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NO. 1501

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ENGINEERING

DECORATION

238 TREMONT ST.

CONSTRUCTION

BOSTON MASS.

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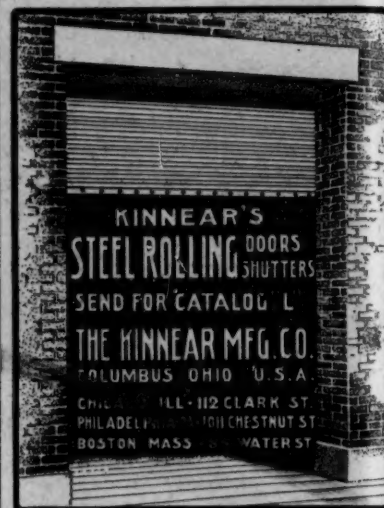
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A WEEKLY JOURNAL OF CONSTRUCTIVE AND DECORATIVE ART

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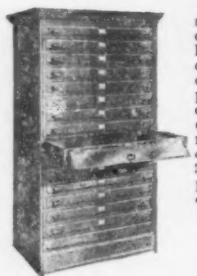
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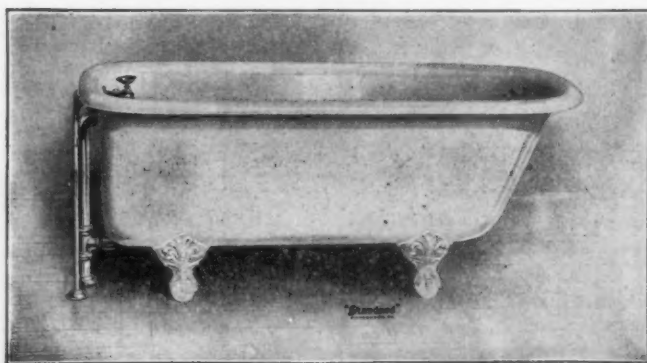


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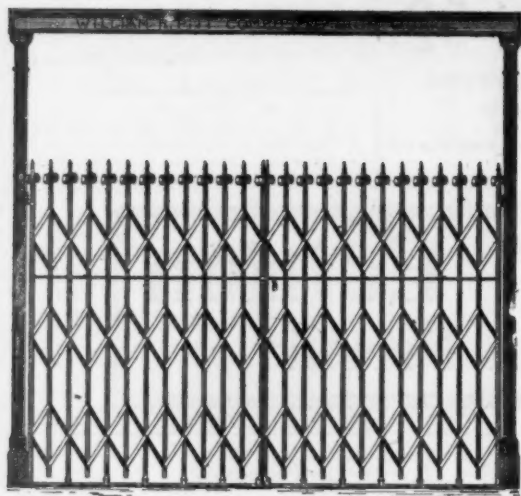
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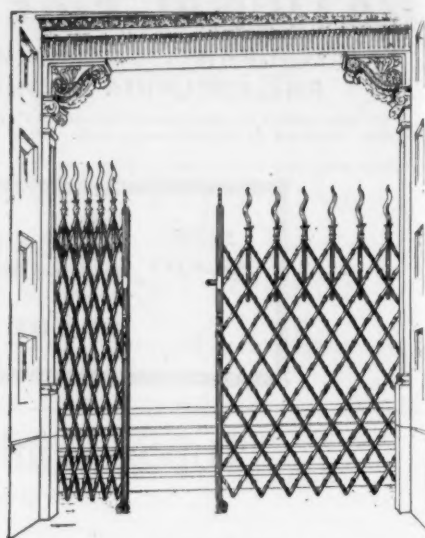
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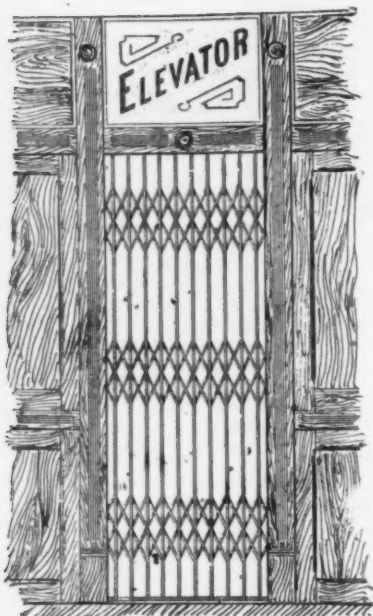


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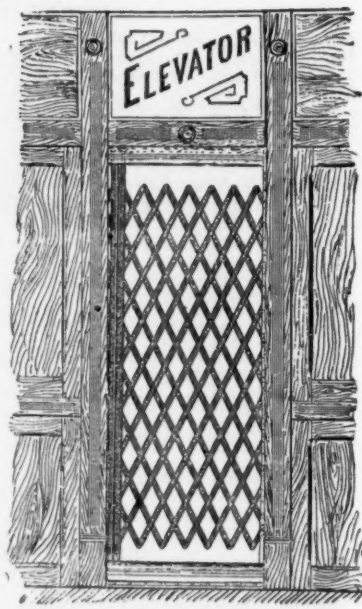
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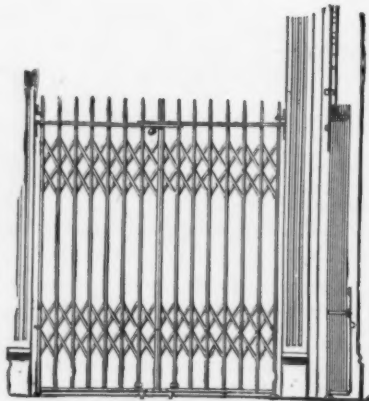
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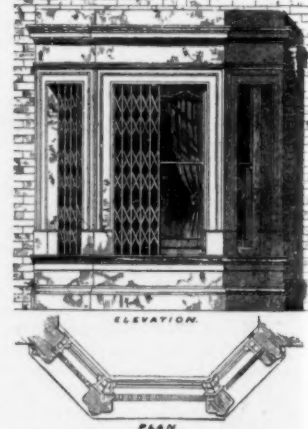
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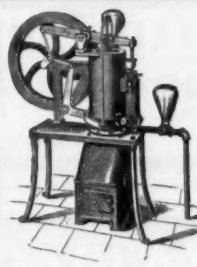


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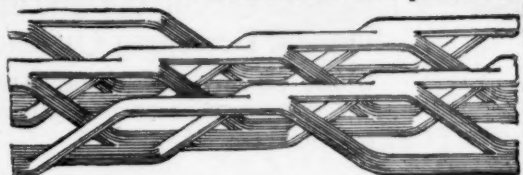
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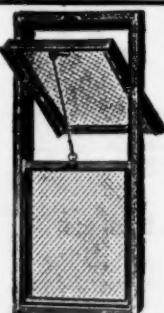
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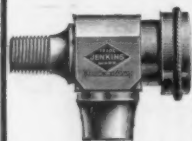
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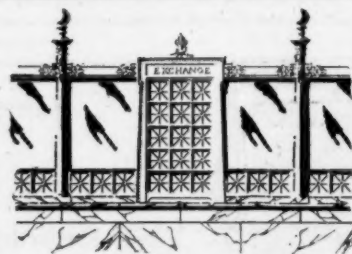
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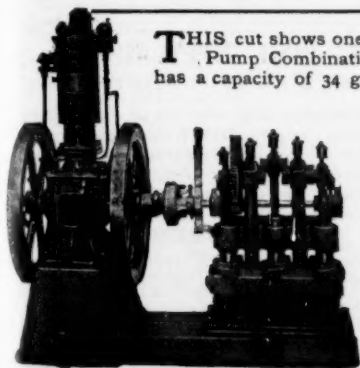
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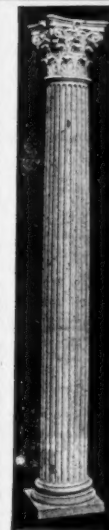
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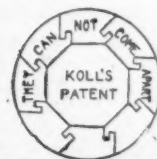
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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

a brick and stone edifice for the Second Baptist Society. Cost, \$25,000.

BALTIMORE, MD.—Plans have been drawn by John H. Forsythe for a three-story building, which the members of the Builders' Exchange contemplate erecting near the City-hall, at a cost, including site, of \$80,000.

M. Luther Wright has the contract to erect a four-story brick and terra-cotta building at 6 and 8 St. Paul St., for R. S. Goldsborough.

Hoyt & Mackintosh will prepare plans for a four-story warehouse, 23x76 feet, to be erected at 38 South Frederick St., for Stewart & Darrell.

BARTLESVILLE, IND. TER.—A \$50,000 hotel, the Alameda, is to be erected here.

BEVERLY, MASS.—Dennis W. Quill and Charles F. Lee, owners of the Mason farm, on Cabot St., North Beverly, have sold from it thirty-six house lots. Henry B. Wallis, a Beverly contractor, has purchased a number, and a Boston syndicate the remainder. The purchasers will begin work at once putting up dwellings.

BOSTON, MASS.—Two lots of land on Baitavia St. have been purchased by Saiman Sirk, who will improve the property with high-class apartment-houses.

Frank M. Carpenter has bought of A. J. Bamford the property at 25 Astor St. There are 1,660 square feet of vacant land. Mr. Carpenter will build a brick and stone apartment-house thereon.

Houghton & Dutton will build a brick storehouse on Tibbetts Townway, Charlestown district. It will be fireproof, 93x62 feet, five stories; architect, W. A. Ford, Malden.

Plans have been filed for changing into a storage warehouse the old New England piano factory, on George, Howard and Gerard Sts., Roxbury; owners, the New England Warehouse Company; architect, Wm. Gibbon Preston, 186 Devonshire St.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Contract not let. The building will be 213x151 feet and six stories high.

BRATTLEBORO, VT.—It is said that \$50,000 has been left in trust for the establishment of a hospital in Brattleboro.

CHARLESTON, S. C.—Plans are being drawn by W. M. Aiken, New York City, for the new \$100,000 city hospital.

CHATTANOOGA, TENN.—The Stone Fort Land Company will erect a five-story storehouse, at 11th and Market Sts., 80x150 feet. Cost, \$40,000.

CHESHIRE, CONN.—Cheshire Academy is to have a \$10,000 hospital.

CHICAGO, ILL.—A manual training and English High School will be erected at 89th and Manistee Sts., to cost \$300,000.

Permits have been issued for the addition of four stories to the 12-story Fort Dearborn building, at Clark and Monroe Sts., and also the erection of a 16-story addition to it on the south side. It is estimated that the cost will be \$300,000.

The R. H. Coney Company will build a \$20,000 two-story warehouse, 100x104 feet, at 13th St. and Western Ave.

L. Mart Mitchell, 145 La Salle St., has prepared plans for an apartment building to be built at Calumet Ave. and 45th St., for W. D. Taylor. Cost, \$80,000.

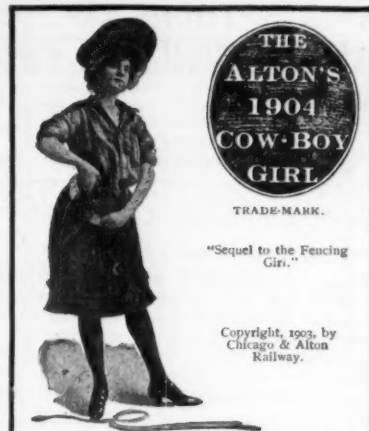
Shepley, Rutan & Coolidge, 84 Van Buren St., have drawn plans for an 18-story office building, to be erected at La Salle and Monroe Sts. Cost, \$800,000.

DENVER, COLO.—A \$160,000 clubhouse is contemplated for the United Commercial Travelers of America. Address C. D. Griffith, Denver.

EUREKA, CAL.—Contract has been let for construction of new engine houses.

FT. D. A. RUSSELL, WYO.—Bids will soon be asked by Capt. W. S. Scott, Q. M., Cheyenne, for erecting 13 new buildings at this post, to cost in all \$300,000.

PHILADELPHIA, PA.—Building permits have been issued for a three-story brick



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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

dwelling to be erected at Wissahickon Ave. and Sharpnack St., at a cost of \$20,000; also for a six-story brick warehouse to be erected at 23d and Race Sts., at a cost of \$40,000.

John Borden & Bro. has the contract to erect a two-story brick structure, 200x132 feet, at 25th and Wharton Sts., for the American Radiator Company. Cost, \$25,000.

Henry L. Reinhold, 430 Walnut St., has prepared plans for a three-story chapel, office and superintendent's office, to be erected in Monument Cemetery, Broad and Berks Sts.

PHILLIPSBURG, N. J.—A. H. Hanlan, of Trenton is preparing plans for a high school, to cost \$20,000.

