FROM small beginnings in 1897, the Indiana Limestone industry has grown until today 65% of all the finished building stone used in this country is Indiana Limestone.

The present output is 12 times what it was 20 years ago. This shows that Indiana Limestone has gained national recognition as the best building stone in the United States. It foretells that Indiana Limestone will be used in even greater quantities for the better types of buildings in the future.

Indiana Limestone Company is a consolidation of 24 of the oldest and largest quarry properties in the Indiana Limestone district. Capitalized at over $46,000,000.00, this Company has facilities for handling any number of large contract operations.

The organization of the most desirable quarry properties in the Bedford district into one operating unit is a proceeding in line with the whole trend of modern large scale business today.

The Indiana Limestone buildings being put up today require a service correspondingly greater than did the stone buildings of 20 years ago. Such a contract as that for the New York Life Insurance Company's new building...the largest contract for stone ever let in New York City...demands an organization of the same calibre.

Indiana Limestone Company is that organization. That is why it got the New York Life contract. Through its vastly increased facilities and efficiency, this Company is able to render the architectural profession a service in connection with Indiana Limestone unlike any you have known in the past.
CHIMNEY POTS

of

Atlantic Terra Cotta

(Catalog on request)

MADE in thirty different designs, eight different colors and in many different flue sizes, Atlantic Chimney Pots offer a complete line for country houses, suburban residences and apartment buildings.

The designs are taken from English Georgian and Tudor and simple Colonial precedents and add a touch of Old World charm to any home.

The different colors match different roofing materials and give the Architect an opportunity to accentuate a color scheme. There are natural clay shades and fascinating glared colors.

Atlantic Chimney Pots are made by hand in the close knit, hard burned Atlantic Terra Cotta body. There is no better material for Chimney Pots.

The prices are moderate—the price list comes with the catalog.

<table>
<thead>
<tr>
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<tr>
<td>Red</td>
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<td>Gray</td>
<td>Dark Blue</td>
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<td>White</td>
<td>Green</td>
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Catalog and Price List on request

Atlantic Terra Cotta Co.
19 West 44th Street, New York
The austere dignity of XVII Century design marks a significant era in the development of the art architectural.

Northwestern Terra Cotta

with its picturesque palette of color, begins a new era of gracious charm for American Architectural Masterpieces.

The Northwestern Terra Cotta Company
Denver
Chicago
St. Louis
Cork Insulation on Steel Roof Decks

STEEL roof decks, like concrete and wood decks, when insulated with the proper thickness of Armstrong's Corkboard, are practically impervious to heat. The rooms under them can be kept many degrees cooler in summer, and in winter are heated more uniformly and with much less fuel. They will not "sweat."

Insulating with Armstrong's Corkboard requires no change in the specification for the laying of either the deck or the roofing. The corkboard is laid directly on the deck in asphalt or pitch, and since Armstrong's Corkboard is furnished in thicknesses from 1 to 6 inches, only one layer is required whatever the thickness specified. Thus the cost of labor and materials is reduced as compared with building up thin materials in multiple layers. The roofing is then laid on the corkboard in the regular way.

Armstrong's Corkboard is nonabsorbent. It does not buckle, or swell, nor will it open up at the joints. It is so light (less than a pound per board foot) that the weight factor is negligible. It is slow burning and fire retarding. It does not deteriorate—a firm, substantial base for roofing, and permanent insulation that retains its efficiency unimpaired.

Reference Catalog for your Building Material File
Any information you want concerning Armstrong's Corkboard for roof and house insulation will be found readily in this Architect's File Catalog. If you haven't a copy, write to Armstrong Cork & Insulation Company, 201 Twenty-fourth Street, Pittsburgh, Pa.

Armstrong's Corkboard Insulation for Roofs of All Kinds of Buildings

Every Roof Needs Insulation
EVEN BACK IN THE 90's IT WASN'T NEWS!

"... and while many details of building practice underwent considerable change during this period, on one point architects and builders stood firm. They had found from a quarter century's experience that one type of roofing construction outclassed all substitutes... the properly built roof of coal-tar pitch and felt.

"And further passage of time has amply backed up their finding. Many of these old roofs—roofs 35, 40, even 50 years of age—are still rendering dependable protection, their years of service by no means over."

* * *

It is a matter of record that the past 50 years has demonstrated the superiority of pitch and felt built-up roofs. Impressive present day structures are evidence of this. For, in the great majority of cases, the finest of our modern buildings are protected by The Barrett Specification Roof—a pitch and felt roof acknowledged as the highest form of permanent roof protection.

When you specify this roof the owner receives a Surety Bond—a guarantee against repair or maintenance expense for 20 years. This Surety Bond is issued only (a) when the roof is laid by an experienced roofer, one approved by The Barrett Company; (b) when a Barrett Inspector has supervised the job to see that The Barrett Specification has been followed to the letter. And then, after the roof is completed, there's still another check-up: the famous "cut test" made by the Barrett Inspector.

In addition, two years after the roof is laid, the Barrett Inspector makes another thorough examination of the roof.

With such thorough inspection service—obtainable only with The Barrett Specification Roof—is it surprising that these roofs give staunch service many years after the 20-year guarantee has run out?

Proved Efficiency

The Barrett Flashing System (Flashing Block or Flashing Form in combination with Barrett Flashings) provides these all-important things:

A Flashing that allows for expansion and contraction, settlement or shrinkage.

A Flashing that is easy to install—that gives entire freedom from up-keep expense at a moderate cost.
RAYMOND COMPOSITE

Raymond Experience, plus the Raymond Method, have made the Composite Pile (Concrete plus Timber) a dependable foundation. The lower timber section is joined to the upper concrete column in a manner that insures absolute alignment in driving and tremendous strength of bond. The concrete section is poured in the usual Raymond spirally reinforced steel shell, which is left in the ground.

A Form for Every Pile
A Pile for Every Purpose

RAYMOND CONCRETE PILE COMPANY

NEW YORK
90 West Street
CHICAGO
111 W. Monroe St.
CANADA
MONTREAL

Branches in Principal Cities
Have you received your copy?

If you have not received your copy of this helpful folder on oil heating and oil burner installations, let us send it to you at once.

Here is information and data that is valuable to every architect. It covers the advantages of oil heat—important facts about advanced oil burner principles—cost of operation—and a description of the Electrol All-Electric Entirely Automatic oil burner.

It tells about the Electrol Master Control and the important part it plays—also how uniform temperature is maintained automatically—how better utilization of basement space is accomplished where oil is the fuel instead of coal.

Plan and elevation dimensional blueprint illustrations of the Electrol burner are included—drawings and descriptions of parts—various types of tanks—diagrams of complete basement and underground tank installations—control hook-ups for various types of furnaces—baffling of the combustion chamber—and a suggested detailed specification.

Well arranged and in Regulation A. I. A. form, this is the type of folder you will be glad to have in your file. A copy will be mailed on request.

ELECTROL INC. of Missouri
175 Dorcas St., St. Louis, U. S. A.

ELECTROL

The OIL BURNER with The Master Control

Electrol is listed as standard by the Underwriters' Laboratories and bears their label. Approved by the New York City Board of Standards and Appeals—and by the Commonwealth of Massachusetts Department of Public Safety.
Chicago now boasts the world's largest hotel, **The Stevens**. Holabird & Roche, Architects.

It took nearly 5,000 *Columbia* Window Shades and Rollers to equip this giant.

**An army of Windows**—marching in column formation straight up the sheer sides of the building.

Chicago, with its reputation for doing big things in a big way, has beaten the world again. The new Stevens Hotel throws its vast shadow over Michigan Boulevard and the Lake Front—and also over all other hotels on this planet. When you walk into the Stevens, you enter the largest hotel in the world.

For such an institution, every item of equipment must be expertly selected—with an eye to both appearance and performance. And it is another convincing proof of *Columbia* superiority that in every one of the 4850 windows of the Stevens, *Columbia* Window Shades hang on *Columbia* Rollers.

The **Columbia Mills, Inc.**

225 Fifth Avenue, New York

Baltimore  Boston  Kansas City  Los Angeles  Portland (Ore.)  St. Louis  San Francisco  Seattle

*Columbia* Rollers insure your guests against those petty annoyances so common with inferior rollers. Self-lubricating bearings, nickel plated ferrules of brass instead of the usual steel, and an extra strong, finely-tempered steel spring, make them practically trouble-proof.

You can save time and trouble by using the "Standard Specification for Window Shades," which we'll send on request. A specimen roller and samples of *Columbia* Cloth are sent with the specification.

Just mail coupon to The Columbia Mills, Inc., 225 Fifth Ave., New York.

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**Guaranteed**

*Columbia* WINDOW SHADES and ROLLERS

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Chicago, with its reputation for doing big things in a big way, has beaten the world again. The new Stevens Hotel throws its vast shadow over Michigan Boulevard and the Lake Front—and also over all other hotels on this planet. When you walk into the Stevens, you enter the largest hotel in the world.

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Just mail coupon to The Columbia Mills, Inc., 225 Fifth Ave., New York.

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**Guaranteed**

*Columbia* WINDOW SHADES and ROLLERS

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About Concrete and Permanence

Although reinforced concrete construction is a splendid contribution to the building industry, it is generally agreed that concrete has by no means reached perfection.

The necessity for applying practical solutions in increasing the life of concrete by protecting it against frost and disintegration is explained in detail in our four page circular "About Concrete and Permanence," together with description of the action of the weather on concrete and the Minwax method of arresting such action.

All exposed concrete of the Pitt Stadium (entrance detail shown above) is protected with Minwax Clear Waterproofing.

Send for circular "About Concrete and Permanence" or see our Catalogue in Sweet's.

MINWAX TRADE MARK

MINWAX COMPANY INC.
270 Madison Ave., NEW YORK ... 230 East Ohio St., CHICAGO
BAR THESE DISEASE CARRIERS

with

Sanitation-Assuring
Clow Automatics

—Clow Automatics
Never Forget

A SINGLE unflushed closet in a school is more dangerous than a stick of dynamite. Leave it unflushed—as careless children do—and it becomes an attractive lure to flies. They quickly start their work of spreading any disease left there, to the lunch boxes, lips, and hands of children.

The Clow Automatic Closet removes all possibility of forgetful children leaving closets unflushed. Automatically, after every occupation, a fast, sure flood of water—with the pressure of a thirty-foot standpipe—scours the entire bowl.

The Clow-Madden Valve is simply constructed. It has no intricate parts to get out of order. It lasts longer—asks less for repairs—and uses less water.

By leaving nothing to childish memories or intricate mechanisms, the Clow Automatic gives certain sanitation to the school.

Our "Clow School Plumbing Catalogue" fits your files, and shows the way to surer sanitation.

JAMES B. CLOW & SONS
201-299 N. Talman Ave.
Chicago

The Clow Automatic Closet in the new, wall-hung type. The closed top tank is placed behind the back wall in a utility corridor.
Correct valve for each job

The wide range of Jenkins Radiator Valves assures the correct selection for each type of job.

They are furnished in the Standard Pattern as supplied for many years, or the new Low Bonnet Pattern. The line includes: Globe, Angle, Offset Globe and Corner Valves. The Corner Valves in regular straight or offset pattern, right or left-hand. Regularly fitted with black composition hand wheels, but also can be furnished with bronze hand wheels, when required, or with lock shield and key.

For vacuum and vapor heating systems, we supply the Jenkins Modulating Valve and Trap.

In addition Jenkins Radiator Gate Valves are furnished when this type of valve is desired. Jenkins Valves are exceptionally well made, each a trustworthy unit that contributes much toward keeping a good heating system at its best.

To know the complete line of Jenkins Radiator Valves may be the means of solving some perplexing heating problem. Our Sales Engineering Division will be pleased to work with you.

JENKINS BROS.
85 White Street
New York, N. Y.
324 Atlantic Avenue
Boston, Mass.
140 So. Seventh Street
686 Washington Boulevard
Chicago, Ill.

JENKINS BROS., Limited
Montreal, Canada

FACTORY
London, England

Bridgeport, Conn.
Elizabeth, N. J.

Montreal, Canada

Always marked with the "Diamond" Jenkins Valves
SINCE 1864
AMERICA NEEDS MORE GARAGES IN HER CITIES

Jordan-Marsh in Boston Fill this big Garage with Shoppers' cars

SINCE as keen merchants as this old-established company, along with a goodly number of others of equal standing, recognize the need for and profit in a Parking Garage for their customers' cars—

doesn't the fact stand out, clear and bold, that other department store owners will soon be following suit. There's an architectural commission waiting the man who puts over the idea. Can we help you work up a proposition for someone you have interested?

Our Garage Data Sheets and the booklet "Building Garages for Profitable Operation" will be helpful.

RAMP BUILDINGS CORPORATION
21 East 40th Street New York, N. Y.

GARAGE ENGINEERS
CONSULTANTS ON PROMOTION AND GARAGE MANAGEMENT
DETAILING FOR GRANITE

The use of granite is frequently restricted because of its cost as compared with freer working stones. The cost of granite need not be so frequently prohibitive if certain fundamentals are taken into consideration by the specification writer and the designer.

In this, and alternate plates to follow, some of these more important fundamentals applying to granite will be developed.

As the cutting of mouldings on granite work involves more expensive hand work than other features, and lends itself to more productive modification, it is well worth while to give first consideration to this phase of detailing.

Some understanding of the method generally used in estimating the cost of cutting granite mouldings is the first essential, and will be partially developed in this plate.

The "Member System" for Estimating Granite Mouldings

In estimating the cost of cutting granite mouldings, the so-called "Member System" is generally used.

In this system the profile of a moulded section is divided into "members".

A "member" is a more or less arbitrary unit in which the edges, contour, and changes in direction of the surface between edges, and the width between edges is taken into consideration.

The determination of the number of "members" in a given section is a combination of rule and judgment, but 4" of any contour is the maximum to be counted as a single "member".

The number of "members" times the unit cost per foot of a "member", plus the cost of plain face displaced by the moulded section, gives the cutting cost of a moulded section.

The unit of cost per lineal foot of "member" varies with the grade of granite and finish. For approximations a lineal foot of "member" may be considered as equal in cost to a square foot of plain surface.

The sketches illustrate several basic "member" counts. Plate XXIX to follow will further explain and illustrate the application of this system.

National Building Granite Quarries Association, Inc.
31 State Street, Boston, Mass.

H. H. Sherman, Sec'y.

On request a complete folio of this series will be reserved for you.
Webster Series 78 Traps have been designed from the ground up for operation at the stated pressures. They are not just another attempted adaptation of low-pressure design to high-pressure duty, but have been developed over a period of years of laboratory tests followed by a large number of trial installations.

Manufacturers and users of sterilizers and other process-steam using equipment have been quick to appreciate the increased efficiency obtainable by proper application of Webster Series 78 Traps.

Through the development of Webster Series 78 Traps, together with data and methods covering their application, the same Webster Service that has been an integral part of Webster low-pressure Systems of Steam Heating is now available to users of steam at these higher pressures.

Bulletin 1205, describing this Webster product and service, will be sent on request.

Users of steam at 10 to 100 lbs. per square inch, conveniently called "process steam," now have available a positive means for quick, continuous discharge of air and water of condensation from sterilizers, cooking apparatus, laundry machinery, jacket kettles and scores of other types of apparatus.

Bulletin 1205 is now ready and will be sent on request.

Webster Systems of Steam Heating

Warren Webster & Company, Camden, New Jersey
Pioneers of the Vacuum System of Steam Heating
52 U. S. Branch Offices—In Canada, Darling Bros., Ltd., Montreal

*By "Process Steam" we mean steam at pressures from 10 to 100 lbs. per sq. in. as used in industrial, chemical and textile manufacture, and in many non-industrial processes, such as sterilizing in hospitals, cooking in hotels, drying in lumber kilns, etc., etc.
WHEN you specify white glazed tiles, be on your guard against substitution and grade juggling, so as to safeguard your clients' interest and protect the reliable contractor against unfair competition. For great price differences exist between various "grades" of tiles.

First—use only the approved grade terms—"Selected," "Standard," or "Commercial," as these are the only three grades for which definite grade specifications exist.

Second—insist on Grade Seals and Grade Certificates being furnished, as only by so doing can your inspectors readily ascertain whether or not the specified grade is actually installed.

If you specify Rossman "BF" Brand White Glazed Tiles, you automatically insure tiles correctly graded, sealed and certified in accordance with Simplified Practice Recommendation No. 61, issued by the U. S. Dept. of Commerce.

Rossman Grade Seals and Certificates are your best insurance of absolute compliance with your specifications and of the highest value for your money in both quality and grade.

These safeguards, adopted by Rossman, without cost to you, will go far towards eliminating confusion, grade juggling, and unfair competition in the tile industry. Insist on them!

ROSSMAN CORPORATION
NEW YORK, N. Y.
Everything in Tiles
When the home is built . . . the logical time to provide for heating comfort

OBVIOUSLY, a heating system can be most satisfactorily and economically installed when a home is built—when the excavation for it is first begun.

The advantages of oil heating—its efficiency, its complete dependability—are steadily becoming more evident to the architectural profession. And the oil burner that today is favored by architects throughout the country is the Quiet May. You can specify the Quiet May unhesitatingly for your clients' homes. With assurance that the Quiet May will meet completely and permanently every heating requirement of these homes . . .

We have prepared a free descriptive booklet filled with authoritative, concrete information about oil heat. Let us send you a copy of this booklet. Let us give you full data concerning the Quiet May. For any further information you may desire, write to

MAY OIL BURNER CORPORATION
Also makers of the May Commercial Oil Burner

QUIET MAY
AUTOMATIC OIL BURNER
Taking a Leaf From England's Way Of Treating Greenhouses

ENGLAND, as you know, has two kinds of conservatories, as they mostly call their greenhouses... The unheated garden ones, generally built for growing various kinds of flowers and fruits.

And those directly adjoining the residence, as your Englishman contends that his indoor garden should be available to all, from indoors.

To go outdoors to get in his indoor garden, strikes him as being "not only contradictory, but rather silly".

The Frank Goulds of Towson, Maryland, looked at it the same way. Owens and Sisco, architects of Baltimore, put their wishes into plan and elevation; and we were privileged to translate it into cypress, steel and glass.

Full particulars available on request.

This is Number 28 of the Series, others of which are to follow. If you have not a full set, send us your name and we will send you any missing ones.

Lord & Burnham Co.
Irvington, N.Y.


GLASS GARDEN SERIES - NO.-28
It Brightens Blue Mondays

The Porceliron Laundry Tray

A DURABLE—and, hence, thoroughly practical Porcelain Enamel Laundry Tray: Attractive enough for the most pretentious home and yet so inexpensive that it is within the reach of every income.

The standard unit (illustrated above) consists of two compartments, each deep drawn out of heavy gauge enameling iron and finished, inside and out, with PORCELIRON—"The Perfect Porcelain Enamel."

There are no inside seams, joints or crevices. The glistening white surface of PORCELIRON is very durable. It is hard and tough. It will not peel, craze nor scale, and with ordinary care it will last a lifetime.

Designed for use either with or without a washing machine, the Porceliron Laundry Tray can be set against the wall or out from it giving access to all four sides.

Base and legs which are adjustable for height are furnished as part of the unit at no extra cost.

In short, this new unit of home equipment is planned to meet modern standards of living. It is worth knowing about. Write for literature.

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Porceliron Factories at
FRANKFORT, IND. BEAVER FALLS, PA. BAYONNE, N. J.
Use It as a Text Book --

It takes a bit of time and teaching to make an inexperienced new draughtsman into a practical designer.

Among other things, he needs to get acquainted with the bewildering number and variety of materials and equipment units that are manufactured today and to learn the easiest way to find information about particular items.

You can save a lot of your own time if you tell him quite early to use Sweet's as his basic text-book, to get acquainted with its index of Manufacturers and Index of Products, the catalogue pages and their specification data and working details.

You will be showing him a short road to knowledge of his own job. You may even be putting him in the way of digging up valuable information that you have overlooked.

SWEET'S ARCHITECTURAL CATALOGUE
is a publication of the F. W. Dodge Corporation

If it's Quality and greater Utility you need—recommend "The EBCO"

CIRCULAR WASH SINK

Costs Less — Weighs Less—Saves Space — Serves 6 to 10 persons at one time with head and shoulder showers. Several styles — two sizes, also junior size for children. Individual spray heads — hot and cold mixing valve — enamel soap tray or liquid soap container — standard fittings — best material and construction—last a lifetime.

WRITE FOR CATALOG AND LOW PRICES

THE D. A. EBINGER SANITARY MFG. CO.
184 LUCAS STREET — COLUMBUS, OHIO
Manufacturers also of Ventilated Closets, Urinals, Steel Toilet Enclosures and Drinking Fountains
THIS plate with plate number 12 suggests the ornamental possibilities of Enameled Brick applied to power house design. A succeeding plate will suggest an interior of the same building. Only stock sizes, colors and mottled colors of Am-En brick are shown. Send for folder of full size and accurately colored paper reproductions of Enameled Brick.

AMERICAN ENAMELED BRICK & TILE CO.
Graybar Building
New York City

Copies of these plates in folio will be mailed upon request
COMMON BRICK
—a rectangle of Mother Earth, burned to fire-like hardness. The mellowness of its coloring, the interesting ways it can be laid, and its indestructibility, make brick one of the finest media through which architects can express their inspiration.

Architect:
S. M. SMALE

BRICK—your most flexible building material

CAPABLE of infinite variety in color, in method of laying, in styles of panel design. In warmth of color tones and delicate shadings, brick achieves a mellowness of character that satisfies the architect’s desire for originality in wall treatment.

Often given a whitewash finish, which is allowed to wear away, leaving a surface of highly colored brick tinted here and there with white, a quaint and charming effect.

Unusual wall handling is possible at a reasonable cost with brick,—numerous skinted formations, the “squeezed joint” treatment, or laid to form a Flemish bond. Architects today are doing more beautiful things with brick than ever before, securing architectural effects that mark the architect as an artist as well as a master in his profession.

There are no restrictions or limitations to what may be done with brick, to endure as a permanent example of the architect’s versatility and technique.

The Common Brick Manufacturers’ Association of America
2159 Guarantee Title Building
CLEVELAND, OHIO

Brick Books for Your Use
“Skinted Brickwork” (15c) ☐
“Brick, How to Build and Estimate” New Edition (25c)
“Hollow Walls of Brick”—FREE ☐
“Homes of Lasting Charm” (25c) ☐

Check above, and send for any or all of these books.
A Fellow With Only One Snowshoe Would Have a Thin Time in a Big Drift

A tapered or pointed pile in loose variable soils would be just as useless as a leg with no snowshoe.
For such soils, the MacArthur Method provides a pedestal pile.

