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SUMMARY:—

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THIS week brings upon the profession the loss of one of its members as widely known, as highly esteemed and as generally beloved as any of his fellows who have gone before or who linger after him. A thorough gentleman by instinct and habit, a cordial friend, an interested acquaintance, a sagacious and right-minded adviser, it was the possession of these qualities of the natural man that won for Edward Hale Kendall the warm regard and trust of his fellow-architects; that made him one of the most warmly welcomed of attendants at all the conventions of the American Institute of Architects, and secured for him the presidency of that body during the year 1891-2, and before that the similar office in its New York Chapter for the five years ending with 1889. Born at Boston, in 1842, the son of a dry-goods merchant, Mr. Kendall's scholastic education ended in 1860 with his graduation from the famous Latin School of that city, his course there being interrupted by two years' residence and study in Paris. On leaving the Latin School, he entered the office of G. J. F. Bryant & Arthur Gilman, remaining there, we believe, until 1865. In 1868 he formed a partnership, in New York, with Mr. Gilman, which lasted only one year, but during which the Equitable Building, on Broadway, in its original form, was designed and building at a cost of a million and a half dollars. From that time on to the date of his death, caused by an attack of pneumonia, he practised alone in New York City, where he built, amongst other structures, the great Washington Building, on the Battery Park, the building of the Methodist Book Concern, on Fifth Avenue, the houses of Robert and Ogden Goellet, the German Savings Bank Building, the Gorham Building, and many houses and commercial structures of less note. Besides this, he designed important buildings in Porto Rico and Peru. In the way of official duties, he discharged those of consulting-architect for the Washington Bridge, in upper New York, was architect to the Department of Docks, a member of the Willard Architectural Casts Commission, and was frequently called upon to act as expert in public and private competitions of importance. But successful as was his life as a practising architect, its real value to his fellow-men was the proof it afforded that the right-minded, honest gentleman is more sure of winning the "Well done!" of his contemporaries than is the hustling, scheming manager of a plan-factory, however great may be the pecuniary success of the latter.

THE matter known as the "dressed stone" case has been decided by the New York Court of Appeals, which holds that the statute requiring that, in the performance of public contracts in New York, only stone dressed within the State shall be used, under penalty of forfeiture by the contractor of the money due him under his contract, is unconstitutional and

void. In the particular case considered, one Treat contracted with the City of New York for the construction of a sewer. Treat used some stone which had been cut in New Jersey, and the Controller, for this reason, refused to pay him the contract price. The contractor sued, and the present decision is in his favor. It is needless to say that the passage of the statute was procured by the labor unions, who, by joining forces where extortion from the public is under consideration in the Legislature, can exert a considerable influence. It has already cost the tax-payers of the city millions of dollars, and would have cost them many millions more but for the timely interposition of the Court. The decision was based, not only on the unconstitutionality of any statutory interference with the rights of builders to contract freely, but on the consideration that the imposition of a penalty upon the use in one State of stone cut in another amounted to an interference with the right of stone-cutters and dealers in one State to sell their product in another, which is guaranteed by the Federal Constitution. "The citizens of other States," said the Court, "have the right to resort to the markets of this State for the sale of their products, whether it be cut-stone or any other article which is the subject of commerce. The citizens of this State have the right to enter the markets of every other State to sell their products, or to buy whatever they need, and all interference with the freedom of inter-State commerce by State legislation is void." Architects will be interested to observe that this decision has a certain bearing on the schemes for State licensing of architects which have been so prevalent of late. If a man is entitled, under the Federal Constitution, to sell his cut-stone in any State, notwithstanding State legislation, why is not an architect entitled to sell his knowledge and skill in any State, to those who wish to employ him, without a State license? The questions are not quite parallel, for only by a little stretch of language can knowledge and skill be classed with stone as objects of commerce; but the principle, that no State can shut out the citizens of other States from its own markets, is the same in both cases.

THE observation that we made a few weeks ago, to the effect that architects and builders in New York could not be expected to take part in the struggle against official corruption from which they suffer so much, simply because they know that the forces of corruption are strong enough to ruin them in revenge for their frankness, has received confirmation this week in the withdrawal of charges made some time ago against the Building Department by an architect, who now claims to have been "misunderstood," and who, in all probability, did not express himself with anything like the earnestness which was attributed to him. Of course, we are very far from accusing Mr. Israel of insincerity, and his frankness in making the original criticism indicates that he is by no means a person to pervert the truth in any one's interest; but it is said that he was plainly warned that, unless he withdrew his charges, he must not expect to have his plans favorably acted upon by the Department, and this hint, if it does not silence him, will not be lost on other architects. Mr. Brady, the Building Commissioner, explicitly denies that he has any intention of suppressing complaints from architects, or of annoying or injuring such of them as have reason to make complaints; and, from what we know of Mr. Brady personally, we are quite ready to believe him; but his sincerity does not, unfortunately, prevent his subordinates from using the powers delegated to the Department for the annoyance of those who are dependent on their favor; and, until Mr. Brady goes farther, and invites complaints from those who have business with his Department, and promptly hands over to justice every man who is shown, by fair and thorough examination, to be dishonest or corrupt, his Department will continue to be the sink of extortion and iniquity which it has been, most of the time, for many years.

THE New York *Evening Post* gives some figures of the rise in value of land in certain parts of New York, which are interesting, although, as they extend over a period of almost two hundred years, they do not necessarily indicate so rapid a change as has taken place in Paris, according to the figures which we published not long ago. Every one who

knows anything of Colonial history will remember that Wall Street occupies the site of a wall, erected by the early New Yorkers, who lived together on the south end of Manhattan Island, to keep off the Indians, who showed a reprehensible disposition to prowl around the houses of the settlers at night. Before the end of the seventeenth century, the wall had lost its usefulness and had been replaced by a street, and, in 1706, a lot on the north side of this street was sold for fourteen cents a square foot. The same land is now appraised at two hundred and fifty dollars a square foot, and is probably worth a little more. This seems a large increase, but a simple calculation will show that if the fourteen cents had been put out in 1706 at compound interest, at six per cent, which would have been a low rate for those days, it would have amounted now to more than two hundred times the two hundred and fifty dollars at which the land is at present valued; so that the purchaser of the property, in 1706, at fourteen cents, really made a poor investment. In 1793, a house and lot on William Street, north of Wall Street, brought twelve hundred dollars. The same lot would now be valued at nearly a million. Whether this increase in valuations represents a real increase in value, or only an apparent one, is a question which is yet unsolved. Supposing that a syndicate is willing to pay two hundred and fifty dollars a square foot for a lot favorably situated for the erection of an office-building, it by no means follows that all the lots in the neighborhood are worth the same price, or anything like it. On the contrary, the chances are that, as no one would care to erect another office-building close by, to invite tenants in competition with the first, the lots in the immediate vicinity would with difficulty find purchasers at a fraction of the price secured by the owner of the first lot. Assessors, unfortunately, do not view the matter in this way, and the consequence is that the erection of a large and costly office-building usually impoverishes the owners of property in the neighborhood, through the imposition upon them of taxes based on a valuation which is assimilated to the price of one or two special lots in the vicinity, but is far beyond anything that the property would bring at a public sale. There are scores of improved estates in the office-quarters of our great cities, which once brought a fair income on a reasonable assessed valuation, which now, through the erection of huge buildings near by, are so burdened with taxes that the income barely suffices to pay the taxes and repairs. They cannot be sold, as no more sites for "sky-scrapers" are wanted in the neighborhood, and their owners are obliged to content themselves with the theory that it is "the gradual fall in the rates of interest" from which they suffer.

THE Architectural League of America has sent out a circular to its affiliated societies, asking for answers to a set of questions as to what should be expected of a graduate from an architectural school when he begins office-work; how much mathematical and engineering training should an architect have; should architectural design and the study of the historic styles follow and be based upon a knowledge of pure design; and so on. Desirable as it may be to have a definite answer to these and the other questions propounded in the circular, we cannot say that we anticipate their complete elucidation by means of it. For a thousand years or more architects and, still more, critics have been, so to speak, beating the air, if not each other, over these very problems, with the most meagre results, and, while the replies of the young architects concerned will be interesting, we doubt whether they will form a complete guide for the next generation.

MR. JAMES W. PINCHOT, of New York, who has earned the gratitude of many generations to come of his fellow-countrymen, by his endowment of the Yale School of Forestry, proposes to add to his benefactions by placing his country estate in Pennsylvania at the disposal of the Yale Faculty for a summer school in forestry. Every one knows the utility of the summer schools connected with our great universities, in which undergraduates, graduates, teachers and persons engaged in other professions are given instruction in special branches, by the best teachers, and under the most favorable conditions. Mr. Pinchot's property contains a building with rooms which can be used for lecture-halls and laboratories, and are to be fitted up for the purpose. There are about sixty acres of woodland on the estate, and additional ground is to be devoted to practice in planting; and ample forest territory, including the State Forest Reservation, is

available for study in the neighborhood. As usual in university summer schools, women as well as men are admitted, candidates, who must be at least seventeen years old, being only required to give proof of good moral character, and to pay the usual summer-school fee of twenty dollars. The course continues eight weeks, beginning July 8. Board can be had, from five dollars a week upward, at hotels and boarding-houses in the neighboring village of Milford; or those who prefer to do so may live in camps. Candidates should apply for admission, before May 1, to Prof. Henry S. Graves, Yale Forestry School, New Haven, Conn.

THE John Stewardson Scholarship in Architecture of the University of Pennsylvania for 1901 has been awarded to Mr. Ira Wilson Hoover, of New York, a graduate of the Architectural Department of the University of Pennsylvania. The holder of the Scholarship, the income of which is one thousand dollars, is required to spend a year abroad in the study of architecture. The jury of award this year was composed of Messrs. John M. Carrère and Walter Cook, of New York, and Mr. C. Howard Walker, of Boston.

THE building of the National Academy of Design, in New York, took fire the other day, in the middle of the afternoon, during an exhibition of the American Water-color Society. No serious harm was done, but the crowds in the galleries were well frightened. According to the newspapers, the fire was caused by electric-wires in the sub-basement, which ignited the "combustible rubbish" around them; and the flames soon "gained great headway." The pictures on exhibition are valued at one hundred and twenty-five thousand dollars, and the owners of them might reasonably ask whether the Curator of the Academy thinks it wise to allow the sub-basement to be filled with "combustible rubbish," which may at any time cause the destruction of the building and its contents.

MR. ERNEST FLAGG, who is the architect of the new buildings for the Naval Academy at Annapolis, has been selected as the architect of a Naval Arch, which the promoters hope to erect, at the cost of about a million dollars, near the Battery, in New York. According to the newspapers, the arch is to be higher than the Arc de l'Étoile, in Paris, but it is to be treated in a different, and quite original, manner, as, indeed, the circumstances require, and as would be expected from Mr. Flagg in any case. We cannot say that the Battery Park seems to us to be the place best adapted to be the site of a monument which, if it is to rival the Arc de l'Étoile, will be larger than the front of Notre Dame, in Paris; but it is, at least, no worse than that of the Washington Monument, or of most of the objects of the kind which we possess, and it is a satisfaction to feel that Mr. Flagg's ingenuity can be trusted to make the best that is possible out of the situation. The affair is in the hands of the Alumni Association of the Naval Academy; and, as soon as the site is secured, and the design approved by the Municipal Art Commission, an appeal will be made for subscriptions for carrying out the work.

AN Englishman writes to the London *Standard* explaining the notorious fact that Great Britain is far behind other countries in matters of transportation, communication, and general modern conveniences, as a consequence of the "public ownership" system, which, in connection with other socialistic vagaries, is slowly bringing England down to a secondary place in the industrial world. In Great Britain, as every one knows, the telegraph is in the hands of the Post-office Department, which makes a considerable profit out of it, at the expense of the people who send telegrams, and who are currently reported, in this country at least, to be in the habit, when they send a telegram to a man, of mailing a letter to him at the same time, to request him to be ready to receive the telegram when it arrives. The telephone system is also in the hands of the Government, and, notwithstanding the unrivalled field which England offers for its development, is in what we should consider a ludicrously infantile condition. The wastefulness and inefficiency of the English municipal gas-supply systems is well understood here, and, in the matter of public transportation, the English law, which permits towns to seize any tramway which has established a profitable business, paying for it only the value of the material and plant, effectually shuts out the enterprise which has made American urban transportation the best in the world, and which is rapidly bringing Continental cities up to the American standard.

THE COURSE IN ARCHITECTURE AT A GERMAN
"TECHNISCHE HOCHSCHULE."

THE literal translation of "*Technische Hochschule*" is "Technical High-school." But it is not what is meant by a high-school in this country. It corresponds very nearly to the Schools of Science attached to our universities, though the "*Technische Hochschule*" is a separate institution, complete in itself, and not connected with any other body. It is a sort of university of pure and applied science.

The regular German universities have always looked down upon the "*Hochschulen*" for three reasons: First, because they consider the technical subjects taught there to be less important than those on which their own professors lecture, and, secondly, because the standard of admission is in some cases lower than their own. But all students at the "*Hochschule*" who wish to pass the Government examinations and get their degree or a title from the Government have to pass exactly the same entrance-examinations as those who wish to study at a university. The third reason is, that the universities could grant the degree of "Doctor," but the "*Hochschulen*" could not. But since October, 1899, by a decree of the Emperor, the "*Hochschulen*" have the power to grant this title. He takes a deep interest in the progress of science and of technical industries, and the differences between the universities and the "*Hochschulen*" are gradually being done away with.