PITTSBURG, PA.—W. A. Thomas, Park building, is preparing plans for a three-story brick apartment-house, to cost about \$35,000.

PLAINFIELD, N. J.—The Plainfield Trust Company have purchased a plot of ground, 120x160 feet, on West 2d St. and Park Ave., on which a one-story marble and granite bank building will be erected.

Representatives of Mr. F. F. Proctor have been spending several weeks here looking for a desirable site for a new theatre.

PROVIDENCE, R. I.—The Common Council is considering the erection of a city hospital for the treatment of contagious diseases.

QUINCY, MASS.—The Fore River Ship and Engine Company will start soon on the construction of machine shop, blacksmith and carpenter shops.

RHINELANDER, WIS.—The Minneapolis, St. Paul & Sault Ste. Marie Railway Company has purchased a site and intends erecting a \$25,000 depot.

ROXBURY, MASS.—Plans for the building to be erected at George and Howard Sts., for the New England Storage Warehouse Company, have been prepared by William G. Preston. They call for a structure six stories high, 148x40 feet, built of brick and stone, with fireproof staircases and elevator shafts. This will connect with the present building, formerly a piano factory, which is six stories high, 213x151 feet in size, and also constructed of brick. It is proposed to reduce the height of the old building to 70 feet, to install fireproof staircases and to strengthen the floors.

The Emmanuel Church, on Newbury St.,

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Boston, has bought a portion of a large tract of land on Newcomb St., Roxbury, from the West End Street Railway Company. It is the intention of the trustees to improve the land by erecting thereon what will be known as Emmanuel house. The structure will be erected as soon as possible.

SAN FRANCISCO, CAL.—Wm. McCormick, of 1,100 Fulton St., will build an eight-story brick building, to contain stores and lodgings, to cost \$80,000, on the north line of Turk St., east of Taylor.

I. Mensor has purchased the vacant lot on the northeast corner of Geary and Webster Sts. It is 68.9x82.6 feet, and the price was \$18,000. Flats are to be erected on the land.

I. W. Heilman, Jr., as representative of his father, the president of the Nevada Bank, has purchased the northeast corner of Washington and Montgomery Sts., as a location for the Banca de Colombo, or Columbus Savings and Loan Society. The lot is 51.7½x62 feet, on which is an old two-story brick building.

Herman Barth, architect, 508 Montgomery St., has awarded to Fred P. Fisher, 106 Jessie St., the contract to build a two-story residence, to cost \$18,000, on the west line of Franklin St., between California and Sacramento, for Florine H. Brandenstein, of 2,221 Gough St.

A Board of Survey at the Navy Yard, Mare Island, has recommended the construction of new marine barracks, to cost \$400,000.

The California Club will erect a \$25,000 clubhouse.

SEATTLE, WASH.—Kingsley & Anderson, Pacific Block, have prepared plans for the N. P. building. Estimated cost, \$200,000.

T. Buchinger, Washington building, has prepared plans for a five-story building, to be erected on 1st Ave. S. and Jackson St., to cost \$75,000.

A. W. Spalding has drawn plans for an 11-story business block, to be erected on 2d Ave., by Eastern capitalists. It will be fire-proof, steel frame, granite, terra-cotta and brick. Cost, \$600,000.

The Northern Pacific Railway Company contemplate erecting a second building in the wholesale district, six-story, costing \$200,000. Kingsley & Anderson, architects.

An addition, costing \$35,000, will be made to the Temple de Hirsch.

W. D. Hofius, iron and steel merchant, has purchased a site at 3d Ave. and James St., and will erect a six-story office building in the near future.

Max Umbrecht, Globe Block, has prepared plans for a business block, to be erected at a cost of \$100,000.

The Polson Implement Company will erect a four-story brick warehouse, to cost \$40,000. Josenhaus & Allen, architects.

The Chamber of Commerce plans to erect a building with quarters for the public library, to cost \$25,000.

SIoux CITY, IA.—F. J. Donohoe will build a 60-room addition to the West Hotel. Cost, \$75,000.

Mrs. Martin, of Minneapolis, has had plans prepared for a four-story flat building, 57x60, to be erected on 12th St. Cost, \$40,000.

SIoux FALLS, S. D.—Bids will soon be asked for erecting a \$40,000 building for Lutheran College.

A \$35,000 church will be erected in the near future by the First Baptist Society.

SPRINGFIELD, MASS.—E. W. Maynard has

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

prepared plans for rebuilding the Grand Opera House for Sylvester Z. Poli, of Hartford, Conn., who has leased the property for ten years, and will expend \$40,000 in remodeling.

ST. JOSEPH, Mo.—W. P. White, 1,520 Francis St., has the contract to erect the M. E. church at 12th and Francis Sts. Cost, \$75,000.

SYRACUSE, N. Y.—Lyman C. Smith makes the gift to this city of an additional building for the Lyman Cornelius Smith College of Applied Science. Mr. Smith established the school four years ago, giving \$750,000. The present gift adds a model factory building for mining and engineering, and a mechanical laboratory, to cost more than \$100,000.

TAMPA, FLA.—A \$35,000 building may be erected by the Order of Elks.

UTICA, N. Y.—The Utica Knitting Company contemplates erecting a three-story warehouse, 100x120 feet, as an addition to its plant in West Utica.

VANCOUVER, B. C.—It is proposed to erect a federal building at Hastings and Granville Sts. Probable cost not yet known.

WELLSVILLE, O.—Wm. P. Ginther, of Akron, has prepared plans for a parochial school for the Church of the Immaculate Conception, to cost \$15,000.

WEST ROXBURY, MASS.—Fred O. Hurd has purchased the estate on the corner of Washington St. and Iffley Road, comprising five lots. It is the intention of the new owner to improve, by erecting a number of houses for investment.

PROPOSALS.

SEWER SYSTEM.

[At Ft. Barrancas, Fla.]

Bids are wanted October 8 for constructing sewer system at this post. Address W. E. COLE, Quartermaster. 1501

PROPOSALS.

BUILDING.

[At Fort Myer, Va.]

Sealed proposals for brick building for Coal Testing Plant at this post will be received until October 17. Information furnished upon application. CAPTAIN G. C. BARNHARDT, Quartermaster. 1501

CONSTRUCTION.

[At Ft. Barrancas, Fla.]

Bids are wanted October 8 for constructing, including plumbing and electric wiring non-commissioned officers' quarters at this post. Address W. E. COLE, Quartermaster. 1501

BUILDING.

[At New Orleans, La.]

Bids will be received October 8 by Mordecai T. Endicott, Ch. Bureau Yards and Dock, Navy Dept., Washington, D. C., for constructing a brick and steel building about 62' x 202', at the Naval Station here; plans and specifications will be furnished on deposit of \$10. 1501

COURT-HOUSE.

[At Blakely, Ga.]

Bids will be received until October 10 by the County Commissioners for erecting a court-house, to be 2 stories high, of brick and terra-cotta, 65' x 115', and cost about \$40,000. Morgan & Dillon Architects, 707 Prudential Bldg., Atlanta. JOHN C. CHANCY, Chairman. 1501

HOSPITAL.

[At Ft. Mojave, Ariz. Ter.]

Bids will be received October 10 by W. A. Jones, Comr. Indian Affairs, Dept. Interior, Washington, D. C., for furnishing material and constructing a brick hospital, including plumbing and acetylene gas piping at Ft. Mojave School. 1501

STEAM HEATING PLANT

[At Ft. Monroe, Va.]

Bids are wanted October 8 for installing steam heating plant in Administration building here. Address C. P. TOWNSLEY, Quartermaster. 1501

DORMITORY.

[At Sioux Falls, S. D.]

Sealed proposals will be received by the undersigned on or before the 6th day of October, for all labor and material required in the erection of a Girls' Dormitory for the Lutheran Normal School, at Sioux Falls, S. D. Bids will be received for either a stone or brick building. Sealed bids are requested on the basement and the superstructure, likewise bids on the building complete. Plans may be seen at the Builders' Exchange in St. Paul and Minneapolis or at the office of J. S. Schwarz Architect, Sioux Falls, S. D. C. C. BRATRUD, Comr., Sioux Falls, S. D. 1501

PROPOSALS.

BUILDINGS.

[At New Orleans, La.]

Bids will be received until October 11 by the Board of Control, Leper Home, 385 Hennen Bldg., New Orleans, for erecting new buildings, etc., at the Leper Home, Indian Camp, Iberville Parish. MacKenzie & Torre, Architects, 407 Tulane Newcomb Bldg., New Orleans, will furnish plans and specifications on deposit of \$40, said deposit to be refunded on return of plans. A. C. PHELPS, Sec'y. 1501

TANK AND TREESTLE.

[At Ft. Ethan Allen, Vt.]

Office Constructing Q. M., Burlington, Vt. Sealed proposals will be received until October 11, for construction of a 150,000 gallon steel tank and trestle at Ft. Ethan Allen, Vt. Information furnished on application. CAPT. T. B. LAMOREUX, Q. M. 1501

MASONIC TEMPLE.

[At Hart, Mich.]

Bids will be received October 10 by Burt Wickham, Secretary, Building Committee, for erecting a masonic temple. 1501

Department of Agriculture, Office of the Building Committee, Washington, D. C., September 19, 1904. Sealed proposals will be received at this office until 2 o'clock P. M. on the 10th day of November, 1904 and then opened, for the general construction (except heating apparatus, elevators, electric wiring and conduit systems) of two laboratory buildings for the U. S. Department of Agriculture, Washington, D. C., in strict accordance with the drawings and specifications by Rankin, Kellogg & Crane, Architects, 1012 Walnut St., Philadelphia, Pa., copies of which may be had upon application to the Supervising Engineer, Capt. John Stephen Sewell, Corps of Engineers, U. S. Army, at the Department of Agriculture, Washington, D. C. One set only of drawings and specifications will be sent to any one bidder, but additional sets may be purchased of the printers designated by the Department, at cost of production of same. All applications must be accompanied by a certified check for \$250.00, made payable to the Disbursing Clerk of the Department of Agriculture, which checks will be retained until the return of all drawings and specifications, including those which may have been purchased from printers. B. T. GALLOWAY, Chairman. 1506

Treasury Department, Office of the Supervising Architect, Washington, D. C., September 22, 1904. Sealed proposals will be received at this office until 3 o'clock P. M. on the 19th day of October, 1904, and then opened, for the installation of a hydraulic freight lift in the U. S. Custom-house building at St. Paul, Minn., in accordance with the drawings and specifications, copies of which may be obtained at this office, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1502

Treasury Department, Office of the Supervising Architect, Washington, D. C., September 19, 1904. Sealed proposals will be received at this office until 3 o'clock P. M., on the 26th day of October, 1904, and then opened, for the construction (including plumbing, heating apparatus, electric conduits and wiring) of the U. S. Post-office at Rock Hill, South Carolina, in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Postmaster at Rock Hill, South Carolina, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1502

Treasury Department, Office of the Supervising Architect, Washington, D. C., September 19, 1904. Sealed proposals will be received at this office until 3 o'clock P. M., on the 25th day of October, 1904, and then opened, for the construction (including plumbing, heating and ventilating, gas piping and electric wiring and conduits) of the U. S. Post-office and Court-house at Huntington, West Virginia, in accordance with drawings and specification, copies of which may be had at this office or at the office of the Postmaster at Huntington, West Virginia, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1502

Treasury Department, Office of the Supervising Architect, Washington, D. C., September 19, 1904. Sealed proposals will be received at this office until 3 o'clock P. M. on the 24th day of October, 1904, and then opened, for the construction of the U. S. Post-office and Court-house at Hammond, Indiana, in accordance with drawings and specification, copies of which may be had at this office, or at the office of the Postmaster at Hammond, Indiana, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1502

Treasury Department, Office Supervising Architect, Washington, D. C., September 15, 1904. Sealed proposals will be received at this office until 3 o'clock P. M., on the 17th day of October, 1904, and then opened, for the construction of the U. S. Government Buildings, Lewis and Clark Centennial Exposition, Portland, Oregon. In accordance with the drawings and specification, copies of which may be had at this office or the office of the Superintendent of the U. S. Post-office and Court-house at Portland, Oregon, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1501

Treasury Department, Office of the Supervising Architect, Washington, D. C., September 15, 1904. Sealed proposals will be received at this office until 3 o'clock P. M., on the 18th day of October, 1904, and then opened, for the construction (including heating apparatus, electric wiring and conduits) of the U. S. Post-office at Nashua, N. H., in accordance with drawings and specifications, copies of which may be had at this office or at the office of the Postmaster at Nashua, N. H., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1501

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THE AMERICAN ARCHITECT AND BUILDING NEWS

