PENCIL POINTS Volume XIII Number February, 1932

For the Future, Fitness and Harmony

By William Ward Watkin*

The romantic concept that architecture has been privileged to record the true and lasting picture of civilization, particularly of bygone civilization, has become one of architecture's most hallowed traditions.

When with the closing years of the twelfth century it produced work the spirit of which has been expressed in the Latin-de materialibus ad immaterialia transferendo, there was pictured the summa of its saving grace. The work of peasant, guildsman, bishop, and builder blended in crystallizing the philosophy of the age in shadowed vault on lofty arch and slender pier-with the accuracy of sound mathematics and the artistry of stained glass. Material, local and dull earthy material, had become a medium of expressing external beauty.

The romantic concept which had ennobled architecture to the academicians of earlier ages had become for a while at least a practical reality. Now in our own age one can but doubt whether this interpretation of the instructor, who waxed warm in glowing tribute to the majesty of the Athenian Acropolis or the splendor of the portal of St. Gilles, ever really became sufficiently clear in its meaning to cause the student to leave the classroom with eyes sufficiently open to question the expression of present-day civilization embodied along the streets he traversed from his home to the classroom.

Architectural education in American schools came into existence only a decade before the beginning of a period of vast architectural activity in American cities, therefore during the past forty years practitioner and student alike appear to have been entirely too busy-and while very busy working, possibly found less time for thinking than those of earlier ages in architecture's history. Now that some two years of uncertainty have given the profession ample leisure, the evidences of inquiry as to whither we have been going, have been quite frequent and in the varied opinions there has been much diversity. Professor William A. Boring in a very recent article so courteously expressed his opinion, that while power might be a very true element of our most recent architecture, beauty had rights and privileges which exceeded those of power, and could be expected to continue to enjoy them; that too much of function and too little

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of refinement seemed the story of the day. I wonder whether underlying the sometimes crude expression of power and function has not been, in a very true degree, a creative desire for cleanliness-eyes which were being opened to the reign of error, which had been the resulting expression of a system of choice whose foundation had been the individual's interpretation of the mirage of beauty.

Today, while a nation pauses, fearful of progressin this day of unbuilding-may it not as searchingly account for its errors in architecture as it must and will account for those in agriculture, industry, and banking. In architecture the evidence is visible, here day by day to eyes which are open. Find a city whose beauty satisfies the architect! Find a city whose retail business center can be understood as having been the outcome of the design and thought of a cultured people rather than an uncultured race-yet architects have built these; and the architects individually were capable men.

I read with warm sympathy the kindly criticism of those archite , who would restore anew the gentle beauty of our Colonial cities-but as a people, our manner; and as a city, our movement is not that of those days long past.

I appreciate the crusaders' ambition which leads our young men of high talent and ability to search for some happy history to give to the small home a bit of what we have learned to term "architecture."

For the modernist who feels his world and would express it with a modern story, I even more truly feel the sincerity of his striving toward a surer goal.

Yet are these not all but the collective story of the way we have traveled? Is it not time to look about us with eyes which are open?

Capable men traveling with enthusiasm and earnest effort the road as these men would have us travel it, have given us the expression of our cities as they are. Can we say that they-any one of them-would have chosen the conglomerate picture we see-so ill-proportioned an ensemble, so discordant a result? In each of the best of these men were sweet sensitive appreciations and each sought beauty, yet day by day the results were more discordant than before.

Whether, as students, we were impressed by the platitudes of the classroom, whether architecture did or did not seem to express the philosophy and character of bygone civilizations countered for little at the time, for it was a picture of the past and not of our day. We have grown up amid American cities, themselves constantly growing, and a more truthful story was not told in the age of Pericles or with the building of Rheims. A discordant civilization, completely unarranged and embracing the highest altruism with the grossest selfishness, the deepest research with a shallow habit of thinking, has created its own material picture which all who pass may read. When occasionally the twilight of reflection comes, as it has today; when in less busy hours, a nation may take account of itself, as is the happy privilege of the individual, then indeed the mind and the emotions seek to choose their most precious possessions.

In this time of reflection the rich words of the exponents of style, the clear logic of the exponents of function, and the magic words of the exponents of beauty, uncertain as they may be, each fall upon dull ears. A nation, as well as our profession, needs thrift, honesty, and inspiration. The most common factor of the three is honesty.

Architecture, which for an ultimate beauty can find no higher value than that of perfect fitness, can not excuse the diversity and confusion created willfully upon our busy city streets, nor the bizarre medley willfully created to mark and mar our residential communities. Fitness accepts the right of neighboring buildings each to their place in a lasting picture. Fitness denies sole authority to the individual to mar the quality of the community. Fitness, when a guiding virtue in creative work seeks, as is art's mission, to "make gentle the life of the world."

I wonder whether we would not judge achievement more truly were we to measure it by the degree to which it creates or promotes harmony rather than individuality?

Today when we see artisans and mechanics, thrifty, capable, masterworkmen, long idle and approaching despair, in a nation possessing material riches in the excess; when our entire civilization falters and threatens to fall because it produces too much and sells too little; what a faithful picture, to eyes which will see, has architecture raised to portray so well our strange confusion!

The vision of the profession for the future, for the days of rebuilding which are sure to come, should be a broad and understanding human view, with honesty first, in material, in structure, and in fitness to surroundings; all qualities the modernist could preach without his willful discard of harmony; and with it, adjustment over a wide area with true regard for the economics of the problem. It is a view of architects working in unison to a common good and with an understanding of the common needs of their community. They should plan toward a sustained harmonious ensemble, to the submergence of the highly individual ambition and its expression within a still higher artistry which, working within desirable limitation, creates even greater beauty-a harmony that elevates all and degrades none.



TOWER OF PROGRESS, PLACE DES CONGRÈS-WORLD CENTER OF COMMUNICATIONS PROJECT OF HENDRIK C. ANDERSEN-SEE ARTICLE OPPOSITE Ernest and Jean Hébrard, Architects

French Comrades in America

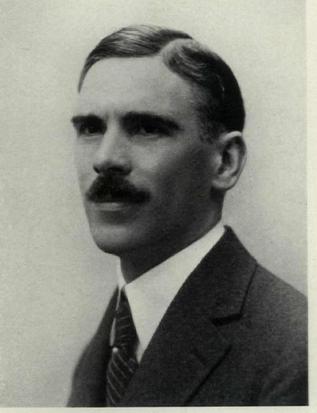
4—Jean Hébrard

By Harry Sternfeld

Editor's Note:—This article, less fully illustrated, appeared originally in the T-Square Club Journal of Philadelphia (which, by the way, is one of the best architectural club publications in this country). Believing that the career of M. Hébrard would be of interest to the larger audience reached by PENCIL POINTS we arranged to use the text herewith in conjunction with a larger selection of representative drawings by the subject.

Among the works produced by students of the École des Beaux Arts in Paris which inspired architectural students in this country several decades ago, two are outstanding, viz., the projet of M. Leon Jaussely, which won the Grand Prix in

1903, and the projet of M. Jean Hébrard, which won the Prix Chenavard in 1904. Offering a refreshing contrast to the usual and pardonable "pompier" spiritin which the student's imagination is inclined to exceed the limits of practical considerationsthese two projets combined brilliance and profusion of detail, so dear to the heart of the student, with seriousness of purpose and simplicity of composition. Instead of a narrowly conceived interpretation of a program limited to a study merely of buildings or monuments, such consideration was given to circulation on a grand scale, especially vehicular traffic, that the conceptions were raised above the plane of any ordinary academic exercise.



JEAN HÉBRARD

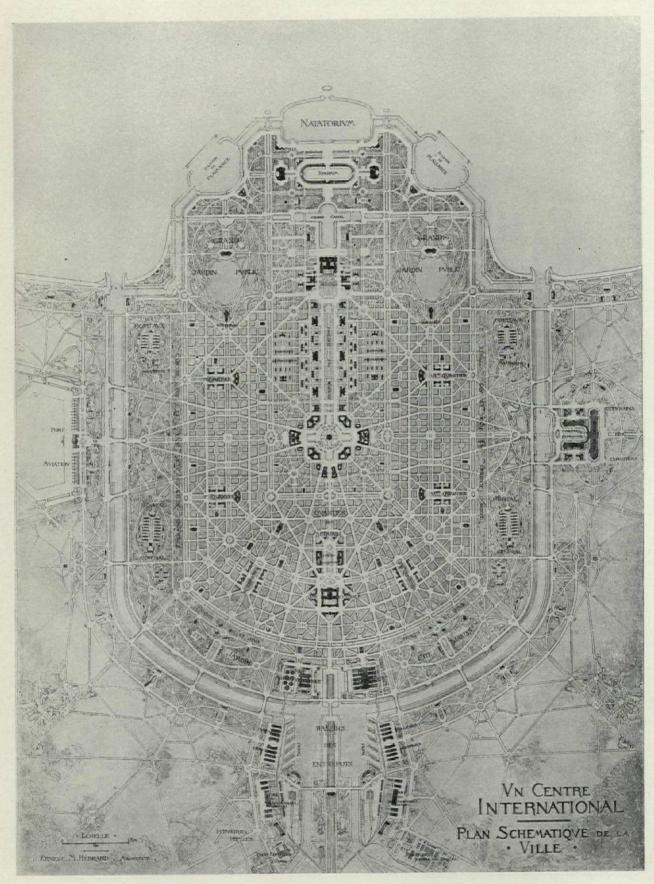
Because of their evident relation to a general community plan, they gave an extraordinary sense of reality. This impression was particularly striking in the case of M. Hébrard's essay. Here was a daring attempt to express in terms of architectural and city planning, the functions of an entirely new factor in civilization—the automobile. Since there was practically no precedent to guide the author in his research and he was therefore constrained to depend largely on past forms of expression, one can appreciate the courage and thoroughness shown in his study. That his vision was prophetic and that he was correct in giving

importance to this new mode of transportation is, of course, made clear to us today. If others, equally well trained, had been as keenly alive to the possibilities and consequences of automotive travel, their research undoubtedly would have had its effect. The public

> would have become "traffic minded" much earlier and demanded the modification of the arteries of communication and their governing regulations in advance of the colossal development in the use of the automobile. Interest and imagination in planning at this stage would have done much to prevent the widespread and seemingly hopeless traffic problem that exists today. We, today, are forewarned by this situation, and hence forearmed; and the practitioner and student of architecture have occasionally been brought in contact with problems connected with the field of aviation. And yet what student in the profession has had the vision and courage to seriously direct his

studies to the consequences that must be expected from the profound changes in architecture and city planning that the next mode of transportation will engender.

The thrilling beauty and logic of these two plans were a revelation to us, and intensive study of them evoked the personalities of the authors as vividly real entities. The happy privilege of later coming intimately in contact with these brilliant minds emphasized the fact that an individual's work is the true index of his character. Thus the Chenavard projet of Jean Hébrard, produced comparatively early in his career, is truly indicative of his philosophy concerning the



PLAN FOR A WORLD CENTER OF COMMUNICATIONS-PROJECT OF HENDRIK C. ANDERSEN ERNEST AND JEAN HÉBRARD, ARCHITECTS

relation of the activities we term Architecture to the needs of contemporaneous society. Giving a life's study to this relation, as it existed during earlier civilizations, he has applied the facts ascertained to the solution of modern architectural programs.

Jean Hébrard, born in Paris, became interested in architecture at an early age through his admiration for a friend of the family who was an architect, and whose office he entered after finishing his preparatory school course where he had shown an aptitude for science. After a year's trial, he decided to continue to study in the profession which he had learned to love in spite of the arduous, concentrated drill in the elements which he had undergone under his friend's direction. Although he felt at the time that his critic was overly severe, he gained a mastery over the details of the orders and elements of architecture that has lasted through his whole career. He became a meticulous draftsman and although at first he lacked speed and ability to properly present his studies, after he practiced the esquisse-esquisse methods of rapid presentation, because of his thorough grounding, he finally could present an exercise in the orders with great surety and expressiveness. Thus after spending four months in the preparatory Atelier Godefroy, he passed on his first attempt to enter the Ecole with the high rank of number eight. Only one other French student topped him. The others were a Swiss and five Americans, among who were Welles Bosworth, John Russell Pope and Candler.

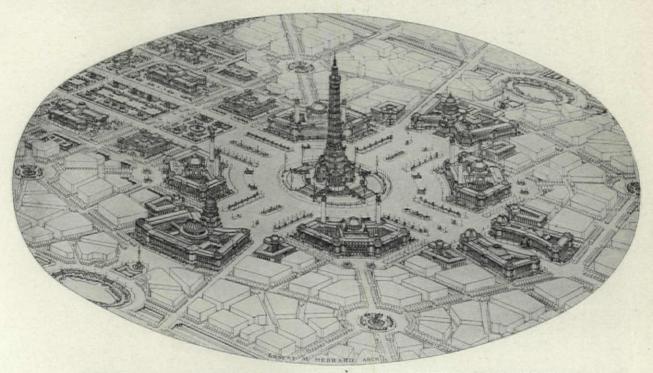
He entered Atelier Ginain, of which his brother, Ernest, destined to become one of the Ecole's illustrious graduates, had become a member four years previously. He found M. Ginain a most conscientious critic. Besides his great ability as a planner, he was a

master of detail and he insisted that his students should not slight this phase of study. In fact, he greatly enjoyed studying details with them, and used to say, "There is no unimportant detail in Architecture." This attention to detail became a tradition of this atelier and a marked trait of the students who studied there. M. Ginain practiced his precepts, and was an outstanding figure in the practice of architecture. Among his works are the important addition to the École de Medicine, with its masterfully treated façade, and the Musée Galliéra-renowned for its graceful charm and delicate beauty. He possessed the great gift of being able to analyze a program and grasp its essential elements, and was a master of composition. Respected and revered as a patron for over thirty years, he died a year after Hébrard's entrance into the atelier, leaving a lasting influence. A former pupil, M. Scellier de Gisors, succeeded him, and his able criticism kept the reputation of the atelier on a high plane. He preserved the realistic attitude of a practicing architect and carried the traditional study of details even further than Ginain.

Hébrard passed through the various classes until his studies were interrupted by his military service. Upon completion of his military service, in which he spent one year instead of the usual three-year period, because he had gained a medal on the construction problem at the end of Class B, he entered Class A and received his Diploma in 1904.

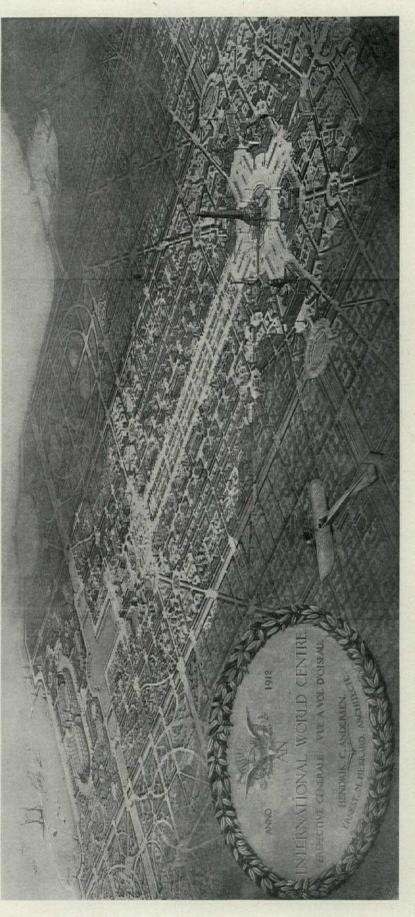
He had been awarded several medals, especially on esquisse-esquisses. Even in Class B he had placed among the twenty competitors chosen for the twentyfour-hour competition for the Grand Prix. He also placed in later years.

The automobile exhibition in the Grand Palais in

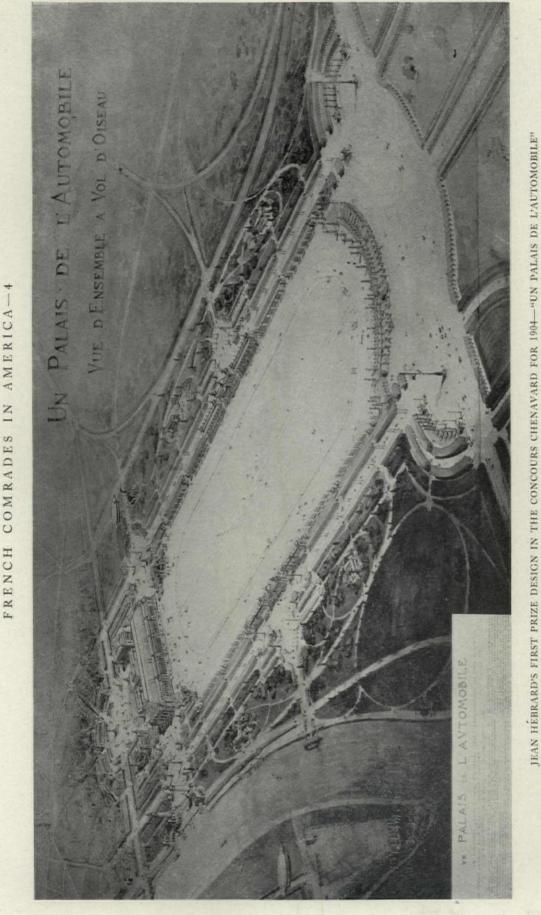


BIRD'S-EYE PERSPECTIVE OF PLACE DES CONGRES, WORLD CENTER OF COMMUNICATIONS project of hendrik c. andersen-ernest and jean hébrard, architects

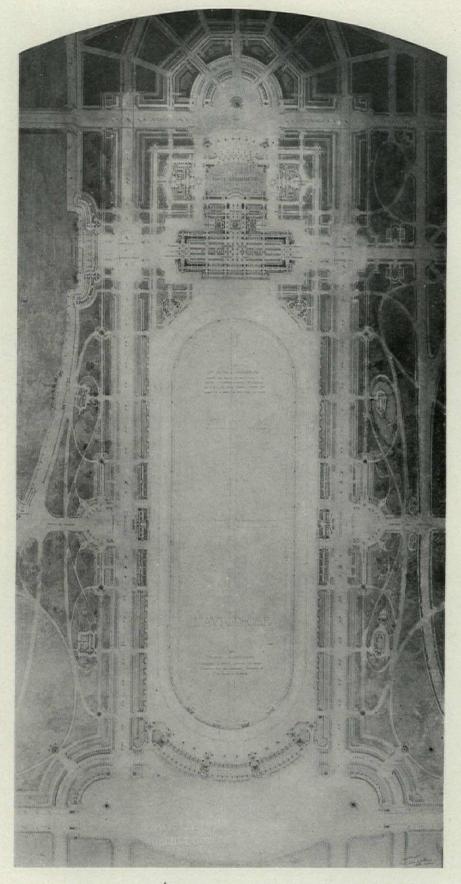




GENERAL BIRD'S-EYE PERSPECTIVE OF HENDRIK C. ANDERSEN'S PROJECTED WORLD CENTER OF COMMUNICATIONS ERNEST AND JEAN HÉBRARD, ARCHITECTS

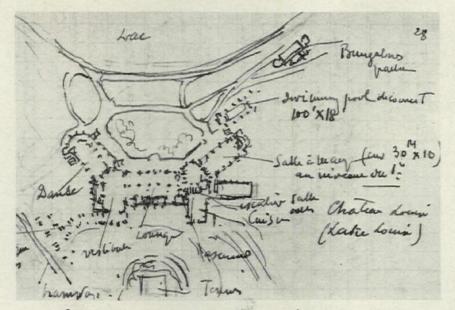


"A DARING ATTEMPT TO EXPRESS, IN TERMS OF ARCHITECTURAL AND CITY PLANNING, THE FUNCTIONS OF AN ENTIRELY NEW FACTOR IN CIVILIZATION"



PLAN OF JEAN HÉBRARD'S PRIX CHENAVARD DESIGN, 1904

FRENCH COMRADES IN AMERICA-4



CHÂTEAU LOUISE, LAKE LOUISE-FROM M. HEBRARD'S NOTEBOOK

1904 stirred his imagination and submitting a program based upon a study of the then little known requirements, he won the Prix Chenavard, as mentioned before. This study and success gave young Hébrard an equipment and a certain flair for planning on a grand scale, which was to prove characteristic of both the Hébrard brothers. They had the unique distinction of both winning the Chenavard Competition.