The "*Technische Hochschule*" at Hanover, where I studied architecture for two years, is a royal institution, being supported by the Government, such a thing as a university supported by the donations of wealthy citizens not being known. But the German newspapers are now appealing to the rich men to follow the example of their American brethren, and let some of their wealth flow into the treasuries of the universities and "*Hochschulen*."

The usual requirement for admission is a certificate showing that the student has completed his course at a "Gymnasium" and has passed the graduating examination. This admits the holder to any university in Germany. At a number of the "*Hochschulen*," a certificate showing a promotion to "*Unter-prima*,"—the highest class but one in a "Gymnasium,"—is accepted as evidence of sufficient knowledge to be able to study intelligently at a "*Hochschule*." It is this form of admission that has given the universities a reason for looking down on the "*Hochschulen*." But it has been done away with at some of them, and probably will be abolished in them all before long. Foreigners are admitted if they can show that they have pursued a course of study in their own country approximately equivalent to that of a "Gymnasium," but they are not allowed to take the Government examinations.

Any one who wishes to take up some course or separate subject at the "*Hochschule*," but is not able to fulfil the requirements for admission as a student, may be admitted as a "*Hospitant*" or guest, simply attending the lectures, but not receiving any diploma at the end of his course.

For those who intend to try for the examinations, a regular programme is mapped out which they are advised to follow. This is, however, entirely optional. The only thing that is required is to register in at least three subjects. Having decided what course to follow, the student fills out a blank with the subjects he wishes to take, and hands this in to the Bursar, who writes down after each subject its cost, the fees being proportional to the number of hours taken. During the winter term, a weekly lecture-hour costs four marks, equal to a dollar. A lecture of five hours a week would accordingly cost five dollars for the term. In the same way, a weekly hour of laboratory or draughting work costs three marks, or seventy-five cents. For the summer term, which is shorter, these figures are reduced to three and two marks respectively. On the whole, this is much cheaper than the tuition at our American universities, as the most I paid was about one hundred and sixty marks, or forty dollars, for a winter term of forty-six hours a week. Some subjects, such as modelling, drawing from life, and surveying, where there is an extra expense, either for models or materials, cost somewhat more; but, on the whole, the charges for tuition are exceedingly moderate. The German Government pays all expenses that are not covered by the tuition-fees.

After one has paid his fees and got back his list receipted, he takes it around and has it signed by each of the instructors whose lectures he is going to attend (or not attend, as the case may be), and then all that he has to do for the rest of the term is to take good care not to lose this list, for, at the end of the term, it has to be countersigned by the same instructors, and then handed in.

The course occupies four years, and leads, for those who wish to enter the Government service, to the title of "*Bauführer*," or "Director of Building," and, since October, 1899, also to the degree of "Doctor of Engineering." Those who do not enter the service of the Government, but have successfully completed their four years' course receive a diploma to that effect. During the years that I studied there, the "*Hochschule*" in Hanover was attended by about twelve hundred students, of whom one hundred and seventy and one hundred and eighty were studying architecture.

The first two years are devoted almost entirely to theoretical subjects, or, at any rate, to subjects which do not pertain directly to architecture, but which it is well for an architect to know something about.

The subjects taught during each term, or semester, are as follows:—

First term of first year (from the middle of October to the middle of April):—

Differential and Integral Calculus.—[5 hours' Lecture. 1 hour's Recitation.]
Analytical Geometry.—[3 hours' Lecture.]
Descriptive Geometry.—[3 hours' Lecture. 6 hours' Drawing.]
Mechanics.—[3½ hours' Lecture. ½ hour's Recitation.]
Construction (Masonry and Carpentry).—[3 hours' Lecture. 4 hours' Drawing.]
Architectural Drawing.—[5 hours.] Instruction here consists of copying architectural subjects in different mediums—pencil, charcoal, pen and brush, so as to become familiar with the handling of different materials.
Elements of Mineralogy.—[2 hours' Lecture. 1 hour's Recitation.]
Experimental Physics.—Mechanics, Heat, Acoustics and Optics. [4 hours' Lecture.]

The summer term is shorter than the first, lasting from the middle of April to the end of July. During this time, in the first year, the following curriculum is prescribed:—

Differential and Integral Calculus.—[3 hours' Lecture. 1 hour's Recitation.]
Descriptive Geometry.—[3 hours' Lecture. 6 hours' Drawing.]
Mechanics.—[7 hours' Lecture. 1 hour's Recitation.]
Construction.—(Foundations; walls and supports of wood, stone and iron; stairs and elevators of stone, wood and iron). [2 hours' Lecture. 4 hours' Drawing.]
Architectural Drawing.—[6 hours.] Devoted to the same subjects as during the winter term.
Elements of Geology.—[4 hours' Lecture.]
Elements of Chemistry.—[6 hours' Lecture.]

There is no summer work prescribed, and, therefore, none done. The draughting-rooms are left open for the convenience of the students who have back-work to make up. There are usually plenty of them.

During the Easter and Whitsuntide vacations, excursions headed by some of the professors are undertaken, places of special architectural interest being selected. In 1898, the South German towns such as Heidelberg, Cologne, Aschaffenburg and Munich were visited. The next year the trip was through Holland and Belgium, and this year, a friend writes me, they went to Paris to visit the Exposition. These expeditions usually last about ten days. During that time the customary good feeling between the instructors and the students grows even more cordial. The companionship that an outing of this character necessarily entails, with its frequent opportunities for friendly and confidential conversations over the social pipe for in the station restaurants along the route, are considered, by the students at least, to equal in value the more theoretical and formal tuition of the lecture-room. In fact, coming into closer contact with these highly intellectual and, for the most part, exceedingly interesting men, is a liberal education in itself. Then, there is no other way so easy, and at the same time so effective, of learning what should and what should not be done in Architecture as having this pointed out to you on existing examples. This is duly recognized by the "*Hochschule*," which helps these excursions along materially by paying all the travelling expenses of the instructors and, at times, even paying the railroad fare for the students.

It would be of advantage to the students of Architecture in this country if such excursions were undertaken here. Of course, in Europe, there is very much more of architectural and historic interest, and, as a rule, one does not have to travel very far to reach it. But a trip to Albany, Boston or Washington conducted in a similar way would greatly benefit those taking part in it.

The pleasant summer vacation is over, and once more the student returns to his work, refreshed and invigorated by his rest. He needs all his strength for the hard winter's work of fifty-one hours a week. Twenty-six of these hours are devoted to lectures; the other twenty-five to recitations and drawing. During this year he gets to know a little more about Architecture itself, but most of the subjects are still very theoretical and rather auxiliaries of Architecture than Architecture itself.

Here is the list of subjects taught in the second year:—

Mechanics of Elasticity.—[5 hours' Lecture. 1 hour's Recitation.]
Graphical Statics.—[1 hour's Lecture.]
Study of the Forms and History of Ancient Architecture.—[3 hours' Lecture. 6 hours' Drawing.] This course also includes a careful and detailed study of the orders, the copying of the best examples of Ancient Architecture, and one large and carefully executed design in either the Greek or Roman style.
Ancient Ornament.—[2 hours' Lecture. 2 hours' Drawing.]
History of Ancient Art.—[3 hours' Lecture.]
Construction.—[3 hours' Lecture. 4 hours' Drawing.]
Architectural Building.—[1 hour's Lecture.]
Modelling.—[4 hours.]
Figure-drawing from Casts.—[6 hours.]
Elements of Civil Engineering.—[3 hours' Lecture.]
Elements of Surveying.—[2 hours' Lecture.]
Technology of Building.—[3 hours' Lecture.] By this is meant instruction in the manufacture of bricks, plate-glass, mining, casting of metals, and so on, the lecture being illustrated by the inspection of factories and plants in operation.

The summer term has forty-nine hours a week, of which twenty-five are taken up by lectures and twenty-four by exercises. The

subjects are almost identical with those of the winter session. The lectures on the "History of Ancient Architecture" are replaced by others on "Romanesque Architecture." Likewise, those on "Ancient Art," by others on the "Art of the Middle Ages." However, the drawing and designing of the course in Ancient Architecture is kept up.

With the third year the real Architectural work begins. All the preparatory work is accomplished, and now the students are first acquainted with the various styles of Architecture and with the principles of Design. But even here, where the course tends toward a greater similarity with the course at Columbia, the general principle is still quite different. For, whereas at Columbia a large number of problems of a practical character, carried only so far as a few weeks' work will permit, is deemed the most beneficial, in Germany a few large problems are very carefully worked out, with a couple of smaller ones interspersed. The styles in which these designs are to be carried out is usually prescribed, the idea being to make the student thoroughly familiar with the forms and ornaments of all the historic styles. Having thus become conversant with the historical development of each style, and having tested its applicability to practical design, he may then accept, modify or ignore them in his later work, as he may see fit.

This system of studying each style separately from the design point-of-view is carried so far in Germany that, for their Gothic and Romanesque year, many students will visit a "Hochschule" where some professor who has made these styles his specialty has charge of the course, and for their Renaissance year will go to some other "Hochschule" where a master of that style holds his lectures.

The programme for the winter of the third year is as follows:—

Planning of Dwellings and Public Buildings.—[2 hours' Lecture.]
History of Renaissance Architecture.—[2 hours' Lecture.]
Designing and Detailing of Dwellings.—[1 hour's Lecture. 5 hours' Drawing.] Besides instruction in the designing of dwellings, this course includes the making of working-drawings and full-sized details.
Medieval Ornament.—[2 hours' Lecture. 2 hours' Drawing.]
Designing in the Early Christian and Romanesque Styles.—[3 hours' Drawing.] This includes sketching and careful working-out of a problem from a given programme, also the making of perspectives from drawings and also from nature.
History of Gothic Architecture.—[3 hours' Lecture.]
History of Renaissance and Modern Art.—[3 hours' Lecture.]
Arrangement and Planning of Buildings.—[2 hours' Lecture. 3 hours' Drawing.] This course considers the treatment of buildings of every class.
Landscape-drawing and Water-coloring.—[2 hours' Drawing.]
Life Class.—[6 hours' Drawing.]

The only difference between the winter and summer terms is that during the winter the course of lectures on machinery takes the place of the two hours a week devoted to landscape-drawing and water-coloring.

Of the thirty-five hours a week of the fourth year's winter-term, twenty-four are devoted to design, so that the absence of design from the first two years of the course is made good to a certain extent in the last year. During this last year the following subjects are taken up:—

Renaissance Design.—[6 hours' Drawing.]
Monumental Buildings and Laying-out of Cities.—[1 hour's Lecture. 4 hours' Drawing.] In connection with this course, a series of five-hour sketch-problems is given out, subjected, later, to a comparative criticism.
History of the Useful and Decorative Arts.—[2 hours' Lecture.]
Interiors with Colored Decorations.—[5 hours' Drawing.]
Designing of Public Buildings in the Styles of the Middle Ages.—[2 hours' Lecture. 9 hours' Drawing.]
Lighting, Heating and Ventilation.—[3 hours' Lecture.]
Elements of Engine-building.—[3 hours' Lecture.]

The student who has successfully completed this course is deemed ripe to begin his existence as an architect. To those who have passed the Government examinations, position and a future is assured. This brings one to the subject of examinations.

At the end of every term each student may take an examination in any subject in which he has registered. This is, however, entirely optional on the part of the students, and, as a rule, but few avail themselves of this privilege. For the students of architecture are no more prone than others to go to the trouble of preparing for an examination which is not obligatory and is not required for graduation. The real object of these examinations is to give those students who, for some reason, do not intend to take the regular prescribed examinations a chance to find out how much or how little they have learned during the term. When a student who has passed all or any of these "Schlussprüfungen" (end-of-the-term examinations) leaves the "Hochschule" he receives a certificate showing the result of these examinations and giving tangible evidence of the work he has done while there.

The German students have a very strange, but effective, method of showing their disapproval of the disturbance caused by that most annoying of mortals, the person who always comes in late. This the students accomplish by shuffling with their feet whenever any one enters after the lecture has begun. It is anything but pleasant to have anywhere from ten to two hundred people all glaring at you and giving voice (if one may use this expression) to their resent-

ment in this way. The person to whom this happens is very apt to take his seat as quickly and as quietly as possible and to be careful to be on time at the next lecture.

There are two distinct types of examinations. One is the "Staatsprüfung," or "Government Examination," the other the "Diplomprüfung," or "Diploma Examination." The subjects required are the same in both cases. The only difference between the two, as far as the examination itself is concerned, is that the one is held by an Examination Board appointed directly by the German Government, whereas the other is conducted by officers of the school. Whoever successfully passes the Government Examination receives the title of "Regierungsbauführer," or "Government Director of Building," and can enter the Government service if he so wishes. As we have already seen, only those who have completed a nine years' course at a German Gymnasium are entitled to take this examination. Naturally, all students who have fulfilled these requirements take the Government Examination in preference to the other, if only for the sake of the title, even though they do not intend to enter the Government service. There are many of this class. For, although the Government service offers a sure berth and a regular salary, and also a pension after retirement, the conditions are so unfavorable that but few are willing to undertake it. The young "Bauführer" has to give the first year or year and a half of his services to the Government without receiving any remuneration whatsoever. Before becoming a "Baumeister," the next rung of the Government ladder, an exceedingly difficult examination, requiring a full year of preparation, must be passed. The "Baumeister" receives a fairly good salary, and most who have reached this stage stick there till they are middle-aged men, when, if they are fortunate, they may be appointed "Baurath." In spite of the fact that these unfavorable conditions have led to a great scarcity of Government architects, the German Government has till now refused to improve them, but will surely be forced to do so. Under existing circumstances, only those men who have not enough confidence in their own ability to hope for success in their battle with the world are apt to enter the Government service. This naturally leads to a deterioration of the work done for the Government and a change is sure to be made, and made soon.

