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SUMMARY:—

A new Indictment of the Skyscraper. — A new Attempt to oust the Philadelphia Public Buildings Commission. — Suggested Site for the New York Naval Arch. — Diffusion of Light by Ribbed Glass. — The Insurance Companies and the Automobile. — What is a "Total Loss?" — Death of S. R. Koehler, Writer on Art. — Death of J. R. Randolph, Art Critic. — Death of William Saunders, Landscape Gardener. — Death of H. J. B. Dubois, Architect.	89
NOTES ON SOME EUROPEAN SYSTEMS OF FOREST ADMINISTRATION. — VI.	91
LIMITATIONS OF THE RIGHT TO ANCIENT LIGHTS.	93
THE EXCAVATION OF PREHISTORIC CNOSSOS.	94
ILLUSTRATIONS:—	
House of Charles H. Coster, Esq., Tuxedo Park, N. Y. — The Architectural Building: Harvard University, Cambridge, Mass. — Public Library and Fire-engine House, Chevy Chase, Md.	
Gateway, "Penn Rhyn": Estate of Mrs. Joseph Drexel, Maud P. O., Bucks Co., Pa. — Square Tower Windows in East Anglia.	
Additional: Entrance-front: House of C. H. Coster, Esq., Tuxedo Park, N. Y. — Entrance-hall in same House. — "Gray Arches," Lawrence Park, Bronxville, N. Y. — Rear View of "Gray Arches." — Public Library, Newington, Eng. — "The Feathers," King St., St. James's, London, Eng.	95
NOTES AND CLIPPINGS.	95

A NEW indictment has been found against the modern skyscraper, and we confess that the more indictments that are found the greater is our satisfaction. People are already familiar with the fact that these high buildings disturb land values inequitably, that they deprive adjacent streets of light and, to some degree, of air, that they tend to promote a congestion of foot and, to some extent, vehicular traffic in their neighborhood, that they complicate the matter of fire-protection and add to the cost of maintaining the public fire-department, that they overtax the capacity of the sewers and water-mains that serve them, that they increase the hazard of elevator travel, and, for all we know, are the cause of a variety of new diseases hitherto unknown to the human frame; in fact, we have recently seen mention of an alarming mortality in the ranks of elevator-conductors, forced to travel at speed through these draughty vertical tunnels day after day under all conditions of temperature. The new indictment we speak of is brought by Professor Hyatt, of St. Louis, a weather observer, who declares that the presence of high buildings in a city perceptibly increases the average outdoor temperature of that city, and any one who receives of an afternoon the heat-rays reflected from the walls of one of these monsters, and finds the mercury still ascending, when he clearly remembers that under similar circumstances a few years before it used to fall agreeably, can easily believe it. The cause of the phenomenon lies in the fact that these great masses of masonry become store-houses of heat, to be radiated upon suffering humanity in the night-hours, which should be cool and refreshing. There can be no question about the physical facts or that they are evil ones, and though for northern cities they may be disregarded, it really seems as if the citizens of Philadelphia, for instance, whose summer nights even now, with reasonably wide streets and low buildings, are nights of sweltering torture because of the dull and lifeless heat radiated from building and pavement, should feel urged by this fear alone to take steps to regulate the erection of high buildings, particularly in residential districts and upon narrow streets.

THE Philadelphians, long restive under the incubus of the extraordinary Public Buildings Commission, one of the most successful engines devised by a corrupt political system, are just now inclined to make one more effort to induce the Legislature to consent to abolish this most scandalous of its creations. A year ago the Municipal League, a body of public-spirited citizens, appointed a committee to take action and prepare the needful evidence and petition, but somehow or other the present Mayor, some of whose acts have been, to say the

least, devious, managed to persuade this committee not to take action, but to leave the matter in his hands, on the assurance that he knew he could accomplish the desired end without provoking an open fight with the machine-politicians, who would do anything rather than lose the "patronage," to say nothing of actual dollars, that falls to them so long as the Public Buildings Commission can perpetuate itself. Apparently, the members of the Committee and of the League itself are becoming suspicious and there is an indication that they no longer propose to wait on the Mayor's movements. Just how much more than twenty millions of dollars have nominally been expended on the Philadelphia City-hall we will not undertake to say, but it is a conservative statement to say that the building has cost the citizens more than five times as much as it should.

