it in some sort above places of higher formal dignity. When a meeting was designed to be specially national, when some solemn act was to be done through which the kings of the North and Southern England alike, Oxford was the place which was commonly chosen. Its position on the great border stream of Wessex and Mercia made it admirably suited for such a purpose."

William the Conqueror made his coming felt in Oxford, and "...few towns in England suffered more, whether through a capture by storm, or oppression of William's officers."

With the arrival of the Normans, Oxford's importance is again plainly shown, the Domesday survey of the city being "more than usually complete." The priory church of St. Frideswide, and the churches of St. Mary the Virgin, St. Michael, St. Peter-in-the-East and St. Ebbe are here mentioned. "...From other sources it is known that St. Martin's at Carfax was in existence, and not less than seven more before the close of the century." The story of these early churches is deeply interesting, illustrating too, as do the valuable and unique Saxon and Norman works. St. Martin's is one of the most ancient foundations, having been built, it is said, by King Canute in 1032. The old church was twice reconstructed, nothing being left to the present time, however, but a picturesque tower dating from the fourteenth century. St. Peter's-in-the-East has a Norman tower and crypt dating from 1061, while the chancel (as symbolic of St. Peter in Vin- cula [?]) of the chancel vaulting is both unusual. The
THE ARCHITECT

dering the Abbey of Abington, some few miles distant, nevertheless became in his later life one of the Church's benefactors, making some reparations at Abington, and building or repairing some of the parish churches of Oxford. The Primitive Romanesque work of Oxford Castle corresponds to that of the tower of St. Michael's, while St. Peter's-in-the-East is said to be an example of one of D'Ogili's buildings. It is interesting to note in this connection that, during the terrible wars of Stephen and Matilda, the latter fled for protection, and received it, in that same Abbey of Abington, which had been so hardly used a century earlier.

Many other fine specimens of medieval architecture still stand in Oxford, aside from the University buildings; of the city walls themselves, large portions remain, and the circuit can be traced throughout. Splendid fragments of these walls and of an ancient city gateway can be seen in the charming gardens of New College, their ivy-covered ruins adding much to the picturesqueness of this early foundation, so much of whose original architecture fortunately still exists. Just outside the north walls of the city, Beaumont Palace was built by Henry I., this becoming a favorite royal residence, and the birthplace of Richard I. and John. The splendidly preserved Norman church of the village of Iffley, less than five miles distant from Oxford, is "one of the finest specimens of early ecclesiastical architecture in England," while in the city of Oxford the oldest private house, a delightfully quaint little thirteenth-century structure, brings much pleasure to the antiquarian.

Professor Freeman in his scholarly essays, "Pre-academic Cambridge" and "Pre-academic Oxford," points out the differences and the likenesses between the two university towns. "Cambridge, with its distinct Roman traces, has the advantage of antiquity; Oxford has the advantage of earlier and more constant historic importance. The academic Cambridge planted itself on ground of its own, and has made the old borough into a kind of suburb."

The Church of St. Mary the Virgin, in the very center of the city, has also been the center of its life since its earliest establishment. Its bells once summoned the students in the often most serious "Town and Gown" disputes; here in this church Cranmer was tried for heresy; here Amy Robsart was buried; while here in later times John Wesley and Keble preached some of their most remarkable sermons. St. Michael's is a church most interesting for both historical and architectural reasons. Its rugged tower of the Saxon type of construction, although built in earliest Norman times, contrasts most picturesquely with the beautiful Gothic buildings of the colleges, erected some centuries later. St. Michael's low, square tower originally formed a part of the very walls of the city, its neighbor (no longer standing) just across the street being the Bocardo, an ancient prison, and connected with St. Michael's by a short bridge. Near this Church is pointed out the interesting monument on the site of the martyrdom of Cranmer and his fellow-reformers.

The Cathedral of Oxford is the smallest in England. The present size is due to the fact that Cardinal Wolsey demolished the west front and three bays of the nave. The edifice of today stands on the site of an early church, erected in the eighth century by Didan, king of Mercia and father of St. Frisewode. Her shrine, much restored, stands in the east end of the cathedral, while a small arch and a part of the eastern wall of the cathedral are pointed out as belonging to King Didan's original building. The nave of the cathedral is an interesting example of Norman work.

Another fine memorial of the earliest Norman period is the Castle of Oxford, of which a stern and lofty tower and the crypt of an ancient chapel within the walls still remain. Upon a high mound, constructed for defense during the Saxon period, was built this castle, the work of one of William the Conqueror's followers, Robert D'Ogili, D'Oily, Olgi or Oulily — Professor Freeman tells us of half a dozen various spellings of the name. This man of such uncertain cognomen, in spite of early oppressions, especially in plun-
AN EFFECTIVE PIECE OF ENGINEERING IN DESIGN OF STREETS, FOREST HILL, SAN FRANCISCO
MARK DANIELS, ENGINEER.
MOST of those associated with the paint and allied trades are more or less familiar with the large plant of the Muralo Company, who for over a quarter of a century have been manufacturers of sanitary wall coatings and cement paints, the quality of which has set the standard not only in the United States, but in all parts of the world as well.

It was about twenty-five years ago that the Muralo Company first started business at New Brighton in a primitive way, making its wall coatings with two or three small mills and shipping little quantities of its products to various parts of the world as trial orders; the soil upon which these products fell must indeed have been fertile, for root for future development was promptly taken, with the result that the trade of the Muralo Company has now grown to be over thirty million pounds per annum. Thirty million pounds of any product is a large quantity to be made in a year, and the output of the Muralo Company is used to decorate and beautify homes in all parts of the world.

The Muralo Company's factory covers a floor space of 840,280 square feet, and besides the hundreds of men employed throughout the works, the company have their own printing plant, where millions of pieces of artistic advertising matter are prepared; they have their own lighters, their own tug boats, their own barges, the plant being situated between the tracks of the B. & O. Railroad and New York Bay makes it possible for shiploads of chalk to come direct from the coasts of France and England and unload at their works. The company also own large gypsum mines in Nova Scotia, and in their own barges transport gypsum from Windsor to New Brighton. This concern is today the largest manufacturer of wall coatings in the world.

The Muralo Company have their main office and works at New Brighton, and have branches, under the supervision of local managers, at Chicago, Ill.; San Francisco, Cal.; Buffalo, N. Y.; Richmond, Va.; Boston, Mass., and in New York City. To meet the convenience of their Pacific Coast trade, they maintain an office and warehouse at 311 California Street, San Francisco, where complete stocks of their various products are carried on hand. Mr. A. L. Greene is the local manager.

A selling force travels from the local branches covering the respective territories, and their goods are handled by practically all the paint and hardware dealers throughout the country.

Hugh Walter Pearson is the managing director of the company and is well known in the paint trade; the other officers of the company are G. R. King, president; E. D. King, vice-president, and H. F. Hutchinson, treasurer.

Well-known local brands of the Muralo Company are Dutch Kalsomine, Concreto Cement Coating, Cal-o-Tint, Master Painters' Wall Size, Falresco, Rex Flat Wall Paint.

The advertising department issues a great many beautiful color scheme booklets suggestive for home decorations, which they are pleased to furnish interested architects.

* * * * *

The nature of architectural books constituting the library of an architect often makes their cost high. This is primarily due to the demand that these books be illustrated in the most profuse and complete manner.

The present stage in the development of photography and printing has made possible the production of many valuable works dealing with this subject. It is possible that the architect is offered a more comprehensive and finely illustrated number of books directly relating to his profession than any other profession or line of business activity. This may be traced to the abundance of good photographic material.

Very often these books are compiled almost exclusively of photographs, with the largest amount of descriptive text possible.

There should be a tendency on the part of the architect to use care in selecting only the best. While it is true that the cost of many of these books comes high, the direct inspiration which may result from a perusal of their pages easily compensates for their first cost.
Pacific Coast Chapters, A. I. A.

The regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held in the Italian Room of the St. Francis Hotel on Thursday evening, April 27, 1916. The meeting was preceded by a breakfast for the President, Mr. W. F. Faville.

The speakers of the evening and members of the Engineers' Club were present as guests of the Chapter.

MINUTES

The reading of the minutes of March 16, 1916, was dispensed with.

COMMUNICATIONS

The following communications were ordered read and placed on file, and were referred to the Board of Directors for action:

Partial report from the Committee on Contractors' Affairs, from Mr. G. Alexander Wright, chairman; from Mr. George H. Ford, chairman of the Town Planning Committee of the Institute, and editorial from the New York Times referring to the power plant in Washington, D. C.; from Colonel Thomas H. Rees, of Honolulu, regarding his application for Institute membership; from B. F. W. Russell, enclosing Bulletin of the Boston Society of Architects.

The Chair stated that this was the second of a series of three meetings of the Chapter to be devoted to city planning and that at this meeting the Chapter would have the pleasure of hearing the master of harbor development discussed by Lieutenant-Colonel Thomas H. Rees, U. S. A., who would take up the question with the consideration of the east shore of San Francisco Bay, while Hon. J. J. Dyer, President of the State Harbor Commission, would discuss the development of the San Francisco water front.

Colonel Rees was then introduced and spoke very interestingly on what was being done in order to give the east side of San Francisco Bay proper harbor facilities. He was followed by Mr. Dyer, who discussed what was being done on the San Francisco waterfront and spoke of what the future development would be. His talk was illustrated by lantern slides and was listened to with great interest. He also referred to the necessity of providing means for relieving the congestion at the foot of Market Street and suggested that by adding and widening streets, much of the present congestion could be substantially relieved.

The thanks of the Chapter were voted to both the speakers.

STANDING COMMITTEES

There were no committee reports with the exception of the following:

Board of Directors. Mr. Faville stated that forty-six applications for Institute membership had been received and forwarded to the Institute at Washington and favorable action on the applications was anticipated.

Committee on Relations with Contractors' Affairs. A written report was received from this committee, which was referred to the Board of Directors.

