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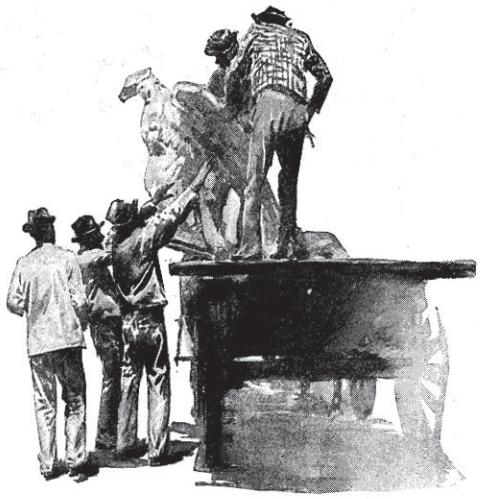
THE MAKING OF THE WHITE CITY.

By H. C. Bunner.

THE ILLUSTRATIONS BY W. T. SMEDLEY.

ON the shore of a wide, blue-gray lake, under a northern sky, veiled over half its horizon with a dim, smoky mist, there spread, two years ago, a waste and desolate sand plain with a streak of marshy pools in the heart of it. Here and there were trunks of scrubby trees and patches of starveling underbrush; but it had none of the pleasant loneliness of the country-side: the bleak desolation of a great city's waste outskirts brooded over the whole tract. On the west the space was bounded by the flat broad road-bed of a suburban railroad; eastward a strong wall of ponderous masonry stood between it and the sullen swash of the inland sea. To the south it went out of sight in loneliness; on the north it narrowed to a point where a great town had begun a fight with nature for a few acres of pleasure-ground, stubbornly pushing a green covering of young trees and grass across the unwilling sand. Beyond this patch of verdure trailed out the city's myriad streets, sparsely settled here, for the town proper lay eight miles away in the heart of the smoky haze that floated along the sky-line.

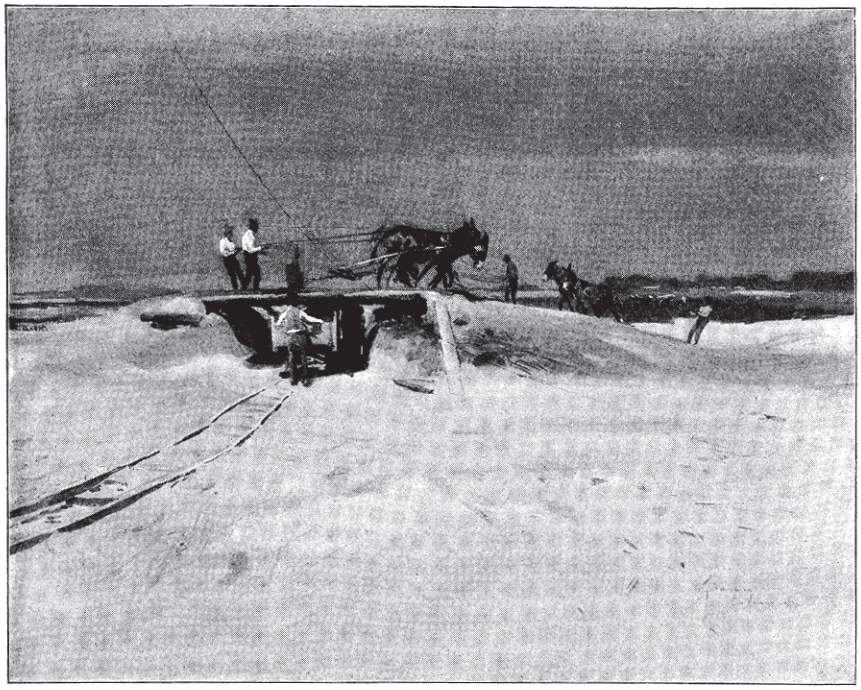


A Bit of Decoration.

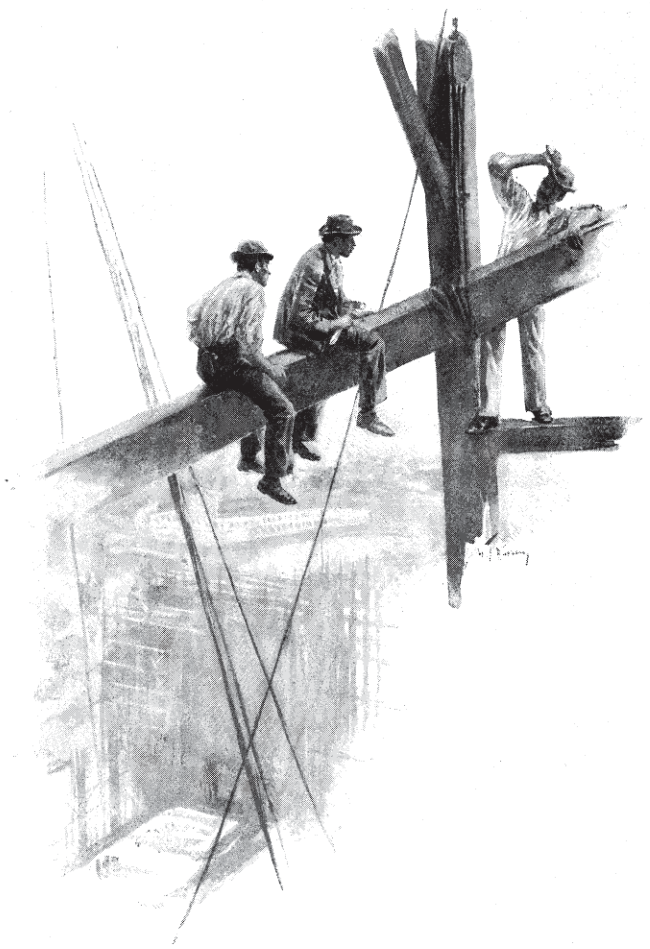
In the month of June, 1891, a man stuck the nose of a plough into the sand of this plain, by way of beginning an undertaking which lay before him, and before some scores of thousands of working men all over the country—day-laborers, like himself; iron-forgers, architects, truckmen, carpenters, painters, surveyors, glaziers, designers, moulders, joiners, masons, gardeners—men of every trade and art and handicraft, of every nationality, of every class and kind of humanity, working together in widely separate places for the accomplishment of one common purpose. To-day, in the prosecution of this undertaking, the surface of that waste plain has become the scene of one of the most

