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DOMESTIC ARCHITECTURE OF THE EARLY NINETEENTH CENTURY—PART I

JOHN T. FALLON

THE varied developments of Renaissance architecture in the different countries of Europe are marked by similar tendencies. Whether in Italy, France or England, they first began with a *naïve* handling of imperfectly understood classic motives. As sophistication grew and the works of the ancients were more widely circulated and studied, stylism gradually became more formal and finally lapsed into correctness and pedantry. A similar trend and direction runs through our own American architecture. Our most charming work, which we loosely term Colonial, reaches its perfection with the beginnings of our separate and individual life as a nation. From then on its natural freedom was gradually sacrificed to the slowly percolating influence of European formalism.

PORCHES—GRAMERCY PARK, NEW YORK

With no distinct line of demarcation and with considerable overlapping, the Colonial period in America was followed by the Classical Revivals, first Roman and later Greek. Their influence was first manifested by Jefferson, who appears in an architectural capacity as early as 1770 in connection with the building of Monticello. Jefferson is one of the few American examples of the cultured amateur who was so distinctly a product of the eighteenth century in England. His notes and sketches bear unmistakable evidence of his close relation to the architectural radicals of Europe.

Far from being Georgian in his tendencies, Jefferson had from the first a fine scorn for the contemporary architecture of the colonies, which he had already roundly abused before leaving America. In his "Notes on Virginia" (1784), he writes not only with disdain for what he looked upon as solecism of detail in Georgian architecture, but with contempt for materials and workmanship. "The private buildings are very rarely constructed of stone or brick, much the greater portion being of scantling or boards, plastered with lime. It is im-

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possible to devise things more ugly, uncomfortable or happily more perishable. A workman could scarcely be found capable of drawing an order. Buildings

DOORWAY, UNIVERSITY PLACE, NEW YORK

are often erected by individuals, at considerable expense. To give these symmetry and taste would not increase their cost. It would not change the arrangement of the materials, the form or combination of the members. This would often cost less than the burden of barbarous ornament with which these buildings are sometimes charged. But the first principles of the art are unknown and there exists scarcely a model among us sufficiently chaste to give an idea of them."

During his sojourn in Europe he came into intimate personal contact with the artistic radicals of the day. He became enthusiastic over the contemporary effort to adapt the Roman style to domestic architecture. This marked preference for Roman forms Jefferson retained to the end of his life and his views underwent no further essential modification. Like the French, he never turned to his books of Greek monuments for a prototype for anything more serious than a garden pavilion. He took no part in the Greek revival proper which followed the Roman revival in America while he was still in full activity.

The original source of the so-called Classic revival may be traced away back to 1734, when the society of the Dilettante was formed in England. Its object was the encouragement of the architects

DOORWAY, WASHINGTON SQUARE, NEW YORK

and artists, and latterly amateurs, to study the architecture of ancient civilizations. The immediate results were the series of authoritative volumes, the first

A WASHINGTON SQUARE, NEW YORK, BALCONY

of which was Stuart and Revett's "Antiquities of Athens" (1762). Although at first the English architect fought shy of this new teaching, finally "the finesse of Greek detail filtered down even to the various trades, and apart from the coterie of craftsmen who supplied chimney pieces, furniture and other accessories to the order of the brothers Adam, every journeyman carpenter was also conversant with the refinement and beauty of Greek architecture, as set forth by the publication of the scientific volumes."

As the knowledge of the antique became more widely spread, this Græco-Roman phase of architecture developed on more academic lines. The majority of English architectural students in the latter part of the eighteenth century traveled abroad, if not to Greece at least to Rome, and as these men returned full of memories of Greece and Italy every tendency directed itself toward a more formal application of the academic. In England the purely Greek phase may be fairly definitely dated from the termination of the Napoleonic wars in 1815. The tremendous upheaval which these wars caused had practically excluded Englishmen from intercourse with the Continent. As A. E. Richardson says, "Barred from France and Italy, English artists traveled by the long sea route to Athens and the seaports of Asia Minor, to augment their previous knowledge and researches by a scientific study of the arts of Greece. The amateur even at this comparatively late date was extremely active in his endeavors to advance artistic taste, Thomas Hope of Deepdene and Lord Elgin being most prominent in this connection, the former by his publications and patronage of art, and the latter by his acquisition of the famous Elgin marbles. Sixty years had elapsed since the first volume of Stuart's "Antiquities of Athens" had appeared and during the intervening period a greater knowledge concerning Hellenic art had become general. In addition, public opinion had slowly but surely veered around in favor of the purity and refinement of Greek architecture. The finest works associated with the names of the brothers Adam during the late eighteenth century exhibit the prevailing desire to emulate the chaste beauty of Greek or-

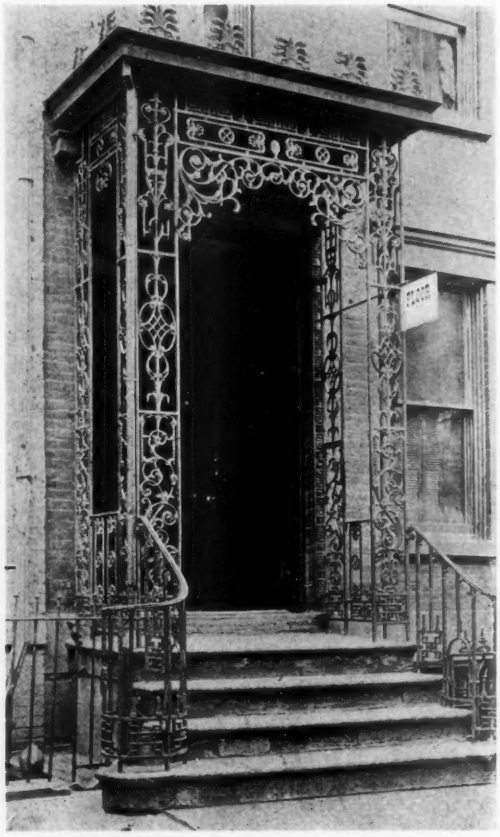
GATEWAY, STUYVESANT SQUARE, NEW YORK

nament, the Græco-Roman phase in all its workings was but the outcome of an intensification of this desire. "The commendable labors of Holland, Soane and the Wyatts prepared the way for the brilliant culmination. In the attainments of such sculptors as Flaxman, Chantrey and Westmacott, the value of a 'Greek' standard of excellence had long been appreciated and in the circles of society the affection for dilettantism raged as furiously as ever. Artists, architects and sculptors were among the members of the Dilettante society at this period, and in consequence research work became an essential feature of an architect's training. The enthusiasm for refinement in architecture and the kindred arts grew apace, and though excess of zeal prompted

PORCH, WAVERLY PLACE, NEW YORK

some exponents of 'Greek' to literally reproduce the temple façades of Greece, on the whole the development was steady. Another factor which to some extent militated against the furtherance of the Greek phase was the imaginary ambidexterity of those architects who attempted to design both in the Greek and the Gothic manner."

Both in England and in America the early nineteenth century saw the beginnings of a vast expansion of commercial



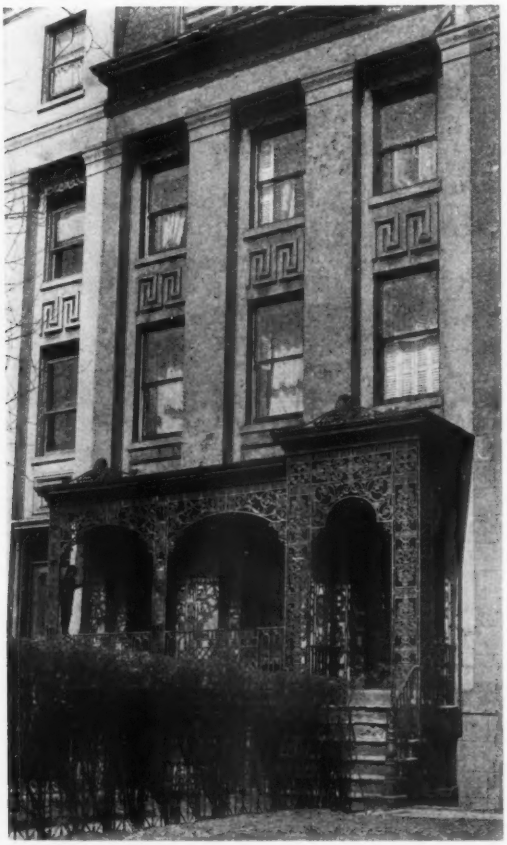
PORCH, WAVERLY PLACE, NEW YORK

prosperity. The invention of the cotton gin and of spinning and weaving machinery only a few years before marked the commencement of modern industries. Traveling facilities were improved first of all by the construction of good high roads, then by the cutting of an intricate system of canals and lastly by the introduction of the steam railroads.

