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CONSTRUCTION

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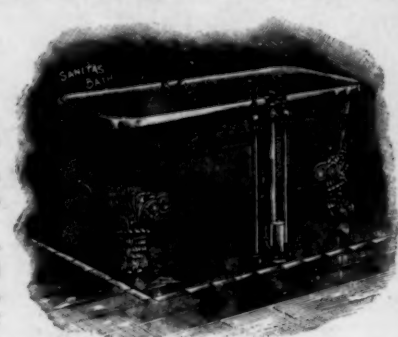
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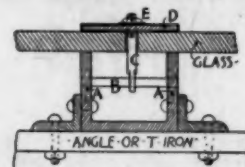
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THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. XLV.

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JULY 28, 1894.



SUMMARY:—

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THE history of the recent Debs strike affords some glimpses into the purposes of labor leaders, and the way in which they utilize circumstances for their own benefit, which are worth keeping in mind by the public. Early in the course of the strike, the ridiculous pretence that it was ordered in aid of the Pullman workmen was abandoned, and the open avowal was made that this was merely a pretext for bringing on a struggle between the American Railway Union, Debs's year-old organization, and the Brotherhood of Locomotive Engineers, with some other sober and rational associations of railway-men, in the hope of destroying the latter organizations entirely, or subjecting them to the Railway Union. Thanks to the discernment and coolness of Mr. Arthur, and some of the officers of the firemen's unions, who deserve great credit for having kept their heads in the midst of the commotion, the attack upon them failed, and, although Debs and his associates announce, from their headquarters in the Chicago jail, that "the Brotherhood of Locomotive Engineers is practically dead," there is no doubt, not only that it is in perfect health, but that it has gained, through the brave and honorable conduct of many of its local associations and individual members, a hold upon the confidence and regard of the public which will be of inestimable value to it and its members for many years to come. That so many of the latter, after quietly voting, in reply to Debs's summons, that they had no grievance, and did not think it proper to violate their contracts with the railroad companies, should have deliberately exposed themselves for weeks to the vengeance of Debs and his swarms of foreign ruffians, rather than break their promises to their employers, is the most encouraging indication for the future that the history of the strike affords.

FEW persons outside the ranks of certain trades realize the force of the appeal to fear which Debs and his like bring to bear on those whom they wish to subject. The invariable formula with which they reply to remonstrance is that "they cannot be held responsible for the excesses of individuals;" but the generalship with which simultaneous attacks were made on railway servants and property, by mobs of brutish Hungarians and Bohemians, at places so widely separated as to divide the slender force of defenders, shows plainly that the campaign of incendiarism and destruction was intelligently planned, and it is probable that only the cowardice of the foreigners, thousands of whom ran before a few dozen bayonets, prevented much of the intended mischief. The temper in which the ringleaders, encouraged by official apathy or sympathy, were disposed to deal with those who resisted their dictation is sufficiently shown by the circular placarded about the Chicago Stock Yards, denouncing the men who returned to their work as "scabs," and calling upon all persons to "treat them as such," accompanied by other posters, explaining the latter expression by advocating that all "scabs" should be immediately assassinated. We, who read of such things in the newspapers with mild deprecation, need, in order to appreciate the resolution required by the faithful engineers and firemen,

to imagine the fences around our houses and offices adorned with placards, officially signed by persons intimately connected with the Governor of the State and the executive department of the city, "branding" us as "scabs," and fiercely urging the public to "treat us as such," explained by others representing us hanging to lamp-posts, and inviting all persons out of employment to join at once in carrying out this amiable suggestion. If, in connection with these incidents, we were to miss, at frequent intervals, our associates in business from their accustomed places, a blood-stain at their doors indicating what had become of them, we must acknowledge that we should be strongly tempted to close our offices for a time; and that to go on with our work, simply to fulfil our engagements with our clients, would require a moral and physical courage on which we might justly plume ourselves for the rest of our days. Yet this is just what the men have done who have remained at work during the furious reign of Debs and Sovereign, and, modest as they suppose to be their part in the history of this Republic, the country owes them a debt of gratitude which it can never repay. Years hence, when Americans can earn an honest living in their own way, without being "branded," or "treated as such," at the dictation of any despot, the brave engineers of our western railroads will, we hope, be honored as they deserve.

TO show how a few arrogant leaders of a small fraction of the members of any trade can throw the industry of a great nation into disorder, it is curious to read the history of the "sympathetic strike" which Sovereign, who seems to have pitched heels over head into the snare which the wily Debs laid for him, undertook to bring about in the organization which he supposed that he controlled. Meetings were called of various branches of the order, at which "sympathetic strikes" were voted, with more or less enthusiasm, according to circumstances. On talking over the vote, the more sensible participants discovered that a majority of the voters were members out of employment, who, by going on strike, would become entitled to "strike pay," at the expense of their more fortunate brethren, and, of course, were delighted at an opportunity for voting themselves into an income. This observation somewhat mitigated the "sympathy" of the men who were still at work for the victims of Mr. Pullman's barbarity, and the second vote, to fix a day for the sympathetic strike to begin was indefinitely postponed. If the interested motives of the intending strikers had not been so quickly discovered, the country might now be suffering from a strike in nearly all branches of industry, instigated by one ambitious schemer in Chicago, carried out by appealing to the selfish interest of the unemployed members of the trades unions, and extended to the workmen not belonging to the unions by pure compulsion. Notwithstanding the ridiculous bragging of the labor magnates, there is good evidence that not more than fifteen per cent of the workmen, even in Chicago, belong to the unions; yet these unions, or rather, their most selfish and noisy members, control their entire trade, and are, in their turn, controlled by a few men still more selfish and noisy, and more artful. The basis of all this hierarchy is, in most cases, the vilest terrorism. To refuse to obey the orders of the dictators, whatever they may be, is to be "branded" as a "scab," and to be a scab is, at present, to be exposed to constant fear of maiming or assassination; to hold one's place only until such time as it may suit the union dictators to order the shops "struck" against all but their constituents; to be shut out from public work, which is generally reserved for the representatives of some compact body of voters; and to be regarded with suspicion and aversion by all employers of labor, who know well the consequences of allowing "scabs" to work for them, and hire them only with reluctance, and under the pressure of necessity. That there should be so many men who, under these circumstances, still refuse to surrender their independence to the Debses and Sovereigns is a credit to the American race; but they should no longer be compelled to keep up the struggle with all the odds against them. It does not take a long acquaintance with workmen to convince an impartial observer that the emancipation of the "scabs" is the most important social problem now before the world, and that the continued existence of free government depends upon its solution.

A CURIOUS case of an architect's responsibility came up lately in Philadelphia. It seems that a recent statute of Pennsylvania provides that, after a building in process of erection shall have reached the third story, all floors above shall be covered with rough boards, to protect the workmen from falling. Mr. Free was the architect of an apartment-house, which was built to the sixth story without any boards having been laid on the floor-beams. The building inspector, noticing this, reminded Free of the law, but Free, as he afterwards testified, thought that he did not intend to insist upon the boarding, and did not direct the contractors to lay it. A week or two ago, two men were at work on a scaffolding in the sixth story, when the scaffolding gave way. There was an elevator-shaft near, and the men fell into it, and so to the ground, and were killed. At the inquest, the fact that Free knew the law, but did not do his part toward complying with it, was admitted, and the jury brought in a verdict holding him responsible for the death of the two men. An indemnity company, which had issued an accident-insurance policy on the building, was represented at the inquest, and claimed that, as the men fell down the elevator-shaft, and not through the floor, the law did not apply; but the coroner ruled that, as the shaft was not in use for hoisting, the law required that it should be covered like the rest of the floor.

WHAT great inventor, Mr. Keely, seems to have a dangerous rival in the West, in the person of an individual who, as we are informed, has discovered the art of producing rain at will; or, at least, whenever he tries, he succeeds. The means by which this result is accomplished are, as usual in such cases, "extremely simple." All that is necessary is to mix certain substances, which produce a gas. A charge of this gas, measuring in volume about fifteen hundred cubic feet, is set free, and ascends, we are told, to a suitable height, where it suddenly collapses. The surrounding atmosphere rushes into the vacuum thus formed, producing the conditions necessary for rain, which, as is well known, is caused by masses of air hitting against each other. Notwithstanding the small quantity of gas employed, fifteen hundred cubic feet being only as much as would fill a room of extremely moderate size, the effect of the crash is felt for twenty miles in all directions, and a rain-fall follows, which, as the newspapers assure us, varies from half an inch to six inches. We hardly know whether to admire most the amiability or the energy of this extraordinary substance. A gas which, in defiance of all the laws of diffusion, would keep itself together until it had ascended to a certain distance, and then, in defiance of all the other laws regulating the conduct of gases, would suddenly collapse, merely for the sake of producing such beneficial results for its inventor and his clients, must possess a moral vigor only surpassed by the physical activity requisite to enable about fifty pounds of it, simply by "collapsing," to cause the precipitation of more than four hundred million tons of water, in the form of rain, over a territory of twenty miles radius. It ought, perhaps, to be mentioned that a necessary ingredient of this excellent gas is an "alloy," called "muriu," the components of which appear to be known only to the inventor. It seems a little queer to make gas with an "alloy," but, obviously, ordinary analogies fail in reasoning about so peculiar a substance. Meanwhile, the demand for it appears to be increasing. A contract, we are told, has been made with a "foundry," for supplying ingredients for the gas, the "muriu," presumably, being the principal one derived from this source; and the Chicago, Rock Island and Pacific Railroad is said to have fitted up a rain-making train, and to be at present spending about four hundred dollars a week in sending charges of collapsible gas into the air along its route. These experiments, particularly, we should think would excite much interest among the stockholders of the railroad company. The spirit of scientific investigation is rare among railway officials, and when one of them is enthusiastic enough to spend twenty thousand dollars a year of the stockholders' money in buying "muriu," his ardor for learning deserves to be noted.

WHAT the Germans call "the highest and most beautiful church-tower on earth," the tower of Ulm Cathedral, has lately been completed. Every architect knows something of the bold and rich design of this "tower of towers," as Lübke calls it. Within a few years, a large sum of money has been raised to complete it. In May, 1890, the cap-stone was placed

on the spire, and the various staircases, rooms, galleries and balustrades are now finished, and open to the public. The summit of the spire is sixteen feet higher than the towers of Cologne, so that the people of Ulm have reason to glory in their achievement. The ascent of the tower is made particularly easy, and will probably attract many visitors. Three hundred and eighty-nine steps lead from the church floor to the platform where the plan of the tower changes from square to octagon. Here, in the octagonal base of the spire, are four handsome rooms, panelled with oak, one of which serves as a store-room, while the others form the habitation of the "Thurm-wächter," or "tower watchmen," who certainly have a romantic dwelling. One hundred and sixty-seven steps more lead to "the octagon platform," from which a fine view is obtained, the floor being about three hundred and fifty feet above the ground. This "octagon platform" constitutes a beautiful octagonal room, of immense height, the ceiling being almost lost in the upper construction of the spire. Through the middle of it rises a stone cylinder, supported on eight open arches. This cylinder forms a sort of spinal column for the upper part of the spire, with which it is connected by ornamental arches at various heights. Inside is a spiral staircase. To reach the staircase, a flight of nineteen steps conducts from the floor of the "octagon platform," and one hundred and eighty-six more ascend to the "wreath," an open balcony, encircling the spire, four hundred and fifty feet from the ground. This is the highest point intended to be readily accessible, and is well guarded by stone balustrades. From it can be seen the city, laid out like a map, the view extending to the German Alps.