Although qualifying several times in the Grand Prix semifinal competition, Hébrard, because of various circumstances, had not prepared himself seriously for the test. He also lacked incentive because he was absorbed in office experience. But although he failed to qualify as a logist, his brother did, and Jean Hébrard was destined to play an important part in helping him make the effort which was crowned with success; for Ernest Hébrard won the Grand Prix in 1905.

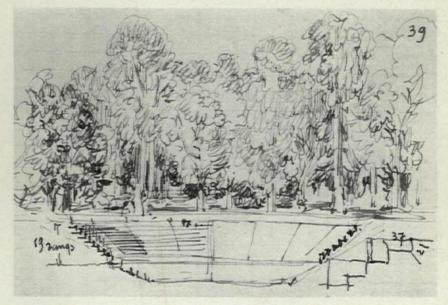
Shortly after this event, Jean Hébrard accepted the position of Professor of Design at Cornell University,

where he spent four years. Quite a number of American architects today, in various parts of the country, remember him as their teacher.

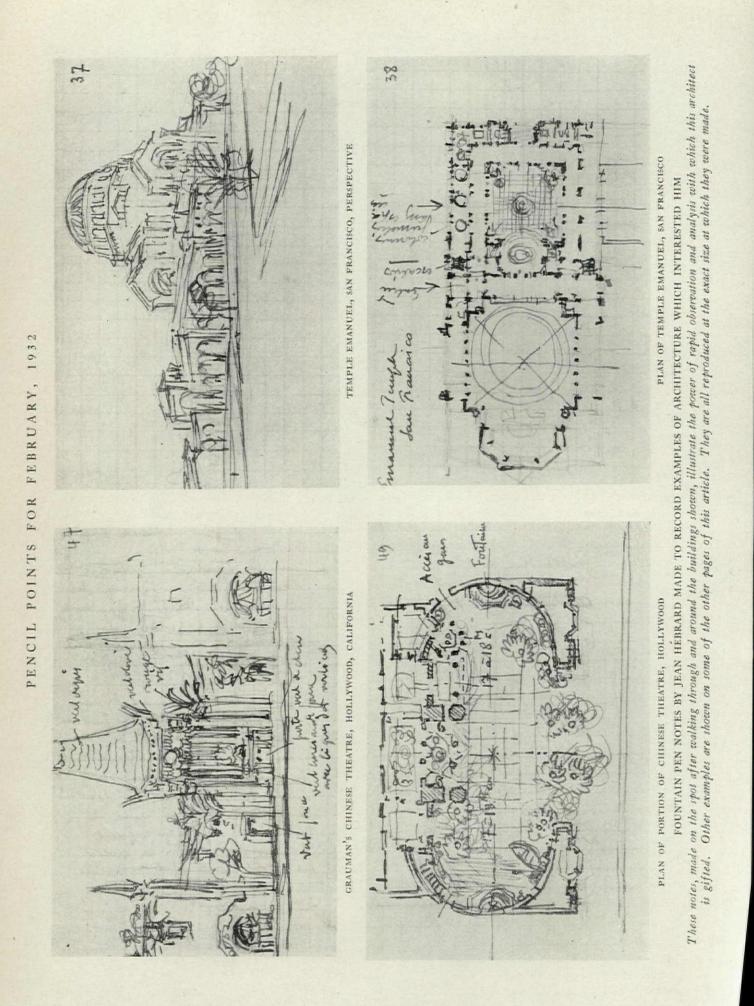
His vacation periods were devoted to travel with his brother in Greece, Asia Minor, Turkey, the Near East, and adjoining classical lands. He thus had an unusual opportunity in becoming familiar with the great monuments of the past in remote places, especially since he assisted Ernest Hébrard in the development of relevees and measured drawings. The careers of both students were deeply affected by their researches. They gained a vast knowledge of comprehensive planning on a tremendous scale, based upon great traditions of the past. Instead of restricting their interest to single architectural units, they gratified an urge to reconstruct the lives and activities of the civilizations whose architectural remains they studied. Through their wide, intensive research, they acquired a cultural knowledge beyond the reach of most students, and they developed a philosophy of architecture based upon principles they were able to determine as being common to all ages and cultures.

In 1911, Hébrard experienced the natural yearning of a Frenchman for his country and the passion of the architect to "build something." And so he returned to Paris.

Some time previously, Ernest Hébrard had become acquainted with Hendrik C. Andersen, a sculptor residing in Rome. He had become interested in the conception of a center for a university group in which the dominating motif to be placed was a sculptural feature "The Fountain of Life." Later, he conceived the addition of other features, such as an athletic center until finally the projet assumed shape as an International Center-finally being termed-"A World Center of Communications." The thought animating this conception was a medium for the world-wide exchange of ideas-an International Congress. Andersen felt that civilization was tending from the national to the mondial, at least intellectually; but he sensed the lack of a spiritual element that bound together material developments. He felt this was due to unfavorable environments and visualized a neutral place where experts on universal subjects might be brought together and where a resulting exchange of ideas



AMPHITHEATRE AT BERKELEY, CALIFORNIA



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FRENCH COMRADES IN AMERICA-4

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PARLIAMENT BUILDINGS, WINNIPEG, CANADA FROM A NOTEBOOK PAGE BY JEAN HÉBRARD

would result in peaceful progress. He dreamed of the rise of a comprehending, encompassing spirit, like Voltaire, who might be able to interpret the material world. Holding no thought of pacifism, he assumed that international peace might naturally be expected through such a medium. So enthusiastic did he become about the idea that he was finally willing to devote his life and resources to the realization of the project.

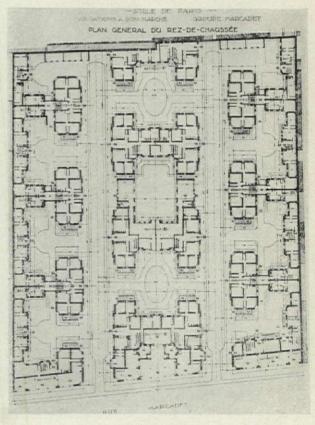
He recognized, in Ernest Hébrard, a kindred spirit, who fortunately for him was able to grasp the full significance of the idea and technically able to develop it. Jean Hébrard was quite naturally brought into the enterprise, by his brother, soon after its inception and became one of the active collaborators even before his return to Paris. His training, travel experiences and philosophy were now able to be applied. In addition to his regular practice, which he developed upon his return, he was engaged almost continuously upon this major project. An intensive study of all fields of human endeavor was necessary. The program to be interpreted was so large and complex, and the solution was to be realized on so high a plane, that the architects' analyses and power of composition had to be applied in the broadest and most profound senserather than in details. The scope of the plan was that of an international city or neutral state-to be under the control of the nations participating in the Hague convention.

After the complete development of a city plan and its attendant consideration, it was necessary to work out the various organizations necessary to carry on the daily activities of a complex city's life. In addition, a financial structure had to be prepared and put on a working basis by enlisting the support of the world's financiers.

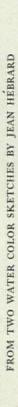
The project reached a perfected state of development toward the close of 1913, after seven years' study and preparation by the principals and a large staff of assistants. Everything seemed to promise a realization of the idea when the World War shattered the prospect. Since the War, Mr. Andersen has revived the scheme and it is again becoming a live issue whose realization may shortly be assured.

The work of the collaborators has been published in a huge volume, a limited number of copies being placed at the disposal of savants, influential men of international reputation and important libraries. The text is generously illustrated and every aspect of the most comprehensive study of an ideal community since the preparation of the plan of Washington has been graphically presented.

Jean Hébrard was especially identified with the general plan. Besides a masterly study of circulation and traffic above ground, consideration was given to underground communications to avoid dangerous and unsightly confusion between pedestrian and vehicular traffic. The problem of the elimination of smoke and gases was contemplated, necessitating provision for a huge, unique central municipal heating system.



A LOW COST HOUSING PROJECT IN PARIS JEAN HÉBRARD, A. TREVELAS & F. DUMAIL, ARCHITECTS



TERRACE OF THE HEIDELBERG CASTLE MARKET PLACE, NUREMBERG

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FRENCH COMRADES IN AMERICA-4

The city was insulated from the surrounding country by a spacious moat, and on the bank opposite from the city was placed a girdle of all the civic utilities and services, relieved and tied together by a system of gardens and parks. Provision was made for a population of 500,000 inhabitants, every phase and activity of modern life being represented.

The choice of a site was, naturally, a delicate matter and the center was so planned that it could be accommodated in various parts of the world on selected sites. Various countries were eager to have the city within their boundaries and offered concessions for the privilege.

Anent the architects' connection with the project, the following appreciation by Mr. Andersen is of interest:

"To M. Ernest

Hébrard, aided by his brother, M. Jean Hébrard, I am indebted for the architectural execution of the plans and elevations here presented. Their artistic taste and excellent judgment of practical planning upon colossal lines have facilitated my giving a definite form to this World Center."

In his general practice, Jean Hébrard had entered into an association with F. Dumail and A. Trevelas, which dated from the time of a competition for a large group of workingmen's dwellings, which they had won from a large field of contestants. The competition was held by the City of Paris with a view of modernizing and improving the living conditions of this group of its inhabitants, and the ideas of favorable orientation, light, air and low cubage were the salient factors in the program.

At the outbreak of the War, in 1914, Hébrard was immediately called to the colors, and two months later was serving in the front line trenches as a sergeant of infantry, becoming a lieutenant a year later. Except for the normal periods of rest behind the lines, he saw continuous line service until the last few months of the struggle, when he was detailed as a liaison officer and instructor for American troops. It is worthy of record here that Hébrard was one of six eminent Frenchmen called from teaching architecture in the United States to serve in the World War. Mauxion, who succeeded Hébrard at Cornell, was killed soon after hostilities started. Le Monnier



FROM A WATER COLOR SKETCH BY JEAN HEBRARD CYPRESSES OF THE EL ASKA MOSQUE, JERUSALEM

of M.I.T. went to France in the summer of 1914 and never returned. Ferrand, of Carnegie Tech and Washington University, was invalided home, while Cret and Arnal, of Pennsylvania, and Hébrard saw full active service till the end of the war. One wonders if France is fully cognizant of the great influence these brilliant men unconsciously and disinterestedly exerted in enlisting the sympathies of a numerous and intelligent group of our citizens. The debt to Lafavette had a tremendous emotional appeal; but the American graduates of the École des Beaux Arts and other French institutions of learning, and the students in this country who had had the privilege of being inspired by the torch bearers of Gallic culture, felt that this culture was so precious that it must be preserved

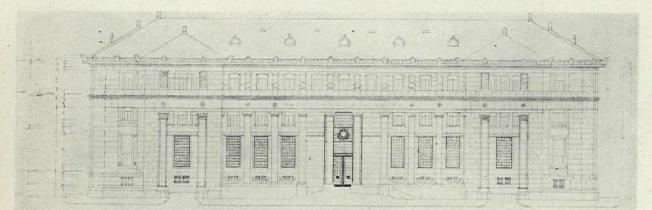
at all costs. The admiration and respect of American architectural students for their French critics played a conspicuous part in winning the support of those who, unenlightened, would have more naturally favored the opponents of French culture.

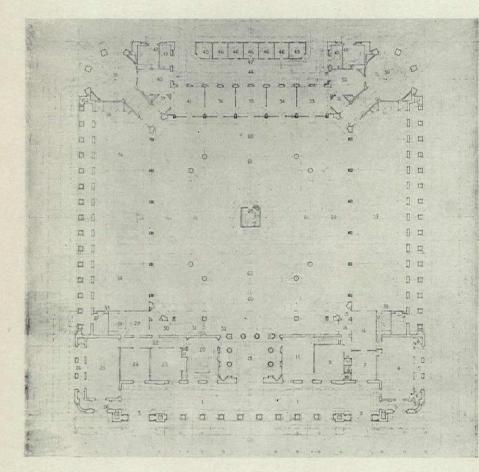
That those of the group who were happily spared should be willing to return after their ordeal shows how deeply the love of their profession was grounded in them and how thoroughly they had become identified with their part in the "American Scene." The privilege of having the benefit of their knowledge is a real tribute to our country and its students.

Hébrard had the unique and terrible experience of twice going through the struggle for Verdun and but few of his original company survived. He was wounded twice, but was able to resume duty. His brother was taken prisoner, but was exchanged before the Armistice under an agreement between the belligerent governments.

After demobilization, Hébrard and Dumail resumed practice—M. Trevelas unfortunately having been killed during the last month of hostilities. They were commissioned by the Department of the Seine to build a Garden City at Gennevilliers, the program requirements being units of individual homes with plots for cultivation and garden; together with a meeting hall, commercial center, a group of collective community services, a recreation center, bathing

PENCIL POINTS FOR FEBRUARY, 1932

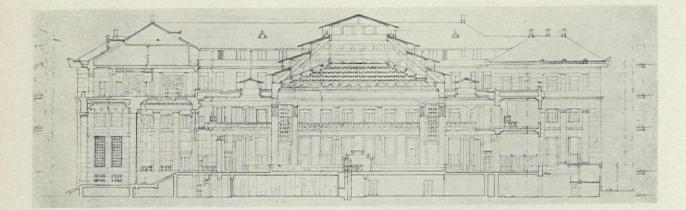




BANQUE DE L'INDO CHINE, SAIGON

HÉBRARD AND DUMAIL, ARCHITECTS

Shown in plan, section, and principal elevation. Particular attention is drawn to the section, where the special arrangement of the roof over the main banking room was made necessary by the tropical conditions. The reflected light is permitted to enter but no direct sunlight containing the powerful ultra violet rays which are harmful in the tropics can get in. The arrangement also helps to keep the room cool and comfortable.



FRENCH COMRADES IN AMERICA-4



A VIEW OF THE GROUP AT GENNEVILLIERS-HEBRARD & DUMAIL, ARCHITECTS

establishment, and shelters for minor activities. The firm was engaged in reconstruction work in the devastated regions, in which structures of all sorts, such as houses, farms, schools and city halls, were built in association with cooperative groups. It was also commissioned to design branch banks in Indo-China for the Banque de l'Indo Chine. These banks were problems that called forth Hébrard's keenest interest, since the climatic and physical conditions were so extraordinarily different from those in Europe and the design had to be greatly and specially modified to meet the requirements of this tropical country. To combine these considerations with the practical requirements of a banking institution required much study and ingenuity.

In 1925, Hébrard was invited to join the Design Staff, School of Fine Arts, at the University of Pennsylvania. He had retained his interest in the educational side of Architecture and he felt that the development of modern programs had shifted to this country because of our prosperity. A greater number and a more varied scope of problems was being presented to the practitioners and students of the profession here than could be given in Europe. In addition, working

EL OCTÉ JARDIN DE GENNEVILLIERS PLAN d'ENSEMBLE - TRACE DES RUES d'EMPLACEMENT DES PANLONS

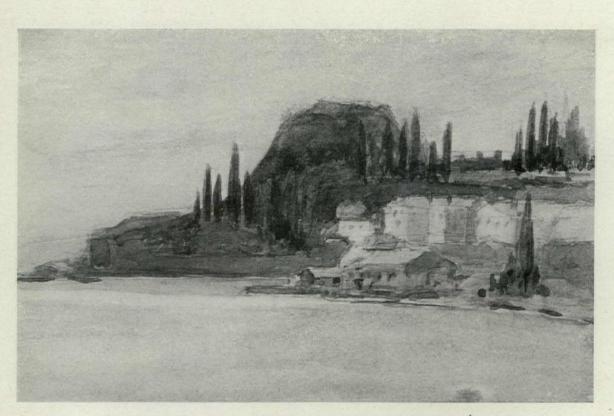
PLAN OF GARDEN CITY OF GENNEVILLIERS JEAN HÉBRARD AND F. DUMAIL, ARCHITECTS conditions in Europe were unfavorable. The invitation therefore appealed to him and he joined the staff as Professor of Design where his colleagues quickly realized the value of his contributions. Finding happiness in his work and environment, he felt that along with the tremendous change in methods and application, the standard of student work in the profession has risen throughout the United States since his sojourn at Cornell.

Several years ago, he accepted the post of chief critic in the T-Square Club atelier, whose students gave him enthusiastic support in keeping the high standard that has been so consistently shown since its founding many years ago. At the beginning of the current school year he transferred the scene of his teaching activities to the University of Michigan where the pleasant recollections left at Pennsylvania will again materialize into fortunate realities under the able leadership of Emil Lorch. Hébrard is quite at home in a group of distinguished and advanced practitioners that includes Albert Kahn and Eliel Saarinen.

Jean Hébrard has a generous measure of the great Gallic quality of combining keen analysis with imagination—thus producing a creative spirit in art and science that compels the admiration of the rest of the world. His reactions and observations, serious or humorous, are keen as a rapier's point; and like it, are none the less sure of reaching their mark because of their subtle delicacy. His experiences, instead of embittering him and dulling his perceptions, have finely tempered the character of the man. Architect, artist, teacher, Frenchman—he is always "a scholar and a gentleman," in the strictest application of these terms. Keenly sensitive to life and environment, he rises above mere questions of "taste" in searching for essentials and "character"; and it must be added that his own personal taste is highly developed. He reacts to the subtlest change in tone and color and his perceptions of fine gradations in proportions would bring joy to the heart of Guadet. His feeling for three dimensions and the appropriate use of materials is admirable.

During his many years of travel, he has made many water color sketches, but during the past few years, he has contented himself with fountain pen notes showing the plans and sections of buildings or groups that aroused his interest. These notes are made on the spot and the student of architecture will appreciate the keen grasp of the program and perception of proportions that is required to make such practical notes, that are really documents rather than illustrations.

