THE AMERICAN ARCHITECT

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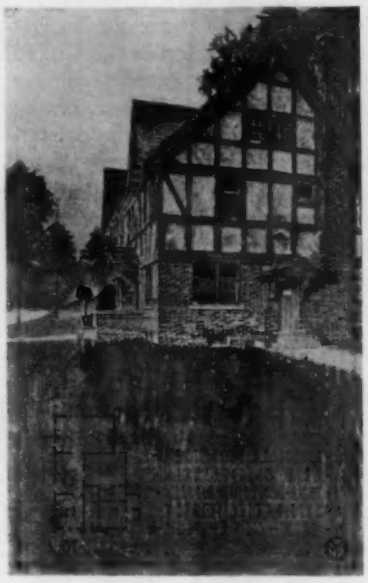
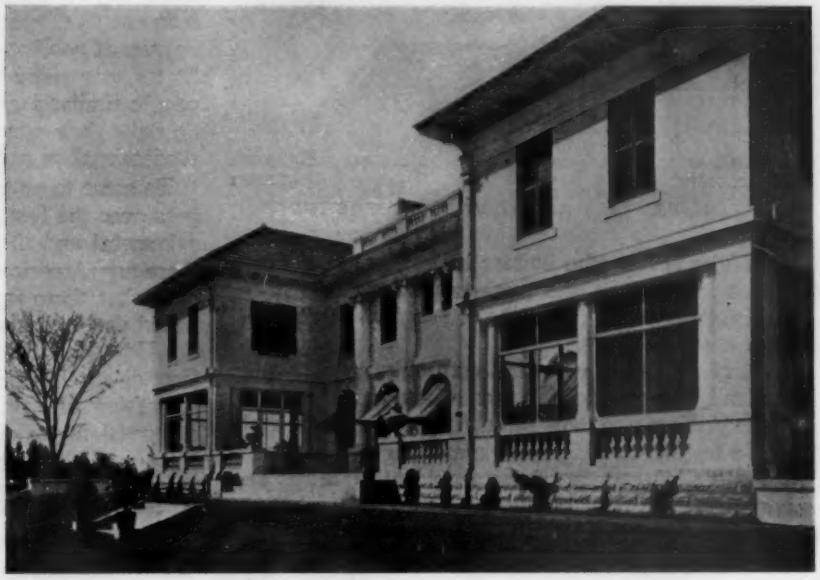


SKETCH FOR RESIDENCE, MINNEAPOLIS, MINN. MR. WM. M. KENYON, ARCHITECT



RESIDENCE OF J. S. BELL, ESQ. LAKE MINNETONKA, MINN. MR. WM. CHANNING WHITNEY ARCHITECT

THE MINNEAPOLIS ARCHITECTURAL EXHIBITION

American Architecture from the Standpoint of One Who Has Practised Both Here and in England*

AS everything is relative and depends upon the point of view, much may, doubtless, be said in support of the inferences to be drawn from the interesting communication from Mr. Edward Hudson, which has for its apparent object contention against the assumption that there is any such thing as American Architecture—the title, in part, of my paper recently read before this Institute—or that, at its best, it is anything more than a *mélange* or *réchauffé;* that architectural works in the United States are, "more or less, imitations of grandiose ancient buildings erected for a different object in a different climate," and to tell you how things are actually done as distinct from how I might endeavor to lead you to believe—for it must be borne in mind that Mr. Hudson's article was written while I was preparing my paper. There is much which may be said for his argument, provided that we accept as "architecture" all that is produced by self-styled "architects," and select from the lot, as Mr. Hudson has done, work that is well below the average. I think, if Mr. Hudson had seen the work shown on the screen when I read my paper, he would agree that it was both the work of architects—as I shall define the word—and American in the sense that the national distinction is generally understood.

According to my understanding of what Mr. Hudson calls "Architecture in America" it is neither *architecture* in the result, nor are the methods of obtaining that result peculiarly *American,* for the same methods are, I am sorry to have to affirm, those of like people in at least seven important countries of which I have personal knowledge; but in no country that I know of, the United States in particular, are they the methods of *architects,* whether "representative" or the less fortunate and much-abused "ordinary run." May I define, according to my lights, certain professions connected with building, to make clear differences between architecture and the allied arts and trades which have become very distinct in modern civilization, which it seems to me Mr. Hudson sweeps together and refers to as "architecture," or, to be more specific, insinuates are representative of the work and methods of American architects?

* An answer to Mr. Hudson's contention that there is no American Architecture worthy of the capitalization, which appeared in the last issue, that for May 5. This reply, by Mr. Francis S. Swales, is of especial interest because of the two facts that the author is familiar with American conditions and, since he has given up this country in favor of England for his home, may be considered unprejudiced in his point of view. Reprinted from the *Journal of the R. I. B. A.* for April 3, 1909.

A RESIDENCE AT CAMPELLO, MASS. — MR. HARRY B. RUSSELL ARCHITECT

THE MINNEAPOLIS ARCHITECTURAL EXHIBITION

A *Builder* is one who builds; he is a good builder if he builds in a strong and workmanlike manner.

An *Engineer* is one who builds strongly, economically, and for absolute needs.

An *Architect* is one who builds strongly, economically, scientifically, with thought to present and probable needs, and who professes to build *beautifully* and appropriately in such a manner as to indicate something of the aspirations and enlightenment of the people of his times and country. He must, therefore, be capable of conceiving and expressing an ideal, hence, an *artist*.

A *Sculptor* is one who designs and executes part of the beautiful work, and is an artist concerned principally with form—he works in detail.

An *Artist-painter* is one who designs and executes part of the beautiful work, and is concerned principally with color—his work is also detail.

The person who forms a limited company to imitate all of these things (and usually imitates them badly) is generally known as a "Decorator"—and he sometimes is a furniture dealer or a "general provider" as well, and his methods are not unlike those described by Mr. Hudson—it matters little whether his shop is in New York, Toronto, London, Paris, Berlin, Rome, or elsewhere.

ELKS' CLUBHOUSE MANKATO, MINN. — MESSRS. BELL, TYRIE & CHAPMAN ARCHITECTS

THE MINNEAPOLIS ARCHITECTURAL EXHIBITION

I think I make it clear that Mr. Hudson and myself do not regard architecture or architects from quite the same point of view, and I quite admit that his is the broader, more general, and—I think unfortunately—the view taken by the amateur and the bulk of the public—the public which we architects think needs educating. It is true, however, that among men describing themselves as "architects" similar methods are pursued, but it is not true to suggest that such men are the leaders or men of good standing in the profession in the United States, any more than it would be to describe similar people similarly as regards England or France, nor to describe their ways of "doing business" as the current professional or artistic practice in these countries.

To come to an examination of Mr. Hudson's letter, I pass over the first two paragraphs, which deal with the ephemeral and the past, and come to his question, "*Is* there any American Architecture?" and I say emphatically that there *is*, and that a few examples are to be found dating back one hundred years or more, such as the New York City Hall and the older portions of the Capitol at Washington. Comparisons, except when something of value is to be drawn from them, are as odious to-day as ever, and more so when they are made between the people of England and America; and I fail to see that any good can come of quoting Sir Caspar Purdon Clarke's statement—which was probably made after dinner—or suggesting that "England, of course, has nothing new to teach them" (the Americans). I feel that this is a particularly misleading statement, for I am sure that in no other country are English architects esteemed so highly as among their American *confrères* in the United States; but, of course, I am referring to those architects who would come within my definition of what an architect is. It is not to be expected that every architect who takes it upon himself to represent the land of Ernest George, John Belcher, Ernest Newton, E. J. May, R. S. Lorimer, Mervyn Macartney, John W. Simpson, Leonard Stokes, E. A. Rickards, and the others of their class, will find himself accepted as a prophet on their account.

