



THE NEW YORK ARCHITECT

A NATIONAL MAGAZINE DEVOTED TO THE
INTERESTS OF ARCHITECTURE AND
THE ALLIED FINE ARTS.

THE POLICY OF THE MAGAZINE IS DIRECTED BY
AN ADVISORY BOARD CONSISTING OF TWO ARCHI-
TECTS, TWO SCULPTORS AND TWO PAINTERS.

DONN BARBER, Editor
J. HOLLIS WELLS, Architectural Engineering Editor

SUBSCRIPTION—Ten Dollars a year in advance; Single Copies, One Dollar.

PUBLISHED MONTHLY BY

THE HARWELL-EVANS COMPANY

118 EAST 28TH STREET

NEW YORK CITY

THE NEW YORK ARCHITECT

VOL. 4

DECEMBER 1910

No. 12

The New York Architect

Entered at the New York Post Office as Second Class Matter

PUBLISHED MONTHLY BY

THE HARWELL-EVANS CO.

118 EAST 28th STREET NEW YORK

AUBREY HARWELL, Prest. JOHN R. EVANS, Vice-Prest. and Treas.
M. L. HOTCHKISS, Secty.
JACK MAJOR, Advertising Manager

SUBSCRIPTION RATES

One Year - - - - -	\$10.00
Six Months - - - - -	5.00
Three Months - - - - -	3.00
Single Copies - - - - -	1.00

DONN BARBER, Editor

CONTENTS

EDITORIAL

THE CITY HALL OF NEW YORK

John Quincy Adams

SOME INTERESTING FEATURES OF HOTEL CONSTRUCTION AS EXEMPLIFIED IN THE WORK OF H. J. HARDENBERGH.

THE PROGRESS OF AMERICAN BRONZE CASTING NOTES FOR ARCHITECTS

Illustrations in Photogravure

With the coming January number *THE NEW YORK ARCHITECT* will enter upon the fifth year of its existence, a year which is to mark the beginning of a new plan which both the editor and the publishers believe will make the magazine even more worth while than ever before.

It has been our desire and purpose since launching *THE NEW YORK ARCHITECT* to have it a *de luxe* publication in every sense of that phrase. To the best of our ability, we have endeavored to do so and the support and encouragement that we have received at the hands of our subscribers have confirmed us in our stand.

From eight to twelve copper plate photogravure illustrations have been issued each month in the body of the magazine; the subjects having been selected by the editor with a

view to providing for architects a series of interesting studies of the treatment of the highest type of building by the best known American architects. From time to time there have also appeared illustrations of the work of famous foreign architects and artists from a private collection of pictures which has been placed exclusively at the disposal of this magazine. Plans of each building have been published wherever feasible and descriptions together with other articles bearing on timely architectural subjects have been published editorially each month.

It has been proven that such an expensive publication can be made practical as well as attractive by the increase in our subscription list and the almost daily receipt of commendatory letters from all parts of the country and from foreign countries. These testimonials have encouraged us to inaugurate a still more beautiful magazine. From now on our editorial pages will be printed on plate paper. Another improvement to which we wish to call special attention is the treatment of our advertising section. We will eliminate all type advertisements and will accept only a limited number of photogravure advertisements. In this way we shall present to our subscribers a selected list of manufacturers whose products they would be likely to use and shall endeavor in this way to bring the advertiser and the architect into closer touch with each other in the right way.

Our editorial pages will contain each month at least one signed article by either a prominent architect or a well known man outside the profession who has something of interest and value to say to architects. There will also be an article on municipal improvement as *THE NEW YORK ARCHITECT* will take up an aggressive campaign in the interest of this movement. Other articles descriptive of buildings that are the subjects of illustration, articles on sculpture, decorative painting and various arts and crafts that are allied with architecture are promised from time to time.

It is our desire to keep in close touch with our readers and we trust that each subscriber to *THE NEW YORK ARCHITECT* will give us the benefit of his suggestion whenever any idea occurs to him that might be of value to us in our editorial work, and we shall always be glad to receive and read with a view to publication any article on any timely and interesting architectural topic that our subscribers may feel inclined to submit.

THE NEW YORK ARCHITECT

The problem of the addition to the Hotel Martinique, New York, was a peculiar one, full of difficulties and of interest to the architect. It called for a continuation of the original hotel which is situated on Thirty-third Street, and runs around a small plot of ground on which are low buildings and thence across to Broadway half way down to Thirty-second Street. The new addition begins where the old one left off and continues to Thirty-second Street, running for some distance down Thirty-second Street with the main entrance on that side. The location is just now one of the most important in New York as it fronts on Greeley Square and is within a block of the new Pennsylvania Terminal.