The student who passes the other examination receives a diploma from the "Hochschule" to that effect. The purpose of these diplomas is to give the students who cannot take the Government Examination an opportunity of proving that they have successfully completed the entire course in their special subject. As the same subjects are required for the Government and Diploma Examinations, it will only be necessary to describe one of them: the Diploma Examination.

The examination is divided into two parts: the "Vorprüfung," or "Preliminary Examination," and the "Nachprüfung," or "Final Examination."

The Preliminary Examination is taken at the end of the first two years, and covers all the subjects taught during that time. It is usually held in the autumn, in order to give the students ample time to prepare for it during the summer months. This preparation is needed by all, even those who have attended all lectures regularly, for it is no slight matter to have all the subjects of this first half of the course at one's finger's-ends. It requires a great deal of earnest study to be well prepared, especially as the examination lasts only two days, with no time in between wherein to study up. There is usually a large number of students who have not attended lectures regularly, for wherever there is great freedom there is likely to be some abuse of it. For these students, the three months allowed for preparation are a real godsend. I have known students who have scarcely seen the inside of a lecture-room during the two years to squeeze through an examination by cramming and working like slaves during these months.

Before being admitted to the examination, the student has to hand in all the drawings he has done during the two years. These are passed upon by the Examination Board, and, if they are found satisfactory, he is allowed to take part in the examination.

Drawings covering the following subjects are required: (1) Descriptive Geometry. (2) Graphical Statics. (3) Construction. (4) Agricultural Building. (5) Architectural, Landscape and Figure Drawing. (6) Forms of Greek and Roman Architecture. (7) Surveying.

The following are the subjects required for the Preliminary Examination. Where several subjects are brought under one head, it means that the examination in them is held at the same time by a single professor: (1) Elements of Physics. (2) Elements of Chemistry, Mineralogy and Geology. (3) Pure Mathematics: (a) Trigonometry, Plane and Solid Analytical Geometry; (b) Differential and Integral Calculus. (4) Descriptive Geometry. (5) Mechanics, Mechanics of Elasticity, Hydraulics and Graphical Statics. (6) Surveying. (7) Construction and Building materials. (8) Agricultural Building. (9) History of Greek and Roman Architecture. (10) Technology of Building.

For the Final Examination this is the list of drawings required, and, following it, the examination subjects:—

Drawings.—(1) Early Christian and Romanesque Design. (2) Gothic Design. (3) Renaissance Design. (4) Ornament. (5) Water-coloring. (6) Interiors with Colored Decoration. (7) Designs and Details of Dwellings. (8) Designs of Public Buildings. (9) Monumental Buildings.

Examination Subjects.—(1) Statical Calculation of Constructions. (2) Elements of Engine-building. (3) Forms of Early

Christian and Romanesque Architecture. (4) Forms of Gothic Architecture. (5) Forms of Renaissance Architecture. (6) Arrangement and Planning of Buildings. (7) Estimates and Specifications.

A Thesis Design, for which two months are allowed, is required. Admission to the Final Examination depends upon the acceptance or rejection of this design.

Most of these examinations are oral. In the mathematical subjects they are partly written, partly oral. Naturally, drawing plays a large part in them. The examination in each subject lasts either an hour or an hour and a half, and, usually, three students are examined at a time. It is wonderful how much knowledge or ignorance can be brought to light under the hands of a skilful examiner during the twenty or thirty minutes of questioning which falls to the lot of each student at every examination.

There exists a very strange custom at these examinations: every student wears his full-dress suit and white gloves: (Of course the white gloves are removed when it comes to writing.) It is very odd to see young men in formal evening-dress in the middle of the day. The purpose of this singular custom is probably to remind the students that this is a very serious and important event in their lives, but it is an exceedingly uncomfortable thing to take a difficult examination dressed in this way.

Looking back at the work here recorded it is quite apparent that the course in Architecture at a German "*Hochschule*" is a very thorough one. Any one who has gone through this course carefully, and has worked for himself as well as for the examinations, has laid by a store of knowledge which is sure to be of the greatest service to him during his professional career.

The one fault to be found with the course is, that it is somewhat too theoretical. Granted that the real purpose of a University course in architecture is to teach the theoretical subjects, nevertheless they can be taught in a more practical way. A brief comparison of the Hanover course with the course at Columbia will show this.

In Hanover, the lectures on Calculus, Descriptive Geometry and Mechanics are attended by students of Civil, Mechanical and Electrical Engineering, as well as by the architects. The natural result is that the students of Architecture get more of these subjects than they really require. At Columbia, lectures on these subjects are especially adapted to the needs of Architecture and only attended by architectural students. The advantage of this system is evident. Being a much shorter course, it leaves more time for other subjects, among them, Design. This brings up another point already touched upon.

At Hanover, the instruction in Design does not really begin until the third year is reached. At Columbia, the student has problems in Design to solve (naturally of the simplest kind at first) from the beginning. During the second year, two and a half hours of every afternoon are devoted to Design, and in the fourth year it takes up almost all of his time. Say what one will, Design is the thing above all others that an architect wants to understand.

In the "*Hochschule*" course, lectures on the requirement of buildings of every description are held. These lectures are wanting at Columbia, but are made up for to a large extent by the course in Design, during which problems varied in subject, and for the most part practical, are thoroughly discussed, and their special requirements duly pointed out. In the Hanover course, the carrying out of a very extensive problem in each of the styles leaves but little time for smaller and more practical problems. For this reason the graduate from Columbia is better prepared to grapple with the practical problems of his profession than his colleague from across the sea.

It would be unjust to say that such subjects as Physics, Chemistry, Mineralogy, Geology, Surveying and a number of others which form part of the Hanover course, but are lacking in that at Columbia, are not decidedly beneficial. On the contrary, it would be splendid if we could have them here also.

The pith of the whole matter is simply this: A four years' course in Architecture can never be completely satisfactory, whether it be on this or the other side of the ocean. Four years is too short a time to thoroughly master Architecture, one of the most difficult of all the professions. The German as well as the American students feel this to be true, and, therefore, all who can possibly do so, journey to Paris to complete their studies at that Mecca of all students of Architecture: the *Ecole des Beaux-Arts*.

HERBERT M. BAER.

SMALL GARDENS.

WHAT we said the other day about Mr. T. H. Mawson's excellent book, "*The Art and Craft of Garden-making*," may cause our readers to welcome the following reprint of a lecture recently delivered by that gentleman before the Birmingham Architectural Association. There is a good deal of sound truth in his recommendation that, in the case of small gardens, the architect should advise the distribution of the owner's total outlay so that the setting of the house may have its fair share of the expenditure.

The lecturer remarked: You cannot successfully plan a cottage-residence without deciding the principal features comprising the garden-scheme. The designer of the cottage ought either to design the complete garden-scheme or otherwise agree to allow of an exchange of opinion between himself and whoever may have to plan and carry out the garden. Even supposing the landscape-gardener

to be an artist with insight into, and in full sympathy with, true architectural dignity and expression, the architect has much the best opportunity of making a successful and more complete plan. Further, if the architect does not undertake the designing, the landscape-gardener in all probability would not be asked to do it, and, as a consequence, the garden-setting to the house would eventually be the joint production of the local jobbing-gardener and the client. It is just as necessary for the architect to realize the proper connection between the house and garden as for the garden-designer to obtain a grasp of the character of the design and the planning of a house. The approach to a house, whether in the form of a drive, avenue, a simple court, or merely a walk, is the first impression a visitor gains, and generally the most important detail in the garden-scheme, and is, at the same time, the introduction to the house itself. Architects who wish to lay out gardens would do well to cultivate the faculty of studying nature with a view to the attaining of aggregate effects—a grand antidote against mere sleight-of-hand draughtsman proficiency and commonplace invention, and against a too pedantic academical education. A circumscribed garden is seldom a success unless a formal treatment is applied. Mr. Kemp, who wrote that excellently practical work, "*How to Lay Out a Garden*," realized this. The advantage of this method is that the garden is brought into direct relation to the house; that, in fact, a garden becomes a necessary out-door extension of the family requirements, and of the entertaining arrangements—one set of apartments under cover, the other open to the interchange of shine and shower, and of each season's respective display. The relation of this series of garden apartments to the house would be more ably grasped by the person who had planned the house, and knew the relative use of each room to the other. The ingenuity necessary for the planning of the house would assuredly find larger liberty and unfettered scope in controlling the whole. But perhaps the greatest advantage which the architect possesses lies in the fact that he has the control of the entire sum which his client is prepared to spend. If one realizes that half of the money spent on, say, the barge-boards, finials and bristling insincere ornamentation would have given you some chance in the garden, one cannot help regretting the absence of some controlling master-mind who, with perfect unanimity of purpose and comprehensive grasp, has had the spreading of the money over the larger area to the ultimate satisfaction of both architect and client.

Having given you my reasons why you should undertake the designing of small gardens, I now wish to state a few necessities and qualifications. In the first place, a proper survey with accurate levels is needed. You will need to lay out a very large number of gardens before you can dispense with this necessary operation, even to the extent of making a preliminary sketch, for, to be any way successful, the plan must be arranged to fit the ground and give expression to its contour. You must be able to judge when ground requires draining; and having decided upon this necessity, be able to arrange it in an efficient and economical way. You must know a little about soils; this is a question which troubles would-be garden-designers greatly. Now, for the horticulturist pure and simple this is a most important branch of study and research, but, for the garden-designer, there are a few sound rules which will meet his requirements whether the soil is wet or dry, light or heavy, clay or gravel subsoil; whether the soil lies on limestone or on chalk. If the soil is wet, good drainage should remedy it; if clay, good drainage and the admixture of burnt clay, town refuse. Good trenching will usually be beneficial if light and sandy, with an admixture of clay or manure; as a rule, however, you may say that a dry subsoil is best for a garden. The first great desideratum is unity and cohesiveness. What is required here is some great controlling power to marshal and organize the petty clevernesses and talents and gifts, and make for and lead up to one ultimate end. In the few architects' gardens I have seen I notice that they usually plant shrubs, both formal and others, in the grass, evidently expecting them to thrive as they do in properly-prepared and tilled borders. This is a mistake, and for several years at the least, until the shrubs are thoroughly established, all grass and weeds should be kept clear of their roots. I know how much better grass looks when it sweeps up to the stems and trunks of the trees, or the leaves and boughs fall over in a fringe upon the sward. How difficult it is to convince clients of the dignity of mown grass, and how often do we see the majestic trunks of a fine group of cedars or timber trees muddled up with the inevitable fussy rhododendrons. It is in the direction of flowering plants rather than shrubs that variety is to be sought after, and for these you must rely upon the nurseryman's knowledge of things, simply controlling the shape of the beds and borders in which they are to be planted, and, perhaps, the massing of the few varieties which are essential to the architect's garden. Now, respecting the planting of hedges, screens, etc., before you attempt to do anything, satisfy yourself that what you plant will grow. Having made up your mind as to the character of the shrub or tree you wish to plant, you will find it comparatively easy to discover whether or not it will grow in the neighborhood, and, if not, what will form the best substitute.

There are some broad principles which it is necessary to grasp before arranging your garden-plan. The controversy which has been waged between garden-designers and architects does not apply to small gardens, for all are agreed on the general principle of formality, although not agreed as to the detail by which this formality should be expressed. Have you ever noticed the difference between

two gardens having, apparently, the same soil and the same aspect? The one seems to have a blight upon it: everything, grass, flowers, shrubs, trees, seem to grow so tardily and sparsely, the shrubs stunted and starved, trees lanky and bare, the flowers shrivelled, scentless and blasted—a reproach to its neighbors; and in the adjoining garden everything is luxuriant and profuse. But what is the reason for this contrast, this difference? You would be able to tell me at once if there were two adjoining houses in a correspondingly opposite condition, both apparently built with the same hand and with a corresponding amount of care—the one looking singularly happy, the other, in spite of suitable window-adornments and owner's care, looking decrepit and unhappy. Your trained eye would at once glance at the unlevel joints, the slightly irregular ridge, finials and chimneys, and other lines slightly out of the perpendicular, and pronounce the verdict, "Bad foundations." The foundation failure—unprepared soil—is the cause of almost all garden failures. You may procure the choicest shrubs and flowers, manure the borders, roll the grass,—but if the soil is not of sufficient depth, and is not properly prepared, it will be of no avail. By all means, save and store all turf and soil from the diggings and the foundations. For a flower-border, it is a good plan to lay, at a depth of about 2 feet, a layer of broken brick or some absorbent material, provided that the soil-water drainage-level is deeper; then to overlay this with a covering of ashes, and then to overlay this to a depth of about 21 inches with soil of desirable lightness; if too heavy, it should be mixed with sand, and should have abundant vegetable matter and fibre in it, such as the decayed turf from close green pastures yields. For trees and shrubs, a depth of from 1 foot 6 inches to 2 feet, with a plentiful admixture of the fibrous turf-loam, though it need not be so richly manured as the flower-border. Grass also requires a depth of soil not less than 8 inches, with a well-drained bottom properly prepared. Although the first outlay may be greater, it is cheapest in the end to lay a sound foundation. Of course, it is necessary to know what to plant, and herein is the most difficult problem with which you have to deal, and very few of you will ever master thoroughly the technicalities. At the same time, very few varieties of trees and shrubs are required for making a small garden beautiful. The present-day tendency seems to be to cram in as many un-English varieties of trees and shrubs as possible, notably rhododendrons and common laurels and aucubas, etc., their big polished leaves entirely out of scale with the sober harmonious box, holly and yew of our predominating Northern gray skies. It is the preponderance of such things that makes town-suburbs, town-cemeteries and town-parks so disappointing.