VOL. LXXXVI

SATURDAY, OCTOBER 1, 1904

No. 1501



SUMMARY:—

Death of John Moser, Architect.—Personal Criticism in Architectural Journalism.—The Designer of a Million Dollar House “drops into Poetry.”—Mr. L. S. Buffington seeks Royalties on the Use of all Steel-skeleton Constructions.—Dynamite Accidents and their Avoidance by the Use of Jovite.—A repulsive Case of Murder of the Innocents in an Ohio School-yard. 1

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ONE of the most sincerely earnest men we have had the pleasure of knowing was John Moser, of whose death at Atlanta early in September we have just learned. Mr. Moser was born at Mannheim, near Heidelberg, in 1832, and came to this country in 1848. How and where he obtained his excellent education is unknown to us, but he was a man of distinctly scholarly attainments, and the reality of his enthusiasm for the art he followed at once attracted attention to him in the meetings of the American Institute of Architects after its junction with the Western Association of Architects, the body with which he first enrolled himself. In early life he practised in Ohio and in Canada, but in his later years he settled in Alabama and Georgia, after having filled the place of a designer in the office of the Supervising Architect, under Mr. M. E. Bell. While in that position it was his misfortune to slack the rein of his fancy and allow himself to produce the design for the Buffalo Post-office, which we did our utmost to prevent from being carried into execution, and, being aided by others, fortunately succeeded in securing a reconsideration of the design. It was this design, as much as anything, that brought about the introduction of the Tarsney bill and its successors. Although the disapproval of his design by his fellows was a severe disappointment, and one which affected his health, Mr. Moser bore no malice to us or to the Institute, but when that body asked for competitive designs for an office-building for itself submitted a very remarkable design, in which scholarship and ingenuity were equally displayed. It is quite worth while to turn to our issue for January 19, 1884, for the sake of seeing how he succeeded in embroidering into this design, without producing a hopelessly

patchwork effect, features of every leading architectural style as developed in every country through all the ages. His “historic façade” is a very masterpiece of patient ingenuity. Here again misfortune was his main reward, for, disregarding his age, he elaborated the rendering of his huge drawing with a lavishness that only a young man could endure, and so overtaxed his eyesight that he was practically able to do but little work afterwards. Perhaps he did not regret this, for his work not only won the applause of the members of the American Institute of Architects but secured him Corresponding Memberships in several European architectural societies. Amongst the buildings designed by Mr. Moser may be named the Cotton Exchange at Galveston, Tex., and St. Philip's Episcopal Cathedral in Atlanta, Ga., the latter being carried out in association with Mr. E. G. Lind.

WE fancy that the preceding paragraph will hardly be to the liking of Mr. F. W. Fitzpatrick, who sends us a reprint from the *Fireproof Magazine*, which he has underscored in several places. We find one of these paragraphs, to which he invites our attention, declares that of the two reasons why in the last ten years we “have made not one step forward architecturally” one is “the milk-and-water tone of our architectural press,” and seems to feel aggrieved because editors write “beautiful obituaries anent us when we shuffle off,” and evidently would prefer that they should deal out “hot stuff,” as the slang of the day has it, against living sinners. Now the saying of sharp things, the utterance of caustic personal criticism, is an easy art, a cheap accomplishment, and while, if done with reasonable cleverness, it may give passing amusement to others, it may cause real anguish to the unfortunate at whom it is directed, and we, at least, do not believe in it, and do not feel that we are licensed by Mr. Fitzpatrick or anyone to lash well-meaning offenders against good taste with public scorn, except under very unusual circumstances. Such excuse we did believe we found in the case of the Buffalo Post-office, above mentioned, and yet we hesitated long before we could decide to cry out against Mr. Moser's design. In the same way we disbelieve in and have set our faces against the toadying Jenkinism of the day which exhausts all available adjectives and adverbs in referring to a fairly good piece of design and the personality of the designer.

IN spite of saying this of our usual practice, we will admit that there are occasions when the breach of the rule has its justification, and we believe no better one can be found than in the case where a man blows his own trumpet in public. Just as nowadays newspaper men find a pleasure in showing up the attempts of Japanese to express themselves in English, so it has long been the practice of English papers to print amusing examples of Baboo English. But no Baboo ever made such draughts on the dictionary as the writer of the following extract, who sends us the newspaper

broadside, in which it appears as part of the description of a house that the author has recently completed: "Thus potentially did these manifold diverging abilities express themselves redundantly through the medium of the liberally educated, experience-enhanced resourcefulness of the architect, constructor, designer, decorator, Mr. —, to whom the entirety of this problem presented hues of intense interest, drawing deeply from the many wells of an architecturally trained career." Not content with sixteen columns of such stuff as this, illustrated with portraits of himself, of his client, and of the house they have between them created, the architect, to prove that he is as good an "all round" man as Michael Angelo, Leonardo da Vinci or Benvenuto Cellini, closes with an "ode," of which the metre, the matter and the words are equally singular. The first couplet runs:—

"Athwart the landscape, wondrous fair,
A castle marble like white everywhere,"

and then the metre expands flowingly until the last of the forty-odd lines brings the effort to a close, declaring that:—

"The estate, though so great, knows its master is greater;
And he in true greatness, unceasingly thanks the Creator.
For blessings, though manifold, if tainted with aught of sin,
Weigh light in the balance to the richness of blessings from Him."

We think that anyone would guess that the person who could use the English language with such effrontery and so bullyrag the Muse of Poetry would not be very likely to produce a work of architectural refinement, and it is no surprise to see, by the illustrations of the adulatory description, that this country house by the sea—which evidently has cost hard on a million of dollars—has a staircase-hall which would befit a theatre, made magnificent with all the gorgeousness of a circus-car. The unfortunate side of the matter is, that one possessed of such ample means should prove himself so ill a judge of character.

JUST now a lady is suing the Standard Oil people for the very comfortable sum of fifty millions of dollars, which she claims is due to her husband's estate for unpaid royalties. A score of years ago all users of driven-wells were served, by publication, with notice that they must pay the patentee a royalty on their wells, and a dozen years ago a good many cities were made joint defendants because of the unauthorized adoption by their fire-departments of the Knibs valve. These cases prove that a valid right to a royalty is so excellent a possession that it is small wonder, in view of the great growth of the use of skeleton construction, that Mr. L. S. Buffington, architect, of Minneapolis, is anxious to establish his right to a royalty on every skeleton-frame in the country, and willing to spend a good deal of money before he wins or loses his suit. We, and probably others, have rested under the belief that Mr. Buffington's claim had been annihilated by the statements made and proof submitted by Mr. W. L. B. Jenney, architect, of Chicago, establishing priority of use; but evidently we have been in error, as Mr. Buffington has just begun suits in the United States Circuit Courts against the National Safe Deposit Com-

pany of Chicago and the corporation known as "60 Wall Street," in New York. As the cases are now before the court, any other reference than this would be improper.

DYNAMITE has so many good qualities that, in spite of its being a high explosive of great power, accidents caused by its mishandling are comparatively rare, so two similar accidents within a few days of one another have attracted notice. One accident occurred near Cumberland, Md., where a railroad train ran into a dynamite-loaded wagon at a grade-crossing, while the more distressing one was caused, after dark, by an electric car in Melrose, Mass., running into a case of dynamite that had been dropped from an express wagon, the motorman, who with eight others was blown to pieces, probably not seeing it in the dark. These two accidents and what may be called the omnipresence of dynamite, since it is stored, handled and carted about through the streets of our towns under no very stringent regulations, lends force to a suggestion made some time ago by the *Municipal Journal and Engineer*. Our contemporary recommends that municipalities should not only use, as Philadelphia and New York are using, but should compel the use of, Jovite in substitution for other high explosives, it being a substance which the Professor of Mining and Metallurgy in the School of Mining of Kingston, Ontario, Mr. Courtney De Kalb, says "would seem to fulfil the requirements of an ideal explosive." While Jovite is a high explosive of great power, it is said that it cannot be exploded by fire, concussion, impact or friction, explosion only being procurable by the use of detonating powder in the form of the usual blasting-cap. It is said to be a stable compound and not, as dynamite is, subject to decomposition, and, as it contains no liquid, it cannot freeze and so give rise to explosions due to the "thawing out" of cartridges. If what is said of it is true, the use of the material should be made compulsory by the proper enactments.

ONE of the most distressingly repulsive of accidents occurred last week in a town near Cincinnati, where, by the giving way of the floor of an out-house, thirty primary-school girls were dropped into the foul privy-vault beneath, nine of them being suffocated in the filth at once, while others will probably die, having breathed and swallowed matter never intended for such purposes. Here, we believe, is proper ground for holding someone "responsible" for the accident. In the case of such disasters as the burnings of the Iroquois Theatre and the steamboat "*General Slocum*," the victims were sufferers because they, in a sense, shared with others the responsibility for their own safety by voluntarily intruding themselves into unusual conditions and surroundings out of the limits of the rounds of their daily knowledge and experience. But in this deplorable school accident the little victims were present by right of their daily needs, and daily use had taught them that they might be present without thought for their own safety. The accident was made so widely known that there is not likely to be a similar one for many years, as no school authorities can be so callous as not to have made, before this, a proper inspection of the premises under their charge.



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CHICAGO—ST. LOUIS, heretofore rivals, but henceforth united by the bond of having produced the two finest creations that the New World has ever seen.

The Columbian Fair stands out in one's memory as a beautiful white vision, against the blue background of Lake Michigan, framed on every side by placid lagoons and waving trees, all dignified, stately, beautiful.

Here at St. Louis the hills rise around us from the central point, crowned with the beautiful buildings, which seem to glow with a warmer tint under the Southern sun; all is joyous, light and gay. The fountains sparkle, the waters are dashing in the great cascades; even the statues seem filled with this spirit of unrest and movement and progress.

The two Fairs suffer nothing by the comparison of their general aspect, and one can consider himself fortunate in having seen them both. How we loved to sit in the Court of Honor at Chicago and drink in all the beauty around us! What a dream of loveliness it is that we look down on from the Terrace of States, as we watch the water dashing over the cascades, following its silvery line between the gay parterres on either side, and so on, down, over the lagoon till the eye wanders across the Plaza of St. Louis!

It is a pity, when we have reached this point, that disenchantment awaits us. We have been told, "on good authority," that drawings were made for a monumental entrance to frame in this eastern end of the Plaza, which is in fact the chief entrance to the Fair. That concession, of wide reputation, known as the Tyrolean Alps, occupies a part of this space, and though this in itself is very cleverly handled, and at some points most attractive, at this place it seems to show off the back side of its snow-capped mountains, whose snow is displaced by the huge sign, "Tyrolean Alps," that can be easily read from the distant Terrace of States and Festival Hall. The rest of the space at the entrance end of the Plaza is occupied by the temporary Wabash Railway Station, on which there is a sign similar in size, and of equally carrying quality, being the legend, "Wabash Road." If the concessionaires of the Alps, the Anhauser-Busch people, had not been too strong for him, Mr. Masqueray, the chief-of-design, would have closed in this charming, more than charming, court with a dignified entrance that would have been impressive as one entered, and better still, would have rounded up the whole central scheme in a manner befitting the dignity of the whole. As it is, the Plaza of St. Louis, a large space not too well paved or cared for, seems to go on and on, growing more careless of its appearance at every foot, till you look up at near range and see the pasteboard backs of the Alps and the glaring sign of the Wabash, and you notice the litter of papers and lunch on the ground and your back is turned to all the fine buildings and the glory of the hill, with its Festival Hall and ravishing cascades, and you are disenchanted, and wonder if it were all a dream after all.

It is often in just such turns as this that Chicago stands ahead of St. Louis. That spirit of unrest, indeed the very spirit of the whole Fair, led St. Louis to make the biggest show that has ever been undertaken on earth. She has made the biggest, and she has not been able to stop for details. The central part of the Fair grounds are well laid out and kept up. All around the central lagoon and its two side wings all is as it should be, but one has only to go a few steps in any direction to bring one into the roughest kind of surroundings, not laid out, to begin with, and even in their rough state quite uncared for. From the monumental steps of the Government Building one looks down onto a most charming sunken garden, but you have only to decide to walk over to Festival Hall and you will descend from this hill into very rough surroundings, before you strike the civilized region of the other hill. You have only to go a little way back from the Terraces toward Jerusalem, to strike prickly, shabby grass and scraggy walks, made chiefly by the visitors themselves. At Chicago all the delivery tracks were covered and sodded after the exhibits were delivered, only to be uncovered when needed. At St. Louis, in many cases, they are left entirely as when last used! In Chicago the State Buildings were well grouped, with most attractive surroundings. Here, situated on a pleasant hill-

side, the surroundings could be most attractive if some care had been bestowed on them. In Chicago many of the little kiosks for drinking-water, etc., were charming little affairs. Here no attention is paid to them, and any old booth will do. In some locations, as for instance, towards the Forestry Building, in the neighborhood of the Japanese Government Building, around the "Boer War" concession, the stretch from the United States Government Building to the Government Aviary, all is so rough as to be very unpleasant and untidy for walking through. This carelessness of detail, this lack of energy and thrift, seems the one unfavorable comparison that could be made between the two great Fairs.