One of the interesting things about the building of this new addition is the fact that it is a visible proof of the growth of this particular portion of New York from a quiet residential neighborhood to the very heart of the shopping and hotel district. The Hotel Martinique was designed originally as an apartment house. Later it was found that the needs of the location demanded that it should be made a hotel. This was done and still there was not room enough for the growing demand of the neighborhood. A first small addition was then built a few years ago and finally the last addition, which with the exception of the small piece of property on the corner of Thirty-third Street and Broadway, gives the hotel a frontage of two streets and the Avenue with a concourse running through the hotel the entire length of Broadway between the two blocks.

In style the addition is French Renaissance and this has been carried out in a general way in the interior though there is a slight leaning toward the Spanish in the exterior details.

The important feature from the hotel's point of view is the fact that the addition and the old part connect directly, and yet in such a way that a large court has been introduced between the two buildings, giving light and air to those rooms that are grouped about the interior.

The architect has been particularly happy in his treatment of the corner suites looking down Broadway from Thirty-second Street. The hotel forms an angle at this point and this has been taken advantage of to make the parlors of the suites running up this corner elliptical in shape.

The ground floor provides for a large concourse or lobby at the right of which as one enters from Thirty-second Street is the splendid main dining room and to the left the Broadway cafe. Just underneath the Broadway cafe down a flight of marble stairs is the Grill which is probably the most unique room of its kind in New York.

This room is in treatment modern German, but not embodying the extreme Art Nouveau movement which is characteristic of so much of this work. The walls and massive piers simulate Caen Stone, the former, however, having a high wainscot of dark oak. The ceiling is vaulted, with one vast arch spanning the greater part of the room, with smaller ones impenetrating the larger, completing the vaults. On this ceiling is a unique design of arabesque in relief, starting at the spring of the arch with a figure also in low relief and spreading thence across the same, forming bands of ornament which take the place of ribs in indicating construction. The whole is decorated in warm tones of color, dull reds and orange prevailing. The floor is laid with deep red Mercer tiles and the lighting is done by two wrought iron chandeliers, also decorated in colors to recall the ceiling and candles set in highly decorative sconces on the walls.

The Broadway cafe is extremely simple in treatment, the walls of light artificial stone and the ceiling treated in the Italian Renaissance style, the ornament all in low relief. The modelling of this ceiling is one of the finest pieces of work of its kind in New York and the decorative painting has carried out the architectural requirements perfectly.

The corridor is extremely rich in decorative effect, the walls being of Greek Skyros marble in gray and yellow tints with a slight veining of purple. The coffered ceiling carries out this color scheme in rich dark tones.

The finest room in the hotel is the large dining room mentioned above, which was modelled after the Apollo Gallery in the Louvre.

In the latter room the woodwork is all of natural oak while in the original it is painted wood; the effect of this soft color of the wood, the carved portions of which are in dull gold, is extremely rich. Carrying out the design of the room in the Louvre, there are eight panels on the walls, each of which contains a life size three-quarter length portrait of an historical personage of the period of Louis XIV. Of these pictures Carroll Beckwith has painted four men and Irving Wiles, four women. Again the ceiling plays a prominent part in this room, but the decoration of the main panel is suggestive of what it is hoped may be done later rather than as a finished scheme. The draperies of this room are in deep rose with appliques of gold.

On the first floor (that above the ground floor) are three rooms which are to be noted; a Foyer in pure Louis XIV style, the dark oak woodwork of which is richly carved and the walls completely covered with a set of tapestries of the period. From this Foyer opens out the Tea Room, which has walls of artificial stone

THE NEW YORK ARCHITECT

covered with grillage in wood painted a delicate hue of green while the skylight over the entire room is concealed by rafters and grillage on which vines are entwined. Adjoining this is a Banquet Room, all in dark oak, the carvings touched in color, the style being Flemish.

Several details of the interior work are worthy of brief mention, including the carved wooden doors set with panelled mirrors which are used in the foyer hall above mentioned, the small vestibule leading to the grille room, which is done entirely in white glazed tile, and the bronze elevator doors which are in themselves works of art.

The hotel was formally opened at Christmas.



At the first annual dinner of the Fifth Avenue Association, held in New York last month, two rather striking points were brought out in the remarks of Senator Chauncey M. Depew and Borough President McAneny, the principal speakers of the evening.

Senator Depew spoke of the lack of pride among New Yorkers and pointed out the great task that lay before the Fifth Avenue Association in this respect. Mr. McAneny ignored that end of the subject, but outlined what the city government proposed to do to better traffic conditions and to improve the city generally.

The Senator declared that the only thoroughfare in the world that can compare with Fifth Avenue is the Champs Elysee.

"Fifth Avenue is another street from what it was five years ago when you began your work," he added. "The success of your movement illustrates the advance in public sentiment and the understanding of the situation by property owners. I remember, when there was an agitation twenty-five years ago to widen Fifth Avenue by taking off the stoops of the houses, the Fifth Avenue property owners formed an association and denounced the scheme as robbery, and the city press scarcely veiled the insinuation that it was a job on the part of the municipal authorities to blackmail; in fact, I think for a while it was a scheme never intended to go through, but to levy forced contributions along the line of the avenue.