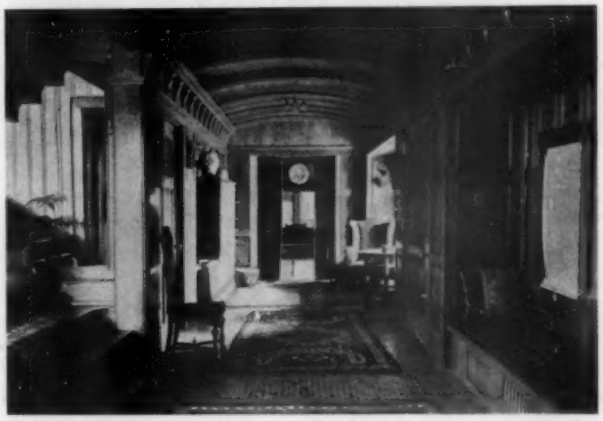
To quote a lecture delivered nineteen years ago to students in an American university is somewhat like quoting the opinions of a professor of the early Victorian period upon the modern architecture of England. But even as regards this lecture, has it been quoted fairly? I call attention to the paragraph which Mr. Hudson has given partly in italics, and which refers to buildings erected some twenty years ago—a phase to which I called attention in my paper. He has put in italics the statement that refers to details and ornament —the province of the then almost unobtainable sculptor; and in ordinary type that which refers to the architecture. The statement of the professor is quite clear, true, and not at all damaging to American architecture —it might be applied with equal truth to the best works of the Early Renaissance in England, or even to those of Jones and Wren. In his next paragraph, Mr. Hudson betrays two curious characteristics often detectable in the writings upon architecture of a type of traveling critic; first, they go abroad, not for the purpose of studying the comparative values of results obtained in different countries, but only to gather corroborative evi-

dence to support their own preconceived theories upon the subject. Secondly, they have a wholly false conception of the conditions which maintain in American architects' offices. The transition stage from architecture in America to American Architecture was passed between the years 1892 and 1896; since then it has developed and grown strong amid the work of all sorts of foreigners who have gone into the country to build their "bits" "from Europe," which they probably "ransacked" from the Parthenon to the Indian—not "latest English"—bungalow, before they left. Dutch houses have existed since the days when New York was New Amsterdam, and "Georgian" houses—which were the English imitation of the Dutch—were in existence in a few places in the colonies at least ten years before King Charles was beheaded. The only "imitation" I have seen "of the Louvre" is in Liverpool; of "the Erechtheum" the church known as "St. Pancras." Houses "in the style of Francois 1er" are to be found in Berkeley Square, Piccadilly, and the Embankment; and the building of the City of London Schools is not unlike certain "Hôtels de Ville," though each possesses a distinctively English character, just as the American work of about the same period does an American character; and some of the buildings, the offices of the Board of Education, for instance, by Bodley and Garner, are among the most beautiful works of modern English architecture. I do not believe that a single instance can be given of a "Romanesque" church built within the past ten years, and very few during the past twenty. "Gothic" for Anglican churches, designed in a scholarly way, is traditional with the sect, and vigorous and original compositions, well adapted to modern conditions, have been carried out in this style, in some cases by architects who received their early training in England.

There remains to answer the question of the accuracy of Mr. Hudson's statement as to the workings of an American office. I have some slight knowledge of most of the large offices, an intimate knowledge of some of them, and practical experience with a few. Work is carried on with system and celerity, but more time is given as a rule to the *study* of the *parti*—scheme of composition—than would be the case in this country. This is usually sketched by the responsible architect himself, though sometimes by a leading draughtsman known as a designer, a highly-trained and experienced architect usually, the equal of his chief and a man whose tastes and views are similar. The designer is always in the office, and acts either as office manager, head draughtsman, or one of a number of head draughtsmen, each of whom has under his control a certain number of assistants. The preliminary sketches and studies are worked out by the designer, who outlines the composition and draws each feature and one or two bays of a running *motif;* duplicating is carried on by an assistant; and when one study has been completed and rendered, another is made correcting, revising, and improving certain of the masses, proportion, and placing of ornament. I have known as many as forty such drawings to be made of a single plan in an important competition. As each drawing is completed it is criticised by the architect and often also by two

A RESIDENCE MR. WM. CHANNING WHITNEY
MINNEAPOLIS, MINN. ARCHITECT
THE MINNEAPOLIS ARCHITECTURAL EXHIBITION

or three other designers, none of whom hesitates to express his own opinion freely. When the scheme is settled the designer gives the several plans to his personal assistants to set out—usually at a small scale—1-32 inch or 1-16 inch, and the study of proportions, color-values, and scale is then begun; when the architect is satisfied that these are right the working drawings are proceeded with. These—at the ¼ inch scale—being of a mechanical nature (with the exception of the ornamental work)—are pressed forward with all speed by draughtsmen who are not supposed to be artists but only good workmen. The position of steel columns is settled by the designer who understands the engineering work, but who very seldom actually designs or calculates it, and practically never details it. He also indicates the position and type of arrangements for plumbing, heating, ventilating, and lighting. Several sets of prints by hectograph are prepared, and on these the steel-works and the mechanical plant are each laid out by *engineers in the employ and under the personal direction of the architects.* These engineers work as *draughtsmen in the architect's office.* Copies of the engineering drawings—except machinery—are usually made by hectograph process. While the engineering work is proceeding, the details at the scale of ¾ inch



MAIN HALL MR. WM. M. KENYON
MR. KENYON'S RESIDENCE ARCHITECT
THE MINNEAPOLIS ARCHITECTURAL EXHIBITION

to the foot for external work, and 1½ inch to the foot for interiors, is carried on by the designer, who does practically all of the studying of details, under, of course, the criticism of the architect.

Architectural ornament is drawn by the assistants under the criticism of architect and designer. These drawings are highly finished and often shaded with the brush, and everything is so completely detailed that an ordinary skilled workman could execute it without the assistance of a model, though the model is almost invariably supplied. When the ornament is one of importance, such as a cartouche, with figures, relief panel, etc., the model is usually made by the best sculptor obtainable, whose clay sketches are criticized by either the architect or designer, or both. In some cases I have known the designer to do a good share of the modeling of an important piece, leaving only the finish and detail to the sculptor.

Mr. Hudson is very complimentary to American engineers, and, generally speaking, they are a very thorough set of men and deserving of great credit for the skill displayed in their work. It is just possible that in the five years which I have been on this side of the Atlantic things have so changed that, in certain classes of buildings, "a civil engineer lays out this framework complete before the architect applies the covering and part of the internals," but in the twelve years of my American experience I never heard of such a thing, and I am sure that it is neither commonly nor frequently done for any class of building—even to-day. In this connection it may not be amiss to remind your members that the steel-frame building is the invention of, and has been developed by, men who are by profession *architects*, not engineers. The work of the engineers has been merely to amplify and detail the ideas and schemes supplied by American architects.

As to Mr. Hudson's concluding paragraphs upon "what the American architect has to fear"—may I suggest that he does not "fear" his best efforts of twenty years ago may be destroyed—he earnestly *hopes they will be*—long enough before he dies to give him another opportunity, and that there are innumerable good architects in this and other European countries who would be delighted if some of their early efforts would be similarly placed or destroyed? Hunt if he were living would probably not feel any remorse over the passing of structures mentioned. The removal of the Presbyterian Hospital is likely to be for the purpose of obtaining a site in a less congested district; and, although New York is in some respects the most commercial city in the world, "the dollar" is distinctly *not* "the idea" to the extent that some would have us believe.

A NEW ENGLISH MONTHLY

To England's already abundant supply of architectural literature has been added a monthly periodical, issued under the name *Details*. Leaving to its contemporaries the news, the discussion of professional subjects of a trade, artistic and constructional nature, and the representations of architectural designs of the more comprehensive type. *Details* purposes giving, by means of large half-tone reproductions from photographs, accompanied by measured or scale drawings, examples in detail of modern and old work that have merit and practical value in suggestion.

Judged from a recent issue, the new periodical is covering a hitherto almost untouched field in a praiseworthy manner.

UNIVERSITY OF ILLINOIS BULLETINS

On account of the demand for Bulletins No. 16 and No. 25 of the Engineering Experiment Station, University of Illinois, another edition of each has been printed, and copies are now available for distribution.

No. 16, A Study of Roof Trusses, by N. C. Ricker, is of interest to all persons interested in the design and construction of trussed roofs.

No. 25, Lighting Country Homes by Private Electric Plants, by T. H. Amrine, includes explanations concerning artificial illumination, selection of lighting fixtures and the planning of a house lighting system, the design and estimate of the cost of a small private plant, suggestions about ordering apparatus and instructions for its operation and care.

It is hard to find, throughout the whole field of technical literature, practical information that is absolutely unbiased and that is the result of actual experiment rather than of mere conjecture and theory. The matter contained in these bulletins and those of several other institutions is of just this rare sort, and the profession is under deep obligation to those responsible for its issue.

MODERN FACTORY CONSTRUCTION

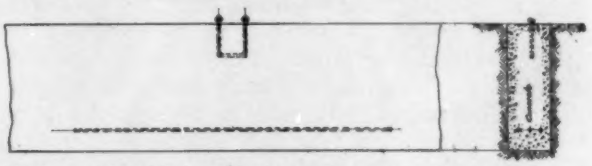
It is but a few years ago that the most approved examples of factory building were nothing more than rough wooden structures, badly ventilated, dark, gloomy and dirty from the accumulation of smoke and soot, the small glass window areas of which were badly obscured by a mass of dirt and cobwebs.

It is a long step in advance from such buildings as these to the modern utilitarian structures which are built of masonry and steel, with enormous glass areas and ample provision for ventilation.