There are two considerations I would especially impress upon you: First, the desirability of disabusing your mind of your preconceived notions of the art which is said to conceal art; and, on the other hand, the value of plain surfaces and of definite, unhesitating lines. In ignoring the latter it is quite true that you may be able to cover your lawn with trees and shrubs from every part of the Temperate Zone, just as you may fill your drawing-room with all sorts of bric-à-brac; in both cases you may, instead of securing a sense of restfulness, succeed in giving them an aspect of fussiness. In laying out definite lines you may not get quite so many of those little surprises so much sought after in gardens, and you may not even be able, by the exercise of a little trick, to make your neighbor's garden look as if it belonged to you, but you will be saved the humiliating knowledge that your garden is a fraud, and that your visitors are sure to find it out. The question of fences cannot be profitably discussed in this paper; but split oak, which lends itself to such a variety of treatment, is at once one of the simplest and, at the same time, one of the cheapest forms of fencing. If we could in this country use, in conjunction with this fence, the trained lines of limes and laburnum as they are used in Holland and France, we could obtain some delightful effects. The fence which is least permanent and least desirable is the strained-wire or iron hurdle.

We may now consider more fully the placing of the house on the ground so as to make the most of the ground. Where the extent of ground is strictly limited, as is invariably the case when you are building a small house, the greatest mistake you can make is to cut up the ground too much with drives, etc. I hold an opinion which I must admit is at the present time, even amongst architects, very unpopular—viz, when the plot does not exceed, say, two acres, drives are seldom needed, and that every real requirement can be met by a simple carriage-court connecting directly with the high-road. This court you could probably inclose and pave for a less sum than you would otherwise spend on the drive. If the stable could be arranged to the west side of this court and the small kitchen-garden and kitchen-offices also arranged to this side, you would then have all the more ground at your disposal on the sunny side of your house. Where a drive is really necessary, make it as direct as possible. If the ground is fairly level, and the junction with main road is convenient, a straight road, treated as an avenue, would give the best effect; but if the ground is rising and of irregular contour, then perhaps a curved drive would be the only one possible. Above all things, do not make your gardens too large. Perfect keeping is the soul of a small garden. I can assure you that you will have considerable difficulties with your clients on this score. Find out if you can what labor your client intends to employ. If a man only two days a week, a quarter of an acre would be sufficient; if he can employ a man and a boy, the garden might be as much as one and a half acres, or, if no glass, as much as two acres. You ask what I shall do with the remaining portion. If you have sufficient for a

paddock for the pony, you could not put it to a better use, and in any case you can never go very far wrong in planting an orchard. There is also the arrangement of the wilderness, or wild garden. If your site has been well chosen, the ground will slope away from the house; if it does so in a southerly direction, you will have a very sunny garden. This fall of ground suggests terracing, an operation which in a suburban district requires much more careful arrangement and adjustment than would be the case in open country, where, as a foreground to charming distances, the balustrade serves as a frame or setting. Now, there are, roughly, three ways of terracing—by walls, by grass slopes and by planted slopes. Of the three, walls are the most satisfactory. A balustrade and extensive stone-dressings are seldom appropriate to a small garden, except the house be severely Classic. Terrace walls—maintenance considered—are probably the least expensive, and should never be built as if they were to remain naked. I can never think of a wall as so many yards super of Ruabon or Accrington bricks, but as a wall of the most delightful greenery. If you are in a brick country, any good hard brick the color of which approximates to that of the house would answer; if in a stone country, rough rubble, and, if possible, the pointing omitted, so that toad-flax, houseleeks, etc., could grow in the crannies; the coping, if dressed, to have very simple mouldings. Grass slopes are practically impossible if the batter be less than 1 to 2, allowing step of 12 inches by 6 inches; but whatever batter you adopt for one bank should apply to the whole of the slopes in that part of the garden. Planted slopes are very charming, but the great drawback is that you have to wait many years for the result. The one point to bear in mind when laying out batters is to avoid diminishing-lines, as, for instance, when you make a sloping walk at the end from the upper to the lower terrace. In deciding the width of your higher terrace, do not foreshorten your ground. Nothing gives more character to a garden than the form, arrangement and quality of its grass-lawns; and nothing is more refreshing than to look out of your room-window onto a lawn perfectly formed and kept. To secure this perfect form is a difficult task. The terrace next to the house should be treated simply, but with a certain amount of color from flowers, and certainly have a border next to the house in which to grow climbers. I am fond of broad paved walks on terraces next to the house, with a few quaint shrubs either planted permanently in beds or set out in tubs. Avoid the usual pattern of broad-brimmed vases filled with lobelia, echeveria and calceolarias; green or oak tubs or big flower-pots are far better, but do not have too many even of these. If a garden is very small, the flower-borders should be long and continuous, as in this way you get a much better display of bloom. Small panel-gardens such as you would wish to look upon from your entertaining-room windows invariably produce the best effect when in beds of the simplest design and at a lower level than the house. Such gardens should be perfectly level, and have some kind of boundary-fence round them; this may be simply a low box-edge 2 feet high, or a low trellis. In some cases it might with advantage be designed as a sunk garden, with grass slopes and steps at the corners or at each side; if on the same level as the rest of the ground, the flatness might be broken up by having a sundial or lead figure in the centre. According to the measure of the exact symmetrical balance secured in the house, so ought the disposition of the features on the terrace be, although not carried to the point of having a greenhouse on each side of the garden, necessitating two heating operations and two objectionable chimneys, as shown in a recently-published design. If perfect balance you must have, choose a pair of garden-houses, one for use as a tool-house, the other as a summer-house; but if balance is secured by the freer and more picturesque methods adopted by the majority of modern architects of coupling and grouping of gables, chimneys, porticos, oriels and the like, balance ought to be secured in the gardens by similarly free measures. You would, whilst securing balance, obtain much greater variety.

One of the most awkward and expensive pieces of ground with which you will at any time have to deal is that in which the house does not follow the natural contour of the ground, but falls slantwise across the garden-front of the house. Where you have a subsoil which is easily removed, such as soft sand, an alteration to the natural features may be more easily carried out than a modification of the plan of the house. Although I have a great preference for walls when the ground slopes away from the house, I prefer grass slopes when, on the south side, the ground falls towards the house. The more your ground slopes away from the house, the more will you feel the necessity for plantations; but the reverse holds good when the ground falls from north and south towards the house.

The last detail to which I refer is the planting of the flower-borders, in connection with which I rely almost entirely upon hardy perennials, and these of the hardiest varieties. Weeding-out is one of the most expensive kinds of gardening; there are, however, a number of annuals and biennials which are most useful for filling up blank spaces. The greatest care must be exercised to secure effective groupings and continuous show of flowers throughout the greater part of the year. Avoid planting in lines, but rather try to secure a little irregular colony of each plant.

Finally, let me suggest that when commissioned to design a house, in connection with which there is to be a garden, that you should seek to co-operate with the garden-designer from the time you prepare your first sixteenth-scale plan, and to agree on some mode of treatment of those parts of the scheme where there is an overlapping of interests.—*The Building News*.

SCHEMES FOR PREVENTING FURTHER DESTRUCTION OF STONEHENGE.

AMID the solitudes of Salisbury Plain on the last night of the last century there fell to the ground one of the great uprights of the outer circle of stones at Stonehenge. The cross-piece mortised to it on the top, of course, fell as well, and the capstone was broken to pieces. Once again those who care for the preservation of such memorials of the past—and what memorial belongs to so distant a past as this?—are considering how best to prevent the destruction of any more of these mighty pillars, whose object and meaning are involved in obscurity and have been the subject of so much antiquarian controversy. Ancient monuments in Great Britain have always been treated in a haphazard way, though, thanks mainly to the society now known as the National Trust for Places of Historic Interest and Natural Beauty, some attempt at their preservation has been made of late years. There was the Act of 1882, which empowers the owners of these monuments to constitute by deed the Department of Works and Public Buildings here and in Dublin guardians of them, and to arrange for their maintenance and preservation. If Parliament so wills, money may be voted for the purchase of these memorials and of the land on which they stand, but this can only be done on the application of the owner. The Legislature has always refused to endow either the State or the local authorities with powers to compulsorily acquire historical memorials. In the session of last year the Act of 1882 was extended and amended, particularly in the direction of enabling County Councils, as well as the Office of Works, to become guardians or owners by purchase of "any structure, erection or monument of historic or architectural interest, or any remains thereof." This definition replaces the three schedules of the earlier Act, and one of those includes "the group of stones known as Stonehenge, in the Parish of Amesbury, County of Wilts." Both sets of authorities are given power to receive and administer voluntary contributions toward the cost and maintenance or preservation of any monument of which they may become the purchasers or guardians. Moreover, the Commissioners of Works have possessed, since 1882, power to appoint inspectors to report on the condition and the best means of preserving these ancient structures.

So far the law. A scheme for preventing any further destruction of the stones on Salisbury Plain was suggested five years ago by the late General Pitt-Rivers in a report he made to the National Trust. It was in effect that the sloping stones should be brought to the perpendicular and underpinned, or surrounded at the bottom with concrete or masonry up to within, say, eighteen inches of the surface, and then covered with earth. In a couple of years, as he pointed out, no trace of the underground work would be visible. The recent fall has revived this project, and suggestions have been made for carrying it out. The subject will be considered soon by the committee of the National Trust, and it is to be hoped that so influential a body will not fail to make some representation to the freeholder of that part of the plain on which the stones lie or stand to allow some scheme of preservation to be carried out. To substitute a concrete foundation for the few feet of soil and chalk in which the feet of the pillars are now embedded would not be a costly matter, and for that or any other plan it should not be difficult to raise the necessary money by public subscription. Of course, the freeholder has power to do just what he likes. He may, if he thinks fit, forbid any interference with Stonehenge at all. Morally, however, though not legally, he is the trustee for the nation of a priceless relic of early Britain, and it is scarcely conceivable that any difficulty would be put in the way—always assuming that nothing be attempted until the highest expert opinion has been taken as to the best means of preservation. A method for doing this at the public expense exists, as we have pointed out in the Act of Parliament, and the committee of the National Trust is not likely to overlook the fact. Mr. Akers-Douglas ought not to want much spurring to send an inspector at once to Salisbury Plain to report as to the feasibility of the plan suggested by General Pitt-Rivers. — *The London Post*.

BOOKS AND PAPERS

A PAINTER, who lives some seventy-five years, and whose work is much in demand, especially if he be a decorative artist and engaged in embellishing churches, is sure to repeat himself more or less—a charge which is brought against Perugino,¹ and which a very limited knowledge of his works will easily corroborate. The beautiful spiritual and manly figure of S. Michael which may be studied in the large fragment of the Certosa (Pavia) altar-piece, is all but identical with the archangel in the Bologna "Assumption" now in the Florence Accademia, and in the fresco at the Cambio, Perugia. The variations in the figures are so slight, consisting only in the turn of the head and the head-dress, that it may be assumed that Perugino worked mainly from the same studies. The floating angels which surround the mandorla in so many pictures vary little, and indeed the whole composition of the "Ascension" at Lyons, the "Ascension" at Borgo, the "Assumption" at Florence and the "Coronation" at Perugia are singularly alike. Vasari gives the grumbles

of his contemporaries upon this subject and the painter's reply: "When the picture was first uncovered, all the new artists censured it greatly, principally because Pietro had again adopted the same figures that had been previously painted in other of his works, for which his friends reproached him not a little, declaring that he had taken no pains. Thereat he replied: 'I have painted in this work the figures that you formerly commended and which then pleased you greatly; if they now displease you and you no longer extol them, what can I do?'" Certainly not an illogical answer to the *toujours perdrix* cry of his friends. Such art as Perugino's must be conventional; you cannot vary, *ad lib.*, saints and angels and religious-subject pictures as you can readings of secular subjects—or, at all events, it is only in modern times that a seriously designed variation has been attempted by Mr. Holman Hunt, Millais and a few others. But the cry of the 15th-century objectors is not even now unknown, and we can all record the rebellion of many young artists when the older men go on repeating attitudes, costumes or backgrounds.

Perugino's works are difficult to study, as they have suffered more than most great masters' pictures from greed and loot, and to see an entire work you must travel over half Europe. The above-mentioned National-Gallery picture is but a fragment of the Certosa fresco, one-sixth part only remaining in *situ*, the other portions being scattered all over France, and a great deal of this looting was the result of an extreme devotion to Pietro's art on the part of that arch-burglar, Napoleon. We all know how the conqueror conceived the grand idea (and it was a grand idea) that, as Paris was the great world's centre, all the finest works of art that the rest of the world had produced should be centred there for the admiration of the cultured classes and the education of the uncultured. The father of the present writer saw this great world's show in 1815, after Waterloo, and used frequently to say that, thanks to Napoleon's rapacity, he had seen all the pictures and sculptures best worth seeing, under the roof of the Louvre before the Allies justly returned them to their own homes. Naturally, the confusion was great and, between orders from headquarters and personal greed, many valuables were overlooked, or wilfully withheld, and consequently we still find many priceless pictures, especially those by Perugino, who was a favorite master of the arch-robber's, in the museums of provincial France.