"But you, representing the territory itself, speaking for your own advantage and that of your neighbors, and, in a sense, for the whole city, have convinced everybody that the widening of Fifth Avenue upon the lines which you have succeeded in accomplishing so far has been the greatest contribution to freedom of travel for carriages, trucks, and motor vehicles and for the development of high-class business along our best roadway since it was first laid out."

Mr. McAneny spoke of the Fifth Avenue

widening, saying that he believed it should be extended to Fifty-ninth Street, and told of other street widenings that will be commenced in the near future. He outlined the work of his new Bureau of Traffic Observation, and declared that much good would come from the designation of certain streets for certain kinds of traffic. As an example of this, he suggested that Nassau Street might be made a south-bound thoroughfare and William Street a north-bound thoroughfare; Forty-second Street west-bound and Forty-fifth Street east-bound.

It is plainly evident that gradually the idea that the great city of New York can be made to meet the tremendous new demands made upon it, in an artistic as well as practical way has now come to full maturity and that presently something real will be done.

The formation of the Fifth Avenue Association just entering upon its fifth year was the first step in the right direction and it was interesting to learn in recent interviews with many of its members who are large property owners, that they consider the architectural future of New York largely in the hands of its prominent architects.

The work of the American Institute of Architects has already begun to make itself felt in the stand that its members are taking in regard to the character of the work that they propose to do whenever they are called upon to execute an important commission; also their attitude on the subject of competitions so clearly outlined in Lansing C. Holden's article in *THE NEW YORK ARCHITECT* of last month.

It would appear therefore that the profession of architecture is about to take its place as a most important factor in public life and it now behooves its members to take a firm stand and to educate the public by their work to the point where the citizens of the United States will demand governmental legislation for and supervision of all important public buildings by a board of representative architects whether the structures are to grace the great commercial centers or the smaller growing towns.

An especially hopeful sign in this direction is the recent act of the Board of Estimate of the city of New York authorizing the Mayor to appoint a committee to investigate the possibility of appointing a city architect. The matter was brought up by Comptroller Prendergast, who submitted a statement which showed that architects' fees cost the city in 1907-1908 and 1909, \$1,381,000. He estimated that the establishment of an office by the city to take charge of this work would not cost more than \$100,000 a year.

Should this step be taken by New York it would probably mean that a governmental board is a matter of the not far distant future.

THE NEW YORK ARCHITECT

Ever since the New York Public Library has shown signs of being completed the public has watched with anxious and interested eye for some sign of life on pediment, attic and niche.

Once, for a considerable period, a venerable figure appeared at the south end of the attic, and we expected to shortly see a goodly company appear beside him. This hope, however, was not to be fulfilled and, after a time, he disappeared. Later, the Fifth Avenue throng was surprised to behold one morning two monster plaster casts in the semblance of lions proudly surveying the scene from their pedestals on the front steps. They, too, enjoyed but a brief existence, and now, save two large urns, the front of the magnificent new building is bare of sculpture.

Voicing the general query, we sought out Thomas Hastings, who has had this part of the work in charge for Carrere & Hastings, and found that the Library sculpture is progressing rapidly, and that it will all without doubt be in place next summer. Mr. Hastings has just returned from abroad where he visited the studios of the sculptors who are working at the various figures and groups and tells us that they are going to be all that architect and public can desire.

Frederick MacMonnies is doing the two fountain groups which are to occupy the niches at the right and left of the entrance. One is to represent "Truth prevailing over Error"; the other, "Beauty prevailing over Ugliness."

Paul Bartlett is executing the attic figures, of which the first—Philosophy—has been already tried out in place in plaster cast form. The others are—Religion, Poetry, Drama, Romance and History.

Charles Gray Barnard is doing the pediment figures which will represent, allegorically, Art and Science.

Edward C. Potter is the sculptor for the colossal lions which will flank the grand staircase. The uninitiated public amused itself for some days when the first tentative studies of these lions were unveiled and it was difficult for the architects to persuade those who wrote sarcastic, burning letters to the press that they were merely there to try the general architectural effect.

These and the rest of the Library sculptures are still in the progressive state, but the photographs of the various stages of the work show that the completed result will be well worth waiting for.

THE CITY HALL OF NEW YORK

In recent years there has been a greatly increased interest in historical associations and especially in historic architecture, and with this has come a higher appreciation of the artistic merits of the New York City Hall. During its century of existence the exterior of this building has been but slightly altered except by the hand of Time, but the interior has been changed at frequent intervals, usually following the taste and exigency of the period without reference to the desirability of preserving the building as it was originally designed.