Urban domestic architecture took on a new phase. The rapid expansion of the cities gave rise to a great building era and to the furtherance of speculative building, already a field for the ambitious architect's prowess under the brothers Adam and Robert Holland. Street archi-

tecture and town planning improvements grew into importance. The cities of America, notably New York, began to emulate the vast rows and blocks of houses that were being constructed in London and gradually took on a semblance of their forms.

All the while that the influence of Greek architecture and art were permeating contemporary thought, there was growing up quietly but insistently the Romantic movement that was to culminate in the Gothic revival of mid-Victorian days, and was already flowering in many places. This may be noted as giving rise to our modern eclecticism in



HOUSE ON WEST 23D STREET, NEW YORK

architecture, for, as we have seen, architects were becoming accustomed to design with equal facility in the Greek and Gothic styles.

A survey of our domestic architecture of a hundred years ago is not without its disappointments. While in the numerous public buildings and churches that were being erected everywhere, the architect had a free hand to indulge his fancies for the monumental to the full, yet in the more intimate problems of house planning and design the volumes of Greek research gave little inspiration. It is ex-

IRON WORK, WAVERLY PLACE, NEW YORK

actly this quality of intimacy that one fails to discover in the work of the Classic school and probably the reason for it is as much to be sought for in the personal characteristics of the age and of its artists as in the style. Relish for precision in every department of life, coupled with historical passion and fervor, was the dominating thought of the era.

Before taking up in greater detail the city house of this period, it might be noted in passing that the country houses invariably followed the models of English design which were largely conceived in an affected version of the medieval castellated style for which the sentiment of the day was responsible. Our American

builders translated these pseudo-romantic designs into terms of one inch scantling painted a color to suggest the hue of a medieval ruin and sanded to imitate stone. Perhaps the variations of taste will some day swing around to a point of admiration for these Victorian castles, but it is to be feared that they will no longer be standing when that occurs.

The general characteristics of city house design of this period are a logical development of the tendencies toward massiveness and restraint. Taste had tired of the inconsequent ornament of Georgian days and was suffering with a surfeit of its pettiness and delicacy. That it had nothing nearly so charming to substitute in its place was of little importance to the growing spirit of archeological accuracy.

American Architect Decorated by King of Spain

Mr. Charles P. Huntington has been created by His Majesty, the King of Spain, a Knight of the Order of Isabel the Catholic, in recognition of his architectural work in connection with the Hispanic Society of America.

Collecting "Fire Marks"

Many things are "collected" by individuals who find pleasure and education in accumulating all sorts of unusual things. We learn from *The Architect and Contract Reporter* of London, that the cult of the "fire-mark" collector has developed with a widely spread hobby. It was the custom at one time, not only in Europe, but in this country as well, for fire insurance companies to supply the assured with a lead or iron "fire-mark," to be attached to the front of the building, to attest the fact of its insurance against fire.

The article above referred to states:

"The general public view with a sort of amusing bewilderment the signs exhibited at Lancaster House Museums and the Guildhall in London, or those shown by provincial collectors.

"These old tablets, with their quaint sooty appearance saved in past generations both life and property.

"It is pardonable curiosity for the uninitiated to inquire as to why a householder or property owner in past generations could not be insured unless a piece of lead bearing a stamped number was affixed outside his house. The answer is to be found in the fact that an exceedingly uncharitable custom prevailed amongst these few pioneer fire offices in the primary period of fire insurance, which operated as follows. Assuming an alarm of 'fire' was raised, some of the watermen firemen (each early office possessed its own firemen) belonging to, we will say, 'A' office arrived on the scene. Assuming furthermore that the mark on the wall bore 'B' office's device, the 'A' people departed. The burning building not being assured with 'A' it was no concern of 'A's' firemen regarding its fate!

"It was the custom furthermore for a reward to be given to the first person arriving to announce a fire. The mark often proved invaluable for that which we should, in these days, term first-aid. It has its uses, too, as an advertisement. In short, the little emblem was an important metal object, possessing in addition to its utilitarian side an artistic merit, being often beautifully fashioned by some old leadsmith."

Utilizing Old Wooden Staircase

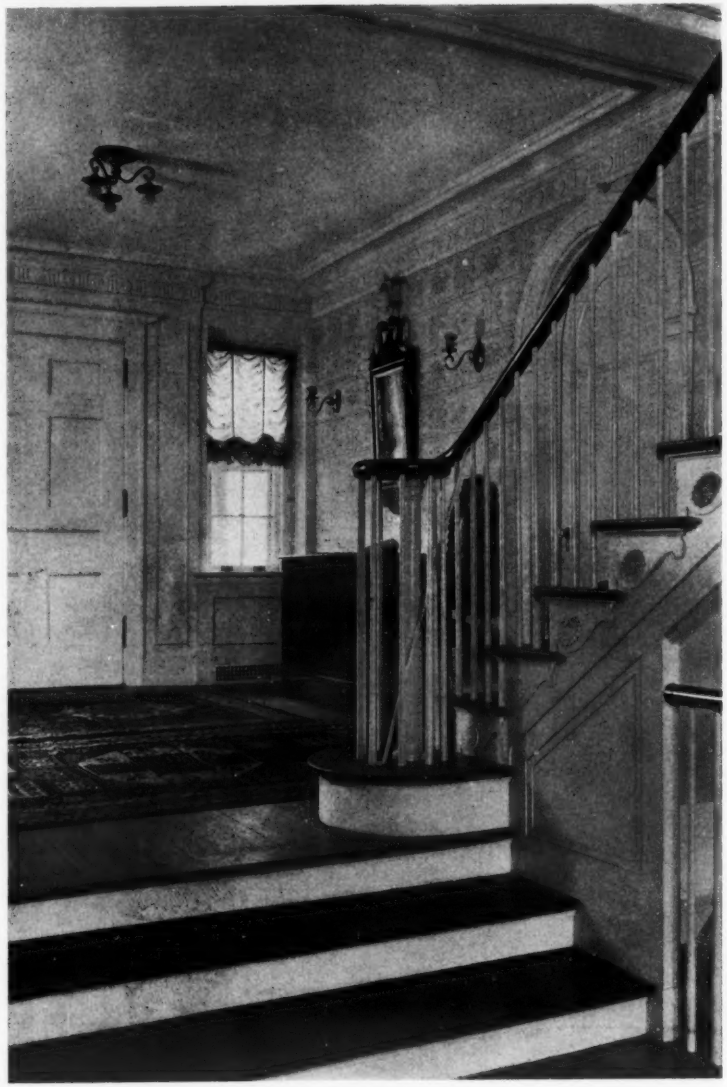
A wooden stairway constructed a century and a half ago of native pine, in the famous old Johnson homestead at Newburyport, Mass., was found by a Boston architect to be in such excellent condition and such a splendid example of the best type of colonial architecture that he has purchased it and removed it in its entirety for use in the new residence he is now constructing for his own occupancy.—*Southern Architect.*

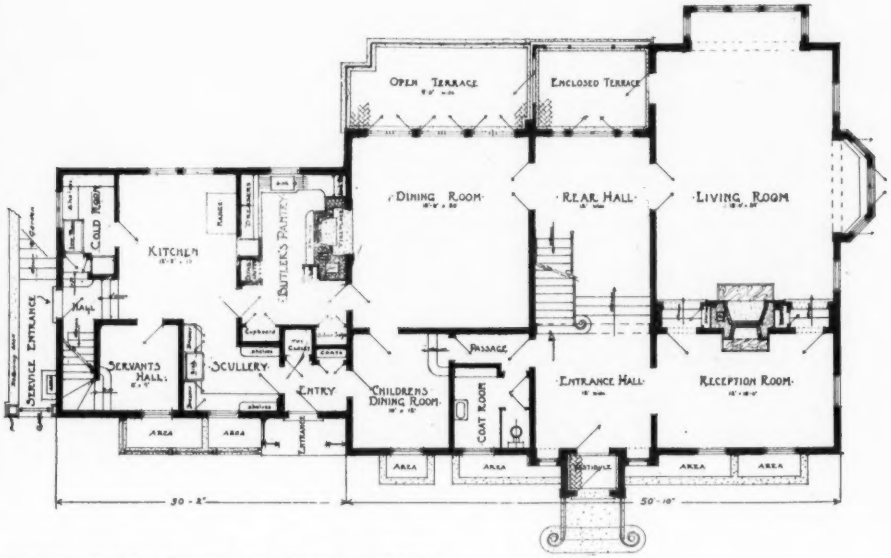
XUM

HOUSE OF BAYARD BARNES, ESQ., NEW HAVEN, CONN.