He has inspired admiration and affection in his students and colleagues, and along with his compatriots at Pennsylvania and other institutions, is doing more to augment a sympathetic appreciation of French culture by our country than could ever be accomplished by treaties and economic and political propaganda.



CORFU AS SEEN FROM THE SEA-WATER COLOR SKETCH BY JEAN HEBRARD

Comparative Costs of the Walls of Country Houses

By H. Vandervoort Walsh* and Alexander T. Saxe+

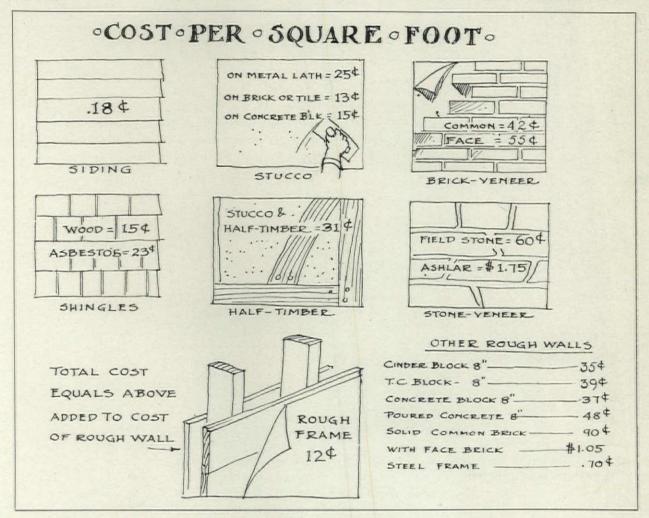
A mong architects and students who are ardent copyists of modern European architectural forms, is to be observed a liking for very plain cement-covered walls and long horizontal windows—whether they know how they are built seems unimportant. In fact many student designers have the notion that to be modern one must use white, plain walls; on closer questioning they say they are concrete. "They are cheaper to build and more expressive of our mechanical age," we have heard them say, with that finality that goes with complete ignorance of costs.

Submitted to us in the past twelve years, we have had hundreds of new ideas for building the exterior

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[†]In charge of University Classes in Estimating and Superintendence of Building Construction, School of Architecture, Columbia University. walls of country houses far more ingenious than anything Europe has produced, invented by young and old architects who have been carried away with the zeal of designing a lower cost house. In fact there seems to be some contagious disease that infects the minds of architects at some time in their lives, which makes them go mad over inventing a new way to build the outside walls of houses so that the cost can be greatly lowered. How many times we have heard, "If I can only get the builders to do the walls this way, I am sure the cost of housing can be reduced one-half." But when these inventors are pinned down to actual facts about cost they have nothing more than theories to offer.

If we should say that we have witnessed the coming and going of monolithic concrete walls, of pre-cast concrete walls, and of steel frame walls for country houses, we will probably have an avalanche of protests in the mail; we will therefore let the reader make his



own observations. We can say though that old and established methods of building walls do seem to have a very good foothold, and that new methods come and go without materially affecting the general trend. There are some very sound economic reasons why this is true and we need not be disturbed by some of the scornful remarks hurled at these old ways of building, such as, "Think of the absurd waste of effort to be using methods of laying brick walls as old as Egypt in this modern age of mechanical efficiency."

One of the first facts that architects should face when they are fired with the zeal to lower the cost of housing by inventing a new way to build exterior walls is that the cost of walls in relation to the total cost of the house is *very little* and that any lowering of such cost can only affect the total cost but slightly. It is strange how this is overlooked, but a study of this relationship is most enlightening.

WHAT THE COST OF EXTERIOR WALL REALLY IS

Let us take the problem, first, to see how many square feet of wall area there are, on the average, in different classes of dwellings. Our computations lead us to offer the following table as an average assumption:—

COST OF HOUSE	WALL AREA		
For the \$5,000 house			
100 ft. perimeter and 16 ft. ht	.1,600 sq.	ft.	
For the \$10,000 house			
135 ft. by 18 ft	.2,430 sq.	ft.	
For the \$25,000 house			
175 ft. by 19 ft	.3,325 sq.	ft.	
For the \$50,000 house			
250 ft. by 20 ft	.5,000 sq.	ft.	

If we now compute the cost of the different methods of building walls per square foot of area, then we can multiply the total wall area for each type of dwelling by this unit of cost, and then compare this with the total cost of the building. This will give us the relation between the cost of the walls of a house and the whole cost. For example, we have estimated that the unit per square foot of wall area for a frame house is about \$.34 including rough frame and finish and if this is multiplied by 2,430, the average number of square feet of wall in a \$10,000 house, then the cost of the walls will be \$826. If we now divide \$826 by \$10,000 we obtain the result that the cost of walls on a \$10,000 house is 8.3% of the total cost (AND NO MORE). THIS IS A VERY IMPORTANT FIGURE FOR THOSE WHO ARE BURNING UP WITH NEW IDEAS ON WAYS TO BUILD EXTERIOR WALLS CHEAPER THAN THOSE IN COMMON USE. It means that from the very outset any cheaper way of building exterior walls cannot possibly have much effect upon the total cost of the house.

Now in arriving at the unit costs of different methods of constructing exterior walls, we would have to explain so many details that space would not be sufficient. Therefore, we are listing here some unit costs which we have computed, based upon current prices in the New York Area. We will illustrate in detail how a few of these unit prices were estimated, so that the reader may see that they have sound logic for being quoted. It is true that for different labor costs and different prices for materials these unit costs will vary from the list we give here, but in general the *proportional relationship* between one and the other will remain about the same.

It is generally conceded that the finish on the walls of expensive dwellings will cost a little more per square foot than on the walls of smaller houses. This is due to such things as better grades of brick, ornamentation, limestone or sandstone trim, more expensive stucco finish, etc. The interior, rough structure of the wall will remain practically the same in each case, however, so we can first quote the cost of this.

Cost of Various Types of Rough Wall Construction

Cost per sq. ft.

0000	ber od .
Rough wood frame for exterior walls	
Hollow terra cotta block-8" thick	.39
Cinder block construction-8" thick	.35
Concrete block-8" thick	.37
Concrete block-12" thick	.45
Poured concrete-8" thick	.48
Poured concrete—12" thick	.60
Pre-cast concrete	.52
Pre-cast gypsum	.45
Solid—8" thick common brick	.75
Solid brick-8" thick with average grade face	
brick	.90
Steel frame	.70

Now added to the cost of the rough wall must be the cost of the exterior covering. As all walls must be lathed and plastered on the interior, we will omit this item from the comparative picture.

Cost of Various Finishes Applied to Exterior Walls

Type of Exterior Finish Cos	t per sq. ft.
Clapboarding	\$.18
Wood shingles	.15
Asbestos shingles	.23
Asphalt shingles	.19
Stucco on metal lath	.25
Stucco on brick or tile wall	.13
Stucco on concrete blocks	.15
Stucco on metal lath and false half-timber	.31
Brick veneer using common brick	.42
Brick veneer using face brick	.55
Field stone veneer	.60
Ashlar veneer	1.75

From the above two tables, we can conclude that the *average* cost to finish the exterior of a wooden frame dwelling is about \$.22 and adding to this the cost of \$.12 for the rough frame, we can say that the average cost of the walls for wooden houses is \$.34. This was the figure which we used to show that the cost of the walls of a \$10,000 house was only 8.3% of the total.

Using this same figure in the following table and \$.90 per sq. ft. for exterior walls of face brick, we can get the following table: (3) Statistics show that for every 1,000 board feet of rough framing lumber installed, there will be required 16 labor-hours. At \$1.25 per hour, the cost of labor per thousand board feet will be 16 x \$1.25 or \$20.

(4) But we just found that in setting studs there are 3/4

Cost of House	Area of Exterior Wall	Total Cost of Wall of Brick at 90c.	Per Cent. of Total Cost	Total Cost of Frame Wall at 34c.	Per Cent. of Total Cost
\$ 5,000	1,600 sq. ft.	*		\$ 544	10.9%
10,000	2,430 " "	\$2,187	21.9%	826	8.3
25,000	3,325 " "	2,993	12.0	1,131	4.5
50,000	5,000 " "	4,500	9.0	1,700	3.4

*Brick house unlikely at this price.

Now to justify some of those conclusions and establish in the mind of our reader some confidence in them, we will present here the details of the method of estimating the unit cost per square foot of the wooden frame wall.

HOW COST PER SQUARE FOOT OF ROUGH FRAMING OF EXTERIOR 'WALLS OF 2" x 4" IS COMPUTED

Computing Quantity and Cost of Lumber Used for 2" x 4" Studs in One Sq. Ft. Wall Area

- Lumber is sold by the Board Foot, which is defined as a board 1" thick, one foot wide and one foot long. Price used here is \$35. per 1000 Board Feet or 3.5 cents per foot.
- (2) The problem is to reduce the quantity of lumber in the 2" x 4" studs, which are set 16" on center, to the equivalent number of board feet.
 - a. As they are spaced 16" apart, this means that they are 1-1/3 feet apart or since 1 foot contains 3/3 then they are spaced 4/3 feet apart.
 - b. Now in 1 linear foot of $2'' \ge 4''$ there is 2/3of a board foot which is computed as follows: $2 \ge 4$ equals 2/3. 12
 - c. This means that there is 2/3 board foot for each 4/3 foot width of wall area that is 1 foot high.
 - d. If there is one stud every 4/3 feet, then it can be said that there is $\frac{3}{4}$ of a stud to each lineal foot.
 - e. Therefore to each square foot of wall surface there are the following number of board feet; $\frac{3}{4} \ge \frac{2}{3}$ equals $\frac{1}{2}$ board foot.
 - f. This must be increased by 50% to allow for waste, doubling around doors and windows, plates, sills, etc.
 - g. Therefore we can say that to each square foot of surface there are $\frac{3}{4}$ board foot.

Computing Cost of Labor Setting Study Per Square Foot Wall Area

- Quantity of labor is measured in terms of the "labor hour" which means the quantity of work done by one carpenter per hour.
- (2) Assuming that carpenters work for \$1.25 per hour, then the total cost of labor can be computed by finding number of required labor-hours and multiplying by the above.

- Computing Quantity and Cost of Lumber Used for Rough Sheathing of 1" x 8" Material
- It is obvious that there will be 1 Board Foot of Lumber to each sq. ft. wall area, but allowance must be made for waste and the tongue and grooved or shiplap joint. This is 1/4 board foot.

Computing Labor Cost of Laying Sheathing

- (1) Statistics show that 13 labor-hours are required for each 1,000 Board Feet of Sheathing laid.
- (2) Then 13 x \$1.25 per hour equals \$416.25 cost per thousand board feet.

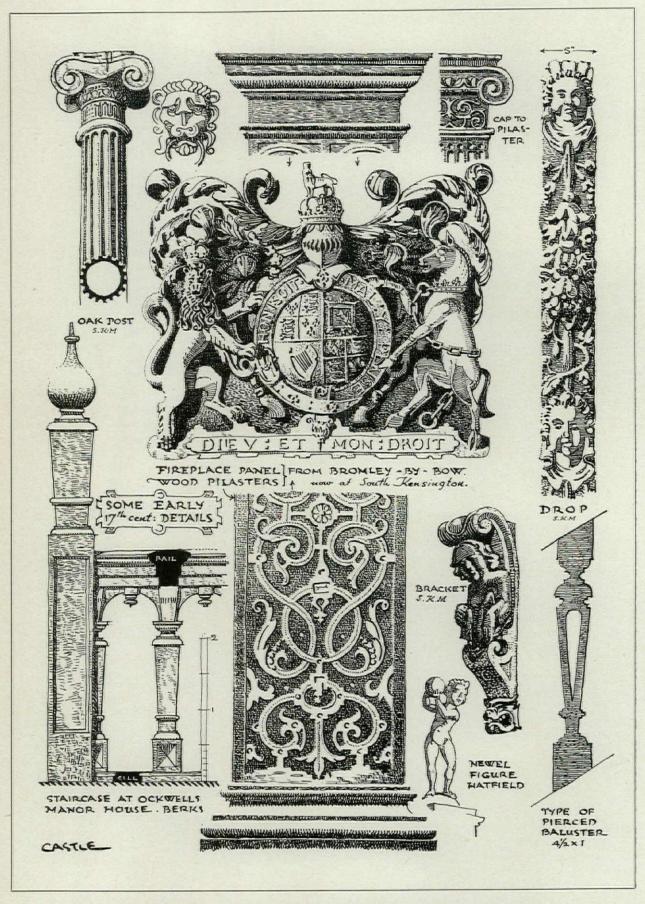
COMPUTING COSTS OF NAILS

- (1) The unit used in computing the amount of nails required is expressed in terms of pounds per thousand board feet of lumber.
- (2) Experience tells us that 2 x 4 require 80 lbs. of 20penny common nails per thousand board feet and sheathing requires 25 lbs. per thousand feet.
- (3) Taking the above figures and applying them to our particular problem we have the following; for 2 x 4—3/4 x 80/1000=.06 lbs. per sq. ft.; for sheathing -1¹/₄ x 25/1000=.032 lbs. per sq. ft.

Computing Costs of Waterproof Paper

- (1) Since the allowance for waste involved in laying waterproof paper is negligible (being less than 3 per cent), we can safely say that one sq. ft. of paper covers one sq. ft. of surface.
- (2) A current market price of waterproof paper is $\frac{3}{4}$ -cents per sq. ft. and the labor involved in applying this paper to the wall amounts to approximately $\frac{2}{3}$ of the cost of the paper; represented in terms of cost per sq. ft. this would be

.0125 cents per sq. ft.



SOME EARLY SEVENTEENTH CENTURY DETAILS, DRAWN BY SYDNEY E. CASTLE Size of original sheet, $11\frac{1}{4}" \times 8\frac{1}{4}"$

An Architect's Notes on Pen Drawing, 5

By Sydney E. Castle, F. R. I. B. A.

emories surge as I wander among late sixteenth and early seventeenth century wood fragments at Kensington. The wraith of an early-twentieth-century lecturer-grown white and patriarchal and all-wise as a digger-up of the past-

floats on a ghostly rostrum; and my headstrong youth, uncertain whether it envied or pitied him, comes back with a rush. As my eves rove over these early Renaissance treasures, this ghostly lecturer seems again to tell me huskily the story of Italian artificers who invaded and conquered England-not with arms, but with a taste for syrup that ultimately came to be betrayed as the sweet coat of needful pill.

a few pauses and scratched out a few shapes, I come to think most of all about his somewhat picturesque summary. "Having sipped the nectar of perfection from the Gothic vineyard" (I think he said something of that kind-I know it touched a convivial spirit possibly to keep us warm or awake), "architectural ornament in the late Elizabethan and early Jacobean periods merely represents a doze from one taste to another."

A doze! I am provoked. Never let it be said I stiggle for precise term if meaning is unobscured; but if these periods dozed my now tired nib positively sags into a cross at what might have happened had they remained advent of English Renaissance by the distinctly bizarre if not decadent. The full forces of Gothic seem to have fled incontinently and left a few feeble prisoners behind: while the full forces of Classic, in defiance of old rule that plain stone must first form before facile

change. Probably he him-

self had as much influence

over the course of art as

over the course of the

weather. But it was in his

reign that these changes

first became lively. Hol-

bein, whose earlier draw-

ings in the Basle Museum

indicate the maddest classic

possible to conceive, came

to England and Thomas

More under the distin-

guished auspices of Eras-

mus, and was received at

Chelsea with such warmth

as to induce him to settle

down. His success speaks

for itself, and his influences

must have been correspond-

ingly far-reaching. How-

beit, with the collapse of the

monasteries, Gothic for-

tunes declined steeply, until, in a final revulsion of

feeling, a sprightly royal

daughter of a less angular

but no less intolerant sire

hands may carve it, indulge in bacchanalian riot almost as soon as they effect a landing. Let us briefly trace what happened. Now it is beyond the scope of these notes to debate whether the much-bewived Henry was as highly developed mentally as physically or immorally, or to attribute his restlessness with the fair sex to a natural and general artistic impulse towards love of

But when I have made



MADONNA. HOLDEIN. 1497-1543: DESIGN FOR GLASS PAINTING, FROM & DRAWING IN WASH. BASLE MUSEUM.

DRAWN IN PEN-AND-INK BY SYDNEY E. CASTLE

While the fantastic architecture-in which columns of the indescribable order seem licked by flames or to run riot where they are usually passive—may amuse, the great beauty of the setting and calm repose of the Madonna will be noted. This was one of a series in which Holbein quite unaccountably either lost or ignored leg proportion-unaccountably since Hans at this period, and in his glass designs, too, indicated most remarkable and sensitive anatomical knowledge. It passes as a curiosity in a vigor and mastership that has never been surpassed. I do not hesitate to say that I have learned more from Holbein than heistide to say that I have tearned more from flower than anyone dead or alive, and firmly believing him to be the greatest draftsman that ever lived, I recommend every student his vigor-ous and lifting close acquaintance.—S. E. C.

wide-awake. For it has fidgeted with chatter-box ornament which is certainly not Gothic, more comical than classical, far too gauche to be Baroque, miles from the creative-yet busy as a child with a new box of colored pencils.

And I muse again with a humorous mystery. I say mystery because this Jacobean ornament marks the finally caused it to be as good as dead and buried.

The truth is out. I stand amid the relics of an age when England shook out of herself and extended the hand of hospitality to her neighbors-an age that awoke Shakespeare, Bacon, Spencer, and Raleighan age which found an island people a hundred years behind her neighbors and a glorious not melancholy world that was here apart from heavenly prospect ahead.

And what a busy, exuberant world it seems! Comes another memory.

A wooden screen at Knole returns as a nightmare. I say nightmare because I tried to make a pen drawing of it with conspicuous failure. I remember it well. I began with some fascination if little reverence for an orgy in ornamental display the like of which I had never seen. I ended with defeat-with a new respect for restraint, not only in design but in pen enterprise. That screen baffled description-at any rate, mine. In a glorious welter were columns entasised the wrong way up, inverted bases, heads and part torsos, shallow relief and deep, small scale and large, leopards, parrots, rams, Tudor roses, consoles, pierced parapets, crested arms, arches, panels, strings, mouldings, fretwork, grilles-in short, a wild forest of ornament which terminated suddenly enough against a plain wall to make the whole shambles look like a sawn-off fragment of infinity.