M. EFFERÉ has, in *Le Génie Civil*, an interesting and valuable study of the various modes of traction now in use, particularly for tramways. The idea, which still prevails extensively, that, some day, carriages will be drawn by steam or electricity over ordinary roads, he dismisses at once, saying that experience has shown that a light carriage cannot be propelled over an ordinary road with a motor of less than three or four horse-power; and that, even if such motors could be economically used, their employment would lead to numerous accidents, which, under present conditions, are avoided much more through the intelligence of the horses used to draw carriages than of the drivers who direct them. Where the traffic is sufficient to warrant laying rails, the case is quite different, and here mechanical traction is both economical and safe. The cable system seems to be unknown abroad, and he confines himself to traction by steam or electricity. The latter is, naturally, best suited to tramways, and, of the three modes of applying the force to the wheels, namely, by transmission from a central plant by overhead wires, transmission in subterranean conduits, or through the rails, and the equipment of the cars with independent accumulators, he thinks that the last is likely to become the most advantageous. He says, incorrectly, that the street-cars in New York are propelled by means of overhead wires and trolleys; but, as these appliances for transmission of force are used in hundreds of other cities in the United States, his conclusions are not far wrong. In addition to the American cities, Berlin has adopted the trolley-system, and it is proposed to use it on the new line from Vienna to Buda-Pest. Ugly though the posts and trolley-wires are, he thinks that they furnish the simplest and most economical, and consequently, the most desirable mode of transmitting force for such purposes yet in use. Transmission through underground conduits he regards as very costly to establish, and very difficult to keep in order, and says that it does not seem to have been successfully tried anywhere except in Buda-Pest. Whether accumulators will replace for tramway cars direct transmission, he acknowledges to be a question of improving the accumulators; but this improvement is constantly going on. Already, the City of Liège is preparing to establish an accumulator system, and, when accumulators can be made light, powerful, easily kept in order and not liable to deterioration, they will be rapidly adopted. For the great railroads, however, he doubts whether any electrical devices will supersede steam. The use of trolley-wires, or track transmission, he declares to be utterly incompatible with the shifting of cars, and making-up and distribution of trains, essential to railway operations. It is possible that, later, immense accumulators may take the place of locomotives, but at present, even with the best and lightest accumulators there would be no saving in weight over the locomotive and tender, and the chances of accident and derangement would be far greater.

THEATRES.¹ — IV.

ROTTERDAM THEATRE, HOLLAND.



0 5 10 20 30 METRES
0 10 20 30 40 50 FEET

THE subject of this paper is one of the characteristic Continental play-houses, built upon a large open site and planned under most favorable conditions. Holland is adding in this decade two fine new theatres to the list of important opera-houses, — Mr. Springer's new Municipal Theatre at Amsterdam, I hope to be able to describe later.

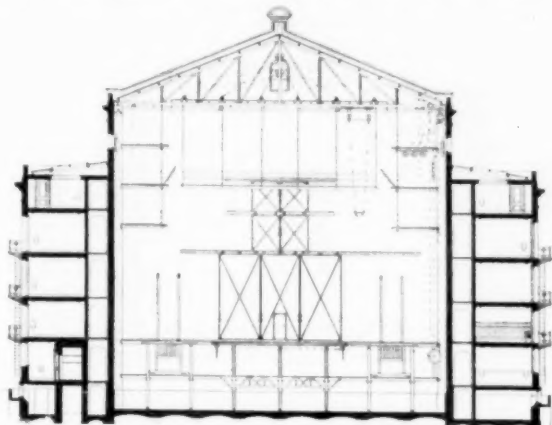
The Rotterdam Theatre was begun in 1884 and finished in 1887, being built from the designs of Mr. T. Verheul, by whose kindness, through the intervention of Mr. Edwin O. Sachs, I am enabled to reproduce the annexed illustrations. The foundation-stone was laid on May 3, 1884, and the opening was celebrated on the fifteenth of September, 1887.

The peculiarity of this theatre is, that it was built for two distinct purposes with two separate managements, one for the performance of the German opera, the other for the production of national plays.

A covered carriage-porch in the front leads to the spacious vestibule, which is twenty-nine feet six inches wide, by forty-six feet long, and built of colored stone. There are also side entrances for the pedestrians, so that they can obtain admission without crossing the line of the carriage route; this is a great advantage, as it prevents accident and obviates the inconvenience of foot-passengers dodging about among the moving cabs and carriages.

In the vestibule are two ticket box-offices, one for booking seats for the Dutch plays, and one for the German operas. Notices are posted up, directing the audience to the "right" and to the "left";

part of the other, a system which has frequently been advocated, as it increases the safety of the audience; for wherever there is an entrance on the right there is a corresponding exit on the left, and so if one has a seat remote from and on the opposite side from that by which one has entered, the mind is put at ease by the knowledge that the farther you are away from the door you entered by on the right, the



The Rotterdam Theatre: Section of Stage.

nearer you are to the exit door on the left. Symmetrical planning should always be followed in theatre designing.

From the vestibule three wide openings lead to the inner vestibule and the grand staircase, which, like everything else in the Rotterdam Theatre, is in duplicate. This staircase leads to the first tier, while three doors opposite the above-mentioned openings lead to the ample corridor behind the ground-floor seats, which are arranged as stalls, with a ring of small private boxes encircling them.



The Rotterdam Theatre: Facade.

the house is thus divided, as it were, into two halves, and all the seats which have uneven numbers are approached from the right of the vestibule, while the even numbers go to the left. This system appears to be an excellent one; it is a good guide to the public and to a great degree obviates the difficulty so often experienced in finding one's seat in a theatre.

The plan of the theatre is symmetrical, one side being a counter-

A grand feature in this theatre is the wide and spacious corridor which surrounds each tier of the seating; there is room in each of these corridors to contain the whole number of the people seated on the tier without undue crushing, and from each corridor two or more separate exits lead to the open air. In addition to the wide exits afforded by the doors leading to the entrance vestibule, there are other exits from the stalls' corridor, the one on the right, the other on the left. The theatre is divided on the auditorium side of the curtain into stalls and boxes on the ground floor; two rows of

¹ Continued from No. 964, page 120.

stalls and boxes behind them on the first tier; seats with boxes in the central portion of the circle on the second tier, and amphitheatre and gallery above.

On either side of the house will be seen the wide staircases which lead to the second tier, and when it is observed that comparatively few people are seated in this tier, the width of these staircases will be considered most liberal. These staircases communicate with the front tier and stalls' level and afford means of exit therefrom. The grand staircases, it will be seen, does not continue up to the second-tier level. The amphitheatre and gallery have their separate staircases to the right and left.

The foyer is situated over the vestibule on the Grand-Tier level, and is divided into three rooms, having a total superficial area of two hundred and twenty square metres. There is a small refreshment bar in the foyer and an open balcony over the carriage-porch is approached by three windows. There are two large cloak-rooms, one on either side of the bar, which are entered from the corridor. Smoking is not permitted in the foyer, but a separate room is provided for that purpose.

The lavatory accommodation seems somewhat cramped and poor, considering the luxurious scale upon which everything else is

planned. The stage boxes form a special feature; they are entered, on each tier, through a separate lobby, and behind them is the spacious saloon or retiring-room.

In the orchestra, the music-desks are fixtures and on the basement plan it will be found that there are two separate entrances to the orchestra, one on each side, with direct exits under the stage-boxes leading to the open air. In connection with the orchestra entrances are tuning-rooms and music-rooms for the members of the band under the stalls' corridor, the only drawback to which would appear to be that they have no windows by which to obtain direct light or ventilation to the open air.

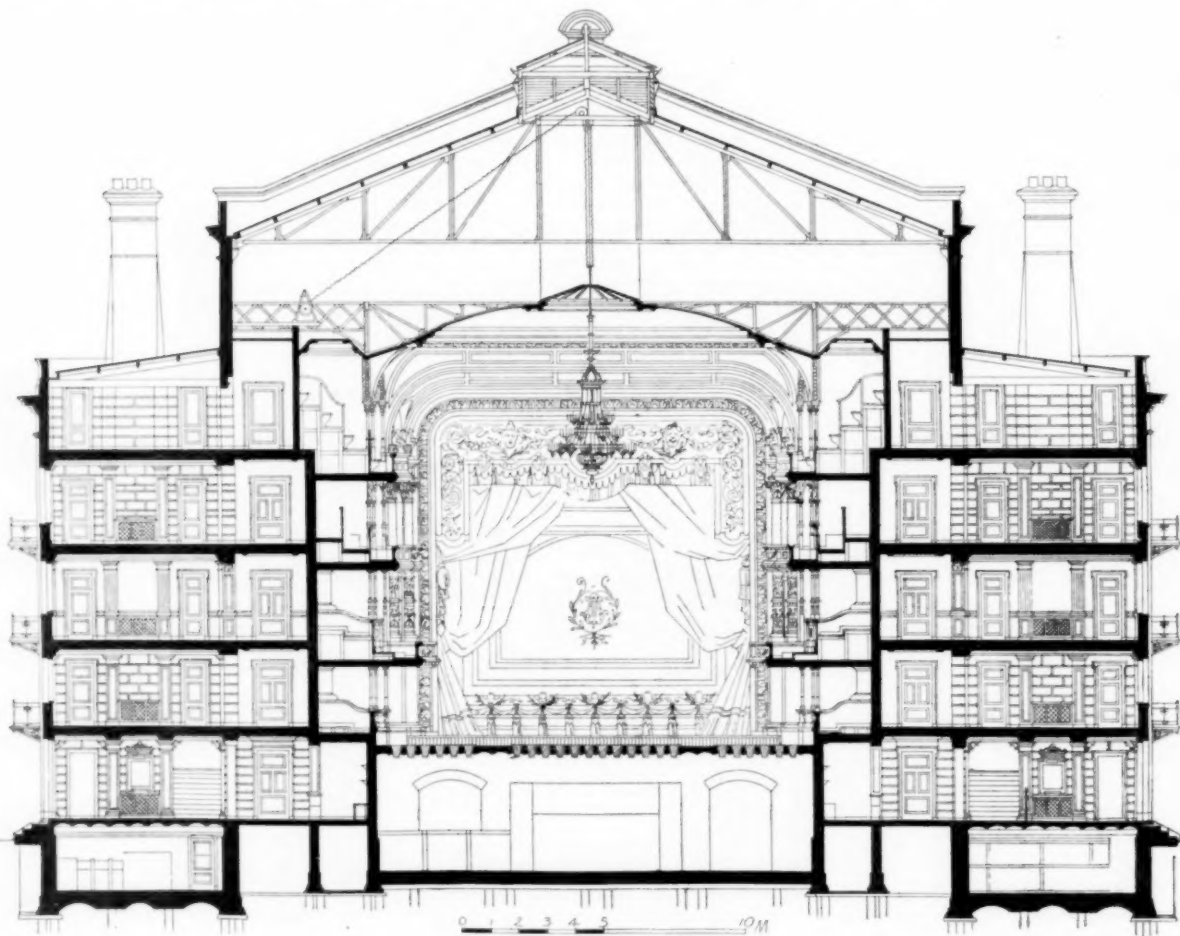
Just a word, before passing on to further consideration of these plans, as to the exits provided for the musicians. Here is an example which should be followed by all theatre designers: the poor musicians are seldom, if ever, considered from this point-of-view, their safety seeming to be a matter of little moment, although often through their prompt action in striking up a popular tune a panic has been averted, when some slight fire or accident has created a movement among the audience. The fate of the band is usually this: to obtain admission to the orchestra they have to crawl through a constantly slamming door under the stage, creeping out of the mezza-