MR. EDWARD C. DEAN, *ARCHITECT.* MESSRS. MURPHY & DANA, *ASSOCIATED*

XUM





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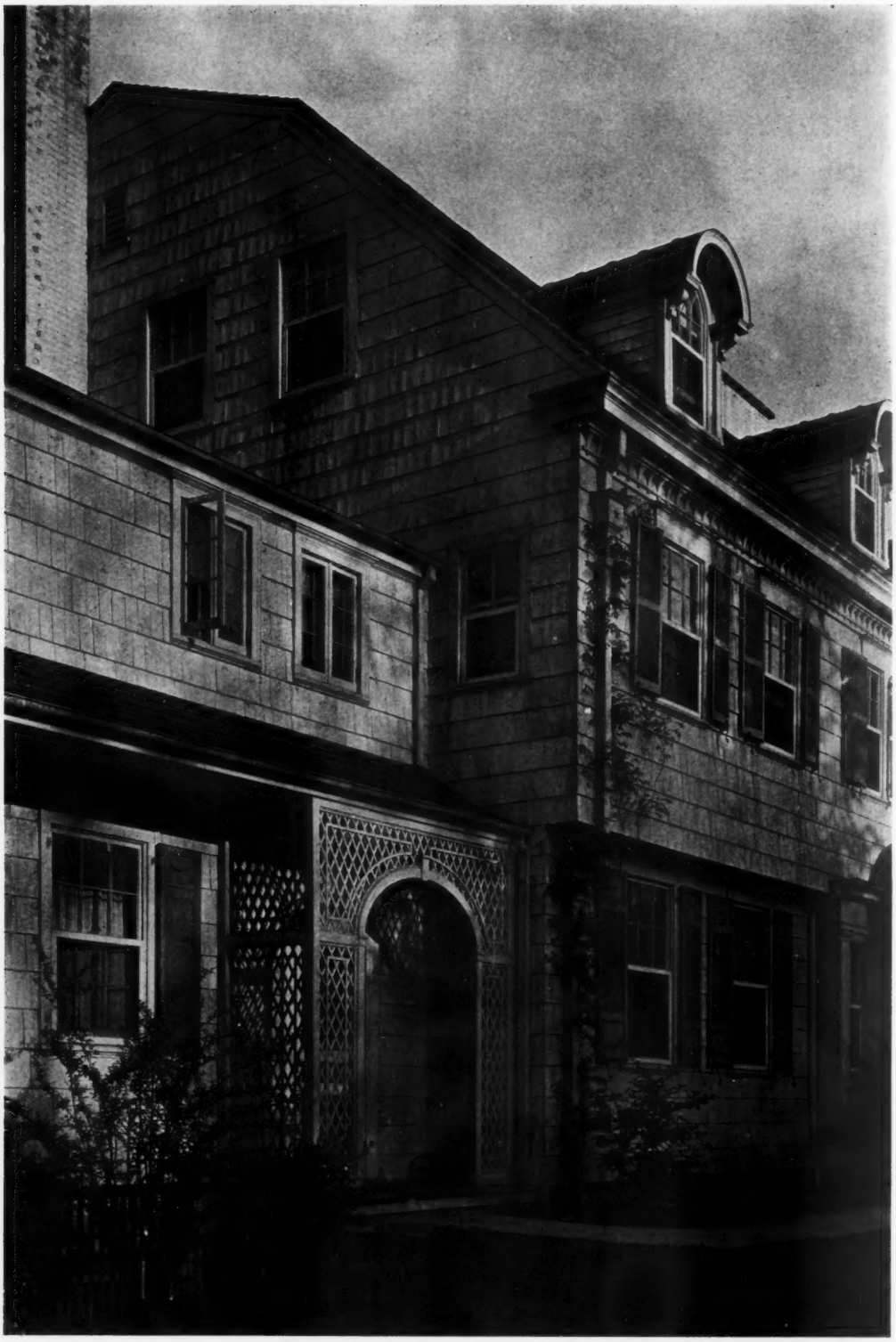

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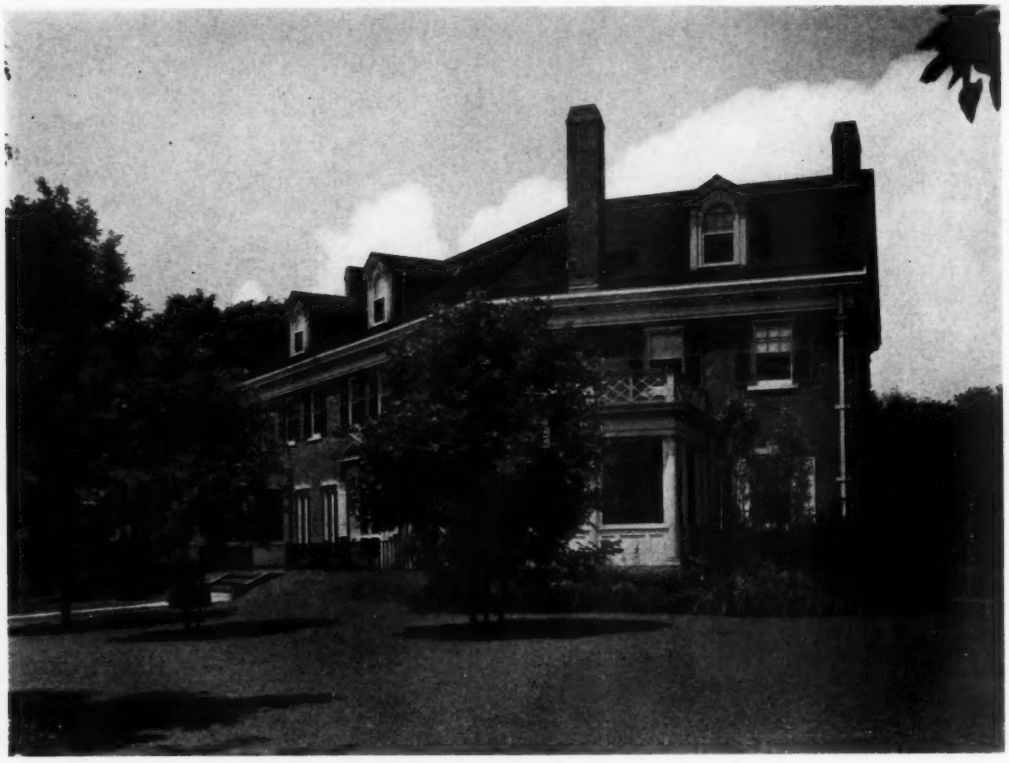
HOUSE OF C. L. DAY, ESQ., WINNETKA, ILL.

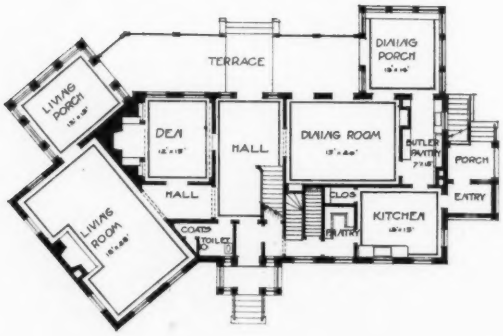
MESSRS. OTIS & CLARK, *ARCHITECTS*

Non-fireproof construction—Shingle roof, exterior walls brick, concrete foundations. Interior finishes, oak and white enamel. Hot water heating system. Cost per cu. ft., 25c.