THE newspapers are doing their best to revive the interest in the matter of rebuilding in permanent material the naval arch in New York and, meanwhile, certain repairs are to be made in the temporary structure, so that it may safely weather the winter storms. We believe that the present apathy in connection with the raising of money for rebuilding is very largely concerned with the matter of site. It seems very plain that the citizens of New York are tired of having it where it now is: they have experienced the annoyances, perils and discomforts due to the presence of the structures in what should be an open roadway, and we do not, for a moment, believe that if a vote could be taken on leaving the structures where they are, or removing them to an indefinite elsewhere, it would result in favor of the present position. This belief seems to be gaining ground and several sites have been suggested, the most sensible and fitting of which is the approach to the new viaduct which the Park Department is to build in Riverside Park. This site, at Ninety-sixth Street, would bring the arch into the reasonable neighborhood of the interesting group of buildings on Bloomingdale Heights, and add to their spectacular attractiveness. Used to accentuate and decorate the entrance to an elevated viaduct the arch would, in this position, seem to be restored to a natural use and serve a purpose to which the Romans often devoted it.

ARCHITECTS should find the next report issued by Boston Manufacturers Mutual Fire Insurance Company of much value, as it is to contain the digested report of the experiments recently conducted by Mr. Charles L. Norton at the Massachusetts Institute of Technology as to the best method of lighting rooms by the use of ribbed or prismatic glass. For some time past this insurance company has urged its members to obtain a better, because more evenly diffused, light for their weaving and other rooms by glazing their windows with ribbed glass, and the advice has in many cases been followed with most satisfactory results. But it was thought that the mere substitution of ribbed for plain glass was a rather empirical and crude way of securing the desired effect, and that as the laws of the transmission and diffusion of light were very definitely determined, an application of these laws to the problem in hand might reveal that the same or better effects might be obtained by the use of a less quantity of the ribbed glass inserted in only a part of the window opening, and one part of Mr. Norton's duty has been to consider this possibility. If a sufficiency of diffused light can be obtained by a partial glazing with ribbed glass it is desirable to know it, for aside from the fact that ribbed glass is opaque, so far as vision is concerned, and for that reason alone it is undesirable it should wholly displace plain glass, it is almost certain that the sunlight transmitted through plain glass has a greater hygienic value than that which is refracted through the denser medium.

THE insurance companies are just now somewhat agitated by the advent of the automobile, and, naturally, the accident and life companies have been first to look into and take steps to deal effectively with this new hazard, which imperils not only the lives of those who voluntarily use the machines, but also of those who are using other vehicles and even only those means of locomotion which Nature furnishes. It appears, however, that the fire-companies are also interested in the matter, and are issuing policies on those machines which are operated by steam or vapor engines of various kinds, not a few of which have come to an untimely end on the road, when the owner,

forced to tramp home a-foot, left behind him only a tangled heap of scrap-iron. The dangers to the vehicle and its passengers are not the only ones involved, however, as shown by the recent experience of a gentleman who, returning from his ride, drove his vehicle into the carriage-house and left it there with the burner still alight under the boiler. The apparatus, being furnished with a safety-valve, regularly blew-off the surplus steam as long as any water was left in the boiler, and then, becoming red-hot, set the woodwork afire, and but for timely discovery would, in turn, have caused the destruction of the carriage-house and adjacent stables. This incident, which might so easily be repeated, should cause architects to include in their plans for stables and carriage-houses an absolutely fireproof compartment for the reception of automobiles.

ANOTHER insurance matter which has an indirect interest for architects is the definition of what is a "total loss." In this matter the Minnesota Supreme Court holds that although a building is so little injured by fire as to make it quite worth while to repair it, nevertheless an insurance company may properly be called on to pay a total loss on it under certain conditions. The loss occurred in a city where there was an ordinance which made it discretionary with the inspector of buildings whether he should or should not allow the rebuilding of a combustible structure within the fire-limits of the city, if said building had been damaged to the extent of half its value. In this case the inspector, like a prudent man, desiring to substitute for combustible buildings those more incombustible as rapidly as possible, declined to issue a permit to repair the building, and the Court, by upholding the rightfulness of the inspector's action under the ordinance, has forced the insurance company to pay a total loss on a building that could easily have been repaired. This decision seems to contravene the decision of other courts which have generally held, in consonance with the old English rule, that a loss is only total in a case where a prudent man, if uninsured, would not rebuild. It would seem as if the insurance company might successfully bring a suit for partial relief against the city for adopting such an ordinance, particularly if the date of the policy chanced to antedate the time of the passing of the ordinance.