That afternoon I sipped my tea in Sevenoaks shrunken by inferiority complex. Someone wise in

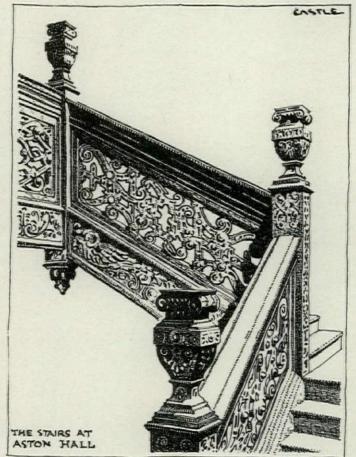
these histories had wooed my ear with news of one Dorseta proud - blood whose exalted lineage first flowered forth sumptuously on this screen in fifteen - seventy - some thing. His ghost seemed to hover cynically-I too surrender my impudent pen humbly. I might find another name than Dorset for this shade just now; but I sat crushed.

But there was this about my experience; if I had failed to conquer, I had explored far beyond casual observation. Many new meanings can be extracted from those things you try and draw. Anyhow, when I afterwards referred to that screen as repulsive, I never used the adjective with firmer conviction and greater truth in my life.

It seems a little queer to suddenly stumble across the austere name of Inigo Jones not a dozen years after the last Tudor had passed into the Abbey. Thrilled, we sheathe our nibs for a spell and look into the great man. As among his distinctions, we find him on quarrelling terms with Ben Jonson, doubtless over petty Masque skirmishes. We read of him as the most facile of men, as the English Palladio; and recalling those grandiloquent contemporary horrors, the mansions Wollaton and Burghley, we wonder if his Italian travels were inspired to ascertain where all this rubbish was coming from, or if his quest was to quell the epidemic from the same happy hunting ground.

I must avoid heavy music on a light instrument. But tracing through these periods and their ramifications with a busy pen bring such thoughts. Jones comes as a bolt from the blue—he makes the strange dispensation that finds a man when he is most needed. With his advent, we suddenly see through these Jacobean trivialities, and want to forget them for evermore.

But for pen technique, the value of the ornament of this period is inestimable. It makes for a



collation of immaturities — or impurities if you like — but I advocate the pen aspirant to take the adventure. If his eye is set for healthier pastures beyond, a little delay in this leading-up ground will leave it none the less intelligent to realize the immortal glories of those pastures when they come.

We now pass to more precise times when ordered neatness crept into man's mind and marked the character of his buildings -when books and accounts were kept-and diaries. And we will pause at one John Evelyn, a famous diarist both curious and beneficent; and briefly look into a longish entry he made on January 18th, 1671.

The Cultural Advantages of Unemployment

By William Williams

Editor's Note:—The man who wrote this article is a real draftsman really out of work. That he has the courage to find a bit of humor in a situation that holds so much of tragedy speaks well for his fortitude. No one realizes better than we do the seriousness of unemployment and we would be the last to treat lightly the troubles of any man unable to find work. Please read this story, therefore, in the spirit in which it was written.

It has been estimated that two-thirds of a draftsman's active life is spent griping and complaining or in pulling the work of contemporary architects to pieces, so that there seems to be no reason why a business depression should have any serious effect upon him. And actually it doesn't. In this respect a draftsman is particularly fortunate; he may lose his job but he is never altogether out of work. Unemployment for him means only that he no longer gets paid for a certain amount of unessential routine. He might miss his pay, of course; but then, money isn't everything. He can still carry on with what he appears to be cut out for, whether he is employed or not.

In fact it isn't really until he gets fired, freed, in other words, from the unessential routine, that he is able to come into his own, round himself out. It isn't until he can spend his whole time griping that he can know what happiness is; not till then can he live!

Let us compare for example the difference that the simple words, "You're fired!" mean to a draftsman and (say) a doorman. Ordinarily, that is in bumper years, the draftsman and the doorman have much in common. The main distinction being, of course, the epaulets and the brass buttons, items perhaps in favor of the doorman. But broadly speaking, intellectually and socially the two men are as one. Now then give them both the sack, reduce them to the same economic plane, and at once you see where the inherent qualities, the habits of a lifetime in the draftsman are more conducive to his happiness than those of the doorman's.

In the first place a draftsman thrown out of work is thrown on the street. But a doorman! Obviously you can't throw a man where he is unless you knock him down, so they simply take his hat and coat away from him and leave him standing there.

On the face of things this seems perfect, a delicate piece of business beautifully handled, a transition from one state to another wholly without the customary shock so to speak. But do not, my dear friends, jump to conclusions. Do not think because you have only seen a man deprived of his coat and hat that you have not witnessed a tragedy! The grim spectre of disillusionment has stalked unobtrusively across the stage. The man is marked. A doorman without his hat and coat is lost. These things in all their theatricality

symbolize his existence, tie him more securely than his carnal appetites to the external world. From now on he can do all the standing at attention he may want to, but without his hat and coat, without the braid looping and winding over the surface of his redundant form, his time is lost. The once pompous and glittering world of affairs means to him now nothing. The man is broken. At the simple words, "You're fired! my good man," the accumulated efforts of a lifetime crash to the earth. From the hand of fate once more the vanity of man receives a blow!

But to fire a draftsman, as we have said, is to throw him on the street. And to throw him on the street is to throw him just where he wants to be, like throwing a colored man into a crap game. Unlike the poor wretch of a doorman, who without the support of his hat and coat and the assignment of a doorway finds in the street nothing but an aspect of a cruel implacable world, the draftsman finds in it the fond realization of his dreams. At last for the first time perhaps in his life, for the better expression of his critical faculties he can move around and see what's what.

But not only is this what every draftsman longs to do most passionately, it is the one thing in the long run that is really good for him. Too much work certainly isn't. Draftsmen have been known in times of prosperity to become so engrossed in what they are doing as to entirely lose sight of the fact that they are doing buildings. But these cases are rare. Draftsmen as a rule are fairly conscious of what they are doing, which may account for the doleful look on most of their faces. However, to get back to the point, it is undoubtedly a good thing for a draftsman to lift his nose from the board and get about a bit. And the advantage of getting about now, apart from seeing what is going on-or what has been going on-is that you are apt to bump into all sorts of chaps, men you haven't seen for years, classmates, casual acquaintances, men you may have met in other offices. I was surprised!

One afternoon last week for instance I met a chap, and while I could still recognize him all right, I wonder. Certainly time had battered him about a lot. It was a glorious day, and I was ambling down Fifth Avenue with that irresponsible feeling that comes over a man ambling down Fifth Avenue on a glorious day, when who should I see but J—. He was standing on the curb watching a Salvation Army Santa Claus keeping the pot boiling.

I was very glad to see him of course. But after we had slapped each other on the back several times, we were stuck. I couldn't very well ask him which way he was going in case he said in my direction; so I merely said "Glad to have seen you J—," and made a move to be off. But he caught my sleeve. "Going downtown? Just wait a second I'll be with you," he said. "I'm just waiting for that chap's whiskers to slide down a bit more so I can see his chin," he was pointing to the S. A. S. C., "I think the guy used to work in McKim, Mead & White's."

Like a fool, of course I stayed. But slowly to be sure they were slipping. As we watched, the man raised his head to look at an aeroplane humming overhead; we gained an inch all at once. I began to get interested. He moved; we gained a bit more. The fellow's false eyebrows and the fur on his pointed cap completely smothered his forehead; but more and more of the man's face was emerging from the mass of grey horschair around his chin. One more tilt of his head upward and we'd know the truth for sure; if that aeroplane came back, we could go downtown.

But we went downtown anyway, without ever discovering if J— knew the man. A woman had come along the street with a child. The child detaching herself from the woman went over and dropped something in the pot that went in with a loud clang, something like a half dollar, only suspiciously more metallic. It was only natural, I suppose, for the gent in red to look down quickly into the pot, only natural. But in doing so the whiskers seemed to stand still on his chest and his face shot down behind them. When he raised his head to glower after the disappearing child, his face was smothered behind a mask of hair again. It was hopeless.

So we went down Fifth Avenue chatting lightly of international economics, the gravity of the reparations situation, and things of this sort, as is the habit of the unemployed, and before we knew it we were down at Union Square.

Those who haven't seen this *place d'arms* of the Labor Party for the last year or two are in for a surprise. Remembering the square when it was one of the beauty spots of New York, my jaw dropped. The whole thing has been raised about five feet and surrounded by a thick rubble wall. The raising is supposed to have been necessitated by the subway requirements; but I have been told that it was done by a certain police commissioner to give him better control over the May Day celebrations. The Reds about town call it the Whalen Wall. Anyhow the Square looks like a battle field. And to crown it all, on top of this acropolis of dirt, here they were, building two of the cutest classical comfort stations you have ever laid your eyes on!

Always an ardent advocator of comfort stations underground, I was here compelled to swallow my prejudice, seeing at a glance the advantages of making miniature temples out of them and sticking them up at the top of an imposing flight of steps.

We mounted the steps to get a more comprehensive view of the intricate network of sidewalks criss-crossing on the bare ground in all directions on this artificial plateau. The whole arrangement was so novel, so apparently well thought out that for a minute or two I couldn't quite appreciate the scope of it; and turning to my companion I asked him what it was all about. I-, who until then I hadn't known to be a native New Yorker, expanded his chest and I think there was a slight quiver of pride in his voice. "This? Why this is an example of town-planning. You can cross this square, if you will notice, in any direction you like and still stick to the sidewalk-it's beautifully worked out. See how those Roman pagodas are balanced on axis with the monument commemorating the 150th Anniversary of the Declaration of Independence? Very near perfect, I'd say, very near perfect!" And then to be sure, I noticed how the comfort stations were balanced, as J- pointed out, on axis with the monumental flagpole. And I couldn't help but reflect on the vast strides that have been made in the art of town-planning since L'Enfant's days.

But half an hour later I- was still with me. We were over on the west side, at Twenty-seventh Street, looking up at the Starrett-Lehigh Building. I was tickled to death. Its salmon-pink and green, beautifully delicate tones in the afternoon sun, had all the ethereal qualities of a Japanese print. "J-," I said, "this is a dream. At last the engineer has triumphed. Notice how all traces of architecture have been wiped clean from those surfaces, leaving nothing but the structural spandrels, emphasizing the superimposed floors? And boy, how they sing!" I was really on my toes with enthusiasm. Of course the building had its weak points, a tendency when viewed close-up to flare out at the top like an Egyptian capital. But even so this swelling out at the top, or the concave line at the corner, was less pronounced in this building than in the McGraw-Hill Building, where the optical illusion created by the convergence of the horizontal lines at a sharp angle, I remembered to be awful.

J— turned and gave me what might have been, could I have seen his face under his beard, a look of disgust. "Do you, do you still belong to that naive school of numbskulls who believe that the architect is doomed to be supplanted by the engineer?"

"Well," I said, timidly, "here's your evidence what more do you want?"

"Evidence of what?" he shot back at me. "That building there simply demonstrates the possibilities of architecture under the control of common sense and taste. An engineer couldn't have done it in a thousand years."

"Nonsense," I said. "Look at the 179th Street Bridge—an engineer could not have done this building, what are you talking about?"

"You are mistaking, or rather overlooking, one or two factors of some importance-" He buttoned up

his collar against the wind which was beginning to blow up. "Bridge engineering is probably-next to hydraulic work-the most difficult and exacting branch of civil engineering. The beauty of the Hudson River Bridge results from an almost perfect adjustment of principles and materials to an end. The catenary curve of the suspended cables, like a piece of chain suspended at two points, always results in a beautiful line. And there is something particularly satisfying in the downward curve of the cables meeting the upward curve of the roadway. Further, the imagination is stimulated by the very idea, the seeming frailty of the tenuous structure, the difficulty of conceiving how it was built, the very audacity of the thing! It strikes a cord somewhere in the human breast; it baffles the understanding in the man who cannot comprehend how it was brought about; just as I can baffle my kid by flipping a coin up my sleeve, so is the average man baffled and mystified to the point of deifying the builder of the Hudson River Bridge. But let me tell you, W. W., your engineers have no conscious ideas of beauty; when they do achieve beauty-and they quite often do all right-it can be, I assure you, attributed to chance." He tried to light his pipe in the wind but gave it up and went on talking.

"Even this classic example of yours, the 179th Street Bridge, even this was not designed with a conscious idea of beauty, otherwise it would not have been the intention to encase the pylons—parts of the bridge equally as satisfactory to look at as the span itself. Go up there and see what your engineers have done to the approach, with their idiotic stucco spandrels! See the anchors projecting from the concrete base on the New York side, ready to take the granite and limestone veneer! I wouldn't give you two cents for your engineers' æsthetics, not two cents!"

All this time we were walking south to get a better look at the Starrett-Lehigh Building. We were now down at Twenty-third Street by the river. From here the building massed up in the sunlight gorgeously. Except for a certain incoherency, a too positive suggestion of architectural traditionalism in the vertical masonry work which cuts the building in half in its long direction, the thing was fine. Undoubtedly the most successful looking industrial building on Manhattan.

J— agreed with me. "But the sad thing is," he said, "you won't be able to get this view much longer. This is where the new elevated highway is going to run; see, they're digging the foundations here now. The first part of it is already in use see the end of it over there?"

Cars were coming down a temporary wooden runway from the end of the unfinished highway where it was cut off abruptly at Twenty-third Street. "That'll be too bad," I said, seeing that the splendid view we had would soon be cut off. "It'll be too bad." "Too bad! It'll be a crime!" I was amazed at

"Too bad! It'll be a crime!" I was amazed at the way J— spoke. As a rule he was not the one to open his mouth, never used to say a word. But now he seemed to be so bitter. I put it down to the wind. It was getting cold. "If you really want to see what your engineers can do, come here!" He led me down West Street, or whatever it is called, underneath the new elevated highway. "Here," he went on, almost in a shriek, "here is the simplest form of engineering; just beam and girder stuff; now look at it!—and that's what they call engineering. Look at it, it goes up and down like a roller-coaster. Engineering my hat!"

It did look bad I'll admit. But I began to feel uneasy; perhaps the poor fellow hadn't had any breakfast, and I began to feel a cad for not having thought of it sooner. But before I could think of the proper way of approaching him on the subject he was at it again.

"Do you know how it gets like that, that scenic-railway effect? Some guy says 'Let's make the tops of all the columns 19 ft.-23/4 ins. above the surface of the road below,' that's how it gets like that! Instead of working up from a datum line; the nitwits!"

"It certainly looks bad," I said.

"Bad! that's not the word for it. And it's worse to ride on than it is to look at. Whenever the thing has to bend—and that seems to be every few feet—it does so with a nice sharp angle, so that the cars have to slow up and get on the wrong side of the road and all that sort of thing to make it. This, my dear Williams," he was emphasizing his words with the back of his hand on my chest, "this, my dear Williams, is an express highway, built for the great motor age, by the great engineers. Bah! Any architect's office boy could make a better job of it!"

"And this," he went on before I could interrupt him, "is unimportant compared to the bulls they're going to make with this thing above Seventy-second Street where it goes over the railroad tracks. When I saw the drawings—"

But I didn't want to hear. A certain amount of this sort of thing is all right, but the feeling of uneasiness began to get the better of me. I told him I had to take a crosstown car at once as I had an appointment to see a man about a job. Not a very plausible excuse, but it worked.

"See you again," he said, as I jumped on a street car, "see you again, I hope." "Sure," I called back, "see you at the Architects' Samples."

But the cultural advantages of walking about town are enormous. And it's lots of fun. I wouldn't take a job before next Monday if it were offered me.

George Washington, Architect

By James Hay, Jr.

Editor's Note:—Since this month starts off a celebration of the two hundredth anniversary of Washington's birth it seems appropriate to publish here something concerning his activities as an architect and draftsman. The following article was specially prepared to bring out this little known side of Washington's career.

George Washington, whose bicentennial the entire United States is to celebrate this year, was endowed with an amazing versatility, literally a multiplicity of talents, each one of which he developed to an extraordinary degree.

He was, for instance, a realtor, farmer, lumberman, shipping magnate, landscape gardener, builder, horticulturist, and interior decorator. He was, too, an able

architect, some of whose plans of buildings have been preserved to this day.

Washington's greatest pleasure was in his farming at Mount Vernon and, in connection with this, one of his special delights was to design and draw the plans and specifications for the many building operations made necessary by his management of a plantation, which he eventually enlarged to an area of 8,060 acres.

When, at the age of twenty-one, he became the master of Mount Vernon, there were about half a dozen outbuildings grouped behind the mansion. But this number grew to thirty as he developed industries and other activities on the plantation. For these outbuildings, such as the smokehouse,

spinning-house, coach-house, laundry, and greenhouse, he invariably either drew the plans or the buildings were erected under his direct supervision from his mental pictures of the lines along which they should be constructed.

When Washington came to the planning of his barns and the extensive additions which he made to the Mount Vernon mansion, he was confronted with a more complicated task. Observe, for instance, the way he went about the job of designing his famous sixteen-sided barn. When this structure was completed one of his neighbors described it as "the most convenient and best constructed barn in all the Colonies." [See drawings on page 104.]

But, before putting his pencil to paper to draw the plans, Washington did a lot of work in order to arrive at a final idea of what the barn should be. First he corresponded at length with Arthur Young, the English expert on agricultural matters. Next he listed the disadvantageous features of his other barns, and cast about for ways to eliminate them. In its final form this barn was two stories high and sixty feet in diameter. Inside of it the owner located a threshing floor, which was then something new on the face of the earth.

Up to that time the Colonial planters had threshed their wheat by scattering it on a flat surface, usually on a hard piece of ground and then having it trodden out by the

feet of horses and slaves. More rarely, an outdoor wooden platform was built and the wheat was trodden out by the slaves. The result was that rainy weather always interrupted the work.

Washington, perceiving the waste that was caused by this process, chiefly due to dirt being mixed in with the grain, decided to put a threshing floor inside his new barn. As a matter of fact, it was a double floor. The upper one was built with interstices, through which the grain, when trodden out by animals and servants, dropped down to an absolutely clean surface.

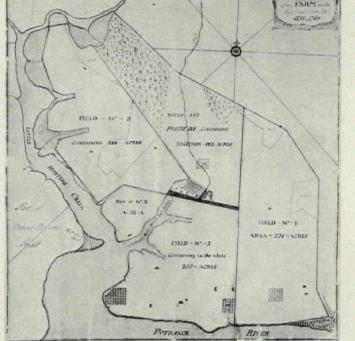
Another feature, which was the wonder and admiration of the neighbors, was an inclined runway by means of which oxen or horses were taken up to the

treading floor whenever there was so large a crop of wheat that it could not be trodden out by the slaves alone.

The Mount Vernon mansion, when Washington took possession of it, was a small house with four rooms on the ground floor and four upstairs. When he was married in 1759, he had the place practically rebuilt inside and out, raised the whole structure on a brick foundation and had a new roof put on it. But it was not until 1773 that he began to dream of the extensive additions which made it the noble-looking residence that the bicentennial tourists will see this summer.

Besides the famous East portico, with its row of tall and massive white columns, he planned a wing for each side of the house. The addition of these wings made the mansion ninety-six feet four inches in length by thirtytwo feet in depth.