Competition Committee. Mr. Mosser for this committee reported concerning the Merced High School Competition that the first program as issued by the High School Board had been disapproved and that after a visit of the committee from the Chapter to Merced, the trustees had agreed to make the program accord with the requirements of the Institute, and that in that form the program had been approved. This accounted for the fact that the members had received the three notices, the first notice of disapproval and the second of approval. Then after the form of the program had been approved, the trustees had seen fit to insert a clause guaranteeing the cost of the building, and as this was contrary to the understanding had with the Board and also the requirements of the Code, it was decided that the competition should be again disapproved and the membership of the Chapter were notified accordingly.

ADJOURNMENT

There being no further business before the Chapter, the meeting adjourned at 10:30 p.m.  
Subject to approval, .......... 1916.  
Sylvan Schmattacher, Secretary.

From the Los Angeles Examiner, two communications relative to an alleged fraudulent statement of Slide County were placed in the hands of the Board of newspaper and requesting resolutions condemning such practice. This matter was referred to the Board for reply.

From Octavius Morgan, expressing regret that the State Board of Architects would be unable to attend the April Chapter meeting.

From the Los Angeles Examiner, relative to the establishing of an Architects' Directory, etc., naming several of the Los Angeles Daily Examiner.

A resolution made by Mr. Martin, duly seconded, was adopted that the secretary communicate with Mr. Hansen, editor of the paper, stating that the Chapter desired to cooperate in every reasonable way possible, but that the Chapter would be unable to take part in any work that might be classified as advertising.

Under the head of unfinished business, the amendment to Article 1, Section 2, of the By-Laws regulating the method of election to honorary membership was unanimously adopted.

A letter was next read from the Board of Public Works expressing a desire to obtain information as to the advisability of granting an amendment to the city building ordinance covering the kind of wire which may be used in spiral reinforcement of concrete columns. The Chapter voted to endorse a substitute amendment to overcome the difficulty, which was to be framed by Mr. A. C. Martin, Mr. J. J. Backus, and the Secretary.

A call was next rendered on the Chapter members relative to the sale of books belonging to the late Fernand Parmentier.

A section in a resolution of business, Mr. J. C. Hillman gave a most interesting talk on a recent transcontinental motor camping trip. This talk was most entertaining and was greatly enjoyed by all present. Upon its conclusion, a vote of thanks was rendered to Mr. Hillman.

The meeting adjourned at 10:30 p.m.  
A. R. Walker,  
Secretary Pro Temp.  
COPY OF AMENDMENT

"Honorary members shall consist of persons who have retired from the practice of architecture, or who have rendered valuable service to the profession, or Institutes of Architects of the United States of America. Persons may be proposed for honorary membership by written recommendation signed by three members and presented to the Board of Directors. Upon approval of the recommendation the Board shall present the same at the following meeting of the Chapter and a four-fifths vote of the members present shall elect such person."

312
is the only bridge between you architects and the builder. The builder first of all believes in you.

He believes that you have a particular knowledge of all the parts of a modern home—together with a knowledge of draughting, construction, planning and designing. He believes that you are capable of correlating the parts and working them together in a successful modern home.

He believes that you will specify fixtures of a dependable and lasting quality. He holds you directly responsible if any fixtures are not entirely satisfactory.

Your only recourse is the manufacturer. If he fails to replace the fixtures, the builder begins to lose confidence in you. The possibility of future work becomes small.

We are always ready to stand behind you—in fact, guarantee all "Pacific" Fixtures forever against any defect in workmanship or material.
News of the Industrial World.

We have received copy of an interesting booklet published by the Nephi Plaster and Manufacturing Company, Salt Lake City. We believe it to be one of the most attractive pieces of literature that we have seen, and doubtless both of them will be destroyed by an architect. It is entitled, "Wall Surfaces of the Exposition," and besides containing an unusual number of attractive photographs of the Exposition, the directions for the use of Gypsum products, which have been doubtless formulated with a view of assisting architects closely in writing specifications, make it a valuable source of reference.

The Nephi Plaster and Manufacturing Company has just completed a Keene's Cement plant, and its product is already finding a ready sale on the Western market. Nephi Gypsum, which is of extraordinary purity and density, is especially well adapted to the production of Keene's Cement, and the extreme whiteness of the material, together with the general structural value, seems to indicate that it is quite equal to the famous English Keene's Cement, which for so many years has been the popular product in the American market.

The City Engineer's office found the Maralo Company's Concreto so satisfactory and wearing on the municipal trolley poles erected several years ago that they specified Concreto on the poles for the Church Street extension. The poles are now being pointed.

* * *

The application and wide range of possibilities of temperature regulation are being appreciated more and more each year in California. The elegant new City Hall in San Francisco, which is practically completed, is equipped with the very latest type of thermostats and control valves in all of the larger rooms, and the heating system, in general, which has been installed there is becoming quite popular, and is likely to become the adopted type of heating that will be used in similar big buildings in this State. The Civic Center Library, now in the course of construction, has practically the same type of heating and nearly all important rooms, i.e., in the City Hall, are provided with temperature regulation.

As further proof of the first statement, the Johnson Service Company, who are the pioneers in temperature regulation on the Pacific Coast and throughout the United States, have installed their thermostats and control devices in such residences as the Mrs. Mant L. Flood residence, the Charles T. Crocker residence at Hillsboro, and the F. C. Talbot residence at San Leandro. The Benjamin Ide Wheeler Hall at the University of California, Berkeley, which is the largest collegiate classroom in the world, will be equipped throughout with temperature control, as well as several of the new buildings to be erected on the University campus. Other installations of this company, which are completed or under the course of construction, are the Moffit Theater, Oakland; University of California Hospital, San Francisco; and thirty-nine schools of San Francisco, nearly all of the larger banks, and temperature control will be included in a number of the important rooms of both wings of the new City and County Hospital.

The Oakland Auditorium, the new Oakland Technical High School, the City Hall, and over thirty new and old schools in that city are equipped with the Johnson system of temperature regulation.

This company maintains an exclusive organization, for the installation and maintenance of temperature regulation, in San Francisco as well as at Los Angeles.

The value of temperature regulation from the great saving in fuel and the health and comfort to the users are points that are now conceded by all.

* * *

Statement of the ownership, management, circulation, etc., required by the Act of August 24, 1912, of The Architect, published at San Francisco, Cal., for April 1, 1916. Editor, Clarence P. Kane, 245 Mission Street, San Francisco, Cal.; Business Manager, J. A. Drummond, 245 Mission Street, San Francisco, Cal.; Publisher, J. A. Drummond, 245 Mission Street, San Francisco, Cal.; Owners (If a corporation, give its name and the names and addresses of stockholders holding 1 per cent or more of total amount of stock. If not a corporation, give names and addresses of individual owners), J. A. Drummond, 245 Mission Street, San Francisco, Cal.; Known bondholders, mortgagees, and other security holders, holding 1 per cent or more of total amount of bonds, mortgages, or other securities (If there are none, so state), None. J. A. Drummond, Publisher, Sworn to and subscribed before me this 20th day of March, 1916. Julia W. Crum, Notary Public in and for the City and County of San Francisco, State of California. My commission expires June 29th, 1918.

Best Plaster for Buildings
OF ALL CLASSES

OLYMPIC CLUB
SAN FRANCISCO

PAFF & BAUER,
ARCHITECTS

Keene Cement Gauged Lime Mortar
USED THROUGHOUT

Non-Corrosive: More Sound Proof
Costs Less: Better Workmanship

American Keene Cement Co.
"Strongest Keene Cement Known"

314
Stucco—past and present

The charming old stucco homes of the pre-revolutionary period afford some highly interesting precedents for modern stucco. Though lacking in some of the refinements of present-day construction, these old houses are rich in suggestion for artistic stucco finishes—presenting pleasing inequalities of surface and textures of unusual beauty.

A Monograph is available for you

which describes and illustrates some fine examples of these Early Stucco Houses. This monograph contains as an appendix a convenient guide to the preparation of specifications for applying Stucco—on metal lath, and masonry. It will be sent to architects on request.

The Atlas Portland Cement Company

Members of the Portland Cement Association

Corn Exchange Bank Bldg., Chicago  50 Broad Street, New York
St. Louis  Minneapolis  Des Moines  Philadelphia  Boston  Dayton

Pacific Coast Distributors of Atlas-White:

Santa Clara Portland Cement Co., San Francisco
United Materials Company, San Francisco
Pacific Portland Cement Co., San Francisco

Evans, Coleman & Evans, Vancouver and Victoria, B.C.

Send me Monograph on "Early Stucco Houses in America" and guide to Stucco Specifications.

Name_________________________Address_________________________
Modern Apartments
James Walsh, Owner and Contractor
Geary St. and 15th Ave.
San Francisco

Equipped with

Pitcher Disappearing Doors
Adjustable Hangers and
Patented Frames

Pitcher Disappearing Doors installed in
5 1/2 inch partitions. No extra thickness
of wall required. Specify Sliding Doors
in place of Swinging Doors.

WRITE FOR PARTICULARS

NATIONAL MILL & LUMBER COMPANY
Fifth and Bryant Streets :: :: San Francisco

People of taste and refinement are beginning to
realize that a Pipe Organ is absolutely necessary in
the music room.

A unique and original way of
placing a Pipe Organ in the
music room without pipes being
exposed.

For full information and specifications, write

EILERS MUSIC COMPANY
975 Market Street :: San Francisco
Agents California Organ Company
RUSSWIN

JOOST BROS.
SAN FRANCISCO AGENTS

New Location
1053 MARKET STREET
OPPOSITE JONES STREET
Roofed with “Target and Arrow” Roofing Tin

When the question arises: “What shall be the roof covering for a Building?” the Architect wants established facts before him when making the selection. The value of “TARGET AND ARROW” Roofing Tin has been demonstrated by the test of time, the only sure test. A roof of “TARGET AND ARROW” Tin lasting from 50 to 75 years is a common occurrence.

Our Catalogue is in Sweet’s. Full information, including standard specifications for tin-roofing work, tables of covering capacity, weight, etc., will be sent upon request.

Stocks carried at San Francisco, Los Angeles, Seattle and Portland

Sold through all leading jobbers on the Pacific Coast, and direct from warehouse stock.