Aside from the great buildings, which are too colossal a subject for one short general letter on the Fair, there is much of great interest from an artistic and especially architectural standpoint. The foreign buildings are particularly charming, and offer material for many pleasant days of sight-seeing. L'Art Nouveau runs riot, and often is most pleasantly riotous.

The Austrian Building is a charming little structure, and whatever direction L'Art Nouveau takes with this nation, it seems to be equally successful, be it either in a fireplace, a drinking pitcher or a garden seat. The exterior coloring of this building is most curious, having much of brilliant dark blue and gilt about it. Many of the rooms, which are simply exhibition rooms, are designed with the greatest care, and the mouldings and trims and woodwork and coloring are most interesting. Curiously enough, the Austrians have some of their best paintings in this small building, which, with their Arts and Crafts exhibit, which is most excellent, make a very strong showing. The Arts and Crafts movement in Austria apparently has taken a stronger and healthier root than either in France or Germany. Germany has evidently made tremendous strides since the last Exposition here, France is still doing the fine artistic work for the few, but Austria seems to have grasped this artistic touch and feeling, and so used it, as to influence the things of common every-day life and brought them within the reach of the many. From their exhibition, it would seem as if the new movement had not been confined to a few, but had spread through all classes, making a better feeling between designers and manufacturers. It looks as if this might be the trouble in France, as it most certainly is here, with the Arts and Crafts movement. The "Crafter" first conceives a scorn and hatred for the manufacturer, and with this fine start he makes a good design, which he executes in the most clumsy manner, or if well done, makes it so expensive that few can buy it. The Austrians have most certainly broken away from old traditions, and have produced something very original and refined. Even their paintings in the new school of Pointeism seem way ahead of those of many of the other nations. Nearly all the foreign buildings contain rooms which show the trend of things at present.

China is still clinging to the past in her exhibit of a summer palace of a nobleman. In the Orangery of Kensington, England has some refined rooms, very charmingly treated, while France, in a replica of the Petit Trianon, gives us glimpses of what she can do in L'Art Nouveau.

France furnishes no modern rooms in her building; she has only the reproduction of old rooms, which serve as a background for new work. It is curious to see how the Sèvres Pottery has been influenced by the new movement and to realize what a change there has been in the work since the exhibition ten years ago in Chicago. The most beautiful things in French applied art is the Lalique jewelry, in the Fine Arts Building. This, in design and workmanship, is the most exquisite thing of its kind. It is quite permeated with the L'Art Nouveau feeling. So far as the jewels themselves are concerned, they are not gems of such fabulous values as are seen in many of the Tiffany exhibits; it is in the design and general treatment that the charm of Monsieur Lalique's work lies.

The advance that has been made in household art in the last ten years is most noticeable. Even the galleries in the Art Building, which are so often bare and unattractive, aside from the pictures, are really charming here, in St. Louis. One very good feature in the St. Louis Art Building is the comparatively small size of the galleries. At Chicago they were huge and most exhausting. Here they are much smaller, and one can always sit down in them to enjoy the pictures.

Belgium, in the midst of Brussels lace and her usual products, drops into household furnishings and art in these charming rooms: one an old reproduction, as to style, and another quite in L'Art Nouveau, all in nasturtium reds and yellows, with a curious copper-hooded fireplace.

Germany's special house is a reproduction of the Palace of Charlottenburg, interesting as a reproduction, but not so for other reasons. In the Varied Industries Building, Germany makes a most interesting exhibit of household art, in rooms grouped around a most fascinating little open court. These rooms are, some of them, very interesting, and nearly all of them in the scheme of L'Art Nouveau. The setting of the whole North Germany exhibit is very architecturally and very well done.

Sweden has a very simple little building, and on first entering you feel there is little to see, but what exhibits are made are well placed, and it is interesting again to see how L'Art Nouveau has cropped out in the far north and how it accommodates itself to the sterner and more frugal spirit of the Northland.

Little Holland has a little house, and does not seem to care at all for progress, if you can judge by the way she clings to the exhibits which have charmed us before. Carved oak and old clocks and Delft ware fill the small spaces between the beaded glass windows. A girl in the Dutch peasant costume, which Wilhelmina loves to wear, presides over the domain and occasionally notices some of the visitors, but is chiefly occupied with the attention of a good looking young Dutchman, who has just run across from the Boer War Encampment to have a chat with "Marie." It is all quaint and picturesque and far removed from our bustling twentieth century.

One noticeable feature in all the foreign exhibits is the way in which the woodwork is treated and finished. It certainly would be of benefit to the public, and might also be of benefit to himself if one of our varnish men would stop making varnish for a few minutes and study up these very admirable methods of wood treatment, which so many of the foreigners use. In the English exhibit the finish of the woodwork was charming, the Austrian was equally attractive and the German was good, as it has been for years.

Of course, with ten years between, the Chicago Fair cannot compare with the St. Louis one at night. It is with Buffalo that the comparison must be made, but beautiful as Buffalo was, St. Louis is wonderland *beyond* compare. Here "Day unto day uttereth speech, and night unto night showeth knowledge," the speech, that of the gospel of beauty, and knowledge, that which the science of electricity has taught us and which has opened to us its new fairyland.

GREECE UNDER THE TURKS.¹

FROM the second half of the fifteenth down to the close of the seventeenth century, a large portion of what now forms the Kingdom of Greece formed an integral part of the Turkish Empire, and from the second part of the sixteenth century some of the Ionian Islands and a few of the Cyclades were alone exempt from the common lot of Hellas. Thus, for the first time since the Frank conquest, a dead level of uniformity, broken only by the privileges of certain communities, prevailed in place of the feudal principalities, whose fortunes occupied the annals of the previous two centuries and more. Greece, so often divided against herself, had found unity in the death of her independence; and the victorious Turks, like the conquering Romans, had obliterated the divisions and the liberties of the Greek States at the same moment. Once more the whole Greek world, with few exceptions, depended upon a foreign ruler, whose capital was at Constantinople, and whose officials, like those of the Byzantine Emperors, administered the affairs of his Greek subjects. There is, however, a considerable difference between the two periods into which the Turkish government of Greece was divided. During the first period, down to the Venetian conquest of the Morea, towards the close of the seventeenth century, Turkey was a flourishing and conquering Power—a danger to Europe, and a strong State. During the second period, from the Turkish reconquest of the Morea down to the close of the War of Independence, Turkey was declining, slowly but surely, in all save the one art which she has never lost even in her political dotage, the art of fighting. For, like the Roman and the Briton, the Turk has ever been a good soldier, but, unlike those two great unintellectual peoples many of whose qualities he shares, he has never been a good administrator; even when his arrangements have been excellent in theory, as they often are, they have frequently proved to be miserable in practice. . . .

Both the law of Islam and the laws of human nature forbade the wholesale conversion of the conquered to the faith of the

conquerors. But Mohammed II, who spoke Greek and knew the Greeks well, recognized, like the wise statesman that he was, the possibility of managing his Christian subjects through the medium of their own Church. The Turks were a foreign garrison in a hostile country, and in the middle of the fifteenth century it was quite possible that some Catholic Power might undertake a new crusade for the deliverance of the East. The bitter hatred of the Eastern for the Western Church provided the astute Sultan with a powerful incentive for the toleration and even patronage of the Orthodox religion. He saw that, if he favored the one branch of Christendom, he would prevent its union with the other, and he made a most politic selection of an instrument for the accomplishment of his plan. One of the strongest opponents of the union had been Georgios Scholarios, a man of great influence with the Orthodox and of equal unpopularity with the Catholics. As soon as Constantinople had fallen, the Sultan caused diligent search to be made for this uncompromising champion of Orthodoxy, and about the end of the same year gave orders for his election as Ecumenical Patriarch, according to the time-honored forms which the Byzantine Empire had recognized for centuries. Gennádios II, as the new Patriarch was styled, was invited to a banquet by the Sultan, who showed him the greatest attention, and accompanied him as far as the courtyard of the palace, where he assisted him to mount his horse. A *berat* of the Sultan determined the position, powers and privileges of Gennádios and his successors. The Ecumenical Patriarch was declared to be "untaxable and irremovable," and the document, of which only a summary has come down to us in the history of Phrantzes,² is said to have prohibited the conversion of Christian churches into mosques. The loss of the original *berat* is of less importance because subsequent rescripts modified these notable concessions, while in practice the privileges of the Patriarch came to be far less respected than in theory. . . .

From the moment of the conquest, Christian churches, beginning with Sta. Sophia, were converted into mosques, and the seat of the Patriarchate, fixed by Mohammed II at the Church of the Holy Apostles, was successively moved, as church after church became a sacred place of Islam, till it reached, in the beginning of the seventeenth century, its present home in the Phanar. . . .

Another cause tended, in course of time, to make the Turkish Government less careful of the Patriarch's privileges and dignities. He had been regarded by Mohammed II as a bulwark against the Catholic Powers; but, a century after the fall of Constantinople, Rome, distracted by the Protestant secession, had become far less dangerous, and Venice had lost her last possessions in the Morea, while in the seventeenth century Spain was no longer an enemy to be feared. Moreover, France, the "eldest daughter of the Church," and the patroness of the Jesuits, had become the ally of Turkey, and supported her *protégés*, who first appeared at Constantinople in 1609, against the Ecumenical Patriarch. Thus, finding himself in little danger from a disunited Europe and an impotent Papacy, the Sultan could afford to modify his attitude towards the head of the Greek Church. After 1657, the Patriarch ceased to be installed by the Sultan in person, who was thenceforth represented by the Grand Vizier, and further restrictions were soon placed upon the honors paid to him. Still, the Ecumenical Patriarch enjoyed, throughout the Turkish domination, a great ecclesiastical and political position, such as some of his predecessors had not held under the Byzantine Empire, such as his successors have never held since the Church in Greece became autocephalous, and the Bulgarian Church became independent. . . .

Although the Koran forbade the forcible conversion of the Christians, there were various causes which swelled the ranks of Islam. The Turks, being but a small body of men compared with the great numbers of the Christians, early saw that they could neither preserve nor extend their conquests without the aid of the latter. Accordingly, just as some Christian rulers of the East had enlisted young Turks to fight their battles, so the Sultan Orchan, more than a century before the capture of Constantinople, founded the terrible institution of the Janissaries, a corps entirely recruited from that time till the middle of the sixteenth century from Christian children who embraced the faith of the sovereign. At the outset the numbers of these children were not less than one thousand a year, and they were taken at the tender age of six or seven years at the most; but later on, perhaps in the reign

¹ Extracts from a paper by Mr. William Miller in the *Westminster Review*.

² Finlay, iii. 11.

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A TRUE SILICA-GRAPHITE PAINT.

Explained by Mr. R. H. Fisher, of Dixon's Chicago Office.

IN selecting a paint for the preservation of steel and other building metals, the first consideration must be the purity of the ingredients. The vehicle must be only the purest of fire-boiled linseed oil, for eventually the life of the paint will depend, to a large extent, upon the oil. The pigment must be one that will not undergo chemical change under any condition, it must assume such physical form that it may be made to protect the oil or binder, and at the same time readily shed water, also it should work easily under the brush, thus insuring a good covering capacity.

The paint formed by such materials should shed water readily at all times, and should resist such corrosive action as would be likely to occur in a building or on any exposed work.

On enclosed work, all of the paint is subjected to alkali, and in nearly all buildings the basement and first two stories are subjected to the action of such powerful corrosives as the sulphurous fumes produced by the process of combustion, which, owing to their high rate of diffusibility penetrate to every portion of these floors.

On exposed work the paint is subjected to the constant abrasive action of the elements, to alkalies and sulphurous conditions.

With the foregoing in view, we contend that Dixon's Silica-Graphite Paint fully meets all of these requirements. This graphite is a natural product mined by the Dixon Company at Ticonderoga, N. Y., and is the *only* pigment of its kind known to exist. It assumes the flake form in its physical structure and from this fact alone (if for no other reason), comes its great value as a paint pigment. There is no known solvent for this material, nor is there any chemical reaction that will affect it. Owing to our special process of milling we are enabled to obtain a particularly finely-divided product. This, together with its other properties, makes an *ideal* pigment.