Perugia was rich in frescos when the pillage began in 1797. Commissioner Tinet descended on the town to select three masterpieces, but he was a man of parts, loving art, and he was convinced that the city's treasures were being hidden away in the darkness of night. Pictures were placed behind panelling, reliquaries and church vessels were buried and rubbish was heaped over the hiding-places. But Tinet discovered nearly everything worth taking in his two days' search. There was, of course, much opposition on the part of the Perugians, and not a little diplomatic correspondence; but Napoleon knew what he was about in most of his appointments, and Tinet was no exception to the rule: in a short time six wagons, drawn by twenty-four oxen, left the city laden with all its most valuable contents, amongst them thirty-two of Perugino's pictures. Imagination carries us back to this scene, and we can almost see the weeping townspeople, the despairing monks, and the solemn, sad-faced, beautiful white oxen wending their way across Italy and France, drawing the cumbrous carts with their dignified and measured steps.

But in 1811, the looter had been raised to imperial rank and a decree went forth for the further spoiling of Europe. Comte Daru, at Rome, Baron Roederer, the Prefect of the Trasimene, and the French ambassador, Comte de Champagny, were the directors of a still vaster campaign of pillage. Forty-eight more pictures were selected at Perugia, but the Mayor, Cesarei, haggled and prevaricated and dissembled not a little. Much valuable time was lost, or passed in letter-writing and vain protestations; but the end came as determined by the thieves, and on January 6, 1814, Paris saw the arrival of the treasures. Soon after, the Allies entered the city and gave orders for the return of all the stolen works of art, but the Italians being obliged to fetch their pictures and to pack them, and there being only ten days in which to do the work, it happened that many valuables were left behind in Paris and many more were overlooked in the provinces. As Dr. Williamson remarks, why did not the Allies force the French to return their loot? Canova was sent by the Holy See, but he failed to trace many of the pictures. Only two of the twenty-eight taken from Perugia found their way back. The "Ascension," which the citizens particularly desired, remained at Lyons, Canova explaining that the Lyonnais had appealed to the Pope to be allowed to keep it and, Pius VII probably not feeling sufficiently impressed by the apparent downfall of Napoleon to be induced to withhold his permission, the French city still maintains possession of it. It is a dismal story of legal theft, and the Holy See did not come out of the affair with absolutely clean hands. On October 8, 1817, Cardinal Consalvi "closed the whole episode by a letter to Cesarei," explaining that the pictures had been presented by the Allies to the Holy Father as head of the Pontifical States, and for the education and edification of students of all nationalities sojourning in Rome. Thus Pius VII profited by his master's lesson, and Rome retained the stolen goods, to the sorrow of looted Perugia. The author sums up his interesting story of the pillage thus: "To reconstruct the great altar-piece of S. Agostino means that visits must be made to Lyon, Grenoble, Toulouse, Nantes and Perugia. For another altar-piece it is necessary to visit Rouen, Lyon, Perugia, Rome and Paris."

Reading this story one cannot help smiling at the righteous indignation expressed by some persons on the Continent, at the "robbery"

¹ "Pietro Vannucci, called Perugino," by G. C. Williamson. London: Bell & Sons. 1900. 5s.

of the Elgin marbles, and the desire that they should be given back to Greece. Great Britain is one of the few states which have returned conquered territories to their lawful owners (the Ionian Isles, Dutch colonies, etc.), and she probably saved the marbles for the edification of the rest of the world by allowing Lord Elgin to pick them up and ship them to England, after they had been lying on the Parthenon rubbish-heap during a couple of centuries. Greece cared nothing for those things fifty years ago; and the fact that not a few of the bas-reliefs and other marbles from Athens found their way to the Louvre seems to show that the British Museum is justified in paying to the Louvre: "*Et tu, Brute!*" The Summer-Palace spoil in the same museum points the same moral. Indeed, we may sum up state robberies in the words of Paul de Kock, substituting "theft" for "murder": "*Que messieurs les assassins commencent.*"



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

SPECIAL NOTICE.—On a few very special occasions we have made negatives in the offices of architects who could not send their drawings to us, and this though negatives so made cost us five times as much as those made in our own galleries, while the resulting prints are only a fifth as good as our standard work. This week we attempted to use negatives of the New York Public Library made in the office of the architects of that building, but when the proofs came from the press-room, the result was so wretched that the only thing to do was to suppress the illustrations and let this week's issue go out in abbreviated form.

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A DRAUGHTSMAN'S COMPLAINT.

February 25, 1901.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—A draughtsman who has had but three years of experience in offices and technical schools has, perhaps, very little right to entertain opinions on methods of architectural education, but, being the subject against which these methods are directed, he takes the liberty of expressing an idea which is continually being forced upon him, namely, the apparent inefficiency of American architectural schools in turning out graduates who are at all familiar with the practice of architecture, or who are at all capable, on graduation, of being of any practical use in an office as draughtsmen or superintendents. This, it seems to him, is the direct result of the suppression in most of the courses of study of all that relates to actual every-day practice, and the substitution of theory, abstract mathematics and historical research in its stead.

It will be immediately contended that this is exactly what the college-courses are aiming to do, namely, to give to a student that knowledge of the artistic and theoretical side which he will not acquire in an office, leaving the practical problems and experiences for the office to give him; but this is just where the system seems to fall down. It is a notable fact to-day that the apprentice-system generally is of little practical benefit to the apprentice himself, from the fact that his employers and his superiors do not have the time or inclination to instruct him, so that his advancement in knowledge or efficiency is necessarily anything but speedy. This, it will be seen,

is hard on the draughtsman. He comes out of school with the prospect of becoming soon, if not immediately, of actual money-value to his employer, of becoming a wage-earner, and is confronted with the fact that he is almost entirely ignorant of that working knowledge of structural details and of practical planning which is to become his stock-in-trade, and without which he can do nothing, and that he is, in truth, only on the threshold of his education.

He has spent from two to four years analyzing the "orders," in washing and water-color work, in charcoal-drawing from casts, in a detailed study of architectural history, and in such mathematics as analytical and descriptive geometry and calculus, but he knows little or nothing concerning the drawing and memorizing of full-sized structural details, of the science of planning and arranging convenient houses, of writing specifications, contracts, etc., of sanitation or superintendence; and this, it seems, is inconsistent and incompatible with the practical needs of the case: it seems entirely too one-sided.

The writer realizes it will be argued, that he has lost sight of the high ideals, of the fact that architecture is a profession, and not a trade, and that he is asking for a school for draughtsmen rather than one of architectural theory; but it also appears to him that architecture differs very materially from the professions of law and medicine, where men step directly from college into actual practice, and it seems as if there was room for immense improvement in educational methods, either through the school and the office becoming more affiliated and doing more "team-work," or, that being impractical, through the school rearranging its curriculum so as to be more inclusive; to introduce the practical and the theoretical in more even scale, and, in fact, to aim to produce a more expert draughtsman and less of a dreamer. And, after all, what is an architect but an expert draughtsman with a bit of the Divine Spark? R. W.

[We are glad to publish this letter, for it expresses in a very intelligent manner a very unintelligent view of the objects and accomplishments of the architectural schools. It is sophistry, pure and simple, or else delightful unsophistication. We understand and sympathize with our correspondent's rude awakening, on discovering that the heroes of the graduating-class at school have, perforce, to enter the lowest class in the world's workshop—and they may feel lucky if their place be not at the very foot of that. But graduates from architectural schools are no more handicapped than the outgoers from the law and medical schools, whose supposedly happier fate our correspondent cites. To be sure, these may "step directly from college into practice," if to practice means to hire an office, put up a sign and sit down and wait for a client. Our correspondent may "step into practice" in precisely the same way, if he choose. Every young man goes through a stage of disillusionizing within two years from "finishing his education," as it is so mischievously called. The proper name for school-work is "preparation for beginning to study usefully" along certain narrow lines, and these lines are so very narrow, and they are so very many, and so infinitely various may be the external accidents that lead one to take hold of one narrow line rather than another, that a sane man ought to be profoundly grateful that his intellectual self had some chance to broaden its horizon during the three or four years of a liberal school-education. If our correspondent has pursued his education in an architectural school where they teach nothing concerning the "science of planning" or "writing specifications," where sanitation has been left out of the curriculum, and the drawing of full-sized details has been ignored, he has been the victim of mischance in his selection of a training-place, for all such matters receive proper and sufficient attention in the fully-equipped architectural-schools. —EDS. AMERICAN ARCHITECT.]



THE PLAINS OF ABRAHAM.—There is now every likelihood of the sanctity of the historic plains of Abraham being preserved. The council of the Parish of Quebec, in which the plains are situated, have adopted a resolution in favor of annexation to the City of Quebec for the purposes of a public park, if the Federal Government will purchase them. It is believed, now that the parish council has consented, that the scheme will be put through. —*Exchange*.

THE "MAINE" MONUMENT.—The successful design for the monument to the crew of the "*Maine*" is more architectural than sculptural, as it was certain to be from the start. The pedestal for the quadriga, with its erect goddess, is a massive piece of masonry, 80 feet high, that a good deal more than suffices to uphold the sea-horses and symbolical figures of "Columbia," and is more than necessary as a support and background for the winged "Victory" and other figures on the deck of the galley on the lower, or fountain, plane. Mr. Magonigle, the architect, is a young man who has won prizes at the Architectural League; the sculptor, Piccirilli, is a native of Rome, less than forty years of age, who has resided many years in New York. There are ten pieces of bronze statuary in this design, two of which, on the fountain-plane, represent the Atlantic and Pacific Oceans by reclining human figures to the right and left of the pedestal. —*N. Y. Times*.

STATUE OF WASHINGTON FOR ALEXANDRIA.—Numismatists will be interested in a bill now pending before Congress, to authorize the issue of 200,000 medals in silver and bronze, to be in aid of a fund for the erection of a statue of George Washington in Alexandria, Va., the city which he made his business-headquarters for so many years. Each side of the pedestal will be embellished with a special design, showing Washington in one of the characters in which he used to be most familiarly known to his fellow-townsmen, probably as farmer, surveyor, fireman and Freemason. In this respect it is believed that the monument will be, and must always remain, unique, since in no other city would it be possible to group so many phases of Washington's career associated with the local life of the place. —*Evening Post*.