marvellous manifestations of mechanical achievement which the world has to offer; it is the site of such a group of buildings as has never before been assembled for such a purpose, on such a scale, within such a time, and in such conditions. It sounds like an extravagance to say that within this space of half a thousand acres is concentrated the energy, the skill, the intelligence, the activity, equipped with every material requisite, that would suffice to build up a large city in the space of three years; but to this plain statement of fact must be added this other: that the city is built. He who goes to that lake-side desert a year from now will see, rising from a gracious and well-ordered garden, a white city of glass and iron, a system of structures gigantic in plan and scope beyond anything that science has hitherto held feasible or desirable for the sheltering of a multitude of pleasure-seekers.

If you accept this statement literally, it may convey to the mind a notion of colossal achievement, and yet it may be quite inadequate to suggest the breadth and range of design which make the construction of the World's Fair Buildings at Chicago remarkable among the great things done by modern engineers, architects, and constructors; for the scale of the work forces us to new standards of admeasurement. It is a scale so unusual that the physical eye is tricked until it finds for itself new and specially applicable points of comparison and appreciation. We may know that the great central span of the main building is the largest arched roof in the world; but the eye notes little difference between the impression of that huge arc and the picture that memory reproduces of similar mighty curves. Nor yet does the eye see more understandingly when it compares the monstrous bow with one of the insignificant men who are making it. But turn and look at the man on the top of the next huge building; establish a scale of proportion between that man and that building, and then another between the two buildings, and then you



The Exhibition Ground as it was in June, 1891.



Up Among the Great Iron Arches of the Hall of Manufactures.

obtain some idea of the magnitude of the wonderful edifice which, rising above and dominating all its fellows, still leaves them individually huge and imposing. Even so the mind must grasp that idea by a scheme of comparison that seems strained, almost whimsical and fantastic, forming mental projections of such statistics as these: The largest building hitherto made for purpose of public exhibition, namely, the Machinery Hall at Paris in 1889 could be placed under that span, and, if provision were made for its support a few feet from the ground, the entire population of the city of Milwaukee, which is over two hundred thousand people, could be seated comfortably beneath it—and there would still be plenty of space to spare under the arc of that main building that dominates without dwarfing its fellows.

Of course, that such a great feat has been accomplished in architectural construction does not necessarily mean that a good thing has been done as well as a big thing. If it were the production of an older civilization, it might involve or imply some such guarantee of worth, but in this country to talk thus of a public work is sure to suggest the accusation of measuring art with a yard-stick and architecture by the acre. It would be easy enough to put our liberal

Jackson Park—now a Part of the Exhibition Grounds.

resources of technical skill, enterprise, organization, and wealth into so stupendous a work for no higher aim than to gratify an ignorant vanity, and to no happier end than our ultimate humiliation and discouragement. Such things have happened before in the history of our progress, and a country like this would be marked for premature decay if such things did not happen in the first two or three centuries of its lusty youth.

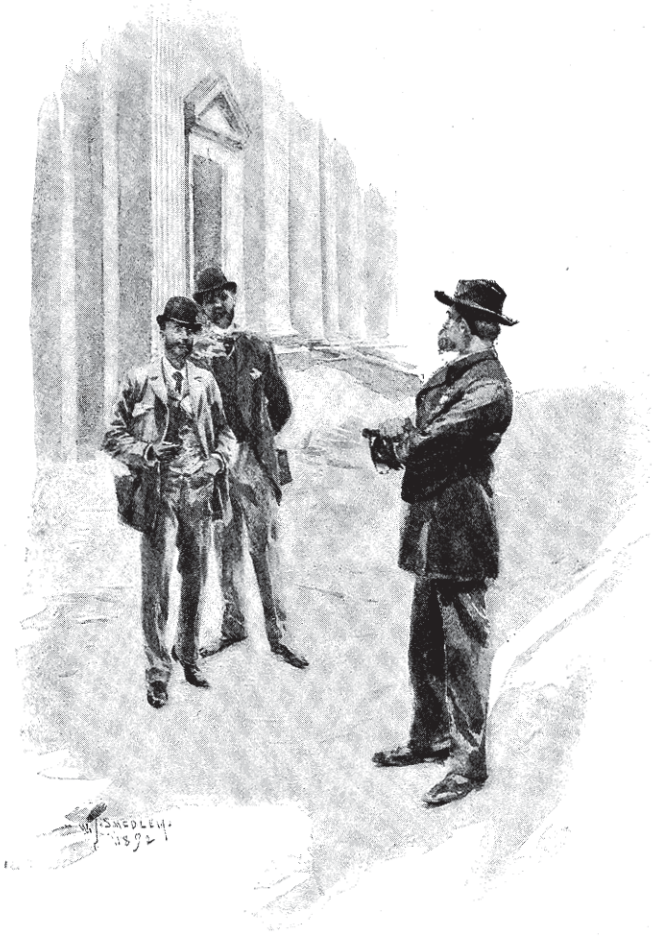
When the conduct of the World's Fair was allotted by Congress to the city of Chicago, it cannot be denied that there was a general fear, and that there was generally good ground for that fear, that Chicago's conception of the housing of the World's Fair might be more interesting for material breadth than for æsthetic height; and the fear has certainly not been lessened by the report of Chicago's adoption of the Brobdingnagian scale.