When in the spring of 1909 the restoration of the Governor's Room was completed, the citizens of New York began to realize how dignified and beautiful their City Hall must have been when first erected. But, the Governor's Room being merely an exhibition room, the question naturally arose, would other parts of the building be as beautiful if restored and adapted to practical uses. The restoration of the borough president's office by President McAneny with the coöperation of the Art Commission has clearly demonstrated that even those portions of the City Hall used as offices are, when restored to their original style, as dignified and beautiful as the Governor's Room.

The office of the borough president occupies the second floor of the southwest wing. The principal room of this suite was designed for

and used as the Common Council Chamber for many years. Mayor De Witt Clinton presided at the first meeting of the Council held there in 1812. During the preceding year the Common Council had held its meetings in what is now the Mayor's reception room directly underneath.

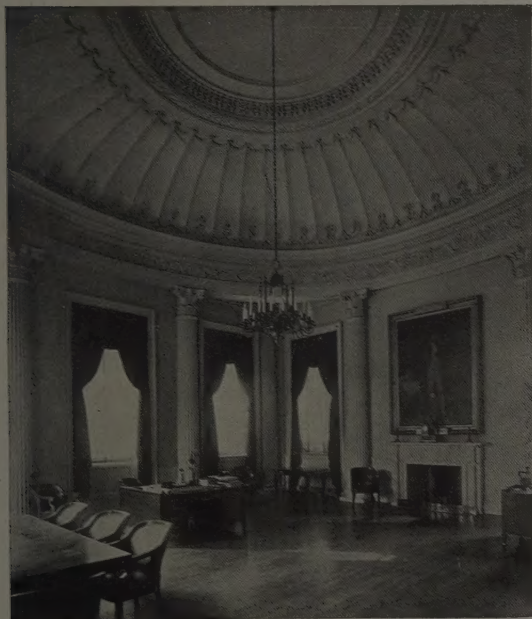
At the time this restoration was undertaken the Council Chamber with its domed ceiling was divided into many small rooms or compartments by wooden partitions. In addition the room was badly in need of repair. From this large room the wooden partitions were removed, a plain oak floor was laid and other features clearly not original were remodeled in accordance with McComb's designs. The fireplace in the west wall, which had been closed, and the mantel removed, was restored. Fortunately, the work of restoration could be made nearly perfect, for Mr. McComb's original drawings for this room were accessible and fairly complete in the library of the New York Historical Society. In addition a member of the Art Commission furnished an old print of this room made in 1830, undoubtedly before any alterations had been made. And now the restoration is complete and the room appears essentially as it did when first occupied by the Common Council in 1812, with only minor rearranging necessary to make it suitable for an executive office

THE NEW YORK ARCHITECT

instead of a legislative chamber.

It is an old saying that history repeats itself and this is true of our City Hall. When the building was completed in 1812 so many people wanted to visit it that the Common Council directed the custodian to put up placards stating at what hours the building might be seen by visitors, and, if the whole building were restored, it would be so attractive that similar placards probably would have to be hung out at the present time.

Even our appreciation of the beauty of its proportions and the charm of its details is only a renaissance of the admiration bestowed on it by its builders. The minutes of Common Council and the diary of John McComb, Jr., bear striking testimony to their high estimation, which was also evidenced in the great care exercised over every detail and the painstaking



BOROUGH PRESIDENT'S ROOM

thoroughness of its entire execution. They fully realized that they were erecting an unusual building. Indeed, McComb succeeded in inducing the building committee to substitute marble for brown stone for "the front and two end-views" upon the plea that "this building is intended to endure for ages, and in an architectural point of view, in fact, is to give a character to our city." In fact, it was for the New York of that day a monumental building intended to provide, as it did, offices for the entire city and county administration. During the first few years it is often referred to in the minutes of Common Council as "The New Court House."

The first recorded step towards building the City Hall was when the Common Council passed the following, March 24, 1800:

"Ordered that Aldn. Lenox, De La. Montagnie & Coles be a Committee to consider of the expediency of erecting a new City Hall & to report to the Board their Opinion thereon, as also the proper Place, a Plan of the Building, an Estimate of the Expence and in what manner the present City Hall ought to be disposed of."

There is no reference to the subject again until two and a half years later, when we find the following, October 4, 1802:

"The Board having proceeded to ballot for the plan of a Court House and that of Mr. Joseph T. Mangin and John McComb Junr. having a large majority of votes was accordingly adopted. Ordered that the Recorder be authorized to draw a warrant on the Treasurer in favor of Magin & McComb as a premium for their plan being the successful one for \$350."

After the adoption of this plan the Common Council seems to have become alarmed at the magnitude of the undertaking, for John McComb, Jr., was directed to materially reduce the plan, which he accordingly did, whereupon the committee presented the following report, March 21, 1803:

"That they have paid much attention to the subject committed to their charge, and as the result of their deliberations they beg leave to recommend that the reduced plan presented to the board by Mr. John McComb Junr. be adopted, that the vacant space of ground between the goal (gaol) and bridewell be determined on as a proper site for the same. That the mugs in front range with Murray Street, on a parallel line with the fence in front of the Alms house & the Cupola range in Line with the Cupola of the Alms house.