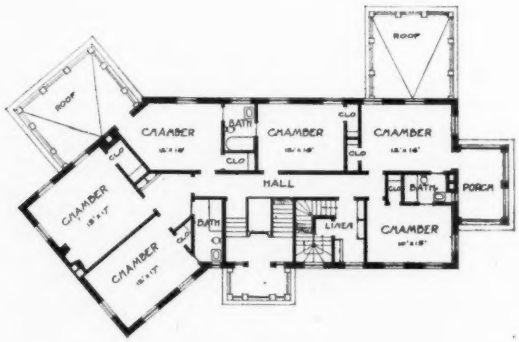
XUM



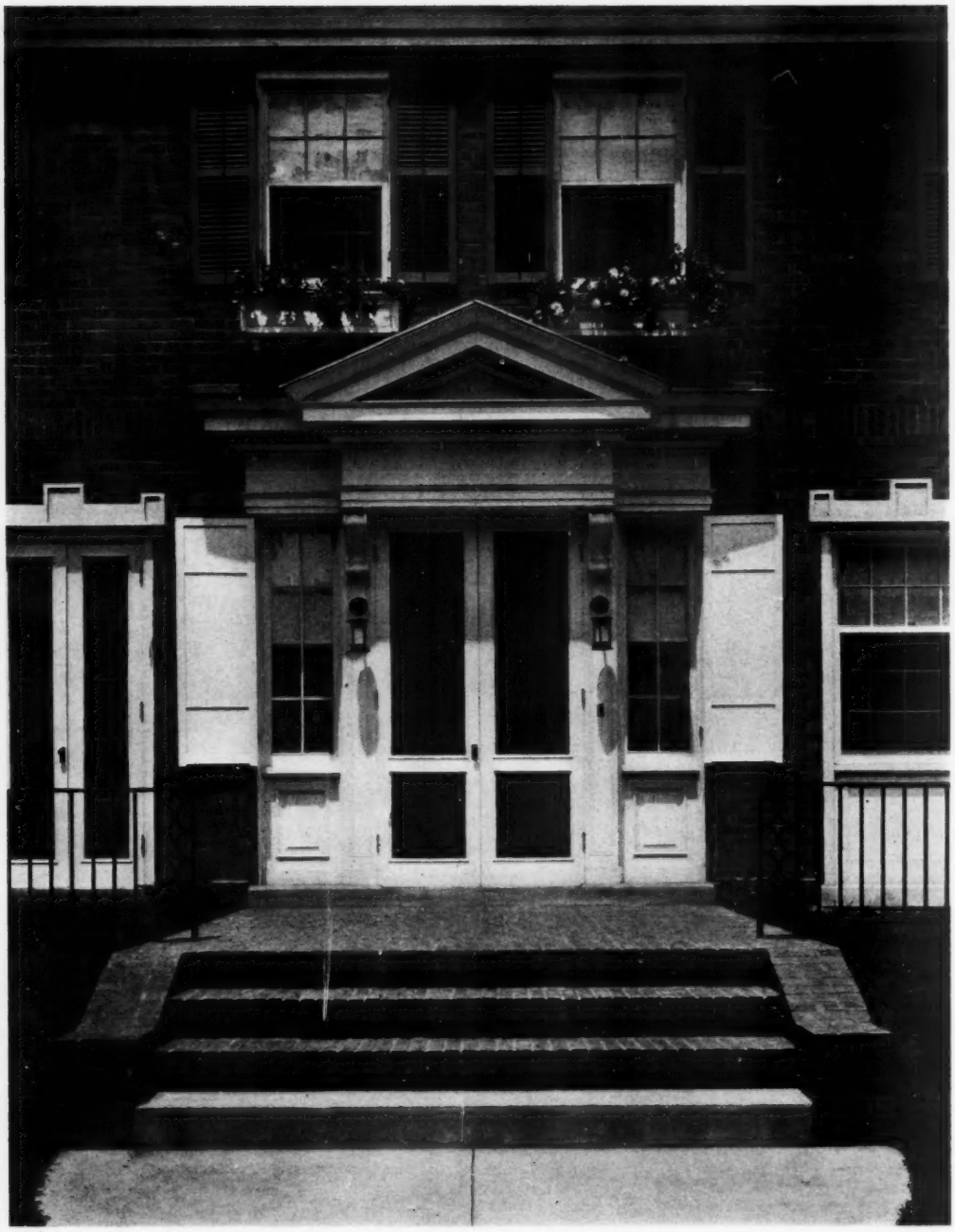
TERRACE FRONT



HOUSE OF C. L. DAY, ESQ., WINNETKA, ILL.



MESSRS. OTIS & CLARK,
ARCHITECTS



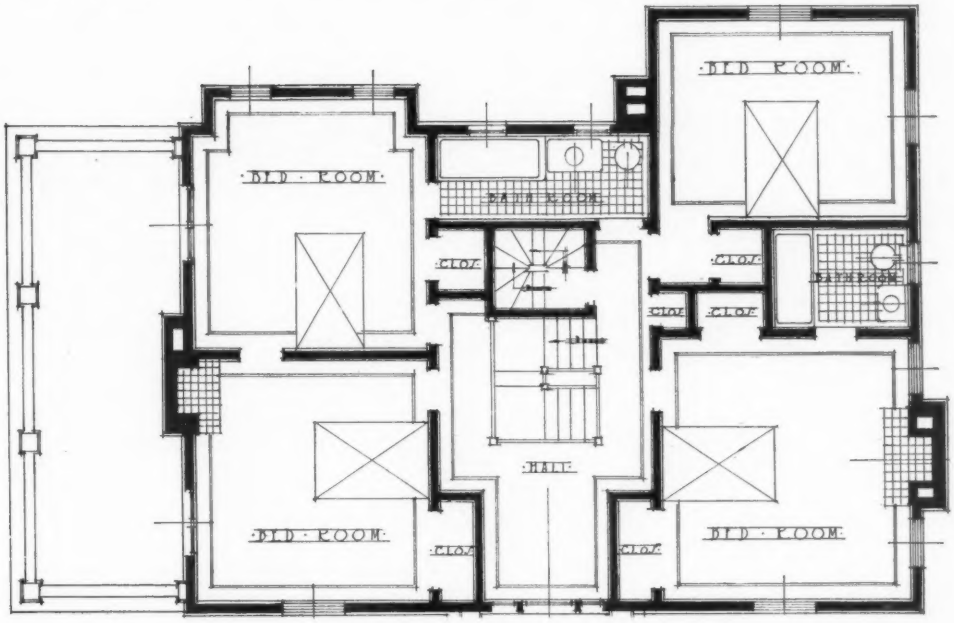
TERRACE ENTRANCE

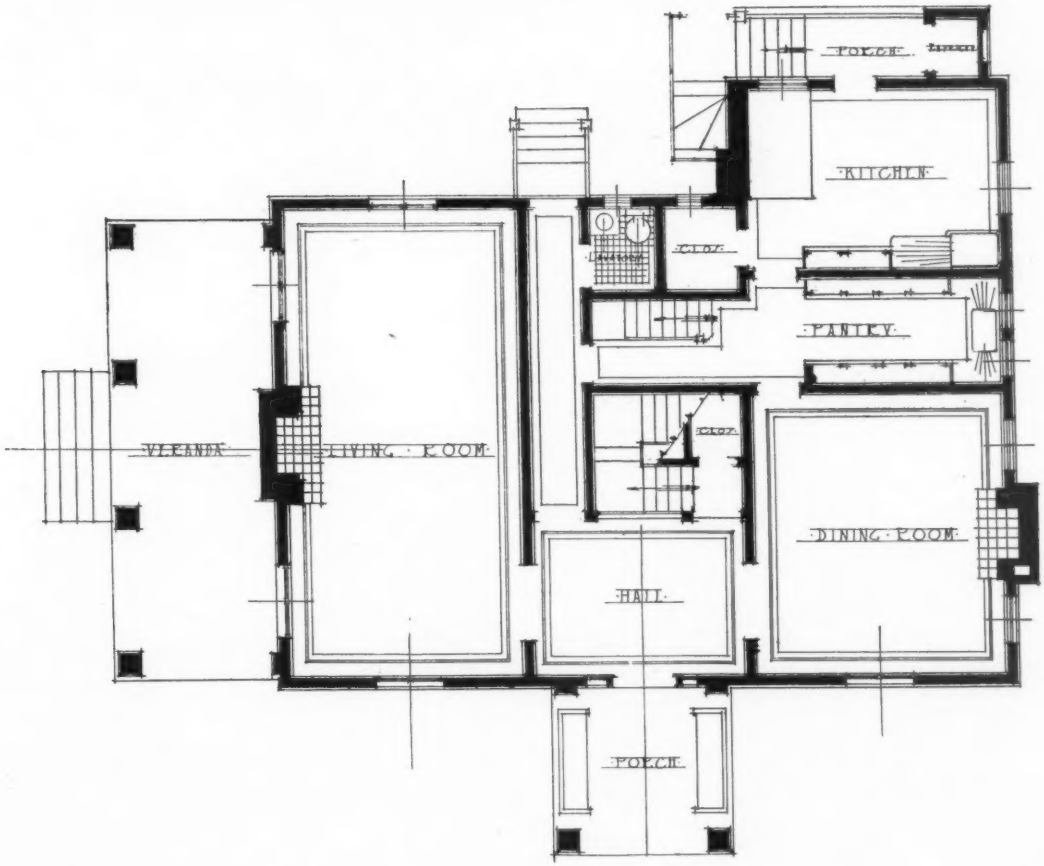
HOUSE OF C. L. DAY, ESQ., WINNETKA, ILL.