Eighteen hundred and ninety-three and the opening of the World's Fair will come soon enough to show us how well this country, represented by her second greatest city, has assumed the burden which the performance of such a task imposes upon her loyalty to art, her good taste and her catholicity of interest, and those who form the judgment of the world in such matters will, if we may judge by experience, be neither stinting in censure nor extravagant in praise. It is not in any way the object of this paper to forerun mature judgment or to forecast the value of the finished work. It aims simply to give some portrayal of a most interesting phase and of a great and singular activity, to sketch an imposing and bewildering work at its most significant stage, and to show the lines on which the men who have been chosen for the mighty task are endeavoring to carry out the behest of the state, and turn in less than forty months a barren wilderness into a garden of palaces—to let the work that is being done at Chicago speak for itself.

It is necessary to turn first to one page of the history of the Fair—not the page that tells of the extraordinary exhibition of indecorum made at one time

by two great cities, each for itself, as well as in their relations with each other. No, the page we would turn to bears pleasanter reading. It tells of the doing of the biggest and best thing that has yet been done in the whole business of the World's Fair—of a bigger and better thing than the building of the biggest and best temple of pleasure that ever reared a white forehead against a smoky sky. It is something, too, that could only have been done in America.

The quarrel which resulted in the World's Fair going to Chicago was a credit to neither of the two principal contestants. It reflected unpleasantly upon American civilization, in that it was carried on with the brutal acrimony of an English parliamentary campaign and the sputtering hysteria of an interpellation in the French Chamber of Deputies. On the one side was an old city—old as age goes in this new world—with every facility for handling such an affair, with experience in managing and providing for crowds, and for furnishing comfort and amusement, split into two furious factions of anxious citizens. Both factions wanted the privilege of having the Fair; what they disagreed about was the propriety of buying that privilege with the ruin of an irreplaceable and perhaps an incom-



"No smoking! No cameras allowed on the grounds!"

parable park. On the other hand was Chicago—new, energetic, enthusiastic, untrammelled—with a unanimity of opinion among her citizens that evoked the praise and wonder of the world. Such unanimity deserved the prize, and won it.

But, face to face at last with the responsibility and the task, Chicago sat down to consider coldly some of the limitations of the usefulness of unanimity, and to discern, perhaps, a certain spiritual significance in the difference of opinion which had seemed almost incomprehensible when she saw it vexing the disunited Eastern mind. There is a unanimity that comes from the ordered training of many intellects to work for a single end. There is also the unanimity which hails the ascending rocket with the imitative hiss of admiration. The course of that unanimity during the further career of the rocket has often been noted.

The undertaking she had in hand necessarily brought with it the necessity of considering certain problems that could not but be new to a new civilization. Perhaps, more than any other town, Chicago has made it her boast that her equipment of energy, material, and resource was always kept equal to her demand upon it. Other cities might have to wait for men, time, or money to bring about a realization of their dreams; Chicago kept her force of realizers always on duty and ready for every emergency. Whatever she wanted she had, and as soon as she made up her mind that she wanted it—whether it was the tallest hotel in the world or the system of express passenger elevators needed to make fourteenth story offices as accessible as those on the third floor.

No doubt she made good her boast. But her new obligation introduced her to several wants which she had never before had to consider, and which she was wholly unprepared to meet. The satisfaction of utilitarian requirements, with a reasonable desire to give beauty a fair show at the same time, had hitherto been the formula of Chicago's artistic growth. Even in the laying out of her great parks she had attempted little more than the forcing of an existent flatness and monotony into a more agreeable diversity of form and feature, yet while this coaxing of a smile upon the dull face of nature must be admired as a clever performance under most trying conditions, it cannot be held more than a compromise with abstract beauty—a plucky attempt to wrest from an unwilling soil the public playground's natural birthright. The little artificial hills and dales of Lincoln Park were, however, Chicago's boldest essay for the sake, primarily, of the æsthetic rather than the useful. That is to say, for the special work she had taken upon herself she lacked not only the necessary special preparation, but the situation she faced was one unforeseen in her plan of life and alien to the essential idea of her self-education. Two courses lay open to her; to degrade the work to the level of her own aptitude at the moment, or to carry out her trust in the highest spirit of loyalty and faithfulness, at whatever cost to a local pride, that must have been most sensitive, exacting, and sanguine in the flush of recent victory. Chicago probably has not as yet realized the size of her achievement in adopting the latter alternative; it is not measurable in stone-perches, but it is the biggest thing in Chicago's list all the same.

It must, however, be recorded with regret that the recognition of the necessity of outside help came as an afterthought; it was demonstrated, indeed, by injudicious and unsuccessful attempt. The valuable aid that was invoked came too late to deal with the scheme of construction as a complete, perfect, and independent whole. When Chicago called the best architects and landscape-gardeners to her aid they found that a part of the task before them was the co-ordination with their own plans of certain features not of their own origination. But it seems as if the very difficulty of doing this had added something to the enthusiasm and determination with which they undertook the work. Let us add that it was the only important drawback they had to encounter. The work that was handed over was handed over without reservation or restriction, and with their authority they received the fullest pos-

DRAWN BY W. T. SMEDLEY.

The Lake Front and the Side of the Main Building (Hall of Manufactures).

In Process of Construction (an Entrance of the Hall of Mines).

sible means of accomplishment and the heartiest encouragement and assistance.

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Perhaps the first thing that would strike a stranger entering the World's Fair grounds in the summer of 1892 would be the silence of the place, the next the almost theatrical unreality of the impression by the sight of an assemblage of buildings so startlingly out of the common in size and form.