The photograph which accompanies this article, and the details of the steel frame and roof construction, show to what an extent simplicity and effectiveness have been carried in work of this kind.

In the building illustrated the foundation is of concrete of uniform section. Instead of having an increased thickness of wall under the columns, the foundation is reinforced for a sufficient distance to distribute the load, as is shown in sketch No. 1.

Upon this the walls are of sand and lime brick. To avoid disintegration caused by alternate freezing and thawing near the ground, a base course of concrete was laid upon the foundation to the height of 12 inches.

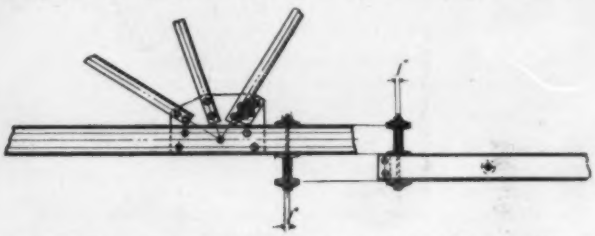


NO. 1—REINFORCEMENT OF FOUNDATION WALL UNDER PIERS

Upon this the brick is laid, and extends to the plate. The walls are as thin as possible, having no weight to support, with the exception that the walls support one end of the steel work in the bays adjacent to them.

A steel frame is used, made sufficiently heavy to carry all necessary line shafting, motors and auxiliary shafting. The trusses are supported upon columns built into pilasters, except in the end bays where the steel work is supported on the end walls. It is interesting to notice in sketch No. 2 the simple manner in which the bottom chord of the truss is designed to allow it to carry the shafting hangers. It is made up of two channels back to back with a space of one inch between to allow bolting to it the girders carrying these hangers.

Reinforced cement tile has been used for the roof. It is ⅞ inch in thickness with expanded metal reinforcement near the under side. The tiles are laid directly on the purlins, having a lip to engage with the



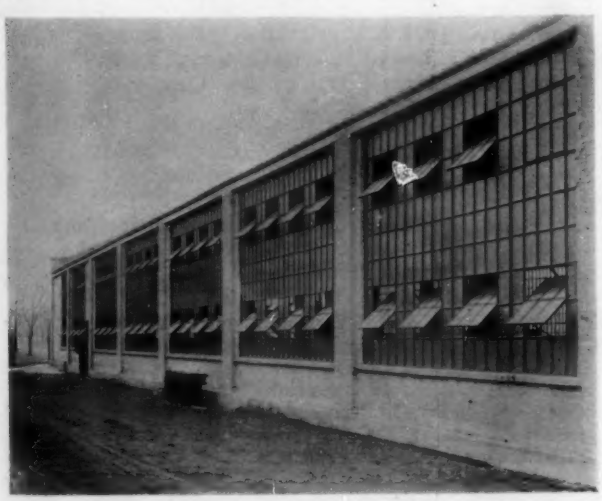
NO. 2—THE DEVICE FOR BOLTING SHAFTING HANGERS TO TRUSSES

upper purlin, and lapping the tile below, as shown in sketch No. 3. The vertical laps were pointed with cement and sand, the horizontal ones with oil cement. Each tile covers an area of eight square feet.

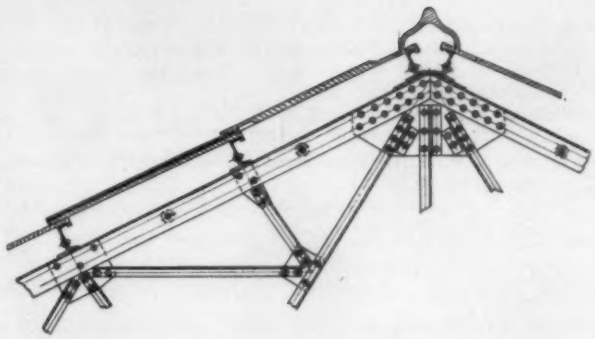
The sash, which as will be seen form the major part of the factory walls, are of a wrought steel patented type with louvre ventilators, as shown in the photograph. Factory ribbed glass is employed, set in putty.

While brick has been used for the floor it has been found advisable to insert wood blocks at all points where the workmen stand to operate their machines.

The building was designed for the Detroit Steel Products Co., in Detroit, Mich., under the direction of Mr. James H. Herron, engineer.



THE STRICTLY UTILITARIAN TYPE OF MODERN FACTORY CONSTRUCTION WITH AMPLE PROVISION FOR LIGHT AND AIR



NO. 3—ROOF TRUSS CONSTRUCTION AND THE MANNER OF ATTACHING THE COVERING OF REINFORCED CEMENT TILES

FOR THE ARCHITECT'S LIBRARY

THE Council of the R. I. B. A. has just issued a list of books which it recommends to students of architecture. This list has been prepared by a joint committee consisting of members of the Board of Architectural Education, of the Board of Examiners and of the standing committees. American architectural students will find much that is valuable in suggestion in the list which is appended, and it should not be without its benefits to architects in general.

General

Atkinson, T. D.: English Architecture. 8o. 1904.
Belcher, J.: Essentials in Architecture. 8o. 1907.
Brown, G. Baldwin.: The Fine Arts. 8o. 1902.
Brown, G. Baldwin: Arts in Early England. 2 vols. 1903.
Choisy, A.: Histoire de l'architecture. 2 vols. 8o. 1899.
Choisy, A.: L'art de bâtir chez les Égyptiens. 8o. 1904.
Cummings, C. A.: History of Architecture in Italy, from the Time of Constantine to the Dawn of the Renaissance. 2 vols. 8o. 1901.
Fergusson, J.: History of Architecture of all Countries. 5 vols. 8o. 1876-1893.
Fletcher, Banister F.: History of Architecture on the Comparative Method. sm. 8o. 1901.
Gwilt, J.: Encyclopædia of Architecture. 8o. 1888.
Simpson, F. M.: A History of Architectural Development. 8o. 1905.
Spiers, R. Phené: Architectural Drawing. 4o. 1902.
Viollet-le-Duc: Lectures on Architecture. 2 vols. 8o. 1877-81.

Classic

Anderson, W. J., and Spiers, R. Phené: Architecture of Greece and Rome. 8o. 1908
Cockerell, C. R.: Temples of Jupiter Panhellenius at Ægina; and of Apollo Epicurius at Bassæ. fo. 1860.
Chambers, Sir W.: Civil Architecture. fo. 1759; or 2 vols. 8o. 1825.
Choisy, A.: L'art de bâtir chez les Romains. fo. 1873.
d'Espouy, H.: Fragments d'Architecture antique. fo. 1896.
Gardner, P.: Grammar of Greek Art. 8o. 1905.
Gibbs, J.: Rules for Drawing the Several Parts of Architecture. fo. 1732.
Middleton, J. H.: Remains of Ancient Rome. 2 vols. 8o. 1892.
Normand, C. J. P.: The Orders of Architecture. fo. 1829.
Penrose, F. C.: Principles of Athenian Architecture. fo. 1851; or 1888.
Spiers, R. P.: The Orders of Architecture. 4o. 1902.
Stuart, J., and Revett, N.: Antiquities of Athens. 4 vols. fo. 1762-1861.
Taylor, J. L., and Cresy, E.: Antiquities of Rome. 2 vols. fo. 1821-22.
Gwilt's Translation of Vitruvius. 8o. 1826.
Watt, J. C.: Examples of Greek and Pompeian Decorative Work. fo. 1897.

Byzantine

Choisy, A.: L'art de bâtir chez les Byzantins. fo. 1883.
Lethaby, W. R., and Swainson, H.: Church of Sancta Sophia, Constantinople. 8o. 1894.
Ongania, F.: Basilica di San Marco. 13 vols. fo. and 4o. 1881-88.
Salzenberg, W.: Alt christliche Baudenkmale von Constantinopel. fo. 1854.
Schultz, R. W., and Barnsley, S. H.: Church of St. Luke of Stiris, &c. fo. 1901.