nine like rats out of a hole. This is their entrance and also their exit in the majority of cases. Should a fire break out, they must not move from their seats, but play confidence into the fainting hearts of the public. As a fire usually originates on the stage, and the stage floor is of wood, it would not take long before their only exit under the stage through the mezzanine is cut off. "But surely they can find a way out over the orchestra-rail into the auditorium," I fancy I hear argued. Do not forget this, dear reader, that where there is a panic the exits and staircases of the auditorium, however wide, are soon blocked up with a mass of struggling people and escape that way for the musicians is reduced to a mere chance.

Now the architect of the Rotterdam Theatre has been mindful of his musicians; he has considered their lives worth looking after and has provided them with two direct exits from the orchestra into the streets, without their having to dive into the flaming stage or panic-stricken audience.

The basement plan shows us the arrangement made for the police officers in charge, the gas-meter rooms and the heating-chamber under the stalls.

So much for a hasty ramble through the front of the house: now let us view the part behind the curtain.



The Rotterdam Theatre: Transverse Section.

The stage is of ample proportions, the width between the main walls being more than twice the width of the proscenium-opening, thus allowing for the scenes to be taken off right and left out of sight of the audience, with plenty of room for "shifting" and "setting." The scene-dock, or store, is in the rear and is seen by the section given through the stage, cut off by sliding iron doors.

Still working on the symmetrical system, as in the auditorium, there are two entrances to the stage and dressing-rooms. On the right, on the ground level, are the care-takers' apartments, on the left the stage-engineer's offices, the fire-watch, and stage administrative offices.

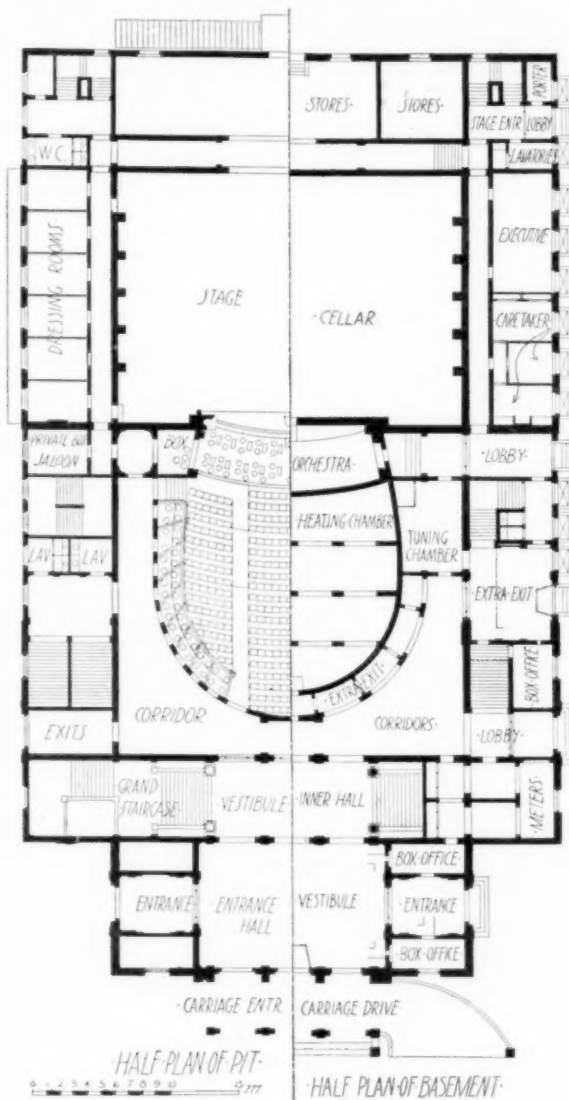
The dressing-room blocks on either side of the stage are separated from the stage by solid walls and a corridor. This is a most excellent provision for safety, as also are the external balconies placed outside the dressing-room windows, thus affording, in addition to the two staircases provided for the actors and actresses, a means of escape to the outer air by iron staircases to the street.

Two libraries are placed on the first tier, one for the comedies and one for the operas. There are green-rooms, one on either side of the stage, and the dressing-rooms for the soloists are specially designed. All the doors leading from the dressing-rooms and auditorium to

the stage are of iron and made to close of themselves; there is a fire-curtain to the proscenium-opening which can be let down by one man in three-quarters of a minute and in case of need it can be lowered from the street. There are electric alarm-bells fitted throughout the theatre and eighty-two safety-lamps are nightly lighted in the passages and staircases.

The theatre is lighted by gas, thirty-four chandeliers being used, and provision is made for turning off the gas from a point in the street. The system of heating is by hot-water pipes and the ventilation, which allows for the driving out of the vitiated air, is worked by a gas-motor.

The length of the building is 236 feet 3 inches, and the width 128 feet, and the time taken in erecting it was three and one-quarter years.



The following are a few of the leading dimensions of the building :

Back wall of stalls' corridor to curtain line.....	82 feet.
Width between main walls of auditorium.....	83 "
Wall back of boxes to curtain line.....	72 " 6 inches.
Width between walls, back of boxes.....	64 "
Width between main walls of stage.....	83 "
Back wall of stage to curtain line.....	56 "
Curtain line to line of grand tier box front.....	59 "
Curtain line to line of second tier box front.....	62 "
Height of stage floor to gridiron.....	58 "
Height of proscenium-opening.....	38 "
Width of proscenium-opening.....	36 "

E. A. E. WOODROW.

[To be continued.]

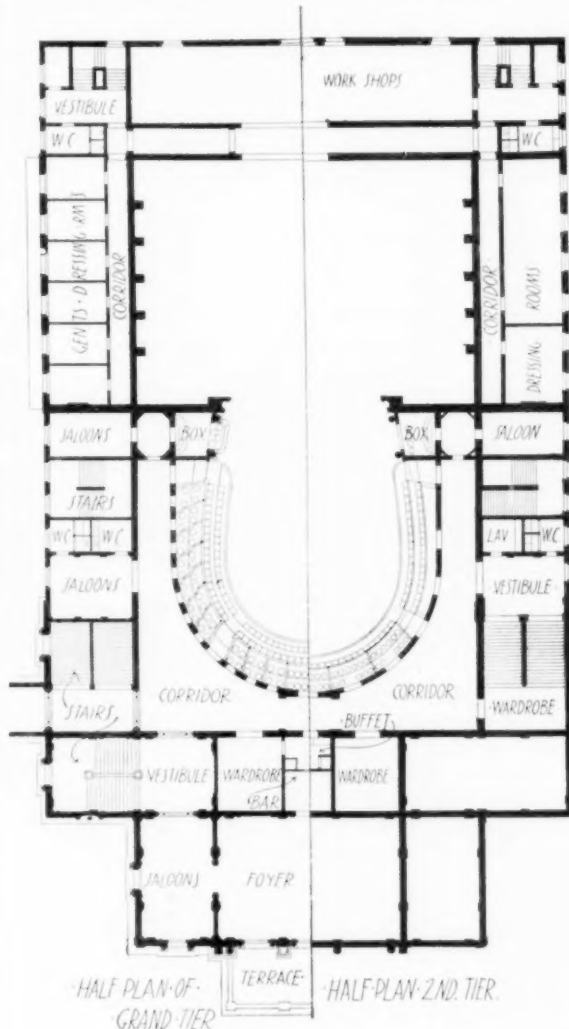
THE ITALIAN RENAISSANCE.—VI.

HINTS TO TRAVELLING STUDENTS: THE PALACES OF FLORENCE.—FIFTEENTH CENTURY.

1. PALAZZO RICCARDI: 1439, by Michelozzo Michelozzi, for the Medici; purchased by the Riccardi in 1659, it was by them enlarged in 1714.
2. PALAZZO PITTI: 1435, by Brunellesco; the garden facade by B. Ammannati in 1568; the low lateral wings in front added 1620-1631.
3. PALAZZO QUARATESI: about 1440 by Brunellesco, for Andrea Pazzi; completed by Jacopo Brunellesco.

Continued from No. 967, page 9.

4. PALAZZO RUCELLAI: 1460, from design by L. B. Alberti; built by B. Rossellini.
5. PALAZZO GIUGNO CANIGIANI: about 1460, garden facade of fifteenth century; portal and court by Ammannati, about 1570.
6. PALAZZO CASA MURATA: about 1460.
7. PALAZZO CORSI (formerly TORNABUONI): about same period, by Michelozzi; remodelled in 1816.
8. VILLA MOZZI: about same period, by the same; considerably altered later.
9. PALAZZO VECCHIO: a mediæval palace much altered during the Renaissance. OUTER COURT by Michelozzi, in 1464; door to Sala dell' Udienza, 1493, by Benedetto da Majano; Sala del Cinquecento, 1495, by Cronaca; court enriched with plaster relief-decoration, 1565, by Marco da Faenza; many other alterations in subsequent periods.
10. PALAZZO STROZZI: 1489, by B. da Majano; court-yard and cornice by Cronaca.
11. PALAZZO TORRIGIANI: 1490? by Baccio d' Agnolo.
12. PALAZZO GINORI: about 1495, by the same.
13. PALAZZO ANTINORI: 1495? by Giuliano da San Gallo.
14. PALAZZO MAGNANI: late fifteenth century; architect unknown.
15. PALAZZO CEPERELLO: late fifteenth century; architect unknown.
16. PALAZZO INCOSTRI: late fifteenth century; architect unknown.