When I speak of the silence I mean the effect of silence. There are seven thousand and odd men at work, and they are hammering and hauling and sawing and filing as noisily as any other workmen, but their noise is hardly noticeable among these vast spaces. The

disproportion between the men and the structures is so great that this army of laborers looks like a mere random scattering of human beings. Insensibly the beholder gauges the amount of noise he expects by the size of the work before him, and is surprised at the insignificant effect of what he does hear. All of this is part of that first impression of unreality which I have spoken of as almost theatrical. I might call it positively theatrical if I could at the same time convey some sense of the effect of certain daylight views of a great stage decked with ambitious scenery. It is not only the grouping of the huge white and pale-yellow buildings that gives this impression, although it is hard enough to believe in that at first sight; for it cannot but suggest the extravagant fancy that a dozen or so palaces from distant lands—some unmistakably

Before the Agricultural Building.

out of the Arabian Nights—have taken a sudden fancy to herd together. There are certain grotesque figures of the method of construction that strikingly heighten the general effect of strangeness. You watch two or three workmen moving apparently aimlessly upon the face of what seems a stupendous wall of marble. Suddenly a pillar as tall as a house rises in the air, dangling at the end of a thin rope of wire. The three little figures seize this monstrous showy shaft and set it in place as though it were a fence-post. Then a man with a hand-saw saws a yard or two off it, and you see that it is only a thin shell of

Near the Hall of Mines.—The Great Arches of the Main Building (Hall of Manufactures) in the Distance.

The Administration Building.

stucco. As you adjust your perceptive faculties you see, two hundred feet above your head, the two halves of a large arch of veritable iron come together, moved by unseen engines, as noiselessly as though they were shadows against the sky.

This is the first impression, and it is one that comes back most readily to the memory in after hours. But on the spot it is shortly displaced by an amazed perception of the vast activity which informs the whole scene; and an unspeakable fascination seizes you as you watch the working out of a great fundamental idea.

"The whole thing is a sketch," said one of its projectors; and in a certain sense it is a sketch, in lines of iron and wash of plaster. This is not an accident; it is the aspect, which, in the opinion of the builders of the fair, a group of buildings of this character should present. All, or almost all, of the structures must necessarily be temporary and removable or convertible to other uses. All must be of great size; all must be put up in a very limited space of time. This involves the adoption of the iron-frame system of construction, and practically makes elaborate internal decoration an impossibility. This situation has been frankly accepted by the architects. They have left it to the exhibits and their accessories to decorate the inside; their own

DRAWN BY W. T. SMEDLEY.

Site for the Statue of the Republic.

task has been to make of walls and roofs a picture pleasing in general composition and harmonious in detail. An iron frame generally means an iron casing, but to carry out a scheme like this it was necessary to find some material less obdurate, more easily handled and more susceptible of artistic treatment. This material was found in a combination of plaster and jute fibre, called *staff*, which combines adaptability to all forms of plastic handling with a stiffness and toughness almost like wood. This stuff has made possible effects of construction which could never have been attempted under the same conditions with any other material. It is prepared as quickly as water and plaster and fibre can be mixed together; it may be made coarse or fine, rough or smooth in surface as may be desired; it may be cast or molded; it may be colored; and when it is dry and ready for use it is handled almost exactly like wood—bored, sawed, and nailed. This, then, is the wash in which the great sketch of the White City is executed. It takes every form that is necessary to clothe and ornament the iron skeletons; it suggests rather than simulates stone, and, considered for itself as a building material, it has certain agreeable qualities of brightness and softness.