IF any one in this neighborhood stood in need of accurate information on matters of art he was likely to turn first for help to Sylvester R. Koehler, who, if he could not give, at once and off-hand, the desired information, was ready to spend time and trouble in helping the inquirer to run the desired fact to earth. His sudden death this week will deprive students and artists alike of a modest and willing coadjutor. Born at Leipsic in 1837, and reaching this country in 1849, he is but another of the foreign-born citizens who have done so much to advance the civilization of this country. For several years he has been the curator of prints in the Boston Museum of Fine-Arts and not only made the collections under his immediate charge of great value to the public by arranging special and timely exhibitions as occasion arose, but made himself one of the most valued members of the Museum's staff, and, as a consequence, he was often sent abroad on business connected with his own and other branches of the Museum. If he ever had cause to regret one thing more than another in his career it was probably the untimely demise of the *American Art Review*, twenty years ago, the most thorough and satisfactory art journal that has ever been published in this country. Unfortunately, it was in advance of its time, as there was not then a *clientèle* in this country large enough to support it, while as for foreign support, the mere idea that Americans were trying to publish such a journal was enough to excite jeers and laughter, a condition of things not likely to attract subscriptions. Besides being a frequent contributor to magazines and newspapers, Mr. Koehler translated several books on art and edited others, besides writing several original treatises on etching.

THERE are so many amateurs of art always ready to express a gratuitous opinion on matters of art, men who, somehow or other, manage to get a hearing and often succeed in expressing an opinion that one is glad to listen to or read, that the professional art critic must find his calling anything but a gainful one. But if a man can earn a living by the exercise of his critical powers and the use of his acquired information, we can conceive of no calling which should yield a more elevated or purer enjoyment. To the mere sen-

suous enjoyment of paintings, sculpture and *objets de vertu* is added the intellectual effort to discriminate between the good and the bad, to detect and reject the spurious, to know *au fond* the styles, the schools, the individual characteristics and the histories, not only of the several artists, but the connected histories of each of their several works through all the decades and centuries of their existence. There are, we fancy, few men so endowed by nature, so trained by study, so favored by opportunity, who can properly be called professional art critics, and the accidental death of John R. Randolph this week in New York, at the age of forty-two, reduces the number. His entire business career of twenty-four years was, we believe, passed in the employ of the American Art Association, and during this period he was the negotiating agent in the purchase and transfer of millions of dollars' worth of paintings. Amongst other private collections in this country which were practically created by Mr. Randolph's discriminating judgment is that of the late Collis P. Huntington, concerning the great worth and high standard of which the daily papers and art journals have recently said so much, and to him constantly resorted other millionaires when the temptation came to add to the contents of their private galleries. It is even said that one of them sought to secure the critic's services for his exclusive benefit and, besides offering a generous salary, also intimated his willingness to present him with a furnished house in his own neighborhood; but something in the idea seems to have offended Mr. Randolph's American sense of freedom and he declined the offer.

THERE is not much of similitude between the labors of a naval engineer and those of a gardener, yet the Scotch seem to have a national aptitude for the discharge of the duties of both these stations. The ship-owner who has a Scotchman for his chief-engineer is no more lucky than the man who has a Scotch gardener. The thought is suggested by the death, last week, of William Saunders, a native of St. Andrews, Scotland, and the son and grandson of gardeners. Although intended by his mother for the kirk and partly educated in the Divinity School of his native town, his inherited instincts were not to be warped from a love of the informal laws of Nature to a regard for the more rigid rules of Calvinism. After serving an apprenticeship at the Kew Gardens he came to this country, settling first at Germantown and later, moving on to Washington, where at the time of his death he was the oldest official in the Department of Agriculture, having been Superintendent of the Division of Experimental Gardens and Grounds, a branch organized by himself, ever since 1889. Indeed much of the very valuable work done by the Department was undertaken at his suggestion or in continuance of enquiries and experiments already begun by him. Not only the grounds about the Smithsonian and Agricultural Department buildings were under his direct charge and owe their many charms to him, but, as President of the city's Park Commission, he took the greatest interest in developing the parks of the city and gave particular attention to the treatment of the small squares and "circles" that form one of the distinguishing features of the city. In the private practice of his calling as landscape gardener he, earlier in life, laid out Fairmount Park, Philadelphia, and, later, Hunting Park and the private park of Johns Hopkins in Baltimore. Amongst other of his activities may be counted the organization of the great agricultural league the Patrons of Husbandry, better known as the Grangers.