MESSRS. OTIS & CLARK, *ARCHITECTS*

HOUSE OF F. L. PALMER, ESQ., SAILORS SNUG HARBOR, N. Y.

MESSRS. PALMER, HORNBOSTEL & JONES, *ARCHITECTS*





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MESSRS. PALMER, HORNBOSTEL & JONES, *ARCHITECTS*

HOUSE OF BURR N. EDWARDS, ESQ., CHEVY CHASE, MD.

MR. JOHN M. DONN, *ARCHITECT*

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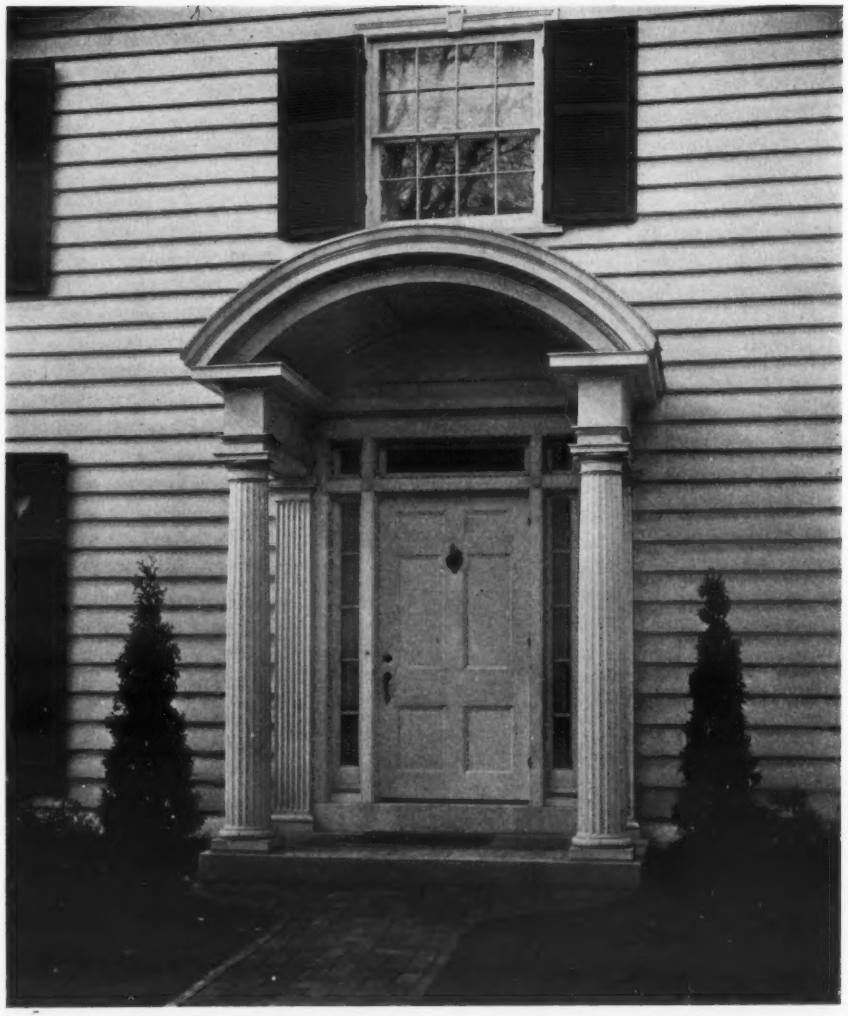

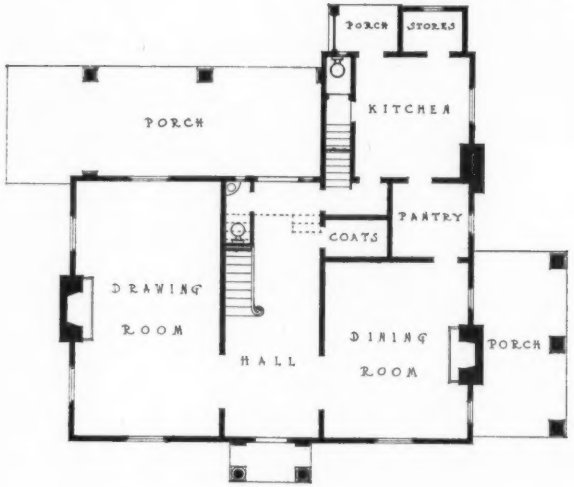

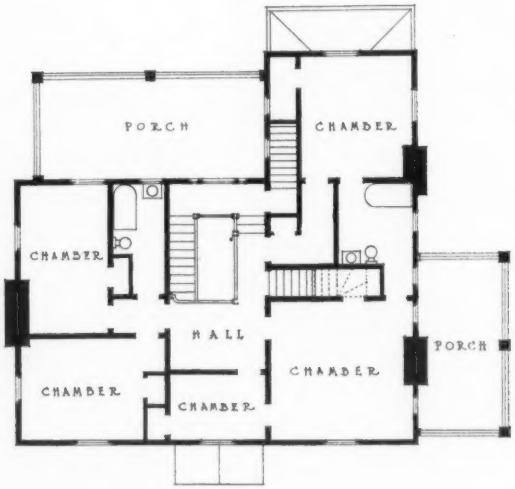

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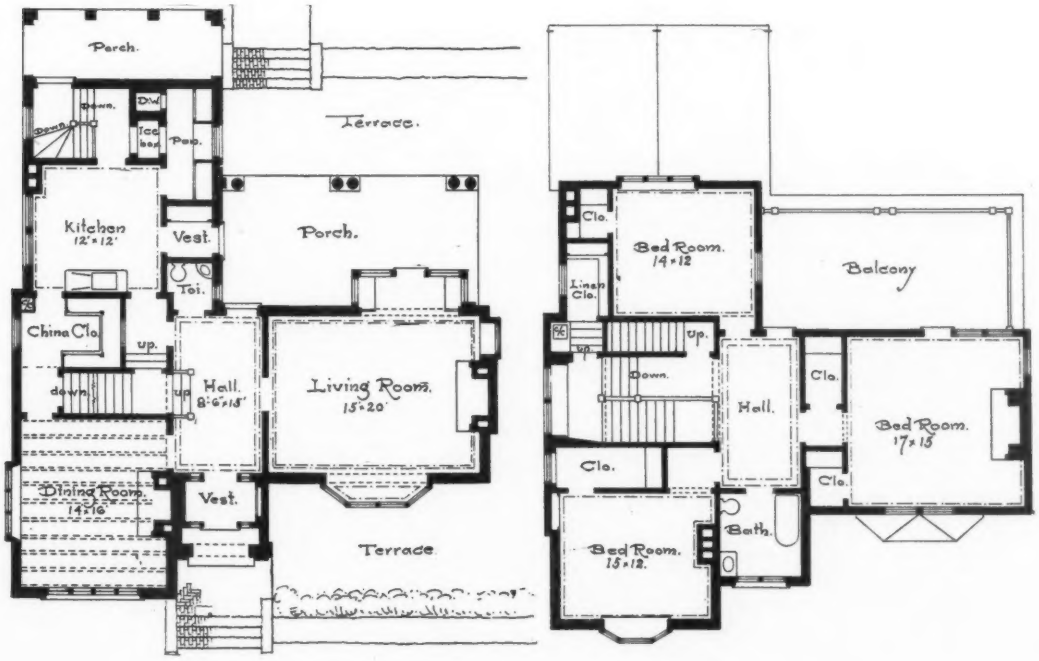