That the Front, rear and sides be built with brown free stone, and, the residue of the materials as shall be directed hereafter.

The Committee feel impressed with the magnitude of this undertaking, and they assure the Board that in all their determinations, they have endeavored to combine durability, convenience, and elegance with as much economy as the importance of the object will possibly admit.

Contemplating the materials as mentioned in that report the costs of the building as computed by Mr. John McComb will amount to \$200,000, but when it is considered that estimates for public buildings cannot be made perfectly correct the Committee are of opinion that \$250,000 will cover every expenditure.

They therefore entertain strong hopes that this report will be confirmed and that this Board will give such powers to the Committee

as will enable them immediately to commence and progress in Building a New City Hall with that zeal and public spirit which ought ever to Characterize the Corporation of this flourishing City.

All of which is submitted to the consideration of the Board."

Perhaps it would not be out of place to say a word here in regard to the location selected. What is now called City Hall Park became a part of the common lands vested in the City under the terms of the Dongan Charter in 1686. It was first known as the Vlacte or flat, later as the Commons, then as the Fields. Thus set apart for public use, it remained for a century and a half the favorite meeting place of the people on all occasions of public interest. Here early in the morning of November 1, 1765, was held the first popular assembly in opposition to the Stamp Act; here the people gathered again and again during the stormy month preceding its repeal, and here on June 4, 1776, they met to celebrate their victory with the aid of a roasted ox "washed down with a hogshead of rum punch and twenty-five barrels of ale." Here stood the famous Liberty Pole which was always such a bone of contention between the royal soldiery and the Sons of Liberty; and here on July 6, New York voiced its opposition to the Boston Port Act at a meeting made doubly memorable by the maiden speech of Alexander Hamilton, then a seventeen-year-old student in King's College, and here on July 9, 1776, the Declaration of Independence was read to the patriot troops gathered on the Common with Washington and his staff at the head.

Here in the "Fields" was a "Civic Center" for the City Hall formed one of a group of four municipal buildings: north of it stood the Alms-house, northeast of it the "gaol" and northwest the "Bridewell." The position of the City Hall was chosen with due regard to its relation to the other three buildings, as is shown by McComb's map of the "Fields" submitted with his design for the building. Soon after the reduced plan was accepted the building committee adopted the following:

"Resolved, That an architect be appointed to superintend building the new City Hall, who shall have complete control over every department.

Resolved, That Mr. Jno. McComb, Jr., be appointed as architect agreeable to the foregoing resolution, and that he receive for his services the sum of six dollars per day for each and every day he may be engaged at the new hall."

Not only this, but he was given great authority and throughout the whole period of the construction—about ten years—the Common Council showed continually its confidence in the business ability, sound judgment and integrity of John McComb. They practically placed in

his hands all the business of building the City Hall. We mention only a few instances. They sent him to Newark, where he bought a quarry of brown stone. Then after it was decided to build a large part of the exterior of marble he went to Newark and sold the quarry, "also," as he notes in his diary, "the city's brown horse for \$30." The north exterior was built of brown stone, and the implication is plain that they expected the land north of it to remain farms and marshes. He then went to White Marsh, thirteen miles from Philadelphia, to look up the white marble quarry there, but it was deemed inadvisable to get the marble from this quarry and he then negotiated with the owners of a marble quarry in West Stockbridge, Massachusetts, and soon after made the first of his many three-day trips to West Stockbridge and closed a contract for them to furnish the marble for the City Hall. All of his reports to the Building Committee are concise and explicit. He does not leave them in any doubt as to just what he has done and what it will cost to carry out the different parts of the work. Continually he had to advance money to pay the bills.

Before the foundation was begun McComb induced the Building Committee to restore the building to its original length of 215 feet 9 inches. After the foundation was laid the committee wanted to restore the original depth, which had been reduced by one window, but it was too late.

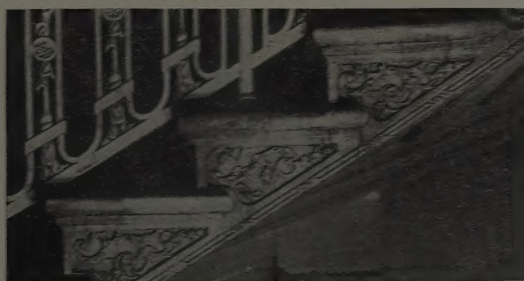
In the library of the New York Historical Society are preserved McComb's diary and Marble Book, which deal entirely with the building of the City Hall and which contain many picturesque details. We find entered in this diary the following, May 26, 1803: "On Thursday, the 26th May (1803) agreeable to previous arrangement the corner stone was laid under the discharge of seventeen cannon from General Stevens Regiment of Artillery who assisted at the ceremony," and directly following, "all the builders supped with part of the corporation at the Alms-house—had an excellent supper and plenty of good wine. We stayed until one o'clock A. M." June 23d, "Foundation of all the walls were finished and began to raise on the first offset." July 5th, "Got one of the stone broke that was for pilaster." September 30th, we find the following interesting detail: "This day the Honorable de Witt Clinton was sworn into the Mayor's Office. . . . The new Mayor took no notice of any of us concerned about the building."