Mediæval

Atkinson, T. D.: A Glossary of English Architecture. 8o. 1906.
Bilson, J.: The Beginnings of Gothic Architecture. 4o. S. P. 1899.
Bond, F.: Gothic Architecture in England. 8o. 1906.
Bowman, H., and Crowther, J. S.: Churches of the Middle Ages. fo. 1857.
Brandon, R. and J. A.: Analysis of Gothic Architecture. 2 vols. 4o. 1849.
Britton, J.: Cathedral Antiquities. 14 vols. 4o. 1814-35.
Collings, J. K.: Details of Gothic Architecture. 2 vols. 4o. 1852-56.
Collings, J. K.: Gothic Ornaments. 2 vols. 4o. 1848-50.
Corroyer, C.: L'Architecture gothique. 8o. 1891.
Dehio, G., and Von Bezold, G.: Kirchliche Baukunst des Abendlandes. 8 vols. fo. and text 8o. 1884-1901.
Dollman, F. T., and Jobbins, F. R.: Analyses of Ancient Domestic Architecture in Great Britain. 2 vols. 4o. 1861-3.
Enlart, C.: Manuel d'archéologie française. 2 vols. 8o. 1902-04.
Garner and Stratton: Domestic Architecture of the Tudor period. 1908.
Lethaby, W. R.: Mediæval Art. 8o. 1904.
Parker, J. H.: Glossary of Terms used in Architecture. 3 vols. 8o. 1850.
Prior, E. S.: Gothic Art in England. 8o. 1900.
Pugin, A.: Examples of Gothic Architecture. 3 vols. 4o. 1831-38.
Révoil, H.: Architecture romane du Midi de la France. 3 vols. fo. 1873.
Ruprich-Robert, V. M. C.: L'architecture normande aux xi^{e} et xii^{e} siècles. 2 vols. fo. 1884-89.
Scott, G. G., jun.: Essay on the History of English Church Architecture. 4o. 1881.
Scott, Sir G. G.: Lectures on Mediæval Architecture. 8o. 1879.
Sharpe, E.: Architectural Parallels. fo. 1848.
Sharpe, E.: The Mouldings of the Six Periods of Gothic Architecture. 4o. 1871-74.
Street, G. E.: Brick and Marble of the Middle Ages in Italy. 8o. 1874.
Street, G. E.: Gothic Architecture in Spain. 8o. 1865.
Viollet-le-Duc, E. E.: Dictionnaire raissonné de l'Architecture française. 10 vols. 8o. 1854-68.
Willis, R.: Vaults of the Middle Ages. 4o. S. P. 1842.

Renaissance

Adam, R. and J.: Works in Architecture. 3 vols. fo. 1778-1822.
Anderson, W. J.: Italian Renaissance. 1909.
Belcher, J., and Macartney, M.: Later Renaissance Architecture in England. 2 vols. fo. 1901.
Berty, A.: La Renaissance monumentale en France. 2 vols. 4o. 1864.
Birch, G. H.: London Churches of the Seventeenth and Eighteenth Centuries. fo. 1896.
Blomfield, R.: Renaissance in England 1500-1800. 2 vols. 8o. 1897.
Campbell, C.: Vitruvius Britannicus; with Supplement by Woolfe and Gandon. 5 vols. fo. 1715-71.
Cicognara, L.: Fabbriche e i monumenti conspicui de Venezia. 2 vols. fo. 1838-40.
d'Espouy, H.: Fragments d'Architecture de la Renaissance. fo. [1897].
Geymüller, H. von: Baukunst der Renaissance in Frankreich. 8o. 1898.
Gotch, J. A.: Architecture of the Renaissance in England. 2 vols. fo. 1894.
Gotch, J. A.: Early Renaissance Architecture. fo. 1894.
Kent, W.: Designs of Inigo Jones. fo. 1727.
Letarouilly, P.: Édifices de Rome moderne. 3 vols. fo. 1840-60.
Palustre, L.: Renaissance en France. 3 vols. fo. 1870.
Prentice, A. N.: Renaissance in Spain. fo. 1893.
Raschdorff, J. C.: Palast-Architektur: Toscana. fo. 1888.
Raschdorff, O.: Palast-Architektur: Venedig. fo. 1903.
Reinhardt, R.: Palast-Architektur: Genua. fo. 1886.
Sauvageot, C.: Palais, Châteaux, Hôtels et Maisons de France. 4 vols. fo. 1867.
Tanner, H.: English Interior Woodwork of the XVI., XVII., and XVIII. Centuries. fo. 1902.
Triggs, H. Inigo, and Tanner, H.: Works of Inigo Jones. fo. 1901.

Geometry

Binns, W. S.: Geometrical Drawing. 8o. 1864.
Davidson, E. A.: Practical Perspective. 8o. 1886.
McGoodwin, H.: Architectural Shades and Shadows. 4o. 1904.
Spanton, J. H.: Science and Art Drawing. 8o. 1895.

Materials: Their Nature and Application

Butler, D. B.: Portland Cement. 8o. 1905.
Ellis, G.: Modern Practical Carpentry. 8o. 1906.
Ellis, G.: Modern Practical Joinery. 8o. 1908.
Johnson, J. B.: Materials of Construction. 8o. 1908.
Middleton, G. A. T.: Building Materials.
Newland, J.: Carpenters' and Joiners' Assistant. 4o. 1860.
Purchase, W. R.: Practical Masonry. 8o. 1904.
Rivington's Notes on Building Construction. Vols. I.-III. 8o. 1904.

Hygiene, Sanitary Science, Heating, &c.

Dukes, Clement: School Hygiene.
Hood, C.: Warming by Hot Water. 8o. 1897.
Jones, W.: Heating by Hot Water, &c. 8o. 1904.
Knight's Annotated Model By-laws. 8o. 1905.
Maxwell, W. H.: Ventilation, Heating, and Lighting. 8o. 1907.
Miers, H. A., and Crosskey, R.: The Soil in Relation to Health. 8o. 1893.
Model By-laws. L. G. B.
Parkes, L. C., and Kenwood, H. R.: Practical Hygiene. 8o. 1907.
Reid, G.: Practical Sanitation. 8o. 1908.
Sutcliffe, G. L.: Sanitary Fittings and Plumbing. 8o. 1901.

Specification, &c.

Dicksee, B.: London Building Acts (for London students). 8o. 1906.
Dilapidations. (R. I. B. A. publication.) 8o. 1903.
Hudson, A. A.: Law of Building Contracts. 2 vols. 8o. 1907.
Leaning, J.: Quantity Surveying. 8o. 1904.
Leaning, J.: Specifications. 8o. 1901.
Macey, F. W.: Specifications. 8o. 1904.
Rea, J. T.: How to Estimate. 8o. 1908.

Strength of Materials and Construction

Adams, H.: Practical Designing of Structural Ironwork. 8o. 1894.
Adams, H.: Strains in Ironwork. 8o. 1884.
Berg, L. de C.: Safe Building. 8o. 1892.
Brickwork Tests. (R.I.B.A. publication.) 8o. 1905.
Charnock, G. F.: Graphic Statics. 2 vols. 4o. 1899.
Hardy, E.: Graphic Statics. 8o. 1904.
Middleton, G. A. T.: Stresses and Thrusts. 8o. 1904.
Reinforced Concrete. (Report of Joint Committee.) 4o. 1907.
Rivington's Notes on Building Construction, Vol. IV. 8o. 1904.
Scott-Moncrieff, G. K.: Principles of Structural Design. 2 vols. 1897-8.
Stock, C. H.: Shoring and Underpinning. 8o. 1902.
Unwin, W. C.: Testing of Materials. 8o. 1899.

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May 12, 1909 Vol. XCV., No. 1742

CONTENTS

IT has been our good fortune during the last two months to acquire a fairly comprehensive idea of things architectural throughout the Southern States. The results of a trip, taking in the more important cities, are surprising in two ways. In the first place so very little material has found its way into the architectural press from Southern men that we were almost converted to the popular belief that there really was no architectural activity below Washington. In this impression we were agreeably surprised. The men of the South are designing and erecting buildings, many of which compare favorably with Northern and Western work. It is perfectly evident, however, that the difficulties confronting Southern architects are far greater than is generally understood to be the case—difficulties arising from a lack of appreciation and understanding on the part of clients, from the necessity for cheap building because of the lack of capital, and from the existence in large numbers of men of the "artchitect-and-builder" type, who are so unscrupulously active as almost to drive the reputable practitioners out of the country altogether. The extent to which these men without either training or responsibility will go "to get the business" is scarcely conceivable by those who are unfamiliar with conditions existing in the South. It is a common thing to find advertisements in the daily papers, and even on billboards, in which these men offer plans and supervision free to those who will buy land and give the advertiser a contract to erect the building upon it.

IT is, of course, only a question of time before the people of the South will awaken to a fuller realization of the fact that good architecture is not a luxury, nor something that is merely more pleasing to the eye than the jerry-built work that prevails. They are sure to discover the fact that the work of trained men is economically a necessity. This realization is sure to come in time, of itself. But the coming of that day may be hastened by the profession, and most effectively by those members who are on the firing-line. It is merely a question of cooperation and affiliation. The architects of the South will have to forget their petty differences and jealousies in a united effort toward the education of the public. There is a need for new chapters of the American Institute of Architects throughout the Southern States—there are practically no organizations down there. For the Architectural League there is a great field among the younger men of the South—a field that will richly repay the effort expended. Exhibitions are needed, that the public may learn to appreciate better work—they must know what is good before they can be expected to demand it for themselves.