THE list of departed architects who have had part in building, altering and reconstructing the Louvre and Tuileries is a long one, and to it must be added that of Henry Jean Baptiste Dubois, who died recently at the age of seventy-eight. A pupil of Vaudoyer and twice admitted *en loge*, although he never won the coveted prize, Dubois passed the early years of his life as inspector of works for the *Chemin de Fer du Nord*, although in 1851-2 he filled the same office during the building of the galleries on the river that connect the Louvre with the Tuileries. Later he was associated with Alfred Normand in building the Grand Hôtel du Louvre, and the Grand Hôtel near the Opéra, and later still he built twelve market-houses for the *Compagnie Générale des Marchés* in different parts of Paris. Besides these he designed and built a large number of private dwellings and apartment-houses, and in 1881 the *Société Centrale des Architectes Français* awarded him its grand silver medal for private architecture.

NOTES ON SOME EUROPEAN SYSTEMS OF FOREST ADMINISTRATION.¹—VI.

RECENT SWISS FOREST LEGISLATION.



Tomb of Feyer-Perrin, Cemetery of Montmartre, Paris, France. From *La Semaine des Constructeurs*.

HAVING thus outlined, though roughly, the gradual development, in the course of centuries, of forest preservation, and glanced at the several steps by which the Swiss system grew into its modern form, it may be worth while to examine in detail some points of comparatively recent legislation in that country which embody the most important results of experience and scientific investigation.

Cantonal Forest Schools.—With the object of abating certain abuses which were found to be working disastrous consequences, the Swiss Confederation, under the Federal law of 1876, assumed superior authority over the forest police in the higher moun-

tain forests, which were organized into a reservation called the Federal forest-zone.

The difficulty of securing the requisite number of capable men to guard these forests was foreseen, and provision was made in the law for establishing Cantonal forest-schools to be aided by State subsidies, which it was hoped would be able to turn out enough men trained in the principles of practical forestry to fill the places.

The subsidies are voted upon presentation of petition, accompanied by the necessary information, including a programme of the course proposed. The course prescribed covers, in all, not more than a year, in sessions of two months' duration. The instruction given is strictly practical, with only so much theoretical study as is necessary to fit the under-foresters to understand the aim of the various operations of the administration. It comprises: surveying of forest acreage, calculation of surfaces, standing timber, stone, etc.; estimating contents and value of single stems or of parcels of forest; levelling, forest road-building, protection of the forest against avalanche and landslide; the study of the tree-species, harmful growth, etc.; an elementary study of soils, and of climatology and meteorology; the culture and maintenance of forests; the utilization, policing and protection of the forests; and, finally, some book-keeping.

The scientific features of the course are carried only far enough to fit the pupil for an intelligent discharge of his duties as under-forester.

The number of pupils to be admitted to the Cantonal forest courses is limited to thirty, and the age of entrance fixed at eighteen. The qualifying entrance examination is based upon the standard of the best primary schools, and the candidate becomes eligible for appointment to duty only after passing a rigid final test. The Cantons appoint teachers for the forestry-schools, subject to approval of the Federal Council, which reserves the right to alter the course of studies.

Federal Subsidies.—The law of 1876 provided also for subsidies to aid the Cantons in the creation of new forests and in the reforestation of the protective forests (Art. 24). Requests for subsidies must be accompanied by reports and plans showing owners, locality, commune, area, character of work proposed, sort of culture and method of execution, and probable difficulties and natural risks to be encountered. Careful estimates of cost, per hectare and in total, of the work proposed and of probable incidental defensive works, must accompany the application.

Subsidies are payable on completion of the work, in accordance with approved plans, but in special cases involving large expenditures the accounts may be audited and instalments paid before completion of the whole.

The Federal Council refuses to consider any expenditure in excess of estimated cost, and authorizes payment of subsidies only upon the certificate of the Federal Forest Inspectorate to the conformity of

work with rendered bill of costs. Federal subsidies to the Cantons to aid in the correction, canalization, etc., of torrents were also contemplated by the law of 1876. Upon the receipt of Federal subsidy the Canton becomes responsible to the Confederation for the care and protection of the replanted forests and other works, and for subsequent necessary repairs and improvements to the same.