This pile by its enlarged end bearing and increased skin friction will support its specified weight.

Like all piles made by the MacArthur Method, it can be driven without change of equipment.

This means an enormous saving when ground conditions are suddenly encountered, that make the piles intended, impractical.

MacArthur Concrete Pile Corporation
15 Beekman Street, New York City

A Special Pile For Every Condition — Not One Pile For All Conditions
Ankyra Ankor Bolts will positively hold any type of wall fixture, metal moulding, hanging radiator, window frame, or lighting fixture, with a grip that never lets go. Fastens it firmly to any wall—hollow tile, metal, plaster, wall board, concrete, or brick. Two simple parts—an ordinary set screw and a metal sleeve, combining the toggle and expansion bolt principle, with a special integral nut that makes it easy to insert or remove the screw. The expanding sleeve holds screw firm when set.

Architects who appreciate the importance of the smallest details—even in the largest buildings—are now specifying Ankyra Ankor Bolts by name, and builders are finding them satisfactory—a big improvement over the unsupported set screw.

Write for specification forms of convenient filing size—and actual samples of Ankyra Bolts as used in important installations.

ANKYRA MFG. CO.
149 Berkley Street

Fires start like this from defective flues—never from flues that have Fire Clay Flue Lining

CLAY PRODUCTS ASSOCIATION
Chamber of Commerce Building • CHICAGO

EASTERN CLAY PRODUCTS ASSOCIATION
Colonial Trust Building • PHILADELPHIA

Send for literature
The Quiet, Attractive Church Floor

NOTHING contributes quite so much to the peaceful atmosphere of a church as a quiet, comfortable floor. But it should also be attractive and substantial in appearance, as well as quiet, to be in harmony with the beauty and dignity of its surroundings.

Armstrong’s Cork Tile meets every requirement for such a floor. It is sound-absorbing and resilient—as restful and noiseless underfoot as carpet. Made and laid as separate tiles of various sizes and in three beautiful shades of brown, Armstrong’s Cork Tile affords a wide range for design and for color harmony with any decorative plan. It is highly resistant to wear; years of service leave hardly a trace. It saves labor and reduces upkeep costs because it is dustless and nonabsorbent and very easily cleaned.


Armstrong’s Cork Tile
Tiles That Suggest the Old World

When you are striving for an old-world effect, our Old English or Brittany Shingle Tiles should be your choice. Rough in texture and mellow in color, they have the effect of having been aged by centuries of exposure to the elements.

These quaint, colorful tiles have the added advantage of being virtually everlasting. To specify them is to give your client a weatherproof, fireproof roof of rare charm that will never need replacement, repainting or repairs.

Chicago, 104 S. Michigan Ave.  
LUDOWICI-CELADON COMPANY  
New York, 565 Fifth Avenue

IMPERIAL  
Roofing Tiles
The World's Largest Hotel
Yeomans Protected

3000 Rooms
A City in Itself

Housed in the basement and sub-basements of this mammoth hostelry is a battery of engines, generators, boilers, pumps and switchboards, all below lake level and costing hundreds of thousands of dollars. Eight Yeomans-Shone Sewage Ejectors and a Yeomans emergency flood pump are depended upon to perform the vital function of keeping basements clear of drainage or flood water and protecting the machinery against injury.

Ask for Descriptive Literature
Yeomans Brothers Co
1448 Dayton St. Chicago
Representatives in all Principal Cities

OVER FIFTY YEARS IN BUSINESS

Wilson

SectionFold Partitions
Rolling Steel Doors
Hygienic School Wardrobes
Venetian & Awning Blinds
Rolling Partitions
Airkore Fire Doors

Send for Descriptive Catalogs

The J. G. Wilson Corporation, 11 E. 38th St., N. Y. C.
A year ago we ran a piece of copy that read as printed below. Today we repeat the question "When will the use of Craftex end?" And show a few of the many different places where it has been used.

"Around the corner a great theatre blazes forth decorated with Craftex in rampant and bizarre effects. Next to it a show window depends upon it for beauty of display. Then perhaps up the street a group of homes, Colonial, English, Spanish—of any period—are decorated throughout with this versatile material.

Still wondering about its limitations, we step into a quiet memorial library and find Craftex, subdued, restrained, dignified, in perfect keeping with its surroundings.

Again, you will find great churches, famous art galleries, public buildings, office buildings, using Craftex. Can't you imagine why?"

Craftex is a plastic interior wall paint applied by painters. With it limitless textures of character and color are possible. For complete details address Dept. H.

CRAFTEX COMPANY
37-39 Antwerp St., Brighton Station, Boston, Mass.
Now that the dust of May 1 moving has settled, the skyscraper managers have discovered that the changing of office quarters has resulted in huge costs by alterations of offices made to meet the demands of new and old tenants. A survey of alteration costs and a report on materials and construction practices made by George R. Bailey, research engineer for the National Association of Building Owners and Managers, reveals an expenditure of $15,000,000 per year among members of the association, who have under their control 122,132,373 square feet of office space.

"To indicate the large amount of alteration work annually performed and thereby illustrate the tremendous saving which might be effected by improved and cheaper methods, there is expended more than $6,000,000 annually for office building alterations in the borough of Manhattan alone," said Mr. Bailey. "We have received reports from a part of our membership covering rental conditions in 122,132,373 square feet of office space. Using ratios found during our study of alterations we have determined that $15,000,000 is spent annually in changing offices to suit the demands of tenants. Throughout the United States many more millions than this is actually spent, but we have no definite check as to the grand total. We do know of Manhattan's $6,000,000 and also that office building alterations in Chicago, not including reconstruction, amount to more than $4,000,000. While we realize that alteration work will continue just as long as men possess individuality, it was our aim in conducting the study of materials, costs and practices of making alterations to introduce the highest possible efficiency in such operations and to list the approved practices and if possible to introduce a cheaper and better method of making alterations."

Mills Metal Will Save $15,000,000 a Year

The National Association of Building Managers says that annual rearrangement of offices costs $15,000,000 a year. What is this cost? Absolutely nothing but re-partitioning.


Mills Metal Partitions stop all of this waste. Standard interchangeable units of 20, 40, 60, 80 and 100 inches. Two 40's will exactly replace one 80; a 60 and a 40 will replace one 100, and so on. A standard door is 34 inches and is interchangeable with any 40-inch unit.

Specify partitions today on the basis of tomorrow. Think of your client's annual share of this $15,000,000 and save it for him.
A new form of contour has been adopted whose principal characteristic is the elimination of inside flange taper, the flanges being of uniform thickness throughout their width. This feature increases the strength of the section because of more efficient distribution of metal in the flanges, permits simpler connections and facilitates fabrication.

Our engineers will be glad to discuss the subject with you.

Carnegie Steel Company
General Offices • Carnegie Building • 434 Fifth Avenue
Pittsburgh • Pennsylvania

Developments of such magnitude have taken place in the structural steel industry as to demand an improved series of rolled sections for beams and columns. The New Carnegie Beam Sections answer that demand. This book contains profiles and properties of the new sections and safe load tables. The series is further explained in detail as to:

- Range of Sizes
- Contour Design
- Progressive Beam Design
- Web and Flange Ratio
- Improved Column Design

Copy on Request

*This advertisement: No. 4 of a series describing the New Carnegie Beam Sections.*
For the bedroom, a floor of the dainty carpet pattern shown below may be most appropriate, either in this or other color combinations. This design is Moulded Inlaid No. 5442. The 1927 Armstrong Pattern Book shows many other distinctive patterns.

Above is Armstrong's Marble Inlaid No. 84. The blocks are 9 x 9 inches.

An apartment... how will it rent?

—The floors you specify will help answer that question

As a designer of apartments, you know the importance of planning things that will appeal to the prospective tenant. So you specify such eye-catchers as rough textured walls, an arched doorway, or a built-in bookcase, perhaps.

A still further opportunity may be found in the use of floors of Armstrong's Linoleum. Prospective tenants respond immediately to the beauty, the practicability of these floors. Decorative possibilities are instantly suggested.

Such a floor has an added appeal to your client, the apartment house operator. For a floor of Armstrong's Linoleum requires no annual fixing up, no costly refinishing. Its first cost is its last. Upkeep is very low.

Today with modern building construction tending more and more toward the use of steel and concrete, you cannot select a more practical, more sensible floor than one of Armstrong's Linoleum. It can be cemented right over the concrete underfloor.

Recent developments in linoleum texture and design have been quite startling. If you are not fully acquainted with these innovations and will write us, we will send you samples and colorplates.

We shall also be glad to assist you in planning color schemes for projects you will describe to us, complete even to the wall and woodwork finishes, draperies, and furnishings, as well as floors of correct color and designs.

Armstrong Cork Company, Linoleum Division, Lancaster, Penna.
The attractive appearance and highly practical advantages of International Metal Casements have resulted in their installation in many of the fine buildings which have been erected to meet the rapid growth of our American colleges since the war.

Also Manufacturers of International Austral Windows

INTERNATIONAL CASEMENT CO. INC.
JAMESTOWN, NEW YORK
AGENTS IN PRINCIPAL CITIES
The aspect of architectural beauty which envelopes The Dean Galleries at Detroit (Bonnah & Chaffee, Architects), is faithfully supported in the heating equipment selected. Enclosing recessed radiators are FERROCRAFT cast Grilles, made in an exceptionally pleasing and artistic design. Where exposed radiators are installed, Tuttle & Bailey All-Metal Radiator Cabinets conceal them.

All Tuttle & Bailey products are made with the same high regard for beauty and quality—a practice that has been accorded wide recognition in the Architectural field.

FERROCRAFT GRILLES
CAST

TUTTLE & BAILEY MFG. CO.
Makers of Registers and Grilles for Eighty-one Years
441 LEXINGTON AVENUE
NEW YORK CITY
Beautiful Interiors at moderate cost with Durable Douglas Fir

One of the outstanding features of Durable Douglas Fir is the beauty of its grain. This is important where either stained or natural finishes are desired. No wood can rival Douglas Fir in the variety of figures in flat grain. Almost any type and size of figures can be obtained, but very close matching of figures is easily possible.

In Douglas Fir rotary cut plywood the figures are usually smaller than in the sawed material and the figures usually present more of a complete picture. Wall and door panels of Douglas Fir Plywood offer the attractiveness of more expensive wood.

Vertical grain Douglas Fir is more commonly used for casing, base and moldings which are to be painted or enameled. In many sections of the United States vertical grain Douglas Fir is the standard wood for white enamel work.

Both flat and vertical grain Douglas Fir may be sand-blasted to give an appearance of age, which is frequently desirable. The sharp distinction between the hardness of the spring wood and the summer wood in Douglas Fir makes it peculiarly adaptable to the sand-blast method of finishing. With the use of a paper stencil, vertical grain Douglas Fir may be sand-etched in a manner which rivals hand-carving. And this sand-etching may be colored in the same manner.

Due to the fact that Douglas Fir has practically no end-shrinkage, casings base and moldings will not pull apart at corners or mitered joints. Douglas Fir finish lumber stays straight and doors of Douglas Fir resist shrinking, swelling and warping because this wood does not readily absorb moisture.

Planing mills can furnish Douglas Fir finish lumber either in stock patterns or to your own details. You should have in your files complete directions for specifying the sand-blasting of Douglas Fir. We will be glad to send you this information at your request, if you will address West Coast Lumber Bureau, 562G Stuart Building, Seattle, Washington.
Just a Glimpse of Benefits Untold

It is impossible for a single illustration to show more than a small part of this magnificent Hospital Group of the University of Rochester.

It is impossible in this space to tell the benefits that come from protecting all its plastered walls and ceilings with Par-Lock. Address or phone "Par-Lock Applier" at the nearest address listed below and get the whole story of tight walls and perfectly keyed plaster.

Par-Lock
PLASTER KEY

THE VORTEX MANUFACTURING CO., 1975 WEST 77th STREET, CLEVELAND, OHIO

Write Par-Lock Appliers of—(name nearest city) with address as below

ALBANY, 420 Orange Street.
Baltimore, 913 West Cross Street.
BETHLEHEM, PA. 215 Vineyard Street.
BOSTON, 45 Commercial Wharf.
BUFFALO, 958 Ellicott Square Bldg.
CHICAGO, 122 S. Michigan Ave.
CLEVELAND, 404 Hunkin-Conkey Bldg.
COLUMBUS, 1000 E. Livingston.
DETROIT, 2511 First National Bldg.
KANSAS CITY, MO. 2035 East 19th St.
MINNEAPOLIS, 200 Builders Exchange.
NEWARK, N. J. 24 Commerce Street.
NEW YORK CITY, 56 Church Street.
PHILADELPHIA, 1700 Walnut Street.
PITTSBURGH, 207 Fulton Bldg.
SCRANTON, PENNA. Cedar Avenue.
ST. LOUIS, 515 Chemical Bldg.
TRENTON, 33N Broad St. Bank Bldg.
YOUNGSTOWN, 503 City Bank Bldg.
WILKES-BARRE, PENNA. 904 Second Nat'l Bank Bldg.
P-LOCK CORK INSTALLATIONS, United Cork Companies.

Concrete or other
masonry

Plus gun-driven asphalt coat

Plus an imbedded coating of grit

Makes the Par-Lock base
ideal for plastering in
NATCO

THE COMPLETE LINE OF HOLLOW BUILDING TILE

Only NATCO can supply ALL OF THE TILE—

For every building—steel, concrete, or load bearing construction—Natco, and only Natco, can supply all of the tile. Natco can provide the tile for strong, light, economical, soundproof, strictly fire-proof floors.

Natco can provide tile for sheathing the beams, girders, and columns, protecting them from fire and corrosion.

Natco can provide tile that bar the passage of heat, cold, and moisture, for finished face, stucco, brick or stone faced walls.

No trouble about the kind of tile; the complete Natco line provides for that. No trouble about the quantity of tile; the tremendous Natco manufacturing and warehousing facilities provide for that. No trouble about prompt delivery; Natco service provides for that.

And no trouble about quality. Your Natco tile jobs will give, year after year, complete and lasting satisfaction.

NATIONAL FIRE PROOFING COMPANY


Branch Offices: New York, Flatiron Bldg; Chicago, Builders Building;
Philadelphia, Land Title Bldg; Boston, Textile Bldg

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The Only Concern in the World Making a Complete Line of Structural Clay Products

NATCO
ARCO Packless Valves Selected for Wayside Inn
Immortalized by Longfellow

The ARCO Packless Valve installation in Henry Ford's Wayside Inn strikingly exemplifies the fact that ARCO Packless is the valve for any job—whether it be a country home or the largest commercial or industrial building.

In the Wayside Inn installation it was obviously desirable that modernization, in respect of heating, should be accomplished with equipment possessing such refinements as would not clash with the Early American furnishings and atmosphere which Mr. Ford wished to maintain.

At the same time it was essential that the valves employed should provide positive insurance against leakage, so that none of the priceless historic relics in furnishings and decorations might be jeopardized. Hence, ARCO Packless Valves were used.

The architect—ever thoughtful of the utmost satisfaction of his client—will specify ARCO Packless on every job—because of its smart appearance, proven efficiency, convenient one-smooth-turn opening-and-closing feature, and positive insurance against leaks. For steam, water or vapor.

ARCO Packless Valves save their cost repeatedly through relief from periodic repacking required on the ordinary valve—to prevent leaks and consequent damage.

American Radiator Company
ACCESSORIES DIVISION
816-820 South Michigan Avenue Chicago, Illinois

Makers of:—
AIRID AIR VALVE No. 500

ARCO PACKLESS VALVE

ARCO WATER REGULATOR No. 500

DETROIT EQUALIZING VALVE No. 104

MERCOID CONTROLS
No Von Duprin latch has ever failed to operate in an emergency.

VONNEGUT HARDWARE CO.
Indianapolis, Ind.
1852 Our 75th Anniversary 1927
When the "Master Builders" Fashion Their Homes—

UNDER the wings of these welcoming gables, comfort and safety endure. For the great fraternity of builders whose work it is has built for the years to come.

The outer roofing tile is nailed directly to a roof deck of Pyrobar Gypsum Roof Tile. Three-inch-thick bars of pure white gypsum rock. They do not burn, nor transmit fire. They bar out heat in Summer, and as effectually retain it in Winter. Thus is the commonly-wasted attic space made usable in comfort, and thus are heating dollars conserved.

Building with these smooth, light gypsum tile is a joy to the heart of him who plans and builds—and a reassuring pledge of value to those who live or work beneath.

Pyrobar Gypsum Tile is a prudent choice. And year by year it becomes, more uniformly, the mark of the Master Builder.

May we send you full architectural and engineering data? Just have the coupon mailed.

UNITED STATES GYPSUM COMPANY
General Offices
Dept. K, 300 West Adams Street, Chicago, Illinois

UNITED STATES GYPSUM COMPANY
PYROBAR
ROOF TILE
Made by the United States Gypsum Company

UNITED STATES GYPSUM COMPANY
PYROBAR
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Mail this now
UNITED STATES GYPSUM COMPANY
Dept. K, 300 W. Adams St., Chicago Ill.
Please forward your special pamphlet on Pyrobar Gypsum Tile.
Increase the life and serviceability of concrete floors!

Grinding use will tell on the best of concrete floors. They become dusty. Concrete dust injures machinery and material.

In selecting a hardener it is wise to consider its reputation for service. You pay slightly more for Lapidolith, the original concrete floor hardener, but you buy a certainty.

Not only is the reputation of Lapidolith your guarantee of lasting service, but you have an additional safeguard in the company behind it. The House of Sonneborn exists by virtue of its standing with architects and builders. That reputation means more to Sonneborn than any temporary advantage that might result from decreased standards.

Further, if you specify Lapidolith to be applied by us, you will have to an even greater degree, our guarantee of the job.

To prove beyond question the reliability of Lapidolith, we will refer you to Lapidolith-treated concrete floors in your own city that have stood the test of years of use.

The coupon below will bring you data and samples.

Other Sonneborn Life-Savers for Buildings

HYDROCIDE—A complete line of water and damp-proofing products for walls, copings, foundations.

LIGNOPHOL—A wood floor finisher that preserves natural beauty of new floors, or adds a decorative shade to old floors. A preservative that prevents splitting, rotting or drying out.

CEMCOAT—A white paint that stays white longer than similar paints. Can be washed over endlessly. Adheres to brick or concrete as easily as to wood.

L. SONNEBORN SONS, Inc.
114 Fifth Avenue, New York

An example of a Lapidolith-treated floor in Thrift Warehouse, East Orange, N.J. John W. Ferguson Co., Engineers.

MAIL THIS COUPON TODAY

Please send me information concerning Lapidolith samples and literature on—Lapidolith, Lignophol, Cemcoat, Hydrocide Color.

Name
Address
Company
Position

L. SONNEBORN SONS, Inc., 114 Fifth Ave., New York
 Practically Every Make of Automobile Built Under This Roof

The list of automobile manufacturers who have adopted this one type of roof comprises a roster of practically the entire automotive industry. Experience since automobiles were first made in quantities has shown these manufacturers that for fire-safety, strength, permanence and freedom from maintenance, concrete meets all requirements. They have found concrete at its best in Federal Cement Tile Roofs.

Precast slabs, scientifically designed and reinforced, embody light weight with high strength, permit the use of less steel in the framework, and consequently lower costs. Erection is speedily accomplished under a strict completion date guarantee.

Not only for automobile plants, but for every type of building, industrial or non-industrial—whether with a flat or pitched roof—there is a permanently economical Federal roof.

Full engineering data, condensed for ready reference will be sent on request.

Made, Laid and Guaranteed by
FEDERAL CEMENT TILE COMPANY
608 South Dearborn Street
CHICAGO

FOR OVER A QUARTER CENTURY

FEDERAL CEMENT TILE
LEONARD THERMOSTATIC WATER MIXING VALVES

TYPE L-9-E (Exposed Piping)

No sudden shots of hot or cold water from a shower when a Leonard Valve is used: The action of the solid metal thermostat prevents it.

Catalog on request.

Manufactured by
LEONARD-ROOKE COMPANY
Incorporated 1913
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SAMSON SPOT SASH CORD

Durable
Noiseless
Economical

OUTWEARS metal and other substitutes many times over. Solid braided of extra quality cotton yarn spun in our own mills. Tough, firm, and pliable—resists abrasion and constant bending over sash pulleys. Operates without noise and friction. Stretched, glazed, uniform in size and quality and guaranteed free from imperfections of braid or finish. Look for the colored spots, our trade mark.

Samples and full specification data furnished without obligation.

SAMSON CORDAGE WORKS
88 BROAD STREET
BOSTON, MASS.

FOR YEARS OF SILENT SERVICE

Where specifications are particular Curtin is the installation.

Quietness, long-life, and efficient service are built into these fittings.

A. F. CURTIN VALVE CO.
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CURTIN TANK NOISELESS FITTINGS

IMPROVED LOOSE PIN FRICTION HINGE
(Patented)

This Hinge is designed on the simple principle of a Brake-band. It is intended for use on Hinged Windows and Room Doors, holding them open at any point, unaffected by normal drafts. PREVENTS SLAMMING.

Perforated fiber sleeve (Note C) eliminates all possible chance of noise. The friction is applied by turning screws B-B. THERE IS MORE FRICTION CONTACT IN THIS HINGE THAN IN ANY OTHER FRICTION HINGE ON THE MARKET.

Circular upon request.

THE OSCAR C. RIXSON CO.
4450 CARROLL AVE. CHICAGO, ILLINOIS
NEW YORK OFFICE, 101 PARK AVE., N. Y.
There Can Be

No Other Exactly Like It

Evernu construction is patented. Many features that add greatly to the excellence and economy of these toilet seats are found only in Evernu Hard Rubber Seats. They are different from any others on the market—and they always will be.

The exclusive features of Evernu Seats enable them to preserve their original glossy beauty through years of severest usage. That is the reason architects specify Evernu for fine homes, apartments, hotels, hospitals, schools and other buildings.

Evernu Seats are molded of special hard rubber into seamless, jointless, ever-lasting units. The hollow centers give unusual lightness and great strength. Jet black or mahogany. Models for every type of bowl. Unconditionally guaranteed.