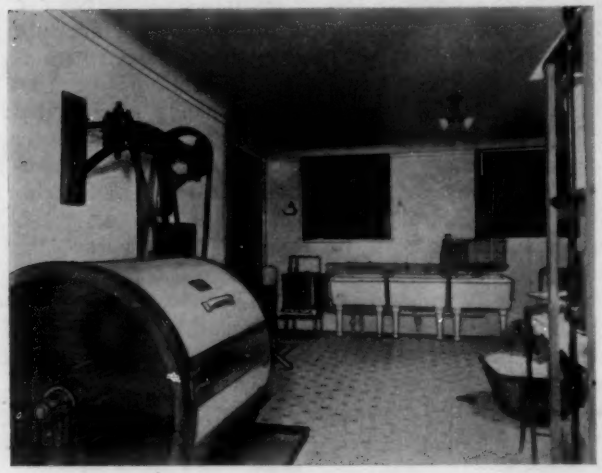
AS to the practical working out of this national problem, there is one thing certain: the architects of the South must take the initiative. Efforts toward affiliation cannot succeed from the outside; they must come from those men of the South who realize the true state of things down there and who have the courage and spirit to throw their energies into the work. It is not the work of a day, or a month; it is one of those thankless tasks in which visible results are slow in appearing, in which one's very motives will perhaps be questioned and misunderstood, but it is a task well worth the doing, for the sake of the South and for the sake of the nation.

ONE hears an almost inordinate amount of talk these days about the perversity of Congress and the striking unfitness of the members thereof for the great task of tariff revision. The sum of their activities has been called a mere game of barter—a gain here for a concession there. Considering the enormous amount of detail involved and the fact that the work of revision must be completed in months rather than years, the matter could hardly be anything else. The consoling part of it all is that, theoretically at least, the representative system of government should, even in a game of barter, secure the greatest good to the greatest number. Perhaps we shall have a permanent commission some day, to make the whole tariff problem a matter of continued study and detailed research. Until then we surmise that the new tariff act will not be the crude, unjust, and otherwise wholly absurd instrument that some would have us believe is in store for us.

THE EQUIPMENT OF A MODERN RESIDENCE

The extent to which modern methods and the most improved equipment is used in modern residence work is indicated in the accompanying photograph of a laundry in the residence of Edward S. Harkness, New York City, Messrs. Hale & Rogers, architects, as reprinted from the *Engineering Review*.

The laundry is located, not in the basement, but on the top floor of the residence. For the walls, glazed



LAUNDRY IN RESIDENCE OF E. S. HARKNESS, ESQ., NEW YORK CITY — MESSRS. HALE & ROGERS ARCHITECTS

china tiles have been used in order to secure the greatest cleanliness and non-absorbent properties. The floor is of rubber tiling.

The ordinary methods for ventilation by means of windows have been considered insufficient, and provision is made for the ventilation of the room by means of a forced draft through two ventilators in the ceiling, one of which is shown at the far corner in the picture. In addition a natural-draft ventilator is provided over the ironing table.

There is the not uncommon equipment of porcelain wash trays with an attached wringer between two of these. At the left of the tubs there is a copper clothes boiler on a gas stove, over which are hot and cold water faucets.

Other unusual features in the equipment are a special form of gas stove for heating irons, and a regular rotary clothes washer which is driven by an electric motor.

TESTS OF BRICK AND TERRA-COTTA COLUMNS

Architects and engineers will be interested in a publication of the Engineering Experiment Station of the University of Illinois on the properties of brick and of terra-cotta block in compression as determined from experimental work carried on in the materials testing laboratory. The publication is Bulletin No. 27, Tests of Brick Columns and Terra-Cotta Block Columns, by Arthur N. Talbot and Duff A. Abrams. It gives the results of tests of a number of piers or short columns built under a variety of conditions. Hard and soft brieks and blocks were used; and lime mortar, natural cement mortar, and lean and rich Portland cement mortar were tried. The effect of indifferent workmanship was determined. Both central and eccentric loadings were used. In the central loading columns of high-grade building brick laid with rich Portland cement mortar carried from 3,220 to 4,110 lb. per sq. in., and the results ranged down to 1,360 lb. per sq. in. for columns laid in lime mortar and 1,030 lb. per sq. in. for columns of soft brick laid in rich mortar. The terra-cotta block columns carried from 2,700 to 3,790 lb. per sq. in. The columns were found to fail at much lower loads after repeated loading than when a single application of the load was used. The tests under eccentric load show that the columns resist eccentric loading well, following closely the laws of mechanics of materials. The fact is brought out clearly that the stronger the individual brick or block the stronger the masonry, and that the strength of the mortar used affects largely the resisting strength of the structure. It is also evident that the better the individual piece the more important it is to have a mortar of high resisting strength. Clay workers and builders will be interested in seeing how much gain in strength of structure is obtained with the higher grade of brick and also in the great advantage found in the use of a rich strong mortar. The effect of the attempt to represent hurried or careless workmanship in laying up work was a loss in strength of, say, 15 per cent. to 25 per cent., a smaller decrease in strength than was expected. The results of these tests go to show that wherever good material and workmanship are insured a higher load may be applied on masonry of this kind than is usually permitted.

Copies of the bulletin may be obtained gratis upon application to the director, Engineering Experiment Station, Urbana, Illinois.

THE JOHN STEWARDSON MEMORIAL SCHOLARSHIP

In the issue of April 21st it was incorrectly stated that the jury had decided not to award the Stewardson scholarship this year. Our statement was based upon the information contained in a telegram received just before the issue went to press, to the effect that the scholarship had not been awarded. It seems, however, that the announcement of the award had merely been postponed for a few days in order to make sure that certain of the contestants had fully qualified.

Mr. Grant M. Simon, of Philadelphia, is named as the successful competitor. The design by which he won the scholarship appeared in our last issue, among the Student Work of the Society of Beaux-Arts Architects.

As is generally well known, the scholarship carries with it $1,000 for expenses in traveling and study abroad. Mr. Simon was graduated from the Northeastern Manual Training School, later was appointed to a scholarship in the School of Industrial Art, after which he attended the T Square Club Atelier, and finally entered the Architectural Department in the University of Pennsylvania.

RESIDENCE FOR J. W. SMITH, ESQ.
COLUMBIA, S. C.

MESSRS. EDWARDS & WALTER
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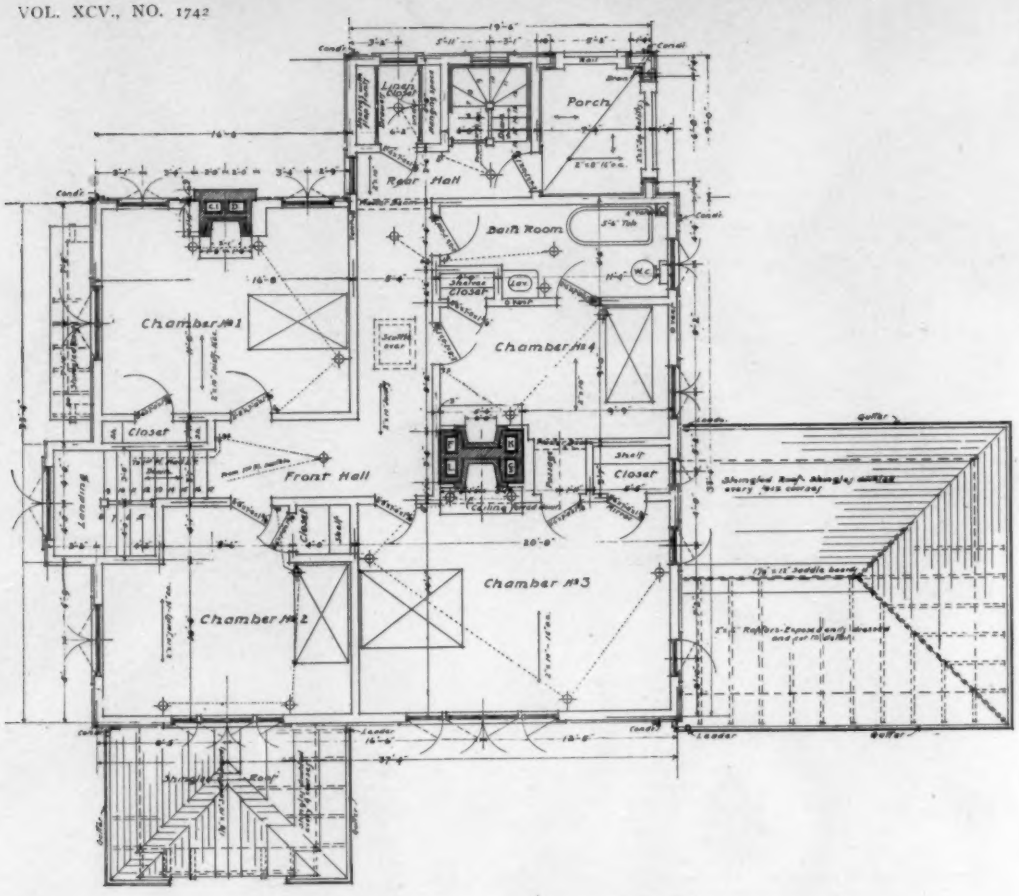