The cost of triangulation in the Federal forest-zone is borne by the Cantons until the results are verified by the Confederation,—at the latter's expense,—when a subsidy of 20 francs "the point" is paid to the Cantons for such work done as prescribed.

Neutral Forest-zone.—A treaty was ratified between France and Switzerland in 1882, creating a neutral zone of ten kilometres—six miles—in width on either side of the frontier, within whose limits certain products are exempt from the collection of duties of import, export, or circulation. These articles are: cereals, hay, straw, green fodder, forest products, wood, charcoal, potash, seeds, plants, and animals and implements used in cultivation within the zone on either side, all under control of the regulations against fraud established by either country. Products going from the one country to a flour-mill or saw-mill in the other are exempt. Hemp, flax, etc., are free. The highways on either side are open to this traffic.

Swiss owners in France, within the zone, and *vice versa*, are accorded rights of citizenship and police protection under the laws. Guards to forest properties within the zone are appointed according to the laws of the country within which such forests lie, and are subject to its regulations. Trespass in these forest properties is punishable as in other cases, the costs being assessed against the owners, who are also responsible for the pay of the guards. Fines are turned into the treasury of the country in which the offense is committed.

Guards in pursuit of trespassers are authorized to cross the frontier and to make arrests where they can. They are not, however, allowed to enter domiciles without the participation of some local functionary, which assistance is provided for in the treaty. The names of all frontier forest-guards are registered in either country. The treaty provides for necessary modification of the laws of either country in furtherance of its objects.

Eligibility of Upper-foresters.—In 1885, the Federal Council issued instructions determining the question of eligibility to the higher Cantonal forest offices in the Federal forest-zone under the law of 1876.

Candidates for the offices of inspector, district-forester, etc., are examined in theoretical and practical forestry, and in the scientific branches covered by the diploma of the Forestry School of the Federal Polytechnic at Zürich. The holder of this diploma is exempt from further test in theory. The practical examination includes: forest estimates, silviculture, realization of yield and practical administration. The candidate must have had at least one year's practical experience. The examinations are held by a special commission composed of the Federal Inspector of Forests, as Chairman, the President of the Federal Forestry School, and a third member, nominated in each case by the Federal Department of Commerce. Forest employés of some years' standing are excused from the practical examination.

Those holding certificates of fitness from higher schools of forestry, or who have done known scientific work in this province, or who have already filled positions of like requirements, are also exempt. The Commission is empowered to determine all these points before handing in the examination-papers to the examiners.

The oral examination is the same as that for the diploma of the Forestry School.

The written examination sets two problems, two hours being allowed for each.

A third question may be given calling for a treatment more in detail, and for this a day is allowed.

The examinations are continuous and under constant surveillance. Candidates are allowed to enter the examinations of pupils qualifying for the Forestry School diploma. Tabulated results of examinations are forwarded to the School Council, and thence to the Federal Department of Commerce and Agriculture. Candidates who fail to pass are allowed to re-enter after the lapse of one year.

Each candidate pays an examination tax of 50 francs, which is turned into the treasury of the Confederation, the latter paying all costs of examination. Thus, only a candidate holding the diploma of the Federal Forestry School, or one who has passed the special examination provided for, and who has at least one year's practical experience in the business of forestry, is admissible to examination.

Satisfying these initial requirements, he is further tested with problems such as:—

(a) Survey and plan of a parcel of forest, of at least 20 hectares, in the Federal forest-zone, or in the Basses-Alpes, in accordance with the instructions of 1882 as to the detailed survey of the forests.

(b) Elaboration in detail of the management of a forest of at least 80 hectares area, with plan of same.

An oral examination in all branches of silviculture follows. There is also an oral test of the candidate's knowledge of forest legislation, and of practical forest administration on the ground. Trials on the ground occupy one day. The examination on forest legislation and administration consumes two hours. Brevets of eligibility are issued in due course upon report of the examiners.

Central Experimental Station.—In 1885, the Federal Assembly of the Confederation voted the establishment of a central station

¹ Continued from No. 1285, page 45.

of experimental forestry, to be attached to the Forestry Section of the Federal Polytechnic School of Zürich. This station is designed to furnish, by means of experiment, research and scientific observation, a definite basis for forest economics in their broadest scope, and to further the solution of important questions of forest meteorology in the more restricted relation of the term to conditions of weather and climate.