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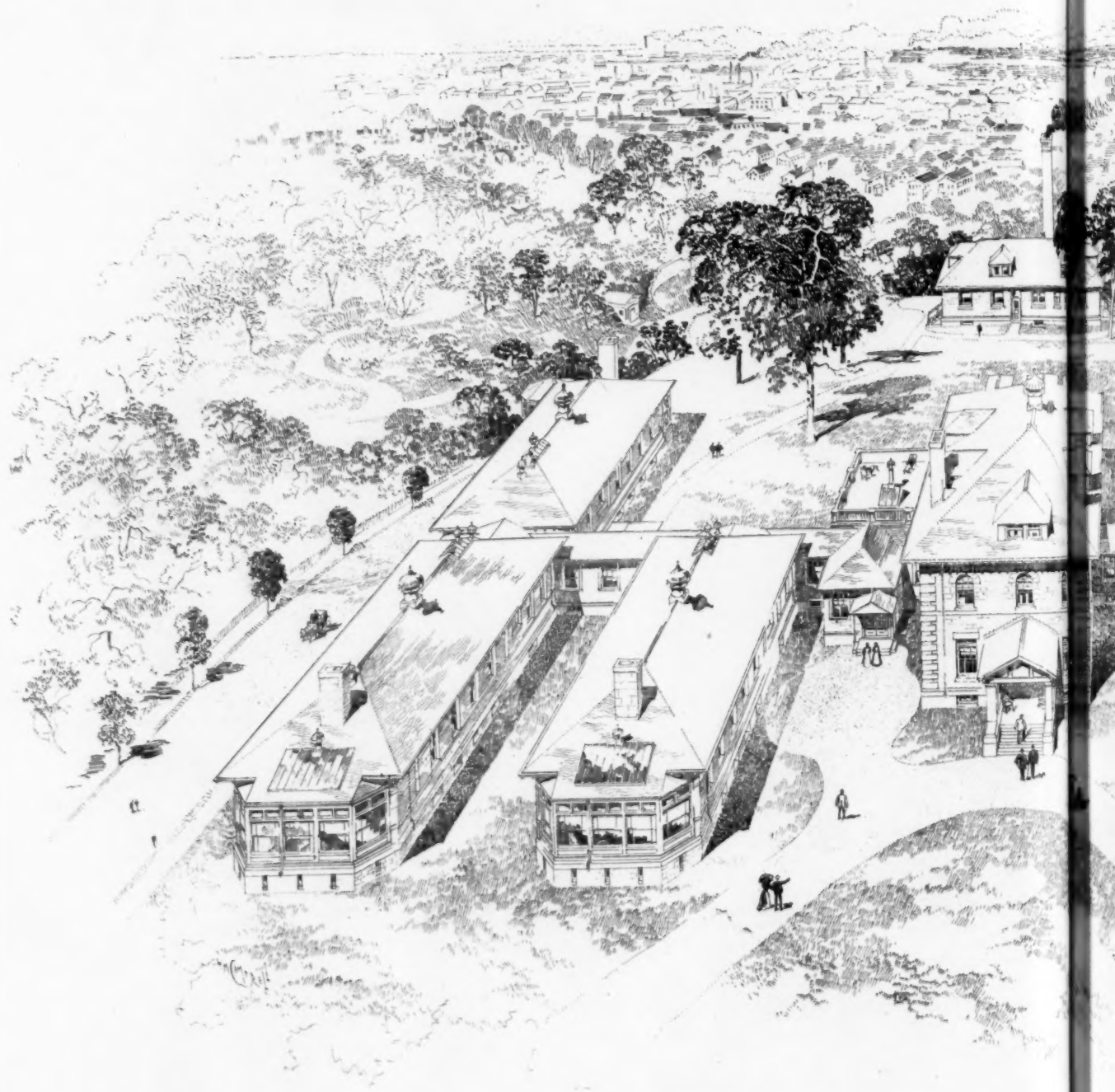
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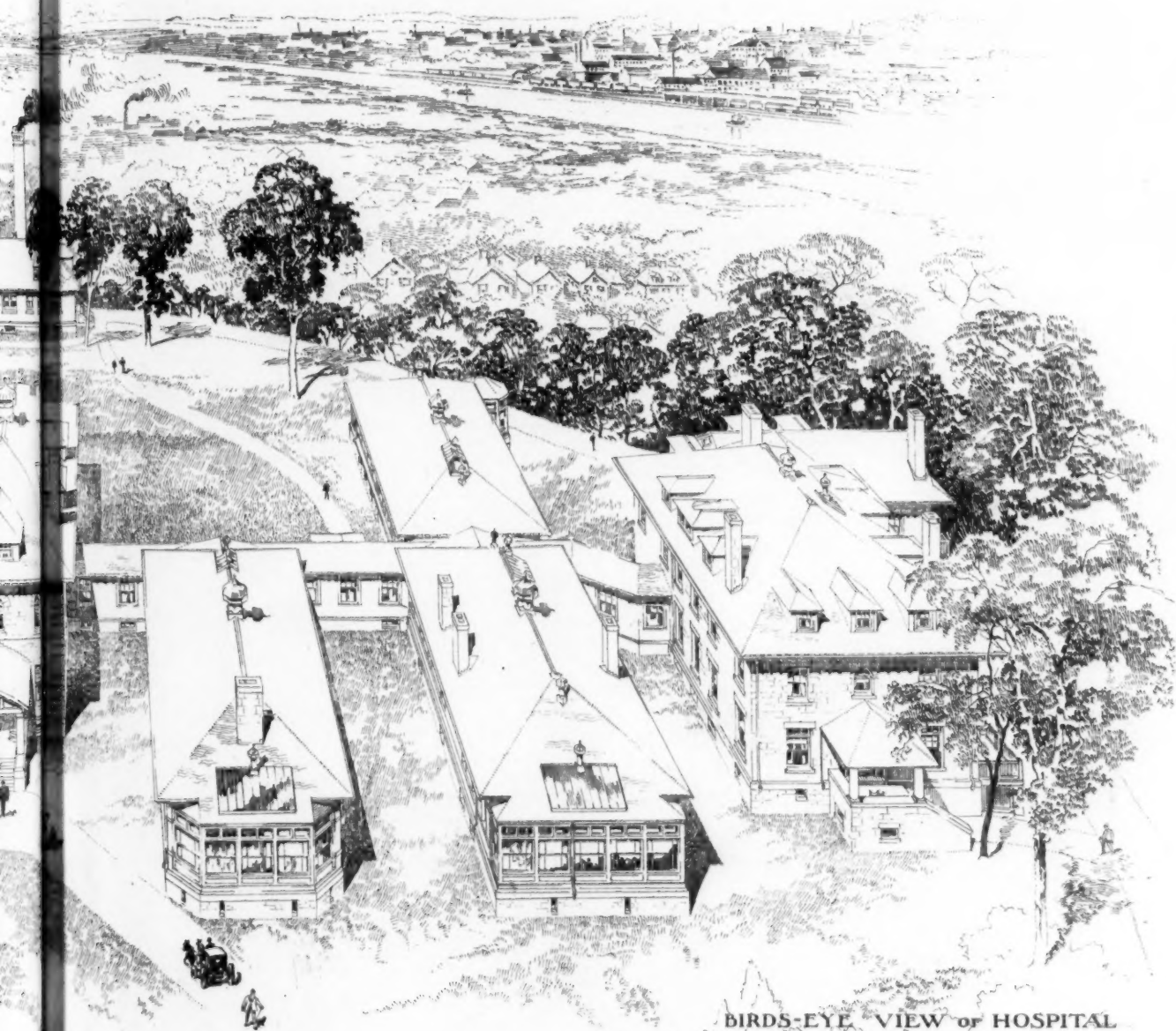


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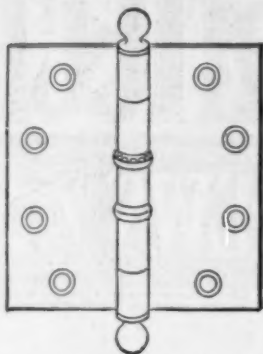
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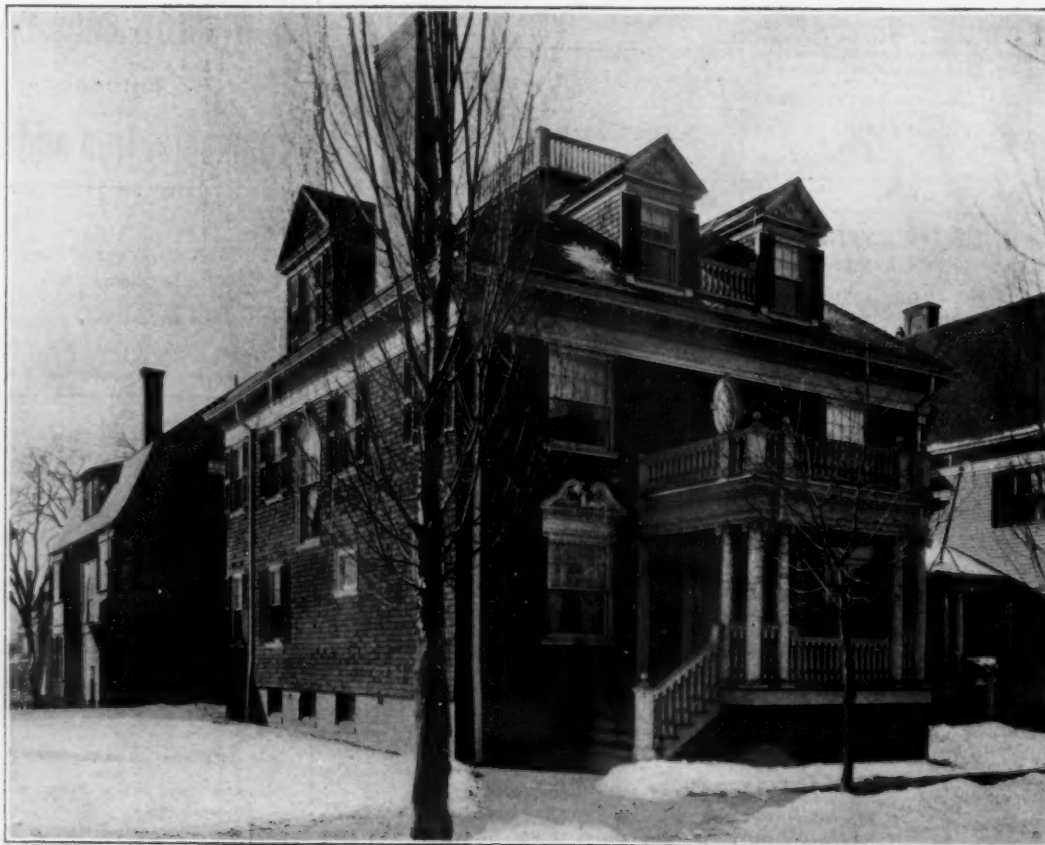
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Merchant & Co.....[The Roofing].
Morse, Williams & Co.....[The Roofing].
Taylor Co., N. & G.....[The Roofing].
Thorn, J. S. Co.....[Sheet Metal].

Pittsburgh.
Scaife, Wm. B. & Sons.....[Filters].

Scranton.
International Correspondence Schools, The.....
[Architecture].

York.
Vapor Steam Heating Co.....[Heating Apparatus.
Steam].

VII

PUBLISHED NOV. 24

VII

PART SEVEN

"The...Georgian Period"

WHILE this Part was passing through the press, the acquisition of unexpected material induced us to increase materially the number of plates and the illustrations in the text-matter; consequently, it contains more matter than is usually included in an odd-numbered Part.

Our effort is to make each Part better than its predecessors, and we feel that this time, too, we have succeeded.

Part VII contains 24 pages of text, illustrated by some 50 cuts, and 32 full-page plates. [Part V (odd-numbered) contained 16 pages of text and 22 full-page plates.]

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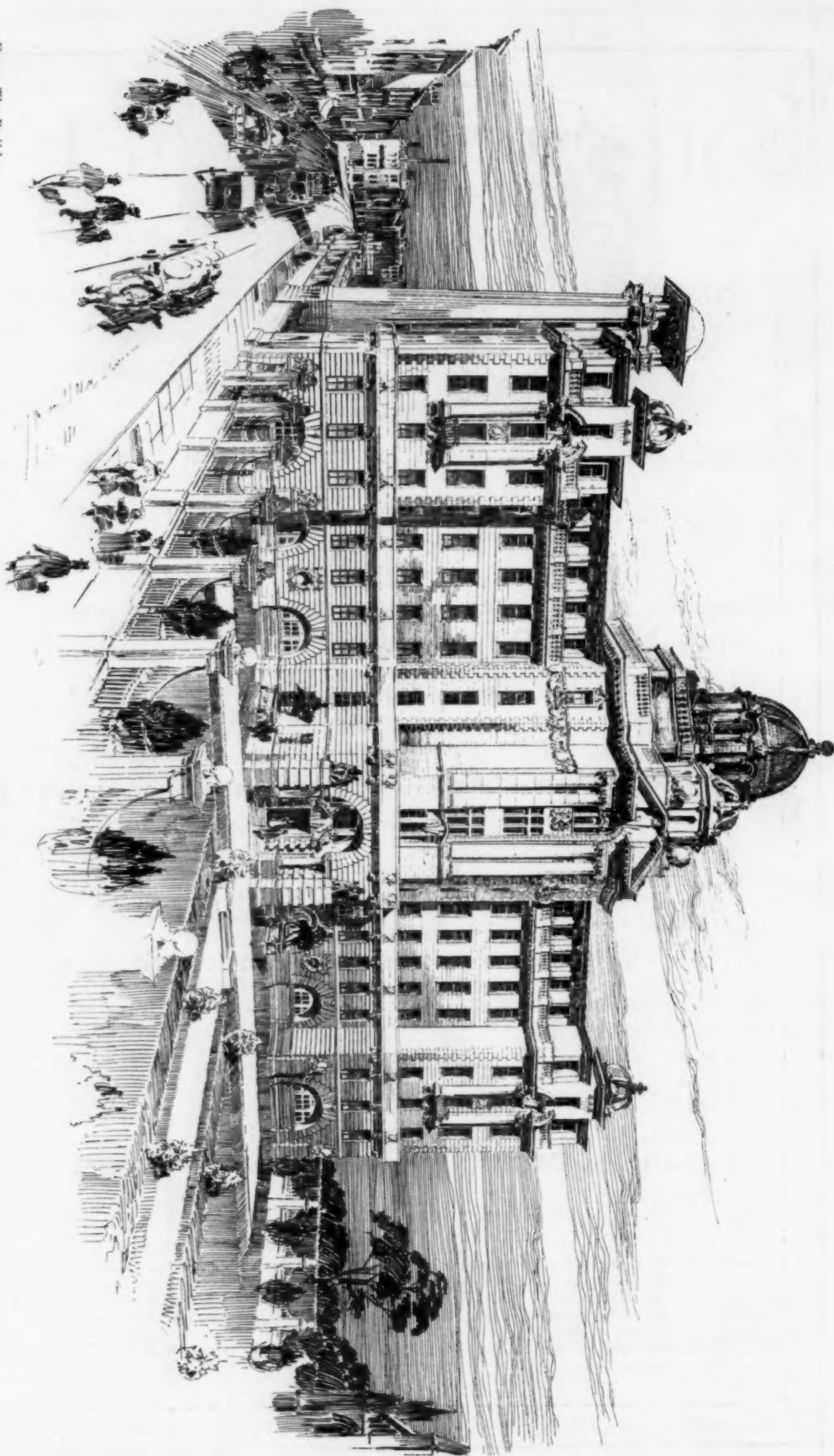
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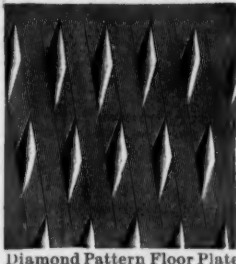
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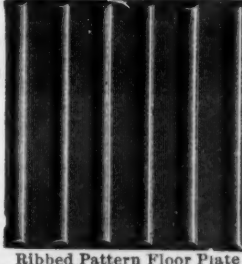
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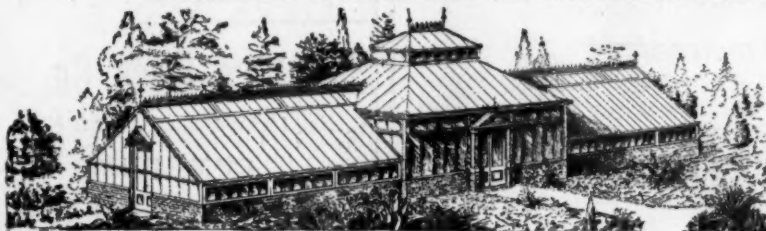
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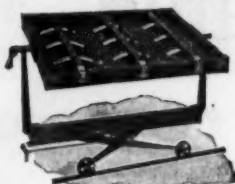
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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

The trustees of the Central Presbyterian Church at 112 to 116 W. 57th St., have filed plans for extensive interior alterations to the building. The alterations will be made by Jardine, Kent & Jardine and will cost \$25,000.

North Adams, Mass.—A \$25,000 gymnasium is to be erected for the Y. M. C. A.

Omaha, Neb.—The Presbyterian Theological Seminary will erect a \$50,000 brick college building in the northern part of the city.