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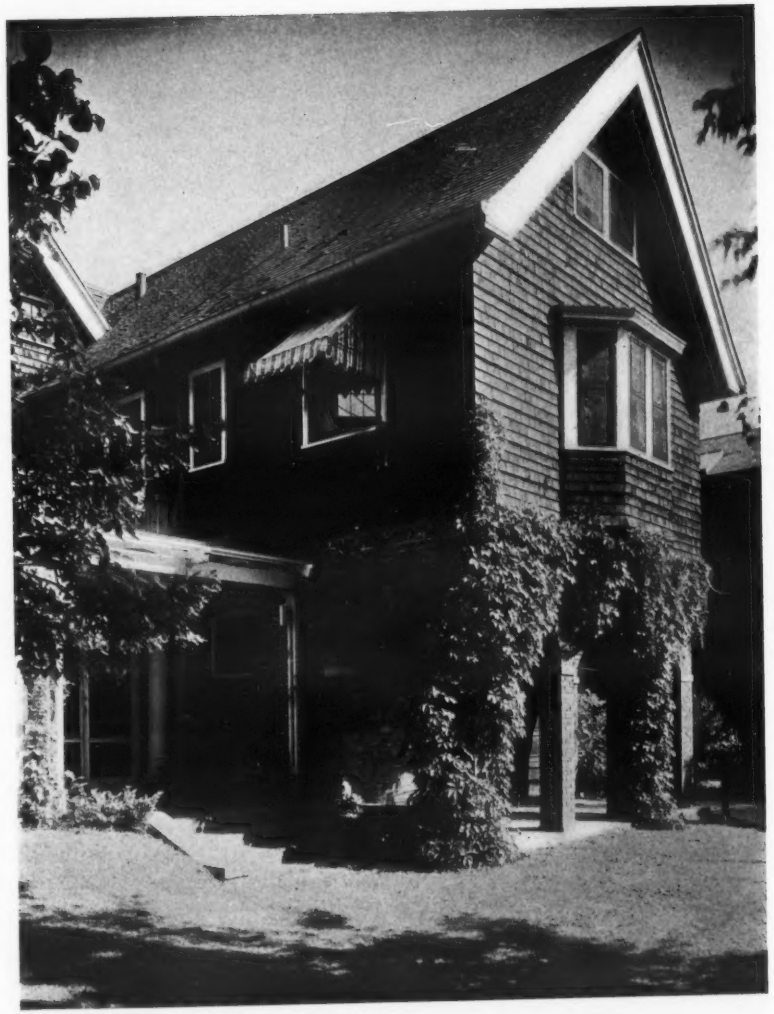

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THE PROGRESS OF THE CAMPAIGN AGAINST BILLBOARDS

THE crusade against the billboard has, beyond the shadow of a doubt, the approval of all those who are interested in the beautification of cities, whether they belong to the professional ranks or are simply laymen with an appreciation of the beautiful. The campaign is being carried on in the interests of both property owners and private individuals and is only opposed by a comparatively small but financially powerful class that is receiving its profits from exploiting these nuisances. However strong and forceful the arguments may be that are used to convince the public, and those who have it within their power to curb and limit billboards, that their unregulated use depreciates values of every description, it is only in the form of concrete legislation that we can actually record the results that are being achieved in the fight; just as in a war between nations, the territory gained or lost is a better index of the opponents' strength than the amount of explosives used.

At present the attention of all interested in this movement is focused upon several states where laws limiting the use of billboards have been passed. In Connecticut the legislature last winter passed a law putting a tax upon billboards advertising products not kept in stock upon the premises. The law is manifestly aimed at the unsightliness of billboards generally and the many acts of despoliation perpetrated by the bill-posting companies in erecting their structures indiscriminately throughout the country. In fact, those who have been active in securing the passing of the law assert that the real intent of the legislators was to prevent the further use for advertising of country barns, fences, large rocks and other places along highways, trolley and railroad lines, which render unsightly the landscapes and scenery that present an otherwise attractive appearance. A test case of the Connecticut law was promised upon its passage and will probably work its way through the courts, but regardless of the ultimate outcome of such action, the passage of the law was in itself convincing evidence of the trend of public opinion in Connecticut.

In New York State an amendment of the Penal Law has lately gone into effect which is even more directly aimed at the particular phase of the nuisance mentioned above. It makes the displaying of advertising upon any object within the limits of a public highway or upon any building or object that is the property of another without first obtaining the owner's written consent, a criminal offense. Perhaps of all objectionable phases of advertising the practice of disfiguring public or private property without permission from those responsible for its appearance is the worst and most despicable. The advertisers who disdain proper channels for advertising and defile both the city and the natural beauties of the country with signs that often occur where least appropriate, seem absolutely devoid of any artistic appreciation or consideration for the sensibilities and pleasures of others; their activities have rendered the majority of views obtained from the windows of railroad trains and

motor cars a succession of hideous prospects.

In a decision rendered not long ago by the Supreme Court of Illinois, the present billboard ordinance of Chicago was upheld and the principle underlying it given legal endorsement. Indeed the measure has been declared more than valid, the reasoning of the decision giving indication that there is legal justification for an even stronger ordinance dealing with billboards than the one in force. An appeal has been made to the Supreme Court of the United States and in the meantime its supporters are seeking to fortify and strengthen the measure. The city council is now asked to prohibit entirely billboards within 250 feet of hospitals, schools and churches, in blocks in which one-half or more of the buildings are used exclusively for residence purposes, and in vacant lots adjoining residence blocks. This is carrying prohibition of the nuisance to a gratifying extent and indicates the progressive attitude of Chicago.

THE MUNICIPAL ARCHITECT

BASING the suggestion on the number of cities that appear from press reports to be considering the appointment of an official architect, it would seem as though it might be worth while for architects and others interested in the architectural welfare of the country at large to collect and collate all available data regarding the employment of a municipal architect under such conditions for use wherever this indubitable menace to architectural growth becomes sufficiently grave to warrant action. It is believed that such data if carefully gathered and presented would prove conclusively that where the experiment of a city architect has been tried the cities affected have suffered from a material increase in architectural expenses and an indisputable lowering in the quality of Municipal architecture. In spite of these facts we read from time to time, as we do now, the threadbare and specious arguments of aldermen and city officials urging the appointment of a city architect as a measure of unquestioned economy. To make it necessary for each city to discover from its own experience the truths which have already been learned by others seems to constitute an economic as well as an artistic loss, and one that should under the circumstances be preventable. The experience of others, while not perhaps as conclusive as our own, has, nevertheless, an undeniable influence upon us, and when it can be shown that an experiment has proved uniformly unsuccessful, when performed under conditions that cannot be improved, it might be expected that a city would be loath to undertake it.

ADVERTISING ARCHITECTURE

By R. S. Fanning

Instructor Architectural Design, University of Illinois

In this day of awakening municipal pride among American towns and cities, there comes the realization that the general aspect of most of our civic centers is that of rank commercialism. This may be a true portrayal of our present-day life, and entirely commendable, could this impression be given to the observing visitor without the feeling that for commercialism all orderliness and art are sacrificed.

The stranger visiting in a home is very apt to form an impression of its owners by the furnishings, the pictures and the general atmosphere of order or disorder. So the traveler, consciously or unconsciously, will form an impression of a city by the aspect of its streets, its public buildings and its parks. If conditions are attractive, the spectator becomes a patron, a willing client or investor, in much less time and with less persuasion than would be the case if the environment was unattractive or distasteful. If then an attractive city is a financial asset to its people and industries, the question is how to obtain the most pleasing and satisfying effects with the least interference with private business and the least expenditure of public funds.

One of the greatest menaces of our municipal beauty is the uncontrolled advertising visible on every hand. Advertising may be necessary, but its purpose is surely to attract favorable attention and not to offend the general public.

Would it not be possible for the advertising promoters, whom we must all admire for their energy, originality and seemingly boundless resources, to be brought into harmonious co-operation with the architect and landscape designer —even as the painter, the sculptor, the engineer and innumerable other professions are co-workers for mutual benefit.

The glaring electric sign slashing the restful shadows that are striving to ease the turmoil of the tired city, the striking stunts of the electrician's art, and the dazzling brilliance of some misdirected flash —all tend to startle or disturb the observer rather than impress him with the merit of the article advertised. Few of these electric signs can boast of any artistic merit though clever and ingenious in many ways. The money expended nightly for electric advertising in any one of our large cities would go far toward embellishing the environs of these signs in a manner that would be of much greater pecuniary value.