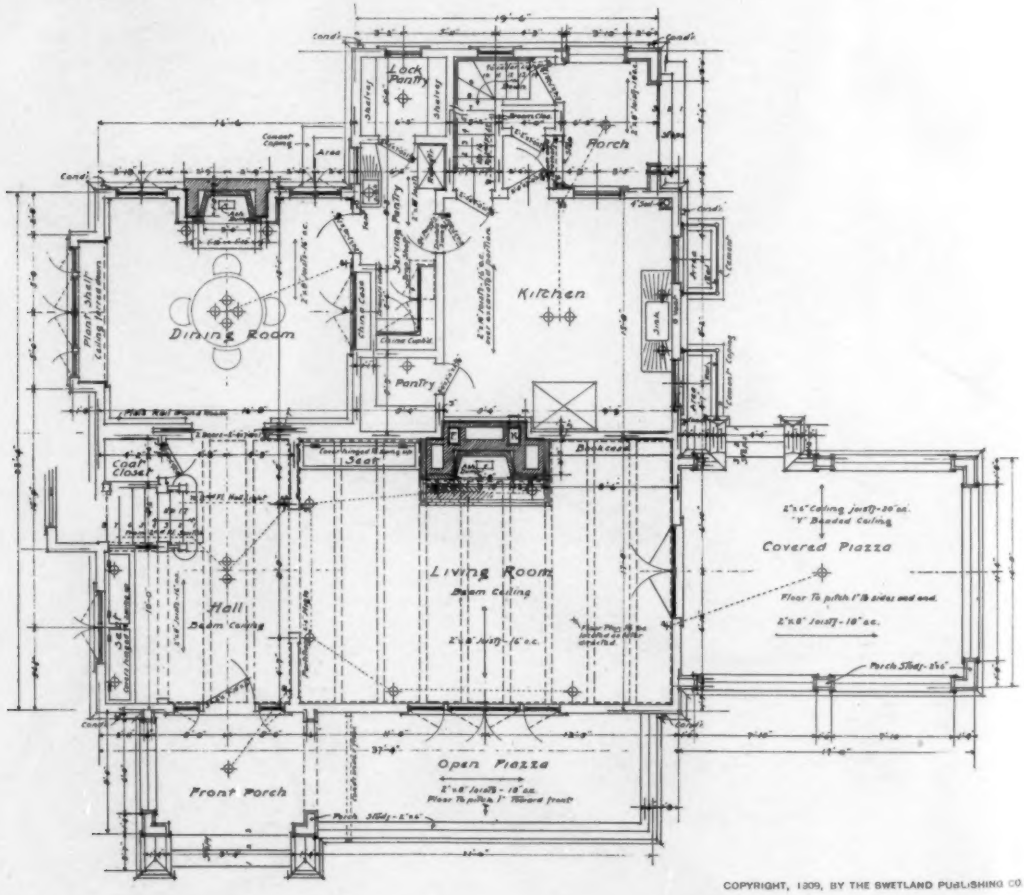

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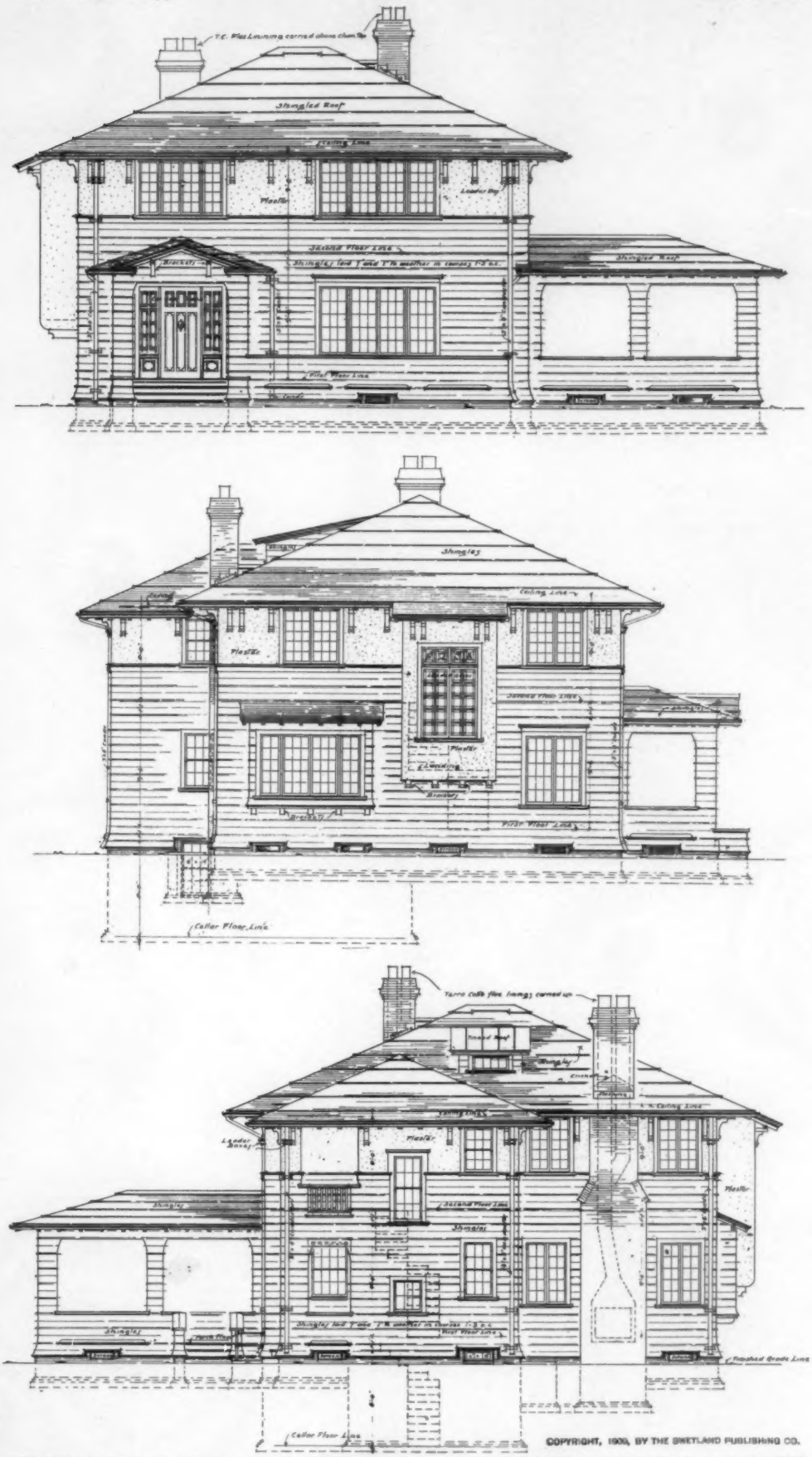