The carvers were not appointed until early in 1805. Several men applied for the position of chief carver; one offering to do the work for \$3.00 a day, and one for \$2.00 a day. John Lemaire wrote to the Common Council that he would be glad to do the work at whatever price

THE NEW YORK ARCHITECT

the Common Council thought reasonable. He was appointed chief carver at \$4.00 per day. About a year after the carving was begun, one of the carvers was discharged. Whereupon he wrote a long letter to the Common Council complaining of the "heedless and destructive manner in which the carving was being done." This was referred to McComb, who made a report in which he said: "I have visited the carver's shop almost daily and have been always pleased with Mr. Lemaire's attention, mode of working and finishing the capitals. Work which is not surpassed by any in the United States—and I presume be seldom seen better executed in Europe—and which for proportion and neatness of workmanship will serve as models for carvers in future." The results justify his judgment.

From the minutes of the Common Council and as well from McComb's diary, in which we find copies verbatim, communications and reports of the Building Committee, we plainly see that the business was carried on amidst perplexities. First was the question of money. The city was poor and had great difficulty in raising



STAIR DETAIL

sufficient money to keep the work going; and, secondly, at least twice, attempts were made to place some one over McComb to supervise the work. Apparently, the latter part did not worry McComb, but the scarcity of money was a constant source of anxiety.

The City Hall naturally has passed through many vicissitudes. Much of it has been redecorated many times. Partitions have been inserted to make more room, but it took on a new lease of life when Mrs. Russell Sage so generously came forward and gave the money to restore the Governor's Room. We do not think that Mrs. Sage "builded better than she knew," for we believe that she clearly saw the importance which the restoration of the Governor's Room would have on interior decoration and particularly on the restoration of the entire City Hall. If such restoration is carried out it will give us not only a building of which New York and the entire country will be proud, but also an important document bearing on the political and social life of the early part of the nineteenth century.

JOHN QUINCY ADAMS.

City Hall, Dec. 22, 1910.

SOME INTERESTING FEATURES OF HOTEL CONSTRUCTION.

Exemplified in the work of H. J. Hardenbergh

The increasing number of hotels that are being built every year throughout the country is making the architectural profession realize keenly the need of special study on this important problem. Several well known architects in different parts of the country have given a good deal of thought to the needs of hotels under present-day conditions with the result that the hotels now being built represent the latest thought for the comfort and convenience of their patrons.

It is probably not an exaggeration to say that H. J. Hardenbergh, of New York, is the best known hotel architect in America. In fact he has practically eliminated almost every other kind of building and has given the majority of his time and attention to this particular subject. Among others he has designed are The Dakota, which is an apartment hotel in New York, and while it is now one of the oldest in this city it is still among the most popular. Then there are the Waldorf-Astoria and Plaza Hotels in New York City, two of the best known hotels in the world; the Manhattan Hotel, the Hotel Martinique, the new addition to which is illustrated in this number; the splendid New Willard Hotel and the Raleigh Hotel in Washington, D. C., and the three-million-dollar Copley Square Hotel of Boston, now in process of construction. Beside these famous buildings are several in the West and in Canada. The fact that one man has planned so many successful hotels argues that he must have particular insight into the needs of such buildings. It has been said of him until he is probably tired of hearing it, that he has never built a hotel that did not later build an addition.

Some of the points that Mr. Hardenbergh always considers when a new hotel problem is laid before him may be interesting to other architects. He said recently when asked about his experience in this work that planning a hotel used to be like planning any other building. There were certain definite problems to meet and landlords and guests were perfectly satisfied with halls, rooms, a large office, a big parlor, a spacious dining room and the other usual accessories belonging to such a building. But the last few years have entirely changed the problem of hotel construction. In the first place living conditions, as everyone knows, are entirely different now from what they were fifty or even twenty-five years ago. In fact, the last decade has brought such advancement in hotel construction that the architect who is commissioned to plan a modern hotel has to think at

THE NEW YORK ARCHITECT

least ten years ahead, so rapid is the growth of popular demand. The modern hotel architect now has to plan his house not simply to contain a fixed number of bedrooms, with an occasional "Sitting Room" and still rarer "Public Bathroom,"—the latter usually squeezed into an inconvenient dark corner—a "Public Dining Saloon" and a "Parlor," but must arrange his public spaces with a view to affording ample movement or accommodation of crowds and yet preserve a sense of refined repose when the number of guests is few; his living apartments must be cheerful, of good proportions, each studied so that the furniture will fall into its proper place, with bathroom, closets and all the comforts and conveniences of a well-appointed dwelling, these ranging to suites of several rooms with special entrance, where the millionaire can find the comforts and luxuries of his own private mansion.