17. PALAZZO CORSINI: an early Renaissance palace rebuilt, with fine staircase, in 1656, by Sileani and Ferri.
18. PALAZZO GUADAGNI (or DUFOR-BERTE): end of fifteenth century, by Baccio d' Agnolo; with interior decorations, woodwork, etc., attributed to Bramante.

SIXTEENTH CENTURY.

19. PALAZZO SERRISTORI (Cocchi): about 1500-1510, by Baccio d' Agnolo.
20. PALAZZO BORGHERINI (DEL TURCO): about 1500, by an unknown architect.
21. PALAZZO GONDI: 1501, by Giuliano da San Gallo.
22. PALAZZO GUADAGNI: about 1505 (?) by Cronaca.
23. HALL OF THE SERVI DI SANTA MARIA: 1519, by Antonio da San Gallo, after a design by Brunellesco.
24. PALAZZO ORSINI (formerly STROZZI RIDOLFI): by Baccio d' Agnolo.
25. PALAZZO PASDOLFINI: designed by Raphael, and begun about 1518, executed and completed by Giovanni da San Gallo.
26. PALAZZO BARTOLINI (SALIMBERI): 1520, by Baccio d' Agnolo.
27. MERCATO NUOVO: 1547, by Bernardo Tasso.
28. PALAZZO UGUCCIONI: by Marco da Zanobi Fulvi, 1550; (formerly attributed to Raphael.)
29. PALAZZO BUTTALINI: by Domenico d' Agnolo (second son of Baccio d' Agnolo), about 1550?
30. PALAZZO GIUGNI: 1560, by Bartolommeo Ammannati.
31. PALAZZO LARDEREL: Giovanni Antonio Dosio.
32. UFFIZI PALACE: begun 1560, by Giorgio Vasari; continued and completed by Parigi, Buontalenti and others. (PALAZZO VECCHIO: embellishment of Court-arcade with plaster-relief arabesques; 1565, by Marco da Faenza; see 9.)
33. PALAZZO RICCARDI-MANELLI: 1565, by Buontalenti. (PITTI PALACE: garden facade by Bartolommeo Ammannati in 1568; see 2.) (PALAZZO GIUGNO CANIGIANI: portal and court by Bartolommeo Ammannati, 1570; see 5.)

34. PALAZZO ALTIVITI: 1570.
 35. PALAZZO MONTALVO: by Bartolommeo Ammannati.
 36. LOGGIA DEL PESCE in the Mercato Vecchio: by Giorgio Vasari.
 37. CASINO DI LIVIA: by Buontalenti, about 1570.
 38. CASINO MEDICI: 1570.
 39. PALAZZO RAMIREZ: about 1580, by Bartolommeo Ammannati.
 40. PALAZZO VITALI: by the same; late sixteenth century.
 41. PALAZZO "NON FINITO": 1592, by Buontalenti for Alessandro Strozzi; Court-yard by Luigi Cigoli; palace never completed.

SEVENTEENTH AND EIGHTEENTH CENTURIES.

42. VILLA POGGIO IMPERIALE: 1622.
 (Front wings of PITT PALACE: 1630-1631; see 2.)
 (PALAZZO CORNINI: remodelled and staircase built 1656, by Silciani and Ferri; see 17.)
 43. PALAZZO PANCIATICHI: 1700, by Carlo Fontana.
 (PALAZZO RICCARDI: enlarged 1714; see 1.)

MINOR ARCHITECTURAL WORKS.—TOMBS, ALTARS, DOORWAYS, CHURCH FURNITURE, ETC.

(This list does not pretend to approach completeness. It aims merely to gather together into an approximately correct chronological sequence the principal examples of minor architectural works mentioned in the hand-books. The richness of Florentine art in monuments, pulpits, terra-cotta embellishments, wood-carving, intarsiatura and metal work has already been referred to. This list, short as it is, will help to an appreciation of the activity of Tuscan artists in these minor works.)

FIFTEENTH CENTURY.

1. THE "MANDOLA" DOOR: south side of Duomo, adorned in 1408 with early Renaissance or semi-classic foliage by Giovanni d'Ambrogio and Niccolò da Piero Lombardi.
2. NORTHERN DOORS TO BAPTISTERY (San Giovanni): 1403-1424, by Lorenzo Ghiberti.
3. TOMB OF POPE JOHN XXIII in San Giovanni: 1420, by Donatello and Michelozzo Michelozzi.
4. EASTERN DOORS TO BAPTISTERY: 1425-1452, by Lorenzo Ghiberti.
5. TERRA-COTTA DECORATIONS IN PAZZI CHAPEL: 1425, by Luca della Robbia.
6. LAVABO IN SACRISTY, Santa Maria Novella: by Luca della Robbia.
7. PULPITS OF BRONZE, in south aisle of San Lorenzo: by Donatello and Bertoldo (his pupil).
8. TOMB OF CARDINAL GIANCOLO OF PORTUGAL, in San Miniato: 1427, by Antonio Rossellino.
9. RELIQUARY OF SAN ZENOBIO under altar in the tribune of Duomo: 1440, by Ghiberti.
10. ORGAN SCREEN in San Lorenzo: by Donatello and Bertoldo.
11. STECCO DECORATIONS OF Old Sacristy, San Lorenzo: by Donatello.
12. ORGAN-LOFT from Duomo, now in the "Opera del Duomo": the figures (and other decorations?) 1433-1440, by Luca della Robbia and Donatello.
13. DOOR TO NEW SACRISTY of Duomo: 1446-1467, by Luca della Robbia, Maso di Bartolommeo and Michelozzi.
14. PULPIT in left aisle of Santa Maria Novella: by Maestro Lazaro from design by Brunellesco.
15. TOMB OF LEONARDO BRUNI (ARETINO), in Santa Croce: 1450, by Bernardo Rossellino.
16. TOMB OF BRUNELLESCHI in Duomo: 1450-1460, by Buggiano.
17. TOMB OF THE BEATA VILLANA in Santa Maria Novella: 1451, by Bernardo Rossellino.
18. SEPULCHRAL SLABS OF THE ACCIAJUOLI in the Certosa of the Val d'Ema; about 1450, by Donatello; carved decoration on that of the Bishop of Ostia, by Giuliano da San Gallo.
19. TOMB OF GIANNOZZO MANETTI in Duomo: about 1460, by Donatello.
20. MARSHUPPI TOMB in Santa Croce: 1460-1470, by Desiderio da Settignano.
21. ALTAR in San Ambrogio: 1462, by Mino da Fiesole.
22. TABERNACLE in San Ambrogio: by Mino da Fiesole.
23. TOMB OF THE SALUTATI in the Cathedral at Fiesole: 1462, by Mino da Fiesole.
24. CIBORIUM in Santa Croce: by Mino da Fiesole.
25. TOMB OF BERNARDO GIUGGI in the Badia: by Mino da Fiesole.
26. TOMB OF THE MARGRAVE HUGO in the Badia: about 1481, by Mino da Fiesole.
27. CABINETS AND DOORS in intarsiatura, Sacristy of Santa Croce.
28. TOMB OF PIERO DI MEDICI in old Sacristy of San Lorenzo: by Andrea Ferrocchio.
29. FOUNTAIN IN COURT OF Palazzo Vecchio: by Andrea Ferrocchio.
30. TOMB OF FRANCESCO SASSETTI AND WIFE in Santa Trinità: by Giuliano da San Gallo.
31. MARBLE TABERNACLE in San Lorenzo: by Desiderio da Settignano.
32. TOMB OF FILIPPO STROZZI in Strozzi Chapel of Santa Maria Novella: by Benedetto da Majano.
33. ALTAR in the Badia: by Benedetto da Majano.
34. DOOR TO SALA D'UDIENZA in Palazzo Vecchio: 1490 (?) by Benedetto da Majano.
35. MARBLE PULPIT in Santa Croce: 1493, by Benedetto da Majano.
36. ALTAR "DEGLI ANGELI" and CIBORIUM, end of left aisle in SS. Apostoli: by Andrea della Robbia.
37. DOOR to Badia: 1495, by Benedetto da Rossellino.
38. TOMB OF ANTONIO STROZZI in Santa Maria Novella: by Andrea da Fiesole.
39. TOMB OF BISHOP BUONAFIDE in chapter-house of the Certosa in the Val d'Ema: by Giuliano da San Gallo.
40. SHRINE in Santa Trinità: by Benedetto da Rossellino.

SIXTEENTH CENTURY.

41. TOMB OF THE ALBERTI in Santa Croce: by Bartolini.
42. TOMB OF PIETRO SODERINI in Santa Maria del Carmine: 1513, by Benedetto da Rossellino.
43. TOMB OF AMERIGO VESPUCCI in San Salvatore d'Ognissanti.
44. TOMBS OF GIULIANO AND LORENZO DI MEDICI in the new Sacristy of San Lorenzo: 1523-1534, by Michael Angelo.
45. MARBLE CHOIR-SCREEN in Duomo: by Baccio d'Agnolo; reliefs executed in 1555, by another hand.
46. DOOR TO SAN APOLLONIA: 1540 (?) by Michael Angelo.
47. TOMB OF ANGELO MARZI-MEDICI in SS. Annunziata: 1546, by Francesco da San Gallo.
48. TOMB OF PAOLO GIOVIO in cloister of San Lorenzo: 1555, by one of the San Gallo.
49. TOMB OF MICHAEL ANGELO in Santa Croce: 1570, by Giorgio Vasari.
50. TOMB OF BISHOP ALTIVITI in SS. Apostoli: 1570, by Bartolommeo Ammannati.
51. TOMB OF GIOVANNI BATT. RICCARDI in Santa Maria Novella: 1580 (?) by Taddeo da Fiesole.
52. CHOIR-STALLS in CERTOSA in the Val d'Ema: 1590.

SEVENTEENTH CENTURY.

53. HIGH ALTAR in choir of San Spirito: 1600, by Caccini.
54. TOMB OF GIOVANNI DA BOLOGNA in SS. Annunziata: 1616, by Francavilla.
55. TOMB OF ANDREA CORNINI, in north transept of Santa Maria del Carmine: 1675, by Faggini.

For the eighteenth and nineteenth centuries it has not seemed necessary to prepare any list. After the glorious work of the quattrocento and cinquecento, the two or three works of Canova and other very modern masters in Florence seem cold, artificial and heavy. Nor has stained-glass been mentioned, nor the hundreds of moveable objects—crucifixes, cups, and the like—which illustrate

the perfection of early Renaissance industrial art in Tuscany. But it may be briefly said that in the Duomo, in Santa Maria Novella, in Santa Croce and the old Sacristy of San Lorenzo, there is more good stained-glass of the fifteenth and early sixteenth century, by Ghiberti, Giovanni da Udine and others, than can be found in any other Italian city. Unfortunately, much of it has been "restored" very recently.