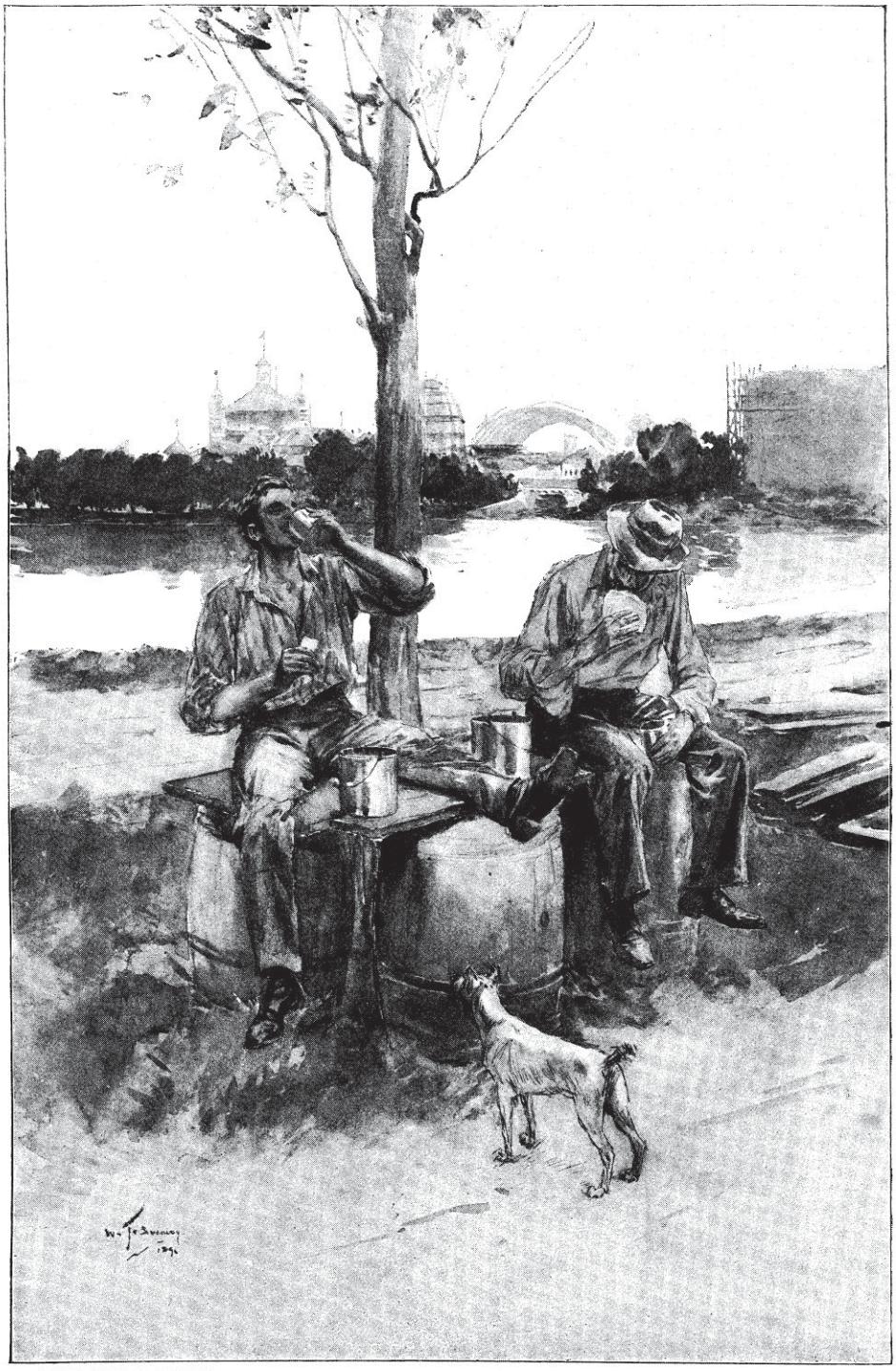
It is of this material that all the mural decorations of the Fair Buildings are moulded, even to the statues, and it lends itself with equal readiness to embodying the graceful and somewhat stern classicism of Mr. Philip Martiny's slim, long-winged goddesses, or the amazing and somewhat unaccountable vehemence of the strange allegorical family with which Mr. Karl Bitter is decorating the finials of the Administration Building.

There is a strong contrast between the clothing and the framework of the building. The iron and woodwork employed are of unusual strength; and the iron castings are in some instances wonders of scientific manufacture. For instance, in setting up the preposterously huge trusses of the main building it had not, up to June, 1892, been found necessary to re-drill a single rivet-hole —which testifies to a miracle of constructive calculation at the distant foundries where these great masses of iron were shaped.

The whole business of construction has been reduced to a system original in

Model for Statue of the Republic, by Daniel C. French.

many respects, and peculiarly applicable to the needs of the time and place, the main idea being to make of the construction an art by itself, leaving to the architect only the responsibility of artistic design. As Mr. Frank D. Millet, the right-hand man of Chief-Constructor Burnham, tersely puts it: "We give our constructors a picture and the dimensions, and say, 'Make that!'" And even to Mr. Millet, who has helped in almost every World's Fair for the last



DRAWN BY W. T. SMEDLEY.

Lunch Time.

twenty years, this is a new step in the progress of architecture.

With this possibility of quickly and inexpensively modelling the exteriors of the buildings at will, it became also possible to the designers to attempt a bold effect of harmony and balance in the grouping of the structures, and to make the individuality of each building fit in with one underlying design which should at once appeal to the eye and to the memory, so that the thought of any part at once brings to mind its position and significance in the whole scheme. To some extent, of course, those features which they found themselves obliged to accept at the inception of their task have interfered with the carrying out of this plan in its absolute completeness; but the interference has been far less than might have been expected.

It may certainly be said that the least observant of visitors can hardly fail to grasp and retain some conception of the simple and effective ground-plan which unites this impressive collection of buildings, in the course of a single progress through the grounds. If he comes in by the main entrance, the idea of order and system is presented to him at the very outset. All the entering railroads converge here to a single *perron*, or platform, in front of which stands a square building, surmounted by a gilded dome. This is the Administration Building, designed by Richard M. Hunt, of New York. It is placed here to serve a double purpose, to form a vestibule to the Fair of impressive and symmetrical dignity and beauty, and to show the new-comer on his arrival the headquarters of control and management. Under this shining dome he passes to what may be called the grand court of the Exhibition, a mighty quadrangle, flanked on either side by towering white façades, and bounded at its farther end by a majestic peristyle raising its long array of columns against the clear background of an enclosed harbor. An artificial lake or basin of water occupies the greater part of this quadrangle, at its head stretching out into a long transept of canals, the northerly arm connecting with a long, irregularly-shaped lagoon at whose farthest end the pillared front of a classic temple rises from the water's very edge. In the angle formed by these two water-vistas stands the mammoth among buildings, the Hall of Manufactures and Liberal Arts, stretching a third of a mile along the water side.

It is the southwestern—or perhaps it would be more accurate to say the southern—corner of this stupendous pile that centres the whole ground plan and fixes in the mind the relation of its principal parts. The southern façade, covering the whole stretch from the canal to the lake, forms the most important boundary of the central plaza, while its longer frontage looks westward over canal and lagoon upon the broad park-land where lie, irregularly disposed, the buildings not included in the main group. Thus he who stands in front of this corner, at the point where canal and basin join, sees to his right and to his left the two essential divisions of the general design—the court scheme and the champaign scheme—and the thought must strike him that in their combination, in a proportion suggested on the one hand by the breadth and on the other by the length of the grounds, the possibilities of the site have been practically exhausted.