Condensed specifications in Sweet's. Send for our latest complete catalog.

NEVER SPLIT SEAT COMPANY
(Founded 1905)
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Prominent buildings completely equipped with Evernu, include:
- Equitable Life Insurance Bldg., New York
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"Perma-White" "Coloro" "Evernu"
Sheet Pyralin Tinted Sheet Pyralin Hard Rubber
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For large buildings you can specify the
THATCHER SECTIONAL BOILER

with absolute confidence

The Thatcher Sectional Boiler has gained its wide popularity for installation in large buildings because of its high heating efficiency for the amount of fuel consumed.

Every point of its unusually large heating surface is in direct contact with the hot gases and flames, assuring quick steaming and high heating efficiency. The "triple fire travel" feature which compels the flames and gases to pass three times through the entire length of the boiler, provides high heat transmission with real fuel economy.

Thatcher Sectional Boilers are made for steam and hot water in all sizes for burning anthracite, pea or soft coal.

THE THATCHER COMPANY
Since 1850
NEW YORK NEWARK, N. J. CHICAGO
21 West 44th St. 39-41 St. Francis St. 341 N. Clark St.
"BEST" for bathrooms
and the entire house

There was a time when the interior wall of the home was looked upon as nothing more than lath and plaster—a method of dividing one room from another.

There was a time, too, when Best Bros. Keene's Cement was used only for bathrooms, corridors, stairways, and the service parts of buildings.

Today the demand for beauty, permanency, and lasting satisfaction in all interior walls is causing the specification of this plaster not only for the service rooms, but all the rooms of the home.

This is natural and logical because its complete service and satisfaction in the service rooms have won for it an acceptance of permanency for all interior walls—a preference by those who know it best.

May we send you a copy of our book giving complete specifications for the use of Best Bros. Keene’s Cement? No cost or obligation.

Best Bros. Keene's Cement Co.
1040 W. 2nd Avenue
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Keep Cool with a
THERMODINE UNIT HEATER

Eminently successful for heating—
Highly practical for ventilating!

No longer is heating equipment of cold weather value only. The Thermodine Unit Heater, universally accepted as supreme among unit heaters, is now being widely used for ventilating. Simply turn on the switch and cooling begins immediately! Acts on the same principle as the ordinary electric fan. The motor driven fan of the Thermodine Unit Heater that diffuses heat throughout the room during the heating season, circulates and cools the air during the summer. No adjustments — no extra parts — simply turn it on. Vertical deflectors provide ideal breeze-direction. Thermodine Unit is easily installed.

Thermodine Unit Heater buyers are enthusiastic over this new use. Makes their heating equipment usable the entire year. Offer your clients the double utility that Thermodine Unit Heaters provide.

There is a Thermodine Unit Heater for every size space — from the largest factory building to the smallest office — waiting to give perfect heating satisfaction in winter and delightful ventilation in summer.

Write us today for the name of our nearest dealer. He will gladly show you how a Thermodine Unit Heater is practical the year around.

MODINE MANUFACTURING CO.
Heating Division
1711 Racine Street
Racine, Wis.
Branch Offices in All Large Cities

This book gives you all the facts, advantages and many applications of the Thermodine Unit Heater.
10 outstanding features of Thermodine. Explains the universal directional advantage.
Interesting photographs showing heat distribution by smoke tests. Illustrations showing construction, ease of installation and accessibility. Complete capacity tables for this advanced copper condenser type unit heater.

THERMODINE UNIT HEATER
FOR STEAM OR HOT WATER HEATING SYSTEMS
DUNHAM

**Difr-enshal-Vacm**

Heating System

**A FIXED DIFFERENTIAL IN PRESSURE**

**A VARIABLE DEGREE OF VACUUM**

**Two Outstanding Reasons**

There are two outstanding reasons why the Dunham Differential Vacuum Heating System is now available to the public—first, through C. A. Dunham Co.'s radiator trap development whereby these traps under high vacuum will pass water and air, and retain steam under varying degrees of temperature. And second, because the Dunham vacuum creating apparatus will produce a vacuum of 26 inches of mercury into which water and cool gases will flow from the radiator as a result of the automatically controlled difference in pressure between the radiator and the return piping.

C. A. DUNHAM CO.

DUNHAM BUILDING

450 East Ohio Street, Chicago

Over sixty branch and local sales offices in the United States and Canada bring Dunham Heating Service as close to you as your telephone. Consult your telephone directory for the address of our office in your city.
Consider the Celluloid Collar

Very smooth it was, very shiny, very white. In theory it was perfect, but socially, a total loss. *It hadn't the slightest visible texture.*

Likewise, flat, textureless walls and ceilings deserve to be supplanted, as they are being supplanted today, by textured finish—textured and colored.

And Textone, the modern plastic paint, has grown in popularity with the growing public demand for the beautiful effects it creates under the hand of any competent painter-decorator.

Specify Textone with full confidence that it will faithfully render the feeling you have in mind, for with Textone any texture, any tone may be had, over any surface.

May we furnish full, illustrated, file-size data sheets on Textone? Just have the coupon mailed.

UNITED STATES GYPSUM COMPANY
General Offices: Dept. 128, 300 West Adams Street, Chicago, Illinois

TEXTONE
THE PLASTIC PAINT
Made by the United States Gypsum Company

MAIL THIS TODAY!
UNITED STATES GYPSUM COMPANY
Dept. 128, 300 W. Adams Street, Chicago, Illinois
Please send Architect's data on Textone.

Name: ____________________________
Address: __________________________
City: ____________________________
Your Client demands positive ventilation

INDUSTRIAL executives fully realize the value of having ventilation specifications included in plans for all new construction. They are demanding that you specify methods of positive ventilation—that you guarantee sufficient air changes in the plants designed.

With the Swartwout engineering staff at your disposal, you can direct a survey that will assure solution of any ventilation problem—you can write the results into your plans with our guarantee backing the specifications.

Assure your clients full satisfaction by carefully prepared ventilation specifications. Ask us to send a Swartwout engineer to confer with you regarding a survey on any immediate undertaking.

THE SWARTWOUT COMPANY
Executive Offices: 18503 Euclid Avenue, Cleveland
Factories at: Cleveland and Orrville, Ohio

Swartwout
Rotary Ball Bearing Ventilators

Hess
CABINETS and MIRRORS
Snow-White Steel

VENETIAN STYLE
A De Luxe Cabinet, entirely concealed by the beautiful etched mirror. The last word in bathroom furnishing. Made in three sizes.
See Sweet’s Index; or write for catalogue.
HESS WARMING & VENTILATING CO.
Makers of Hess Welded Steel Furn. 1ces.
1223 S. Western Avenue, Chicago

Boyle’s
Bayonne
Roof and Deck Cloth
REG. U. S. PAT. Off.

Is guaranteed waterproof, will not crack or peel and may be painted to harmonize with the color scheme of any house or porch.
For sleeping porches, piazzas, conservatories and for low-pitched roofs Bayonne has no equal. It requires no white lead bedding and yet stays flat. It neither shrinks nor buckles. There is a style and grade for every service.
Suitable samples and specifications for laying mailed on request.
Write for Sample Book “B”

John Boyle & Co., Inc.
Established 1860
112-114 Duane St. New York 70-72 Reade St.
Branch House: 1317-1319 Pine St., St. Louis, Mo.
WHEN fire destroyed the old clubhouse of the Peoria, Illinois, Country Club, it was decided to rebuild with fire-safe materials. The present structure, designed by Hewitt, Emerson & Gregg, Peoria architects, is an excellent example of the practical and artistic possibilities of portland cement concrete.

The building is of reinforced concrete construction, with a special texture portland cement stucco exterior. The ceiling beams are also of reinforced concrete, finished with cement plaster with stencil decoration.

The driveways and ornamental lawn decorations, also of concrete, add to the attractiveness of the club’s home.
On the banks of the historic Thames rises the stately pile of "The King's College of Our Lady of Eton beside Windsor," founded by Henry VI and dedicated to the education of Britain's youth since 1440. Now, at Rockford, Illinois, another great school is being erected—The Abraham Lincoln Junior High School—to care for the training of eighteen hundred young Americans.

In this huge building are more than three acres of floor space—class rooms, library, stage and auditorium, gymnasium and swimming pool, community room, cafeteria and kitchen—every facility for teaching, health and entertainment. Architecturally magnificent, the six monoliths of its center pavilion are the largest one-piece stone columns ever quarried in this country.

In keeping with its lasting merit of design and construction, the metal doors and elevator units of the Abraham Lincoln Junior High School are Dahlstrom. Dahlstrom Metal Equipment combines artistic dignity with the rugged serviceability so necessary in schools.

DAHLSTROM METALLIC DOOR CO.
INCORPORATED 1904
JAMESTOWN, NEW YORK

Branch Offices

NEW YORK
475 FIFTH AVE.

CHICAGO
1950 S. LASALLE ST.

DETROIT
1331 DIME BANK BLDG.
Representatives in principal cities.
Mr. du Pont has bought his 50th Oil-O-Matic

Chairman of the Board of the great General Motors organization uses oil exclusively for heat on his estate

Just the bare statement that Pierre S. du Pont has 50 Oil-O-Matic Oil Burners on his estate answers nine-tenths of the questions on oil heat now in your mind. And when you read how he came to select Oil-O-Matic—where they are used—the length of time he has had them—and their record of performance—you will realize that your whole problem of heating is answered for you.

Engineer Makes Actual Tests

From his staff of engineers, Mr. Brewer was appointed to determine which oil burner was best fitted to provide economical, uniform, dependable heat. On the basis of engineering excellence, his choice narrowed down to two. But after making actual tests in homes on Longwood Farms, the du Pont estate, Mr. Brewer enthusiastically recommended Oil-O-Matic. He also bought two for his parents’ home and father’s green house.

This settles the question of comparative merit.

For Any Size Home

Longwood Farms covers 1200 acres of beautifully rolling countryside, near Kennett Square, Pa. The employees and their families dwell on this estate in average size homes. It is into these that Mr. du Pont has placed fifty Oil-O-Matics.

This is your assurance that no home is too small to enjoy all the wonderful benefits of Oil-O-Matic Heat.

Dependable Uniform Heat

The first three Oil-O-Matics were installed on the estate in the spring of 1925. So perfectly did they function that during that summer 39 more were purchased. These 42 have more than confirmed the engineer’s judgment. Eight more have been added as new homes were completed.

In view of this there should be no question as to its dependability. Particularly since Oil-O-Matic has been given similar satisfaction for 8 years, and more home owners are buying Oil-O-Matic than any other two oil burners combined.

Lowest Operating Cost

The individual tenants bear the cost of heating their own homes, and their satisfaction is the best measure of Oil-O-Matic Heat. You will find their homes spotlessly clean and easy to keep so. They enjoy the comfort of perfectly uniform, automatic heat at a cost equal to the bare cost of coal.

Oil-O-Matic’s low operating cost is primarily due to its ability to use heavy oils, lower in price and richer in heat units than the light oils to which most oil burners are restricted. Yet Oil-O-Matic burns light or heavy oil with equal facility.

Architects Specify Oil-O-Matic

In scores of cities leading architects have found that Oil-O-Matic meets their needs perfectly. One in St. Louis has just specified his 50th. For all the facts that will assist you, send today for “Specifying Oil Heat,” our special book for architects. Your local oilomatician is well versed in oil heating and will gladly cooperate with you.
Showroom, Harry J. Dean Company, Detroit, Michigan

Arthur C. Keil, Architect

Zenitherm Company, Inc., Newark, New Jersey

ZENITHERM
REG. U. S. PAT. OFF.
LOOKS LIKE STONE—WORKS LIKE WOOD
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ARCHITECTURE AND THE SCHOOL BOY

SOME OF THE ADVERTISING representatives of some of the older journals serving the architectural field have, when soliciting advertising contracts for their own publications, referred to PENCIL POINTS as a "school-boy paper", intending to convey the impression that most of our readers are of the school-boy class and therefore without great immediate purchasing power. Now this happens not to be true, as an analysis of our subscription list will show.

But we are proud of the fact that PENCIL POINTS is being subscribed for and read very generally by the students of architecture, including not only those who are taking courses in our Architectural Schools, but also the great body of draftsmen whose ultimate position in their chosen profession will depend very largely upon the way in which they improve themselves by constant study and application. The same in a measure is true of many practising architects who are constantly telling us that they learn things from our pages which are of great practical value to them in conducting their drafting rooms. One subscriber, who admits to being 86 years young, recently told us that he finds PENCIL POINTS a source of great and constant inspiration.

Now we come to a consideration of the beginner, of the High School boy, who has decided that he wants to become an architect. Let us encourage him in every way possible so that he may have a full appreciation of what the profession of architecture has in store for him. The students of today are the draftsmen of tomorrow—and the architects of the day after tomorrow.

It is not enough that the student be taught to draw. He must also be taught how to build and must know what are the possibilities and limitations of the various materials of construction. He must be given a proper conception of the business requirements, which are so necessary in securing commissions, in his relations with contractors and financial institutions and in the conduct of the business of his own shop.

So let us all bear the school boy in mind and give him generously out of our own experience so that when he takes his place in the ranks he may in all respects be a better architect and a better builder than his predecessors have been.

If we do a thorough job with the rising generation the profession of architecture in years to come will hold a relatively stronger position than it holds today.
A CHAT WITH THE YOUNG DRAFTSMAN

By F. W. Fitzpatrick

Our friend the editor has been good enough to ask me to chat with you for a column or two. He did say something about a subject, Fire Prevention, or was it the Invasion of the Architectural Field by the Builders? Oh well, a garrulous old chap surely may impose upon Pencil Points a bit, take liberties and chat in its columns upon whatever subject he chooses. I will chatter about those other things by and by, some other day. Just now I want to get off a wee sermonette upon—of all things, HEALTH! And, by jinks, it has more to do with Architecture than is generally wotted of, so to speak.

Here now it is just fifty years since I first began to foregather with and know architects, draftsmen, and builders. Ever since then it has been a most intimate association, and I have had opportunities to observe many, many followers of our beloved Art, or is it Business? There has been in these latter years a general improvement, it seems to me, in the profession's health and general physical condition. Prohibition perhaps is one reason, but I am sure golf can be credited with the larger share of that improvement. In the old days drink was the curse of the profession. Many men who believed in their genius had to follow the example of the other geniuses in literature and painting and the rest of 'em. They had to draw inspiration from a bottle. It was said of far too many that the tipsier they were the better they could draw. And that was a great incentive to guzzle to the limit so as to excel in our Art!

Then, too, there were many temptations. Drinking was most general. Architects and draftsmen had much to give and were courted and invited, and fat cases of good wine were sent to their homes. Building contracts, opening of bids, finishing of jobs, laying of corner stones, were all occasions of much biberning, and some of the latter was done every day without much occasion, just to show the architect or draftsman that this or that builder or the other material man was a good fellow.

A great Danish scientist avers that every glass of beer tends to shorten life 25 minutes and a litre of spirits is apt to lope off 11 hours, so that, alas, too many of our old timers must have lived hundreds, yea thousands, of years less than they were intended to.

The Wets claim that there is more drinking now than in pre-Prohibition days, especially in golf clubs. It is not so. Golf has lengthened and bettered architects' lives. Only trouble is they don't do enough of it.

What I am getting at is that as draftsman and architect the rank and file of us could and should be far healthier. Habits of life are not quite right. Spasmodic overwork is another cutdown of general health. Badly ventilated offices, wrong positions at work, too little exercise and too much to eat can be blamed too. Take a big office full of men and you will find too many of them pale, dyspeptic, stoop-shouldered, lop-sided.

We hear a lot about great genius burning in a poor physique. In rare cases yes, but as a general proposition it is mens sana in corpore sano. And I know you can't do your best work with a headache gnawing at your topknot or dyspepsia dancing the Charleston in your tummy.

You must have good health to do good work. You also need a tranquil mind to give it the best study. And pleasing surroundings and good friends, a cheerful home and a non-nagging wife all contribute to the perfecting of that work. Draftsmen and architects as a class, I find, give altogether too little attention to these other matters, and seem to take pride in having something wrong with their innards.

Now then, it just so happens that whilst I may be a blamed poor architect, I am, at sixty-five, as healthy a specimen and perhaps the most violently active old goop you will find in the whole blooming profession. A concrete case of good health is assuredly a greater incentive or example to follow than any amount of theorizing, so I will tell you how I do it. Regularity of living, refusing to worry, good hard work and lots of exercise. I am perfectly well and the nearer you work to the system that keeps me so, the better I am sure you will be. We will qualify that by saying a system instead of the system, for, of course, locality and conditions make modification necessary, but I am speaking of the matter broadly.

I live now as I did at forty, and thirty and twenty. Seems to me that a satisfactory routine and absolute regularity go far in keeping the human machine in
order. I am up at sunrise, and take four or five glasses of hot water with a pinch of salt, followed by a good run, walk, or horseback ride,—at least an hour outdoors and going. A little bran, raisins, yeast and cream, a small saucerful, for breakfast. Then work, no lunch, as many hours as necessary to accomplish what is before me. Instead of eating at noon, I make it a half hour of handball, dumb-bells, or something to stir a man up and fit him for the afternoon's work. In summer I generally get out at four and it is tennis, hard and fast, mostly singles, until seven or even till dark. Last Fourth of July I played seventeen sets. In winter it is as nearly two hours as I can give to gym, boxing or fencing, handball, a run, and the rowing machine,—or another good walk. Then dinner, the one meal, a good dinner, not overdone, but enough, and the evening as pleasantly spent as possible, but no cocktails nor coffee, tea or other stimulant nor more than one cigar (a day) and to bed as early as possible. Six hours sleep is the most I take, but, goth, it is sound, blissful sleep!

Stick to some régime as sane as that day in and day out and you will live long and do good work. Incidentally you will feel like a game rooster and everyone will swear you are not over fifty when you are nearing the seventy mark. Too few of you, old or young, give much attention to the physical part of life. Try it out just once—in this incarnation.

Tennis and boxing I think are the best all around sports for us who have to sit and think and stay indoors so much, though of course golf is almost as essential to a practicing architect on account of "business contacts," something like belonging to a fashionable church and to the best clubs. But, begosh, it must take away from the value of the exercise to do it with such sordid motives.

I took to boxing not naturally but perforce when quite young. An only boy, I was rather coddled as a kid, not a sis exactly but one who loved to read and draw. I kept away from rough play and companions, but I did love horses and dogs and rode a good deal.

My Father died when I was an infant. My Mother was rather impulsive and when I was nine she suddenly took a notion that the son of a Frenchman (of Irish name and descent) should know French. She was an Englishwoman and utterly innocent of French. So was I. But off to a French school was I bundled, a rather forlorn kid. Only one teacher knew a few words of English. But I learned French and never forgot it. Today I use it freely and write almost as many (and as poor) articles for French publications as I do English.

But whilst absorbing French I was also kept constantly reminded that the English were no good, one Frenchman was good for at least three Englishmen, and so on. All of which led to more or less mild denial on my part and frequent beatings. But little by little I found that sometimes I could put up a pretty good scrap, so I worked at it zealously and by the time I left the school at twelve I had licked or been licked by every boy there, acquired friends and skill and was backed up by the gang as its "champ" against other schools.

At fifteen I began Architecture in earnest, under the best masters, with travel and so on, but along with it I as zealously applied myself to boxing and rowing, also under the best masters, and gave a pretty fair account of myself, judging by results.

In the middle eighties, quite by accident, and raw from another country, I found myself chief draftsman in the biggest office of the Northwest. Of all that gang the office boy was the only one younger than I. A motley crew, some exceedingly fine fellows. For instance, just before me, Hains and LaFarge had been in charge but had gotten enough of the wooly West and gone back to New York, where sometime later they won the competition for St. John's Cathedral. Most of the men who later made the Northwest what it is passed through that office, some of the finest draftsmen the country has known. Harvey Ellis, for instance, than whom no finer pen-and-ink worker ever lived, was there for a time. And engineers too. Strom for one, who was the first man to figure out all the possibilities of skyscraper construction. To him is due perhaps half the credit of really devising that construction.

But the majority of the chaps in that office were tramps. Like the printers of those days, draftsmen were a more or less itinerant lot. They would stay there a few weeks or months, then off to California or back East, and their habits were very similar to those of the printers.

Three-quarters of the pay checks came back from bar-rooms and such places. Often I would note the disappearance of many tee-squares; a dollar sent to the nearest bar would redeem them. They had been pledged for a few guzzles.

To keep anything like discipline and order and get some work done required tactic, perseverance and a strong arm. I had large, frequent and not unwelcome opportunities to exercise what skill I had in quick action and pretty thorough knowledge of the manly art. At different times a six-inch dirk, an axe, and several bricks would have accounted for me had I not been fairly handy. All this was rather a revelation to a fellow fresh from most respectable fields. One of the first days there on coming back to the office I was greeted with the sight of six drunken louts asleep on their drawing boards. Another time two of that same crew got into a squabble and by the time I heard it one had the other half out of a sixth-story window. And there was comical as well as almost tragic stuff. One chap's wife was going back home to the South for a visit to her Ma and he and his three cronies in the office, all gotten up in their best, went to see her off. Of course, to console him they afterward made a tour of down town. In those (Continued on Page 500)
THE WORD TREES, AS USED above, is meant to be inclusive, for it is not our intention to confine our discussion in this chapter to the representation of trees alone. Aside from them we shall also touch on such similar things as bushes, vines and grass.

To acquire the skill to draw all of these is by no means easy, yet the need for doing so is apparent, for there is hardly a follower of any one of the fine and applied arts who does not, at one time or another, have some of them to picture.

The landscape artist and the landscape architect perhaps need the largest amount of special knowledge along these lines, for to them all such things are of primary consideration. The architect and his assistants, too, necessarily deal with them so often as a part of the settings for their buildings, that they must give their representation serious attention; particularly must he who specializes in architectural delineation have real skill in this direction. Even the art student, especially if he has illustration in mind as a profession, needs to become familiar with them, too; if he uses them for nothing else they will still be valuable as accessories to other subjects.

Obviously it is impossible for one to draw all these things well unless he knows them well. A too frequent failing of beginners is that they think that because they have always been surrounded by such things they have automatically come to a full knowledge of them; they therefore try to draw them from memory when their mental impressions are too vague to make this practical. There are others who learn to do one or two types of trees and bushes with a fair degree of satisfaction, and who then grow indolent, thereafter employing these same trees repeatedly regardless of their appropriateness to place or purpose.