A. D. F. HAMLIN.

[To be continued.]



THE DRAINAGE-CANAL.—PROPOSED EXTENSION OF THE LAKE FRONT PARK.—THE FIELD MUSEUM.—"THE SIGNAL OF PEACE."—THE EQUESTRIAN STATUE OF SHERIDAN.—POPULAR CRITICISM.—A STEEL SKELETON BUILDING STRUCK BY LIGHTNING.—STEEL GRAIN ELEVATORS.

SOME time ago there was described in these letters the great drainage canal by which Chicago's sewerage should be turned from the Lake, from which the supply of drinking water is taken, westward through the river and artificial canals, to the waterways of the Mississippi valley, being made harmless principally by aeration. That this is a wise plan seems to many decidedly questionable. That the contents of the proposed canal, which runs through many of the inland towns, will be entirely harmless, time will more certainly prove than anything else. But the whole plan is most strongly tinged with that spirit of lavishness and waste which in our nineteenth century is so noticeable in America, and especially in the West. Every one knows that in this apparently most useless of all material, the drainage of a great city, there lies that which, if properly handled, means an almost vast fortune to the individual, or a decided source of income to the city itself. The system of drainage at the Fair, described in these letters, was most admirable; most of the European cities dispose of their refuse with some such similar hygienic treatment, and it does seem a pity that Chicago, at such great expense to herself and the State, should turn an actual good into a very possible evil. However, in spite of all opposition, the plan is being carried out and work on the excavations has been pushed forward for the last few years, only interrupted by an occasional strike on the part of the men, or lack of harmony among the commissioners occasioned by political difference of opinions.

The excavations are progressing; the district having been divided into sections, the work is carried forward simultaneously on nearly all of them. The first portion for nearly twenty miles is excavated principally through earths and clays, but in the vicinity of Lemont a limestone formation is struck, and here lies the hardest work. At all points of the construction the most varied methods of excavating the different materials are shown in active operation. At the north end of the canal, which is one hundred and sixty-five feet wide by thirty deep, great steam shovels and excavators carrying the earth to great piles sixty feet high, are in competition with the old reliable pick and wheelbarrow, manipulated by sons of Erin and Italy. Farther south, where the limestone is touched, the steam-drill works like the very impersonation of frenzied energy, great blasts are fired, and the debris is carried off in cable cars, or in huge, elevated, movable cantilever constructions that unload the stone into great piles far away from the excavations. At this point the magnitude of the work becomes apparent, and one cannot fail to be impressed with that, as well as by the enormous outlay necessitated by the undertaking. At the same time, the perfection of the mechanical means employed is so remarkable, the part of the country at this point so unusual, that one becomes enthusiastic over the engineering part at least, even if the practical utility of the scheme is not so apparent.

Apropos of the drainage-canal, a scheme is being agitated by one of the city fathers which again involves the question of the Lake Front, and which, if carried out, would effectually put a stop to all future plans for using this much appropriated tract of land as a possible site for all large buildings of a public or semi-public character to be erected in Chicago for the next twenty years. It has been decided by all the courts of the country that the city now has the exclusive right to this portion of land stretching from Randolph Street to Park Row, a distance of about three-quarters of a mile. The highest courts, as well as the Secretary of War have also decided that the city possesses the absolute right to twelve hundred and fifty feet from the present shore line, extending out into the water, leaving two hundred and fifty feet of harbor over which there can extend no municipal authority. The plan would be to utilize the material now being taken from the canal to fill in the harbor up to the two-hundred-and-fifty-foot limit, forming a fine extra addition to the present stretch of land, and still leaving as ample anchorage for vessels as is found at any point on the Lake. Some system of terraces would be used and a tunnel formed for the Illinois Central tracks, which would be relieved every few hundred feet by ventilating-shafts. These would be the only indication that the tracks were practically in their old locality. In this way an

effective park would be formed in the heart of the city, a very unsightly portion of land would be transformed into an available pleasure-ground, and the smoke and soot from the Illinois Central engines would be materially diminished, so, at least at that part of the Front between Madison Street and Park Row, the harbor would come out into clear view. At present the material from the excavations being made in the West Branch of the Chicago River, a distance of three miles to the limits, the excavation being one hundred and sixty-five feet wide by thirty deep, is being loaded on to scows and dumped into the Lake, where it is, of course, wasted. The chief drawback to the whole scheme is the enormous expense which it would entail on the city. The estimates are, of course, not made, but the roughest of guesses would bring the sum up among the millions of dollars. Those of sanguine temperament advance the idea that the Illinois Central would do a great deal of the work of sinking its tracks, but there are others who maintain that this is not the case. The alderman, whose pet scheme this is, offered the following resolutions at a recent council meeting:

Whereas, It has long been the desire of the citizens of Chicago to know what use is to be made of the Lake Front from Randolph Street to Park Row, and

Whereas, It appears from the late decision of the United States Supreme Court that the unquestioned title is in the City of Chicago, and

Whereas, It is desirable that it be put to some use, and

Whereas, The Drainage Trustees have let contracts for the eastern section of the drainage-canal, the terms of which provide for the removal of the earth excavated from the line of said canal, and

Whereas, Such contractors are now towing all the material to a point in Lake Michigan, where a depth of fifty feet of water can be found, and

Whereas, It is desirable that the space east of the Illinois Central right-of-way to a point two hundred and fifty feet west of the Government breakwater be utilized for a people's park, and

Whereas, there is no doubt but that the drainage-canal contractors would be glad to dump the earth excavated from the canal in this space without cost to the city: therefore, be it

Ordered, That the Mayor and Commissioner of Public Works be, and they are hereby requested to enter into negotiations, first, with the Illinois Central Railroad Company, for the lowering of their tracks from their present grade so that the present Lake Front can be carried over them; second, with the proper Government officials, with a view of securing permission to extend the park twelve hundred and fifty feet east of the Illinois Central Railway; and third, with the Drainage Canal contractors with a view of having them fill the space indicated without cost to the City of Chicago.

These resolutions have been passed and should the scheme be carried out, a more beautiful water front might be obtained than many cities are able to boast of in their very heart.

The Columbus Museum has been formally opened, and the name promptly changed to the Field Museum. It has been the recipient of much that is good from the World's Fair, but also of a great deal of useless material which will, later on, doubtlessly be weeded out. One collection was burned, when it was stored near the Park before it reached the museum, which, doubtlessly, might be looked upon in the light of a blessing. Many interesting collections have been given from the Anthropological Building, the lion's share of whose contents seems to be in the Museum at present. In the central rotunda of the place are many of the smaller models of all the World's Fair sculpture. This is naturally a most interesting collection and one which, not only from association, but from its artistic value is well worth seeing. It seems like a page from the history of sculpture in America. It is already being felt that the Museum is far too inaccessible, and that in its present locality at Jackson Park, there will be very few of Chicago's citizens who will be able to enjoy it to its fullest extent, except on Sundays. The papers are already making facetious remarks about the desirability of adding sleeping-coaches and dining-cars to the trains running down to the place. Before much money is expended on the final work of the building in making it a permanent structure, a good deal of consideration ought to be given to the advisability of keeping it where it is at present. Of course, nowhere could a site be chosen, which would afford such beautiful surroundings, and though another building built for the special purpose might well be more convenient and better suited to its use, it is doubtful whether the element of beauty would so enter into its composition as it does into the present one, the old Art Palace.

Frequenters of the Art Building last summer may remember the bronze statue in the American section, entitled the "Signal of Peace," an Indian on horse-back, holding aloft a spear on which is a feather. It is a good thing, and when seen at the Fair by Judge See, he determined that it should not leave Chicago, and he consequently bought it and offered it as a gift to Lincoln Park. It has recently been unveiled there, being placed not very far from the Grant Monument. It is the work of Cyrus Edwin Dallin, a young artist born in the new Western State of Utah. Displaying marked artistic ability while yet a boy, it was made possible for him to go to Boston to study, and from there his education led him to Paris. This is Mr. Dallin's first public work, and in a speech which he made at the unveiling he told how its subject is one of especial interest to him. He said: "The statue that stands before you represents not only a picturesque subject, but it is a record of some vivid boyish impressions.

"There had been an Indian outbreak and after the soldiers had been sent to quell it the Indians came to sue for peace. The soldiers were encamped on the edge of the little village in which I was born, and I well remember how, one day, fully two hundred mounted braves, streaked with war paint and gorgeous with feathers, came to smoke the peace-pipe. These grim warriors who seemed wedded to their horses profoundly impressed me, and I have always looked upon the Indian with fascinated interest.

"Consequently, when Buffalo Bill was in Paris in 1889, I embraced the opportunity for studying the Indian and spent six months making sketches from life for this statue."

Some months ago, a competition was spoken of as about to occur for an equestrian statue of General Sheridan, to be placed in Garfield Park. This competition was especially noticed because of the unusual way in which it was conducted, the jury being composed of sculptors and men whose judgment was of special value. It was in this contest that Mr. Dallin was the successful competitor.

It has been mentioned heretofore in these letters, how, as a general thing, the local press accepted all works of art, so-called or otherwise, presented to the city, without an honest word of criticism. A very funny collection of communications has been published by one of the local papers as to how to make our city beautiful. These communications have not been made by people because they are in any way especially fitted to make them, and do not come as criticisms from the paper itself, but the first subject which is attacked is this very one of the city's statues. They are piteously assailed, and into a proposed melting-pot has gone much of the work that is positively bad, while some occasional bit of good work has inadvertently slipped in, too. The architecture of the city is assailed with equal energy and lack of discrimination. One man wishes us to abandon "gloomy brick and stone" and embody all architectural flights in Portland cement for exterior covering. Another devotes his disapproving adjectives to the Colonial and Gothic styles, besides fostering a strong dislike for the Classic, as he speaks of the Art Institute as ugly, while a third scribbler makes a plea for something "new," a freshly-invented style, not arising out of present needs, but a general crazy-quilt of whatever has been seen on the earth.

That the profession may obtain benefit from these letters, as well as amusement, a few extracts from different letters are given below:

"Employ only architects who are also artists; most 'architects' are only builders."

"Let an architect learn to erect beautiful apartment-houses and sky-scrapers, most of which are now eye-sores. The store-box styles especially should be avoided."

"Abandon the Colonial style, which is crude and essentially ugly. It was excusable two hundred years ago, but not now, when the people have travelled and seen beautiful buildings."

"Don't allow the Government architect to design our new post-office."

"Don't build any more Gothic churches. Chicago has scarcely anything else, although there are other equally good styles. Try the Basilican, Greek, Byzantine and Russian."