We must not forget the peculiar character of that site. Almost triangular in shape, it was, save for a few marshy hollows, as flat as a parade-ground. It lacked utterly the relief of rock or hill or woodland grove, or even of gracious slopes and terraces. The city lent it no architectural background. Whatever was to be done with it had to be done with the materials at hand. Under such conditions the best thing to be tried for was to make the landscape an attractive and appropriate setting for the buildings, whose size and importance could not but be exaggerated by the character of their surroundings. Here came in the idea of employing water as the effective feature of this setting, and in so broad and liberal a manner as not only to heighten the charm of the architect's work, but to afford a positive novelty in stretching throughout the ground a system of canals and channels navigable for pleas-

ure-boats—of making, in fact, a water-show in the very heart of the land-show. Through the greater part of the triangular plain the body of water created to this end wanders in graceful and natural curves, doubling on itself, stretching out in pleasant reaches, pushing an arm here, a bay there, sweeping around islands large and small; fringed its whole length in every bend and inlet with the simple and ever lovely flora of the inland water-side—iris, pond-lily, hellebore, sedge-grass, arrowhead, sweet flag, and bulrush—and set around with clustering thickets, and long lines of those lowly and grateful willows that ask only a plenteous draught of water to show their pearly gray-greens from the first stirring of the sap till the coming of the Fall.

This has been the work of Mr. Henry Sargent Codman, the partner of Mr. F. L. Olmstead, and it is easier to admire his success than to realize the difficulties under which he has labored. He has laid under contribution all the lakeside country within many miles of Chicago, ransacking ponds and marshes for suitable stock for transplantation, and making his selections with rare skill and judgment. But the setting out of plants and shrubs by the scores of thousands has been only one part of Mr. Codman's arduous duties. He found for his field of usefulness a flat sand-plain with some three or four inches of superficial soil—light, friable loam, excellent for quick growth and not on any account to be wasted. He removed this top-coating of soil, piled it up temporarily in convenient places, dug his lagoons and canals out of the sand-plain, and then spread his stored-up loam back in the places where he wanted lawns and terraces and thickets and bosky islands. That is to say, he skinned his subject, remodelled its contours, and put the skin back.

As it comes before the mighty front of the Main Building, this wandering stream is caught and held within bounds, until, submissively gliding amid the confines of artificiality, curved and arched and trimmed to line and angle, it plays its part in the great parade of the court square.

The picture of which it forms a part—the picture of the great quadrangle—is one not easily forgotten, even when it is seen in the crude bareness of its unfinished line; when only the superb and well-balanced lines of the half-sheathed buildings bound its broad spaces and spread their long roof-lines against the cold sky. It will be more striking, perhaps, when it gets on its holiday drapery of flags and awnings, of splashing fountains and green parterres made gay with flowers; or seen at night, in the wonderful dress of electric light that is being woven for it, an astounding tracery of fire that is to outline every niche and corner and pillar, every balustrade and terrace-edge, down to the water-line, where a triplicate row of lights, mirrored in the shining depths, will map out the margin of the basin; while from time to time the startling, all-revealing glare of the lake-side search-lights travels across the whole enclosure—the bull's-eye lantern of our familiar electrical giant. And yet, fine as is the theatre it presents for splendid pageantry of this sort, to those who have seen it in the last stage of its growth the trappings may only cost the great square something of the simple dignity it derives from the architectural strength and just proportions of the buildings which wall it in. Properly speaking, the whole space is one broad avenue from the railroad terminus to the Lake, for two-thirds of its length practically a water-way, with the Administration Building planted squarely midway of the remaining third; but to view it from a point in the water-way is inevitably to pick out three buildings as salient boundaries—the main building, known as the Manufactures and Liberal Arts Building, the Administration Building, and the Agricultural Hall. In the first case it is pre-eminently the aggressive size that attracts the eye, in the second it is the application of a striking form to a peculiarly appropriate situation; in the third what captivates the attention is simply the charm of a beautiful design ideally well displayed. Seen, as it must first be seen, across the water; in an unbroken perspective against the clearest quarter of the sky, so disposed as to be free from the dwarfing influences of any

other building or group of buildings, its candid classicism receives every advantage that situation can give it, and the eye turns from the effect of breadth and mass in the main building opposite to the calm beauty of its graceful detail with a sense of grateful and natural transition, recognizing a certain complementary relation between the different kinds of dignity expressed in the huge structures.

But if these three buildings offer the most characteristic and unforgettable façades of the square, it is not to be supposed that the rest of the group of giants fail in effectiveness or adequacy in the matter of external appearance. On the contrary, they carry out admirably the idea of restriction to healthy classical lines, which, by mutual consent, has governed the designers of the whole group ; while they offer, individually, an ample diversity of thought and treatment. But their position, at the inland end of the court, presenting their main entrances to the Administration Building, has been governed in some measure by the exigencies of their use.

On the southerly side stands, with its annex, the Machinery Hall, designed by Messrs. Peabody & Stearns of Boston, covering in all a space of ground some fourteen hundred by five hundred feet. On the northerly side are the Hall of Mines, and Mining, and the Electrical Building, so called ; buildings almost twins in size (about seven hundred by three hundred and fifty feet each), but sharply differing in design—the Hall of Mines, with its massiveness of design and detail, and the Palace of Electricity, raising on high its almost fantastically broken sky-line. The one is the work of Mr. S. S. Beman, the other of Messrs. Van Brunt & Howe, of Kansas City. Outside of these, or rather, around the corner from them is the Transportation Building, a vast hall running nearly five hundred feet each way from the imposing Roman arch, with its florid half-oriental decoration, which forms its main entrance. This edifice stands as a sort of connecting link between the serried ranks of the quadrangle buildings, and those which are ranged in " open order " around the water space, in the middle of the champaign or park-like portion of the grounds. These are, in the order of their position : The Horticultural Hall, the Women's Pavilion, the Illinois State Building, the permanent Building of the Institute of Art (around and beyond which are the smaller headquarters of the various States and foreign nations), and then, returning on the lakeward side of the lagoon, the Fisheries Building and the United States Government Exhibition Quarters, which comprise a large building, and at the lake shore an enclosed harbor for the naval exhibit. Here the long ellipse reaches the northerly end of the main building, and thus connects with the base of construction formed by the great court, and that coign of vantage at the confluence of basin and canal from which the eye first takes in the whole broad and varied scheme.