It is only from outdoor sketching that one can hope to acquire a real knowledge of these subjects. Drawing from good photographs is of course valuable training, too, and easier for the beginner. There is no harm in studying, and occasionally copying, representations by other artists. As a preparation for all of this work, however, or accompanying it, one should brush up on his botany, and above all he should study some of the books which are mainly devoted to a consideration of trees. There are plenty such, among which we might mention F. Schuyler Mathews' Field Book of American Trees and Shrubs, which is excellent, especially from the draftsman's standpoint, as it is fully illustrated with pen, crayon, and color reproductions. Then there are some written entirely for the artist, among which Rex Vicat Cole's The Artistic Anatomy of Trees is splendid, for although it is an English volume dealing mainly with trees native to England, it nevertheless offers many suggestions applicable to the representation of our own trees. A perusal of such volumes will not only familiarize one with the names and leading characteristics of the more common varieties and train him in the laws which govern their growth, but should, also, strengthen his love and appreciation of the beautiful in nature. It is by no means necessary to learn all the scientific terms employed, unless one chances to be a landscape architect, or to memorize more than a few essential facts concerning each species. It is advantageous, however, to gain enough of a knowledge to enable one to answer such questions as the following,—What are evergreen trees? What are deciduous trees? Name some of the characteristics of the Pine family,—of the Maple family,—of the Birch,—of the Beech. Do elms grow in Ohio? Are hemlocks found in Kentucky? Name five trees that are tall and pointed. Name five that are short and widespread. Questions like these may seem unrelated to pen sketching, but they really are not. They are especially pertinent for the illustrator or the architectural delineator, either of whom may be called upon at any time to make drawings of places which he has never visited. Unless he has acquired such a knowledge, therefore, or knows where he can easily secure the information when it is needed, he may make absurd errors.

It is, of course, particularly important for one to be familiar with the trees and shrubs and grass and vines of his own vicinity, so he should visit a park or the country, sketchbook in hand, looking for actual examples to illustrate the things he has read. Before starting to draw he should take an observing walk. He might first concentrate on the trees. How do they appear in the distance? Can one see the individual leaves? Do the trees look flat? Do they appear round? Do the trunks seem darker or lighter than the foliage? Do the trunks and branches seem of a uniform tone? As he strolls about in this questioning way, comparing one tree with another, observing the shape of the general mass of each, analyzing, also, its skeleton of trunk, limbs, branches, and twigs, he might be selecting the subject for his first sketch, using his viewfinder as an aid. As a rule a beginner will have less trouble if he first draws some subject far enough from him to show little confusion of detail. A tree in full foliage is often easier to do than one which is bare, also—when the subject has been selected one should search for the best viewpoint from which to draw it,—then he should get out

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MANY TREES ARE MUCH LIKE BALLS

SOME ARE LIKE GROUPS OF BALLS

BUSHES, TOO, ARE OFTEN BALL-LIKE.

SOME TYPES OF STROKES

LIGHT AGAINST DARK

BRANCHES DARK

BRANCHES LIGHT

FIGURE 1, ILLUSTRATING PEN-AND-INK TECHNIQUE FOR FOLIAGE
his materials and make himself as comfortable as possible.

Just as for the drawing of any other type of subject there should be a few minutes of analysis before the paper is touched. What of the shape of the tree? What of its values? Is it lighter or darker than the sky? What of its edges,—are they soft or sharp and clean-cut?

Such observation will show that some trees are nearly round and much like balls,—a thought which has been illustrated at “1”, Figure 1. Others seem like groups of balls of varying size in combination, as at “2” in the same plate. Still others are suggestive of such geometric forms as cones, cylinders, ovoids and ellipsoids. They can be represented, then, in much the same way as these geometric solids, yet care must be taken that they do not seem too heavy and solid when finished. And it is seldom that they hold exactly to any geometric form, unless they have been carefully trimmed. In fact even a tree which seems ball-like in general mass usually diverges sufficiently from this form to make it possible to entirely bound it with a line made up largely or wholly of straight strokes. This means that though it is helpful to think of trees as similar in form to geometric solids, they should not be rendered without also taking into account these customary variations.

When one has analyzed his subject he should proceed with his sketch. There are several things essential to satisfactory delineation of trees, and one of them is that the outline or contour drawn for each tree should be a correct expression of its proportions. If it is, a good foundation has been laid for a creditable drawing. Unless it is, no amount of labor on the technique will make up for it. As an exemplification of the importance of contour we have made marginal sketches. These show that even a solid black silhouette drawing of a tree is surprisingly expressive of its true appearance. In these sketches, for instance, one would scarcely mistake the elm for the apple or maple.

Though we have just recommended accuracy in the delineation of tree contours, we do not mean that one has to be as painstakingly correct as when drawing portraits of people; for trees, even of one species, vary so in size and shape that the observer, in looking at a drawing of one, is not able to notice faults of proportion which would seem alarmingly conspicuous in representations of many subjects. The important thing is for the artist to learn to express the main characteristics of contour well, and especially such of these as are peculiar to each species. If this is done, one’s sketch in contour will always have promise of becoming convincing when finally rendered.

As the student works at the perfecting of his contour, which is usually lightly indicated temporarily by a few dots of the pen, or by delicate pencil lines, he should also locate the main lines of the supporting
FIGURE 2, ILLUSTRATING PEN-AND-INK TECHNIQUE FOR FOLIAGE
framework or skeleton,—the trunk and the branches. Faulty construction of these lines of growth causes many of the failures of the beginner. Therefore it is well for one to carefully suggest, in pencil, not only the larger branches which are plainly visible, but also those which are partly hidden, if a hint of their directions can be traced through the foliage of the tree itself.

With the contour right, and the framework correctly suggested, the values of light and dark are the next consideration. If a tree is nearby, its values often seem extremely complex; each leaf which is visible has contrasts in light and shade of its own. It is in view of these complexities that we advise the beginner to draw trees which are not too near him. If a tree is in the extreme distance, and the sun is not too bright or the air too clear, it often shows only one plane of tone, which can be represented by a silhouette of gray, as has been suggested on page 465. Sometimes a distant tree stands out as a single dark plane against another tree, or mass of trees, which appear as a lighter plane, as shown. Now and then the opposite is true. These are extreme examples, however. More often a tree, even in the distance, has at least two rather distinct planes, in addition to which it is often seen in relief against a background plane of still different value. Still more often it is hard to resolve the values of a tree or bush into less than three planes. When it comes to the interpretation of these planes there is sometimes no definite line of demarkation between them. Reference to the marginal sketches will make these points clear. The student, then, having completed his contour and having blocked out the framework of branches, should observe the direction of light, and the resulting values of light and shade on the subject which he is drawing. If they appear to be confusingly complex he may be able to see them in a more simplified form if he squints at them through partly closed eyes, thus blurring the detail. Or he may get a similar effect by walking directly away from the tree, observing it from a greater distance. He should try to think of the whole as resolved into a limited number of values, and as another aid to this it is often advantageous for him to make one or two little trial value sketches of it, similar to those shown. Having done this he is ready to render his larger sketch.

This brings us to a consideration of the actual technique used for this work, which is highly important, for it is here that the student, and particularly the beginner, seems to have the greatest trouble. This is often because he tries too hard; instead of using the technique which seems to him a logical expression of that which is before him, he attempts to apply some method which he has seen used by some other artist, perhaps for an entirely different purpose. He knows, of course, that he cannot hope to render every leaf; instead he should study the general direction of growth in every part of a tree. In some trees or some parts of trees leaves are drooping,—in others they
Figure 3, Applications of Methods for Rendering Trees, Bushes, and Grass
are stiff and upright. It is these directions of growth that one should try to interpret, and the strokes used should be those which seem to offer a natural expression of this growth. The stroke which one would select to represent the drooping leafage of the willow, for instance, might not do at all for suggesting the bristling pine.

Figure 1 shows at "3" a number of sketches of bushes in which a variety of strokes have been applied; similar strokes would do as well for rendering trees. Figure 2 offers several other applications. Figure 2 presents one of the most popular strokes of all, for not only can it be done very quickly but it can be applied with variations to the representation of almost any subject having foliage. The plate is self-explanatory.

Before sketching outdoors, one should study these plates and other examples by various artists, and should then practice such indications as appeal to him the most, later applying an appropriate one to each outdoor subject.

When the foliage is finished on a sketch, the student should complete the branches, if they can be seen, and the visible portions of the trunk. These should be modelled so as to express their correct shapes; they will usually seem rounded unless in the distance. One should notice the great difference between the tone of the bark in light and in shade, a difference which is frequently exaggerated by the artist to good advantage, as is shown by marginal sketches. In one, for instance, the nearby limb is in the sunshine; it has been left white. The farther limb is in shadow and has been made dark by lines running lengthwise of it. In another the branches are both left white, excepting the upper portion of the nearer, which has been darkened by lines running around it. The nearer one casts a shadow on the other, which detaches the two. Shadows of this type, cast on a limb by foliage or by another limb, are common to trees. A less usual effect is shown also, where the nearer branch is the one in shadow, the other being light behind it. In one sketch all of the branches are light but run up into strong shadow just as they disappear in the leafage, a very frequent condition. Just as we have these sharp shadows on branches we often find the upper edges of holes through foliage in deep shade, which means that in rendering them it is necessary to accent them. This makes the holes look like holes and not like clumps of light leaves.

Not only should these minor shades and shadows, which seem parts of trees themselves, be given attention, but when one draws a tree he should handle thoughtfully the main shadow which the tree casts on the ground. Often the shape of this shadow helps to give a correct impression of the shape of the tree and of the character of the ground itself. The type of line used for suggesting the shadow on the ground will depend largely on whether the ground is smooth or rough, bare, or covered with grass. If smooth and bare, horizontal strokes sometimes seem to give the best results. If covered with close-cropped grass, similar strokes may be used to advantage, but if the grass lacks the perfect smoothness of a newly mowed and well-kept lawn, strokes done with greater freedom and generally in more or less of a vertical direction are better. Note the grass suggestion in Sketch "5" at the bottom of Figure 2, as well as in several of the sketches in Figure 3. Study other drawings, too, in order to get as many suggestions as possible for grass indication. Comparisons of reproductions will show that if one draws the shadows of trees, buildings and the like, as they fall on the grass, the white of the paper may sometimes be left blank—or nearly so—for these areas of grass which are in sunlight.

But we are digressing a bit. If a tree casts a shadow onto a building, and this building is included in the sketch of the tree, it is important to get the shadow correct in shape, right in value, and at the same time expressive of the surfaces on which it falls. When the student has completed his first tree sketch he should try others;—having done a few drawings of individual trees, adding bits of the surroundings, if he chooses, he might attempt groups of two or more trees. In such a case the shadows cast by each tree on its neighbor should be represented with care. Often when one tree or bush is partly in front of another there are very interesting contrasts of light and dark. In Sketch 5, Figure 1, at "A" one bush has been left almost white against a darker one behind it, the lightest values of green not being indicated at all. We have something of the same effect in Sketch 1, Figure 3, for there the tree beyond the hedge starts light at the top and grades down to dark as it disappears behind the hedge. This in turn is light on the top where the sunlight strikes it most directly; then it darkens until it forms a foil to set off the foreground bush. On the same plate at "4" the dark of one bush and of the doorway throws the shrubbery beneath the door into relief.

Though most outdoor tree sketching is done in the summer, the student will add greatly to his knowledge of trees if he gives some attention to them as they appear at different times of the year. In the autumn or winter, when the leaves have fallen from the deciduous trees, one has the best opportunity to study their skeletons. It is surprising what a variety of types exist. Some trees have a very meagre arrangement of branches. Some, instead of this barrenness, have a surprising richness; there seems almost no end to the arrangements of trunks, limbs, branches and twigs. One should sketch some of these contrasting arrangements. If the weather is too cold to permit this, several photographs might be made to be drawn later. The shadows cast by these skeletons on the ground or the snow, or on buildings, are also worthy of study; in fact one can hardly afford to neglect them. One of the marginal sketches shows
Tree Representation

Figure 4: Studies of Trees Drawn from Nature with Pen and Ink.
one of these skeleton forms done in the winter time,—another shows the same form as it appeared partly clothed in the spring. Another sketch showing the tree in full leafage would have added to the value of this study. Vines, and especially those which grow on houses, should also be drawn at different seasons of the year; they are not difficult once tree representation has been mastered.

During all of this study and sketching one should try to memorize the leading characteristics of the things investigated, thus building a firm foundation for future memory work. The sketches themselves should be preserved, too, for no matter how imperfect or incomplete they may seem when made, they may later prove of inestimable value for reference.

Figure 4 shows two outdoor studies of the sort which the student might try, the first being of a complete tree, the second of portions of a group of trees and bushes. It will be noticed that in a number of places the nearest branches, which are out in sunshine, have been left white; the farther ones, being in shadow, are shown dark. This gives depth to the sketches. The trees do not look flat as they sometimes do in drawings.

The architectural student should make many studies like those in Figure 3, particularly "2" and "4", for he must early learn how to represent trees, bushes, grass, and the like, as part of his settings for architecture. In fact this is important for almost anyone who is learning to draw. Trees used as part of an architectural setting are generally of the common kinds and rendered in a somewhat conventional manner so they will not detract from the architecture. Such trees are less interesting, however, than are those which are unusual in character. Old, gnarled, wind-blown veterans, for example, that have fought the elements for years, are the sort which bring joy to any lover of sketching, and when one has arrived at a reasonable degree of skill in the delineation of the more usual but less individual types, these are the kinds he will seek.

In conclusion, just a word about trees in motion. Such trees as we have just described, especially those which have stood for years in exposed positions, often have become permanently deformed or crippled, either through reaching out towards the sun, or, more often, through the force of the wind. If such deformity exists the artist must try to portray it; if he cannot do so his drawing is in a measure a failure. Trees, too, are often seen waving back and forth in the breeze or temporarily bent by the force of the wind, or, again, there is simply a rustling or rippling tremor to the leaves. Such movements as these last are of course extremely difficult to suggest,—it is interesting to try to do so now and then, however. The other effects of motion, particularly the bending of a tree by the wind, being less subtle, do not offer such obstacles to the artist, who can, therefore, learn with practice to suggest them expressively.
SPANISH SKETCHES

By Edmund R. Purves

To sketch intelligently in Spain, or for that matter in any other place, is to understand the country and its people and to appreciate to a marked degree its atmosphere. Sketching, even of the primarily architectural strain, is a highly personal affair and unconsciously reflective; even as is architecture itself the child of its creator. The old equation still applies and the merit of the result is commensurate with the labor and the fervor.

To accomplish a bit of satisfaction is ridiculously easy in that merry land and does not necessitate more than the scantest knowledge of its sweetly harsh language. "Manana" and "Muchas gracias" if applied with abandon, suffice, and the necessary food, drink, and lodging come as a matter of course. Which last, despite many warnings to the contrary, I have always found abundant and beyond reproach. I am not, however, overly fastidious by habit or nature, yet there were certain demands which never failed to be met.

The difficulty of voyaging in Spain is purely a myth, founded perhaps on the facts of many years ago. At any rate I would far rather trust myself to the mercies of an Andalusian brigand, should such a person actually exist, than to the policed streets of almost any of our cities. Spanish ignorance I failed to find and Spanish ill-humor appeared to be an unknown quality. In passing I might add that Spanish good-humor, whose depth varies throughout the country, can always be brought to the surface by more or less simple operations,—and the effort is well repaid. A merry laugh is an "open sesame" and worth more than much gold. Also it is often well to seek the friendship of the biggest and most important policeman in town, not as a matter of protection, but because he invariably knows the ropes, and if his aid is once enlisted almost perfect senatorial immunity may be enjoyed.

Unfortunately Spain is so rapidly passing into the tourist-ridden class into which sorry category Italy and France are fast falling, that I urge speed, utmost speed, for any one with Spanish intentions. This passing is due to the progress of the Royal Automobile Club, the inception of a Spanish line of steamboats, and the presence of a king with a genius for advertising. I recollect with a certain glow, a genuine glow of nostalgic satisfaction, that I have seen shepherds of the south, high up in the fastnesses of the Sierras, black-hatted, short-coated, and wearing rawhide thongs over their goat-skin leggings; and those of the north wrapped in great sheltering cloaks on the wind-swept plains of Estramadura; and that I have heard the clatter of castanets in a spring evening in Seville coming from a hundred streets. I have heard still stranger and more eerie music from great bagpipes played in Catalonian villages, and seen a fiesta in a small town near Valencia where seemingly unending bowers of a million blossoms were wrought of simple streets; this and a hundred other sights and sounds come floating back to this time and country.

So I urge speed, to see, learn, and love before the inroads of Messrs. Cook and Bartlett have become boulevards littered with gas stations and the offenses of a thousand advertisements. Of course color, composition, and the theatrical fantastic material of the land are rather immovable (despite the destruction wrought by American progress) but they form a scant half, and a lifeless half, without the generous if unconscious aid of a people who still continue to lead their own lives.

Of material for your pencil, crayon or brush there is a wealth but slightly scratched, and then only in the rather customary grooves of Granada, Ronda, and Toledo. Grooves into which I slid with utmost ease, and for which sliding I am not altogether sorry; grooves for which I even hold a bit of a brief. I spent little time in looking for the unknown spot. I was not a discoverer, merely a draftsman trying to solve the problem "why is architecture". I am not an artist or even a sketcher, whatever technique fought its way to the front arrived "ipso facto".

I highly recommend drawing the customary view. It is without exception the best, and has been proven so through generations of artistic endeavor. It survives the last analysis. Particularly for architects it is inadvisable to go in search of the undiscovered, it is not worth the effort. Far better to spend every available minute in a complete study of the aspect at hand. I was more interested in carrying on my own education than in surprising whatever friends might show even the most cursory interest in the fruits of my expedition. The practice of bringing home an unknown bit of architecture to transplant in these United States always seemed to me particularly vicious and stupid. A lamentable pursuit followed by too many of our travelling architects and draftsmen. Whole days are wasted in trying to find something nobody has seen before, and carrying an idea securely home to foist on an untravelled clientele.

But to continue, go!—go by all means; while the mule bells still tinkle, and while people still cling to a bit of romance, a flash of natural color, and live out the tradition of centuries of doing as they please and doing it when they please, even with architecture. See what could be done with Gothic magnificence, how the Renaissance could be playfully manipulated and when Romanesque was of the soil, when through every aspect of life there runs a strain of the Orient and the clash of far off cymbals, and
WOLFF PENCIL SKETCH BY EDMUND R. PURVES
THE BRIDGE AT RONDA

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where a beleaguered nation still holds out against the blight of encircling civilization.

Coming down to actual fact, should a personal narrative be of interest to anyone. Perhaps one might glean something of advice or of warning. Space forbids any but a short summary of five fruitful weeks spent in as comprehensive a tour of Spain as was possible in so short a period.

The coming and going was not altogether of my own choosing and I was resting up a day in Clermont Ferrand after some few weeks' walking over the hills of Auvergne, looking at every Romanesque church that had ever been tucked away in the folds of that land, when an old friend appeared with a new Ford in which he suggested that we circumnavigate Spain. The invitation was greedily accepted and we sped forth the following day after a farewell dinner to ourselves at a restaurant of note. We continued our merry way through Rodez, Albi, and Carcassonne to Perpignan, rushing madly through so much of the fairest of France in our haste for Spanish adventure.

In Perpignan we bade ourselves goodbye again and loaded our machine with extra gasoline, tires, tools, and even food and drink as if for an expedition to a savage hinterland. All of which was subsequently proven to be a wholly unnecessary gesture, for a country more completely supplied with Ford mechanics and spare parts than Spain is scarcely to be found. And incidentally despite our utter ignorance of the native language we never failed to obtain even more than our natural share of three square meals a day.

I heartily endorse touring by Ford in Spain, especially if two or more can be of the party. It is no more expensive and far more pleasant than train travel. To begin with anyone going anywhere by train in Spain, as I have been told, must change at Boabdilla, from all accounts a desolate spot,—while we never approached nearer than fifty miles to it and laughed in our sleeves. Though as a sidelight on the joys of railroading my friend Muirhead Bone, the etcher, showed me a book full of landscape sketches done on a Spanish train in full motion. The windows, he explained, were quite clean.

Before the question is asked my confidence can be encroached upon to the admission (made with some pride) that the total cost of my trip to Spain, including board and lodging, gasoline, tires, car washing, sketching materials, theatres, beggars, and bull-fights, was two hundred and fifty dollars. And I believe that there is still time to carry on in like fashion.

We crashed through the mountains beyond Perpignan and bowled down through Catalonia to Gerona where we spent our first night. From there we went to Barcelona and caught our breaths, after which we followed the coast through Tarragona, Tortosa, Sagunto, Valencia, making dashes on the side to Montserrat and Poblet.

After Valencia we left the sea and went over the mountains by Jativa to Alicante and thence through Elche and Orihuela to Murcia. A vastly interesting and unexpected trip of African illusion. From Murcia we headed for Granada and Andalusia, which
PENCIL POINTS

is the most beautiful country in the world, past cave towns and lofty sierras and through twisted, fantastic valleys—settings for the activities of brigands.

Granada and the Alhambra marked a sort of goal and we basked for five unforgettable days under the trees listening to nightingales. After Granada came Malaga and Ronda, and then on we went to Seville through the wheat countries and past vast bull-raising ranches.

From Seville we made a dash from Madrid through Merida and Trujillo but our flight was arrested at Talavera de la Reina due to motor trouble and we spent a night in a Spanish inn. A comfortable night too. Madrid was a matter of hours from which trips to Toledo, Aranjuez and the Escorial are to be made. There is nothing of note in Madrid except the Prado, and the only shop in Spain where Wolff pencils may be bought in unlimited quantities. I did all my sketching with Wolff pencils on ordinary paper for convenience and economy.