If electric signs or other advertising devices are to become a part of a building, these features should form a part of the architect's problem of design. With careful study they might serve as a means toward sincere decoration, rather than foreign appendages annexed with no thought of the design of the building itself. A few recent examples in theater façades and rarer instances of office buildings where the exterior illumination has been considered as a part of the design, suggest the great possibilities along this line.

Bill posting is another phase of advertising that it would seem should be under the supervision and control of the Park and Road Commissioners of the country to a greater degree than it is at present. Confining posters to certain boards designed for their purpose, but so arranged as not to conflict with a full appreciation of the beauties of any architectural or landscape feature, would serve the advertiser's purpose and add spots of color and interest in a city plan at places where such color and such interest are alone permissible.

The countryside deserves even more consideration in the matter of controlled bill posting than does the city. Nothing could be more distressing to the real lover of nature than some of the hideous bill

boards that mar an otherwise delightful sylvan vista, or the besmearing of rock faces and farm buildings with commercial announcements visible for miles.

Until something is done to make advertising a subordinate part of municipal and landscape design many of the finest views that our cities and countrysides afford are to be deprived of much of their charm by the selfish greed of some unthinking individual simply possessed with an overabundance of commercial enterprise.

Imitation in Decoration

THE thing that ought to be very much insisted upon with imitation is this—first of all, that it should only be used where the real substance would be appropriate, and secondly, that it should be used in such a manner as to help the general harmony. It is a very common thing for the rather thoughtless critic to condemn imitation as a whole and to refer back to some imaginary century when people would have done something better; but if you look back through a good many centuries you will not find an age in which imitation was not used. Years ago it was a very common thing for the staircases in houses to have marble papers. It had the practical advantage of being varnished and lasting longer than other paper. But many of the houses in which this was done were houses of the lodging house type. How inconsistent to have a marble staircase in a $240 a year house! It is in these things that one ought to judge the legitimacy of imitation. On the other hand, a grained oak door appears to be a legitimate imitation if it answers the purpose of making a harmonious result. The grained door is a simpler and cheaper substitute for the oak, and it has the advantage that it lasts about three times longer than a plain painted door would do. There used to be a strong prejudice to condemn imitation wherever it was found; but that seems to be an absolutely wrong point of view. People who abused the painted imitation of marble in some cases substituted for it a veneer of marble three-quarters of an inch thick—but that is only an imitation of marble structure. There is no doubt that if imitations are used with judgment, and with proper regard to their fulfilling the purpose required, whether for harmony of color or for practical use—there is a legitimate place for them, and some beautiful imitations have been used within the last 30 years. Take the embossed papers in imitation of leather, for instance. There is no reason why papers embossed should not be as good as leather embossed. A good embossed paper is quite as legitimate as leather embossed. It may not be so interesting from the antiquarian point of view, but from the decorative point of view, if it is well done and can produce equally good effects, an embossed paper is quite as legitimate as embossed leather.

These are a few points that have not been sufficiently considered by the critics who condemn imitations, root and branch. The nineteenth century, which has produced some of the ugliest as well as some of the finest work, is the only century which has thoroughly condemned imitation in decoration, and the nineteenth century, take it all in all, is not in a very much better position for criticism of decorative work than some of those which preceded it. A good deal of the criticism arose from the fact that imitation was very indiscriminately used and without judgment.—*Decorative Furnisher.*

Personal

Mr. W. M. DeKalb, architect, formerly of Chattanooga, Tenn., is now located in the Holland Block, Lima, Ohio. He is successor to John A. Chapin, architect, who recently died. Mr. DeKalb will be glad to receive manufacturers' catalogs and samples.

Mr. Jos. J. Gander, formerly with Ludlow & Peabody, architects, New York City, announces the opening of an office at 61 State Street, Albany, N. Y., for the practice of architecture. He will also be associated with Charles G. Ogden on the new interiors of the Albany City Hall.

Book Note

THE ARCHITECTS' AND BUILDERS' POCKET BOOK. A handbook for architects, structural engineers, builders and draftsmen, by the late Frank E. Kidder. Sixteenth edition, rewritten. Full flexible cloth. 1800 pp. Price, $5.00. New York, John Wiley & Sons, Inc.; London, Chapman & Hall, Ltd.

It is not necessary to in any sense review this work. It has been for many years considered one of the standard reference books for those interested in construction or engineering problems.

Each succeeding edition was during the life of the author carefully revised and brought up to the latest methods of practice. Since Mr. Kidder's death, this revision has been entrusted to a competent editor and staff of associates. In the present edition the compiling editor is Prof. Thomas Nolan, and the associate work in every department has been undertaken by men of first rank in their respective fields.

A RECENT LEGAL DECISION

CANNOT REQUIRE AUDIT

(*Pennsylvania.*)—A provision in a building contract authorizing the owner to terminate the employment of the contractor for failure to supply sufficient properly skilled workmen or to prosecute the work with promptness and diligence, and to enter on the premises and finish the work, and providing that expenses incurred by the owner in so doing should be audited and certified by the architect, does not require the expense of completing the work to be audited where the contractor defaulted and abandoned the work.

In Hardie v. Bateson, the plaintiff owner of a building in Pittsburgh brought this action to recover on a contractor's bond. The contractor had failed to construct the building in accordance with the plans and specification, in fact he had abandoned the job. The bonding company objected to any liability on the bond claiming that the owner had failed to have an audit made and certified to by the architect showing the value of the work completed at the time of the default and the cost to complete the building.

The bonding company insisted that the building agreement contemplated such audit.

The court held that the failure to make an audit in no way released the surety company from liability. The agreement provided that if the contractor failed to supply skilled workmen or to prosecute the work with promptness and diligence, the owner might take possession of the premises and complete the work and then secure the architect's audit to determine the value of completed work. No provision, however, was made to require an audit in the event that the contractor abandoned the work. (Hardie v. Bateson, 97 A., 464.)

Trincomali Wood of the East Indies

TRINCOMALI is an Indian trade name given to a wood botanically known as *Berrya ammomilla*, which is one of the largest and most useful timber trees in Ceylon. The tree is called halmalilla and amomilla in Ceylon and petwun in Burma. It belongs to the linden family of plants and is, therefore, closely related to the American basswood and common lime or linden of Europe. It is larger, however, than the lindens and the wood possesses a community of physical and mechanical properties that are superior to those of the lindens. The largest trees of this species are found in Ceylon and Burma, where they frequently attain a height of from 80 to 100 feet and from 2 to 3 feet in diameter near the base. The bark is quite thin and smooth and by these characters the tree can easily be distinguished from its associates, among which is the teak. Trincomali has a rather extensive distribution, being found throughout southern India, Ceylon, Burma and on all the islands of the Malay Archipelago. The commercial source of the timber is Ceylon and Burma. While some of the wood is shipped to the English markets for special purposes, the bulk of the material exported is consumed in

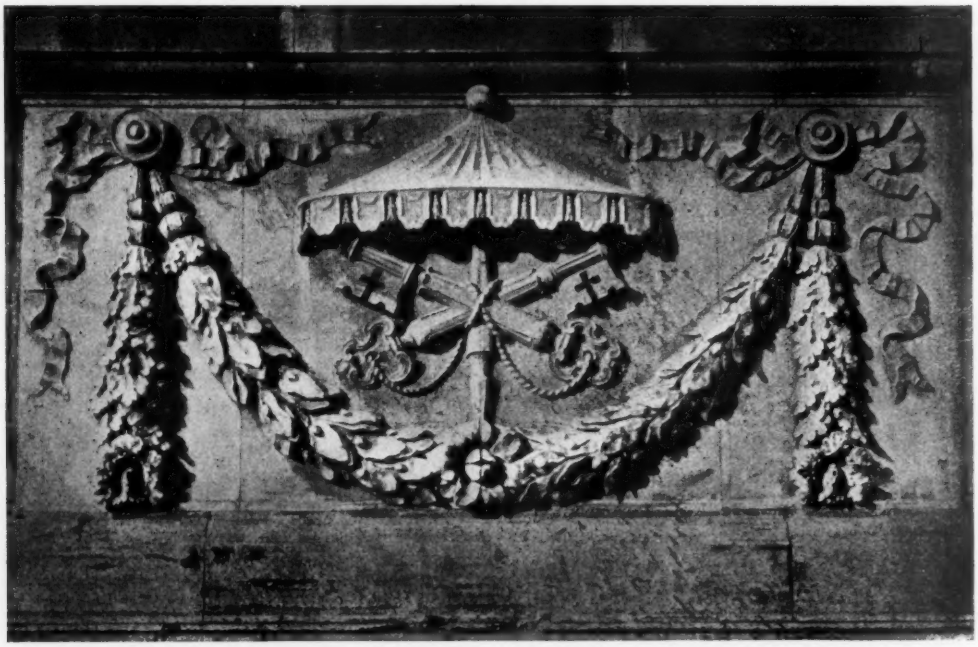
Madras, where it is highly esteemed for many important uses.