The station is run by a Commission of from five to seven members, appointed by the Federal Council, of whom three are chosen from the roster of active Cantonal foresters. The President of the Federal School-board and the Chief Federal Forest Inspector are members *ex-officio*. The others are appointed for a term of three years, with a lapse of three years before reappointment. The President of the School-board is the presiding officer of the Commission. Two meetings are held in each year, current business being determined in the interval by the President on report of the Chief of Station.

The competence of the Commission covers:—

- (a) The adoption of annual working-plans.
- (b) Estimates for the ordinary annual budget and for the extraordinary budget for initial establishment of the station.
(The above two items referable to the Federal Council.)
- (c) Publication of results of investigation and observation.
- (d) Recommendation to Federal Council for nomination of the Director of Station and his two principal assistants.
- (e) Nomination of functionary in charge of forestry-garden and meteorological station.
(Other employés are appointed by the Director.)
- (f) Editing the necessary instructions for the work of the station, under approval of the Federal Council of Schools.

The Director of the Central Station is a professor of the School of Forestry, appointed by the Federal Council on nomination of the Commission. He has under his command an assistant who has taken the course of forestry, and a second assistant instructed in chemistry and physiology, also the officer in charge of the forestry-garden and meteorological station, and the other necessary employés. All professors of the Forestry School are required to give such assistance as may be rendered without interfering with their regular duties. The three establishments annexed to the Forestry School, namely, that of Experiments in Agricultural Chemistry, that of Seeds and Planting, and that of Experiments in Durability of Materials of Construction, are open to the Experimental Forestry Station within the limits of their rules, and are required to aid its work as their own duties may permit.

The functions of the Director are:—

- (a) General administration of the Station.
- (b) Elaboration of working-plans for the Commission and preparation of the annual report.
- (c) Financial affairs of the Station, preparation of budget for the Commission, and the strict limitation of expenditures to the amount of the appropriation.
- (d) Communication with collaborators, with proprietors of forests and with other experimental stations.
- (e) Superintendence of works, recapitulation of the results of investigations and observation, and recommendations to the Commission of results for publication.
- (f) Nominations of assistants and other employés.
- (g) Purchase and care of instruments, tools and collections.

The Act further provides that the Department of Commerce and Agriculture shall arrange with the Cantonal Governments, and through the latter with communes and corporations, for the cession of their forests for experimental works, and for their participation in the expense of such operations. The Department also sees to the regular transmission of reports from the forest *personnel* to the Experimental Station.

The approval of meteorological observations made by the Experimental Station and the recapitulation of the results furnished devolves upon the Central Swiss Meteorological Station, the original data being returned with statement of results deduced to the Director of the Central Experimental Forestry Station for his guidance.

Federal Control of Forest Police.—The present forest administration of Switzerland is based upon the Federal law of 1876, with amendments of 1880 and 1898.

The essential feature of this law is that which establishes the superior authority of the Confederation over the forest police in all protective forests, and in all State, communal and corporation forests whether protective or otherwise.

The law itself defines the term "protective" as covering all those forests which, because of their altitude and their situation upon abrupt slopes, summits, ridges, shoulders and spurs, near sources, in defiles, in ravines, along brooks and streams, or in thinly wooded regions, serve as protection against climatic influences, storm-winds, avalanches, falling rocks and ice, sinking and slipping of the land, scouring and inundation.

The Cantons determine, subject to approval of the Federal Council, the classification of their forests as protective or non-protective. The Cantonal ordinances for carrying out this law are enforced by the Federal Government through the medium of a Federal Forest In-

spector and his proper force, appointed by the State from foresters instructed in the Cantonal forest-schools. Certain dispositions to promote preservation of the forest and certain conditions imposed upon proprietors to the same end are noteworthy.

A maximum of five years is allowed for the delimitation of forests assigned to Federal control.