It is from this point that a comprehensive view must be taken of the arrangement as a whole, and of the harmony or discordance of its several parts. Of the quadrangle it may be said that from the layman's point of view criticism would be hypercriticism. Whatever individual taste or scholarship may find to question or reject in the details of this marvellous plaza, with its thronging façades, its spacious water-ways, its treasures of columns and fountains ; the people who go out to see a great and beautiful sight would be mean and ungracious if they sought to weaken by ungenerous analysis the satisfying impression of grandeur and beauty, and of eminent fitness and good taste, produced by the whole picture. It is a noble design, broadly conceived, and carried out with an amazing amount of patient skill and conscientious thought.

To turn to the other and longer vista of the water parkway is to see how sadly the interference of lower standards can mar the complete execution of an exquisite, artistic design. For almost a mile the eye travels the delightfully diversified length of the beautiful waterway which Messrs. Olmsted & Codman have laid out, to rest at last upon the almost sacredly classic front of the great Art Building, calm and pure in its beauty as the waters of the lake from which it rises. It is a beauty of line and proportion rather than of decora-

tion, a beauty of balance and modulation, a beauty which must be seen in its completeness, undisturbed by any other spectacle, if you would feel the full delight of its serenity. And right here, across full half of the western end, the Illinois State Building thrusts an unseemly and ill-bred shoulder into the view, like a drygoods emporium affronting a Greek temple.

There is another building in the way on the eastern side, but it neither affronts nor offends. This is the Fisheries Building, designed by Mr. Henry Ives Cobb, and its delicate pavilions, with their clean, significant lines, and their airy, skyward lift, take gracefully a subordinate part in the picture and relieve a severity with which they are in no wise out of keeping. Joyousness is the keynote of Mr. Cobb's design; his is a happy concept for a people's summer pleasure-house, and he permits himself something like an approach to architectural humor in his grotesque decorations of conventionalized forms of fishes and crustaceans. It may be objected that the primary purpose of the building is scientific, but to this it should be urged that ichthyology is a science which it is hard to disconnect from a certain fantastic curiosity, and that, in spite of what the learned have said, the humor-loving human being will never take fish quite seriously—and moreover, that the man who conceives a design so wholly delightful in spirit as Mr. Cobb's, need make no more apology for the lightsomeness of his art than he does for the gracefulness of it.

Across a lake from the Fisheries Building is the Building of the United States Government, which promises to be one of the most valuable and important exhibits in the whole Fair. It ought to illuminate the soul of even a Congressman from Darkest Kansas with new lights on the selection and compensation of government architects.

The Horticultural Hall, which is the largest building of the park group, is sufficiently imposing in point of size, but disappointing in its heavy and earth-bound lines, the ponderous effect of which is accented by the unnecessarily broad frieze which swathes the building like a wide bandage. It is, however, only fair to say for Mr. Jenny's building that considerations of interior effect have had more weight than in the case of any other edifice (except, perhaps, the Administration Building); his highly colored courts being made a characteristic feature.

It is impossible to avoid speaking of certain unsatisfactory points in this part of the exhibition—impossible because the very high standard of achievement established elsewhere provokes the uncomplimentary comparison. Yet it must not be forgotten that such criticism is, after all, only comparative. It is mainly because so much has been done thoroughly well, that the element of dissatisfaction seems unduly irritant. To use the consoling axiom of Charles Reade's humble publicist, "Where there's a multitude there's a mixture;" and it was inevitable that in a work so vast some parts should be on a lower plane than others, both in conception and execution. The thing to be wondered at is that this undertaking could have gone so far as it has without developing more positive evidence of bad taste or lack of skill. Every World's Fair, I suppose, must have its "Iolanthe in Butter," and perhaps Iolanthe has her place in the art-education of a people. If she has, it may be incidentally remarked that ample provision has been made for filling her place in this instance. There is a modern and realistic *rilievo* at the base of the great entrance of the Transportation Building, which does the completest justice to the Pullman-car end of our civilization.

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I have endeavored to give some idea of what shape and form the World's Fair enterprise had taken to the apprehension of the physical eye in the month of June, 1892, without attempting to discount the future, or to do more than lay before my readers a very brief and untechnical description of a sight that moved me, as I think it must have moved any American who saw it as I did, to a deep interest and honest enthusiasm. It has been a pleasant but a trying task, and how full it has been of temptations to error and to exaggeration can only, I think, be understood by the man, who, as a boy, has peered

through a hole in the circus tent, and whispered to his wide-eyed companions a fragmentary and hurried account of the dazzling show in process of preparation. He, I know, will forgive me, if I have shown more earnestness than art in striving to picture to him the effect produced by this strange assemblage of beautiful, gracious, and inspiriting architectural forms—at the first sight of the unfinished White City of Palaces.

It has been difficult to convey the effect of what has been done: it would be impossible to convey the effect of the doing of it. It is a great exhibition in itself—the concentration of human energy and intelligence which has made this work possible. The men who are doing it are gathered together from distant cities, and for the months or years that their task may require of them, they have given themselves up as absolutely as soldiers give themselves to their duty. It is, in fact, an army of laborers with a staff of artists and architects that is under the command of Mr. D. H. Burnham, the Chief of Construction, a man born for generalship, strong in executive ability and in the capacity for inspiring loyalty and devotion. It is through his constructive and executive genius that the admirably able corps of architects and designers gathered together at Chicago are enabled to realize their splendid fancies in all the strength of their ambition. Within the walls of the great enclosure these men lead, for months at a time, the life of military officers in the conduct of a campaign, living in barracks, their days' work beginning with their waking and ending only with too long deferred sleep.