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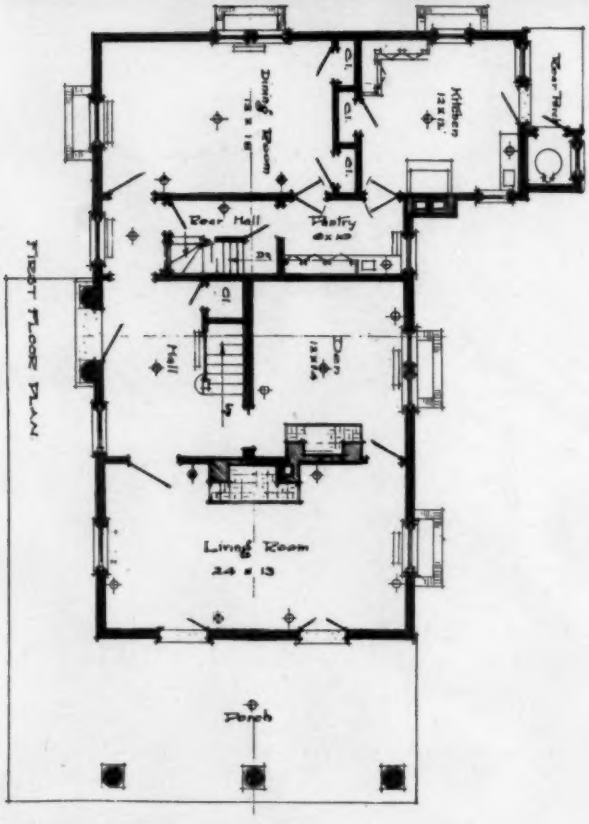
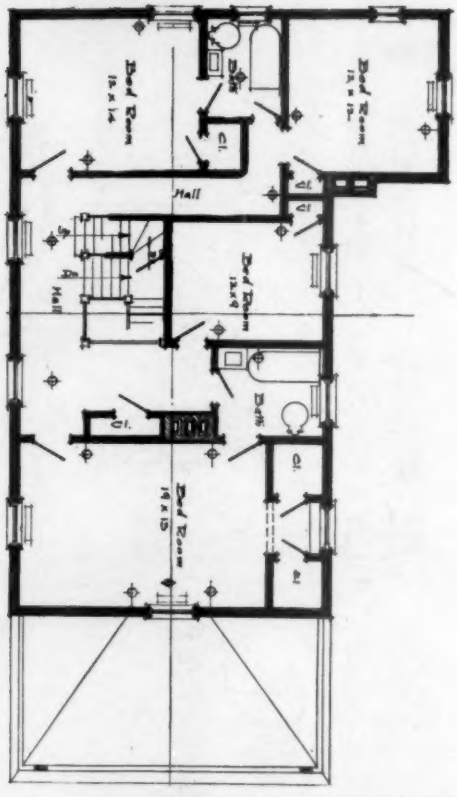
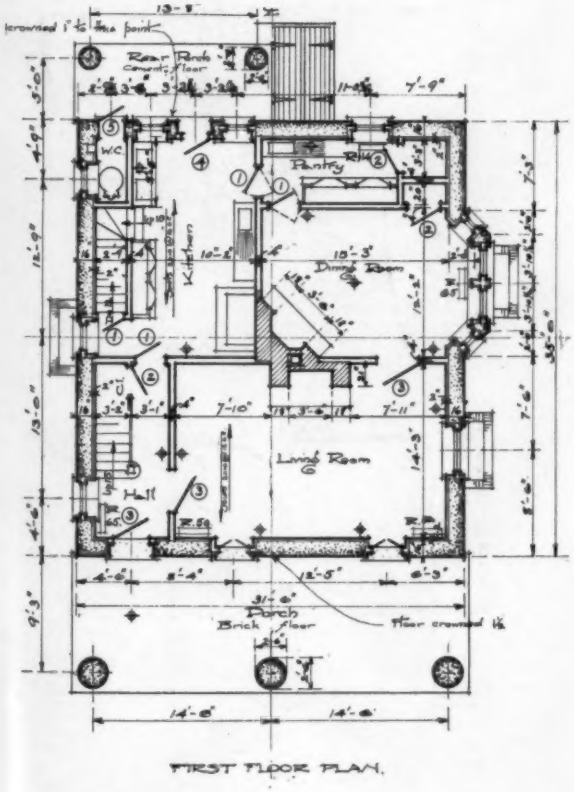


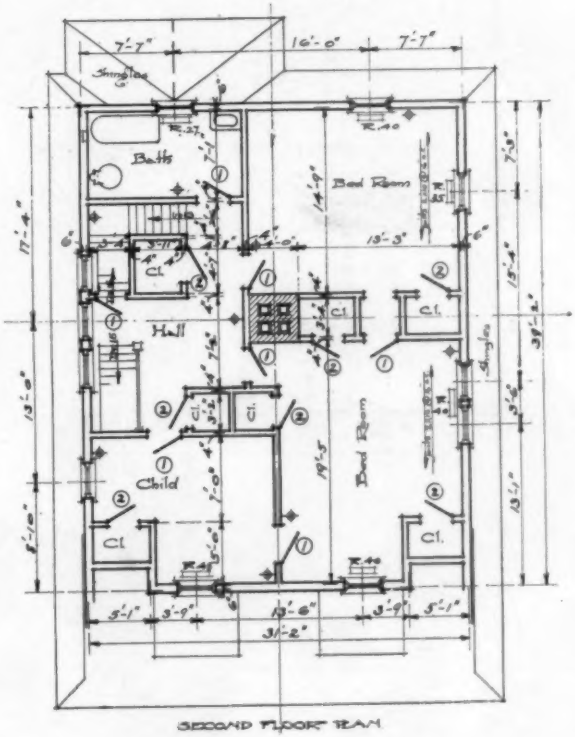


A COUNTRY HOUSE AT CYNWYD, PA.

MESSRS. MELLOR & MEIGS ARCHITECTS



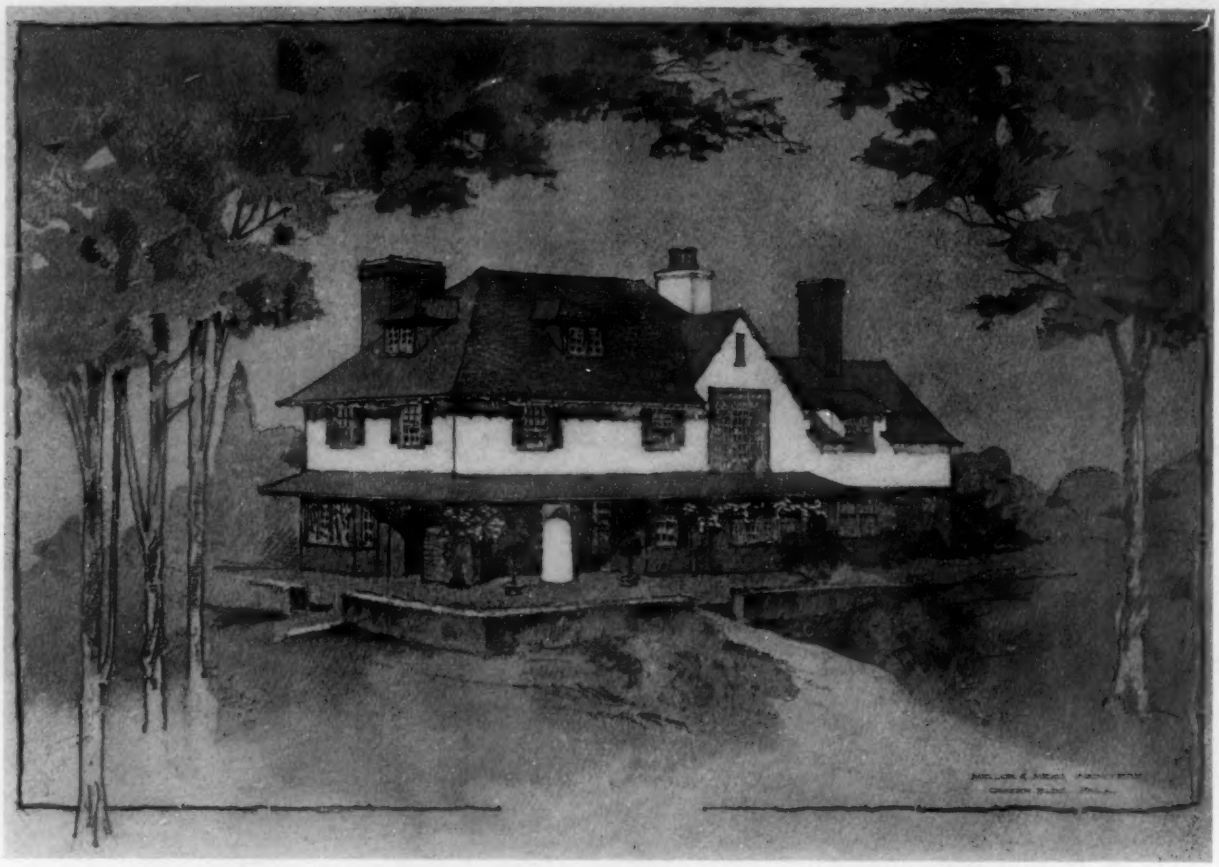
FIRST FLOOR PLAN.

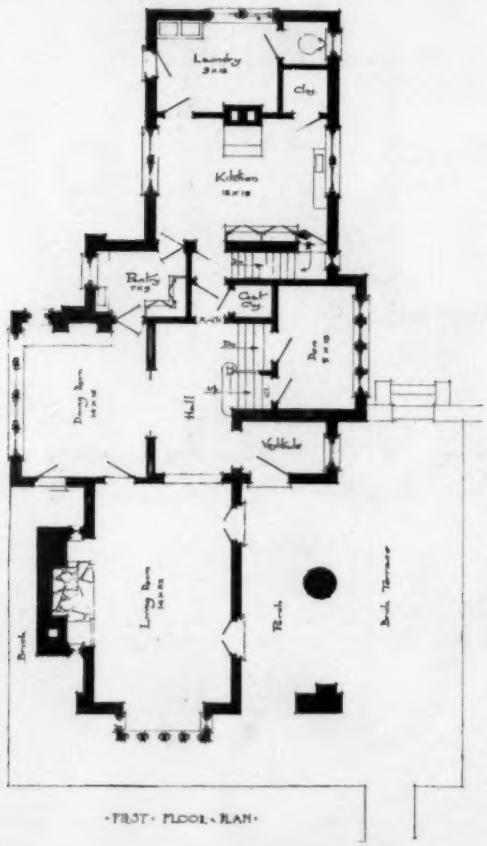


SECOND FLOOR PLAN.