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perfectly, and only sufficient of the material is added to thoroughly fill the oil. It is of such adaptable structure that under the process of milling to which it is subjected, it works perfectly with the flake graphite pigment. The oil used is only of the purest grade of well-settled and well-boiled linseed oil, and is very carefully inspected and tested by chemical experts. The small percentage of drier used is the very best procurable.

Dixon's Silica-Graphite Paint comes ready to apply, and only in original packages. It is the result of over forty years of constant endeavor to produce the best article possible, and behind every gallon is that well-known Dixon pride of manufacture. The paint spreads easily under the brush and readily covers 500 to 600 square feet to the gallon. It does not require any elaborate specification for shop or field mixture, and avoids the attendant evils of poor materials and poorer results.

In accordance with the physical law, that all particles held in suspension assume positions in the direction of the lines of least resistance, it follows that the flake particles of this pigment, under the sweeping pressure of the paint brush, lie flat against the surface over which the brush is moving. The flakes overlap one another, forming layers—the number of which is practically unlimited, being confined only to the number of coats and the thinness of the flakes.

After the paint has set and the surface gloss of oil has been destroyed, the outer layer of flakes is exposed. As the flakes are absolutely inert, it becomes a question of reaching the binder, which will in time lose its siccative or binding quality and release the flake, this particle having practically but two dimensions (length and breadth), leaves no cavity or pocket in the film, which therefore continues to shed water perfectly down to the last layer of pigment. This process of removal, owing to the intractability of these flakes, is, as you can see, a very slow one. Compare this with every other pigment ever sold in so-called protective coatings. Without exception they occur in one or more of the following forms, viz.: cubical or spherical. When the binder releases one of these par-

ticles a pocket of exact shape remains, in which moisture is retained, thus preventing the rapid shedding of water and removal of corrosives such as alkali, sulphides, etc. These compounds are destructive to the binder, and once firmly seated in such pocket will rapidly destroy the paint film.

There are authentic instances of twenty-five years' duration and in just the surroundings as regards moisture and sulphurous fumes that would utterly destroy any other paint, where Dixon's Silica-Graphite Paint is wearing perfectly, and, at the same time resisting atmospheric action.

Some pigments put upon the market are chemical compounds, for instance—the oxides and carbonates of lead, oxides of iron, etc., and as such under the inexorable laws of chemistry, are readily acted upon and during reaction either an increase or a decrease in volume takes place, both of which would militate against the film. The amorphous varieties of graphites are exceptions to this, but assuming the shapes they do are practically valueless as protective pigments.

In the past Red Lead has been largely used as a protective coating. The material is an oxide of lead, and as such is readily acted upon by the sulphurous compounds, becoming a sulphide and taking on an increase of about 30 per cent in volume during the reaction, which is sufficient to disrupt the paint film, also it is approximately cubical in shape. When a steam plant is placed in operation in a building, sulphurous conditions prevail and Red Lead immediately becomes anything but protective. The material is very dense, and is therefore hard to apply, requiring constant stirring. It must be mixed in exact proportions just before using. When allowed to stand after mixing it will quickly "set," and once this occurs, advocates of the material will tell you it is valueless. It is very difficult to apply, and has a very decided tendency to "run" even under the most skillful treatment. These faults, together with great cost, make it a rather undesirable material to use.

At the present time the market is flooded with so-called Graphite Paints, most of them composed of other forms of carbon

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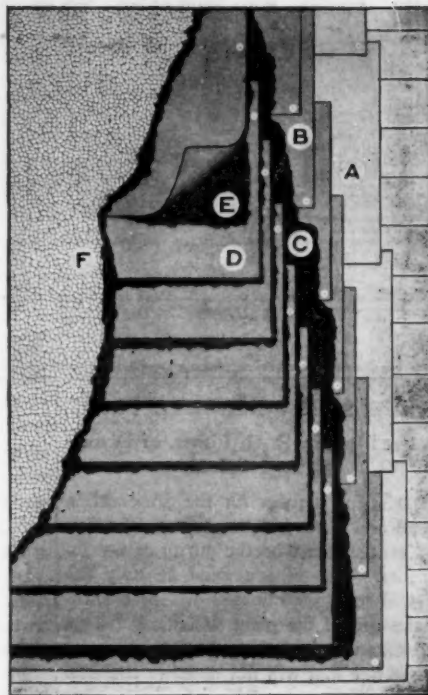
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Above diagram fully explained in Specification

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and in every case are of amorphous structure. They may assume approximately cubical or spherical forms, and as such are anything but ideal paint pigments, from the fact that under wear and tear the particles are removed from the binder leaving cavities or pockets. This prevents the paint film from readily shedding water, and in fact each pocket holds the moisture, and with it every known corrosive element present in the air or water. This is the primary weakness, then comes the element of cheap composition wherein cheap oils, cheap driers, and cheaper pigment play their individual parts. Chemical analysis of these paints shows that very few (if any) contain more than 16 per cent of graphite or carbon, and that usually of a very low grade. All of them have been placed on sale within the last fifteen years, and are made by houses that make many grades and kinds of paint. The best one of these paints is sold as "Pure Graphite," while eminent

geological authorities pronounce the raw product—"A Carbonaceous Schist." If the "Best" is a material of that sort, what must the "Worst" be?

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RUFUS THE ROOFER, in *July Arrow*.

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of Mohammed II, a regular levy of children was ordered to be made throughout all the subject provinces of Turkey, with a few favored exceptions. This tribute of Christian children, or "*paidomázoma*," as the Greeks called it, was subsequently erected into a complete system, and became one of the greatest engines of conversion. Every five years, or even oftener, for the tribute came at last to be levied annually, an officer of the Janissaries would descend with a clerk upon each district, and demand from the head man of the place a list of all the Christian families. Every Christian father was compelled to make a declaration of the number of his sons and to present them for inspection. At first, only one boy out of every five and only one out of every family were taken. Then no proportion was observed, but the Government took as many children as it wanted, always selecting the strongest, and not even sparing the only son of a family. The age, too, was raised to ten, fifteen, and even more years. We can easily imagine the misery inflicted upon the unhappy parents by a system which recalled the fabled tribute paid by the Athenians to the Minotaur. We are told by an eye-witness that mothers sometimes prayed God to strike their sons dead in order to save them from enlistment. Others, in order to evade the law, would marry their children at nine years of age; but the authorities soon disregarded these infantile unions, and marriage was no excuse in the eyes of an arbitrary official. There were only two ways of avoiding the payment of this hideous blood-tax—bribery or flight into one of the Venetian colonies, and the latter means of escape became more difficult when Venice lost her last possessions on the mainland. It might have been thought that this tax would have been more likely to cause a rising. Yet in the long list of insurrections against the Turks we can recall one only, that of 1565, which is specially ascribed to this reason, and that was an Albanian and not a Greek agitation. Moreover, as time went on, and the Janissaries became more pampered and more powerful, it was esteemed by many a blessing rather than a curse that their sons should serve in the corps. The Venetian *bailly* at Constantinople in the middle of the sixteenth century expressly says that the tribute of children had by that time come to be regarded as a special favor enjoyed by the Christians, who were thus able to provide their sons with an easy and comfortable profession! We even hear of Mussulman parents so anxious to share in this singular privilege that they lent their children to the Christians so that they might be enrolled as such among the Janissaries. But the loss to Hellenism and to Christianity through the tribute of children was enormous. If we remember that for two centuries the Janissaries were exclusively recruited from the Christians, and that the latter were chiefly to be found in European Turkey, and if we take into consideration that the tribute children were not only the strongest members of their respective families, but were also prohibited by the original constitution of the corps from marrying, for the Janissaries, like the Zulu army of Cetewayo, were a celibate body, we may form some idea of what a drain the "*paidomázoma*" was upon the actual and possible resources of Eastern Christianity.¹ At last, however, it fell into disuse, and in the seventeenth century ceased to exist.

A variety of causes contributed to the decline of an institution which had so greatly strengthened the Turkish army at the expense of the Christian population. From the time when the Janissaries were allowed to marry, they naturally desired to have their own children taken into the corps, while others obtained admission to its privileges by bribery. On the other hand, the Sultans came to regard the Janissaries as dangerous to themselves, much as the Roman Emperors had found the Prætorians to be, and were thus less anxious to have the corps recruited. The number of conversions to Islam had also narrowed the area of enlistment from among the Christians; and Rycaut, writing shortly after the custom had fallen into disuse, mentions the corruption of the officers and the carelessness in their discipline as the cause of its decay. Accordingly we last hear of the tribute being levied in 1676, though an isolated case is mentioned as late as 1703.²

Besides the tribute of Christian children, there was a further reason for the conversion of the Greeks in the honors offered to those who apostatised. When the Turks found themselves masters of a great European Empire, they had neither the financial nor the diplomatic skill requisite for conducting it. The Turkish method of keeping accounts was cumbrous, the Turkish language

is extremely difficult to write, and the Turks resembled the British in their absolute ignorance of foreign tongues, while treaties and diplomatic correspondence continued to be composed in Greek. But empires are not won by linguists but by men of character, who are easily able to find subtle intellects to do their office work for them. The precise qualities which the Turks lacked the Greeks possessed, and Mohammed II saw at once how useful the versatile talents of his new subjects would be in the administration of his dominions. But there was this difficulty, that nearly all the best educated Greeks had fled abroad after the fall of the Byzantine Empire, and it was owing to this reason that, during the first two centuries of the Turkish rule, the Greeks did not, as a rule, rise higher in the Turkish service than a clerkship in the Treasury or the Foreign Office. There was, however, even at that period, one notable exception, the office of Grand Vizier. Of the five Grand Viziers of Mohammed II, two were Greeks, the former of whom, Mahmud Pasha, was the first Christian to hold that great position.

On two occasions, under Selim II, in 1514, and in the early days of the Candian War, in 1646, it was actually proposed to exterminate all the Christians of Turkey. But wiser counsels happily prevailed; and towards the close of the seventeenth century, as we saw, the policy of the Turkish Government was to preserve, rather than further diminish, the numbers of its Christian taxpayers.

But it was not only in the numbers, but also in the quality of their population, that the Greek provinces of Turkey suffered from the effects of the Turkish conquest. Almost all the men of learning, nearly all the chief families, in short the intellectual and political leaders of the people, went into exile immediately after the fall of the Byzantine Empire. Mohammed II did, indeed, address a proclamation in Greek to the principal *Archontes* of the Morea, in which he promised to respect their families and property and make them more prosperous than before;³ but his promises had little effect in checking the general exodus of the great Moreote families. So universal was their emigration that only four or five of the Peloponnesian clans, which had played the prominent part during the mediæval period, remained behind, and there were similar wholesale emigrations from Continental Greece and Eubœa. As the leading men all went with their relatives and followers, the drain upon the Greek population was as serious a danger to the nation as the emigration of the Peloponnesian peasants to America, which has lately been robbing the land of its cultivators and causing widespread alarm in the Greek Press.

Many Greeks, anxious to fight against the foes of their own, or even those of their adopted, country, became of their own free will Venetian light horsemen, or *Stradioti*, just as others were forced to enlist in the ranks of the Turkish Janissaries. The researches of a learned Greek historian have thrown a flood of light upon the constitution and exploits of that remarkable body of soldiers. The name by which they were known is not derived from the Greek word "*stradiotai*" ("soldiers"), but from the Italian, *strada*, and signified that those who bore it were "always on the road"—wanderers, who had no fixed abodes. Composed of Greeks and Albanians, the corps was entirely recruited from the Morea, and mainly from Laconia, but the most valiant were the men of Nauplia. Among their leaders we find many historic Moreat names, such as those of Bua and Palaiologos, whose bearers were descendants or relatives of the men who had fought the good fight for the liberty of the Peloponnesos. The sixteenth century was the golden age of the *Stradioti*, who demonstrated all over Europe that Greek valor was not extinct. A *Stradiote* was even in the service of our Henry VIII, fighting in Scotland and acting as Governor of Boulogne, at that time an English fortress. But they had their weaknesses, as well as their good qualities, and their inordinate vanity was the favorite theme of Venetian comedians, just as Plautus had satirized the boastfulness of the *Miles Gloriosus* for the amusement of the ancient Romans. Tasso has blamed their rapacity in the line:

"Il leggier Greco alle rapine intento,"

but other poets have sung of their triumphs. Indeed, there were bards in the ranks of the "wanderers" themselves, and a whole

¹ Paparregopoulos (*op. cit.*, v. 471) estimates at about a million the number of Christian children taken to serve in the corps during the first two centuries of its existence.

² Rycaut, in Knolles, *op. cit.*, li. 90. Ranke, *Fürsten u. Völker von Süd. Europa*, p. 69, says that it ceased between 1630 and 1650. Paparregopoulos (v. 471) puts the date of its abolition in 1638; Finlay (v. 163-4) at 1676, and Hammer there ended.