N. & G. TAYLOR CO.
SOLE MANUFACTURERS
Established in Philadelphia in 1810

J. A. DRUMMOND
Pacific Coast Representative
245 MISSION STREET, SAN FRANCISCO
Mt. Diablo Cement

Always Used Where Quality Counts

Cowell Santa Cruz Lime

Henry Cowell Lime & Cement Company
2 Market Street, San Francisco

Branches:
Oakland     Sacramento     San Jose     Santa Cruz
Portland, Ore.   Tacoma, Wash.

Northern Clay Company

ARCHITECTURAL TERRA COTTA
Made to your order in color and design
HIGHEST QUALITY

AUBURN, WASHINGTON

THE

New Lincoln-Smith Apartments
Seattle, Wash.
Wilcox & Everett, Architects

and the
Thirty-seven Special Automatic Coolers
now being installed.

They save money, room, sickness, time, and
trouble. Just the water that is ordinarly used, first circulates through
the Cooler.

SAMSON SPOT SASH CORD
SAMSON CORDAGE WORKS, BOSTON, MASS.

Automatic Cooler Co.

TACOMA, WASH.

Write for Descriptive Circular
LARSEN CONSTRUCTION REPORTS
Advance Information as to Construction and Engineering work covering the entire Pacific Coast

INDIVIDUAL SERVICE
ISSUED DAILY
INDISPENSIBLE

CLASSIFICATION

ENGINEERING

Waterworks
Street Work
Road Work
Sanitary Work
Irrigation
Dredging
Drains
Railroad Work
Harbor Work
Lighting Systems
Dredging
Power Plants
Warehouses
Loft Buildings
Apartment Houses
Factories
Hospitals
Schools

BUILDING

Churches
Jail
Theaters
Flats
Residences
Steel Frame Buildings
Brick Buildings
Reinforced Concrete Buildings
Frame Buildings
Postoffices
Court Houses
Office Buildings
Banks
Hotels
Government Work
Light Houses
Barracks

Larsen
Johnson
out worn
Some oil
"it's up
operate
as
specially
a material,
Blouses
Style A

designed
complete
Houses
Sewers
Street
Dredging
Bridges
Drainage
Waterworks
Hospitals
Factories
Buildings
Loft
Warehouses
Lighting
Systems
Harbor
Work
Work
Irrigation
Work
Road
11.

work
ing
how
Low
Pressure
Crude Oil
Burning Equipment
Not how Cheap — but how Serviceable
Some oil burner manufacturers install outfits that operate as high as 3,400 r. p. m., and if they are worn out as soon as the maker's guarantee expires, "it's up to you." Why have high speed machinery? Johnson Systems give long satisfaction.

S. T. JOHNSON CO.
1337 Mission Street
San Francisco
Agents in the principal Pacific Coast cities.

Low Pressure Crude Oil Burning Equipment

To fully realize the possibilities of concrete and stucco, you should know the ideal effects which are get-able with

Bay State Brick and Cement Coating
This Coating overcomes the dull blue-gray of concrete. It gives a permanent finish in white or tint. It doesn't sacrifice the distinctive texture of concrete.

Also—Bay State Coating makes an absolutely weatherproof wall. Rain can't seep through the pores.

Architects and builders in all parts of the country have tested this, the original Bay State Coating. We'll be glad to pass along what they say of it. Write for booklet.

Or, test it yourself; we will send you a sample can of the original Bay State Coating free for the asking. Say what tint you prefer.

WADSWORTH, HOWLAND & CO., Inc.
Paint and Varnish Makers
Boston, Mass.

Distributing Agents:

THE ARCHITECT
PRINTING DEPARTMENT

THIS MAGAZINE IS A PRODUCT
OF OUR PRINTING DEPARTMENT

J. A. DRUMMOND
245 Mission St., San Francisco
Telephone Douglas 3424

Draughtsmen's Blouses
A specially designed studio and office robe, made of well-wearing material, washable, of a serviceable buff shade, offering a complete protection of clothes from wear and tear.

Sent to any address, prepaid, on receipt of price.

E. Falkenhainer
25 West 42nd Street
NEW YORK CITY

Style A, $1.50
Style B, $2.00

New Model Interchangeable Thermostat

Johnson Service Co.
Established in 1885
The only company on the Pacific Coast handling temperature regulation exclusively, with its own corps of Skilled Mechanics.

Johnson Thermostats are Standard

629 Lumberman's Bldg.
PORTLAND, ORE.
1104 White Bldg.
SEATTLE, WASH.
609 Citizens National Bank Bldg.
LOS ANGELES
149 FIFTH STREET
SAN FRANCISCO
SAFETY FIRST --- BUILD WITH ASBESTOS

Ambler Asbestos "Century" Shingles

are economical. They are fireproof, will not rust, never need painting or repairing, and are not a constant expense and annoyance. They make a leak-proof roof that never wears out. The first cost is absolutely the last cost.

The Roof that Stays and Satisfies.

The best roof must satisfy the architect, builder and owner as to its permanence, economy, beauty and fireproof qualities. A roof made with Ambler Asbestos "Century" Shingles is permanent, because the shingles are made of Cement and Asbestos—two of Nature's imperishable and indestructible products. Asbestos "Century" Shingles get harder and better the longer they are exposed. In Ambler Asbestos "Century" Shingles the asbestos fibers are uniformly distributed and so firmly pressed together that no voids or fissures remain to catch and hold dampness and moisture.

WRITE FOR THE "SHINGLE BOOK."

This splendid book gives true information about Asbestos "Century" Shingles. It shows the different methods used in laying them, and prominent buildings where these shingles have been used. This book will interest every good builder. A postal card will bring it.

Sold by the
Keasbey & Mattison Co.

Manufactured by the
Asbestos Shingle, Slate & Sheathing Co.
Ambler, Penna., U. S. A.

J. A. DRUMMOND
Pacific Coast Representative
245 MISSION ST.  S  SAN FRANCISCO
Stock carried in San Francisco
Meyer Steelform Construction
FOR CONCRETE FLOOR CONSTRUCTION

Economical, Rigid, Sound-Proof
and Permits Rapidity of Joist Floor Construction.

Concrete Engineering Co.
Rialto Building :: San Francisco, Cal.

SPECIFY
Nephi Plaster Only
IT MAKES THE WALL
Standard for 25 years on the Pacific Coast and Intermountain West
HARDWALL, FINISHING, CASTING, ETC.

Nephi Plaster & Manufacturing Co.
San Francisco Office: Builders Exchange, 160 Jessie St.
Telephone Suite 7600
Main Office: 711 Boston Bldg., Salt Lake City, Utah

Vacation Trips
Reduced Round Trip Fares to Mountain and Seaside Resorts
Monterey Bay Points
Lake Tahoe
Sierra Resorts
Yosemite
Lake County Resorts
Shasta Resorts
Klamath Lake Region
Crater Lake
Los Angeles and Its Beaches
San Diego and Its Exposition

For Fares, Sale Dates, Train Service, Etc.,
Ask Southern Pacific Agent
The Exact Product for an Exacting Service

The prosperity of the commercial building can never become independent of the elevator service. Any decline in the quality of the product supplying this service not only disastrously affects the individual building's prosperity but tends to shatter the public's confidence in all elevators and elevator travel.

OTIS ELEVATORS

always have been and always will be the exact elevators for the exacting service required of all elevators.
The welfare of all building activity, of the Architect and of the Client, points to your recommendation of and insistence upon Otis Elevators.

OTIS ELEVATOR COMPANY
2300 Stockton Street San Francisco
Offices in All Principal Cities of the World

WORLD'S WORD for ELEVATOR SAFETY
Silkenwhite Enamel

Silkenwhite Enamel is absolutely distinctive in character. It possesses the rich, warm satin-white finish that is strikingly different than other enamels.

"It is so rich in appearance—so thoroughly durable, moisture and weather proof—so quick-drying and practical to apply—that in qualities of beauty and permanency it stands at the head of long-lived enamels. Its use insures an everlasting source of satisfaction to the architect and his client.

STANDARDIZED TINTS
LIGHT AND DARK IVORY
PALE GREEN
PALE BLUE
SHELL PINK
GREY

MANUFACTURED BY
W. P. FULLER & CO.

SPECIALIZED PAINT & VARNISH PRODUCTS
FOR EVERY PURPOSE
It is of the utmost importance to be full and explicit in writing varnish specifications. Any latitude or leeway in this regard can be misconstrued or taken advantage of to the detriment of the finish. The laity knows but little—in a practical way—about varnish, and the appearance of a fine interior can be ruined by improper treatment or material in the finishing process.

The architect can protect his client's interests and insure the proper finish by well considered and definite varnish specifications.

There is no surer preliminary step to a perfect treatment of the woodwork than the specification of Berry Brothers' Architectural Finishes.

**LUXEBERRY WHITE ENAMEL**—whitest white, stays white. Makes permanent snow white finish in either gloss or dull effects.

**LIQUID GRANITE**—floor varnish. Makes smooth, satiny finish. Lasting, waterproof, marring-proof, also adapted for bathrooms, window sills and casings, and all interior work where great durability is desired.

**LUXEBERRY WOOD FINISH**—for general interior work. Develops and preserves the grain of all woods, and makes a handsome and lasting finish. Rubs perfectly.

**LUXEBERRY SPAR**—for exterior work. Especially adapted for durability under extreme exposure—front doors, store fronts, marine work, etc. Makes handsome finish, and will not turn white under the severest conditions of wear.

Address all inquiries to our Architectural Department.
FINISHED WITH

Kyanize

The entire interior of this building is finished with

Kyanize WHITE ENAMEL

BOSTON VARNISH COMPANY, BOSTON, U. S. A.

San Francisco Office and Warehouse: 311 California Street
A. L. GREENE, Representative

Seattle
CAMPBELL HDWE. CO.
1st Ave. and Madison St.

Tacoma
W. J. HANSON & CO.
1129 Broadway

Portland
MILLER PAINT & WALLPAPER CO.
172 First St.

San Francisco
D. H. RHODES
516 Valencia St.