Only the outer boundaries of bodies of forest made up of several parcels of different ownership need be fixed; within the defined limits no reduction of the wooded area may occur without permission of the Cantonal authorities, and the principle is laid down that all authorized cuttings and clearings must be reforested, or an equal area elsewhere in the forest-limits planted. Clearing is practically prohibited in the protective forests, or where it may cause injury to them, and no exception to this rule is made without express authority of the Federal Council. Division or alienation of proprietary rights in State, communal or corporation forests is illegal without Cantonal authority. The rights of common, of tillage, or other servitudes attaching to the protective forests, may be extinguished, when advisable, by means of indemnification in money, or the equivalent in land allotted elsewhere by Cantonal legislation, and no new servitudes may attach to the protective forests. The management and utilization of the State, communal and corporation forests are regulated according to working-plans based upon their annual productive capacity; this annual yield may not be exceeded, or the excess due to exceptional circumstances must be compensated by a reduction of the subsequent usufruct. Where the information is not at hand for the projection of a working-plan, the best method for the utilization, regeneration and culture of a forest is determined by five years of experimental management.

The Cantons are empowered to extend these methods to private forests within the scope of the law, and to institute all necessary measures of police and administration to safeguard the protective forests and realize the ends for which they are established.

Certain customary rights to use of the forest for pasture, small cultures, etc., may be regulated, suspended, if deemed hurtful, or entirely suppressed.

The Government may demand the afforestation of certain lands likely to develop important protective forests, and both Canton and Confederation will contribute to the cost of planting and protecting the same, the law providing for the expropriation of such lands where they belong to private owners.

Besides granting subsidies to the Cantonal schools of forestry, the Confederation gives subsidies for the making of new forests, and for replanting protective forests which guard certain localities from elemental damage, or which are connected with "works of defence"; also in cases where re-planting involves unusual difficulties. These Federal subsidies amount to from 30 to 70 per cent of the total cost of creating a new forest, and from 20 to 50 per cent of re-planting. They are paid on certificate of the Federal Forest Inspector that the work has been properly done and the costs correctly charged. In receiving the subsidies the Cantons assume an obligation to guard and maintain the improved forests.

Fines for infringement of the several articles of this law are set at from 5 to 500 francs and are imposed by the Cantonal authorities.

The Cantons are required to provide against trespass and fires, to repair the ravages of storms, of insects, etc., and to decree penalties:

It is provided that where landed proprietors persistently refuse to carry out improvements ordered, the latter may be completed by the Canton at the proprietor's expense. The law finally provides for the execution of its provisions, and the protection and management of the forests within its scope, by the Federal Government until the Cantons were ready to assume their several parts, the expense of such administration to be afterward assessed against the Cantons, fixing for each Canton the term of this provisional arrangement, the Confederation retaining meanwhile the right to pass in approval all Cantonal laws relating to matters of the forest.

The operation of this law soon began to convince the people of the benefits to be derived from uniformity of system and centralization of power. There grew up throughout Switzerland an ever-spreading agitation for the extension of Federal authority over the forests beyond the limits of the so-called Federal-zone. Berne, Soleure and Bâle-Campagne memorialized in 1886 for subsidies in aid of sylviculture for regions lying wholly or in part without the Federal forest-zone. In 1890 "la Société suisse des forestiers" called upon the Government to study the question of extension.

In 1891 "la Société agricole de Courtelay" and "la Société jurassienne d'émulation," endorsed by the Communes of Bienne, Mâche, and Boujeau, asked the extension of Federal Forest administration to the Jura. A message of the Federal Council to the Federal Assembly in 1893 calls attention to the report of M. Frey, Inspector of Forests, upon conditions in the Bernese Franches-Montagnes and on the north slope of the Chasseral, where he discloses a decrease of wooded area in the previous decade and the relatively limited extent of forest in the Jura.

The report calls attention to the loss to agriculture from the drying-up of springs, and to the beneficent effects of a rich forest-covering in moderating temperature and regulating humidity, whereby the springs are fed, and water-power for the industries and other purposes secured in regularity. Wherefore the Inspector advocates the preservation of existing forest-masses even outside of the Federal-zone, the establishment of a wooded area carefully proportioned to the whole surface, especially in the upper basin of the water-courses,

the extinction of torrents, and, finally, better management. Numerous requests from regions outside the Federal Forest-zone for subsidies in aid of "works of defence" against the torrents and for correction and canalization of streams, are noted with the remark that, in most of these cases, the torrents have been caused by bad forestry about the sources.

Finally, the Inspector dwells upon the need of uniform forest-laws and a uniform system of forestry for all Switzerland, recapitulating the progress already effected toward this end, as follows: The establishment of a national school of sylviculture for the instruction of the higher forest officers; the establishment of the Central Experimental Forestry Station; the recognition by all the Cantons of the State diploma of eligibility to forest employment; Cantonal forest-laws which need but slight revision to bring them into harmony with a uniform system; State subsidies for instruction of under-foresters and pay of upper-foresters, for triangulation and plans, for reforestation and defensive operations.