Paul Wilstach, in his Mount Vernon, describes the work



PLAN OF GEORGE WASHINGTON'S FARM

From a Drawing Made by Him in 1766

thus: "This includes the extension of the length of the house by additions at each end and measuring the full width of the house, thirtytwo feet by twenty-two feet, which would extend the house by forty-four feet in length."

After drafting a first set of plans, Washington discussed all the features of the portico and of the wings with Mrs. Washington and with several of his neighbors, the result being that he incorporated several changes in them.

In Fairfax County, Virginia, as one drives from Washington to Fredericksburg on a fine highway, there stands to the left of the road old Pohick Church, which was so named from the little creek flowing near it. Washington was an attendant at this church until the Revolution.

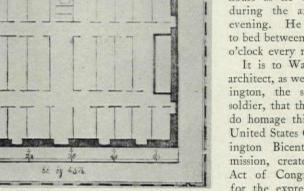
The present structure is the second church building.

The first one was two miles further away from Washington's home and was situated on Michael Reagan's Hill on building was projected, and Washington was named a member of the building committee. But he did more

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tion. They include the following features:

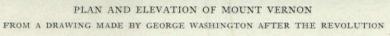
The celebration will last nine months, beginning on the road from Alexandria. Then, in 1767, the present Washington's birthday, February 22, 1932, and lasting until the following Thanksgiving Day, November 24, 1932. The bicentennial exercises will be a part of the life of



Pragga 18 per high \cap

GROUND PLAN AND ELEVATION OF POHICK CHURCH

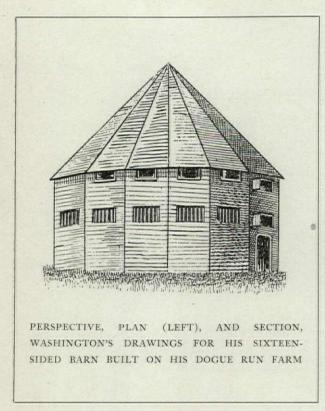
DRAWN BY GEORGE WASHINGTON



than serve on the committee. He drew plans for the new church.

Enjoying, as he did, this sort of work, he spent a great deal of time on it. His routine at Mount Vernon included an hour in his library or study before breakfast every morning becase he was habitually an early riser, and as many hours as he could put in during the afternoon and evening. He usually went to bed between nine and ten o'clock every night.

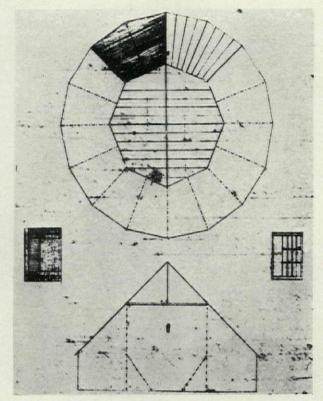
It is to Washington, the architect, as well as to Washington, the statesman and soldier, that this nation will do homage this year. The United States George Washington Bicentennial Commission, created by special Act of Congress in 1924 for the express purpose of arranging for the celebration of this bicentennial, has just about completed its plans for the commemora-



every American community, in that each city, town and village will set aside, within the designated nine-months' period, a number of patriotic dates on which it will stage exercises appropriate to the event.

There will be no world's fair or big show in any one place to attract the public to one community exclusively.

But, naturally, there will be in the national capital formal exercises inaugurating the commemoration. At noon on February 22 the President of the United States will broadcast an address on the life of George Washington.



This will be followed on the air by the singing of the national hymn by a mammoth chorus accompanied by the United States Marine Band, which, by the way, was a fife and drum corps on the battlefield in Washington's day. By means of a gigantic hook-up all Americans, whereever they may be on the face of the earth, are expected to listen in on this music and to join in the singing.

This vision of all Americans simultaneously singing the national hymn conveys a dramatic picture of how universally the people are to join in the commemoration.



MOUNT VERNON-FROM A PHOTOGRAPH BY KENNETH CLARK

To Be an Ideal Architect

By William Adams Delano

Editor's Note:—This is another in the series of talks being given once a month at the Murray Hotel before the Junior League of the New York Society of Architects. This talk was given by William Adams Delano. The entire series is under the direction of Louis E. Jallade; admission is free to draftsmen and architectural students.

any years ago, before kings became soft-hearted and mushy, a certain emperor had delight in L throwing the victims of his displeasure into an arena and watching them slowly devoured by lions. He generally diverted himself in this way on holidays and fêtes. On one occasion, he had had a particularly happy afternoon-five or six victims had been eaten with relish when the last, a mild-looking young man, was thrown into the arena. He stood with folded hands, and when the lion, a ferocious beast, approached, whispered something in his ear, whereupon the lion slunk away and took refuge in a far shadow of the arena. The same thing happened with a second lion, and again with a third. The emperor was angry but his curiosity was aroused. He commanded the victim to be brought to him and asked him what he had said to the lions. "A mere nothing, Your Majesty," the victim replied, "I only told them that after their dinner they would be expected to make a few remarks."

I am entirely in sympathy with the lions. I fear speeches-whether before dinner, after dinner, or where there is no dinner at all, and especially this afternoon for I realize how incompetent I am to discuss such an overwhelming subject as Mr. Jallade has assigned me. I am tempted to answer it in a sentence and let it go at that: The successful architect should know everything and should have a personality so strong that it pervades all his activities. But I am afraid this is too general an answer to satisfy this inquisitive audience. Perhaps the best way to discuss it is to try to define what a successful architect should be, and then attempt to discover how best he can arrive at that happy state. Personally, I wish the question had been framed to ask how a man may become an ideal architect rather than a successful one for what constitutes success is such a disputed question. With your permission, I will so change the phrase, believing that if anyone of you becomes an ideal architect he will be a successful one, and let each define success for himself.

If you take the measure of an ideal architect from what his client expects of him, you will find a very long list of virtues. I shall run over briefly some of these and because the list is long you must not be discouraged. We must remember that we are talking about the ideal and that is seldom if ever attained.

First. The ideal architect should have a strong but agreeable personality. He has to deal with draftsmen, clients, contractors, and subcontractors. If he has an aggressive or cocksure manner, he is most likely to antagonize and instead of gaining his point lose it. He should be persuasive but not unbending. He should have a logical mind and be able to present his arguments clearly.

Second. The ideal architect should have a broad general education: he should have a knowledge of the history of art and of political and economic history, with both of which art in all its forms is so closely allied; he should have a knowledge of physics, especially as bearing on engineering problems, and at least a rudimentary knowledge of chemistry, geology, and horticulture. If he can speak two or three foreign languages, he is just that much better

equipped to expand his knowledge by reading and travel.

Third. The ideal architect should be a good business man for a large part of his time is taken up with business. He should know how and when to buy and how to adjust satisfactorily the differences sure to arise between the buyer, or owner, and the seller, or contractor. And most important, he should know how to sell his own services advantageously—when to yield a point and when to stand firm; this requires that he be a shrewd judge of men.

Fourth. He should be a very practical person, with a great deal of common sense, for as he practices his profession he will find more and more that it is not all pure design, beautiful conceptions of the brain, but such despised things as pantry sinks, radiators, gutters, floors, and kitchen ranges, which govern his client's estimate of him. Too often have I heard a client damn an architect by the amiable remark—"So and So is very artistic—he did a very good job for us—but he is so impractical. You know our windows have leaked ever since the day the house was built, and the flue in the living room—well, the less said about that the better." Of course this is obviously unfair, but the ideal architect must take note of such details, so important to the client, and see to it that each is perfect.

Fifth. The ideal architect must be an artist, never satisfied with what he has designed but ready always, even to the last moment before they are executed, to scrap his drawings if he feels the final result can be improved. He should be able to express easily on paper the ideas that are flowing in his mind, so as to convey them to draftsmen, clients, or builders. If he can make delightful sketches so much the better, for they often help to persuade the client to his point of view.

Sixth. Last, but not least, he should have a talent for making friends and holding them, for opportunities to do work come from friends. He must have much tact and no conceit or false pride and must remember what few artists do—that he is the servant of his client and his job is to give satisfaction without lowering his standards.

You see what a list of incongruous qualities I have set forth, but I believe that they are all essential to the making of the ideal architect as I have watched the practice of architecture for nearly thirty years. I have no doubt that I have even forgotten some that should be included, but the essential ones are there.

The question now arises—"How are we to acquire all these qualities and all this learning?"—and here I must confess myself baffled. Those of you who have had a college education and have taken advantage of it may have a certain lead. Just how much depends on what you were able to assimilate. This I know: that without an overwhelming desire to master your profession and reach its top it makes little or no difference whether you have been to college or not. I would lay my money on an ambitious office boy who was fixed in his determination to become a great architect rather than on a young man who had had all the advantages that money could buy but who felt that the world owed him a practice and a living.

I suppose we are all inclined to lean somewhat towards

our own experience. In my own case, after I left college-where, by the way, I spent most of my time and energy in seeing how I could avoid work-I went to the Columbia School of Mines, the architectural division of which, in those days, was presided over by a cultivated gentleman beloved by all, Professor Ware. He had an idea that competition was an evil thing; that boys should work for the love of the working, without rivalry, and we were given what seemed to me then silly little problems, such as cutting a strip of paper into its most beautiful proportion, designing wall brackets to hold vases, etc. This was not my idea of architecture and I spent a good deal of time in extra-curriculum activities. Among other things I went into a competition for a poster for Colgate's perfumes, in which I happened to get first prize. (I may add that though I received the prize my poster was never reproduced, while Maxfield Parrish's was.) This made me feel that I was destined to become a great decorative painter. After two years of this school, one hot Sunday in July I laid my ambitions bare to an old and wise friend, who knew all the architects and painters worth knowing. He said, "But you don't know what architecture is. Get into an office and find out what it is all about." So I knocked on Carrère & Hastings' door the next morning and was taken on, to draw out at the small scale of the competition requirements the plan which had been settled on at a large scale-of the New York Public Library. The excitement of the competition, the friends I made among the draftsmen, and the amount of knowledge I acquired in what seemed an incredibly short time compared to that spent at school, convinced me that summer not only that architecture is a great profession but that the way to learn it is in an office-the old apprentice system. So I never went back to Columbia and today I am convinced that this is the best way, if it can be supplemented and stimulated by competition on the outside, such as the Beaux-Arts Institute offers. As a means of learning the art of architecture, I doubt if any university can offer a curriculum which can compete with an office that turns out good designs, has an ample library and an inspiring personality at the head of the drafting force. It is not the easiest way but it is the most efficient because while one is learning design one is also learning the realities of architecture more than any school could ever teach. The school too often stresses the brilliant design, the plan that is beautifully rendered and well furnished, the elevation or perspective that stands out from its competitors because of some striking method of rendering-but this is not architecture. Architecture is the realization in stone and mortar of men's dreams and these dreams can only be made realities by a most painstaking amount of work upon details. The general conception upon which all these details hang can usually be most simply, even crudely, expressed-as the preserved drawings of Palladio and Peruzzi and a host of other great architects testify.

We have been talking until now about the art of architecture, pure and simple. But how about all those other qualities we said were essential to the making of an ideal architect? Again I refer to my own experience. While I was in my junior year at Yale, I, together with almost every member of my class, took a snap course in Biblical Literature given by the then President of the University, Timothy Dwight. Everybody took it because you never had to do any work and it came immediately after chapel, so if you had not had a very full night's rest you could supplement it without interruption for an hour. I am sorry to say I remember only one thing about this course —I must have been awake at that moment—and that is that

Prexy Dwight said, "If you young gentlemen will read for but half an hour a day and keep a record of what you read, you will be surprised at the end of a year how many books you have read." I cannot say that I have followed that advice for three hundred and sixty-five days a year, for the past forty years, but I have done so consistently enough to have read a great deal, and if you gentlemen will let me hand on to you this very good advice, and if you will follow it fairly consistently, you can pretty well make up for any deficiency in your early education; and if you will go beyond that somewhat and map out a course of reading for yourselves covering the more important subjects, you will find yourselves at the end of a few years better read and better educated than most college graduates who have devoted their lives since graduation to stockbrokering and golf.

As I read this paper to you I am more convinced than ever that I am giving you no fresh ideas, no brilliant suggestions for immediate success in your art. In fact, I am more than ever convinced that there are no such brilliant suggestions to be given; that it rests with each one of you to find his own method for achieving perfection. What I have given you are only hints from my own experience and some of these hints are not so easy to follow in these days of depression. For instance, I am sure it is easier today to get into a university, with all its examinations, than to find a job in an architect's office. But these days are not going to last forever and those of you who have a real ambition to succeed can find in the reading of books on history, biography, and science, in work at the Beaux-Arts Institute of Design, and in studying, from plates and photographs, the great masterpieces of architecture, a full day's occupation-all of which will stand in good stead when work revives. Architecture is a great profession, though this may not be the moment to say so: it adds to the riches of the world in a way that few others do, not always in dollars and cents but in forms that long outlast these. The lawyer and the doctor spend most of their lives in repairing mistakes: the architect, if he is a conscientious one, in warding them off. If he is the right man, he will be giving his clients and the world better places to live in, to work in, and to play in. By so doing, he helps to banish disease and misery and by creating beauty adds to the joy of life.

Concluding Remarks by Mr. Jallade

I well remember Mr. Delano's reputation as a worker at the Ecole des Beaux Arts. He was indefatigable, but he seems to give the impression in his talk that he is not addicted to hard work. It may be that he doesn't know that he works hard, but it is a well known engineering principle that when machinery makes noise, there is lost motion somewhere. Mr. Delano makes no noise and has no lost motions.

I well remember the day that I left the Ecole to return to America. That morning he ran down with a chassis five minutes before closing time. He had worked all night and was in a terrible charrette. He had no borders on his stretcher and no paste and was out of breath. At the risk of my life I ran to Redon's Atelier [I was a Laloux], appropriated materials and then Delano went in finished. But don't underestimate Mr. Delano. He can outwork any six men in this room.

There is nothing to add to his admirable talk except a feeling of regret in that he has put in his talk much of his soul that I can readily see is not in his written paper, and should this paper be published later, it will be impossible for any human to read between the lines those things that he has just told you.

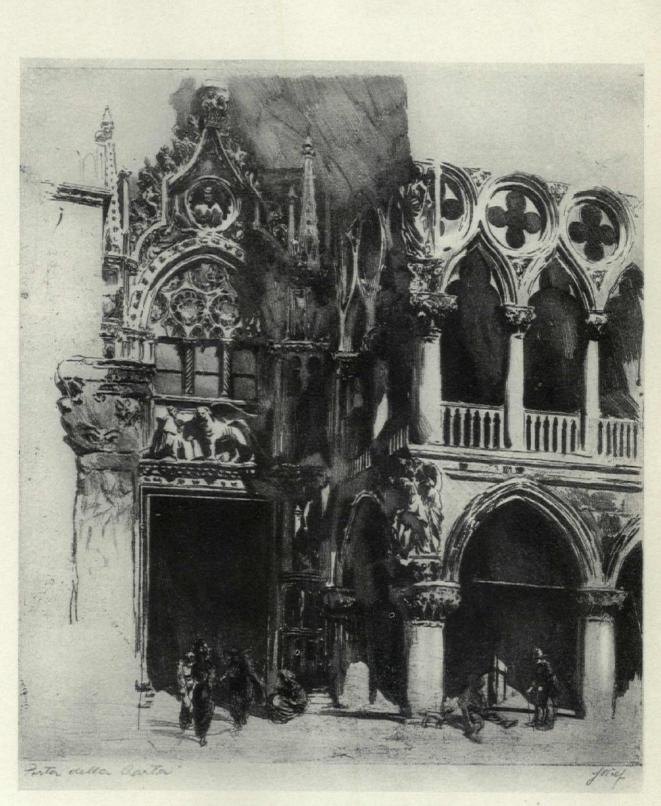


PENCIL DRAWING BY FRANCIS SCOTT BRADFORD-FIGURE STUDY

VOLUME XIII

NUMBER 2

This pencil drawing is a figure study for the mural decoration by Mr. Bradford for the Milwaukee County Court House, Albert Randolph Ross, Architect. The finished panel in which this figure appears measures approximately ten feet wide by fifteen feet high and shows the landing of the first white settler in Milwaukee. The painting is now being put into place in the County Board Room of the new court house.

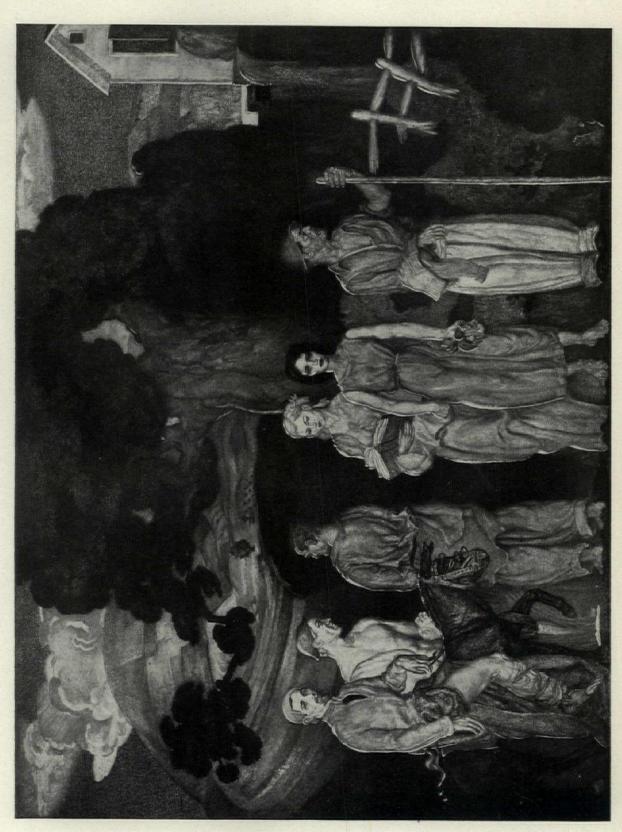


FROM A SOFT GROUND COLOR ETCHING BY J. WOLF PORTA DELLA CARTA, DOGE'S PALACE, VENICE

VOLUME XIII

NUMBER 2

This print is by a young Viennese etcher whose work during the past year or so has become familiar to print lovers in this country. Mr. Wolf belongs to that school of etchers in Austria which is doing so much towards advancing the art of color etching. This original print measures 95%" x 87%".