Los Angeles
SUNSET PAINT CO.
627 S. Main St.
Finished with one coat of Concreto over three years ago

The present condition of the paint is absolute proof of the lasting quality of Concreto

SOLE MAKERS THE MURALO CO. NEW YORK
San Francisco Office: 311 California Street
A. L. GREENE, Representative

San Francisco
D. H. RHODES
546 Valencia St.

Los Angeles
DISTRIBUTORS
SUNSET PAINT CO.
627 S. Main St.
PATTISON SCHOOL, PATTERSON, CAL.

ROOFED WITH

SMALL SPANISH TILE

Los Angeles Pressed Brick Co.
402-414 Frost Bldg., Los Angeles, Cal.

United Materials Company
5 Crossley Bldg., San Francisco, Cal.
Distributors for Northern California
FACED WITH

RICHMOND REDS

PRESSED BRICK

MANUFACTURED BY
Richmond Pressed Brick Works

SUPPLIED THROUGH
San Joaquin Brick Co.
Agents
STOCKTON, CAL.
One of the many Terra Cotta Urns surmounting and perfectly matching the buff sandstone of buildings in quadrangle of Stanford University

CHARLES ED. HODGES, ARCHITECT

Made at the South San Francisco Plant of

STEIGER TERRA COTTA & POTTERY WORKS

Offices: 729 Mills Building, San Francisco
Factory: South San Francisco, Cal.
Lincoln Spanish Roofing Tile
AND
FACE BRICK

MANUFACTURED BY

GLADDING, McBEAN & CO.

Offices: CROCKER BUILDING
San Francisco

TRUST & SAVINGS BUILDING
Los Angeles

Factory
Lincoln, California
THE

Matt Glazed Terra Cotta

used in the facades of this
building was executed

by

N. CLARK & SONS

Office:
116 NATOMA STREET, SAN FRANCISCO

Factory:
WEST ALAMEDA, CALIFORNIA
# TABLE OF CONTENTS

## PLATE ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Architect</th>
<th>Plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chantilly Pavilion</td>
<td>Frontispiece</td>
</tr>
<tr>
<td>Ballard High School, Seattle</td>
<td>Edgar Blair 81</td>
</tr>
<tr>
<td>General Exterior and Interior Views</td>
<td>82</td>
</tr>
<tr>
<td>General Exterior and Interior Views</td>
<td>83</td>
</tr>
<tr>
<td>Santa Cruz High School</td>
<td>Wm. H. Weeks 84</td>
</tr>
<tr>
<td>Detail Front Elevation</td>
<td>85</td>
</tr>
<tr>
<td>Shattuck School, Portland</td>
<td>F. A. Naramore 86</td>
</tr>
<tr>
<td>Detail of Entrance</td>
<td>87</td>
</tr>
<tr>
<td>Kennedy School, Portland</td>
<td>F. A. Naramore 87</td>
</tr>
<tr>
<td>Lowell School, Bellingham, Wash.</td>
<td>T. F. Doane 88</td>
</tr>
<tr>
<td>Details</td>
<td>89</td>
</tr>
<tr>
<td>Monroe School, Phoenix, Ariz.</td>
<td>Norman F. Marsh 90</td>
</tr>
<tr>
<td>San Diego High School</td>
<td>Quayle Bros. &amp; Cressey 91</td>
</tr>
<tr>
<td>Alhambra School, Ariz.</td>
<td>Lescher &amp; Kibbey 92</td>
</tr>
<tr>
<td>Mesa Union High School, Mesa, Ariz.</td>
<td>Lescher &amp; Kibbey 93</td>
</tr>
<tr>
<td>McKinley Park School, Reno, Nev.</td>
<td>G. A. Ferris 93</td>
</tr>
<tr>
<td>Reno High School, Reno, Nev.</td>
<td>G. A. Ferris 94</td>
</tr>
<tr>
<td>General Views</td>
<td>95</td>
</tr>
<tr>
<td>Ashland High School, Ashland, Ore.</td>
<td>G. A. Ferris 96</td>
</tr>
<tr>
<td>Grade School, Reno, Nev.</td>
<td>G. A. Ferris 96</td>
</tr>
<tr>
<td>McKinley Park School, Reno, Nev.</td>
<td>G. A. Ferris 96</td>
</tr>
<tr>
<td>Mesa Grade School, Mesa, Ariz.</td>
<td>Lescher &amp; Kibbey 97</td>
</tr>
</tbody>
</table>

## TYPE PAGES

<table>
<thead>
<tr>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballard High School, Seattle</td>
<td>Edgar Blair 337</td>
</tr>
<tr>
<td>Efficiency in Country Schools</td>
<td>Norman R. Coulter 338</td>
</tr>
<tr>
<td>Open Court Style of School at Suisun</td>
<td>Edwin J. Symmes 340</td>
</tr>
<tr>
<td>General Conditions of the Contract</td>
<td>Francis W. Grant 342</td>
</tr>
<tr>
<td>College Campus Planning</td>
<td>Ernest E. Walker 376</td>
</tr>
<tr>
<td>Editorial</td>
<td>379</td>
</tr>
</tbody>
</table>

---

*Published in the interest of the architectural profession, on the first of each month, at 245 Mission Street, San Francisco. Entered as second class matter August 4, 1911. Subscription price in the United States and possessions, $5.00 a year; foreign and Canadian, $6.00 a year. Single copies, 50 cents each.*

*Changes in, or copy for, new advertisements, must reach the office of publication not later than the fifteenth of the month preceding issue. Advertising rates and any other information will gladly be given on application.*

*The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated. E. D. McDonald, Northwest Representative, 4100 Arcade Building, Seattle, Washington.*
CHANTILLY PAVILLON
Ballard High School, Seattle

BY EDGAR, BLAIR

Before the city of Ballard became a part of the corporate city of Seattle, she had a high school. This high school building at the time of its construction was considered to be the last word in high school construction. It was of frame and accommodated a maximum of about 400 students. The cost of this structure was about $10,000. As time went on and this section of the city continued to grow rapidly, Ballard became a part of the main city. Even before it was annexed, the high school had become inadequate and there was a demand for a new building. With the annexation came the consolidation of the old Ballard school district with that of Seattle School District No. 1, and the city school board realized the great need of a new building in this district for high school purposes. In the bond issue voted at the election in December, 1913, there was included a fund for the new Ballard high school building. Owing to the unsound conditions in the heating market for the use of the depart, the school district was unable to sell the bonds at a favorable figure. This condition delayed for several months the start on the construction of the building. In November, however, the school district managed to sell sufficient bonds to carry on this work.

The first contract on the building was let November 10, 1914, to the Sound Construction & Engineering Company, for the general construction of the building. Contracts were let later for heating to P. J. Lavan, plumbing to Peterson Hardware & Plumbing Company, electrical work to Ne-Page-McKenny Company, lockers to S. W. R. Dally, electric light fixtures to H. E. Gleason & Company, and seating to the A. H. Andrews Company.

Not much was accomplished in the way of excavation for the building until the month of February, 1915. After that time the work was pushed diligently until it was completed, January 1, 1916. At no time after February 1 was there any delay in the construction owing to weather conditions of 1914.

The site of the new Ballard high school is at the northwest corner of West 65th Street and 11th Avenue N. W. The site is about 100 feet square, comprising nearly four acres. Considerable difficulty was met in the way of seepage in the excavation, but this was overcome by the installation of gravel fill and drain tile under the floors of the basement.

The building itself is 200 feet by 218 feet, and three stories in height. There is no basement under the building, except in the center, where the gymnasia run down and in the rear where the boiler and bath rooms are located. On the ground floor are located the commercial department, four rooms; manual training department, seven rooms; men and women teachers' rest rooms, and upper part of gymnasia. The commercial department, consisting of four rooms, has two commercial rooms for bookkeeping, and one room each for shorthand and typewriting work. Between the typewriting and shorthand rooms there is a double glass partition, so that one teacher can supervise both rooms. The double glass partition is to prevent the noise of the typewriters from penetrating into the shorthand room. One of the commercial rooms is equipped for the use of the department. Illustrated lectures are given on trade and commercial subjects. The manual training department is located on this floor, having seven rooms for wood turning, woodworking, lumber storage, finishing, demonstration and office uses. The object in the shops has been to place motors and machinery in pits underneath the apparatus, so as to give a maximum safety to the students working in this department. The upper part of the gymnasia extend through to the ceiling of this floor. The total height of the gymnasia ceiling is twenty-two feet under the beams. These gymnasia, one for boys and one for girls, are each 30x30 feet in size, the boys' gymnasia only having a running track. In connection with each gymnasia is a large visitor's gallery, reached from the corridor of the ground floor. These visitors' galleries are also accessible from the front entrance, independent of the rest of the building. In connection with these gymnasia are the locker and shower rooms, instructors' office and general storage rooms for apparatus. The girls' shower room is provided with thirty private dressing rooms, connected with showers. On the ground floor are also located the book room, head janitor's office and a small meeting room for classes. On the first or main floor are located the auditorium, lunch room, office, library, vault, art room, domestic science and class rooms. The auditorium is 100x66 feet, having a balcony and a large stage in connection with it. The main floor of the auditorium is seated with desks for study purposes, the balcony being seated with opera chairs. Seattle high schools differ somewhat from most high school buildings in that the main floors of the auditoriums are used for study purposes.