³ Paparregopoulos, *op. cit.* 489.

literature of their poems has been published, mostly written in a peculiar dialect resembling that now spoken in Calabria, where many Greek songs are still sung by the descendants of the numerous Epirote families settled there after the Turkish conquest—the third time that Magna Græcia had received a large Greek population. One of their number, Marullus, of whom it was said that he “first united Apollo to Mars,” wrote Latin *alcaics* and *sapphics*, which, if not exactly Horatian, are, at any rate, as good as the ordinary product of the sixth-form intellect. Another Theodore Spœndounis, or Spœndugino, more usefully employed his pen in the composition of a work on the Origin of the Ottoman Emperors, with the patriotic object of arousing the sympathy of sixteenth-century statesmen for the deliverance of Greece. The *Stradiote*, were, however, mightier with the javelin and the mace—their characteristic weapons—than with the pen. The long javelin, which they carried on horseback, was a particularly formidable weapon. Shod at both ends with a sharp iron point, it could be used either way with equally deadly effect; and if it failed, the agile horseman could seize the mace which hung at his saddle bow, and bring it down on the skull of an opponent. Unfortunately, the blow was rarely struck for Greece, and the skull was usually that of a Christian, against whom the *Stradiote* had no personal or national quarrel.

But Greece was deprived of her literary as well as her military men by the Turkish conquest. For almost the first time in her long history, all traces of learning vanished from the home of the Muses. Most of the scholarly Greeks of that age emigrated to Italy, and, just as, in the words of Horace, “Captive Greece led her victors captive” after her subjugation by the unlettered Romans, so, sixteen centuries later, she once more spread the light of Hellenic studies in the darkest West.

We owe much of our modern culture to this fifteenth-century dispersion of the learned Greeks; but the gain of Europe was the loss of Greece. It required the lapse of two whole centuries to make up in the least degree the deficiencies in Greek education, which the departure of all these men of light and leading caused; and if they strove to interest European courts and scholars in the fortunes of their abandoned country, that was of small practical advantage compared with the loss which they inflicted upon it. Had they remained in Greece, their influence would soon have made itself felt; they would have obtained posts in the Turkish service, which might have enabled them to improve the condition of their fellow-countrymen, and their example would have prevented the complete spread of ignorance over large parts of Greece during the first two centuries after the conquest.

Moreover, from the date of the Turkish conquest the immigrations of the foreign elements, which had occurred so often during the Byzantine and Frankish period, ceased, and for nearly four centuries the Hellenic race was uncontaminated by alien blood. The Franks left behind them few survivors, except in the islands, and there were no Slavonic raids, while the Greeks, who remained true to their faith, never intermarried with the Turks, for a Greek woman who became the wife of a Mussulman was excommunicated. The two religions remained absolutely apart, and, under Turkish rule, for the first time for centuries, perhaps also for the last, there was no racial rivalry between the Christians of the Near East. Union reigned between Greeks, Bulgarians, Serbs, Albanians and Roumanians; and the doctrine of nationalities, nowadays the keynote of Balkan politics, had no influence under the Turkish system of that period, which treated all Christians of whatever race as the inferiors of all Mussulmans, whether of Turkish, Slavonic, Albanian or Greek extraction.

THE CHRISTIAN CHURCHES OF ATHENS.¹

THE Christian churches of Athens form an interesting subject for study. There are few examples now remaining, owing to the fact that very many were taken down before 1890, at which date the value of these buildings began to be recognized. Since that time care has been taken to preserve some of them, but others have been so much restored that they are now of no value whatever to the architectural student.

One of the oldest and best preserved is the church of St. Nicodemus, which dates from 1045. Although the largest of these old churches, it is nevertheless a small, oblong building, measur-

ing only 62 feet by 45 feet. It is vaulted throughout, and has a large dome in the centre of its plan which springs direct from the pendentives, *i. e.*, without a drum. The lighting is by sixteen windows, placed in the dome itself, similarly to those in the great church of Sta. Sophia at Constantinople. The gallery in the interior assists materially in giving scale to this church. The external walls are built of yellow-colored oblong blocks of limestone, having between both the horizontal and vertical joints flat red tiles, about 1¼ inches thick, laid in beds of mortar of about equal thickness. On the ground story there is a horizontal string-course of peculiarly cut bricks placed vertically on edge, and otherwise all bedded in mortar, and thereby forming an ornamental pattern round the building.

The church of the Saints Theodore, dating from 1050, is another of the best preserved of the old churches of Athens. Its plan is of the Greek-cross type and it has three apses at the east end. The dome at the crossing has a high drum, which has two-light windows in each side of it. The belfry placed upon the top of the gable at the south arm of the cross is a late addition. Underneath this belfry there is a two-light window with the usual arrangement of flat bricks and zigzag border, serving as archivolt and archivolt. By each side of this window there is a rampant arch of similar design, thereby forming a very peculiar treatment of the gable.

The original part of the church of the Kapnikarea is of the Greek-cross type in plan, the dome at the crossing being supported on four columns. The drum of the dome has single-light windows in each of its eight sides, and the dome itself is covered externally with tiling, which is the usual method. This part is thought to date from the ninth century, but much later, probably in the fourteenth or fifteenth century, additions were made whereby a chapel was added to the north and an outer narthex to the west. This outer narthex is covered with four gables, which is a form rather unusual in Greek Byzantine work.

Perhaps the most interesting of all the old churches of Athens is that one known as the Small Metropolis or Cathedral. It is very small, being about 40 feet by 24 feet over all, externally. Its date is uncertain, but it was probably built in the thirteenth century. Its walls are largely composed of ancient fragments of marble put together in a most haphazard manner, but the old slabs give it a golden yellow color, which is very beautiful. It has only one apse. Its dome is supported on four square piers, while the drum has single-light windows, with roof tiled in the usual manner.

In Athens there are some modern buildings of considerable interest to which attention should be directed. The Academy of Science is an admirably proportioned building dating from 1882. It is faced with Pentelic marble. The architect was Hansen.

The University has an excellently designed façade of Pentelic marble. In the centre part of the portico there are two Ionic columns “in antis.” The portico extends five bays on each side of this, however, having piers with moulded capitals to divide the bays. At the upper part of the wall behind the piers there are fresco-paintings, the effect of which is delightful.

The new Library is one of the finest buildings devoted to such a purpose in existence. It is of the Doric order, with a hexastyle portico. It is also of marble and was completed quite recently. These three buildings are situated side by side in the University Boulevard and form a fine group.

The modern Cathedral was built in 1855 and is not beautiful. It was constructed with materials obtained by demolishing seventy old churches.

The Royal Palace dates from 1834-38, and is a large plain building on a fine site. There is a Doric portico in the centre of the western front built of Pentelic marble.

The Observatory is notable for its fine situation on the top of the Hill of the Nymphs, a short distance west of the Acropolis; it was opened in 1846. The Zappeion is a large building used for exhibition purposes, and built about 1888, on one of the finest sites in Athens. It has a central Corinthian portico of eight columns based on the Lysicrates Monument, with a pediment over it. The wings are plainly treated. The building is semi-circular in plan and has a large entrance hall.

It has been truly said that to visit Athens and study what is to be seen there is an epoch in the art-training of any man. Such the writer felt his visit to be to him, and it is to be hoped that architectural students in increasing numbers will visit this ancient city and reap the benefit to be obtained by study there.

¹ Extract from a paper by Charles Gourlay, Professor of Architecture in Glasgow and West of Scotland Technical College.

TALL AUSTRALIAN TREES.

A GREAT many tales about Australian vegetation have from time to time become current only to become demolished as the continent became better known. But there is one phase of the subject that is of real scientific interest—I allude to the size of our trees, and in regard to these we have still much to learn.

It is very difficult for some people to understand that in a question of this kind only actual measurements by tape or theodolite or records by an observer of proved accuracy can be admitted. The mere guessing of heights is rarely attended with even approximation to accuracy. I have been given the most astounding heights for certain trees, and when I have asked for evidence I have sometimes given offence.

The greatest claims for Australian trees have been made on behalf of Victoria, most of them from Gippsland. In 1862 Mueller wrote to *Seemann's Journal of Botany* that D. Boyle of Nunawading, near Melbourne, had measured a fallen tree in the recesses of the Dandenong and found it to be 420 feet. About the same time he wrote to the *Australasian*, giving more details about this tree, which was stated to be 392 feet long. He added thirty feet as a fair estimate of the length of the top, which had broken off, and thus we have 420 feet as the height of this tree.

Henniker Heaton says that on the Blacks Spur were two trees, one alive, measuring 420 feet in length, and the other (prostrated) 480 feet long. He adds that Baron Mueller is the authority for these measurements. One version, therefore, states that the 420-foot tree is prostrate and the other that it is alive. If these statements are correct, then two trees of this stupendous height are referred to. Following is another account of the 480-foot tree: A note by Mueller in the *Gardener's Chronicle* for 1862 says that several trees had been recently measured at the upper Yarra and on the Dandenong. He adds:

"The highest known is ascertained to be 480 feet, and therefore as high as the great pyramid." Mueller in his "Select Extra Tropical Plants" writes that a tree was measured in the Cape Otway range 415 feet high and 15 feet in diameter. Another tree measured at the base of the stem 69 feet in circumference; at 12 feet from the ground, 14 feet in diameter; at 78 feet, 9 feet; at 144 feet, 8 feet in diameter, and at 210 feet, 5 feet. All these trees belong to the species described by Mueller as *eucalyptus regnans* on account of its crowning height. It is the tree known in Victoria variously as "white gum, messmate and peppermint" (it varies much in the bark), and Mueller alludes to it as the "tallest tree on the globe, surpassing even the renowned California sequoia and Wellington pines in height, reaching to 400 feet and even more."

On another occasion he continues to limit the height to about four hundred feet. "In our sheltered springy forest glens attaining not rarely a height of over four hundred feet." In 1862 he, in *Seemann's Journal of Botany*, said that E. B. Heyne measured a tree at the Dandenong 295 feet to first branch, diameter at first branch, 4 feet. To the point where broken off, 70 feet; total, 365 feet. Diameter at fracture, 3 feet; girth of stem, three feet from the ground, 41 feet. Although not up to the 400-foot standard, this is a very big tree, and I am sorry that we have not evidence which would warrant our accepting it. In fact, those old records are simply unreliable, in spite of their apparent attention to details.

We will go a step higher. In 1889, F. Sanley Dobson of Melbourne quoted Mueller as having written in his "Botanic Teachings" that our gum trees attain a height of five hundred feet. I cannot trace this particular reference, but I have other references of such a height to which Mueller gave currency. For example, in *Seemann's Journal of Botany* he says that George W. Robinson in the back ranges of Berwick found a tree eighty-one feet in girth four feet from the ground, and supposes that toward the sources of the Yarra and Latrobe Rivers it attains five hundred feet.

Another contemporary account says that W. G. Robinson of Berwick, Victoria, in a journey from Gippsland to Mount Baw Baw, saw and measured a tree five hundred feet high. Later in an edition of the "Select Extra Tropical Plants," the name of the finder and the height are varied. "G. W. Robinson, surveyor, measured a tree at the foot of Mount Baw Baw 471 feet high."

But we have not reached high-water mark yet. David Boyle, who for twenty-seven years had been identified with big trees, in 1889 wrote to the *Melbourne Argus*, giving 525 feet as the height of a tree shown to him some years previously. As this was considered to be rather "tall," and is, I believe, the greatest height in or out of Australia claimed for a tree, Mr. Boyle replied to

inquirers: "I determined to have it photographed and measured, ten years having elapsed since I measured it before. . . . I found it. The tree was healthy, the only change in it since I saw it last being that a portion of the top was blown away. The measurement now is 466 feet high, and its circumference four feet from the ground, 81 feet; base, 114 feet."

Visitors to the Melbourne International Exhibition in 1888 will remember the photographs of a large buttressed gum tree by N. J. Caire, photographer, who declared that he had once come across this monster in Gippsland, and that its height was 464 feet. He called it "The Baron," after Von Mueller. Here was something definite to go upon.

The trustees of the public library of Melbourne voted \$500, the trustees of the exhibition building another \$500, the minister for lands promised a sum not exceeding \$4,000, to have this leviathan measured and photographed. After some hesitancy on the part of the photographer the identical tree photographed was found. The inspector of forests and a Government surveyor measured it accurately and found it to be 210 feet 9 inches. Here was a come-down. "No tree in the neighborhood reached 300 feet." The tree, of which a specific measurement was given, was found on actual measurement to be less than half its reputed height.

James Munroe, premier of Victoria, thereupon offered a reward of \$500 out of his own pocket for any Victorian tree 400 feet in height, and the reward has remained unclaimed to this day.—*Sydney Herald*.