"The Lake Shore drive has every natural attraction, but what can be said of the architectural failures that have been placed upon it? There is every style of architecture there, one may say, from Egyptian down to a style that characterizes the nineteenth century, which is unsettled and allows of too great license. It combines too many different periods and styles, which results in a total lack of symmetry. Let the property-owners and the Lincoln Park Commissioners protect the people of Chicago from being forced to look at any more mongrel architectural failures on the Lake Shore drive. The property-owners and the Commissioners should appoint a jury of nine architects to determine the acceptance of architectural plans for houses to be placed there. The architects should be equitably paid, to be unflinching in keeping up the proper standard."

Architecture seems to be especially the branch of art in which the public at large considers that no education is necessary for a perfect and proper understanding of the matter. In the question of styles, the otherwise well-educated man and woman is totally ignorant, and even in our classes of design, too little attention is paid to the subject of history of design, so that a student who can do excellent work when given a problem is quite at sea when asked to work up the smaller and finer shades of detail, say in the decoration of a room. With a good solid basis of information, the decorator may appear to feel his way; but without that ease that comes of hard study first, his work is often reduced to a nondescript combination of forms and color which is by no means without offense to the educated eye and taste.

During the last month one of the June thunderstorms illuminated an interesting subject in connection with steel buildings. The "Teutonic," a large office-building on the corner of Fifth Avenue and Washington Street, was struck by lightning, the first one of the sky-scrapers to which this accident has ever happened. This special building is a ten-story steel structure. The lightning appears to have been attracted by the steel support of a terra-cotta finial of a balustrade, about a foot and a half above the balustrade at its highest extremity, while the lower portion is directly connected with the steel framework of the building. When the point of contact came to be examined, the surroundings together with the fact that all the electric-light plugs were blown out in the basement naturally suggested the idea that the electric-current passed from the metal finial

support directly into the steel skeleton of the building, which served as a conductor for the current literally from turret to foundation stone. The tenants of the big building from the tenth to the sixth floors felt the shock most severely and rushed from their offices into the halls, where they were met by the most brilliant display of the electric-flash in the central court. No one was at all injured and before they could make their escape from the building the disturbance had passed away. This accident, while it shows the liability of these high steel buildings to attract to themselves the electric-currents, also shows the probability there is of the current confining its attention to the steel framework, and consequently passing off harmlessly into the ground.

In old times, when Chicago presented fewer attractions, the grain elevators were one of the sights to be seen in the city, though of late years they have been rather crowded into the background. A new interest may centre around them, however, if certain proposed reforms in their construction are carried out. An engineer connected with the movement is reported as saying "A salient point of the system is the cyclone principle of moving grain in tubes or pipes with a centripetal motion. This keeps the grain from contact with the conduits and in that way prevents injury to it. The bins are to be of steel or iron which reduces the cost of insurance. By being able to construct these bins some distance from unloading points they can be placed upon ground of relatively less value than that immediately contiguous to a river or harbor frontage." A certain amount of friction at present exists between the Board of Trade and the elevator men, and this will, doubtlessly, be a means of pushing the enterprise forward.

Imre Kiralfy, the man of many shows, has now on foot a scheme to give one of his great spectacular productions here in Chicago, under the patronage of what will be known as the Chicago Exhibition Company. The Company has applied for papers of incorporation, and two tracts of land in the near vicinity of Jackson Park are being considered as possible sites for the proposed building, for which one of our prominent architects has made preliminary sketches. Though the building will be what will be called permanent, much material will be used from the World's Fair salvage, which will naturally not make of it anything of a very substantial character. The cost it is estimated will be between five and six hundred thousand dollars, the building being over seven hundred feet long by three hundred and fifty feet wide. It will be in three parts: the auditorium, two hundred and fifty feet long, having a seating-capacity of ten thousand; miniature Venice and a Venetian garden. Lagoons will be introduced as a feature, on which gondolas will take the visitors after the performances, which will be an enlarged "Merchant of Venice," to the cafés and restaurants which will be a feature of the Venetian garden, as well as cascades, temples, grottos, fountains, etc. In miniature Venice an attempt will be made to reproduce the shops, palaces, bridges and canals of the Italian city.



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

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"HOUSES AT GHENT" FOR LIEUT. L. W. T. WALLER, NORFOLK, VA. MR. W. J. MARSH, ARCHITECT, WASHINGTON, D. C.

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[Additional Illustrations in the International Edition.]

SOUTH FRONT OF THE CALIFORNIA STATE BUILDING, WORLD'S FAIR, CHICAGO, ILL. MR. A. PAGE BROWN, ARCHITECT, SAN FRANCISCO, CAL.

[Gelatin Print.]

SKETCHES AND DETAILS AT RAGUSA, ITALY: TWO PLATES.

These illustrations are copied from *Zeitschrift für Bauwesen*.

TUDOR CHAMBERS, 51 AND 55 CORNHILL, LONDON, ENG. MR. ERNEST RUNTZ, ARCHITECT.

The illustration we publish of this building is taken from a water-color drawing by the architect. The site, which is prominently

situated in Cornhill, adjoining the main entrance to St. Peter's Church and the London and Midland Bank, although not having a large area, has an extensive frontage, the ground-floor portion and basement being appropriated entirely for shop purposes, and the entrance for the office portion, with lift to the upper floors, being in St. Peter's Alley. The building is to be faced with the so-called pink terra-cotta, but in this case no effort will be made at uniformity; but rather variety in the shades of the finished material. By adopting this course it is anticipated that the general harmony of the building will be greatly improved. Certainly it will be a useful experiment, and will be watched with interest by architects who favor the material in question. From an artistic point-of-view, we are of opinion that it is likely to prove very satisfactory. The style adopted by the architect is a somewhat free treatment of Tudor work, refining much of the ornament in the direction of Italian Renaissance. The building, although designed for letting as shops and offices, could be easily adapted for the occupation, as a branch, of some large insurance or other company, for which purpose it will probably be used, as its position is unique.

GARDEN FRONT: ENDALLS MANOR. MR. JOHN BELCHER, ARCHITECT.



BOSTON, MASS.—Annual Summer Loan Exhibition of Paintings; also, New Accessions to the Print Department; at the Museum of Fine Arts.

NEW YORK, N. Y.—Twenty-sixth Annual Spring Exhibition: at the Metropolitan Museum of Art, opened May 8.

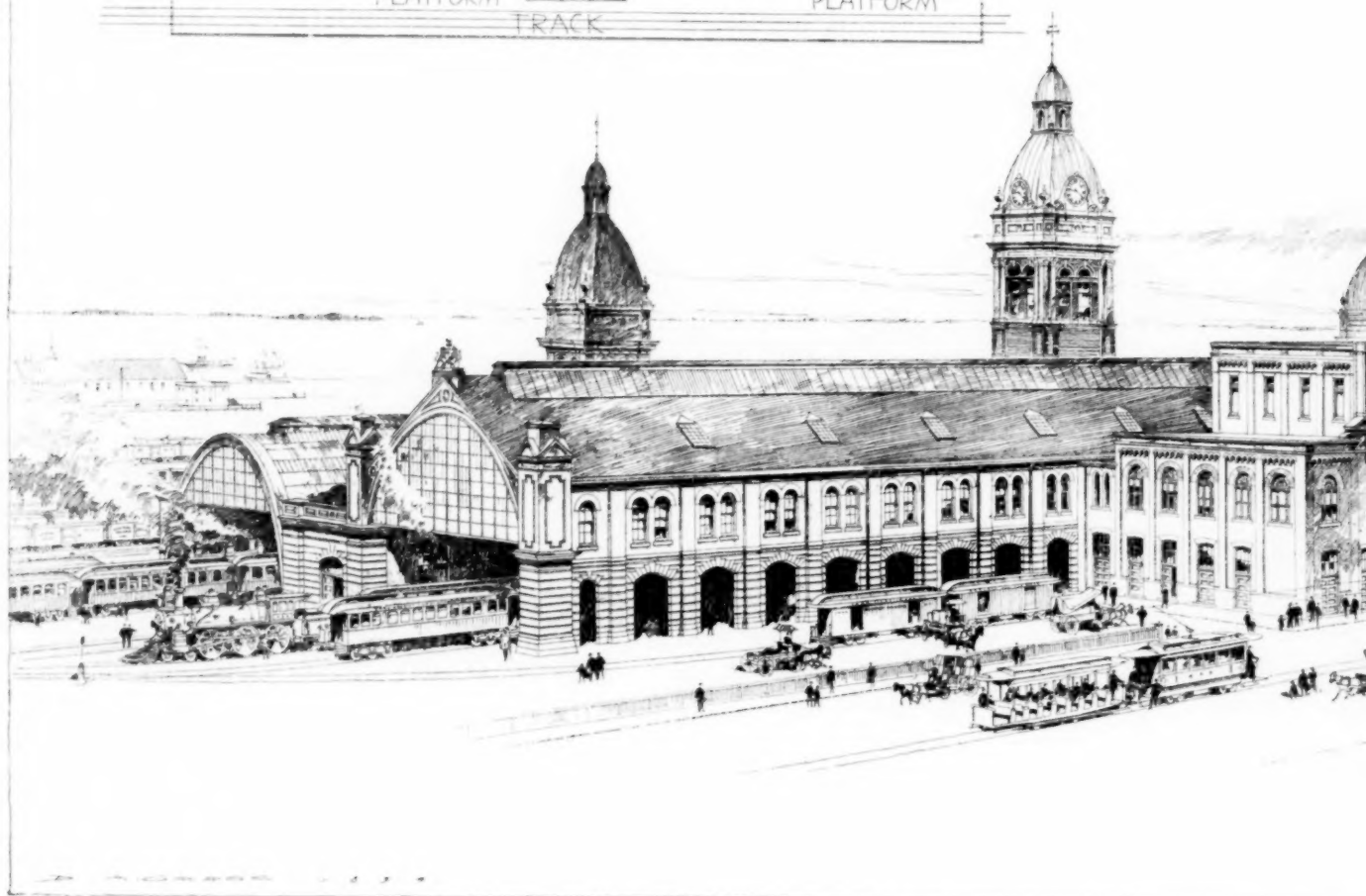
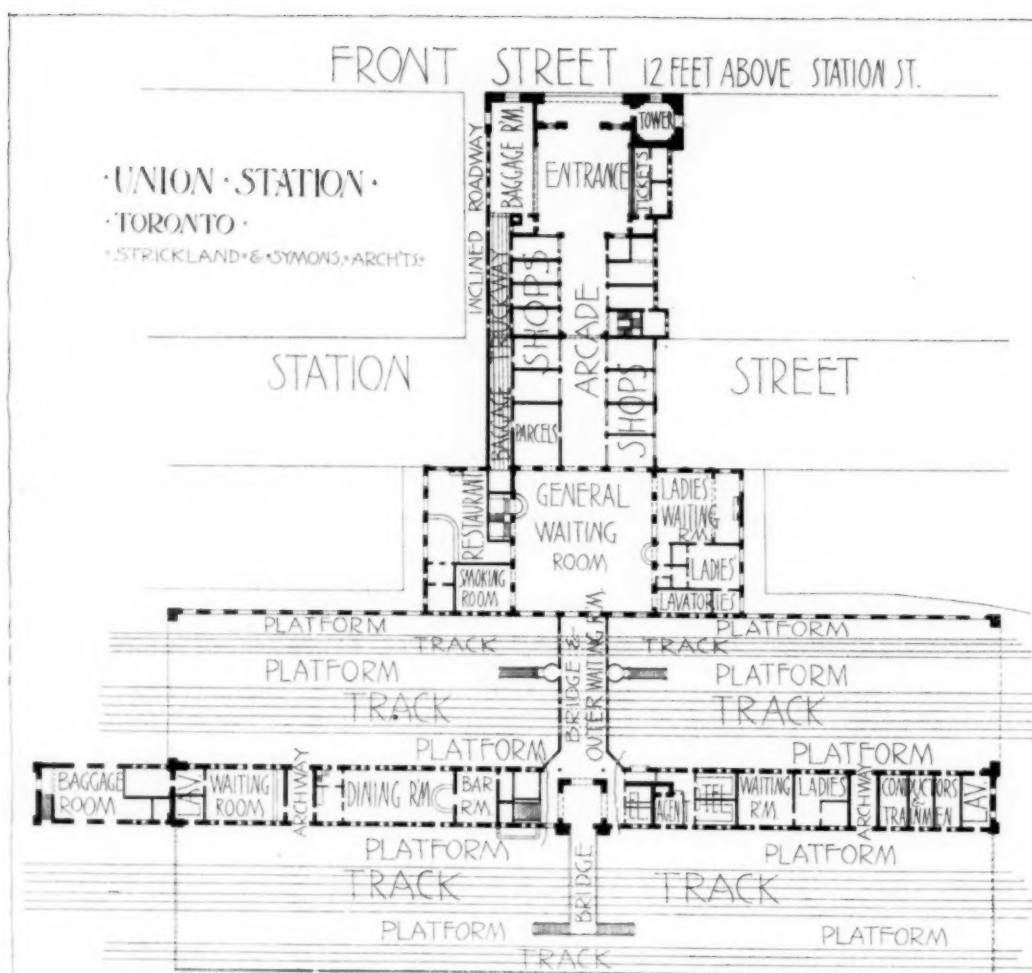
Group Exhibition by American Painters—William M. Chase, J. Alden Weir, Childe Hassam and others: at the Galleries of the American Fine Arts Society, 215 West 57th Street.