The stage is very large, sufficiently so to accommodate a large graduating class, officials, etc. About three hundred people can be seated on the stage. A large stage is also very desirable for the production of school plays, etc. The stage is provided with a gridiron and all accessories for handling scenery. The office is located on the southwest corner, next to the auditorium. There is the general office and principal's private office, with toilet adjoining, and a vault for the storage of school records. There is also located in this office the master clock, which controls and regulates all of the electric clocks in the building. There are forty-five of these clocks in the building. The clock system was installed by Joseph Mayer & Brothers, of Seattle. The lunch room is located in the center of the building, on the first floor, and has in connection with it a large kitchen, pantry and store room. The kitchen has a direct exit to the ground level at the rear of the building, so that supplies can be taken in without going through the main building. The kitchen is provided with tile floor and wainscotting, and has among its equipments steam cookers, soup kettles, dish washer, gas ranges, etc. The domestic science cooking room is located next to the lunch room, so that the food which is cooked there can be taken into the lunch room and sold, thus making this department in a measure self-supporting. The main lunch room will accommodate about three hundred students at one time. The plan is so arranged that the lines of students at the counters do not interfere with those students who are leaving the lunch room. There are separate entrances provided for entrance and exit from the lunch room. There is also provided, on the first floor, a large selling room, and in connection with it a model laundry, containing six tubs, ironing boards, etc. A model dining room and kitchen are also provided, where the girls in this department can prepare complete meals and serve them to a limited number of guests from the faculty or elsewhere, as the case may be.
"Efficiency" is probably one of the most hard worked words in the English language, but, nevertheless, is a good word, and the only one that really means getting the most out of everything. To properly carry out or to perform the meaning and intent this word conveys, means that the efficient school must be equipped with the most practical, modern appliances, books, teachers, tools necessary for each particular line of work followed.

Being properly fitted out with teachers and equipment, however, will not bring a school up to the standard of full efficiency if a good and suitable place is not provided for the use of said equipment. To get the fullest possible efficiency means a comfortable building, well lighted, heated, and ventilated, with convenient arrangement of rooms, corridors, etc.

The schools in the cities and large towns have been usually kept pretty well modernized, but it is only during the last few years, that the smaller schools in the country and villages have approached anywhere near what might be called efficient. School boards are doing much now for the improvement of buildings and equipment. The old sentiment, that what was good enough for grandfather is good enough for the child, seems to be dying out completely. Boards, as well as the general public, are realizing that children must have proper tools, instructors, and school buildings if they are to be fitted for the great ball game of life ready to pitch, catch, or make a home run.

But after it is admitted that all these things are true, then comes the very serious question of cost, and in these times, when everything is high, cost is a matter to be carefully considered. Sometimes the highest priced article is cheapest in the long run, but simply because it does cost the most money, does not always mean that it is the most efficient. This especially is true in buildings, and while ornamentation and elaboration, when properly added, without doubt enhance the value and appearance of a structure, much good money has been wasted trying to make an elaborate appearing building which has fallen far short in every other manner. When money is not available, it is without question, better far to construct a plainer and more serviceable building than to make an effort to produce a showy exterior. Even the plainest building can be made to appear attractive, serviceable and efficient though it may lack the show of misspent money.

The writer at this time is employed to superintend extensive repairs on a building apparently erected mainly for show. Now the hard earned money of the taxpayers must be spent a second time to do over poorly and cheaply performed work. Leaky roofs, gutters, windows, sky-lights, falling plaster as well as many other annoying as well as serious defects have appeared in this practically new building. One especially noticeable feature of wasted money is in the enormous high pitched roof with gables, dormers and ridges containing enough wasted space to comfortably take care of half the entire building, so poorly constructed that new
Auditorium trusses have to be installed to keep the ceiling from collapsing. Such a building is not efficient, not economical, and is a menace to the health and life of teachers and pupils.

Schools for the small towns and country can be built which will be efficient, comfortable and of good architecture, every dollar being expended where it will do the most good. But good material, well and properly put together, must be used.

This article is supposed to be on a type of small schools suitable for grammar and high schools, where cost is an item, and the greatest efficiency for the small amount allowed to be expended is the greatest consideration.

The writer has drawn plans for a number of such schools already built, and also underway, of a type which is meeting with favor from the districts which have selected them. It is of this type that the Editor, Mr. Clarence Kane, has requested a description.

There is nothing particularly new used in materials or workmanship, but the effort has been made to get the best and to make the most out of both. The type of the Selby School gives at the present time two class rooms, cloak rooms, boys' and girls' toilets, library, teachers' room (with private lavatory and toilet), and two open air rooms used for play rooms. This building was erected with the idea of adding to later, and the building of the open air play rooms gives a structure of such shape that by merely enclosing the side with suitable windows, and putting in the floor, another class room is available at each end of the building, for very small additional cost later on. Meanwhile, the open air rooms can be used for rainy-day playgrounds or outdoor classes in hot weather.

Continued on page 380.
Open Air Type of School at Suisun
BY EDWIN J. SYMMES

The new grammar school for the Crystal School District at Suisun is representative of a new epoch in suburban school development in California. The building is constructed of reinforced concrete and designed on the one story unit plan. This type of building is capable of the most flexible scheme of future expansion, and each class room is provided with a separate exit, thereby removing all menace of fire and panic.

The Suisun school offered an interesting example for the solution of a distinct problem. East light, which is the ideal light for a grammar school class room in this section of the State, was obtained for every room. In order to make the building as compact as possible, the open court type was adopted and the strong west winds were shut out by means of a high screen on the west side.

The school at present is provided with four class rooms, a room for domestic science, and one for manual training, a teachers' lunch room, a principal's office, a teacher's rest room, and an auditorium to seat 300. In addition, there is a neighborhood club room or social hall on the second floor, which may be used as an extra class room. The teachers' lunch room will be used as a model dining-room, and is placed adjacent to the domestic science room for the sake of accessibility to make sewing easy.

The hall is equipped with a motion picture booth, and was designed to solve the question of acoustics. The auditorium is somewhat larger in this size of school than would generally be required. Its adjacents are so designed that when a function is given in the auditorium in the evening, the school section may be entirely shut off from the rest of the building, allowing the boys' and girls' rest rooms and toilets to be used as men's and ladies' parlors and toilets respectively.

The building is heated and ventilated by warmed fresh air, aided by direct steam, and is equipped with an intercommunicating telephone system, a system of electric gongs, and an electric clock system with the master clock in the principal's office.

Efficiency in Country Schools
Continued from page 300

of the room, gradually dropping to the floor as it becomes cooler. The smokestack of the furnace enters an ordinary brick chimney, only of much larger proportions than usual, and extends thence upwards in the center of the brick flue to the top. By placing the smoke-pipe thus there is considerable air space in the corners and around the smoke-pipe, which, being heated, creates an upward draught in the brick flue, producing what is called an aspirating chimney. From this brick flue is there an opening through a metal screen into the classroom at the floor level and the cold foul air is sucked into and up the brick chimney while fresh hot air is pouring into the room from the upper part of the furnace jacket.

This system will ventilate the room with the doors and windows closed if it has been properly proportioned and installed. It also heats the room very uniformly, the pupil near the furnace being no warmer than the one in the far corner.

The assembly hall is ample able to accommodate the entire school, finished in a plain manner, with a fair-sized stage, dressing rooms off each side, basin of running water, footlights and curtain. The lights on the stage and in the audience-room are operated by switches from the dressing-rooms. At the rear of the assembly-room outside and over the upper portion of the rear corridor is built a metal-lined motion picture room for machine and operator, with operation holes cut through the wall of the assembly-room so that the pictures can be readily projected upon the stage curtain. There is no doubt but what the assembly-room is one of the most useful rooms of the whole building and should be eliminated even though it may be necessary to leave the studs and joists showing with only a floor down.
FIRST FLOOR PLAN

SKETCH FOR SUSUN GRAMMAR SCHOOL, SUSUN, CAL.
EDWIN J. SYMMES, ARCHITECT  WM. H. CRIM, JR. ASSOCIATE
General Conditions of the Contract

BY FRANCIS W. GRANT

The fourth of a series of articles discussing the code adopted by the American Institute of Architects

IF PAYMENTS are made on valuation of work done, such payments shall be submitted at least ten days before each payment falls due. If required, the contractor shall, before the first application, submit to the architect a schedule of values of the various parts of the work, aggregating the total sum of the contract, divided so as to facilitate payments to subcontractors in accordance with Article 44 (c) made out in such form as the architect may direct and, if required, supported by evidence as to its correctness. This schedule, when approved by the architect, shall be used as a basis for certificates of payment, unless it be found to be in error. In applying for payments, the contractor shall submit a statement based upon this schedule and, if required, itemized in such form as the architect may direct, showing his right to the payment claimed.

This clause attempts to cover two subjects only one of which, and that by far the least important, being suggested by the title. All that portion referring to application for payments belongs under the caption "Payments" and the remainder would then be more appropriately labeled "Schedule of Unit Prices" or "Schedule of Values."

The schedule of prices should either be required or not required and the clause should be explicit on the subject, not subject to determination by some unnamed person at some unmentioned time.

Article 2. CERTIFICATES AND PAYMENTS. If the contractor has made application as above, the architect shall, not later than the date when each payment falls due, issue to the contractor a certificate for such amount as he decides to be properly due.

No certificate issued nor payment made to the contractor, nor partial or entire use or occupancy of the work by the owner shall be an acceptance of any work or materials not in accordance with this contract. The making and acceptance of the final payment shall constitute a waiver of all claims by the owner, otherwise than under Articles 34 and 20 of these conditions or under requirement of the specifications, and of all claims by the contractor, except those previously made and still unsettled.

Should the owner fail to pay the sum named in any certificate of the architect or in any award by arbitration, upon demand when due, the contractor shall receive, in addition to the sum named in the certificate, interest thereon at the legal rate in force at the place of building.