This at once presents the problem of arranging for all the very latest inventions and appliances that make for comfort and luxury. In the first place the ventilating system is something which up to a comparatively few years ago received very little attention as there was practically no system in use. Now it is perhaps one of the most important features of hotel construction. The Hotel Plaza, New York, is an instance of the extent to which science can be made to meet the wants of life when rightly applied. In this building great fans and blowers, capable of stirring up a veritable blizzard or a sirocco, blow the fresh air gently into the various rooms, corridors or corners and draw out the vitiated or used up air, first passing it through filters and moistening chambers, over warming or cooling coils, according to the temperature required—all imperceptibly to the individual and even regulated automatically, so that one can enjoy one's own special brand of climate by the mere movement of a mechanical contrivance. The energy required to operate this apparatus is considerable in the building named, aggregating 250 horsepower, the electrical power for operating the same being obtained by the use of eleven motors.

One other feature of planning has grown to be of great, indeed imperative value, namely: that of providing a vast hall or room for public balls, dinners, concerts or theatrical performances, the demand for such rooms is so great and the return from them so large as to make them a necessary adjunct of every well appointed hotel, but the space demanded and the various uses to which they are put make the problem of planning unusually complex, while stages, raised and lowered by electric motors, movable scenery and theatre lighting are added matters of detail to be met and solved.

Attention to detail is characteristic of all of Mr. Hardenbergh's work. No point in hotel

construction is too small to be overlooked. He has for instance an unusually keen sense of the value of vistas and it is practically characteristic of his hotels that while the ground floor plan provides generously for reception rooms, restaurants, etc., the main corridor is so well arranged that most of the rooms are clustered about it in a way which gives the sense of homelikeness and also a sense of space. A rather amusing story is told of a woman who not long ago was talking with Mr. Hardenbergh about how cleverly he had planned a prominent hotel in Washington. "I noticed one thing in particular," she said, "and that was your arrangement of the stairway leading from the street entrance to the main corridor. Didn't you arrange that," she laughingly queried, "with a view to showing off to the best advantage the beautifully gowned women who throng the hotel every afternoon for tea?" and the architect laughingly confessed that this had been his object which he had been able to carry out because the land lay in such a way that the hotel had to be built down hill. This particular stairway is of marble carpeted with a rug of a warm tone and is lighted down each side with footlights which create a most charming effect.

There is another Hardenbergh characteristic which will be noticed in most of the hotels he has constructed and that is, that as a general rule, where a hotel is situated on a street and an avenue, he plans to have the entrance or entrances on the street leaving the broad sweep toward the avenue for the reception room, dining room, etc. He has often been criticised for this plan but when it is worked out it will be plainly seen that the result is most effective for the interior of the hotel, and the exterior certainly does not suffer by it.

Mr. Hardenbergh's interiors have always been a delight. He has a particularly fine sense of color harmony and his interior decorative work is always absolutely in keeping.

The new addition to the Hotel Martinique illustrated in this number is a good example, as it contains some of the richest decoration seen in New York for some time.



ACHIEVEMENTS OF THE AMERICAN ARTISAN.

The Progress of American Bronze Casting.

Not more than fifteen years ago it was supposed to be an impossibility for an architect of standing to commission anyone but a foreign sculptor to execute such bronzes as he might be planning for the ornamentation of some important building. Least of all would it be dreamed that the sculptor could have his work cast here

THE NEW YORK ARCHITECT

in America as well as it could be done in the famous European foundries.

Fifteen years ago this was in a large measure true, but as the work of American sculptors has grown in importance to the point where they are now recognized as equal to their European confreres it has become necessary for American foundry methods to improve so that really worthy casting can be done here instead of involving the sculptor in the great expense of sending his models abroad for this purpose as he had formerly been obliged to do.

The ever increasing demand by American architects for ornamentation for public buildings awakened the American foundrymen to the realization that unless they promptly improved their methods and facilities and prepared to meet the new conditions, their situation would soon become serious.