Oshkosh, Wis.—Dr. C. W. Oviatt, House Surgeon at St. Mary's Hospital, is said to be interested in the erection of a \$50,000 hospital in the business portion of the city.

Philadelphia, Pa.—Richard C. Ballinger & Co. will alter the old First Reformed Dutch Church at the corner of 7th and Spring Garden Sts. into a candy factory and warehouse, for Mitchell, Fletcher & Co. They will build a four-story brick front addition, 22' x 75', put in two new floors, and make general repairs at a cost of \$20,000.

J. Allan Wickersham and E. C. Biddle are receiving bids on an operation of 72 dwellings and 2 stores from plans and specifications in the office of George W. Marter, 134 S. 9th St. They will be erected on both sides of Gray's Ave., between 61st and 62d Sts. They are also receiving bids for 45 dwellings of the same size and character, to be built on the south side of Upland St., between 60th and 61st Sts. These operations when completed will make improvements to the extent of \$250,000.

Poughkeepsie, N. Y.—John D. Rockefeller has given \$110,000 to Vassar College for a new dormitory.

Princeton, N. J.—The designs for a new gymnasium building for the university, prepared by Howard & Cauldwell, of New York City, have been accepted. It is to be a two-story and basement structure with two wings of graystone, with red tile roof; cost, \$200,000.

Another building to be erected in the near future is the dormitory given by the class of 1879. It will stand opposite Blair Hall, and will be similar architecturally. It is planned to cost \$100,000.

Radnor, Pa.—George Watson & Son will build a \$95,000 residence here for Mr. Craig Biddle.

Reading, Mass.—A three-story brick addition will be built to the Reading Rubber Mfg. Co.'s factory, after plans by Loring & Phipps, Boston; cost, \$50,000.

Spokane, Wash.—The directors of the Athletic Club have decided to erect a \$30,000 club-house. Timothy Reardon, of St. Paul, has the contract to erect the passenger depot for the Great Northern. It will be three-story, of brick and iron, and will cost \$100,000.

Waukesha, Wis.—A \$40,000 sanitarium will be erected here for the Waukesha Mineral Springs Co., after plans by Carl Barkhausen.

APARTMENT-HOUSES.

New York, N. Y.—One Hundred and Twenty-third St., nr. Amsterdam Ave., six-sty' bk. flat, 75' x 88'; \$100,000; o. W. C. Hunter, 180 St. Nicholas Ave.; a. Ernest Ruehl, 402 E. 61st St.

Cherry St., Nos. 243-247, six-sty' & base. bk. flat & store, 53' 6" x 49' 10" & 47' 10"; \$35,000; o. Friedman & Feinburg, 329 E. 116th St.; a. M. Bernstein, 245 Broadway.

Clinton St., Nos. 240-242, six-sty' bk. flat & stores, 40' 4" x 61' 11"; \$35,000; o. Pachman & Levin, 113 E. 100th St.; a. Saxe & Smallheiser, 23 Park Row.

Pitt St., No. 9, six-sty' & base. bk. flat & store, 25' x 88'; \$25,000; o. Jos. Polstein, on premises & 305 E. 57th St.; a. M. Bernstein, 245 Broadway.

One Hundred and Forty-eighth St., Nos. 549-553, seven-sty' bk. & st. flat, 69' x 89' 11"; \$50,000; o. a. & b. John P. Leo, 143 W. 125th St.

Bergen Ave., nr. 149th St., 3 five-sty' bk. flats & stores, 19' x 27' x 77' x 80'; \$60,000; o. a. & a. N. Rothermel, 633 E. 144th St.

BUILDING INTELLIGENCE.

(Apartment-Houses Continued.)

Fifty-eighth St., nr. Madison Ave., 4 eight-sty' bk. & st. flats, 50' x 90', asphalt roof; \$1,000,000; o. P. Herter, 119 Suffolk St.; a. De Lemos & Cordes, 130 Fulton St.

One Hundred and Sixty-fifth St., nr. 3d Ave., 4 four-sty' bk. flats, 25' x 87'; \$72,000; o. Peter J. Cooney, 775 E. 165th St.; a. Jos. C. Cocker, 234 E. 88th St.

One Hundred and Twelfth St., nr. Lenox Ave., seven-sty' bk. & st. apart., 75' x 90'; \$150,000; o. Heine Liebeskind, 124th St., n. cor. Madison Ave.; a. George Fred Pelham, 603 Fifth Ave.

Seventh Ave., cor. 140th St., seven-sty' bk. & st. apart., 100' x 100'; \$300,000; o. Wm. H. Livingston, 133 W. 113th St.; a. F. C. Browne, 143 W. 125th St.

E. Twenty-seventh St., Nos. 142-146, seven-sty' bk. flat, 60' x 88' 8"; \$175,000; o. G. E. Orent, 60 Liberty St.; a. Christian Steinmetz, 60 Liberty St.

One Hundred and Twelfth St., cor. Broadway, seven-sty' bk. & st. apart., 100' x 100'; \$200,000; o. Peter Wagner, 266 Columbus Ave.; a. George Fred Pelham, 603 Fifth Ave.

One Hundred and Forty-ninth St., cor. 8th Ave., 5 five-sty' bk. & st. flats, corner, 25' x 95'; three, 25' x 85', & one, 25' x 80'; \$130,000; o. Gundlach & Koch, 204 E. 86th St.; a. John Hauser, 1961 Seventh Ave.

Eighty-third St., nr. 3d Ave., 6 five-sty' bk. flats, 25' x 86'; \$150,000; o. John McLaughlin, 346 E. 81st St.; a. John Hauser, 1961 Seventh Ave.

HOUSES.

Brooklyn, N. Y.—St. John's and St. Francis Pl., 5 two-sty' bk. & st. dwell., 19' x 45'; \$50,000; o. a. & b. Fred Williams, 1486 Bedford Ave.; a. F. S. Lowe, 186 Remsen St.

St. Francis Pl., nr. St. John's Pl., 4 three-sty' bk. dwell., 17' 6" x 43'; gravel roof; \$24,000; o. F. Williams, 1486 Bedford Ave.; a. F. S. Lowe, 186 Remsen St.

Rogers Ave., cor. Avenue C, three-sty' bk. store & dwell., 25' x 50'; \$9,000; o. Chas. Liebmann, Hotel Savoy, 5th Ave. & 59th St., N. Y.; a. Th. Engelhardt, 905 Broadway; b. M. Armendinger, 22 Ditmars St.

E. Thirtieth St., nr. Avenue C, two-sty' & attic fr. dwell., 23' 4" x 32' 8"; shingle roof; \$5,500; o. J. W. Parkins, 2160 Beverly Road; a. B. Driesler, 1432 Flatbush Ave.

E. Twenty-first St., nr. Voorhes Ave., two-sty' & attic fr. dwell., 25' x 42'; shingle roof, hot water heating; \$5,500; o. John S. Gagan, 214 W. 85th St., N. Y.; a. G. H. Magill, Ocean Ave. & Neck Road; b. Nelson Sterling, Lake St., nr. 86th St.

New York, N. Y.—Clay Ave., nr. 165th St., 12 two-sty' bk. dwell., 20' x 52'; \$90,000; o. Ernest Wenigmann, Morris Ave. & 179th St.; a. W. C. Dickerson, 3d Ave. & 149th St.

One Hundred and Third St., No. 345, two-sty' bk. dwell. & shop, 25' x 47'; \$10,000; o. Gustav Eckert, 2005 First Ave.; a. Schneider & Herter, 46 Bible House.

West End Ave., cor. 71st St., 2 five-sty' bk. & st. dwell., 25' x 50' & 19', asphalt & slag roof; \$40,000; o. Edmund Coffin, 34 Pine St.; a. Hill & Stout, 1123 Broadway.

Bronx Park Ave., cor. 179th St., 2½-sty' fr. dwell., 22' x 52'; \$5,000; o. August Diener, on premises; a. Bernhard Ebeling, St. Lawrence Ave., Van Nest.

Pleasant Ave., cor. 183d St., 2 two-sty' & base. bk. & st. dwell., 25' x 50'; \$14,000; o. Gundlach & Koch, 204 E. 86th St.; a. John Hauser, 1961 Seventh Ave.

Fifth Ave., cor. 89th St., five-sty' bk. dwell., 25' 2" x 92'; \$80,000; o. J. J. Lawrence, 150 Nassau St.; a. W. A. Swasey, 178 Franklin St.

W. Ninety-first St., No. 253, 4½-sty' bk. dwell., 25' x 34' & 35'; \$10,000; o. Harriet Rich, Montclair, N. J.; a. Chas. A. Rich, 35 Nassau St.

E. Fifty-first St., No. 32, five-sty' bk. dwell., 25' x 37'; \$33,000; o. Chas. Brendon & Co., 109 W. 42d St.; a. Chas. Brendon.

Bassford Ave., cor. 183d St., 6 two-sty' bk. dwell., 18' x 55'; \$42,000; o. Matilde Haenchen, 786 E. 142d St.; a. Edw. Wenz, 1491 Third Ave.

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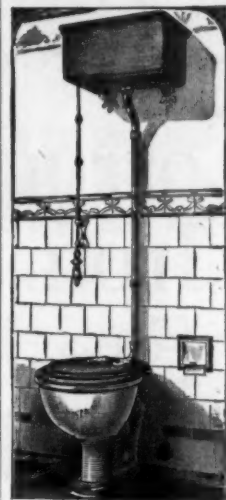
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STABLES.

Brooklyn, N. Y.—Sackett St., nr. 4th Ave., two-sty' bk. stable, 30' x 95', gravel roof; \$8,000; o. James H. Dickerman, 170 Sixth Ave.; a. R. Dixon, 213 Montague St.

Lawrence Ave., nr. 3d Ave., one & two-sty' bk. stable, 40' x 90', gravel roof; \$5,000; o. J. Matthews, 208 Berkely Pl.; a. J. Mumford, 189 Montague St.; b. C. F. Bond, 136 Liberty St., N. Y.

Wallabout St., nr. Marcy Ave., two-sty' bk. stable, 25' x 90', gravel roof; \$2,000; o. W. Sturgis, 148 Hooper St.; a. Johnson & Helmle, 220 S. 8th St.

W. Ninth St., nr. Court St., two-sty' bk. stable, 24' x 96', felt & gravel roof; \$4,000; o. T. Rouleau, 383 Union St.; a. J. Mumford, 189 Montague St.

New York, N. Y.—W. Fifty-eighth St., Nos. 202-206, three-sty' bk. stable, 75' x 95'; \$100,000; o. Wm. H. Moore, 71 Broadway; a. Hill & Stout, 1123 Broadway.

Nathalie Ave., nr. Kingsbridge Road, 1½-sty' fr. stable, 23' x 23'; \$1,000; o. Carrie R. Thayer, Kingsbridge; a. Ahneman & Younkheere, Kingsbridge.

W. Fifty-eighth St., Nos. 202-206, three-sty' bk. & st. stable, 75' x 95'; \$100,000; o. Mr. Wm. H. Moore, 4 E. 54th St.; a. Hill & Stout, 1123 Broadway.

Philadelphia, Pa.—Snyder Ave., nr. 15th St., two-sty' bk. stable, 50' x 69'; \$5,000; o. Solomon T. Jarvis.

STORES.

New York, N. Y.—W. Twentieth St., Nos. 18-22, eleven-sty' bk. & st. lofts & stores, 25' & 75' x 14', gravel roof; \$375,000; o. J. N. Osorio, 28 W. 91st St.; a. De Lemos & Cordes, 130 Fulton St.

Twenty-eighth St., Nos. 3-5, two-sty' bk. studios & stores, 50' x 93'; \$20,000; o. Abraham Goldsmith, 35 Nassau St.; a. C. I. Berg, 10 W. 23d St.

Broadway, Nos. 536-538, Spring St., No. 85, eleven-sty' & base. bk. & st. lofts & stores, 50' & 75' x 103' gravel & tar roof; \$340,000; o. Rose & Fulzel, 118 Broadway; a. De Lemos & Cordes, 130 Fulton St.

Eighteenth St., Nos. 19-23, Nineteenth St., Nos. 22-28, eleven-sty' bk. lofts & stores, 50' x 184'; \$560,000; o. Henry Corn, 142 Fifth Ave.; a. Rob't Maynicke, 725 Broadway.

Warren St., Nos. 102-106, Washington St., Nos. 273-275, six-sty' bk. lofts & stores, 66' x 75'; \$45,000; o. Frank Hustace, 413 Madison Ave.; a. Ernest Greene, Temple Ct.

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Union Ave., cor. Freeman St., five-sty' bk. & st. tenement & store, 25' 4" x 93' 8"; \$30,000; o. Maria Ueckerman, 1079 E. 169th St.; a. Chas. Stegmayer, 306 E. 82d St.

COMPETITIONS.

LIBRARY.

[At Louisville, Ky.]

Specifications, plans and estimates are asked by the Polytechnic Society of Kentucky until April 10 for a five-story fireproof library and store building. THOS. B. CRUTCHER, secy. 1317

LIBRARY.

[At Houston, Tex.]

Designs will be received by the Trustees of the Houston Lyceum and Carnegie Library Association of Houston, Texas, until 12 o'clock, noon, of the 1st day of May, 1901, for the Carnegie Library Building, to cost not to exceed \$45,000. For prospectus, address H. H. DICKSON, Chairman Building Committee, Houston, Texas. 1321

SCHOOL.

[At Cedar Springs, S. C.]