(To be continued)
DETAIL OF FRONT ELEVATION
SANTA CRUZ HIGH SCHOOL
W. H. WEEKS, ARCHITECT

Photo by Gabriel Moulin
GENERAL VIEW OF ENTRANCE FRONT

GENERAL VIEW FROM STREET
SHATTUCK SCHOOL, PORTLAND
P. A. NARAMORE, ARCHITECT
DETAIL OF ENTRANCE
SHATTUCK SCHOOL, PORTLAND
F. A. NARAMORE, ARCHITECT

KENNEDY SCHOOL, PORTLAND
F. A. NARAMORE, ARCHITECT
GENERAL VIEW

VIEW OF EXTERIOR, FROM REAR
LOWELL SCHOOL, BELLINGHAM, WASH.
T. F. DOAN, ARCHITECT
ALHAMBRA SCHOOL, PHOENIX, ARIZ.
LESCHER & KIRBY, ARCHITECTS

FLOOR PLAN

LAYOUT PLAN
MESA UNION HIGH SCHOOL, MESA, ARIZ.
NORMAN F. MARSH, ARCHITECT

McKINLEY PARK SCHOOL, RENO, NEV.
G. A. FERRIS ARCHITECT
GENERAL VIEW

MAIN HALL
RENO HIGH SCHOOL, RENO, NEV.
G. A. FERRIS, ARCHITECT
ASHLAND HIGH SCHOOL, ASHLAND, ORE.
G A FERRIS, ARCHITECT

GRADE SCHOOL, REINO, NEVADA.
G A FERRIS, ARCHITECT

MCKINLEY PARK SCHOOL, REINO, NEV
G A FERRIS, ARCHITECT
Among the monuments marking the progress of civilization throughout the ages, universities will ever stand conspicuous. Gathered here are the forces which move humanity and make history, the powers that fit new thoughts to new conditions, which help to elevate and ennoble man, to refine his tastes, enlarge his ideas and enrich his interests. Here is a vitalizing food for men and women of action, and of action, a wealth of stored experiences which come to us as an inheritance of the past and a promise of the future. Men are flashes of thought, which come and go; results alone remain. Well designed and constructed grounds have colored every dream of future life, and the hope of happiness in this, and he who can make them more beautiful, has helped to exalt the sentiment of religion, poetry and love, for in truth such are a state, national and world possession, and the builder like a great poet who has influenced the life of thousands, putting them in touch with the greatness of the past, lifting their thoughts and aspirations to a higher level, revealing to them the light of their own soul, opening their eyes to the beauty of the world. Of the important problems which occupy the minds of men, there are eminent guiding principles, which control all other details, and of exceeding importance are these in the grouping of buildings and arrangement of grounds for colleges and universities, where the qualities of use, convenience and beauty count for so much. But unfortunately in the development and enlargement of educational institutions, very little systematic attempt has been made toward the marshalling of fundamental principles which might be of suggestive value, although experience has been accumulating for centuries which might serve as a warning and guide in developing these institutions, many of them to be the important colleges and universities of tomorrow. To cure, is the way of the past, to prevent, the divine voice of the future.

Some fundamental principles on which all harmonious landscape development for colleges must proceed, and each of such vast importance as to deserve a separate lecture. Among these are:

1. The convenient location, grouping and adjustment of buildings to the contours of the site, or, let us say, The Preservation and Creation of the Site.
2. The adoption of an appropriate ideal of development, or, briefly, A Far-Sighted General Plan.
3. A Style of Architecture harmonious with situation and topography which shall adequately express a seat of learning and embody the most ripened scholarship.

First, then, Preservation and Creation of the Site. A guiding principle and one having a very direct bearing on convenience and economy is the necessity for adjusting the plan to the contours of the site, securing easy gradients, and the local expression and perfect harmony, which due consideration for the configuration of the site always reflects. To obtain the highest results will entail
careful acquaintance and study of the site, united with patience and an instinctive feeling for landscape design. It is necessary to grasp the configuration of the site as a whole, and to catch the atmosphere and traditions of the district with inherent artistic perception, or even the rarer response of poetic grace. The first practical object in view is the devising of means by which alterations and improvements may be carried out without demolition of old buildings rich in historical associations, or the obliteration of the characteristic natural features of the site.

The landscape architect, if he is a worthy member of the artistic profession, will start from the topographic individuality of the site, as a guiding element in his plan of arrangement and distribution of buildings, and in like manner he will note the position and character of all objects of natural and historic interest within the scope of operation, as so many generating points round which his ultimate scheme of development will crystallize, or the perfect orchestration, shall we call it, of Nature, Art and Science. And no amount of brilliancy or richness expended upon parts will atone for lack of range and power to grasp the fundamental relations of the problem, and this suggests in logical sequence the next broad principle on which all harmonious development must proceed, and the second mentioned in the beginning of the paper.

Namely, A Far-Sighted General Plan, not one that is fixed and immutable nor yet one that is vascillating, but one that is constantly adjusted and brought up-to-date as new lights are thrown upon the future needs and conditions of the university, so that it shall at all times represent the mature judgment of the period as to the best aims, all things considered, for the college to keep before it. It is entirely practicable to plan buildings and grounds so as to properly provide for the future.

The greatest neglect is the failure consistently to use art and skill and foresee to remodel existing conditions and properly provide for the future. The inception of great planning of buildings and grounds in this country was in the World's Fair in Chicago. The beauty of its orderly arrangement of buildings and grounds made a profound and lasting impression, and the success which the Landscape Architect and Supervising Architect achieved in carrying out the plan demonstrated the practical necessity of a Far-Sighted General
Plan. And of the important principles here embodied, none is of greater value than the advantage of planning extensive buildings and grounds as one far-sighted harmonious whole, nor have colleges failed to appreciate or profit thereby.

But the question always arises when a given university is under consideration, whether it would be wisest to limit suggestions to present available means, or, on the other hand, to work out and diagram whatever a sane imagination suggests. If the first be our limit, our work will be tame and ineffectual and will not arouse that enthusiasm without which nothing worth while is ever accomplished, it is doubtful if the meager things proposed will be carried into effect. Such is humanity: We may expect support from a great cause, whereas, mankind will slip quietly from the merely obvious and commonplace. Not that the obvious and commonplace are to be neglected, far from it; but to realize them we must seek for more. Moreover, there is the other way of looking at the question, namely, the one that has to do with the growth of man's knowledge, of his perceptions, and, finally, of his desires. Our pace of development having immensely accelerated, coming generations are going to demand and get results that would stagger us. The college can make its strongest appeal to its students, alumni, and the public by setting before them a tangible vision of the ideals and purposes of a great seat of learning, and this can be accomplished best by a far-sighted General Plan, showing a great goal towards which the college may gradually work as opportunity and finance permit. This appropriate ideal pictorially presented will show sites for future buildings and orderly arrangement of grounds, so that when the need for a new building arises it may be possible at once to select a site upon which it may be erected where it will not interfere with existing buildings and landscape development, but will contribute to the completion of the entire plan. If from the outset a process of harmonious development be followed each additional building will enhance the effect of the group as a whole, and perhaps encourage a hesitating official to carry the development a step farther. For there is not a citizen of the state, a regent, professor, or alumnus of the college who will not feel a new incentive when he thinks that he is helping to direct orderly arrangement of buildings and grounds that are a part of the university gradually future. Not a landscape architect who will not plan with greater care, because of the vision. And, in planning for the future, no great foresight is needed to realize that regard should be had not only for the growth of existing departments and schools, but for the establishment of entirely new educational units.

(To be continued)
We have been requested by Architect Betram G. Goodhue, 2 W. 40th Street, New York City, Chairman, Committee on Le Brun Traveling Scholarship, to give notice of the third bi-annual competition for the Le Brun Traveling Scholarship, founded by Pierre L. Le Brun, to be held in the summer of 1916. It is open to any architect, a citizen and resident of the United States, between twenty-three and thirty years of age, and who is not, nor has been the beneficiary of any other traveling scholarship, and who has had at least three years' experience as draughtsman or practicing architect. The amount is $1,000,000, the period of the scholarship not less than six months.

Each competitor must be nominated by a member of The New York Chapter, A. I. A., who shall certify in writing that the above conditions are fulfilled by the nominee and that in his opinion the nominee is deserving of the scholarship.

All persons who are eligible and desire to compete are requested to send their application to Mr. Goodhue before July 15th, 1916. Applications must be accompanied by a statement of residence, citizenship, age, experience and general qualifications and by the necessary nomination and certification from a member of the New York Chapter, A. I. A. Those not having the acquaintance of a member of the Chapter may avail themselves of the services of any well known architect who can vouch for them to a member of the New York Chapter, with whom he is acquainted.

Architects throughout the country are requested to bring this notice to the attention of their eligible draughtsmen.

* * *

The adoption of a prevalent mode or national style of architecture does not necessarily mean a suppression of individuality as claimed by some writers. There have been, at different periods, both in this country and abroad, re-
PACIFIC FURNACES
MADE IN CALIFORNIA

The Perfect System for
SCHOOLS, CHURCHES AND
HOMES

PACIFIC BLOWER AND HEATING CO.
HEATING AND VENTILATING ENGINEERS MANUFACTURERS AND CONTRACTORS

SAN FRANCISCO
3261-47 17th Street, near Mission
Phone: Market 8569

OAKLAND
827-29 31st St., bet. Market and West
Phone: Fruitvale 250

EFFICIENCY IN COUNTRY SCHOOLS
Continued from page 339

As a matter of fact, all the class rooms can be made virtually into open air rooms, as six large windows extending to the floor can be entirely opened, making practically the entire side of the room open. Each class room is finished with wainscoted base under the blackboard, and above the blackboard is a panel of wood with molded cap. This panel is suitable for nailing up drawings and papers. Three feet above is a regular picture mold for permanent picture hanging. Class rooms are about 12 feet 6 inches to 12 feet in height with windows spanning nearly to the ceiling. Blackboards are of good slate, and good slate means freedom from scales, flint and other defects, of smooth even surface, tight joints, well-set and of uniform color. While there are several kinds of blackboard on the market, which some of the firms say are better than the slate, from experience, the writer is of the opinion that good slate excels all others. It costs more, but is worth more.

In regard to the structure, there seems to be a growing demand for one-story buildings, and this type of building has many things in its favor. The low, low plastered buildings with red tile or broken brick roof of Spanish mission architecture seem to be appropriate in every place, and can be built more easily, more durably, and better for less money than any other style. A strong wooden frame on good concrete foundations, the frame sheathed with Oregon pine or Douglas fir covered with waterproof paper, and then a first-class job of cement plaster on galvanized lath, makes a durable exterior wall for minimum cost. The patent plaster known as Kellistone is better yet than cement. The writer and a school board interested in selecting a good exterior plaster, visited more than a dozen buildings of the patent plaster exterior, finding them all in good condition, while several cement exteriors were in bad condition. Cement, while an excellent material, requires more careful handling than it usually gets, despite precautions of good, capable architects and conscientious contractors.