A COUNTRY HOUSE AT CYNWYD, PA.

MESSRS. MELLOR & MEIGS ARCHITECTS





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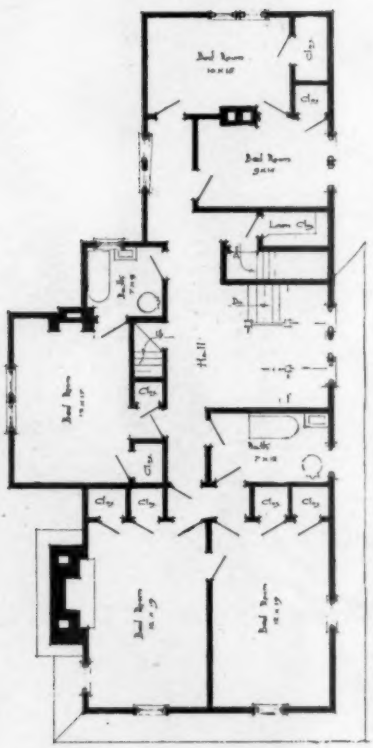

SECOND FLOOR PLAN

SKETCHES FOR
A COUNTRY HOUSE

MESSRS. MELLOR & MEIGS
ARCHITECTS

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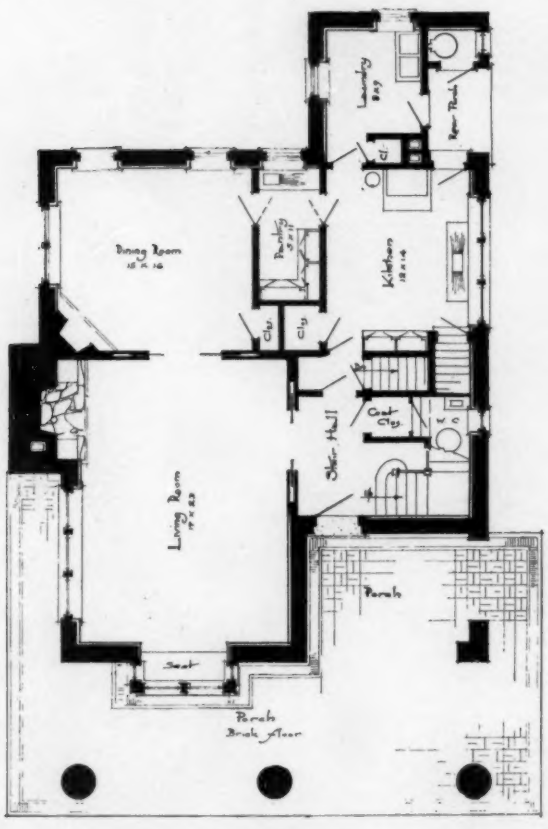

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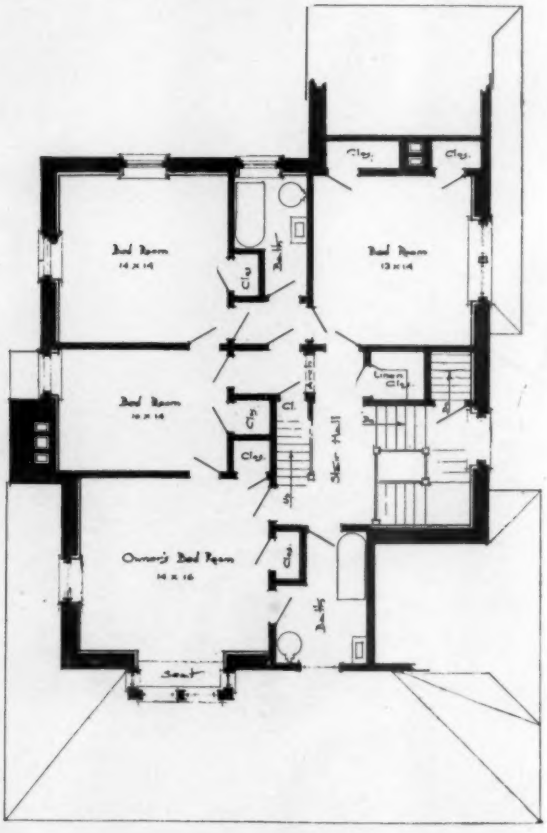

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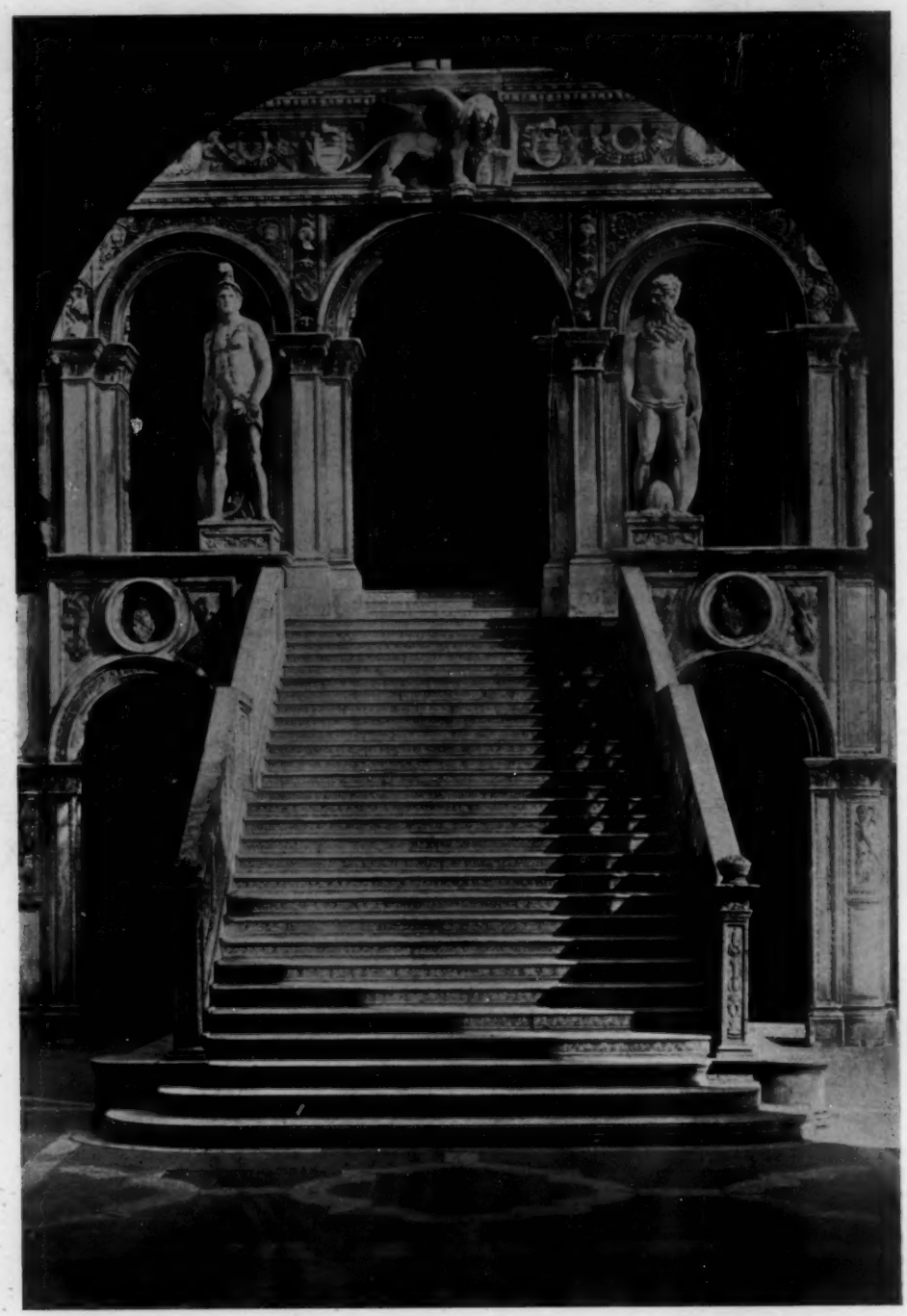

THE STAIRWAY OF THE GIANTS, DUCAL PALACE, VENICE