ILLUSTRATIONS

[Contributors of drawings are requested to send also plans and a full and adequate description of the buildings, including a statement of cost.]

MIDDLESEX SCHOOL BUILDINGS, CONCORD, MASS.: THE DINING-HALL. MR. CHARLES K. CUMMINGS, ARCHITECT; AND REAR OF HEAD-MASTER'S HOUSE, MESSRS. PEABODY & STEARNS, ARCHITECTS, BOSTON, MASS.

HEAD-MASTER'S HOUSE OF THE SAME SCHOOL. MESSRS. PEABODY & STEARNS, ARCHITECTS, BOSTON, MASS.

MASTER'S HOUSE OF THE SAME SCHOOL. MR. CHARLES K. CUMMINGS, ARCHITECT, BOSTON, MASS.

BRYANT-PAINE HALL OF THE SAME SCHOOL. MESSRS. PEABODY & STEARNS, ARCHITECTS, BOSTON, MASS.

SOUTH AFRICAN WAR MEMORIAL, HAILEYBURY COLLEGE, LONDON, ENG. MR. REGINALD BLOMFIELD, ARCHITECT.

This plate is copied from *The Builder*.

CHURCH AT PORTOBELLO, NEAR EDINBURGH, SCOTLAND. MR. T. J. WALFORD, ARCHITECT.

This plate is copied from *Building News*.

Additional Illustrations in the International Edition.

A NEW CHURCH, AMSTERDAM, HOLLAND.

THE MINES AND METALLURGY BUILDING: LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO. MR. THEODORE C. LINK, ARCHITECT, ST. LOUIS, MO.

NORWICH CATHEDRAL FROM THE SOUTHEAST.

"THE SPIRIT OF THE ATLANTIC": LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO.

NOTES AND CLIPPINGS

LONGLEAT.—Lord Bath, who has just been appointed Lord Lieutenant of the County of Somerset in succession to the late Earl of Cork, is one of those English peers who live nearly all the year round on their estates, where much old-time stateliness and feudal splendor are observed. Indeed, his principal country seat, Longleat, was described by Lord Macaulay as the most magnificent country house in all England, and the great historian's verdict still holds good to-day. Longleat was originally a small Priory of the Order of St. Augustine. At the dissolution of the

monasteries at the time of the Reformation it went by gift of King Henry VIII to Sir John Horsey, and then to the Duke of Somerset, Protector of the Realm, who bestowed it upon his secretary, Sir John Thynne. It was he who began building Longleat in 1567. Long before the work was completed, Queen Elizabeth, who had had Sir John in her service for a time as controller of her household, insisted upon paying him a visit there. When he died the house was still in an unfinished condition, and one of his successors, Sir James Thynne, called in the advice of Sir Christopher Wren, the architect of St. Paul's Cathedral, who planned the present staircase and other improvements. In the time of Sir James Thynne, Longleat was visited by King Charles II, by his queen and by his brother, afterward James II. At his death without issue, the place passed to his nephew, Thomas Thynne, popularly known as "Tom of Ten Thousand," in allusion to his supposed income.—*Marquise de Fontenoy in N. Y. Tribune.*

ST. JOHN'S COLLEGE, CAMBRIDGE, ENG.—Many of the colleges have in late years added several choice and convenient buildings; and the university in particular has been enriched with ample scientific museums and laboratories. On these the ancient plan has been constantly followed of building the chief front of the building close on the street, and piercing it with an arch, by which access is obtained to a courtyard with velvet turf in the centre, and, if practicable, trees, two, three, and ultimately four sides being added as required; a plan which on all grounds of light, beauty, quiet and security is far superior to our plan of single isolated structures. Many of the most famous and what were supposed to be the richest colleges have suffered sadly from the agricultural depression which has weighed on England for twenty years. But I was told of one singular piece of good luck in the case of St. John's College at Cambridge. In the reign of King John—about seven centuries ago—one of the monasteries was endowed with a manor on the coast of Lincolnshire, which passed to St. John's about four centuries ago. The actual occupancy of the soil had been alienated by long leases, but the feudal superiority of the "lord of the manor" still remained. The accretions along the coast by the silting up of the weirs had gradually created and elevated a considerable expanse of land between high and low water mark. This had been let for a very trifling rent, when it was gradually found to be absolutely needed by the East Coast railways for their extension to the deep sea. On applying to St. John's College for the use of this land at the habitual low rent, this "lord of the manor" replied that he had no notion of any such thing. Since his feudal sway extended over a newly-born territory of which King John and the monasteries never heard and since railways and dockers needed it they must pay for it; and a portion of the manor's new-made soil was disposed of by the college for one hundred thousand pounds!—*Dr. William Everett in the Boston Transcript.*

THE CHILINO BUILDING MECHANIC.—It is frankly admitted, and manifest, on all hands that the vice of the lower class is protracted drunkenness. Many workmen are serviceable on an average four, sometimes only three, days of the week. The following is, almost word for word, the statement made by an architect of Santiago, who is at present erecting a number of important buildings, and consequently employs large squads of men: "The great drawback in building is lack of reliable hands, and the frequent stagnation of work. The laborers themselves live like beasts, and have few needs outside of their drink. When pay-day comes around, my paymasters are beset by the men's wives, who put in a timely appearance, and try to get their husbands' pay so that the family will not starve. As I am usually obliged to pay the husband, who does the work, the result is likely to be that he spends Sunday in drink; Monday (known as San Lunes or Holy Monday) likewise; Tuesday is needed for partial recuperation; on Wednesday the men either work in a half-hearted fashion or return home to fetch some forgotten tools and stay at home. If it rains, I can't count on them even for indoor work, and the only days on which solid work is done are, therefore, the remaining three. Their belongings, and frequently those of others, are usually in the pawnshops. My work is further hampered by a scarcity of skilled workmen. But the greatest nuisance is the large number of holidays." The *Mercurio* of Santiago says that from the 1st of January to the 22d of May (the date of the article) the work on the harbor was suspended eighty-nine and one-half days, or about three months out of four months and twenty days.—*N. Y. Evening Post.*

MONUMENT TO PROTESTANTISM AT SPEYER.—The Memorial Church at Speyer-on-the-Rhine, Germany, erected as a monument to Protestantism, of which Speyer is the birthplace, just dedicated, has been erected at a cost of about \$375,000, in recognition of the fact that at Speyer, following the Diet of the German empire, held in 1529, at which the religious reformation was condemned at the dedication of Emperor Charles V, Protestantism was born because a minority of six princes and fourteen representatives of free cities "protested" against the act of the Diet. The Memorial Church has been erected by the contributions of Europe.

and American branches of the Reformed Church, America contributing about one-third of the cost. The church is pure Gothic in architecture and will seat 1,500. It has a high tower, and a feature of the entrance porch is a colossal statue of Martin Luther clasping the Bible to his breast.—*Exchange.*

A NEW GLASS-MAKING PROCESS.—The new process of manufacture of flint glass (it has already been successfully applied to glass-bottle making) does away with coke altogether. The heat is obtained by a mixture of steam and gas tar of the crudest kind (the residues of gas works), costing about thirty shillings a ton. A burner is used, which is fed with steam from a boiler at about a pressure of forty pounds to the square inch. The burner has an interior conduit through which the gas tar is sucked by the vacuum caused by the escaping steam. The steam and tar combine, and, impinging on an incandescent fire-brick, burst into a flame of a very high temperature. The chemical action seems to be that the oxygen and hydrogen of the steam are disintegrated and combine with the heated carbon of the tar to form carburetted hydrogen, the oxygen being free to support the combustion. It is, in fact, a process of making gas from heated water and coal tar mixed. This system has been aptly named the "Hydroleum" process. It will be at once evident that the new method has many advantages over the old coke process. First, the heat can be more quickly and intensely applied, by which there is a great saving of time. It is at all periods under the control of the stokers, for the burners can be regulated to a nicety, the pressure being raised or lowered at will. There is an entire absence of smoke and dirt, the resultant carbon dioxide being carried up the shaft of the furnace. The cost has been found to be less than that of coke with properly arranged furnaces, and, above all, the glass is "founded" in time, and is ready to be worked when required. The new and scientific method of founding glass, which is likely to effect a revolution in methods, and a saving of time and money so great as to enable British workers to compete with their foreign rivals, is the invention of Mr. Preston Davies. It is being adopted by Messrs. Powell & Sons, the proprietors of the Whitefriars Glass Works. The works, which have been in existence over two hundred years, employ between two hundred and three hundred hands.—*London News.*

HARCOURT HOUSE, LONDON.—There are many who will be sorry to learn that Harcourt House, in Cavendish Square, which may well be described as one of the "stately homes of England," is about to be torn down, the superb garden having been purchased by the Postoffice Department, while the house itself is to make way for a great business and office building, the lower floors of which will be devoted to automobile salesrooms. Harcourt House was built according to the designs of Thomas Archer, at the beginning of the eighteenth century, for Robert Benson, Lord Bingley, at whose death it was purchased by Simon, first Earl of Harcourt. One night a card-party took place there, the stakes were high, and luck went against the earl. At last the mansion and the extensive grounds were the stake, and they were lost to the third Duke of Portland, great-grandfather of the present Duke. But when the transfer came to be made it was found that there were legal difficulties in the way of alienating the house from the estate of which it formed part. The difficulty was got over by the duke taking a long lease from the Earl of Harcourt "on favorable terms." The next occupants of the house were the fourth duke and then the fifth and late Duke of Portland, whose eccentricities have given rise to so much romance and legend, and who built the whole of the subterranean portion of Welbeck Abbey, in order to avoid the gaze of strangers. It was this duke, too, who, with the same object in view, erected an enormous screen of ground glass, 80 feet high and 200 feet long, on either side of the gardens of Harcourt House, so that the residents in Henrietta Street and in Wigmore Street should not be able to intrude on his privacy. These screens are still standing. At his death Lord Breadalbane obtained possession of the lease which has now terminated, and occupied Harcourt House until about a year ago. It is possible that when the house comes to be pulled down some further discoveries will be made in connection with the mysterious existence of the late Duke of Portland, who made it his London home. It is charged by the present claimant to the Portland dukedom and estates that fear of being charged with the homicide of his brother, Lord George Bentinck, caused him to lead a double life, and that he passed alternately as the duke and as a Mr. Druce, surviving in his latter capacity the alleged death and burial of the late Duke of Portland for a number of years. It is even asserted that the tomb stated to contain the body of the late Duke of Portland is filled with sand or wood, and the claimant, who is a grandson of Mr. Druce, has endeavored in every possible way to secure from the courts permission to have the ducal tomb opened, the present duke, who is Master of the Horse to the King, opposing the petition, and bringing all the immense influence which he possesses as a member of the administration, and as a great territorial magnate, to bear upon the authorities to prevent the request from being granted.—*Marquise de Fontenoy in N. Y. Tribune.*