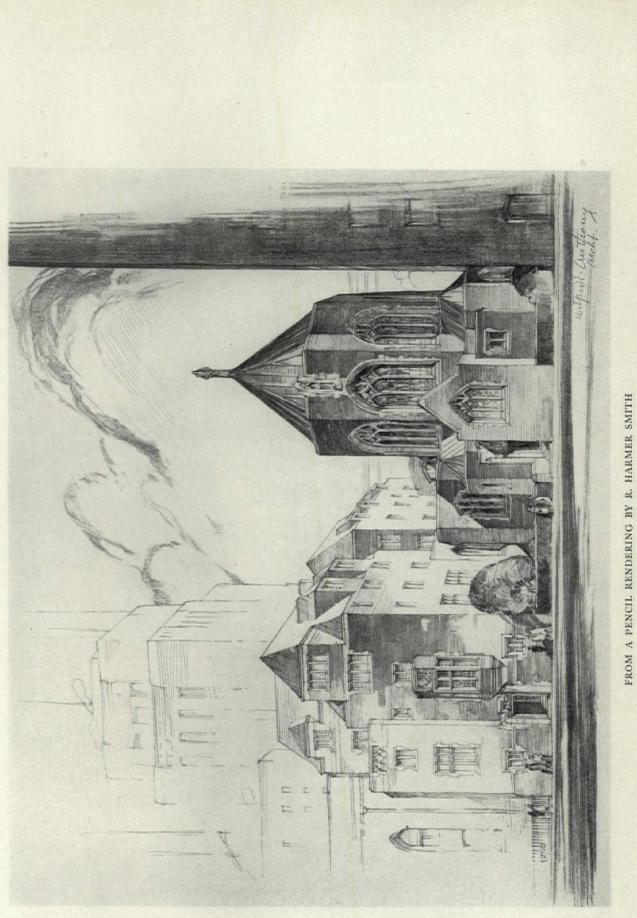


FROM AN OIL PAINTING BY DONALD M. MATTISON "summer"

VOLUME XIII

NUMBER 2

This painting was done while the artist was at the American Academy in Rome whence he has recently returned. It was included in an exhibition of his work shown at the Architectural League of New York during November, 1931. The types shown were all drawn from the Italian hill towns.



STUDY FOR THE CHURCH AND CONVENT OF ST. CATHARINE OF SIENNA, NEW YORK-WILFRED E. ANTHONY, ARCHITECT

PENCIL POINTS

VOLUME XIII

NUMBER 2

por a

This drawing, which measures in the original 19" x 16", was done on a sheet of kid-finish Bristol board. It is an excellent example of the finished pencil technique of this young delineator, a group of whose sketches was published in our July, 1931, issue.

Misadventures of a Draftsman

7—"I Open an Office "

By George H. Allen

It used to be that Monday was never any different from Tuesday, back in Woodbury. As far as that mattered, Monday was no different from any other day. If you hated the noise and blare of the large city, that was the place to live in . . . quiet streets overhung with shade trees . . . families gathered on the large verandas in the fading twilight . . . and the croaking of the frogs down by Kidder's Creek.

But the town has changed. Woodbury has come up in the world. The streets are now lined with concrete, the electric company is cutting down more and more of the shade trees—the elms, the maples, the locusts—to make way for stark, iron poles, bereft of all ornament and clustered with waving wires. The city laundry has a new lavender delivery car, chromiumed with sparkling gadgets; traffic lights hold authority at intersections and with the change of signals the cars burst ahead, with a blat-blat of horns and steady singing of rubber on concrete.

A town of forty-thousand souls, whose growth was provident by its nearness to a large city. And like the parasitic pilot fish on the whale, it spawned on the life blood of its larger neighbor. Its wage earners were largely commuters who preferred, after a hard day in the dusty, noisy city, to rush home and sprinkle the front lawn in the fading evening, inhaling all the while the sweet clean smell of newly watered grass.

Woodbury had a beautiful and well-planned suburb known as Windlemere Heights. The main road, which led out of town and wound through the suburb, was appropriately named Homeview Drive. It meandered in a circular route throughout this section and was lined on either side with spacious homes set back on ample lawns. Finally it found its way back to the business section of the town again where, like a chameleon, it became once more a street of radio shops, barber emporiums, soda parlors, and penny news stands.

The business area encompassed a district of about ten city blocks. Every Wednesday and Saturday night the streets would be lined with the cars of those who were either shopping or enjoying the show at the local *Strand*. There was a bank on practically every corner which reflected either the stolidity or stupidity of the place. It was a nice town withal, typical of thousands of others throughout the country. In the Summer the men would dispense with their coats and walk around in white shirts, usually with the sleeves rolled up, and you never, never saw anyone wearing a hat!

Everyone had a nodding acquaintance with everyone else; you couldn't walk twenty feet without stopping and going into detail about the weather. It was a well-known fact that old Caleb Freeman, who practiced in criminal law and was a perpetual talker, couldn't get from his office in the Law Building down to the Court House (a distance of three blocks) in less than an hour and a half. Life moved slowly. Nobody made any fortunes here, unless it was Seth Miller who retired from his coal and lumber business about three years ago. But they all have their little homes, all take their Sunday rides with the family, all have their vegetable gardens in the back with the flower garden at the front, and they all enjoy the fullness of life in their mild, placid way.

Woodbury, however, could boast of one imposing structure—The Guarantee Trust Building, a twenty-story office building which was not over a year old and was still the object of much local enthusiasm. It is said that a Rotarian can't pass by it without his chest noticeably expanding a few inches.

You entered the building through an over-elaborated entrance, the pride of Jimmy Fletcher, who was the town's one and only architect, with the exception of myself (not to be regarded as any serious competition). It was a fusion of Neo-Classic and "drafting-board" Modern. Inside, extravagantly liveried starters in plum-colored trappings bowed you to waiting elevators which took you quickly up to the floors above. They had those latest gadgets which register the floors that you were passing in small electrical numerals on a panel above the door.

Anyone getting off at the twelfth floor and turning to the right, would run smack into a sign of small, black letters on a ground-glass paneled door:

RODGER REYNOLDS Architect

This was my new office. Here I practiced architecture whenever I had work to practice with.

My suite consisted of just one large room. I had a small washstand in one corner over which was a steel mirrored cabinet, while at the far side of the room near the windows was the large drafting table. I found I had to take on a stenographer because I was out a great deal of the time; she occupied a small desk right near the door as one came in. In the middle of the room was my desk with an armchair and another chair, having an inviting cushion, for the clients. The only one to sit in it so far was Dick Lerndon, who drifted in from the heat of the street one day to make a five-dollar touch. I was contemplating discarding the cushion to discourage any more such callers.

Owing to the fact that I had opened this office on my meagre savings of exactly \$965, I necessarily had to cut my expenses down to the bone. My rent was \$15 a month, the phone \$3.50, I paid the stenographer \$12 a week, and the cleaning lady got a two-dollar bill every Friday night. These running expenses, as they are appropriately called, ran on whether there was business or not. To date (the office had been opened just three weeks ago) there hadn't been the *slightest* sign of a job straying in the door.

I walked in, hung my hat on the rack and sat down at the desk. There were three letters awaiting me. The first was a form letter from a tailor—that went right into the basket. The second was a bill for my stationery and the last was a notice from the lodge, something about my dues.

"Were there any messages for me, Miss Webster?" I

asked my stenographer. I noticed she was reading a book with a glaring yellow cover.

"No, there wasn't . . . oh, just a minute, yes, here it is you're to call Dick Lerndon when you come in."

Lerndon, that meant more money probably. Opening my drawer I pulled out a sheet of my new stationery and dipping a clean pen into a new bottle of ink, I wrote a letter enclosing a check to the printer. Meanwhile, I had been wondering what Lerndon wanted. If it were money, he would have stopped around. He was a good fellow to know because he had a great many influential friends about town. I finally got him at the number he left for me to call.

"Say Rod, how about coming over to the club this afternoon and shootin' a little round of golf?" He evidently was over at the golf club; he was always to be found in the locker room.

"I don't think so, Dick. You know I can't afford to play golf any more, I'm trying to keep my head above water as it is."

"The trouble with you, Rod, is that you need a little recreation for a change. You've been working too hard, lately."

I didn't say much to that.

"C'mon over. We can get up a little foursome and ... just a minute ..." I could hear undistinguishable noises. Then, "Say Rod, I was just talking to Jack Farnum." My pulse quickened. That was old Ed Farnum's son. He inherited quite a fortune last year when the elder Farnum died and is responsible for putting up a number of highclass homes out in the Lake Park section. I had always wanted to meet him because I thought there probably would be an opportunity there for me. "He's all set for a good game. You should meet him, Rod—he's been blowing off about some fantastic development scheme around here for the last three months. We can't keep him quiet ..."

"Good!" I cut in. "I'll be over in half an hour. Hold everything!"

The fact that I dug my golf bag out of the closet and rushed out of the office, when it was financially in such a deplorable state, was cause enough for my stenographer to think me mad. Any inhibitions that I might have had were thrown to the winds. I was determined to see if I couldn't dig up some business over a game of golf . . . at least that is what you always read in the magazines . . . "young man closes important contract during 18-hole spree with executive." It is curious how one, like a czigany of old, will deviate from a natural order which has been sustained through sheer will, and (metaphorically speaking) veer off into a parabolic curve through some vague orbit to a distant, hazy illusion. Then, too, desperation is sometimes mistaken for a hasty action (or vice-versa. In this case probably the latter). Business is a matter of economics. We buy and we sell. This simple aphorism is culpable of having thousands of complicated subdivisions. But the fact still remains, we buy and sell. If prosperity descends upon us, then we find ourselves sending checks home to the mother-in-law.

But let this order reverse itself. Let adversity enfold us like a ravaging Visigoth and you find the wolf striving to get his nose further in the crack of the door. Then, unless there is an immediate largesse, you suddenly find yourself in a tough spot. Either open the door wide and let him in, or go out after his hide—which I was determined to do. (At this point I drove the thought home by scowling at nothing in particular, but this quickly vanished as I was suddenly precipitated into the corner of the car when it madly swung around a corner, leaving me clawing the air.)

Exactly thirty-five minutes after leaving the office I arrived at the club, to find Dick standing on the veranda talking to two men. They were attired in white knickers and their shirts were open at the neck.

"Hello, Rod," said Dick, extending his hand. "I want you to meet Mr. Revell, and Mr. Farnum . . . Mr. Reynolds . . . "

I shook hands with each. Revell was a quiet and unassuming man of small stature but Farnum with his boisterousness seemed rather overbearing.

"Farnum here," Dick winked sideways at me, "is the club's authority on taxes, depreciation, construction and also high-class developing . . . you know . . . "

Farnum laughed deprecatorily.

"I saw some of your homes out in Lake Park and thought they were well above the average," I said, coming to his rescue.

"Rod here, is the young architect I was telling you about, Jack," Dick cut in. "You boys ought to get together. But let's get the game started."

After a little delay I joined them outside, having had to slip into a pair of knickers and strap up my wrist. Two years ago I wrenched it badly and found that if I didn't wear the strap, it would always ache after a game. We teed off; of course I dubbed the first stroke. Revell was very cautious, his follow-through and stroke were almost perfect. Dick always was a good shot, and his ball landed in an excellent position up near the green but Farnum was more inclined to go through numerous motions. First he would sway on one foot and then the other. Then he would introduce some preliminary swings and more motions, which all became so involved that I hardly saw how he was able to give the ball a final swat.

The weather was ideal. A deep blue sky formed a perfect background for the tiny wisps of clouds which calmly floated overhead. You could see the shadows which they cast as they moved, one after the other, over the grass as if they were playing some sort of a game. We finally arrived back to the clubhouse in convivial spirits, which were accentuated by a short session in the locker room. After a brisk shower and rubdown we retired to the lounge upstairs. This was a very appropriate title, with large sofas and deep chairs, you simply *lounged* the day away. Farnum seemed to be interested in me, at least he brought up the discussion of building again. We were scated apart from Dick and Revell. They both were agitated over the respective merits of the Deep Dale course and the one which we played on today.

"Do you know, Reynolds," said Farnum, "it pleases me to find someone who is interested in good design."

I replied that, since designing was more of a vocation than an avocation with me, I naturally was a willing party to any discussion.

"Let me ask you," he suddenly said. "Did you ever do a job ranging around \$75,000?"

"Yes. The Waldron house over on Turner Place. That was when I was working for Blaine and Whiteside, but I handled it from start to finish, so I can truthfully say that it was my job, as far as the actual work was concerned."

"You did? Yes, I know the place. Look," here he produced an envelope completely covered with pencil sketches, "here is something I've been thinking about for some time. As you see, this is rather an unusual plan. This stair lands over here. It does away with a separate staircase for the maid. She uses this one, yet you cannot see her from the living room or entrance hall.

"This house will run into the neighborhood of eighty or ninety thousand dollars and I want you to take these rough sketches and see what you can do with them. I will want a drawing made of it too, one of those colored things . . . "

"Yes, a perspective rendering," I said. "I'll be glad to have an opportunity to do something for you, Mr. Farnum. I will get started on this right away."

He waved me away. "Go ahead, see what you can do with it. Let me know when you get it finished, and if it looks all right, we will shoot the works."

During the next ten days I worked hard, mostly late into the night, trying to get the thing to work. It was a very peculiar plan. While it looked all right in rough sketch form on the envelope, it wouldn't work until several problems were solved. Finally all of the plans (at $\frac{1}{8}''$ scale) were finished and also two elevations. I finished a $\frac{1}{4}''$ scale perspective of the house and rendered it in water color, this took four days of solid work, then mounted it on a stiff Bristol board. Taking it down to Farnum's office, I spread all the drawings out over a table. Immediately he became enthusiastic.

"Fine, Reynolds! That's just the thing I want! How soon can you start on the working drawings?"

"Right away," I said.

"Well, go ahead. Get them going and bring in a contract tomorrow and we will sign it up."

You can imagine how hard I worked during the next two weeks. Things, at last, were going along fine. I found that my creditors were willing to carry me along for awhile longer, now that I had a job in the office. A clothing store down the street even offered to open an account.

Then the inevitable happened. The stock market, which had been skyrocketing dizzily upwards for the last three years, suddenly took a dive down to the bottom. Everybody began to moan about his losses. Those who had been investing heavily were rushing around trying to raise money to cover margins, and the one who was said to be the hardest hit was no other than Farnum. He left town, no one knew where. The sheriff hung a padlock on the office door and pasted a "legal" announcement on the window. Of course the job I was doing for Farnum was all washed up. It almost broke my heart to close up my office. By the time I sent my furniture and office equipment back to the stores where I purchased them, my debts were brought down to \$325. The future certainly looked black.

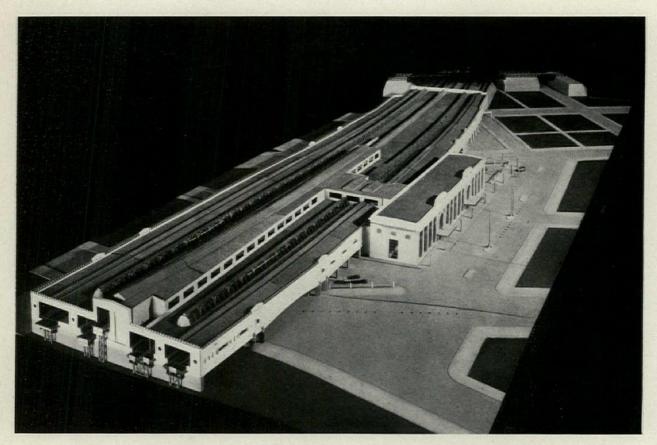
I tried to get my old job back, but my former employers were in the same position as everyone else in town. There were no prospects of work except what they were finishing up. So when my uncle offered me a job in his office of the coal company, I gladly took it.

It was about a month later. I was down town on an errand when I passed Jack Farnum's old office. The place was still locked, and the windows by now were dusty and dirty. Standing proudly in the middle of the window was a large, colored drawing. In one corner of it was the caption—"Rodger Reynolds, Architect." While directly under it in large letters was the blaring announcement: "COME IN AND ASK US ABOUT THIS BEAUTI-FUL RESIDENCE WHICH IS BEING DESIGNED ESPECIALLY FOR YOU IN OUR LAKE PARK DEVELOPMENT!"



A BOATMAN OF MALTA-FROM THE SKETCH BOOK OF FERENC IMREY





VIEWS OF MODEL OF NEW STATION OF PENNSYLVANIA RAILROAD AT NEWARK, NEW JERSEY MC KIM, MEAD, AND WHITE, ARCHITECTS-MODEL BY H. E. BOUCHER CO.

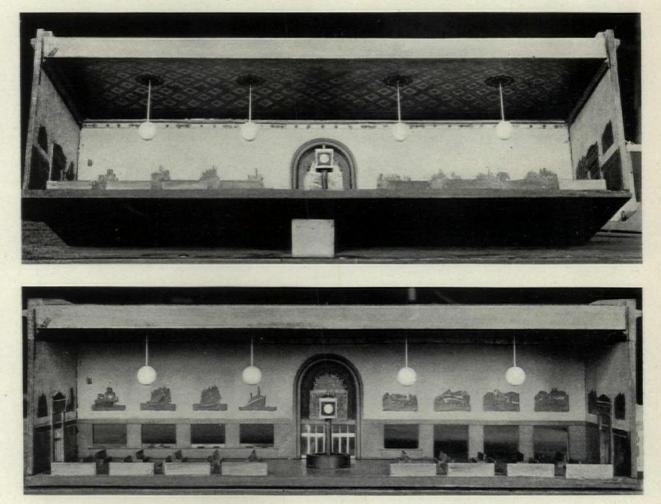
A Master Model by a Master Model Maker

The New Newark Station of the Pennsylvania Railroad

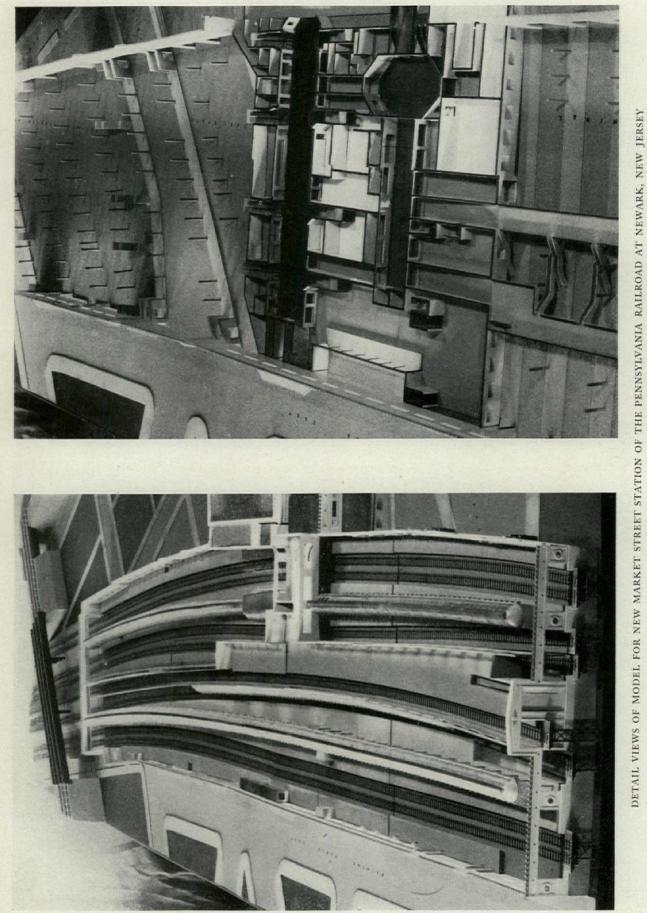
The accompanying illustrations show a model made by the organization of Horace E. Boucher for McKim, Mead, and White, and for their client, the Pennsylvania Railroad, to study some of the intricate problems arising in the design of the new Market Street station in Newark, New Jersey. It was found to be extremely valuable for it not only assisted the architects in studying and improving the design but also materially aided them in showing the railroad officials how the completed building would function. Furthermore, by public exhibition of the model, the layman's understanding and appreciation of the problem and its solution will be greatly increased.