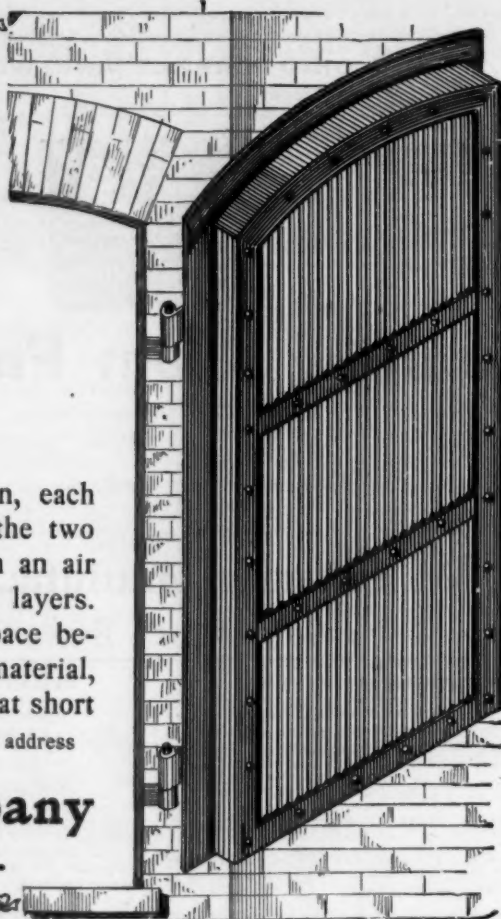
Competitive plans will be received until March 30, for a school at the Institution for the Deaf and Blind. N. F. WALKER, supt. 1317

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PROPOSALS.

Treasury Department, Office Supervising Architect, Washington, D. C., March 7th, 1901. Sealed proposals will be received at this office until 2 o'clock P. M. on the 17th day of April, 1901, and then opened, for furnishing the heating and ventilating apparatus complete in place for the U. S. Post-office at New Brighton, Pa., in accordance with drawings and specification, copies of which may be had at this office or at the office of the Superintendent at New Brighton, Pa., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1317

Treasury Department, Office Supervising Architect, Washington, D. C., March 9, 1901. Sealed proposals will be received at this office until 2 o'clock P. M. on the 30th day of April, 1901, and then opened, for the superstructure, interior finish, plumbing, approaches, etc., for the U. S. Public Building at Cheyenne, Wyoming, in accordance with the drawings and specification, copies of which may be had at this office, or the office of the Postmaster at Cheyenne, Wyoming, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1317

PLUMBING, SEWERAGE, ETC. [At Weyauwega, Wis.]
Bids are wanted March 22 for plumbing, sewerage, gas-fitting, ventilating, heating and electric wiring in Asylum for the Insane. E. H. PALMER, seey. bldg. com. 1316

SEWERAGE SYSTEM. [At Wakefield, Mass.]
Sealed bids for building sections 1, 2, 3, 4 and 6 of the Sewerage System will be received by the Board of Sewer Commissioners at its office in the town-hall at Wakefield, Mass., until March 27, 1901. 1317

MATERIALS. [At Wakefield, Mass.]
Sealed proposals for furnishing sewer-pipe, cast-iron, cement and brick for the Sewerage System will be received by the Board of Sewer Commissioners at their office in the town-hall until March 27, 1901. 1317

JAIL. [At Covington, Ga.]
Bids are wanted April 10 for a jail. W. S. RAMSEY, chmn. commrs. of roads and avenues. 1317

PROPOSALS.

ADDITION TO COURT-HOUSE. [At Wessington Springs, S. D.]
Bids are wanted until April 2 for an addition to the court-house. WM. ZINK, co. aud. 1317

LIBRARY BUILDING. [At New York, N. Y.]
Sealed bids will be received by the Park Board, at its offices, Arsenal Building, 64th St. and 5th Ave., Central Park, New York City, until April 11th, 1901. For contract No. 3 for the New York Public Library, Astor, Lenox and Tilden foundations, at 5th Ave., 40th and 42d Sts., in the Borough of Manhattan, City of New York, for the complete erection of the building, as described in the specifications and shown on the plans embraced in contract No. 3. Specifications and plans can be seen at the office of the Department Arsenal, Central Park. 1318

BARRACK. [At Fort Strong, Mass.]
Depot Quartermaster's Office, 170 Summer St., Boston, Mass. Sealed proposals will be received at this office until April 8, 1901, for constructing at Fort Strong, Long Island, Mass., one barrack. W. H. MILLER, depot quartermaster, Boston, Mass. 1318

Treasury Department, Office Supervising Architect, Washington, D. C., February 28, 1901. Sealed proposals will be received at this office until 2 o'clock P. M. on the 2d day of April, 1901, and then opened, for the construction (except heating apparatus, electric wiring and conduits) of the U. S. Post-office at Clinton, Iowa, in accordance with the drawings and specification, copies of which may be had at this office or the office of the Postmaster at Clinton, Iowa, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1316

SEWERAGE SYSTEM. [At Ft. Sam Houston, Tex.]
Office of Chief Quartermaster, Department of Texas, San Antonio, Tex. Sealed proposals will be received until March 20, 1901, for the construction of a sewerage system at Fort Sam Houston, Tex. JOHN SIMPSON, D. Q. M., U. S. A., C. Q. M. 1316

COURT-HOUSE. [At Hartwell, Ga.]
Bids are wanted March 26 for a two-story court-house, to cost \$25,000. ROBT SHIRLEY, co. surv. 1316

PROPOSALS.

TOWN-HALL. [At Rising Sun, O.]
Bids are wanted March 23 for town-hall. A. E. STAHL, mayor. 1316

ADDITION TO HOSPITAL. [At Newport, R. I.]
Sealed proposals will be received at the Bureau of Medicine and Surgery, Navy Department, till April 2, 1901, for the erection and completion of an addition to the United States Naval Hospital, Newport, R. I. W. K. VAN REYPEN, surgeon general, U. S. N. 1317

CEMENT AND STONE. [At Ft. Wadsworth, N. Y.]
U. S. Engineer Office, Army Building, New York. Sealed proposals for furnishing cement and broken stone at Fort Wadsworth, N. Y., will be received here until March 30, 1901. W. L. MARSHALL, major, engineers. 1317

COURT-HOUSE. [At Starkville, Miss.]
Bids are wanted April 1 for a court-house. W. W. EDWARDS, chancery clk. 1317

STORAGE PLANT. [At Boston, Mass.]
Sealed proposals will be received at the bureau of yards and docks, Navy Department, Washington, until March 30, 1901, for constructing a torpedo-boat storage plant, including a basin equipped with a 450-ton hydraulic lift, power plant, transfer table, tracks, boat cradles, etc., at the Navy Yard, Boston, Mass. MORDECAI T. ENDICOTT, chief of bureau. 1317

GUARD-HOUSE. [At Winthrop, Mass.]
Sealed proposals for constructing guard-house will be received until April 3, 1901, at Fort Banks, Winthrop, Mass. F. C. HAINS, JR., Q. M. 1316

SEWAGE SYSTEM AND STREET PAVING. [At Havana, Cuba.]
Office of Mayor, Havana, Cuba. Sealed proposals for sewerage system and street paving, City of Havana, will be received at this office until April 3, 1901. Information furnished on application to Lieut. W. J. Barden, Corps of Engineers, U. S. A., chief engineer, City of Havana. ALEXANDRO RODRIGUEZ, mayor. 1316

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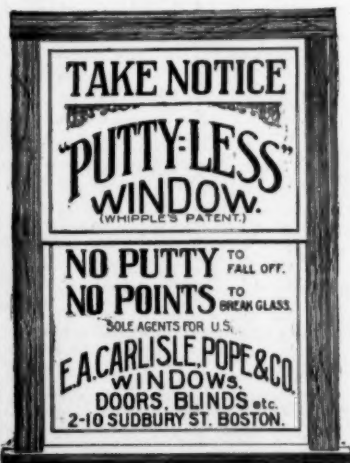
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SECTION 1. No Member should enter into partnership, in any form or degree, with any builder, contractor, or manufacturer.

SECTION 2. A Member having any ownership in any building material, device or invention, proposed to be used on work for which he is architect, should inform his employer of the fact of such ownership.

SECTION 3. No Member should be a party to a building contract except as "owner."

SECTION 4. No Member should guarantee an estimate or contract by personal bond.

SECTION 5. It is unprofessional to offer drawings or other services "on approval" and without adequate pecuniary compensation

SECTION 6. It is unprofessional to advertise in any other way than by a notice giving name, address, profession, and office hours, and special branch (if such) of practice.

SECTION 7. It is unprofessional to make alterations of a building designed by another architect, within ten years of its completion, without ascertaining that the owner refuses to employ the original designer, or, in event of the property having changed hands, without due notice to the said designer.

SECTION 8. It is unprofessional to attempt to supplant an architect after definite steps have been taken toward his employment.

SECTION 9. It is unprofessional for a Member to criticise in the public prints the professional conduct or work of another architect except over his own name or under the authority of a professional journal.

SECTION 10. It is unprofessional to furnish designs in competition for private work or for public work, unless for proper compensation, and unless a competent professional adviser is employed to draw up the "conditions" and assist in the award.

SECTION 11. No Member should submit drawings except as an original contributor in any duly instituted competition, or attempt to secure any work for which such a competition remains undecided.

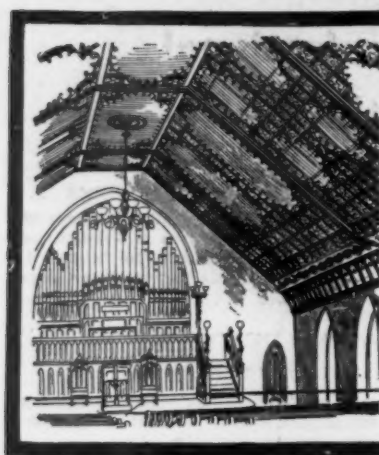
SECTION 12. The American Institute of Architects' "schedule of charges" represents minimum rates for full, faithful and competent service. It is the duty of every architect to charge higher rates whenever the demand for his services will justify the increase, rather than to accept work to which he cannot give proper personal attention.

SECTION 13. No Member shall compete in amount of commission, or offer to work for less than another, in order to secure the work.

SECTION 14. It is unprofessional to enter into competition with or to consult with an architect who has been dishonorably expelled from the "Institute" or "Society."

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SECTION 16. A Member should so conduct his practice as to forward the cause of professional education and render all possible help to juniors, draughtsmen and students.



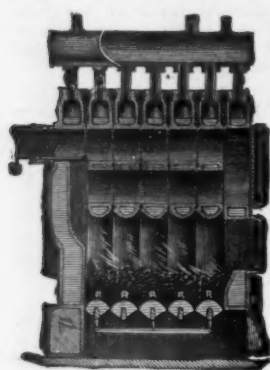
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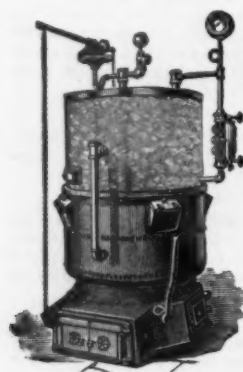
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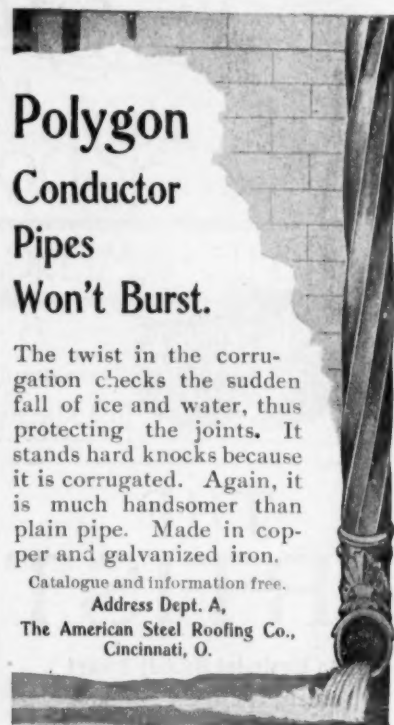
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CUTLER PAT. MAILING SYSTEM.

Cutler Mfg. Co., Rochester, N. Y.....

DEAFENING QUILT.

Samuel Cabot, Boston, Mass.....

DECORATORS.

L. Haberstroh & Son, Boston.....

DOORS (Interior Finish).

Carlisle, Pope & Co., E. A., New York.

DRAWING-TABLES.

Emerson, F. W. Mfg. Co., Rochester,
N. Y.....

DRAUGHTSMAN.

E. Eldon Deane, New York.....

ELEVATORS, ETC.

Morse, Williams & Co., Philadelphia.

Whittier Machine Co., Boston.....

ENGINES (Hot-Air).

Rider-Ericsson Engine Co., New York.

FILING DEVICES.

Art Metal Construction Co., James-
town, N. Y.....

FILTER.

Loomis-Manning Filter Co., Phila., Pa.

Sealife & Sons, Wm. B., Pittsb'g., Pa.

FIREPROOF BUILDING.

Saritan Hollow and Porous Brick
Co., New York.....

FIREPROOF LATHING.

Hayes, Geo., New York.....

FLOOR-PLATES.

Ogden & Wallace, New York.....

FLOOR POLISH.

Butcher Polish Co., Boston.....

FLUSH-VALVE.

Peck Brothers Co., Chicago, Ill.....

GALVANIZED IRON.

American Sheet Steel Co., New York

GATES.

Wm. R. Pitt, New York.....(mon)

GLASS (Stained and Ornamental).

Flanagan & Biedenweg Co. Th
Chicago, Ill.....

GRATES, ETC.

Wm. H. Jackson & Co., New York...