Two or three of the more progressive bronze workers immediately began to study how to improve their individual equipment and methods, with the result that there are now several who are doing really worthy work; among them, however, one has now progressed so far in artistic workmanship and has such a perfect equip-

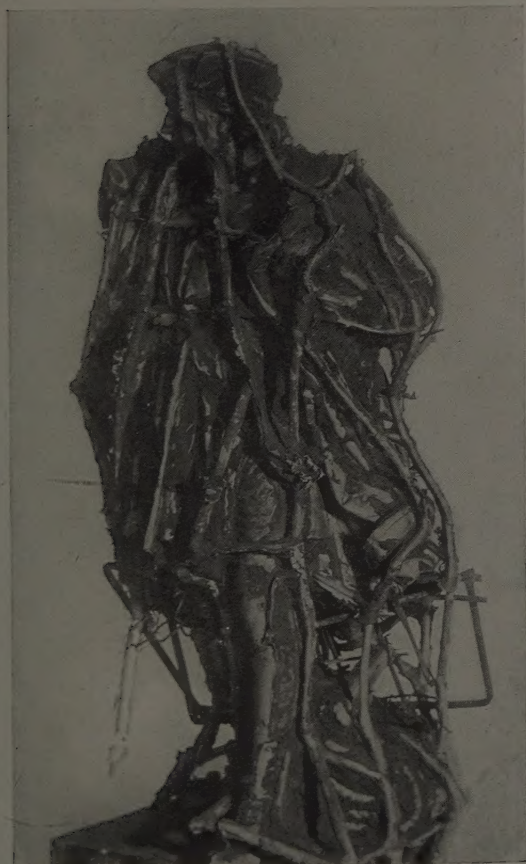


FIGURE IN PROCESS OF CASTING, SHOWING CHANNELS FOR CONVEYING METAL TO MOULD



SHERIDAN STATUE BY GUTZON BORGLUM, WASHINGTON, D. C.

ment for the finest kind of bronze casting that some of the most famous of the recent sculptures done in America have been cast there, and their work may be said to be representative of what the American artisan has accomplished in this line.

The completeness of their equipment and their large force of skilled workmen is largely responsible for their success, but what is quite as important, the men who have the work in charge are thoroughly in love with it. They have made a study of the history of bronze and have found out so much of interest about the metal that they speak of it and treat it with a certain reverence and this attitude is instilled into their workmen and is quite apparent in the atmosphere of the shops. It is as though one were visiting a studio instead of a commercial plant.

Situated at Providence, Rhode Island, on a large tract of land which gives ample space for their three foundries, this company of artisans is well equipped to do the very best kind of work.

On entering the foundry proper one finds the ideal and the practical being worked side by side from sculptors' models and architects' designs, the problem being in every case to achieve the desired results under limitations of the processes.

A few details of the various stages of the work of casting a piece of bronze may be of interest.

The moulds, for convenience of working, are always in two sections termed the cope and drag, consisting of a box-like frame or flask of

THE NEW YORK ARCHITECT

iron filled with a sticky sand which is imported from France. The observant moulder, on receiving a model, quickly chooses the plane on which he will support his mould and proceeds to embed his model in the sand of the lower section up to the line of parting and there his difficulties begin.

There is the overhanging portion of the model to be underfilled with sand, the upper section to be rammed tightly about every portion of the model, the entire mould turned over and the other section removed and then the detail work of filling all the undercuts, dusting each filling as it is taken out with soapstone, and then finally the withdrawing of the cores and attaching them to their proper places in the mould, when a matrix is finally formed of the plaster model.

Since bronze statues are hollow, it is necessary to fill the mould nearly to the size of the original model, leaving just space enough at every part of the surface for the required thickness of metal. This is accomplished also by means of a sand core; finally the whole thing is ready for the oven for the drying-out process, which takes from 48 to 60 hours, since every particle of moisture must be evaporated to assure perfect casting. The ovens are large rooms built substantially of brick with rolling steel curtains in front, the full size of the room. Into each a tramway is built enabling quick and easy handling of the immense flasks without danger of accident. And now comes the most interesting part of the work—the casting itself. The mixture of copper, tin and zinc alloy has been for hours heating in the huge crucibles and now the moulds are brought from the ovens still warm and ready to retard the cooling of

the metal.

An interesting detail of this process is the cutting of the channels on the mould which run from the pouring gate to every intricate part of the model in order to secure the rapid and equal flow of metal. Workmen now grasp a crucible with huge iron tongs, swing it clear of the furnace whence its contents are transferred to the ladle. Crucible after crucible pours its contents over the model in this way, it being possible to melt nearly three tons of metal at once. Finally the whole molten mass goes running through the veins of the mould until every space is filled, there to resume its natural state in a permanent bronze form.

After cooling, the mould is torn from the casting, the latter brushed off and the work of finishing then begins. This is one of the most important parts of the process and it is this particular detail that has given these artisans their reputation for the wonderful finish that is characteristic of their work.

It is interesting to note that rather different methods are applied in the casting of figure work and in the casting of tablets, panels and medallions. For architects all work must be mechanically true while for the sculptor the completed bronze is simply to preserve the texture and modelling in the same manner as a piece of statuary which it practically is.

Among the well known pieces of work done by these artists is the colossal equestrian statue of Sheridan at Washington, D. C., by Gutzon Borglum, in which the horse is said to be the largest single bronze casting in this country; a MacMonnies group, in the Metropolitan Museum, and the Lincoln statue by Elwell, at Orange, N. J.