The model, which is quite large, was constructed in four levels—subway, street, track, and roof. The sections were made removable so that any part of the station could be exposed to view and studied. The scale used was ten feet to the inch. Sheets of Vehisote board were used for the street level and for the trays representing the different levels. The vertical walls were of maple and were carved and painted to show the detail. The small details such as tracks, fences, structural steel work, and so on, were worked out accurately to scale in brass, soldered together and painted. Roof surfaces were made of sheet brass painted and coated with black sand. The whole thing viewed in its assembled form, or with levels removed to expose the interior, was an extremely accurate representation, to scale, of the finished job.

Mr. Boucher, in whose shops this model was made, has been making models for thirty years. After three years in the U. S. Navy Department's model-shops he started independently making ship models at first and later on litigation models and working models of industrial plants and machinery. His models have been widely exhibited at world's fairs and expositions of various kinds. The example shown here is one of the finest he has turned out and took two months to build.

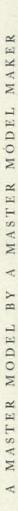


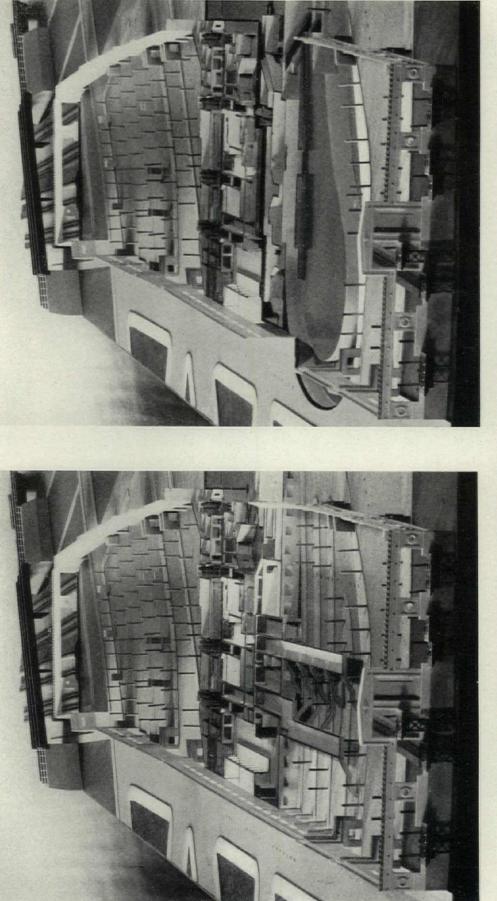
INTERIOR VIEWS, MODEL OF NEWARK STATION WAITING ROOM, PENNSYLVANIA RAILROAD MC KIM, MEAD, AND WHITE, ARCHITECTS



At the left the track level above the street is in place. At the right is a closeup of the center portion of the street level section shown less clearly on the facing page.

MC KIM, MEAD, AND WHITE, ARCHITECTS

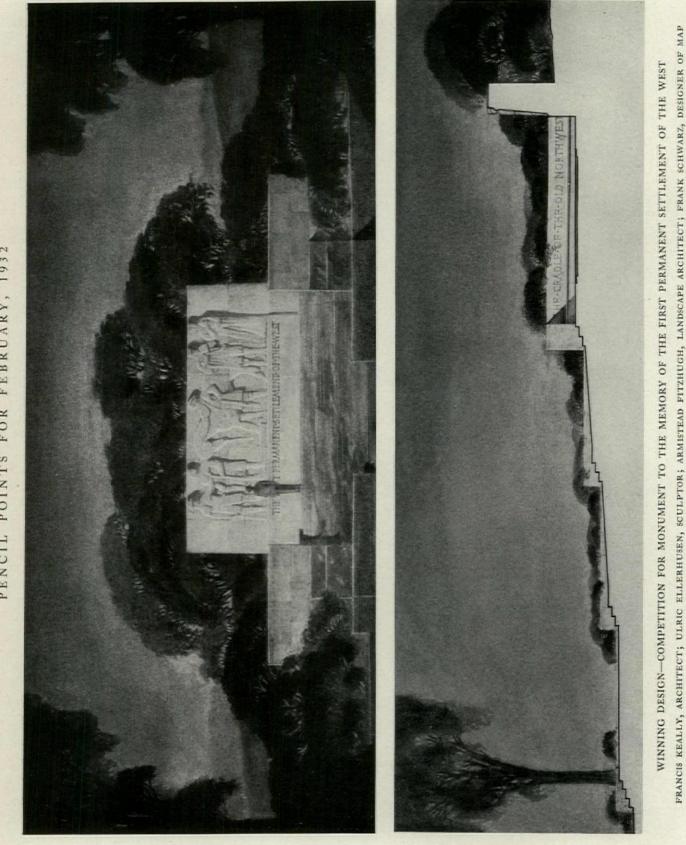




TWO VIEWS OF MODEL FOR NEW MARKET STREET STATION OF THE PENNSYLVANIA RAILROAD AT NEWARK, NEW JERSEY

MC KIM, MEAD, AND WHITE, ARCHITECTS

At the left is a view with the voofs and track levels removed showing the conditions at the street level. In the view at the right another level has been removed from part of the model so that the subway for trolley cars is exposed





DETAIL OF SCULPTURE OF WINNING DESIGN BY ULRIC ELLERHUSEN

Harrodsburg, Kentucky, Monument Competition

The Program and Report of the Jury of Award

The following is provided in the Second Deficiency Bill, 71st Congress, approved March 4, 1931:

"Monument to the memory of the first permanent settlement of the West at Harrodsburg, Kentucky: For the erection of a suitable monument on the site of the Pioneer Cemetery at Harrodsburg, Kentucky, commemorating the first permanent settlement west of the Allegheny Mountains, 'The Cradle of the Old Northwest," where General George Rogers Clark and his heroic associates at old Fort Harrod planned and inaugurated the campaign carried on by General Clark and his associates in the conquest of the Northwest Territory during the Revolutionary War, as a result of which that vast territory was established as a part of the United States of America, fiscal years 1931 and 1932, \$100,000, to be expended under the direction of the Secretary of War: Provided, That the plan and design of such

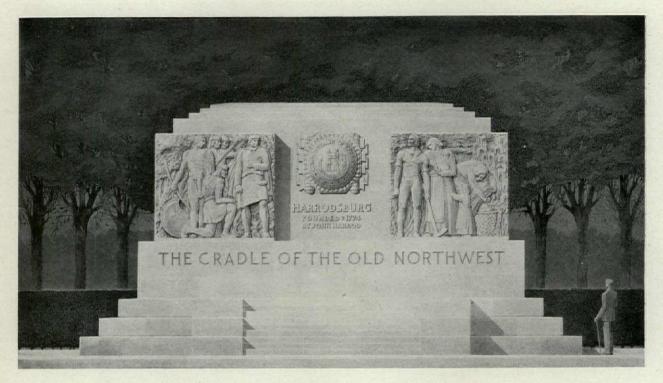


PLAN OF WINNING DESIGN FRANCIS KEALLY, ARCHITECT; ULRIC ELLERHUSEN, SCULPTOR; ARMISTEAD FITZHUGH, LANDSCAPE ARCHITECT; FRANK SCHWARZ, DESIGNER OF MAP monument shall be subject to the approval of the National Commission of Fine Arts: Provided further, That the Secretary of War is hereby authorized to enter into an agreement with the State of Kentucky or any subdivision thereof, or any appropriate organization existing therein, for the care of such monument."

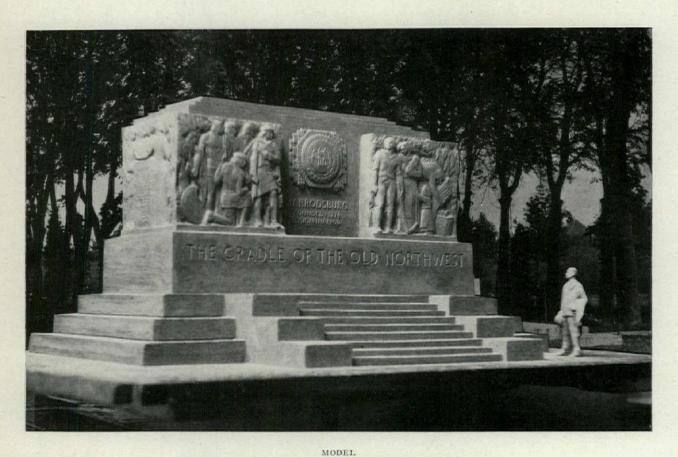
In accord with the terms of the above Bill and the herein stated conditions the Secretary of War invited architects and sculptors of standing and reputation, who are citizens of the United States, to submit designs for the proposed monument in memory of the First Permanent Settlement of the West at Harrodsburg, Kentucky.

REPORT OF THE JURY OF AWARD

"After a repeated, careful, thorough examination and serious consideration of the entire series of designs, numbering seventy-three (73), and by process of successive elimination, the Jury appointed to judge the designs and



ELEVATION



COMPETITION FOR A MONUMENT TO THE MEMORY OF THE FIRST PERMANENT SETTLEMENT OF THE WEST AT HARRODSBURG, KENTUCKY

DESIGN SUBMITTED BY HARRY STERNFELD, ARCHITECT; J. ROY CARROLL, JR., ASSOCIATE; GAETANO CECERE, SCULPTOR

models submitted in the competition for a Monument to the Memory of the First Permanent Settlement of the West at Harrodsburg, Kentucky, has reached the unanimous decision to recommend Design No. 73 as being of outstanding merit and suitable in every way for carrying out the intentions of the program.

"The author or authors of this design have grasped the essentials of the problem in that they have realized that the approach is from one direction and have designed the monument to be a terminal feature to the vista, so that the design, both structurally and architecturally, reads from the approach side only.

"For this same reason the landscaping has been used to establish an effective background, in keeping with the simple, dignified, and sturdy character of the monument proper. The planting forms a screen that confines the monumental effect to the limits of the Park and excludes any extraneous features that might detract from the effect. Incidentally this same scheme of planting serves to enframe the monument and focus attention on the central feature.

"The incidental incorporation of the granite pavement map, showing Clark's various routes across the Northwest Territory, cannot fail to be both interesting and instructive.

"Realization on the part of the authors that the monument faces to the north and the consequent introduction of alto relief in the sculpture that can be read at a distance as well as close up is a particularly happy element in the solution of the problem.

"The Jury has seriously considered the entire terrain of the Park and location of the various existing features with their historical significance, such as the Colonial entrance, the approach to the Fort with its blockhouses and cabins, to the right of which is Pioneer Memorial Cemetery. The cross axis from this Cemetery leads by an esplanade to the elevated dominating site of the proposed memorial. The evident thorough consideration of all these factors by the author of this design was given due weight in arriving at a decision.

"The Jury wishes to emphasize particularly its appreciation of the general high level of artistic excellence of the large proportion of the designs submitted, both in conception and rendition. The interest shown in the competition was very great and the Jury, having taken great pleasure in studying the various designs, extends its congratulations to all of the participants."

Respectfully submitted,

Jury of Award

.,
ROBERT AITKEN, Chairman
MARVIN DARNELL
(Mrs. James Darnell)
FREDERICK LAW OLMSTED
Edward W. Donn, Jr.
GEORGE G. WILL
Colored G. Hind

Francis Keally, Architect, briefly describes the design submitted by him and his collaborators as follows: "In arriving at a parti for this monument, we felt that the monument itself, whatever form it took, should be treated as a back drop on a stage with the audience on one side only, as the location selected for it in the Pioneer Park at Harrodsburg, Kentucky, is a termination of a long vista. We specified granite for the building material to insure the permanency of the monument through the ages.

"The character of the horizontal fort adjoining the area selected for the monument and the same low effect of the surrounding territory gave us our cue for the

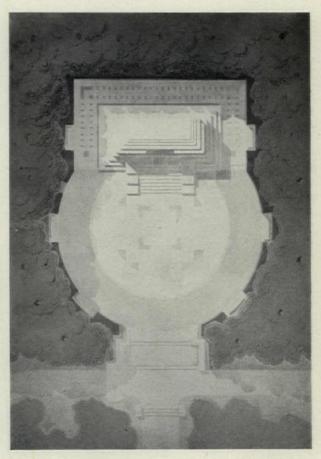
horizontal expression of the monument proper. We felt very keenly that the great pioneers during the Revolutionary War were square-shouldered men who were up against extremely difficult hardships during their various campaigns, and there was no room for the soft effeminate type of individual. We tried to express this idea by means of rectangles as opposed to any soft lines such as curves, ovals, or ellipses. The fort itself, the old pioneer cemetery, the various small buildings in the park are all of a rectangular or square nature.

"The sculptural composition represents George Rogers Clark as the dominating figure in the center, standing in front of his horse and pointing in the direction of the West. On one side the young man putting down his axe is receiving a gun from the man at the end. On the other side a man is bidding farewell to his family and is swinging his gun over his shoulder.

"The pavement in front of the monument contains a large granite map which depicts the various routes and campaigns that George Rogers Clark took with his intrepid pioneers. There is a seat on each side of this map against the low wall which permits a visitor to rest while looking at either the sculpture or the map.

"The introduction of the group of trees in the background, as indicated on the elevation, blocks out the ugly houses which now exist."

Harry Sternfeld describes the design he submitted: "Two ideas, commemoration of the founding of Harrodsburg, and appropriate symbolization of the heroic



PLAN SUBMITTED BY HARRY STERNFELD, ARCHITECT; J. R. CARROLL, JR., ASSOCIATE; GAETANO CECERE, SCULPTOR

COMPETITION FOR HARRODSBURG, KENTUCKY, MONUMENT

pioneers and spirit of that era, are expressed in our monument.

"Commemoration. A rugged granite base, typifying the enduring qualities of a noble State, supports a massive monument bearing the seal of Kentucky, and the name, founding date and historical appellation of its first permanent settlement, recalling that the separate government of Kentucky, resulting from negotiations of its delegate, George Rogers Clark, had its inception through the settlement John Harrod founded.

"Symbolization. The State Seal is flanked by monumental sculptural friezes portraying the pioneer types which made possible civilization's advancement. On one side stands the heroic military figure of Clark with his bold men, who under his leadership traversed wildernesses to finally conquer the Northwest Territory. The other presents hardy pioneer settlers, who achieved no lesser conquest in wringing from savage wilds fruits of husbandry, safeguarding the land for posterity. At each end, figures of Memory and Fame flank tablets bearing names famous in Kentucky's early history.

"The Setting. Advantage was taken of the clearing, trees trimmed or added where necessary to create uniformity of background. The resulting enclosure, suitably paved, bordered with hedges and benches, gives opportunity for undisturbed contemplation of the monument and Memorial Elm. Site conditions have been left undisturbed, save opposite the monument, so that through a wide opening there may be obtained a distant, understanding view of its bold scaled silhouette, in tune with its surroundings, inviting the visitor to a closer inspection."

Editor's Note:—It should be noted that the jury selected only the winning design in this competition. No designs were named as being placed second, third, or fourth. We have presented the design by Messrs. Sternfeld, Carroll, and Cecere simply as one of those understood unofficially to have been seriously considered by the jury. It is possible that other designs, also eliminated only near the end of the judgment, may be secured for publication next month.

COMPETITION FOR A COVER FOR THE HOUSE BEAUTIFUL MAGAZINE

For the tenth consecutive year *The House Beautiful* magazine is conducting a Cover Competition with prizes amounting to \$1,050. Every year this competition attracts hundreds of entries from every section of the country, including many from students competing for the special Student Prize.

This year the prizes offered are: First Prize, \$500; Second Prize, \$300; Student Prize, \$250. In addition, \$200 each will be paid for other designs selected for use as covers.

The competition is open to all artists and as there is a radical change this year in the required dimensions of the design, all those who consider entering the contest should write to the Cover Competition, 8 Arlington Street, Boston, Massachusetts, for a copy of the conditions. The competition will close May 5, 1932.

A CORRECTION

On page 64 of the December, 1931, issue of PENCIL POINTS the State Capitol at Lincoln, Nebraska, is used in an advertisement for the Athey Company. The names of the architects are incorrectly stated and should have read Bertram Grosvenor Goodhue, Architect, B. G. Goodhue Associates, Architects.



WINNING DESIGN BY GUSTAVUS A. MANG

NEW YORK STATE COMPETITION FOR THE DESIGN OF A MEMBERSHIP CERTIFICATE IN THE NEW YORK STATE COUNCIL OF REGISTERED ARCHITECTS

AWARDS IN COMPETITION FOR MEMBERSHIP CERTIFICATE

First prize of \$100 for a design of a membership certificate in the Council of Registered Architects, State of New York, has been awarded to Gustavus A. Mang of Scarsdale, N. Y. The competition, in which architects and draftsmen of both sexes throughout the State were entered, was conducted by the Architects' Emergency Committee for the Region of New York to aid unemployed members of the profession.

Second prize went to Edmond J. Ryan of Chateaugay, N. Y.; third prize to Weston Morley Geety, of New York, and fourth prize to Albert Kirschbaum, also of New York.

The following received honorable mention: Harry B. Doppel, Forest Hills, L. I.; Elving L. Johnson, Frank E. Dopp, New York; Clarence S. Lynch, Rockville Center, L. I.; Henry D. Menkes, New York; David Darrin, Roosevelt, N. Y.; Elias L. Ruiz, New York; Mario Bianculli, Albany; George Jackson, South Beach, S. I.; Steven A. Bugay, Buffalo; Francis Kapp, Yonkers; Peter Franceschi, New York.

The designs, in black ink on white paper twenty-one by nineteen inches, were judged upon the merits of their composition as a whole, their decorative embellishments, and the excellence of their lettering.

The jury was composed of Julian Clarence Levi, chairman; H. VanBuren Magonigle, Frederick Mathesius, James F. Bly, William E. Haugaard, Elmer Adler, Chester Price, and August Reuling.

PRATT ARCHITECTURAL CLUB

Members of the Pratt Architectural Club held their last luncheon gathering for the year 1931 at their headquarters in the Fraternity Clubs Building, New York, on December 31st. This luncheon has become one of the annual features of the club activities, affording an ideal opportunity in which to wish the old year out of the picture. The jolly good fellowship was unmarred by a single serious word as all looked forward hopefully to the opportunities coming in with the new year.