The roof is of rather flat construction, well supported, and braced to prevent sagging, composed of inlaid Oregon pine sheathing not over eight inches wide, well nailed. The best covering at the minimum cost perhaps is live- ply of 13-pound saturated felt, well cemented together, and then finished with a heavy coat of asphaltum, covered with small broken pieces of pressed brick. There are many kinds of roofing material on the market of excellent quality, and some of higher grades than of the roof described, but for actual wear and tear, this compares favorably with any type.

Of great importance are the entrances and the hallways. The main entrance naturally being the central feature of the building, opens into the large main corridor which divides into two smaller corridors leading to the rear entrances from the boys’ and girls’ playgrounds. In addition to these entrances are two exits into the open-air playrooms so in case of a sudden panic it would be possible for the whole building to empty in all directions. Wide, commodious halls are of particular advantage for assembling and marching, but there is such a thing as making a waste of floor space in halls and corridors entirely too large, however it is always better to have them a little too large than too small a scale.

Floors of corridors and class rooms should be double, the first, or under-floor, of inch Oregon pine laid in a diagonal manner, and the upper floor of maple, or next best, vertical grained Oregon pine, well laid, nailed and top smoothed. The proper laying of floors is of much importance, as the best material poorly laid will give a most unsatisfactory result. The floors of the boys’ and girls’ toilets are white ceramic tile set in cement. This costs but little more than fibrestone or cement finish and is so much better, both in appearance and sanitary consideration, that it is well worth the money. A tile base with cove corners extend up on the walls for about one foot, meeting the wooden wainscoting above it.

Plumbing is of the best, with separate partitions for the toilets with doors and partitions at least ten inches off the floor, held rigid by means of metal piping securely fastened. Drinking fountains are provided in each open-air playroom and in main corridor. The teachers’ room is provided with a separate toilet room with lavatory and running water, being of special value in case a pupil is hurt playing or has been suddenly sick. This room is also provided with a medicine locker containing some medical supplies, bandages, etc., for cases of emergency.

Heating is one of the problems in the small schools where it is out of the question to install a furnace with forced draft. In the one-story building spread over considerable ground area the hot air gravity system is also practically impossible, the former type on account of installation, cost of operating, and the latter system on account of its unreliability of operation as well as the cost of cleaning up fires and a janitor to look after it most of the time. The heaters that have been the most satisfactory are what is known as the jacketed furnaces with open top, placed and giving direct radiation in the room. The supply of fresh air is brought in from the outside under the building, passing up through a hole in the floor under the furnace proper, spreading around and over the hot surfaces as it moves upward. While the air is still warm it spreads over the upper portion.

(Continued on page 340)
The appreciation of work well done, and of the knowledge and skill required to plan and supervise the building of the elaborate home of today, amply compensates you for those added hours of labor, attending to the details that many would think too trivial to bother about.

But no matter how much added effort you put upon your work, if the manufacturer fails to do his part, your labor has been for naught. You are not likely to get any of the future work of your client’s friends.

We are always ready to co-operate with you, and do our part. You will never have to wait for delayed transcontinental shipments. "Pacific" Plumbing Fixtures are made here on the Coast. There never will be any question asked about an unsatisfactory fixture. It will be replaced immediately. All the "Pacific" line is guaranteed forever against any defects in workmanship or materials.

Such co-operation insures satisfied clients.

"Pacific" PLUMBING FIXTURES

SHOWROOM
67 New Montgomery St., San Francisco

FACTORIES
Richmond, California
Orebrass Drinking Fountains

The need of Sanitary Bubbling Fountains is apparent to every observing person, but a great many have hesitated to install them because of the annoyance occasioned by the water “spurting” when first turned on, due to back pressure. This serious defect has been entirely overcome in the Orebrass Bubbling Cups and Fountains. “Spurting” is positively prevented, and when equipped with our non-“spurting” device, spurring the water about by placing the hand over cup is made absolutely impossible.

Orebrass Cups and Fountains meet every sanitary requirement and are very highly recommended by the State Medical Board and adopted by many public schools, parks, institutions, etc. Over 400 are now installed in the public schools of Portland.

When the working lever is depressed the valve is opened, permitting the water to enter the small holes in the valve tube; flowing upward, it is projected laterally into the main chamber and must fill this chamber before it can flow through the openings. The back pressure being thus diffused, “spurting” is rendered impossible.

The water flows out through the six small openings in the rim and one large one in the center, forming a large cone-shaped bubble, preventing the user from sucking or the lips coming in contact with any dry portion of the cup.

Should the hand be placed over the cup in an attempt to “spurt” water about, the water is forced into the non-squirt tubes, through which it is carried into the drain. This is a valuable feature where cup is used largely by children.

Orebrass Cups are indestructible; they are made of cast bronze, highly polished and heavily nickel plated. Ground metal valve and seat. Lever does not come in contact with valve and cannot displace or affect it if bent or broken.

When installing Orebrass Drinking Cups or Drinking Fountains it is necessary that they be set perfectly level. Lead or other material used for pipe joints will obstruct any cup or fountain, and great care must be used to avoid getting this preparation into the working parts. Turn down the regulating screw to the seat before the water is turned on. Open service cock to full flow, then regulate bubble.

To adjust size of bubble, insert small screwdriver through center opening in cup and adjustment can readily be made to any pressure desired without stopping flow of water or removing any of the parts. Always regulate flow at the cup. Never reduce at service cock. Water may be shut off at each cup.

Simplex Windows

Now in use in over six hundred schools

They make open air class-rooms, healthful homes, cheerful offices
Installed and now in use in all kinds and classes of buildings
No weights or cords. Reverse for cleaning
Manufactured in both wood and metal
Both standard and casement
Perfect Screens—strong and durable

WRITE FOR BOOKLET

The Simplex Window Co.
525 MARKET STREET
SAN FRANCISCO

TRADE OREBRASS MARK

Bubbling Cups & Drinking Fountains

DESIGNED AND MANUFACTURED

BY
OREGON BRASS WORKS
PORTLAND, OREGON
Non-staining Mortar

Atlas-White is a true Portland Cement of the same strength and uniform quality as grey Atlas Cement, but is pure white. It makes a pure white mortar for pointing and setting that will not stain brick, stone or tile.

Atlas-White, when tinted with mineral color pigments, makes possible the warm mellow buffs and creams so much desired for harmonious color effects in stucco work.

Send for information about Atlas-White and our new monograph, "Early Stucco Houses", which describes and illustrates many charming pre-revolutionary homes, and contains a convenient guide to Stucco Specifications.

The Atlas Portland Cement Company
Corn Exchange Bank Bldg., Chicago 30 Broad Street, New York
St. Louis Minneapolis Des Moines Philadelphia Boston Dayton

Pacific Coast Distributors of Atlas-White:
Santa Cruz Portland Cement Co., San Francisco Howard Company, Oakland, Cal.
Oro Grande Lime & Stone Co., Los Angeles Evans, Coleman & Evans, Vancouver and Victoria, B. C.

The Atlas Portland Cement Company, 30 Broad St., New York, or Corn Exchange Bank Bldg., Chicago:
Send me Monograph on "Early Stucco Houses in America" and guide to Stucco Specifications.

Name: __________________________ Address: __________________________
RUSSWIN

JOOST BROS.
SAN FRANCISCO AGENTS

New Location
1053 MARKET STREET
OPPOSITE JONES STREET
"Standard"
Great Western Potteries
CLOSETS

WE offer for the consideration of the Architects of the
United States a line of Closets which we believe
to be unsurpassed in design, quality and durability.
"Standard" Closets are built with the same thorough-
ness and care that are characteristic of all "Standard" high grade plumbing fixtures.

"Standard" Vitrite China Closets are the product of our
Great Western Potteries at Kokomo, Indiana, and Tiffin,
Ohio. These Potteries, which became a part of the
"Standard" organization in 1912 were long famous for
the superior quality of their ware. The name Great
Western Potteries is a guarantee of quality to leading
Architects everywhere. You can specify "Standard"
Great Western Potteries Closets with the assurance of
satisfaction which the combined name carries.

Become better acquainted with "Standard" Closets. All
"Standard" Showrooms display them. In many Showrooms
they are displayed under water. "Standard" Service men
are equipped to explain their merits. If you have no
"Standard" Closet catalogue kindly write for a copy.

SAN FRANCISCO
Rialto Building

LOS ANGELES
Mesquit at E. Seventh

"Standard" DEVORA Closet, $40.00

"Standard" EXPULSO Closet, $30.00

"Standard" Ejecto Closet, $20.00
Modern Apartments
James Walsh, Owner and Contractor
Geary St. and 15th Ave.
San Francisco

Equipped with

Pitcher Disappearing Doors
Adjustable Hangers and
Patented Frames

Pitcher Disappearing Doors installed in 5⅛ inch partitions. No extra thickness of wall required. Specify Sliding Doors in place of Swinging Doors.

WRITE FOR PARTICULARS

NATIONAL MILL & LUMBER COMPANY
Fifth and Bryant Streets :: :: San Francisco

"People of taste and refinement are beginning to realize that a Pipe Organ is absolutely necessary in the music room."

"A unique and original way of placing a Pipe Organ in the music room without pipes being exposed.

"For full information and specifications, write

EILERS MUSIC COMPANY
975 Market Street :: San Francisco
Agents California Organ Company
"Target and Arrow" Roofing Tin

This Building is Roofed with I C "TARGET AND ARROW" Flat Seam

For service and adaptability to school buildings where fire-proofing is essential, tin roofing can be applied flat seam, standing seam, or over wood strips, producing heavy ribbed effects which demonstrate its many uses for public service.