AN AMERICAN ARTIST PLAYING TO THE GALLERIES.—A Paris journal says that the American artist Mr. Thomas Shields-Clarke, at present resident in Paris, pursues five different branches of art in five different studios. In his studio in the Rue Darcieu he is known as a landscape painter only. Precisely at 9 o'clock every morning he enters his atelier and paints steadily (in oils) for two hours. When the clock strikes 11 he hurries away to another studio in Rue St. Honoré. Here he picks up chisel and hammer, dons the sculptor's blouse, and pounds away at a block of marble. Two hours later, the blouse and implements of the worker in marble are laid aside, and the artist drives in a cab to the Rue Clément Marat, where, in a third studio, he devotes a couple of hours to water-color painting. The rest of the day he divides between portrait-painting and etching in his other two studios across the Seine. Mr. Shields-Clarke is the only artist in the world pursuing his profession in five different workshops. His first Salon picture was a Dutch subject in oils, but this year he is exhibiting at the Champ de Mars products of his five studios.—*N. Y. Tribune*.

HOW LONDON PAYS FOR ITS BRIDGES.—There is a good deal of misconception as to the source from which the City Corporation gets the money for the Tower Bridge. The Corporation generally gives the impression that the funds are found by it in its corporate capacity. Mr. Edward Tewson, the well-known estate agent, was asked before the Lords' Committee on Betterment where the money came from, but could not say beyond the general statement that the bridge was built at the Corporation's "own cost." As a matter of fact the money comes from the accumulated surplus of the Bridge House Estates, which were originally intended as an endowment for the maintenance of London Bridge. The Corporation was appointed trustee of the estates, but can only apply the money to the building and maintenance of bridges. The growth of the estates has enabled it not only to maintain London Bridge, but to build Blackfriars Bridge, acquire and free Southwark Bridge, and erect the Tower Bridge.—*Illustrated Carpenter and Builder*.

COROT'S ODD PRICE FOR A PICTURE.—A very amusing anecdote concerning the brother of the new President of the French Republic is related by M. Ziem, the Venice artist. The brother of M. Casimir-Perier was on intimate relations with Corot. He came, one day in 1875, to see the painter at Barbizon, just at the moment when Corot was putting the finishing touches to his "Biblis," a picture which represents nymphs sleeping in a wood. His enthusiasm for this work of art, where the poetry of the subject was contending with the science of the painter for superiority, made him wish to possess the canvas. "You shall have my picture," said the artist, "on one condition, and it is that you will pay the butcher's and baker's bill of my friend Millet." "Agreed!" replied M. Perier, a little astonished at this curious condition. The bills were sent for to Chailly, when it was found that the accounts had been running with the two tradesmen for fully twelve years. The one amounted to 22,000*f.* and the other to 24,000*f.* M. Perier paid the bills without moving a muscle. His Corot cost him 46,000*f.* Today he would not take three times that amount for it, but, nevertheless, during the life of the painter it was only worth some 1,300*f.*—*London Figaro*.

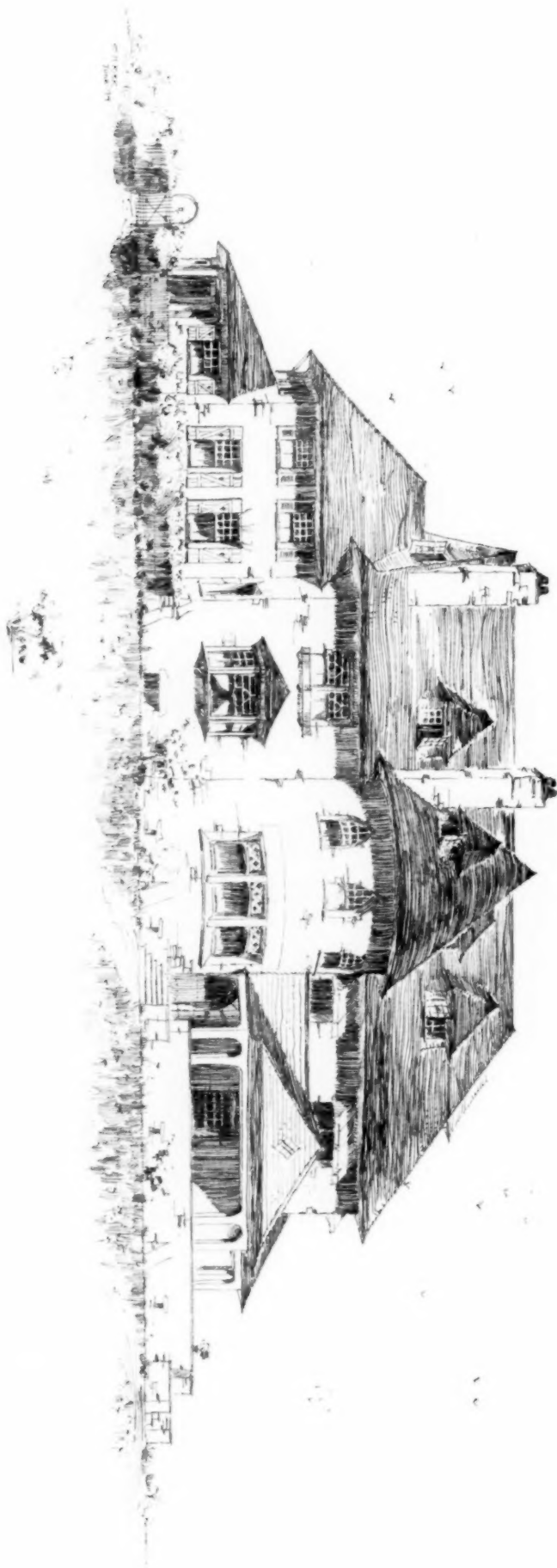




W. P. HILL & CO. ARCHITECTS, 11 KIM, ASSOCIATE ARCHITECTS.

HOUSE FOR VAN DELL AND SMITH, GERMANTOWN, PHILADELPHIA.