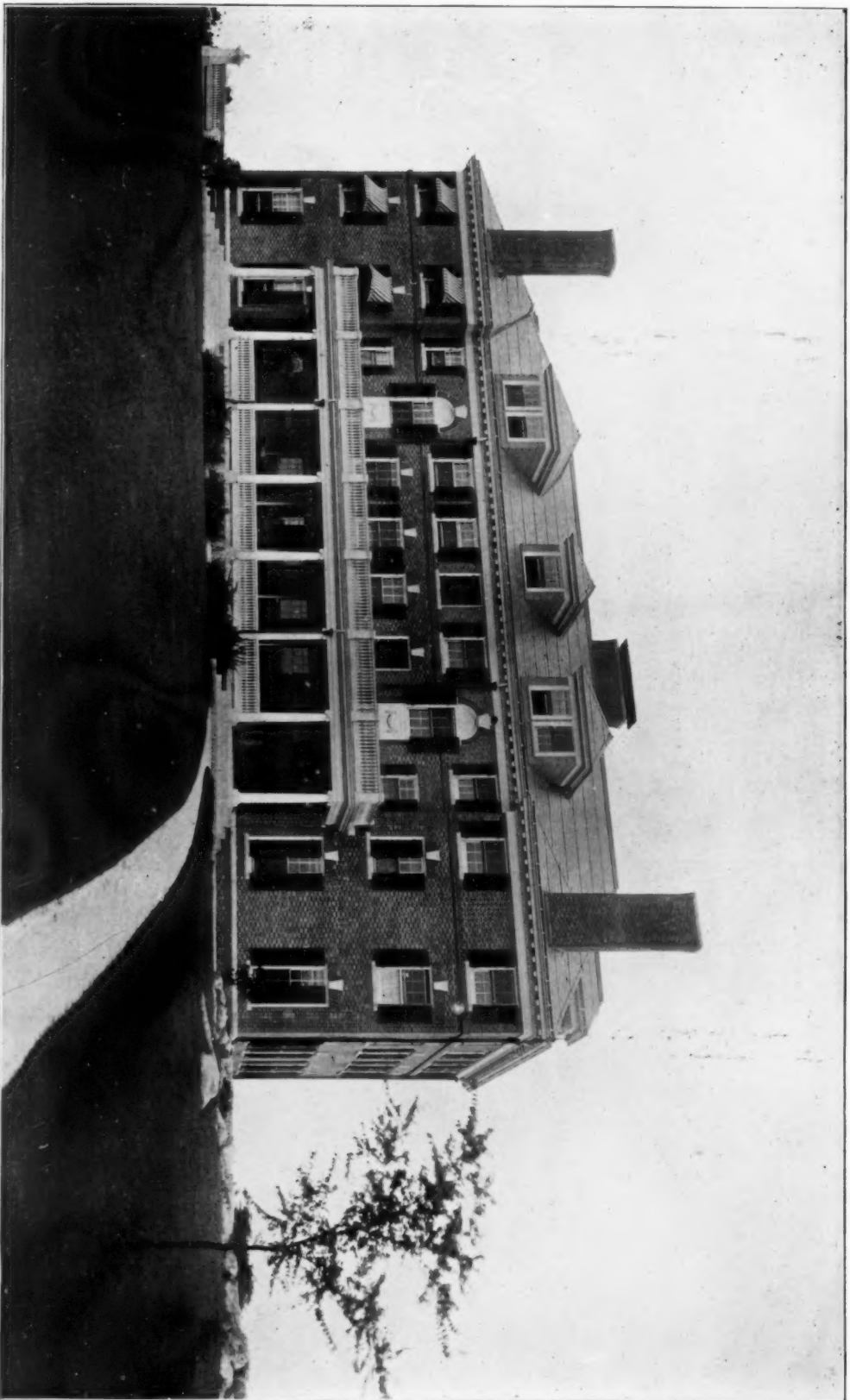
The South African War Memorial: Haileybury College, London.
 Reginald Blomfield, Architect



*Master's House: Middlesex School, Concord, Mass.
Charles K. Cummings, Architect.*

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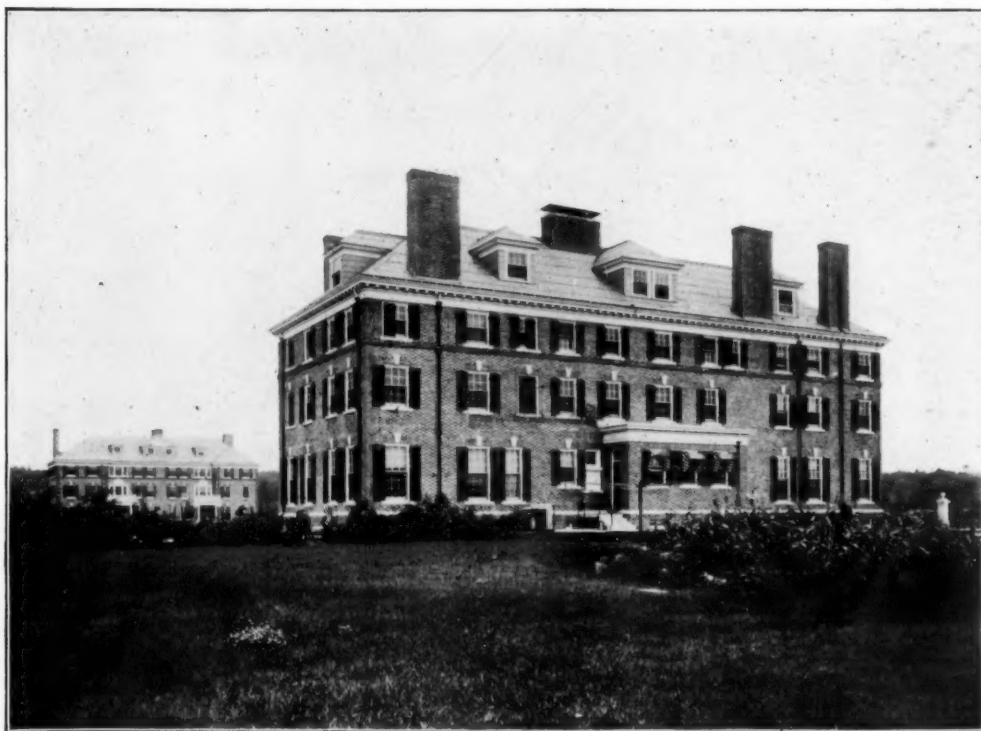


*Head-master's House: Middlesex School, Concord, Mass.
Peabody & Stearns, Architects.*

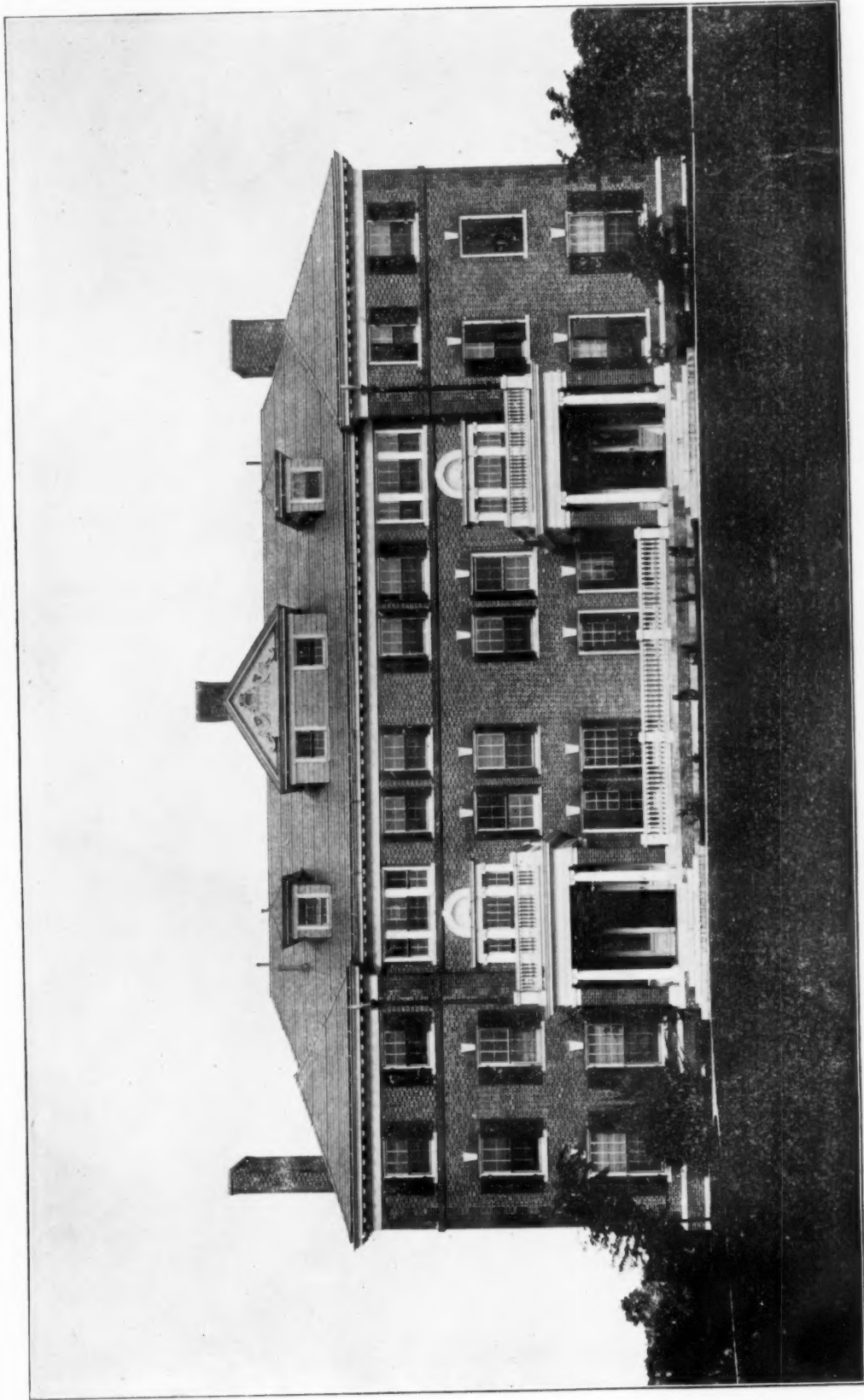
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The Dining-Hall: Charles K. Cummings, Architect.



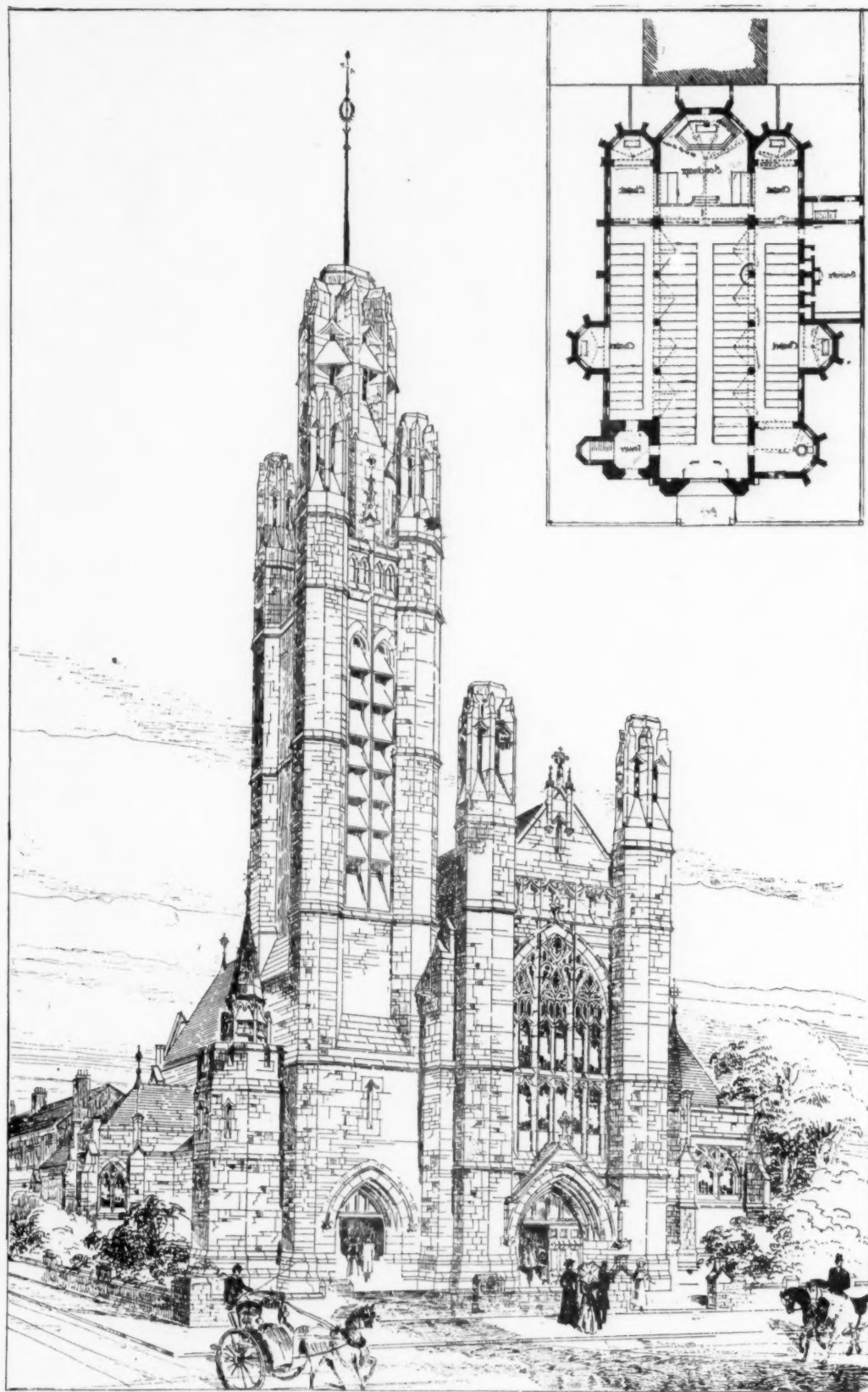
*Rear of Head-master's House.
Peabody & Stearns, Architects
Middlesex School Buildings, Concord, Mass.*



Bryant-Paine Hall: Middlesex School, Concord, Mass.
Peabody & Stearns, Architects.

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Church at Porto Bello, near Edinburgh, Scotland.

J. T. Walford, Architect.

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