"TARGET AND ARROW" roofing tin is a specialty of ours, handed down from the early days of our business. In this brand we have preserved an old-time standard for the use and benefit of present-day architects. Few building materials have had so thorough a test of time as "TARGET AND ARROW" roofing tin. It remains today the same durable quality that we have supplied to American sheet metal workers for nearly a century. It costs a little more than other roofing tin, so you are not likely to get Taylor quality if you write a specification that permits substitution. "TARGET AND ARROW" roofing tin is sold at a fixed resale price to protect you against any possibility of overcharge where called for alone. In your specifications for sheet metal work where roofing tin is required, simply call for Taylor's "TARGET AND ARROW" brand, to be laid in accordance with the standard working specifications of the National Association of Sheet Metal Contractors. With a responsible roofing contractor, such a specification will secure you tin roofing work of the standard that has made the old-time roofing tin a watchword for durability and all-round satisfaction and service. We furnish upon request copies of this standard tin roofing specification form, also some instructive literature telling about this old-time product. Our catalogue is in Sweet's, and our working drawings, showing ribbed tin roofing, are included in the portfolio of "Service Sheets" issued by the Architectural Service Corporation of Philadelphia.

STOCKS CARRIED AT SAN FRANCISCO, LOS ANGELES, SEATTLE AND PORTLAND

Sold through all leading jobbers on the Pacific Coast, and direct from warehouse stock.

N. & G. TAYLOR CO.
SOLE MANUFACTURERS
Established in Philadelphia in 1810

J. A. DRUMMOND
Pacific Coast Representative
245 MISSION STREET, SAN FRANCISCO
Mt. Diablo Cement

Always Used Where Quality Counts

Cowell Santa Cruz Lime

Henry Cowell Lime & Cement Company
2 Market Street, San Francisco

Branches:
Oakland Sacramento San Jose Santa Cruz
Portland, Ore. Tacoma, Wash.

Northern Clay Company

ARCHITECTURAL TERRA COTTA
Made to your order in color and design
HIGHEST QUALITY

AUBURN, WASHINGTON

SAMSON SPOT SASH CORD
SAMSON CORDAGE WORKS, BOSTON, MASS.

Just the thing for bungalows, apartment houses or large residences

This little Tacoma residence has an automatic cooler

It eliminates the unsanitary ice box as well as the ice bill

It saves money, room, time and trouble

Just the water that you ordinarily use first circulates through the cooler.

Tacoma, Wash.
Write for descriptive circular

Low pressure crude oil burning equipment

Not too cheap — but how serviceable

Some oil burner manufacturers install outfits that operate as high as 3,100 r. p. m., and if they are worn out as soon as the maker’s guarantee expires, “It’s up to you.” Why have high speed machinery? Johnson systems give long satisfaction.

S. T. Johnson Co.
1337 Mission Street San Francisco
Agents in the principal Pacific Coast cities.

Draughtsmen’s blouses

A specially designed studio and office robe, made of well-wearing material, washable, of a serviceable buff shade, offering a complete protection of clothes from wear and tear.

Sent to any address, prepaid, on receipt of price.

E. Falkenhainer
25 West 42nd Street
New York City

Style A, $1.00
Style B, $1.50

Special discounts in lots of one dozen or more
FORM WORK—a rental proposition

Elminate the timber waste pile

Meyer Steelforms are heavy molds, removable and re-used in successive floors. Handled on rental basis, they eff very maximum economy in form work. Only a rental charge instead of a purchase price.

We place and remove Steelforms, prepare complete concrete details, furnish and install reinforcing steel, metal lath for ceilings, partitions, etc. Large stocks of Steelforms in San Francisco and Los Angeles.

Ask for our Handbook of Meyer Steelform Construction.

Concrete Engineering Company
433 Rialto Building
San Francisco
7374 H. W. Hellman Building
Los Angeles

Best Plaster for Buildings
OF ALL CLASSES

OLYMPIC CLUB
SAN FRANCISCO

FAFF & BAUER, ARCHITECTS

Keene
Cement Gauged Lime Mortar
USED THROUGHOUT
Non-Corrosive : More Sound Proof
Costs Less : Better Workmanship

American Keene Cement Co.
"Strongest Keene Cement Known"

Building for Beauty

To fully realize the possibilities of concrete and stucco, you should know the ideal effects which are get-able with
Bay State Brick and Cement Coating

This Coating overcomes the dull blue-gray of concrete. It gives a permanent finish in white or tint. It doesn’t sacrifice the distinctive texture of concrete.

Also—Bay State Coating makes an absolutely weatherproof wall. Rain can’t seep through the pores.

Architect and builder in all parts of the country have tested this, the original Bay State Coating. We’ll be glad to pass along what they say of it. Write for booklet.

Or, test it yourself—we will send you a sample can of the original Bay State Coating free for the asking. Say what you prefer.

WADSWORTH, HOWLAND & CO., Inc.
Paint and Varnish Makers
Boston, Mass.

Distributing Agents:

Hauser Reversible Window Co.
PATENTED OCTOBER 19, 1915

G. A. Schuster, Manager. Phone Berkeley 7006-J

The Ideal Window

Can operate any size window. Made in wood and metal.

Guaranteed rain and dust proof.

Easily installed.

OFFICE AND FACTORY
157 MINNA STREET
SAN FRANCISCO

OFFICE PHONE: KEARNY 3706

Johnson Service Co.
Established in 1885

The only company on the Pacific Coast handling temperature regulating, with its own corps of skilled mechanics.

Johnson Thermostats are Standard

827 Lumberman’s Bldg.
PORTLAND, ORE.

1041 White Bldg.
SEATTLE, WASH.

609 Citizens National Bank Bldg.
LOS ANGELES

145 FIFTH STREET ■ SAN FRANCISCO
ROOFED FRENCH OR DIAGONAL METHOD

With

Ambler Asbestos Shingles

This roofing cannot burn, as you know it is impossible to burn Asbestos and Portland cement, which the AMBLER ASBESTOS SHINGLES are made of and nothing else; they greatly reduce your fire insurance rates.
Why not pay for roofing once and be done with the eternal upkeep expense? No paint required; they lie flat, do not curl, split, crack, decay or rust. They are made in Red and Gray color, do not require heavy roof construction for support, but will outlast the building.
Specify AMBLER ASBESTOS SHINGLES. We hold all patents for manufacturing by the "CENTURY" process, the only serviceable and practical method, thereby avoiding substitutions.

J. A. DRUMMOND
Pacific Coast Representative
245 MISSION ST.  ::  SAN FRANCISCO
Stock carried in San Francisco

PACIFIC COAST DEALERS

LOS ANGELES, CAL.
California Cornice Works
Waterhouse & Price Co.
Howe Bros.

FRESNO, CAL.
Kutner-Goldstein Co.

SAN FRANCISCO, CAL.
Plant Rubber & Supply Co.
Western Asbestos Magnesia Co.

SACRAMENTO, CAL.
Miller-Enwright Co.

SEATTLE and TACOMA, WASH.
F. T. Crowe & Co.

SPOKANE, WASH.
Consolidated Supply Co.

PORTLAND, ORE.
Gillen-Chambers Co.
LARSEN CONSTRUCTION REPORTS

Advance Information as to Construction and Engineering work covering the entire Pacific Coast

INDIVIDUAL SERVICE
ISSUED DAILY
INDISPENSIBLE

<table>
<thead>
<tr>
<th>ENGINEERING</th>
<th>BUILDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterworks</td>
<td>Churches</td>
</tr>
<tr>
<td>Street Work</td>
<td>Jails</td>
</tr>
<tr>
<td>Road Work</td>
<td>Theaters</td>
</tr>
<tr>
<td>Sewers</td>
<td>Flats</td>
</tr>
<tr>
<td>Irrigation</td>
<td>Residences</td>
</tr>
<tr>
<td>Drainage</td>
<td>Steel Frame Buildings</td>
</tr>
<tr>
<td>Bridges</td>
<td>Brick Buildings</td>
</tr>
<tr>
<td>Railroad Work</td>
<td>Reinforced Concrete Buildings</td>
</tr>
<tr>
<td>Harbor Work</td>
<td>Frame Buildings</td>
</tr>
<tr>
<td>Lighting Systems</td>
<td>Postoflice</td>
</tr>
<tr>
<td>Dredging</td>
<td>Court Houses</td>
</tr>
<tr>
<td>Power Plants</td>
<td>Office Buildings</td>
</tr>
<tr>
<td>Warehouses</td>
<td>Banks</td>
</tr>
<tr>
<td>R. T. Work</td>
<td>Hotels</td>
</tr>
<tr>
<td>Submarine</td>
<td>Government Work</td>
</tr>
<tr>
<td>Work</td>
<td>Light Houses</td>
</tr>
<tr>
<td>Iron Work</td>
<td>Barracks</td>
</tr>
<tr>
<td>School</td>
<td></td>
</tr>
</tbody>
</table>

INDIVIDUAL SERVICE ISSUED DAILY
INDISPENSIBLE

SPECIFY NEPHI PLASTER ONLY

IT MAKES THE WALL

Standard for 25 years on the Pacific Coast and Intermontain West HARDWALL, FINISHING, CASTING, ETC.

NEPHI PLASTER & MANUFACTURING CO.
San Francisco Office: BUILDERS EXCHANGE, 130 Jessie St.
Telephone Sutter 6700
Main Office: 711 BOSTON BLDG., SALT LAKE CITY, UTAH

SOUTHERN PACIFIC

Vacation Trips

Reduced Round Trip Fares to Mountain and Seaside Resorts

Monterey Bay Points
Lake Tahoe
Sierra Resorts
Yosemite
Lake County Resorts
Shasta Resorts
Klamath Lake Region
Crater Lake
Los Angeles and Its Beaches
San Diego and Its Exposition

For Fares, Sale Dates, Train Service, Etc., Ask Southern Pacific Agent
You Receive Due Credit

Much of a building's equipment never draws the personal notice of owner or occupants. The architect's care in selection is not fully appreciated.

The recommendation of

**OTIS ELEVATORS**

is one of the few recommendations certain to react to the architect's credit, the elevator being one of every building's most used and most noticed equipments.

The safety of your client, your client's clients, and of your own reputation are best served by your recommendation of the "Safety" elevators, Otis Elevators.

**OTIS ELEVATOR COMPANY**

2300 Stockton Street  
San Francisco

*Offices in All Principal Cities of the World*