From Madrid we pursued our way northward to Segovia, thence to Burgos and finally out through Logrono and Pamplona to St. Jean Pied de Port. Of course we missed innumerable places, monuments, and scenes which serve, however, as a further incentive to return. We never reached Cordova, Valladolid, Salamanca, Avila, Leon, Oviedo and many other spots, but we had our vision of the country, the land teeming with romance and theatrical composition of towering towns and splendid rocks, and kindly natural natives. We learned how academic styles may be taken and made to do tricks at the will of an irrepressible people, and that architectural inspiration does not come from rule and rote alone, but from imagination and ability. This was our Spanish legacy. For who can doubt the majesty of the Giralda or the forbidding grandeur of the Escorial or the stalwart splendor of the bridge at Ronda?
THE RICKER MANUSCRIPT TRANSLATIONS, IV

GUADET'S "ELEMENTS AND THEORY OF ARCHITECTURE," VOLUME IV

By Thomas E. O'Donnell

The fourth and last volume of Guadet's work is, in many respects, the most interesting of the series. It is certainly the most varied in subject matter. In a way, it forms an extended supplement to the first three volumes and a summary of the work of a lifetime of this most eminent architect. The volume consists of his final series of lectures to the students at the Ecole des Beaux Arts and, like all the other volumes of the series, is well illustrated. It is arranged in four "books," each of which is subdivided into a number of chapters.

Book I deals with the Elements of Composition in Funerary, Commemorative and Ornamental Edifices; Book II, with Military and Rural Architecture, Gardens and Public Ways; Book III with General Elements of Composition; and Book IV with The Profession of the Architect.

The three opening chapters of the first book are on funerary architecture and are a direct continuation of the third volume, which was largely on religious architecture. The first chapter treats of ancient methods and the resulting type of structure; the second chapter, of the changes in methods due to the influence of Christianity and the third chapter, of modern funerary types.

Chapter four is given to a study of commemorative monuments and edifices, such as memorial columns, arches of triumph, statues and pedestals, etc. Commemorative monuments are defined by Guadet as those that are erected for the purpose of recalling historical remembrance, such as the Vendome Column. He also states that every commemorative structure must express the historical fact simply and without equivocation, that its eloquence must be concise and, since its purpose is to transmit the memory of a fact to a distant posterity, its architecture must be durable and defy time. The part played in such structures by inscriptions, carvings, and paintings is also considered. A classification of monuments shows some to be purely commemorative and decorative, while others may be utilitarian as well as being beautiful and inspiring. Guadet, in order to bring out the character, signifi-
Typical Illustrations taken from Guadet's Fourth Volume

Showing his method of examining the elements of composition of the various parts of the plans of buildings. “A,” an exterior vestibule, from the Pantheon; “B,” an entrance vestibule, the Luxembourg Palace; “C” and “D,” typical vestibule arrangements, from the Louvre, Paris; “E,” typical illustration from Guadet's study of stairways; “F,” the grand vestibule, from the Farnese Palace, Rome.
cance, and meaning of monuments, analyzes a number of the most noted historic types, showing how the character of the peoples who built them is unquestionably expressed. The commemorative monuments of the Chaldeans, Assyrians, and Romans, for instance, show unlimited pride and personal agrandizement. The Greek Temple, however, was nearly always a memorial building—such as the Parthenon, with its wonderful Panathenaic frieze. The Choragic Monument of Lysicrates, on the other hand, merely celebrated a fact.

In the closing chapter of the first book, Guadet discusses ornamental edifices, such as fountains, decorative retaining walls, and so on, and draws a sharp line of distinction between real ornamental types of structure and mere decoration which may be only applied.

Book two is divided into six chapters, and is concerned with the elements of composition in military, rural, garden, and public way architecture.

Although military architecture now belongs to military science, it was not always so and, except for strictly utilitarian features, is really within the realm of architecture. Guadet gives a most interesting discussion of Mediaeval structures for defense, and brings out the characteristics that should be found in every defensive structure from which suggestion and inspiration may be had for modern work, such as military schools and defense works built during times of peace.

Another interesting chapter is that on rural architecture. Although French rural architecture may seem, at first, a bit afield, it must be remembered that in the past and possibly in the future, the better farm houses of France offer great inspiration for modern work. Scientifically, we may be far ahead of rural French work, but artistically we are far behind, and can study certain of the French rural types with profit.

The chapter on gardens is one of the most interesting in the entire volume. In it Guadet discusses, at length, the following: gardens for utility, pleasure gardens, Italian villa gardens, French gardens, English gardens, and public gardens. With the general utilitarian types, the architect is little concerned. However, where beauty is the chief aim, as in the pleasure gardens used to enhance château, villa, country house, or other architectural features, the design of the garden may be considered as an extension of the structure and within the domain of the architect.

After considering the general characteristics of the Italian, French and English gardens, Guadet then turns his attention to a detailed study of the architectural elements usually found in the larger
COURT OF THE STROZZI PALACE, FLORENCE

Used by Guadet to show the elements of composition in the courts of the Italian palaces.

Gardens; terraces, grottoes, basins and pools, fountains, water effects, jets, cascades, arbors, pavilions, stairs, inclines, and so on. These are all elements belonging primarily to the architect and are an integral part of the composition and decoration of gardens. The relation of each of these architectural features to the garden as a whole is carefully considered by Guadet.

The next two chapters Guadet devotes to public gardens, and to other phases of public and civic work that should be of special interest to the architect—work which was once within the realm of the practices of architecture, and should be, in part at least, recovered by the profession, namely: the architecture of the public ways, especially the design and construction of ramps, flights of steps, quays, banks, canals, bridges, and viaducts. In modern times work of this character usually comes under the direction of the so-called “city planners,” but, whatever the name, it should be in the hands of an architect who is skilled, not only in construction, but in design as well. These chapters contain valuable material that is suggestive and inspiring for those interested in city planning and other civic improvements.

In the third book, Guadet returns to the more fundamental subject, the General Elements of Composition. This part is, in many respects, a more extended study of the work of the first three volumes. The book is divided into fourteen chapters. The first is an explanation of the general elements of composition, modern search for and the increase in requirements and means. Chapters two to five, inclusive, Guadet devotes to a detailed analysis of the following elements and their composition: vestibules and their function in buildings; various types; external and internal vestibules; incorporate vestibules; engaged or attached types; and monumental vestibules.

Chapter six is devoted to a study of general circulation, touching upon the following phases: public porticoes; ornamental porticoes; porticoes for lighting halls; widths of porticoes, and so on. The next chapter deals at length with interior circulation, various types and combinations of corridors, passages,
and other elements, being carefully considered. Under the heading of vertical circulation every well known stairway arrangement is discussed in detail, a few of the more important subjects being: monumental flights of steps; flights with two branches; ramps; stairways between walls; attached to walls; and location, direction, enclosures, and so on, of stairways.

In another chapter Guadet discusses in a very interesting way the subject of courts in buildings. He begins with antique courts and peristyles, courts in oriental countries and in Mediaeval castles. From these he passes to courts in Italian palaces; courts with porticoes; internal courts of modern houses; open courts; courts of honor; and the many special features of courts.

In the chapter which follows, the elements and composition of façades in the various styles are discussed. The following phases are considered: foresight for façades in the study of plans; projections and recesses; façades, uniform or in the same plane; character and differences in façades; variety in expression; façades with several bodies; with end motifs; façades with middle motifs or pavilions; angle pavilions; association of two motifs; façades with single story; several stories; gables, and so on.

This section of the fourth volume contains a great amount of material that is most valuable and applicable to the work of the modern designer. It is well illustrated with specially prepared sketches of plans, sections, and elevations in line drawing, examples taken from the most noted buildings of all time.

In the fourth and last book of this volume, Guadet deals with the Profession of the Architect, in all its larger and finer aspects. Although written with particular reference to the French student of architecture who will eventually become a French architect, it nevertheless contains much that the American student can study with credit to himself and to the profession. The French architect has a far higher standing professionally and is charged with more exacting responsibility than is the case in this country. The profession is and should be one of the highest callings, and the very high plane set for it by Guadet will cause one to realize that it requires men of the best training and character. To raise the standard of practice should be the highest and noblest ambition of each young architect and, whether French or American, architects have much in common in the field of design and in the ideals of the profession, all of which are thoroughly covered in the Ricker translation of Guadet’s four volumes on the Elements and Theory of Architecture.
RAFFLES IS A MASTERFUL FELLOW, full of sage quips and astute observations. His comment on the architecture of escape, quoted in excursus a, indicates a quality of mind unusual even amongst architects. We had been invited to make the journey home from Washington with Fellows in his car, which was just the right size for four people and their luggage, judiciously stowed. On the beautiful Saturday morning following the Sixtieth Annual Convention of the A.I.A., (while the President and Directors, the Producers Council, the Committee on Earthquake Hazards, and others were holding Post Convention meetings), we started for Annapolis, without a care in the world.

Our first stop landed us at the steps of the national Capitol, and the climb to the main floor produced the above couplet. It is something over twenty years since we stood beneath the great dome, craning our neck to view the famous painting of Washington, crowned in glory by the nine muses or genii of some sort, by that Italian master whose name escapes us for the moment. Since that time many grand buildings have been built, vast halls, great domes, rare marble, mosaics, murals, all the pomp and circumstance that wealth can produce, have been lavished on our interiors; the genius of the most skillful artists has been invoked to emulate the glories of the past and fulfil the promise of the future, yet the simple grandeur of that great hall remains unsurpassed and its lustre undimmed. It is quite like those splendid old Prix de Rome drawings of 1804-1810. Raffles says the finest period in American architecture was 1830, and he's probably right in this respect as he usually is in most matters. The nobility of the enframement of the pictures of Trumbull, Weir, Vanderlyn, Powell, and Chapman, and the naive quality of the pictures themselves, (they do not pretend in the least to be "decoration"), is refreshing. The Supreme Court and Statuary Hall are gloriously proportioned and full of delicious detail, even though some of the portrait marbles are excruciatingly humorous. The épée de blé, or corn cob columns in the vestibule of the ground floor entrance at the right of the big steps, said to have been designed by T. Jefferson, are our earliest example of Alfalfa Renaissance. This little groined vestibule with its staircase is well worth studying showing the advancement in arcuation and stereotomy of its designer.

Annapolis, viewed in the rain, the traditional weather for architectural excursions, made sketching impracticable, though we might have made an essay in the Harwood House, where a word from Fellows procured us an entree. We noted many fine trees loaded with great purple clusters that were like wisteria and like locust, only different. We repeatedly inquired the name but nobody seemed to know, which shows that not much is gained by asking questions.

Our luncheon in the Carvel House Inn was somewhat sketchy and provocative of the red hot gulps during the ride to Pimlico. At intervals seductive signs by the roadside cautioned us against "soft shoulders". As this was somewhat perplexing we kept a sharp lookout going through villages, but to our disappointment saw nothing to disturb our peace of mind.

In order to reach Pimlico it was found necessary to pass through Baltimore. The Washington Monument, high up on the intersection of Washington Place and Mount Vernon Place, gave us a big thrill. The oldest of the monuments erected in honor of the Father of His Country, (corner stone laid 1815, completed 1820), is of beautifully weathered white marble, the base 50 feet square, 24 feet high. On this stands a Doric column, 25 feet in diameter, 130 feet high, surmounted by a statue of George, 16 feet high.* It was almost one hundred years later that H. Hornbostel, D. Barber, J. Friedlander, H. Magonigle, not to mention McKim, Mead and...
White, Carrère and Hastings, and a score of others, awoke to the possibilities of the Doric column as a commemorative shaft. None of the above has improved much on the Baltimore example, although one of them, (we believe), certainly did a fine job of embellishment in the balustraded garden forming the approach from the South.

Fellows was our guide and mentor on the arrival at Pimlico. It was the last day of the racing season, still raining, and the fifth race about to be run as we entered the betting shed (admission $1.65 including tax). All was bustle and confusion, and a vast sea of faces, some of them haggard and drawn, lined the grandstand, tier upon tier, while a seething mass of moist sports nervously paced to and fro in the open space between the track and the seats. Crowds of excited people were hurrying to place their bets—parimutuel is the technical name for the transaction—before the bell rang. Fellows studied his card.

“Dangerous looks good to me”, he said. “Whoofinger is riding him and Whoof’s a bear in a heavy track.”

We tried to look intelligent and judicial.

“Let’s put a V on Dangerous for ‘show’, and if he romps in we’ll pyramid it.”

“Good idea, Fellows”, we said, without knowing in the least what he was talking about.

Dangerous came in first, to the great satisfaction of the crowd, and Fellows cashed in $21.80.

“Fine,” said he, “now let’s play Raclaweis both ways and Cup Custard for show.”

It was a tense moment. A deep roar from 40,000 hoarse throats told us they were off. With backs curved the jockeys crouched over the horses’ withers as the field swept past in a piebald mass. We couldn’t see anything, but nobody ever does see anything at a race.

“Now let’s see how much of this roll we can spend for a good dinner at the Belvidere”, said Fellows on the way in town.

They gave us the bridal suite, its carpeted floor still littered with bits of confetti and Fellows telephoned “Room Service”. “Bring us a big pitcher of ice, some lemon peel, and a waiter with a card”, he said. “You fellows do the ordering.”

While we were busy with Parker Morse Hooper’s cocktail shaker, (which by the way, he left in Jo’s room in Washington, and which we must remember, treasured souvenir though it may be, to return to him), Raffles animatedly discussed Green Turtle, Terrapin, Soft Shell Crabs, Asparagus, Guinea Hen, Pommes Soufflés, Old Stilton, Hot House Grapes, and such, with a waiter who proved most sympathetic.

Seated at table an hour later we talked of many things over our “White Rock”.

SITE OF COLTON HOUSE, LONGMEADOW

BELLS FOR PRINCETON CARILLON

“Just watch that blackboard out front”, Fellows cried.

With bated breath we kept our eyes glued to a large sign in the middle of the field we had previously thought was a real estate sign advertising “lots for sale”.

Sure enough, in a minute or two a man put up some numbers. One, Raclaweis, two, Leviathan, three, Cup Custard.

Raffles was deeply stirred, man of iron though he is; Fellows had disappeared but returned in a few minutes with a fist full of bills, some of them yellow boys. We became intensely excited and wanted to blow our entire roll on the seventh and last race. Calmer judgment prevailed, however, which was just as well, for our selection, Typecutter, who led the field for three quarters of the way and almost caused us heart failure, finished a splendid fourth.

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"The evils of the betting ring" said Fellows, "may be divided into two classes." He spoke with authority, being familiar with New Orleans, Tia Juana, Belmont Park, Longchamps, Ascot, and Epsom Downs. "Those who win, and those who lose. Better far that the first venture prove disastrous, and with lost illusions, the beginner rids himself of the shackles that bind the soul with insidious seduction, than that through paltry initial success, he pursue the ignis fatuus that can only lead to ruin. Thousands go over the brink every year!"

"Facilis descensus asparagus," murmured Raffles, dipping a stalk in Hollandaise.

Sunday morning dawned fresh and clear, and we got away for an early start to New Castle, Delaware. Ever since the White Pine Series of Architectural Monographs, (Vol. XI, No. 6 and Vol. XII No. 1,) appeared we had been crazy to visit New Castle, book says it is, only more so, absolutely swell and almost untouched by the bawdy hand of the speculative builder. Even the old buildings seem ungnawed by the relentless tooth of time, or else they are kept spotless and restored by a recognizant citizenry. Immanuel Church on the Village Green was intensively interesting. Built about 1704, still in splendid repair, it is full of inspiration. The exterior is covered with stucco, slate roof, wood cornices. The tower and spire is a curious combination of simple Tudor and early Georgian. The slate is a delightfully soft greenish blue which harmonizes pleasantly with the cool gray stucco and the warm orange brickwork of the surrounding buildings. The graveyard contains hundreds of simple monuments of the celebrated of Delaware. One could spend weeks painting and sketching in New Castle, and it was slowly

and with regret that we left this delightful spot. The road to Philadelphia was past rolling fields, yellow with butterscotch and saxifrage, the sun playing hide and seek between masses of fleecy cumuli. In homage to B. Franklin, whom the Philadelphians have appropriated as their very own, (many of them even believing he was born there, much to the annoyance of the Society for the Preservation of New England Antiquities), we alighted at the vast new hotel, (opened January 1, 1927), named in his honor. It's rather an appalling place,—the hotel,—and while we were perfectly comfortable, even luxuriously so, we did not enjoy it over much. After dinner we paid our respects to Independence Hall, where, to settle a wager, we tried to measure a light of glass in one of the ground floor windows, but a coarse brutal policeman told us to get to hell out of there,—the first unkind word we had heard on the trip. Things have come to a pretty pass when an architect cannot avail himself of the storied wisdom of the ages, as exemplified in noted works of art, without becoming an object of suspicion, and the recipient of the vituperative abuse of a vulgar belligerent night watch. To hide our pique we walked across the park with bowed heads and peeked timidly into the entrance of the Curtis Publishing Company's building. (E. V. Seeler, Architect). There was a great marble vestibule, or entrance hall, on the back wall of which was a mural by Maxfield Parrish. In front of the mural was a large oaken table in the Neo-Pompejanian manner. On this table was a tall vase containing a single American Beauty rose, (a long-stemmed one, about $25 a dozen we estimated it). The only other object in the room was the latest copy of the Saturday Evening Post, placed nonchalantly at a slight angle so as not to look too set. We
removed our hats and stood silent for a moment and then tip-toed quietly back to the hotel.

In the morning we inspected Paul Cret's great bridge which is rather difficult to see properly except from the air maybe. This is a fine structure, worthy of the great pontists, and the recent award of the medal of the Philadelphia Chapter. The new Art Museum with its polychrome decorations, failed to cause us aesthetic emotion. It's a bit unfair perhaps to attempt to evaluate impressions while the building is still under construction, and the tympani and the acroterons and such not in place, but one needs a strong glass to discover the polychrome at a little distance, and the color of the stonework is certainly sterculious. The retaining walls and terraces at the side, and the great steps, all executed in granite, are fine and impressive.

After a visit to the Stenton Mansion, where we wandered in the beautiful gardens, and Fellows' diplomacy overcame the scruples of the guardienne, who let us inside on the distinct understanding that no sketches be made or measurements taken, (the Philadelphians seem obsessed by an anti-measuring complex), we were off again to Princeton. Here we stayed for the afternoon, seduced by the beauty of Nassau Hall, the Dean's House, Holder Hall, the Graduate School, and the genial luxury of the College. We saw the Hun School, where the undergrads pursue their athletic studies, we were told; the Architectural School, which looked even better than it did two years ago, and watched the workmen install a carillon in the Cleveland Tower.

Fellows adores the sea, and when it was discovered that by crossing to Staten Island and thence to the Battery, two ferries would be necessary, our route was changed accordingly. Halfway across the island we pulled up sharply as we were passing Ernest Flagg's little stone church with a tar paper roof. A kindly parson showed us all over this really extraordinary contribution to modern architecture. We liked it. We liked also the Barclay-Vesey Building, which in another way is likewise a fine example.

We had given a great deal of thought to the subject of hosteliés in New York. The choice of the visitor is a wide one. We arrived at the conclusion that the two best inns, in the order named, are the Lafayette and the Brevoort. We tried the Lafayette first and were fortunate in securing a splendid great 1860 room au premier with a vast garde-robe in which Casanova may have passed anxious hours. A huge pitcher of ice and a smiling waiter, barely a week off La Gascogne, shortly appeared, and we refreshed ourselves, after a hard day's study of the Fine Arts. The hors d'oeuvres, and the escargots were sublime, as were the pommes Anna, spring lamb, and the bel poeie. After dinner we watched them play checkers and whist in the cafe, and drew pictures on the marble top table with a 6B Pencil.

Tuesday morning we paid short visits to the Coffee House and the Gracie Mansion, and after a long ride with several stops, one of them being New Haven to view the sumptuosities of Otto Faeften, and the new theatre of Jim Clapp,—where strangely enough the brick gave out and they had to piece out the facade with stone—(the weather holding perfect), towards evening we came to Avon College at Farmington. This is a wonderful place, provocative of varied emotions, aesthetic and homiletical. The materials, Longmeadow sandstone, impressively thick red slate, huge oak timbering and red brick, with walks and drives of red gravel, enframed in dark pines, silver aspen and verdant greensward, could not be improved upon. The handling of these materials is skillful to an unusual degree, and the result, to our way of thinking, masterful. Fellows and Raffles were deeply impressed, and excitedly discussed their reactions, while we could not help but feel that these fine buildings made our rather timid and conservative efforts seem futile and anemic.

Fortunately on account of a convention of Visiting Firemen we were unable to obtain rooms at the New Bond in Hartford. Heublein's, however, gave us food and shelter in exchange for what was left of our once plethoric roll, and here we almost had an adventure. Out of regard to John, the night porter, we must regretfully refrain from saying more, but if any architect contemplates a visit to Hartford we shall be glad to drop him a hint. John might be very helpful in an emergency.

The art treasures of Hartford are many. There is the fine old Bulfinch Capitol, now in charge of the Colonial Dames, with splendid interiors, the First Church, many stately residences of the 1830 period, the Morgan Memorial Museum, where you are regarded as a suspicious character immediately on entering the door; spacious streets and fine modern buildings of varying degrees of excellence. We spent a profitable morning and rolled quietly home in the afternoon, just as the Scotch gave out. Raffles remarked, as the silhouette of the Watertown Bleachery rose in view, "Not including intoxication, we have been in seven different States during the past five days."
"THE BLADES OF RAZZ will please come to disorder!" Tom Kenyon pounded the table and glanced down its length. Smilingly he surveyed the gay, expectant Blades. The warm, smoke-stained walls of the little French restaurant, Au Point du Crayon, was their background and meeting place. A miscellaneous assortment of paintings, sketches, and architectural renderings formed the mural decorations and contributed much to the atmosphere. Henri, its proprietor, exuded the friendliness of the Latins for those they like and Henri loved this roistering crew of gay young architects, "The Blades," as they had called themselves.

"Why the addition 'Razz' to the name of our worthy organization, Tom?" J. Chesterman Heatherstone sardonically inquired.

"Chet, as official chief of this outfit of architectural hoodlums, I have the floor and want to make a near speech, so don't interrupt me or I'll have Pat O'Hara, our august and husky sergeant-at-arms, throw you out in the alley."

"'At a boy! Sic' 'em, Tommy. Have him thrown out and then give us the dope," yelled one of the crowd.

"Well fellows, it's like this," Tom explained. "You see the name Blades fits this crowd pretty well. We've had some bully good times at these meetings, wise-cracking with one another and all that sort of thing, but a number of us feel we could run in some discussion about the good old profession of architecture and its problems and maybe do a lot of good at that. Our idea was this. At these meetings fellows are privileged to say anything we want, for or against any subject brought up for discussion—good-naturedly razz the other fellow and his ideas all we want, but always make our criticisms as constructive as we can."

"Mr. Chairman!" called out Chesterman Heatherstone.