REPRODUCED BY HATCH

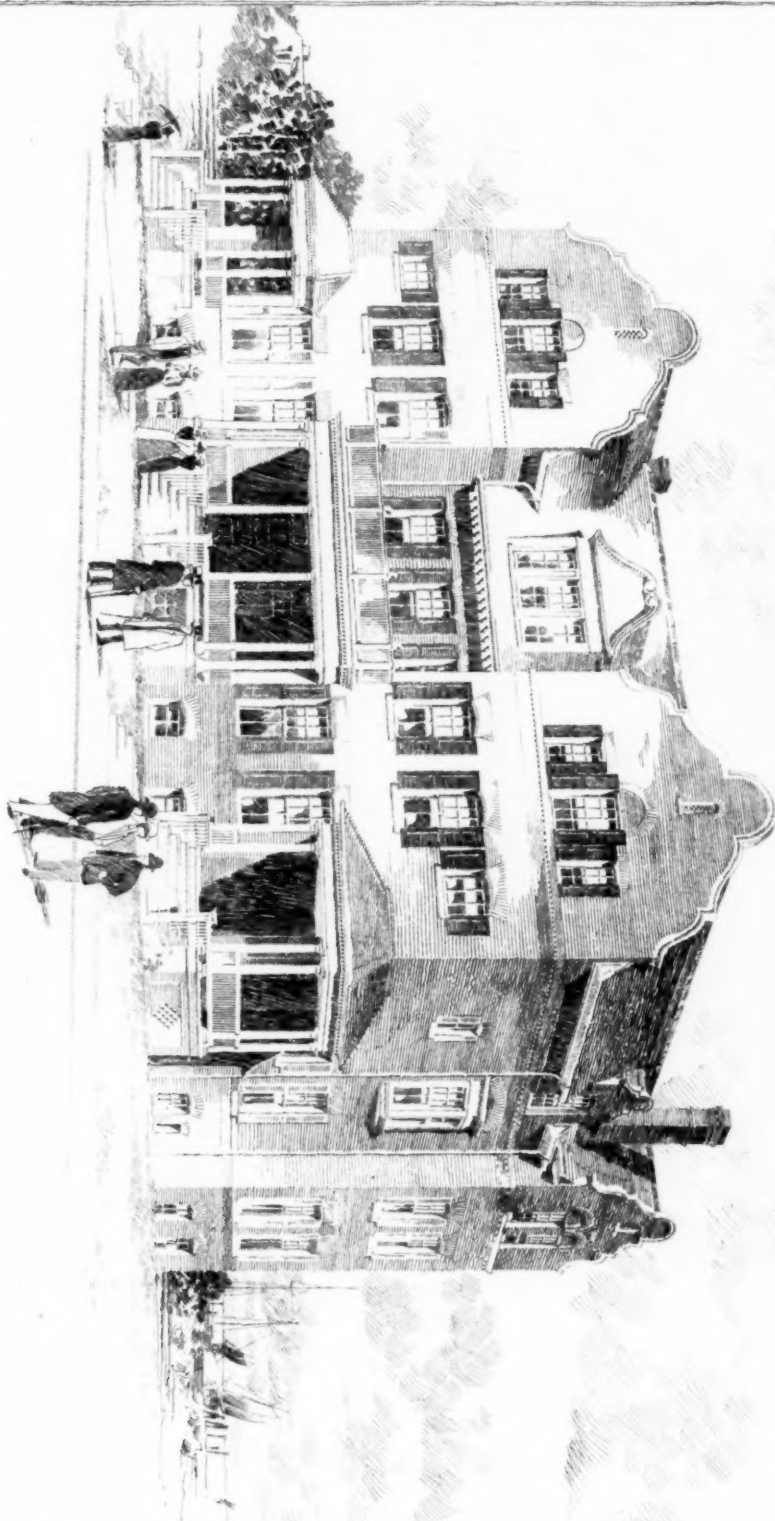


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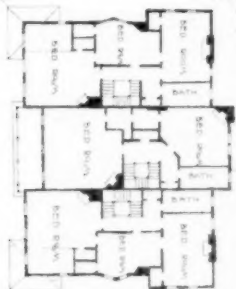
HOUSES AT CHESTNUT, NORFOLK, VA.
FOR LIEUT. L. W. WALLER.

W. G. PETER, DEL.
FROM THE ARCHITECT'S DRAWING.

W. J. MARSH, ARCHITECT,
WASHINGTON, D. C.



PLAN OF SECOND STORY.

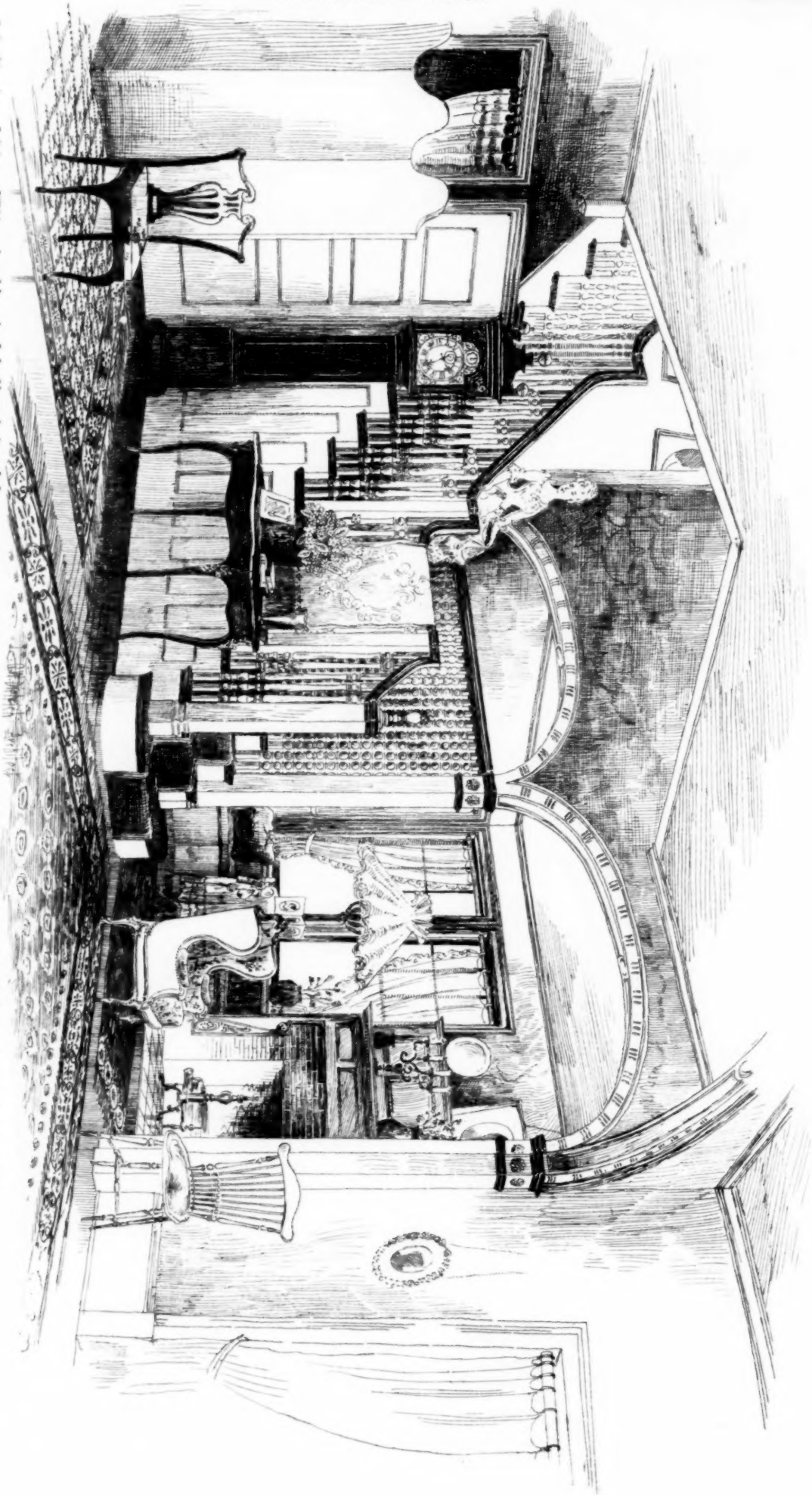


PLAN OF FIRST STORY.

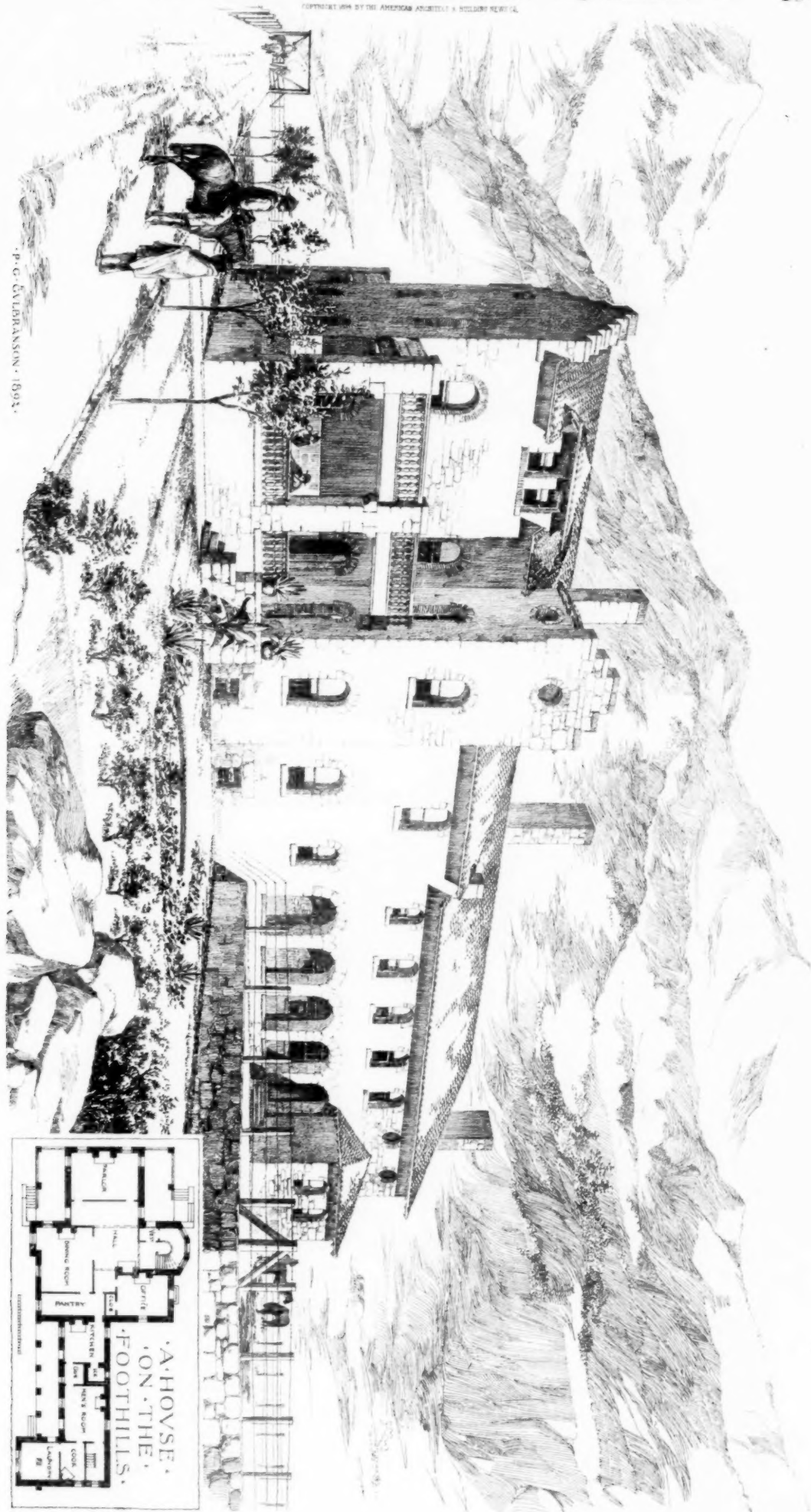


Hall in Miss Elizabeth A. Hallock's House,
Washingtonville, N.Y.

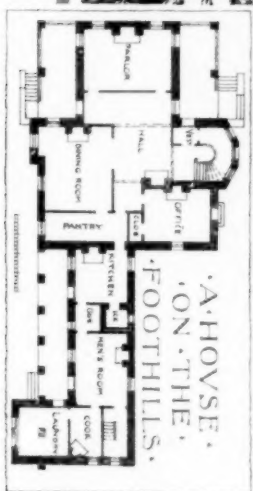
E. G. W. Dietrich Architect 18 Broadway New York



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RELIATIVE POSITION OF HOUSE