TECH ARCHITECTURAL CLUB, CHICAGO

The Tech Architectural Club of Chicago Tech held a banquet at which Mr. Overton, a designer of air conditioning in modern buildings, pointed out the advantages in producing clean and sanitary living conditions. A number of our honored faculty members expressed their views on the procedure of organization as outlined for the coming year. The first banquet was such a success that similar banquets have been arranged for the future.

The first function of the new year was an informal "smoker" given for the architectural students. An interesting evening of varied entertainment was furnished. The Club seems to be well on its way to accomplish the zenith of its existence; the publication of a Yearbook which records the individual talents of its members. The publishing staff promises a most interesting book.

The Club would appreciate any letters from its former members or graduates from the college. Address Tech Architectural Club, 118 E. 26th Street, Chicago.

BRIDGE DESIGN COMPETITION FOR STUDENTS

For the purpose of continuing its program of encouraging an improvement in the æsthetics of steel bridge design, the American Institute of Steel Construction offers Certificates of Award for the designs placed first, second, and third, respectively, in a competition open to students of structural engineering and architecture in recognized technical schools of the United States and Canada.

The Jury of Award will consist of architects and consulting bridge engineers of national reputation.

Copies of the program may be had upon application to the Executive Offices of the American Institute of Steel Construction, 200 Madison Avenue, New York. Preliminary drawings are due March 19, 1932, and Final Drawings not later than May 2, 1932.

THE MUSEUM OF MODERN ART

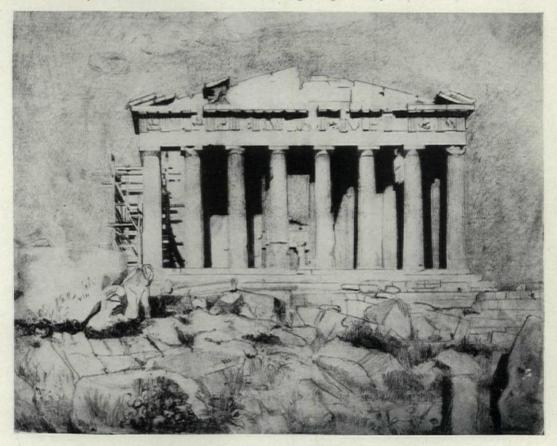
The Museum of Modern Art announces an exhibition of Modern Architecture which will open on February 10, 1932. The exhibition will continue at the Museum's galleries, 730 Fifth Avenue, New York, through March 23rd.

The exhibition will show by means of American and European models and by enlarged photographs of executed works, which have been prepared specially for the exhibition, the latest world developments in modern architecture.

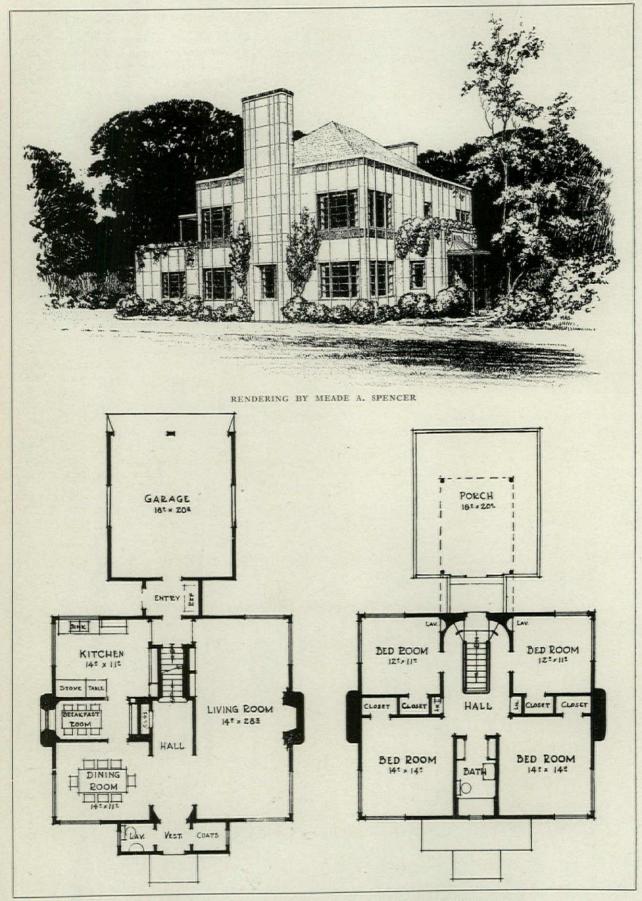
The American architects represented by models are: Frank Lloyd Wright, Raymond Hood, Howe & Lescaze, Bowman Brothers, Richard Neutra; the European architects: Miës van der Rohe, Walter Gropius, J. J. P. Oud, Le Corbusier, and Otto Haesler.

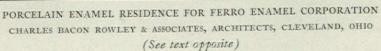
NEW SCHOOL FOR SOCIAL RESEARCH

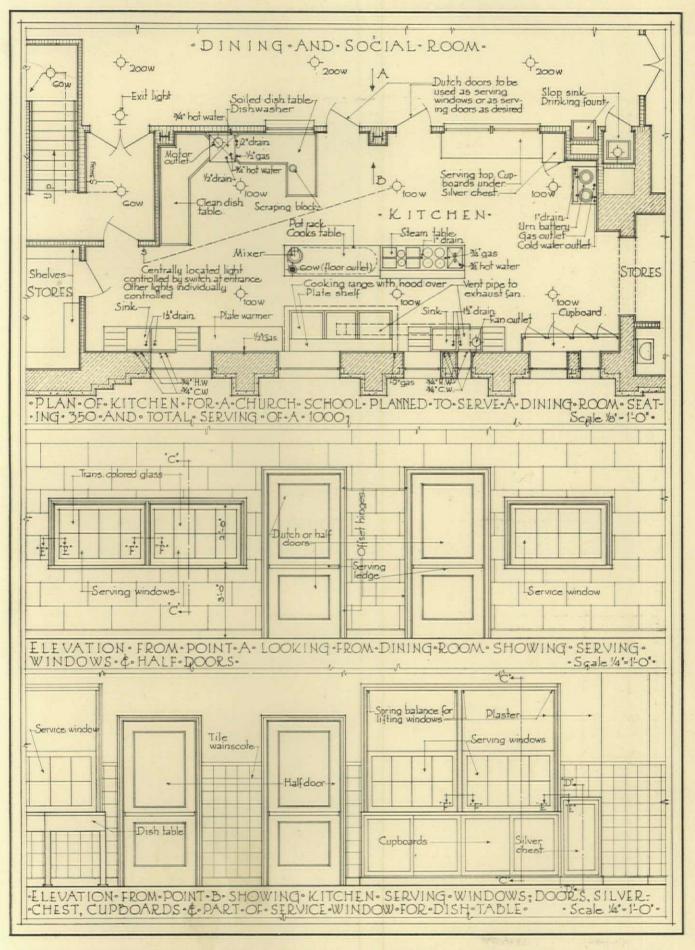
he New School for Social Research, 66 West 12th Street, New York, announces the following courses in art during its spring term beginning February 15: Paul T. Frankl, How I Design and Why, six lectures, Mondays at 8:20, beginning February 29; Lee Simonson, Theatre Arts, six lectures, Mondays at 8:20, beginning April 11; Geoffrey Gilbert, A Studio Course in Photography, twelve sessions, Tuesdays at 8:20, beginning February 16; Leo Katz, An Introduction to Modern Art, twelve lectures, Fridays at 8:20, beginning February 19; Ralph M. Pearson, Pictorial Analysis, twelve lectures, Wednesdays at 8:20, beginning February 17; Ralph M. Pearson, Design Workshop, daily sessions, five days each week, hours to be arranged; Horace M. Kallen, Art in Modern Civilization, twelve lectures, Thursdays at 8:20, beginning February 18.



THE PARTHENON-PENCIL DRAWING BY ELSA REINHOLD

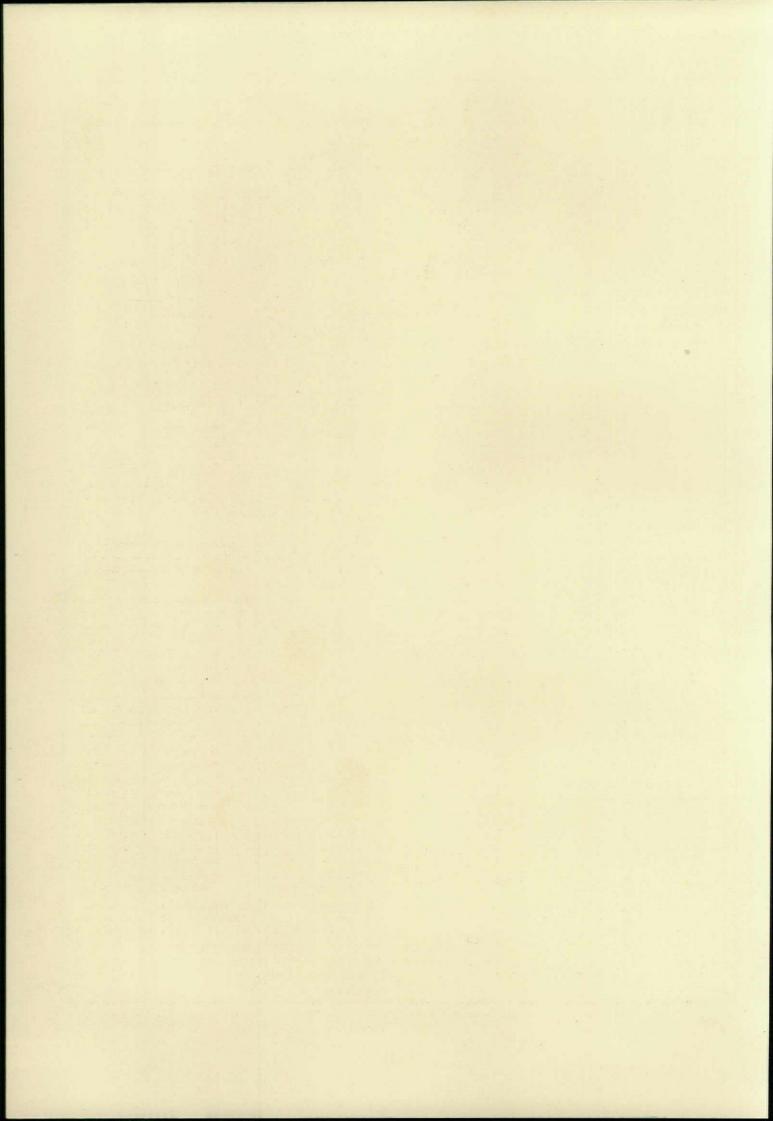


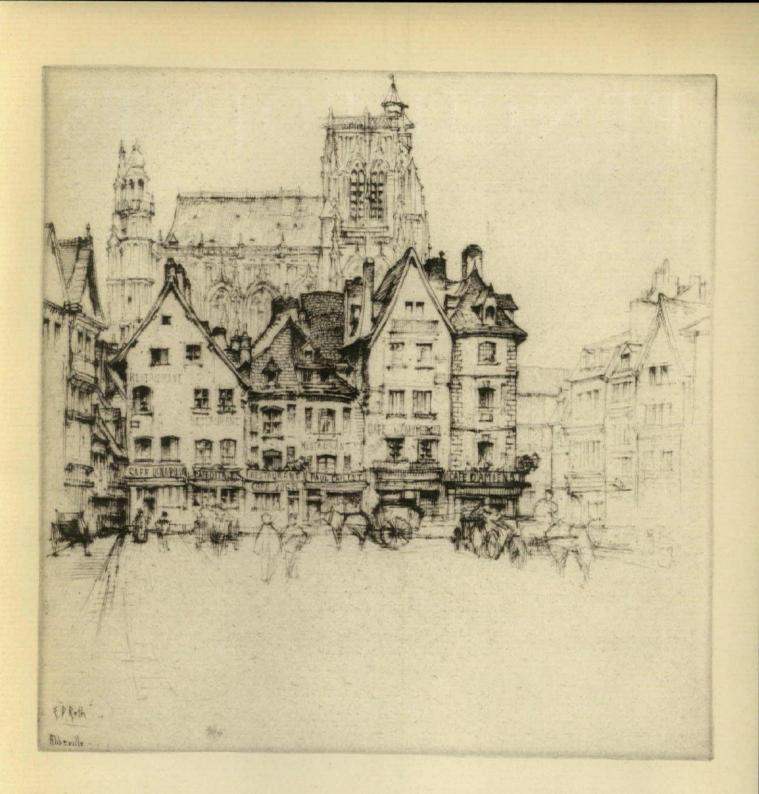




PLAN AND ELEVATIONS OF KITCHEN FOR A CHURCH SCHOOL-DRAWN BY PHILIP G. KNOBLOCH-SECTIONS NEXT MONTH

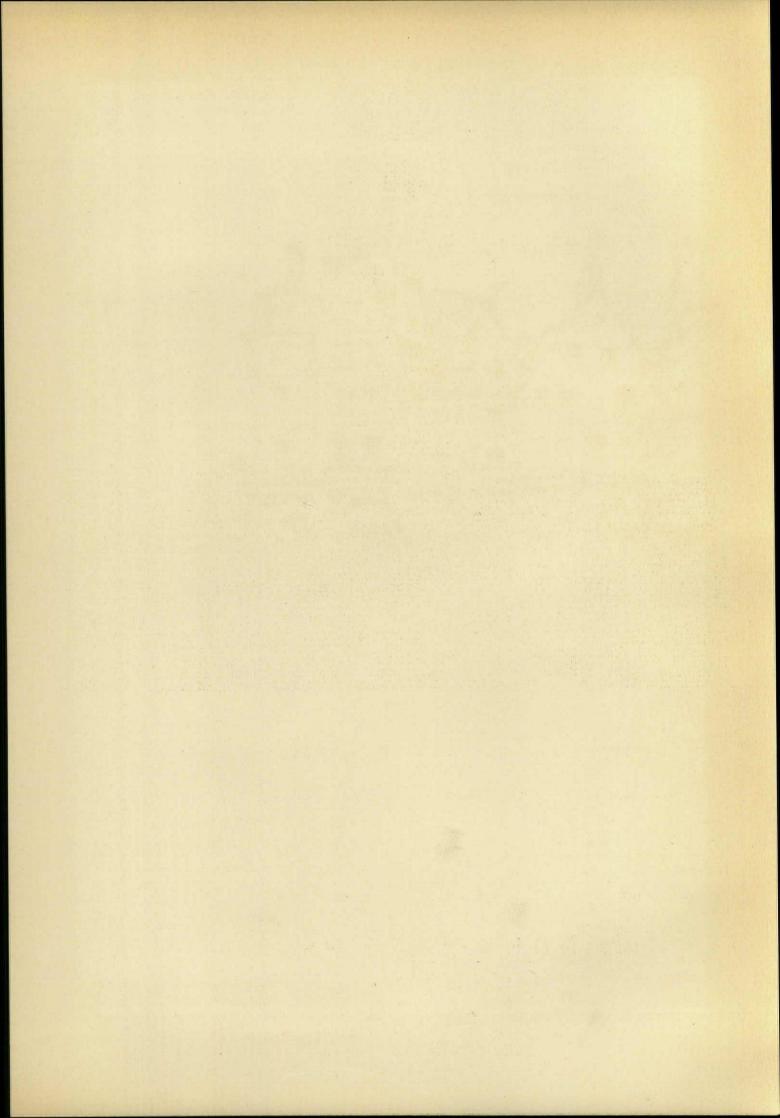
PENCIL POINTS (February, 1932)





THE SQUARE, ABBEVILLE FROM A DRYPOINT BY ERNEST ROTH Courtesy of Kennedy and Co., New York

PENCIL POINTS February, 1932





The Master Drawing Pencil

Send for samples of Eldorado to the Joseph Dixon Crucible Co., Jersey City, N. J. (Next month: Willow tree.)

> Berkshire Trees

> > No 2

CHESTNUT - Twisting, rugged, writhing branches, rambling about in surprising directions. Drawing done with 6 B Eldorado - an extra thick lead - cameo paper. Drawing was sprayed with fixatif and when dry touched up with the 6B in places to intensify the blacks 39

INDIANAPOLIS ARCHITECTURAL CLUB

(Continued from page 141, Editorial Section)

Charles Earhart—Vice-president; Fran Schroeder—Recording Secretary (reelected); Norville Stelhorn—Treasurer; Max Wenschel—Corresponding Secretary.

The following is a list of the charter members of the Indianapolis Architectural Club as our history has recorded them. May this serve as an urgent plea for any information concerning the lost, strayed, or depressioned charter members listed below or who may not be on this list: E. B. Hadley, C. Stoughton, Van Anda, McGinnis, T. L. Brookie, C. Beelman, W. C. McGuire, R. N. Williams, J. E. Kopf, W. Scholer, F. S. Cannon, J. E. Woodard, H. Foltz, J. Deery, J. E. Becker, J. Parrish, R. Carson, W. Shook, and E. Clemens.

Address communications to F. E. Schroeder, R. C., 909 Architects Building, Indianapolis, Ind.

MELBOURNE UNIVERSITY ARCHITECTURAL ATELIER

The Melbourne [Australia] University Architectural Atelier is run, as its name implies, in direct connection with our State University. Control is vested in a Board of Studies at the University and is administered through a Director.

The course of instruction is three years: one in applied history, and two in planning and decoration, qualify members for the Diploma, which has now been made prerequisite for a degree.

Most of our members are (theoretically at least) in offices during the day, so that activities, with the exception of outdoor sketching, are nightly. Routine: a quick meal, bolted when the office door slams behind the boss—a dash to the Atelier, and, four hours later, a glance at the clock, a surprised string of bluish idioms and a wild dash to catch that last train—at four nights a week—it's a survival of the fittest! but, after all, a great life if you don't weaken!

NEW FELLOWSHIPS ESTABLISHED AT MELLON INSTITUTE

Dr. Edward R. Weidlein, Director, Mellon Institute of Industrial Research, Pittsburgh, Pa., has announced that the Lukens Steel Company of Coatesville, Pa., has established in the Institute an Industrial Fellowship whose purpose is the scientific investigation of processes employed in the manufacture of steel plates.

Erle G. Hill, who received his professional education at the University of California, has been appointed to the incumbency of this Fellowship. He is a specialist in iron and steel technology who was previously associate professor of metallurgy in the School of Mines of the University of Pittsburgh.

The Macbeth-Evans Glass Co. has established a Fellowship in illuminating glassware. According to Dr. Weidlein, the scientific investigations that will be conducted by this Fellowship will be forward-looking—a continuation along original lines and independent of the technologic research that is carried on in the Macbeth laboratories.

Dr. Rob Roy McGregor, a specialist in physical chemistry, has been appointed to the incumbency of this Fellowship. Dr. McGregor received his professional training at McMaster University and at the University of Illinois and has been a member of Mellon Institute's research staff since 1927.



MEMBERS OF THE MELBOURNE [AUSTRALIA] UNIVERSITY ARCHITECTURAL ATELIER