"All right, Chet, what is it?"

"Tom, I rise up to come to your rescue—to save you from talking yourself to death."

"Tom bowed a mocking thanks.

"That is a mighty good idea even if Tom did spring it," Heatherstone addressed the group. "I've just had one too." He surveyed them impressively.

"O. K. Chet, let 'er cackle," jeered one of the crowd.

"Well it's a good one," he defended, glowering with a mock severity at the interruption.

"All right, we'll bite, what is it?" demanded another.

Chet cleared his throat with the solemnity of a patent medicine orator. "I hereby propose," his tone rose oratorically, "that we devise, and I hereby pound, a motto for our august organization." He paused for dramatic emphasis. The crowd applauded.

"Hurrah, grab a fire-extinguisher and distinguish him," someone called out.

Tom pounded on the table for order.

Chesterman continued: "And let that motto be descriptive of our policy and feeling. Let it be etched deep on the hearts of us all—'With Razz to all and Malice to none.'" A burst of applause followed this sensible nonsense.

"By Jove, Chet, that's a pip! Put it in the form of a motion, Chet, that it be officially adopted." Chet raised his hand for silence.

"No, let's hold action over on that and wait for our friends in Architectural Radioland to suggest a better one. Maybe some of these wise and witty young artichokes and draftsmen can spring a better one." Chet sat down amidst a clapping of hands.

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George Clarkson rose to his feet. "Boys, I'd like to speak a little piece if you don't mind. You remember our informal discussion of last month, when we were waiting for the chapter meeting, and Tom, you told us about that jazzy Architects' League of Hollywood and the booklet they got out, 'Your Profit, Friend Architect. How About It?' I shipped them fifty cents to 6040 Hollywood Boulevard, and back the thing came. Well, it has a cover that looks like a circus poster and I took it home to read it and I left it on the table. Friend Wife spied the big question mark on it and declared priority right and she spent the evening reading it and I want to announce to the waiting world, I haven't had a minute's peace since."

"How come?" inquired an interested Blade.

"Well," he continued, "the lady glared impressively at me when she had finished."

"'This tells what's the matter with your business all right, George Clarkson, and why I have to make over my dresses and hats—can't have a maid—and why we are always hard up. And George, I'm going to personally see that you memorize that little book. For the sake of your soul and the glorification of the family exchequer.'"

"We spent the evening reading it over and analyze-"
PENCIL POINTS

ing it and she gave me no peace until I hired a cost accountant to check over my business and see where the difficulty was. I really made the acquaintance of old Dragon 'Overhead', and he's a tough old reptile. Honestly fellows," he continued earnestly, "I didn't know what overhead was until I read that. I gave it to the cost accountant and he read it over and said he didn't know there was a bunch of architects that had brains enough to figure it out. But there it was and I want to announce to the world, if anyone ever catches me cutting under the American Institute of Architects' schedule again, I hope they'll kick me from one end of town to the other. Why, according to that booklet, you can't do it and make any net profit at all. I wouldn't take three thousand dollars for the information I got out of it."

"Bully for you, George,—anybody else follow my suggestion and send for it?" Tom inquired. "Let all the enlightened ones rise."

Five other members rose to their feet; among those was Pat O'Hara, who started a dolorous chant,—the other four joined him as he sang: "So say we all of us, every damn one of us, so say we all." The Blades interrupted this musical attempt by pounding the table until the dishes danced.

"You know, fellows," Chet had risen with the other four—"that Hollywood outfit ran an article in The American Architect entitled 'The Architect and His Profit.' It was published in three issues starting with the August 5th, 1926 number, and it was along the same line and told us what was the matter with the architectural profession,—why we weren't making any money and most of us were hard up all the time. You know," he continued dryly, "that bunch out in Hollywood seem to think they discovered architecture and I don't know but what they have at that; at least, a modern application of it. They're certainly hounds for publicity—must be the movies." A laugh went around the table.

"Say, speaking of publicity, I heard a darkey story that wasn't so bad along those lines," Pat O'Hara spoke up.

"Go ahead, Pat, spin the yarn."

Thus encouraged, he continued: "There was an old darkey undertaker who was called upon to officiate at the last rites of a very popular colored citizen in a Southern community. The deceased's brother had embarked on the sea of matrimony three times and on the first two voyages he had to change captains. The last one had proved to be an aggressive widow who claimed exclusive right to sit on the mourners' bench. The two former 'blue grass' widows violently contested this privilege and the old darkey undertaker was called upon to settle the dispute. Marshalling all his powers of diplomacy he firmly stated himself. 'Ladies, dis am no tam foh any unseemly controversy and ah hereby rules as follows,—dat all three ob yo ladies get up on de mourners' bench and share equally in de publicity!'" A hearty laugh burst forth. Pat continued: "And I'm wondering when we architects are going to climb up on the mourners' bench and get in on the publicity."

"The Lord speed the day, the enlightened do pray," chanted a witty Blade.

"Speaking of publicity," one of the group looked inquiringly at Tom—"how did your speech get over with the Chapter. I wasn't there, did you get a rise out of the old boys?"

"By Jove, I don't know, Jack." Tom looked thoughtful. "In some ways it seemed to me like talking into a wet blanket. I was awfully discouraged about it, and yet a number of the younger and more progressive fellows called me up and said it was great stuff. That night I thought it was an awful washout, and yet when it was over one old boy waddled around to me—one of the old guard reactionaries dyed in the deepest purple—and said he thought radio casting the message to the public would be a good scheme. Bless his kind, ultra-conservative old heart. I could have kissed him. The old boys are good old scouts, mighty intelligent men and all that, and yet why they cannot or will not see the value of modern progressive advertising methods in putting themselves over to the public, I can't understand. When I went home, I was one blue devil."

"Why, that was a good speech, Tom,—you gave the old sewing circle an ear full." Jack Mannington turned eagerly to his fellows. "We mustn't be too hard on the mothy old crowd—why their eyes bulged out like a lot of gold fish. Tom told them that when a business got to such a point that out of every one hundred who build, only seven employ an architect, it wasn't just plain ordinarily sick—it was deathly sick. He told them their only way out was to employ a professional publicity expert and sell themselves to the public as is done by every other modern progressive business. The general contractors' association is getting a lot of publicity in magazines and papers and they are getting a decent price for their work. The lawyers, doctors, dentists, engineers, all the progressive professions are advertising and employing publicity agencies—every one but we architects and we're sound asleep to the most vital and pressing problem facing us."

"That's true, fellows," Tom Kenyon spoke up—"but there is one great difficulty in our getting publicity. We architects are not advertisers and the contractors are. It's mighty few newspapers that will give us much free news space unless we run paid advertising."

"Say, fellows, here's an idea." One of the previously silent ones rose to his feet. "Why couldn't we persuade the Chapter to put on a program of mass advertising? They could run general advertisements in the papers under the name of the association telling the public what the architects could do for them,
telling the advertising value of good architecture, how it increases property values, results in higher incomes on building investments, and all that sort of thing. We could advertise stuff like 'The Plans and Specifications are more the Foundation of your building than the concrete under it,'—such catch phrases as that. We could employ a good advertising expert to help us frame up the copy—let him tell the public how much it costs for the services of a trained architect and how valuable it is to them. It's just as Tom says—the public doesn't know a thing about architecture and we haven't told it. It's a mighty good idea, Jack, and if we can talk that up and get the A. I. A. behind it, it would go over. Every dollar invested in that kind of advertising would pay us many times over. Then if we had a live-wire publicity agency to hitch up to the advertising we could get the news publicity and then we could tell the world.

"You know these publicity agencies don't confine themselves to just newspaper advertising. We could put speakers at club luncheons, like these Service Clubs, and tell them how necessary good architecture is to the development of our community. The public wants artistic things and good architecture but it doesn't know how to get it; it falls for this free plan racket. You know the game. Some incompetent turns out a set of skeletonized plans and that's why so many of our buildings are so terrible. Of course the public doesn't know it though, and we architects are so darned old-fashioned and out of date, we won't tell it."

"Mr. President!" One of the men rose to his feet. "I for one would appreciate it if you could get a definite proposition from a reputable publicity agency, telling us how much it would cost to put on a publicity campaign, and how they would do it."

"A mighty good idea, Harrington, I'll get the dope for the next meeting and I hope you fellows will put your shoulders to the wheel and let's get it over. We architects may as well sing 'The Graveyard Blues' if we don't and I don't mean perhaps."

"'At a boy, Tom, we're with you. We may ruffle the dignity of some of the esthetic 'high hatted' old things in the profession. It may be wormwood to their souls but it will be balm for their pocketbooks."

"Well," laughed another, "we can always fall back on our slogan, 'With Razz to all and Malice to none'. They may go out and buy some sheets of asbestos letter-paper upon which to pen their flaming words of disapproval, but if they'll sleep on it and call a spade a spade they'll find we're not so far wrong at that."

"Well, fellows, it's getting late. I have some more ideas I'd like to spring on you but we'll have to put them over for another time and tell all the fellows you know in the business about our royal and regal order of the 'Blades of Razz.' Tell any of the wise-cracking young draftsmen in your office they can write in and tell us we're all wrong and why. They can make cartoons of us or anything else as long as they'll think about us and talk about us. Even that exalted and celestial creature, your typical architect, can daintily descend from the royal throne of his dignity and hand us a mean crack if he wants to,—we'll send him our engraved motto and read his reply out here in meeting, so think up any razzibilities and have them ready for the next meeting. Don't be too long-winded about it though, we don't want to get the editor sore at us and give us the air. And that recalls the story of the parrot who tried to razz a fox terrier pup. He sat on his perch and yelled 'Rats'; the pup rushed around the room excitedly and was disappointed in finding no rat. Going back to sleep again he was awakened by the squawking cry 'Rats'; again he made his excited exploration and returned to his nap. Pevishly awakened by the third call of 'Rats' followed by the raucous laugh of the parrot, he made a dash for the feathered wise-cracker and jumped up and caught him by the tail feathers, pulled the squawking, protesting bird to the floor where he rolled him around and pulled out and demolished his feathered coat enthusiastically. Feeling he had done a thorough job, he returned to slumber on the rug. The parrot ruthfully surveyed his dilapidated person with sadness, and then,—'Gerrawk! Polly, the trouble with you is you talk too damn much'.
DRAWINGS IN INK AND CHARCOAL BY PETER BEHRENS

CATHOLIC CHURCH IN ESSEN, RHINELAND—PETER BEHRENS, ARCHITECT

[490]
The rendering reproduced on this plate, while not of a modern building, is valuable as showing the effective result which can be obtained with a few simple washes. The drawing, which measures 14" x 20", was made with water colors on cold-pressed Mounted Whatman's. A wash of Antwerp Blue and Rose Madder was run over the whole surface, then another over the sky, and a third in the shadows. A little yellow over the grass in the foreground and a few touches of opaque color on the figures and columns completed the picture. The result of the simple treatment has been to achieve a unity almost impossible to attain by other means.
PENCIL POINTS SERIES
of
COLOR PLATES

We show here a reproduction of a straightforward water-color rendering by Earl Purdy of the office of Dwight James Baum, Architect, New York. The same general arrangement and color scheme could be applied to renderings of many different types of moderately sized buildings. This example was rendered over a pencil drawing on cold pressed paper and measured 28½" x 19".
FROM A LITHOGRAPH IN TWO COLORS BY JOHN RICHARD ROWE
SOUTH PORTAL OF CHURCH AT LOUVIERS, FRANCE

PENCIL POINTS
On this plate we have reproduced a lithograph by John Richard Rowe, the original of which was printed in black and tan and measured 15" x 21½". The two impressions necessitated the making of drawings on separate lithographic stones, one for each color, the tan being printed first. Our reproduction in black and white gives only a partial impression of the beauty of the original print, but it is still a sparkling bit of Gothic lacework.
A plate from the first Volume of original Wren drawings published by the Wren Society. The catalogue states, “The drawing shows the south front of St. Paul’s as at present, with small variations in the cupola and western towers; the cupola with roundels and the campanile tower like the present dome; perished with statues over every pilaster; in rustie, drawn, well shaded in ink. The dome and western towers are of course very different from the executed design. There are also minor variations to the lower part, such as the omission of the rustication and the consoles to the main cornice.” Compare with plate XIX in the May 1927 issue of Pencil Points. This plate is reproduced through the courtesy of the Wren Society, information concerning which may be obtained from H. Duncan Hendry, Hon. Secretary, 53, Doughty St., London, W. C. 1.
PENCIL RENDERING BY JAMES PERRY WILSON

CHINESE COURT, HONOLULU MUSEUM OF ART—B. G. GOODHUE ASSOCIATES, ARCHITECTS

PENCIL POINTS
PLATE XXX

Volume VIII  Number 8

This plate shows a pencil rendering by James Perry Wilson of the office of Mayer, Murray and Phillips, which was formerly known as B. G. Goodhue Associates. The subject is oriental in flavor and of unusual charm which has been well rendered by the artist.
ETCHING BY LOUIS RUYL
WOOLWORTH BUILDING AS SEEN FROM A FALL RIVER LINE BOAT
PENCIL POINTS
An etching by Louis Ruyl, the well-known architectural delineator, is shown on the other side of this sheet. We have not often had the pleasure of reproducing specimens of Mr. Ruyl’s work, and we were therefore pleased to secure permission to present one of his latest plates to our readers. He has chosen an unusual view of the Woolworth Tower.
WHITTLINGS

Harvey Wiley Corbett,
In an interview with the press as represented by Dorsey Kay, special writer, gives some success advice:
"Work hard but keep your eyes open for the lucky chance. Do each job as well and as energetically as you can, no matter how small or unimportant it may seem to be, but be sure to have a good time doing it.
"Success in the field of architecture is due as much to patience as to any other factor, but, of course, with that you must have an enthusiastic love for beauty and an ability to visualize it in mass and proportion in structures.
"Many a budding architect, fired with ideas of beauty, finds success still beyond his grasp because he has not sufficiently considered his profession as applied art, full of technical difficulties and with ramifications into engineering problems and the practicalities of dollars and cents."

"Anonymous",
Writing in the Philadelphia Public Ledger under the heading "Out of the West":
"There were Barnums in the good old golden days when art was art, even though they hadn't been born in the American circus, and Benvenuto Cellini was one of them. Like Barnum, he had a rich fund of psychology — which, of course, wasn't even known as psychology then, but was considered just part of the general equipment of an intelligent man. What Cellini said has come to be of even greater importance than what Cellini did. You see, he was really a modernist, but he had one thing in common with Michelangelo — what he did he did well, and he knew his job.
"Any artist who copes with the world today knows that Barnum was right — and that he must cultivate a bit of circus technique to gain his audience, but what he is beginning to appreciate is the equal claim to rightness of the surprisingly complete Michelangelo."

Irving T. Bush,
President of the Bush Terminal Company, in an interview with K. B. McCann as published in the Brooklyn Times:
"It is to be regretted that since the war there has crept into the industry, insidiously at first but with firm tentacles that now may be hard to pry loose, a new type of building. In the desire to keep down costs, the appearance of many buildings has been depreciated and the high standard one might expect has not been maintained. Buildings are being put up overnight to last for a short period of time; what we need is the adaptation of the old school of architecture to present day operations."

Lucia Ames Mead,
In a letter to the New York Times, voices opposition to skyscrapers:
"We pride ourselves on what should be our shame. Granted that the Woolworth and individual lofty buildings are beautiful in themselves; but when they are huddled together regardless of proper setting and spacing and the rights of human beings, they proclaim the insanely tense life that we are living."

Major Harry Barnes,
Chairman of the R.I.B.A. Registration Committee, writing in the Architect's Journal, argues for the necessity of registering architects:
"There appears to be in some quarters the view that the services of the trained architect are only necessary when works involving great expenditure are being carried out. No view more fallacious or more disastrous could prevail. It is the trifles that make perfection, and one cheap and natty structure may spoil a whole landscape. Such a view is tantamount to saying that the only field for the display of taste is in important public and commercial buildings and in the dwellings of the well-to-do.
"It is forgotten that in bulk these buildings form a comparatively small percentage of the total number of buildings in the country. The truth is, that we shall not get a country architecturally fit until it is realized that there is no building, however simple in construction, limited in accommodation and inexpensive in cost, but will benefit by being the subject of trained architectural design."

Milton B. Medary,
President of the A.I.A., makes clear his position in regard to American Architecture in his speech at the opening of the late convention:
"The architect hears everywhere, 'Let us have done with the dealers in classic and medieval forms; let us have something truly American.'
"This is plain sophistry. Just as well say: Let us have an entirely new written language as well as a physical one.
"I have come to the firm conviction that architecture can have no existence apart from the elements of which it is composed; that no architecture can be created or ever has been created which is not an assemblage of the arts; and that no truly great architecture ever was or can be except it be a complete fusion of all the arts into a perfect harmony, each dependent upon the other, the whole inspired at its conception by the appropriate beauty each holds ready for the enrichment of every other and of the whole."

Louis Reppier,
Citizen of Philadelphia, writing to the Editor of the Philadelphia Record, takes issue with Mr. Medary:
"In your issue of today there is an editorial about the president of the American Institute of Architects saying: 'We refuse to repeat the expression of other lives and demand opportunity to add our own expression to the sum of truth and beauty built up through the ages.'
"This is all very well, but, as John Keats said: 'A thing of beauty is a joy forever.' What is there beautiful about much of our modern architecture? Our skyscrapers are what they are called, and nothing more.
"When our architects and builders can design anything as beautiful as the famous buildings of the past ages then they have a right to demand 'opportunities,' for they will have them already."
PENCIL POINTS

ROME PRIZE IN LANDSCAPE ARCHITECTURE

Michael Rapuano, of Syracuse, N. Y., has been awarded the Fellowship in Landscape Architecture at the American Academy in Rome. The term of fellowship is for three years, beginning October 1st, and carries an annual stipend of $1,300 a year with free residence and studio at the Academy.

The program called for the designing of a site for a museum of fine arts in a municipal park. Mr. Rapuano’s winning design is reproduced above.

Honorable Mention was given to Thomas D. Price, a graduate of Ohio State University and Harvard; and to Charles R. Sutton, a graduate of the University of Illinois.

The Members of the Jury of Award were: Pietro Vitale, Chairman, Arthur F. Brinckerhoff, Noel Chamberlin, Albert D. Taylor and Arthur A. Shurtleff.

Other competitions as announced in the School of Fine Arts, up to date have resulted as follows: George Holburn Snowden, of Bridgeport, Conn., Fellow in Sculpture for three years; Dunbar Dyson Beck of Indianapolis, Ind., Fellow in Painting for three years; Homer F. Pfeiffer of Kansas City, Kansas, Fellow in Architecture for three years; and Alexander L. Steinert, of Boston, Fellow in Music for three years.

SKETCH CLUB ATELIER OF NEW YORK

The Sketch Club Atelier will start its second season at the Art Center, 65 East 56th Street, New York, on Tuesday evening, October 4th at 6:30 P. M.

This year Arthur L. Guptill will be the instructor. Mr. Guptill’s many years of experience as a teacher, his fame as a renderer and his jovial personality will quickly inspire all those who come under his instruction. Mr. Guptill is very versatile, and while he is better known for the book he has produced on pencil sketching, nevertheless he is a master of all mediums and techniques.

The class will be limited to forty students. The method of teaching will include general class criticism, a series of progressive lectures on composition, pencil, pen and ink, colored pencil, the use of a simple color wash, and a combination of all these mediums for sketch purposes, and personal instruction.

During this past spring, the work of the Atelier’s first year under Ernest Watson was exhibited in one of the galleries at the Art Center. It created much favorable comment and proved beyond a doubt the advisability of continuing such exhibits at the end of each year.

D. Everett Waid, Thomas B. Hastings and Otto R. Eggers are members of the Advisory Council.

The course will run throughout the fall, winter and spring, for twenty-four lessons at a season cost of $48.00. The Atelier is one of the art classes conducted by the Pratt Art Alumni Association.

All inquiries and applications should be made to A. Thornton Bishop, 105 West 40th Street, New York.

RAMBLINGS

(Continued from page 462)

days ditches and work in the streets were not so carefully marked and safeguarded as later, so in front of one bar, “cabbly” happened to draw up beside an open ditch. He had been well treated by the lads so didn’t notice or couldn’t see the ditch in the dark beside the cab, so proceeded to fall in. Then each one of them got out to see where the other had gone and followed the cabbly into the ditch. There, presumably, they blamed each other for their plight, anyway it was a fight and the police fished them out and locked ’em up, and mine the task of bailing them out next morning to help rush through the plans for a Capitol building!

For a while before pay day peace and contentment reigned and we could get stacks of work done. And some of those chaps were splendid workers—at intervals. The one thing I wouldn’t tolerate was for them to be drunk at work. That meant out, and there was the rub generally, for a Capitol building!

Four years I had of that sort of thing, then in other partnerships and my own office, but with fewer though somewhat similar fellows to deal with. It was fairly well into the nineties before the rank and file of office help started down and became part of what might be called a permanent organization. The few itinerant draftsmen were more respectable though not any more skillful than their rollicking, hard-boiled predecessors. And by 1905 offices thereabout were as sedate and orderly as are the big architectural work shops of today.

Then back East accident took me again, to eminently respectable and dull government circles where the only architectural physical mix-ups ever forced upon my not unwilling attention were strike fuses, and some interesting ones too.

Then another move, to Chicago, where I have had absolute “pace and contentment” for five years in spite of the hold-ups, murders, race riots and what not you read about out here. So that all the boxing I get is with gloves, tamely within the conventional confines of a gym.

Now about Fire Prevention, or the Invasion of Architecture by the Builders? Oh well, that’s another story. Let’s keep it for some other time.
PARIS PRIZE AWARDED

The 20th Paris Prize in Architecture of the Society of Beaux-Arts Architects was awarded to Donald S. Nelson, of Massachusetts Institute of Technology, whose patron was Mr. Jacques Carlu. A. J. Kelsey, of Yale University, was awarded second place in this competition; G. E. Brennan of Princeton, third place; I. W. Silverman of Harvard, fourth place. A. F. Easton, of Atelier Hirons, was placed hors concours.


The drawings are hung at the Beaux-Arts Institute of Design, 126 East 75th Street, New York, and may be seen by telephoning Miss Rother for an appointment.

Reproductions of the winning design and a brief outline of the program will be published in the September issue of PENCIL POINTS.