The heartwood is the only portion of this tree that is used. The sapwood, which is light yellowish brown in color, is very narrow, rarely over an inch in width in mature trees, and consequently there is very little waste in converting the logs into lumber. The heartwood varies from orange red to dark red or reddish brown and is very hard, and close, straight and even-grained. It has a lustrous surface and a soapy or damp feel which lasts a long time after the wood is cut, reminding one somewhat of satinwood, for which trincomali could be substituted successfully. The wood is moderately light in weight; thoroughly air-dried wood has been determined to vary from 52 to 60 pounds per cubic foot.

Trincomali has characteristics that render it very acceptable for many uses. It turns very well, planes to a very smooth surface and polishes beautifully. While it is said to be difficult to saw, it splits easily, leaving a perfectly straight surface, especially in the tangential direction. It is also very durable in contact with the soil and does not rust iron when placed in contact with it. Trincomali is said to be proof against marine borers, but this claim has not been fully substantiated.

Although trincomali is closely related to the American basswood, the two woods have little in common so far as their structural characteristics are concerned.

The wood is admirably adapted for a good many purposes and in India it is employed extensively in house construction. It is one of the best woods for posts, beams, scantlings, flooring and panels in houses. On account of its toughness and lightness it is much prized in boat-building and for making agricultural implements. In Madras it is employed in the construction of masula surf boats, Sampans, oars, ploughs, harrows, axe-handles and bodies, shafts, axles and yokes of carts are made of it. The wood finds a large use in the manufacture of naves, spokes and felloes of wheels, spear handles, gunstocks, karen bows, staves, and handles of all kinds. It is used also for paving blocks.



DETAILS OF CRAFTSMANSHIP. VI.—CARVED ENRICHMENT ON STONE PLINTH, CHURCH OF ST. JOHN LATERAN, ROME.

From Architects and Builders' Journal (London)

INDUSTRIAL INFORMATION

Blowers

The American Blower Company, Detroit, Mich., has issued Bulletin No. 17, series 3, which supersedes No. 17, series 1, devoted to "ABC" heaters. They have also issued Bulletin No. 17, series 4, on "ABC" Unit Heaters.

These two bulletins are punched for inserting in the American Blower binder. They describe in detail the products to which they are devoted and give information of use to the designer of heating and ventilating apparatus. They will be furnished to architects upon request.

Hydrated Lime

The Hydrated Lime Bureau of the National Lime Manufacturers' Association, Arrott Building, Pittsburgh, Pa., has issued a manual for the architect, engineer, contractor and builder, setting forth the history, manufacture and uses in plaster, mortar or concrete, of hydrated lime. In presenting this book to the public the purpose has been to direct attention to the comparatively new form of lime, designated as hydrated lime which possesses many advantages, it is claimed, over the older lump lime.

It has been the aim of the author, E. W. Lazell, to collect in convenient form all the available data on this subject, and it is hoped that the book may prove useful to the profession. The work is divided into chapters and so arranged that the information which it contains is readily available to the user.

Copy of the work may be had upon request.

Request for Building Data

The Cyma Architectural Fraternity of the University of Minnesota, Minneapolis, Minn., will be glad to receive catalogs and information regarding building materials for the use of their reference library.

Glass and Glazing

National Glass Distributors' Association (Eastern representative, G. Osgood Andrews, 393 Canal Street, New York City; Western representative, Melville G. Holding, 809 Harris Trust Building, Chicago, Ill.) has prepared and issued a pamphlet of forty-six pages, the object of which is stated as follows:

To present to the users of glass a standard or guide for the architect, owner or contractor, by which the material may be better known and more readily understood. It is the intention to briefly describe the more important and different kinds of glass for building purposes, with regard to adaptability for certain definite uses. It is hoped that the suggestions contained in this booklet will enable those who have passed judgment to avoid the common errors which have invaded the field where no recognized authority has governed, and where abuses have often been permitted to appear in the absence of a strict and definite description of kind and quality. No general text book, it is stated, devoted to the selection of grades, or the standardizing of the material, has ever been issued in this country. Data concerning plate glass is given which will be found of practical value to every user. For example, extreme sizes in which sheets of plate glass can be secured are given; thicknesses are stated and prices are compared; weights also are tabulated and other data is given that is of undoubted value in connection with designing structures in which glass enters as an important material.

In addition to this practical information a great deal of data is furnished of a technical nature concerning the manufacture of glass, followed by suggestions concerning glazing. Metal store front construction is also treated as is leaded glass, wire glass, prismatic glass, prism glass, and the various special products such as Milk-white, Opalite, Vitrolite, Carrara Glass, etc.

Copy of the booklet will be sent to architects upon request.

Burt Products

THE Burt Manufacturing Company, Akron, O., has published a catalog setting forth in detail the various properties and merits of the oil filters, exhaust heads and ventilators manufactured by that company.

In the introduction to the catalog a short history of the concern is given from which it appears that the company began business in Akron in 1891 as makers of oil filters. From a small beginning the business has grown to large proportions, and in addition to the various types of oil filters, the company now manufactures Burt ventilators and the Burt and Standard Exhaust heads, with which it is stated a great number of manufacturing plants and public buildings have been equipped.

It is claimed that the Cross oil filter which this company has been manufacturing for over twenty years is better known and more largely in use than any other make of filter on the market to-day. This type is designed especially for filtering engine and common machinery oils, and for other duties the Burt "Unit" oil filter and the American oil filter are recommended. Through the use of the Burt Exhaust head it is claimed that the users of steam for power cannot only save money but avoid trouble and accidents. This device is attached to the exhaust pipe and prevents oil and wet steam from escaping.

By means of Burt Ventilators it is stated that impure air, hot air, smoke, steam or gas is taken out of any building automatically, and without any expense further than the first cost of the ventilator. Ideal ventilation consists, of course, in supplying fresh air to the interior of a building without lowering the temperature too far for comfort. It is claimed that the stationary ventilator of the Burt type is the most practicable and least expensive device for accomplishing this purpose. Due to the construction of this ventilator, it is stated that any movement of the outer air across the top of the "Burt" causes an upward flow of air in the air tube, and the air that is next to the ceiling—the hottest air in the building—is drawn out. The "Burt," it is claimed, prevents any back current of air and never becomes clogged with snow, ice or other substances. Further than that, it is simple in construction, noiseless in operation and moderate in cost.

One of the most important features of the Burt Glass-Top ventilator is that it constitutes both the skylight and the ventilator. Owing to the condition of the weather, it is sometimes desirable to close a ventilator, in which case the Burt can be entirely closed without in the slightest degree obstructing the passage of daylight through it.

Catalog can be had upon application.

Reznor Gas Heaters and Fireplaces

The Reznor Manufacturing Company, Mercer, Pa., has issued an attractive catalog printed in colors illustrating and describing the gas heaters and fireplaces manufactured by that concern.

It is claimed that the Reznor Reflector Gas Heater was the first of its kind and was invented by George Reznor over thirty years ago. The many improvements that have been added since that time have been made with insight and knowledge of the vital principles embodied in the original invention. This heater was designed for the home on the theory of safety and efficiency. The yellow flame burner was adopted because in the opinion of the inventor it possesses all the advantages and none of the disadvantages of the blue flame burner. It is claimed that the yellow or illuminating gas flame produces no odor; it maintains always a complete combustion of the gas, and having no mixer as a part of its burner is free from the danger of lighting back.

These heaters are furnished in connection with fireplaces, wall pockets, cast iron stationary heaters and portable heaters. This company also markets a line of drum heaters and blue flame fuel heaters. Capacities and detailed specifications for the various products are given in the catalog, which may be had by architects upon request.

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PERSPECTIVE

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