They have worked so hard and so long together, at home and on this sandy plain, that, like all old comrades of war, they have a talk of their own, and among themselves they sometimes speak of a certain "microbe," the germ of something which, with soldierlike levity, they figure as a disease—the enthusiasm—the uncontrollable, action-impelling enthusiasm for their great enterprise which sustains them through this long strain on body and mind; the enthusiasm which seizes upon all who watch them at their grand toil, and which I wish were mine to communicate in telling of what they are doing.

STATISTICAL NOTES OF THE WORLD'S FAIR BUILDINGS AT CHICAGO.

(These figures are approximately correct, within a foot or so; fractions are suppressed for the sake of simplicity; and allowance must be made for slight alterations in plan.)

THE GROUNDS are a little less than a mile-and-a-half in length. In width they are about a third of a mile at the narrow end, and about four-fifths of a mile at the broad or south end. Speaking roughly, this is about equivalent to as much of the lower end of New York City as would be separated from the upper portion by a line drawn from the foot of Canal Street and North River to the foot of Rutgers Street and East River. They contain more than half a thousand acres, exclusive of the Midway Plaisance, an annex running eastward behind the Women's Pavilion.

THE MAIN COURT, Plaza or Cour d'Honneur is a quadrangle 2,000 by 700 feet. It contains the Great Basin, 1,100 by 350 feet; the MacMonnies Fountain, the centre-piece of a basin 150 feet in diameter; and terminates at the lake end in the Peristyle designed by Mr. C. B. Atwood, which is 60 feet high and is composed of four rows of pillars.

THE MANUFACTURES AND LIBERAL ARTS BUILDING is 1,687 by 787 feet in size. It covers about thirty-one acres. The great main roof covers an area 1,400 by 385 feet, and has an extreme height of 210 feet. This is between 55 and 60 feet higher than the Great Arch of the Machinery Building in the recent Paris Exposition. It is only 10 feet less in height than the great chimney of the New York Steam-Heating Company. It is just 6 feet lower than the top of the spire of Grace Church, New York. It is 11 feet lower than the Bunker Hill shaft at Boston. It would hold the Vendome column mounted on a 74 foot pedestal. The seating capacity of the building is estimated at over 200,000 people. St. Peter's at Rome holds about 54,000, St. Paul's in London less than 26,000, and the Metropolitan Opera House in New York has a capacity of 5,000 people. The entrances to this building are 40 feet wide by 80 feet high. Its ground plan is much more

than twice the size of that of the Pyramid of Cheops. It is the better part of a hundred feet longer than the main span of the Brooklyn Bridge. It is nearly two and one-half times as long and more than two and one-half times as wide as the Capitol at Washington. The architect is Mr. George B. Post, of New York.

THE AGRICULTURAL BUILDING is 800 by 500 feet. Its central dome is 130 feet in height and 100 in diameter. The corner domes are between 90 and 100 feet high. The cornice-line is 65 feet high.* Messrs. McKim, Meade & White are the architects. The statuary adornments of the building are designed by Mr. Philip Martiny. The annex to this building is 550 by 300 feet.

THE MACHINERY HALL is 846 by 492 feet. Its annex 550 by 490 feet. These dimensions do not include boiler house, machine house, etc. The architects are Messrs. Peabody & Stearns, of Boston.

THE ADMINISTRATION BUILDING is 260 feet square. The dome is 275 feet high externally; the internal dome is 190 feet in height. That is, it is about as high on the outside as Trinity Church spire in New York. The dome of the Capitol at Washington is 287 feet in height, and internally considerably smaller than that of this building. Mr. Richard M. Hunt, of New York, is the architect; Mr. Karl Bitter, the statuary.

THE HALL OF MINES AND MINING is 700 by 300 feet, and the architect is Mr. S. S. Beman, of Chicago.

THE ELECTRICAL BUILDING is 690 by 345 feet. The four corner towers are 169 feet high. The longitudinal nave is 115 feet wide by 114 feet high. Messrs. Van Brunt & Howe, of Kansas City, are the architects.

THE TRANSPORTATION BUILDING is 960 by 256 feet, with a one-story annex covering about 9 acres. The cupola is 165 feet in height. Messrs. Adler & Sullivan, of Chicago, are the architects.

THE HORTICULTURAL BUILDING is 998 by 250 feet. The dome is 187 feet in diameter and 113 feet high. Mr. W. L. B. Jenny, of Chicago, is the architect.

THE WOMAN'S PAVILION is 388 by 199 feet. The architect is Miss Sophia G. Hayden, of Chicago.

THE BUILDING OF THE INSTITUTE OF FINE ARTS (permanent) is 500 by 320 feet, with a dome 125 feet high. The architect is Mr. C. B. Atwood.

THE FISHERIES BUILDING is over 1,000 feet in extreme length, the main building being 365 by 165 feet, flanked by two circular pavilions, each 135 feet in diameter, connected by arcades. Its water capacity is 140,000 gallons, exclusive of reservoirs. The architect is Mr. Henry Ives Cobb.

OTHER BUILDINGS are the Dairy Building, 200 by 95 feet; the Government Building, 415 by 345 feet; the Forestry Building, 500 by 200 feet; the Stock Pavilion, 440 by 280 feet, and the Illinois Building, 450 by 160.

* By general agreement among the architects, 65 feet is accepted as the standard height of the main façade in most of the buildings.

Going Home from Work.