PRINCETON ARCHITECTURAL PRIZES AWARDED


The program called for the design of a Memorial Group of Buildings on a University campus, consisting of an Auditorium, a Library, an Art Museum, and a Tower, arranged around a court to be dedicated to the Liberal Arts. The drawings submitted were of very high quality, and showed in general, an excellent grasp of the problem.

The prizes were awarded to Martin L. Beck, of New York, and John A. Nelson, of Watertown, Mass., and honorable mentions were awarded to Alan C. Davoll of New York, and Harry Gulesian, of Ashmont, Mass. The prizes amount to $800 each, and entitle the winners to spend a year in the Advanced Class of the Princeton School of Architecture.

THE T SQUARE CLUB ATELIER

At a recent meeting of the Atelier of The T Square Club of Philadelphia, the following were elected: Joseph J. Kohler, Massier; Carl H. Faltermayer, Sous-Massier; Albert M. Davis, Secretary & Treasurer; Franklin Raudenbush, Librarian; Albert R. Ware, Atelier Representative.

The Atelier has just completed one of its most successful seasons with about forty men doing work at the club, under our able patron, Grant M. Simon, and critics, Sigismond Lascheniki and Walter Antrim.

Interest in the Atelier has been so aroused by the active members that the coming year we will in all probability have more than fifty men taking an active part in the work and we look for a most prosperous season in the work of the Beaux-Arts Institute of Design for 1927-28.

Carl H. Faltermayer, Sous-Massier.
PRIZE WINNING DESIGN FOR PROVIDENCE WAR MEMORIAL
PAUL P. CRET, ARCHITECT
[ 503 ]
AN UNASSUMING DRAFTSMAN with an intense appreciation and love for art—such I think would be a just description of Oscar Enders who passed away in Chicago, December 22, 1926.

He had gone to the Presbyterian Hospital for a minor operation which had been successful, and he was getting along so well, that the doctor had given him permission to go home. But his destiny was otherwise, and he passed away suddenly and unexpectedly, from embolism. It had been his first and only severe illness.

It can be truthfully said that he shared with his friend, Harvey Ellis, the distinction of being one of the two most talented and widely known draftsmen of the middle west. He was born in Milwaukee, May 4th, 1865, and at first was a prestidigitator with a circus that toured Wisconsin. He soon abandoned this profession and took up architectural drafting. He was self taught, a flower of the system that graduated the men of that day from the drawing board.

He left Milwaukee to make his home in Chicago where he soon became one of the leaders of a buoyant and brilliant coterie of draftsmen that was making the name of the Chicago Architectural Sketch Club known throughout the land. In a competition instituted by the Architectural League of New York to design a tomb for an illustrious architect, he won the silver medal. His development as a designer and perspective artist had been very marked and he attracted the attention of Isaac Taylor of St. Louis, who was able to persuade him to come down there and take charge of his office. In attributing to Oscar the design of Isaac Taylor's work of this period, I believe that I violate no confidences, for Isaac Taylor was always generous enough to credit Oscar as the author.

The years that followed were fruitful years, and Oscar's powers of design matured and flowered into a dignified series of structures that ranged from Mercantile Buildings, hotels and residences, to the purely monumental design of the Thomas Jefferson Memorial. In moments of respite from his more arduous work he would make perspectives, beautifully rendered in pen and ink, which usually appeared in The American Architect. I still feel the thrill with which I would carefully cull those plates from the rest and file them away. His exquisite draftsman ship was both my delight and my despair.

In his social life he was a great companion and friend. His skill at sleight of hand he always retained and he could bring it into play at unexpected moments to amuse and mystify. He wrote rollicking verses, architectural and otherwise, and these he would sing in a fine baritone voice to the melody of the popular songs of the day. But best of all he loved to take his sketching materials and go out and paint direct from nature. His paintings, both in oil and water colors, were of a very high order. The great number of works that he left behind testified to a tremendous energy. He was an indefatigable worker.

When the work of the secessionist German architects appeared in about the year 1900, Oscar became an enthusiastic follower of the new school of design, which made a deep impression upon him. While in this mood he wrote his famous poem, "Stoifa da Italiano", in a spirit of protest against the dull, slavish copying of Renaissance forms. The poem was included in a slender brochure of blue prints of his best songs and mailed to the various architectural clubs. "Stoifa" made an instant hit and was sung across the land. But the humorous sarcasm with which the verses were barbed went unnoticed, especially by those at whom the verses were aimed.

The last stanza is especially satirical:

Now, if you want to shine in this Dago line,
And draw your stuff right smart,
Lay in a stock of balusters,
Festoons, and eggs, and dart;
Swipe all you can from "Le Trooleay"
"Buhlman" and "Raguenasy"
Then a song and dance in the Renaissance,
Will come to you quite easy.

Has ever a keener javelin been thrust into the side of the dull, unimaginative copyist? I hardly think so.

When Isaac Taylor died he bequeathed the office and his splendid architectural library to Oscar, who continued the work of the firm up to about 1922. Graham, Anderson, Probst & White now made Oscar a very advantageous offer to return to Chicago and join their organization as designer. He accepted their offer and was with this firm till the day he passed away.
would like to quote from Dr. Denman W. Ross' book, Drawing and Painting:

"The secret of a reasonable happiness for everybody lies in being governed by our work, whatever it is and the ideal we find in it. We must have something definite to do, every one of us, and we must do it as well as we can, following good precedents and having as our motive the law of excellence and perfection and a longing for order and beauty everywhere. If we do not do that, life, the biggest show on earth, will not be worth the price of admission."

And this secret, I believe, Oscar Enders had, from the beginning, laid hold of, with a firm, and sincere, and steadfast heart.

—Hugo H. Zimmerman.

REPORT OF THE SPECIAL COMMITTEE ON PROVIDENCE WAR MEMORIAL COMPETITION
To the Honorable the City Council of the City of Providence:
The Joint Special Committee on Memorial to Soldiers and Sailors respectfully reports:

Since the signing of the Armistice the City of Providence has been vitally interested in commemorating its citizens who served during the World War. Your Honorable Body created Committees who labored exhaustively in this matter, many questions were involved, the selection of a suitable site, the nature of the Memorial and the question of finance.

Your present Committee carried out the first stage of the competition which was open to all architects and sculptors desiring to submit designs. About one hundred designs were submitted and the Jury, which was composed of William Emerson, Louis Ayres, and A. A. Weinman, chose from this number three designs, and their authors were invited to enter the second or final stage of the competition. The designs submitted in the final competition by these three are reproduced on pages 502-505. Six architects of recognized ability in the architectural field were added to the following architects: Joseph H. Freedlander, New York; Raymond Hood, Godfrey & Fouiloux, New York; H. Van Buren Magonigle, New York; Thomas J. Hill Pierce, Providence; John Russell Pope, New York; Parker, Thomas & Rice, Boston; Perry, Shaw & Hepburn, Boston; Paul Cret, Philadelphia; Clark & Arms, New York.

The terms of the competition, as approved by the American Institute of Architects, provide that the Committee shall act as the Jury and select one design for presentation to the City Council for its approval, said approval being the award of the first prize, i.e., the erection of the memorial. The Committee on June 24th and 25th, aided by Henry H. Kendall, Professional Adviser, W. F. Fontaine, President of the Rhode Island Chapter, A.I.A., and Charles Butler of New York, Chairman of the Standing Committee on Competitions, A.I.A., proceeded to judge the nine designs submitted and selected a design that they believed best suited to the location indicated by the City Council. This design is the unanimous choice of the Committee, its professional advisers and the representatives of the Veterans who aided the Committee greatly in its deliberations.

The premiated design (reproduced on pages 502 and 503) consists of a column rising approximately 115 feet in the air. This rests on a platform approached by steps from four directions. Four bronze plaques, bearing insignias of the various branches of the service are inserted in this. The plinth, or base supporting the column above, has four large faces suitable for memorial inscriptions or the names of the citizens of Providence making the supreme sacrifice during the World War. The four diagonal corners of this plinth contain the seals of the Army, Navy, Air Service and the Medical Corps. On the lower part of the shaft is a memorial frieze symbolizing the moral virtues of our citizens during the War. This frieze is flanked by the seals of the City of Providence and the State of Rhode Island. The shaft proper is symbolic of the American coat-of-arms, the Stars and Stripes. Surmounting the shaft and crowning the whole, is a large heroic figure of Peace. It is proposed that the design be executed entirely in an enduring pink Westerly granite, except certain portions of the platform where other colored granites and bronze plaques are inserted.

Your Committee is satisfied that the designs submitted represent the best thought of the leading architects in this country and that the one selected will harmonize with the location and will by its design permit the free movement of vehicular traffic at its base and believes that a beautiful and enduring memorial has been chosen.

Respectfully submitted, for the Committee,

SOL S. BROMSON, Chairman.

DETROIT ARCHITECTURAL BOWLING LEAGUE NOTES

We are coating along this summer with very little thought of bowling, although a few of the boys are spending their noon hour, and a few minutes of the boss' time, shooting ducks. But we expect to start off with a bang on or about September 16th when our sixth season starts.

Our team lineup will be the same as last year's viz: Malcomson and Higgintonbotham; Donaldson and Meier; Janke, Venman and Krecke; Weston and Ellington; Smith, Hinchman and Grylls; Frank H. Nygren; Albert Kahn; Louis Kamper; McGrath, Dohmen and Page; Van Leyen, Schilling and Keough.

Plans are being made for golf and tennis tournaments sometime this summer.

Our matchmaker has not been appointed yet for the coming season but in case Cleveland or St. Louis or any other embryonic architectural bowling league wishes instruction in the gentle art of bowling, they may communicate with C. L. Toonder, Secretary, D. A. B. L., 800 Marquette Bldg., Detroit, Mich., regarding any and all particulars.

SUGGESTED MONUMENT TO AN AVIATOR

FRANCIS KEELEY has designed a suggested monument to be erected to a famous aviator symbolizing his character and achievement. The model for this has been carved in white soap by Miss Margaret J. Postgate. The design is reproduced on page 508.

The monument, which would be carried out in white marble, would be five hundred feet high, sixty feet square, and rest on a base two hundred feet square. It sweeps upward in a single shaft with a beacon flood light at the top, to be seen for miles, as a guide for aviators, and it would serve as the center of an aeronautical museum and research laboratory, the buildings for which would be grouped around the base of the monument. It has been suggested that the monument be erected at or near the Roosevelt Field.
The winners in the monthly competition for the period closing July 15th are as follows:
Class 1, E. M. Schiweitz; Class 3, Lansing C. Holden, Jr.; Class 4, Jay Allen. No award was made in Class 2.

In response to our invitation extended to our subscribers to write us letters giving their views on the best material published in each issue of Pencil Points we are receiving some very interesting communications. Some of these will be published in the September issue of this department.

We are now going to extend this feature to include the advertising as well as the editorial pages. Which is the most interesting and valuable advertisement published in this issue and why? For the best letter received in this office before August 30th a special ten dollar prize will be awarded. Letters should not contain more than five hundred words. And a special ten dollar prize will also be awarded for the best letter dealing with the editorial section, received not later than August 30th.

Thomas Mitchell, Secretary of the Glasgow School of Architecture Club, thinks it might be a good idea for some traveling student of architecture from this country to deliver a talk before his Club sometime next winter. This seems to us such an excellent scheme that we are printing part of Mr. Mitchell’s letter and suggest that anyone interested communicate with him in care of Wright & Wylie, Architects, 204 W. Regent St., Glasgow, C2.

Dear Sirs:

Doubtless this coming winter will see some of your men over here with sketch books and foot rules and horn-rimmed spectacles. Well then, The Glasgow School of Architecture Club is at present compiling its syllabus for the forthcoming session, and in so doing it has been smitten with the bright idea of trying to get in touch with any American student who might be over during the winter, and of inviting the said student to give us a talk—anything from a more or less informal chat to a highbrow lecture—on any conceivable subject under the sun.

Can you help to put us in touch? Would it be too much to ask you to publish this or its potent, say in your Here and There, etc., columns?

(Signed) THOS. MITCHELL, Hon. Secretary.
P. S.—Please don’t all rush at once. There is no fee attached to this.

Old Timer: “See all the people down below?”
New Man on the Job: “Yeah.”
Old Timer: “Well 50% of them expect us to fall and be killed.”
New Man: “Yeah, well 50% of the people up here feel the same way about it.”

By Jay Allen
(Prize—Class Four—July Competition)
"Pearl Street Market, Dallas"—Pencil Sketch by E. M. Schiwetz

(PRISE—Class One—July Competition)

Sketch on Cameo Paper by Francis J. Cormier

Wolff Pencil Drawing by Roy F. Hammond
DETAILS OF CONSTRUCTION FOR PLANT WALL AND STEPS IN WALL—ESTATE OF MR. GEORGE A. CLUETT, WILLIAMSTOWN, MASS.

OLMSTED BROTHERS, LANDSCAPE ARCHITECTS
DETAILS OF CONSTRUCTION FOR STONE STEPS—ESTATE OF MR. GEORGE A. CLUETT, WILLIAMSTOWN, MASS.
OLMSTED BROTHERS, LANDSCAPE ARCHITECTS
Wolff Pencil and Wash Rendering by Gerald Lynton Kaufman

A STONE HOUSE AT ORIENTA POINT, MAMARONECK, N. Y.
GERALD LYNTON KAUFMAN, ARCHITECT

[ 514 ]
THE SPECIFICATION DESK
A Department for the Specification Writer

SPECIFICATION ENGLISH
By W. W. Beach

Specifications should satisfy three principal requirements. First, they should, in combination with drawings, so adequately describe a given work as to enable the builder to understand exactly what is intended.

Next, they must, when made part of a contract, enable the owner to legally compel the contractor to produce precisely what was proposed.

And lastly, being an emanation of one of the learned professions, they must be couched in good English, both diction and grammar so well observed that no needed word is omitted or misused, nothing ambiguous or superfluous.

In a previous article in The Specification Desk, the writer touched upon the necessity for general improvement in specification diction and grammar. Apparently, there is sufficient need of this to warrant further dissertation on the subject.

Nor is criticism of specification grammar to be limited to the products of architects' offices. Typical specifications offered by manufacturers as standards to be copied by architects are filled with incomplete clauses treated as finished sentences, such as "All ends of flooring to be centered on joists." No doubt, the copying of these is responsible for much that is in poor form in our documents. Nevertheless, that is not a good alibi, inasmuch as the original was probably derived from an architect.

Modes and Tenses
The question of modes and tenses of the verbs to be used has much to do with the make-up of our specifications. Obviously, the best form should be decided upon and adhered to. The American Institute of Architects has cleared the way for this by adopting the future tense of the indicative mode and using it consistently.

This is most logical since it is the plain intent of the contract documents that the contractor shall do certain things, in exchange for which the owner will do this-and-so, and binds himself accordingly.

Notwithstanding the example set for us by the A.I.A., we frequently find an unwarranted mixture of modes and tenses made use of in a single specification, sometimes in a single paragraph. The following is to be found on a certain page of a current publication offered as a guide to specification writers:

"Future indicative: "From a point directly back of the house-trap, a cast-iron fresh-air inlet shall be carried to a point where indicated".

Impressive: "Finish with an approved cowl!"

Present indicative: "The location of vents is to be as inconspicuous as possible."

How much better to combine the first two into a single sentence in the future indicative: "From point directly back of house-trap, a cast-iron fresh-air inlet shall be carried to point indicated and finished with approved cowl," and, "Location of vents shall be as inconspicuous as possible."

Note also the omission of unnecessary articles and adverbs.

Sentence Construction
This matter of sentence construction is worthy of more attention than appears to be given it by the average specification writer. The combining in the preceding paragraph of what had been two sentences is advisable because each has the one subject, "air inlet".

This does not mean that long sentences are necessarily an evidence of better construction. On the contrary, one frequently finds two statements combined into a sentence which would be better if separated.

For instance, "All back-fill is to be well compacted to meet the approval of the Superintendent and all surplus earth and other rubbish and unused material removed from the premises;" this should be written, "All back-fill shall be well compacted to meet the approval of the Superintendent. All surplus earth and other rubbish and unused materials shall be removed from the premises."

But many sentences in current specifications need paring down rather than extending. Consider the following:

"The hardware for operating the windows shall be
solid bronze hardware recommended as standard by the manufacturers of the windows and approved by the Architects. All hardware shall have a coinage-color finish."

Here are thirty-three words used to express what can be better said in fifteen: "Window hardware shall be maker's standard, solid-bronce, coinage-color finish, all acceptable to Architect!"

ABBREVIATIONS AND PHONETICS

It should go without saying that, whereas we should feel justified in curtailing volume by the use of abbreviations, yet we should be most careful to confine them to such as are incapable of being misunderstood.

Some which seem quite permissible are g.p., c.i., s.i., c.l., f.o.b. a.s., d.d., m.s.h., m.d., o.c., etc., etc. "C.o." is a poor abbreviation, since it means either cutout or cleanout. This is true also of b.l., which might mean either bill-of-lading or building line.

Boiled down, the same rule applies to abbreviating as to other features of specification writing: "Use only what will express the meaning without uncertainty". Use the longer form where there is otherwise a chance of misinterpretation.

This is equally true of the use of phonetic spelling. While there are a few justifiable cuts, such as thru, through, thoroly, avero, etc., there are only a few and the practice had best stop with these.

The omission of a in such words as gage, calk, mold, etc., is so sanctioned by usage that the longer form is safely forgotten.

REPETITIONS

The spelling out of numbers, followed by figures in parentheses, is a relic of pre-typewriter days and has, apparently, no good reason for perpetuation, except as a sort of affectation to satisfy our legal brethren in stating the contract price.

Such sentences as "There shall be four (4) of these, one ten and one-half (10 1/2) inches long, one twelve (12) inches long and the remaining two each 2'6" long," is typical of such writing. It seems impossible to carry such a system consistently through an entire specification.

It is not, however, a bad idea to spell out quantity digits when they occur next to figures expressing dimensions. Thus the above sentence would be better expressed in this fashion: "There shall be 4 of these, one 10 1/2" long, one 12" long and the remaining 2 each 2'6" long."

Owing to the use of the letter l for the figure 1 on all typewriters, it is generally best to write "one", when expressing a quantity, though 1" is unmistakable as a dimension.

USE OF THE HYPHEN

An increased use of the hyphen can often be counted upon to improve one's sentence construction. There are many nouns and verbs which we use as adjectives, the which appear better when thus joined. Cast iron needs no hyphen when used alone; neither does soil pipe; but, when combined as modifiers, the hyphens help, thus: cast-iron soil-pipe riser.

"Type-S, single-phase, 60-cycle, 2500-volt, 110/220-volt, oil-immersed, self-cooled transformers", would not look as well without the hyphens.

In all such expressions as nickel-plated, asphalt-coated, building-line, pitch-and-gravel, matched-and-dressed, right-of-way and the like, the compounded form should be used whenever the clarity can be improved thereby.

USE OF THE COMMA

Whereas a more liberal use of the hyphen is to be encouraged, such is certainly not true of the comma. In fact, it should be used as sparingly as possible. Its misuse may prove expensive. Here is an example:

What the architect intended was "This Contractor shall supply all wood-bricks and centering needed in masonry walls." What the stenographer wrote was "This Contractor shall supply all wood, bricks and centering for use in masonry walls."

A comma can do no harm in being used to set off such modifying clauses as can as well be enclosed in parentheses. For instance, "All face-brick, unless otherwise specified, shall be **" would read as well if written "All face-brick (unless otherwise specified) shall be **".

Commas are also useful between nouns in lists and between a sequence of modifying adjectives but should not be used before "and", "or", "but" and "etc".

"Brick should not be laid when dry, and if necessary should be drenched just before being placed in the wall," could better be written "Brick shall not be dry when laid and, if necessary, shall be drenched just before being placed in the wall or, better still, "Brick shall not be dry when laid. If necessary, they shall be," etc.

USE OF INITIAL CAPITALS

There is a tendency among many specification writers (or typists) to use initial capitals rather freely in order to set out certain words as of more importance than others. Some even insert warnings in capitals to command attention, the effect of which is to influence the reader to pass by something else of, perhaps, equal importance.

If one starts in with initial capitals for all personal nouns, then for the names of parts of the building etc., one really finds no good place to draw the line. Probably the best procedure is to use the capitals for Owner, Contractor, and Architect, and stop there, except, of course, that proper names cannot be written without capitals. Proprietary names, such as Universal, Bull-dog and the like, should also be in quotation marks.

AMBIGUITIES

A specification without ambiguities is indeed greatly to be desired. The major part of such faults are, of course, due to lack of care. The average specification can be improved by following these "dons't", which have to do chiefly with words of two or more meanings:

Don't say:
- plans when you mean drawings;
- furnish when you mean provide or supply;
- furnish all material and perform all labor when you mean provide all labor and material;
- pitch when you mean incline;
- line when you mean plane;
- level when you mean surface or area;
- ridge when you mean apex;
- door when you mean doorway or opening;
- saddle when you mean either threshold or watershed;
- contractor when you mean sub-contractor.

One can make a sentence just as ambiguous by the use of unnecessary words as by employing words of more than one meaning. An example frequently met with is "necessary or required", in such clauses as "The Contractor shall provide all bracing and shoring necessary or required in connection with the work". This might be taken to mean that the architect reserved the privilege of requiring the contractor to do more shoring or bracing than necessary. In fact, it is difficult at times to determine just what is meant by the use of both words. One should be ample, especially in view of the fact that the architect is recognized as the arbiter to determine exactly what is required or necessary.

Finally, then, let us be clear, concise without lacking clarity, and consistently insistent throughout.
MEASURED DRAWING BY JOHN H. MILLMAN
BRETT MONUMENT, MT. EDCCUMBE PARK, PLYMOUTH, ENGLAND

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SERVICE DEPARTMENTS

THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale, or desiring to purchase books, drawing instruments and other property pertaining directly to the profession or business in which most of us are engaged. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed under this heading free of charge.

QUERIES AND ANSWERS. In this department we shall undertake to answer to the best of our ability all questions from our subscribers concerning the problems of the drafting room, broadly considered. Questions of design, construction, or anything else which may arise in the daily work of an architect or a draftsman, are solicited. Where such questions are of broad interest, the answers will be published in the paper. Others will be answered promptly by letter.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions. Such notices will also be posted on the job bulletin board at our main office, which is accessible to all. Owing to the very large number of advertisements submitted for publication under this heading we are asking those desiring to use this service to make their advertisements as short as possible, in no case to exceed forty words.

Notices submitted for publication in the Service Department must reach us before the fifteenth of each month if they are to be inserted in the next issue. Address all communications to 419 Fourth Avenue, New York, N. Y.

THE MART

COPIES OF PENCIL POINTS

WANTED AND FOR SALE

Geo. L. German, Jr., 607 Fifth Ave., care P. L. Goodwin, New York, wants copies of November and December, 1924.

Wm. F. Jones, 324 W. 72nd St., Chicago, Ill., has the following for sale: July, October, November and December, 1925; March, April, May, June, July, August, September, October, November, and December, 1926; January, February and March, 1927. Also a copy of Architectural Antiquities of Normandy (English Gothic) and The Book of the Boston Architectural Club for 1925.

R. S. Martin, 522 East Broadway, San Gabriel, Calif., wants copies of January, 1925.

L. Blet, student of architecture, 710 Dorchester St., Quebec, Canada, wants copies of Pencil Points, especially issues containing architectural renderings.


Frank O. Heyder, 1006 Riverside Ave., Baltimore, Md., wants copies of 1920, 1921, 1922, in first class condition, bound or unbound.


The Frederick Post Co., 91 Fifth St., Portland, Ore., has the following copies for sale: July, 1926; March, April, May, June, 1927.

PERSONALS

Mowbray & Uffinger, Inc., Architects, have changed the firm name to Uffinger, Foster & Bookwalter, Inc., and will continue to practice at 221 West 57th St., New York.

Wilbert J. Ahele, 3758 N. Kedvale Ave., Chicago, Ill., is starting an A.I.A. file and requests manufacturers’ samples and catalogues.

Joseph P. Flynn, Architect, has moved to 311 Alexander St., Rochester, N. Y.

Eugene R. Sherman, formerly of Detroit, Mich., or anyone knowing his present address—please communicate with the Circulation Department, Pencil Points, 419 Fourth Ave., New York, N. Y.

Eliza Newkirk Rogers, Architect, has moved from Boston, Mass., to Webster Hall, Exeter, N. H.

F. Danj Jackley, Architect, has moved from St. Augustine, Fla., to 1812 A Street, S. E., Washington, D. C.

Hammond W. Whittitt, formerly of Whitsett & Schulzke, Moline, Ill., has opened an office in the John D. Spreckels Bldg., San Diego, Calif. and requests manufacturers’ samples and catalogues.

Cha. A. Hill, Architect, has moved from Beverley Hills, Calif., to 2697 N. Beachwood Drive, Hollywood, P. O., Los Angeles, Calif.

C. H. Smith, Architect, has succeeded W. T. Bray, with offices in the Torrey Bldg., Duluth, Minn.


Marston, Van Pelt & Maybury, Architects, have dissolved their firm. Garrett Van Pelt, Jr., will open offices at 16 So. Oakland Ave., Pasadena. Sylvanus B. Marston and Edgar W. Maybury will practice under the name of Marston & Maybury, with offices at 25 So. Euclid Ave., Pasadena, and 402 Union Oil Bldg., Los Angeles, Calif.

Walter G. Jameson has purchased the architectural offices and business of Warren W. Day, and has formed a partnership with Albert I. Harrison and will continue the practice under the firm name of Jameson & Harrison, Peoria Life Bldg., Peoria, Ill.
A. Eugene Fulton has opened an office for the practice of architecture at 215 West 4th St., Ellensburg, Wash., and requests manufacturers' samples and catalogues.

Hadlow, Hick & Co., Engineers, and Hughes & Conrad, Architects, have established a new office in the Union Mortgage Bldg., Cleveland, Ohio, where they will practice under the name of Hadlow, Hughes, Hick & Conrad.

Alan E. Pollock, 714 West 3rd St., Little Rock, Ark., is an architectural student and requests manufacturers' samples and catalogues.

Palmer Power, 723 E. Randolph St., Huntington Park, Calif., is an architectural student and requests manufacturers' samples and catalogues.

Lermond F. Simonds, 81 Central St., Auburndale, Mass., requests manufacturers' samples and catalogues.

FREE EMPLOYMENT SERVICE

(Other items on pages 68 and 104 of the Advertising)

POSITION WANTED: All 'round architectural draftsman, 25 years' general experience in best eastern offices and now holding a responsible position, desires to make permanent connection in Chicago with prospect of an interest. Capable of taking charge of drafting room or offices. References given. Box A-78, care of PENCIL POINTS.

POSITION WANTED: Construction superintendent, estimator, 20 years' practical building experience in steel-reinforced concrete, frame and brick buildings. Desires position with well established contracting firm on West Coast. Box A-79, care of PENCIL POINTS.

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Associate Professor of Architectural Design wanted for the school year of 1927-28 by a southern college. Address, giving record and salary, Associate Professor, care of PENCIL POINTS.

POSITION WANTED: Architectural draftsman, all 'round general experienced man, can take charge of work from sketches to completion. New York City location. Salary $75 per week. Box A-71, care of PENCIL POINTS.

The Dominion Realty Co., Ltd., 21 King St. West, Toronto, Mr. V. D. Horsburgh, would like to employ a competent designer and draftsman on bank work. It is necessary that the applicant be able to handle Renaissance work satisfactorily.

Draftsman Wanted: One familiar with designing and detailing of woodwork and furniture for interiors, especially for Church and Fraternal buildings. Steady position, high grade work, and draftsman would have opportunity of receiving help from one of the finest Gothic designers in the country. Office in Philadelphia. Box A-75, care of PENCIL POINTS.

Draftsman Wanted: First class architectural draftsman and designer whose executive ability and personality will merit an associateship with prosperous office of Northern Ohio. All communications confidential. Box A-76, care of PENCIL POINTS.

Draftsman Wanted: Class A man to locate in North Carolina, Southerner preferred. Salary according to ability, reference required. Atwood & Nash, Inc., Chapel Hill, N. C.

ASSOCIATE PROFESSOR of Architectural Design wanted for the school year of 1927-28 by a southern college. Address, giving record and salary, Associate Professor, care of PENCIL POINTS.


FOUNTAIN OUTLET FOR JULIUS FLEISCHMAN ESTATE, CINCINNATI, OHIO

EDMOND R. AMATEIS, SCULPTOR—A. D. TAYLOR, LANDSCAPE ARCHITECT
PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.

FANDOLLER-CANDLER AND FANDOLLER—A. I. A. File No. 31-4-23. New brochure covering the Fandoller, which combines the fan with the chandelier, together with other special lighting and ventilating equipment for the fine building. Profusely illustrated, including data, many sketches. 36 pp. 8½ x 11. Safety Car Heating and Lighting Co., 75 West St., New York City.


VENTURAPLAIN UNIT HEATER—Data sheet in standard filing form covering complete details this small new type of unit heater, suitable for application in many places for which larger types are not adapted. American Blower Co., 600 Russell St., Detroit, Mich.

MACOMBER STEEL UNITS—Four-page data sheet setting forth the Macomber Sales policy, together with illustrations of light joint, bar joints and Massillon steel roof truss. Macomber Steel Co., Canton, Ohio.

"WAVICK" ROLLER BED—Data sheet illustrating new type of space-saving equipment for use in modern buildings. The "White" Door Bed Co., 130 North Wells St., Chicago, Ill.

MID-WEST CHUTE-FED INCINERATORS—A. I. A. File No. 35-4-1. Data bulletin with sectional drawings and complete information in incinerator equipment. 8½ x 11. Midwest Incinerator Corp., 154 E. Erie St., Chicago, Ill.

TOILET TUB AND PAPER TOWEL INSTALLATIONS—A. I. A. File No. 29-3-3. Specifications and blue prints prepared especially for the drafting room showing rough-in dimensions and other data required in installations. 56 pp. 8½ x 11. Architectural Service Division, National Paper Products Co., Carthage, N. Y.


ROOFING TILE PORTFOLIO—A. I. A. File No. 12-c-1. A collection of loose leaf plates covering drawings, photographs and details of all types of clay roofing tile. B. Mifflin Hood Co., Daisy (Hamilton County, Tenn.

Published by the same firm, a similar portfolio A. I. A. File No. 23-A-1 covering quarry tile in a similar manner.


FRENCH IMPORTED CARN STONE CEMENT—Brochure in sepia with many illustrations showing application of Caen stone cement for use in various types of buildings. Specifications 8½ x 11. Palmer Lime and Cement Co., 103 Park Ave., New York, N. Y.

DRAFTING ROOM SUPPLIES—Catalog M-03. New edition covering blue printing machinery, blue print paper and a large line of drafting room equipment. 100 pp. 6 x 9. C. F. Pease Co., 815 No. Frankltn St., Chicago, Ill.

WATER SUPPLY AND SEWAGE DISPOSAL SPECIFICATIONS—Complete engineering and specification data covering complete line of equipment both large and small. 40 pp. 8½ x 11. Kewanee Private Utilities Co., Kewanee, Ill.


SPECIFICATIONS FOR VAPOR HEATING SYSTEMS—A. I. A. File No. 30-a. Condensed specifications covering this type of installation. Gorton & Lidgerwood Co., 95 Liberty St., New York, N. Y.

NEW BOOKS ON STANDARDIZATION—These books include Handbook on Concrete Construction, Comprehensive Book on Stucco, and books covering various specifications. Generally issued are the following: Norton Co., Woburn, Mass.

ROCKFORD STEEL UNIT CABINETS—Shows line of steel kitchen units, also a large line of hardware for the specification writer. Rockford Refrigerator Co., Rockford, Ill.

Other publications of interest include the following:


YPS Metal Fireproofing Products—A. I. A. File No. 20-b-1.

New publication covering the subject condenser, but adequately, with many detail drawings, specification data and recommendations covering all general and special types of construction. 50 pp. 8½ x 11. The Youngstown Pressed Steel Co., Warren, Ohio.

BEAUTIFUL BIRCH—Brochure with plates showing wood in natural color, together with many fine engravings of interior. 48 pp. 9 x 12. Northern Hemlock and Hardwood Mfrs. Assn., Osborn, Wis.


COLD SPRING GOURMET—A collection of loose-leaf plates showing details of granite construction, together with color plates and complete data. Standard filing size, 8½ x 11. Cold Spring Granite Co., Cold Spring, Minn.

METAL TOBACCO DOORS—A. I. A. File No. 16-B. A new book covering subject indicated with detail and sectional drawings, specification, estimating information, etc. 24 pp. 8½ x 11. Architectural Metal-Products Co., Inc., Covington, Ky.

KNIFE SWITCH CATALOG—A. I. A. File No. 31-c-33. Covers fuse blocks, knife switches and flush range switches, with engineering data covering all types. 36 pp. 8½ x 11. Frank Adam Electric Co., St. Louis, Mo.


DRAFTING ROOM FURNITURE—New circular describing full line of equipment for the drafting room showing roughing-in dimensions and other data required in installations. 8½ x 11. Architectural Service Division, Northern Hemlock and Hardwood Mfrs. Assn., Oskosh, Wis.

The Youngstown Pressed Steel Co., Warren, Ohio.

It is recommended that all specifications be checked carefully with the manufacturer for any changes that may be necessary.
NEW PROCESS FOR FIREPROOFING LUMBER

After several years of laboratory experimentation, a successful new process for fireproofing lumber has been discovered by H. A. Dorr, a fireproofing expert. Maple, fir, yellow and white pine, and white oak lumber treated by the new process have been tested by the Columbia University Testing Laboratory, and have been found acceptable for use in the interior construction of fire-proofed skyscrapers by the Bureau of Buildings of New York City, whose regulations are regarded as the most stringent in the country.

The new process involves the impregnation of lumber in a secret non-poisonous chemical solution, after which it is kiln-dried for a period not exceeding 48 hours, according to the type of wood. Apparatus has already been constructed which treats lumber up to 20 feet in length, and one and a quarter inches in thickness. The treated wood retains its natural color, and can be worked as easily as plain wood, without injury to machines or tools. It accepts paints, varnish, shellac or other veneers, and does not warp or rot.

The process has also been tried out successfully with Celotex, Insulite, Ten test, Masonite and similar insulating materials. Wallboard of any thickness can be impregnated, dried and cooled in an hour, and the process appears to increase the tensile strength 80 per cent, and to improve the sound-deadening qualities. The new process will be commercially developed by the Fireproofing and Dry- ing Lumber Corporation, Brokow Building, New York, using the trademark, "Dorr Fireproofing Process". Present indications are that the treatment will not increase wall-board cost more than ten per cent.

CONCRETE REINFORCING STEEL INSTITUTE ANNOUNCES SLOGAN WINNERS

The Executive Committee of the Concrete Reinforcing Steel Institute met in Chicago on July 12th and, in addition to taking action upon a number of subjects, examined the 931 slogans submitted from all parts of the country.

The first prize of $100.00 was unanimously voted to Earl Thomas, of the Pueblo, Colorado, office of the Colorado Builders' Supply Company. The winning slogan is:

"Build in Concrete—Reinforce with Steel"

Ten additional prizes of $5.00 each were awarded as follows: Reinforced Concrete—the All Purpose Construction, submitted by W. J. Matson, Badt-Falk Company, San Francisco; Reinforced Steel for Dependable Construction, submitted by H. D. Patterson, Concrete Steel Company, Kansas City office; Reinforced Concrete Stands the Test of Time, submitted by Don E. White, Hugh J. Baker & Company, Fort Wayne office; Reinforced Concrete Insures Reliable Construction, submitted by W. P. Pittman, Jr., Kalman Steel Company, Detroit office; Reinforced Concrete—Dependable Construction, submitted by M. J. Quinn, Concrete Steel Company, Detroit office; Reinforced Concrete for Safe Economical Construction, submitted by R. Alfred Hayes, Hugh J. Baker & Company, Indianapolis; Concrete for Speed—Strength—Safety, submitted by H. A. Wootle, Concrete Steel Company, New York; Reinforced Concrete—Permanent, Safe, Fireproof, submitted by L. M. Allison, Truscon Steel Company, Philadelphia office; Reinforced Concrete—Savings with Safety, submitted by L. B. Carpenter, Concrete Steel Company, Detroit office; Reinforced Concrete, Reliable Construction, submitted by F. M. White, Kalman Steel Company, Chicago.
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"Fragments d'Architecture Antique" requires no introduction. The two original volumes were made up of drawings carefully selected from among those made by the winners of the Grand Prix de Rome of the Ecole des Beaux Arts during their studies in Italy. The drawings are exceptionally valuable both as a source of design inspiration and as examples of drawing and rendering.

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The plates are beautifully drawn and engraved and are reproduced by the photographic process with the utmost care to insure faithfulness to the originals.

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There is a helpful introductory text by John V. Van Pelt.

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GOOD PRACTICE IN CONSTRUCTION

By PHILIP G. KNOBLOCH

PART ONE

MORE than 200 subjects have been presented by Mr. Knobloch in this book of 52 full-page plates of construction details, each plate is printed on one side of heavy paper with tinted background to bring out every line to advantage. These details have been worked out carefully in consultation with numerous architects and engineers in order to secure the best selection in each case. The construction shown has been tested and built, and there is not a line in any of the drawings representing a theory unsupported by practical demonstration. The drawings were made on a scale large enough to show clearly all of the details, to which are added explanatory notes. The rendering of the drawings and style of lettering are models of draftsmanship. The scope of these details embraces practically every element of building construction.

The aim of this work has been to present a series of details representing good, modern practice in building construction for use in the drafting room and in the school.

While the material upon which these plates are based was drawn from the files of architects' drawings of buildings actually constructed, no feature that was due to special conditions has been retained. Furthermore, ideas from different offices have been combined and the shop drawings have been made to contribute to the practical value of the plates. Then, too, a score or more of men, each of whom is especially well informed on some one branch of building construction, or some one class of materials, gave their criticisms and suggestions. In short, the effort has been to combine the methods of numerous architectural offices of recognized standing with the special knowledge of men of long experience in the several branches of the building industry in a work of great usefulness that has proven itself to be a valuable contribution to the practice of architecture.

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By Philip G. Knobloch

PART TWO

IN THE preparation of this, the second part of "Good Practice in Construction", the aim has been to present further useful details in convenient form for use in the drafting room. Details that the architect and draftsman are most likely to have occasion to employ in their work have been selected rather than those of a special character. Though many of the plates embody special knowledge, such as the details for theatres, store fronts, log cabins, etc., all are for buildings that are constantly being built in most, if not all, parts of the country and that may well come within the practice of any architect.

The daily use of "Good Practice in Construction, Part One", in architectural offices throughout the country has shown clearly that material of the kind it contains meets the requirements of architects and draftsmen, and since it was possible to cover but a portion of the subject within the limits of a volume of the convenient size adopted for the books of "The Pencil Points Library," the publishers have recognized the desirability of making available additional material of this nature. Also, a desire for a second volume of Mr. Knobloch's work has been expressed in many letters from users of Part One.

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With a Preface by

HOWARD GREENLEY, A. I. A.

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PART II. Chapter I.—Architectural Considerations; II.—Starting the Work; III.—Individual Styles; IV.—Methods and Lighting; V.—Composition and Drawing from Photographs; VI.—Graded Tones; VII.—The Representation of Small Buildings; VIII.—The Representation of Details; IX.—Interiors and Furniture; X.—Outdoor Sketching; XI.—Accessories; XII.—Decorative Treatment; XIII.—Large Buildings; XIV.—Conclusion.

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This book will be found useful by the architect and draftsman, by the teacher of art, by the drawing student, and by artists, for the author has kept in mind the needs of all these various classes of readers. Mr. Guptill has drawn upon his long experience as an instructor and upon the practical knowledge of the requirements gained through his work as an architect and architectural illustrator.

In addition to the text and illustrations by the author, there are numerous supplementary illustrations including life drawings by H. I. Stickroth, Jules Guerin, Taber Sears, Barry Faulkner, Eugene F. Savage; sketches and renderings by Otto R. Eggers, Birch Burdette Long, Chester B. Price, Hugh Ferriss, Troy Kinney, Kenneth Conant, Frank Vincent DuMond, Albert Kahn, Otto F. Langmann, Schell Lewis, Robert A. Lockwood, C. D. Maginnis, Andre Smith and Charles Livingston Bull.

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MORE than fifty houses in the new West Atlantic City development, at Atlantic City, New Jersey, have been equipped with Burnham Boilers.

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New Advertising Campaign for Metal Partition Industry

Yeomans Flood Proof Sewage Pumping Station. It is generally admitted by competent engineers that electric motors and controlling devices used to operate sewage pumps should never, unless absolutely necessary, be located in underground chambers or vaults where they may be injured by excessive dampness. In some localities, however, because of the inability of the municipalities to secure the necessary property adjacent to sewer lines for construction of a housing above the surface for electrical equipment, the installation of motors and controlling devices under ground cannot be avoided.

In such cases there is not only the possibility of damage from condensation and lack of ventilation to the vault, but also of complete submersion in case of underground flood conditions, and the new Yeomans Flood Proof Underground Pumping Station (patented) has been designed to prevent the complete filling up of such an underground chamber under any conditions that are likely to occur.

Information on the features of this station may be secured from Yeomans Brothers Company, 1448 Dayton Street, Chicago.

The National Association of Ornamental Iron and Bronze Manufacturers will hold its 30th Annual Convention on September 20th, 21st, and 22nd at West Baden, Indiana. This year the Convention bids fair to be the finest meeting that the Association has ever held.

The program of the Business Sessions shows several important matters to be discussed and decided upon by the members. Several matters of importance to expansion in this industry and the outlining of a National Advertising Campaign will be acted upon and in addition, the subjects of Standardization and Individuality will be thrashed out. It is also hoped to establish a closer cooperation between architects and Contractors by the more general use of a standard classification list of materials for use in all specifications made up by architects and builders. This list has recently been adopted by the National Association of Ornamental Iron and Bronze Manufacturers and by the American Institute of Steel Construction. Its purpose is to prevent the usual misunderstandings now prevalent between buyer and seller.

The Portland Cement Association announces the appointment of Charles F. Simpson as District Engineer for Tennessee, with offices at Nashville, Cotton States Building.

Effective July 1st, 1927, the name of the General Fireproofing Building Products is changed to the Genfire Steel Company.

This change was made entirely, and is made to avoid possible confusion with The General Fireproofing Company, also of Youngstown, makers of steel office furniture and equipment.

The Genfire Steel Company will continue to manufacture the fire-safe building products which includes the famous Herringbone, Key and Diamond Eb metal bath, self-Centering and Transit, Casement and Basement Windows, T-Bar and Plate-Girder Steel, and Industrial Steel Windows. Corner Bead and other plasterers' specialties, Concrete Reinforcements, Waterprooﬁngs and all other well-known GF materials.
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For Floor Construction

THESE joists are used in place of wood joists anywhere that wood joists are used. They eliminate the shrinkage and warpage of wood joist floors and prevent cracking of plaster. Piping and conduits can be run through the joists, eliminating cutting and weakening joists as is the case where wood is used. Plumbing installation costs are reduced.

Massillon Light Joist floors are built in the same manner as wood joist floors. The joists are supported on any type of wall or partition. They frame equally well with wood and steel beams. They are bridged the same as wood joists and flooring nailed to the top member. When metal lath and plaster ceiling is applied underneath the joists, the lath is wired to the bottom of the joists. Metal ceilings, plaster board and other types of ceilings are readily attached. These joists are carried in stock in standard sizes to meet all span requirements up to 23'-6". Let us send you detailed literature.

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OUR Light Joist meets a certain need separate and distinct from the requirements fulfilled by our Massillon Bar Joists. Massillon Bar Joists are used in building fireproof floors in all types of structures. This fireproof floor construction is scientifically designed to secure the maximum benefits from the materials involved. The dead load of each floor slab is materially reduced—the structural savings go right down to the footings—the construction time is cut to the minimum. And yet, when you analyze the layouts, you will be surprised at their simplicity—even to the installation of piping and miscellaneous floor accessories. These can be run in any direction through the web of the joists without raising floor levels or suspending ceilings. Massillon Bar Joists are made in standard sizes to meet all span and load requirements and are shipped from stock. Send for literature giving construction details and safe loading tables.

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Milcor Stay Rib Metal Lath No. 1. In addition to this lath, the Milcor Line includes 3/16" Stay Rib No. 2, 3/8" Stay Rib No. 3 and Netmesh (diamond expanded) metal lath. Available in steel, Coppered Metal, or ARMCO Ingot Iron, painted or galvanized, or in zinc or copper.

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