A. B. BIBB.

LIMITATIONS OF THE RIGHT TO ANCIENT LIGHTS.



Doorway: Hotel de Luxembourg, Villeneuve-les-Avignon, France. From *La Construction Moderne*.

THE increasing degree to which light is cut off from existing buildings by the erection of higher and higher structures in their immediate neighborhood, and the frequency with which neighbors resort to the building of what are getting to be known as "spite fences" have forced the attention of property-owners and architects in this country to a closer consideration of the rights to light and air. As there seems a growing probability that our courts may presently be as much occupied in dealing with "light-and-air" cases as are the English courts, we believe it may be of practical use to print one of the latest English

decisions in an important case, and we think that if our readers will turn first to the closing paragraph they will be encouraged to turn back and read attentively the judge's opinion in full.

The judgment was given a few weeks since by Mr. Justice Wright in the important case *Warren and Others vs. Brown*, which was tried at the last Leicester assizes.

Plaintiffs were the owners of a factory at Leicester, and the defendant erected a factory on an adjoining site, which the plaintiffs alleged obstructed the light of their building. They submitted that where a person enjoyed ancient windows that the light such person was entitled to was not that light he had been accustomed to during a period of twenty years for any special business, but that which was necessary for the user of his premises in their then state, or for any purpose to which they were likely to be applied in the future. For the defendant it was argued that neither by the Prescription Act nor by the authorities was a person entitled to the whole volume of light that had come through his windows, but was limited to such an amount of light as was reasonably required for the comfortable enjoyment of life or ordinary business purposes.

Mr. Justice Wright said:—

"This case raises a question of general importance in relation to ancient lights, namely, whether the right which is acquired by statutory prescription is a right to the continuance of substantially the whole quantity of light which has come to the windows during the twenty years, or is ordinarily limited to a sufficient quantity of light for all ordinary purposes of inhabitancy or business. It seems strange that such a question should be still open for discussion, but there is a considerable body of authority in favor of either proposition.

"The facts are these: The plaintiffs, as the owners and the tenant of a building in the town of Leicester, claim damages and an injunction in respect of the obstruction of the access of light to windows more than twenty years old. At the trial the claim was limited to two rooms, one on the ground-floor and the other above the former, both facing to the south. For a length of about 17 feet in front of these rooms the defendant has raised his own building from a height of about 20½ feet to about 26 feet, but has set it back about 2 feet or 3 feet, so that the width of the street between the two buildings,

which was about 17 feet, is now about 19 feet. Four out of five windows in each of the two rooms are opposite to that part of the defendant's building which I have mentioned. These windows are large and high. Those of them which are on the ground-floor are, and for years have been, glazed with fluted glass for about half their height from the bottom. In addition to the front light both rooms receive much side light, especially from the east and east-south-east, from a wide street running north and south at a distance of about 50 feet to 70 feet. Light is not in any direction cut off by very high buildings. To the southeast the defendant has taken down a high chimney-stack, which to some extent used to intercept the light from that quarter. I find that the defendant has not obstructed or diminished to any material extent, if at all, the light coming to the upper of the two rooms in question. As regards the four windows on the ground-floor, I find that the defendant has materially diminished the light which the plaintiffs enjoyed for those windows for twenty years past, but that abundant light remains for all ordinary purposes of inhabitancy or business. The room in its present state is better lighted than the ground-floor rooms in many of the principal streets. The plaintiff Baum (the lessee of the premises) has during some years, but much less than twenty years, carried on in the premises, and particularly in the ground-floor in question, a manufacture of hosiery by means of machinery which requires a very exceptional quantity and quality of light for the continued and accurate adjustment of filaments to fine needles moving at speed in bundles of some hundreds. Before this manufacture was established at these premises a different industry (manufacture of boots and shoes) requiring good, but not special or extraordinary, light was carried on there. I find that the defendant has by the acts complained of diminished the light so that it is now materially insufficient during some part of the day for the special requirements of the plaintiff Baum's industry. I find that the plaintiffs' premises have throughout the twenty years before action been suitable for such a manufacture as that now carried on by Baum and that the kind of manufacture is and has long been common in the district, and has for twenty years past required more light than most other industries, but not until the last few years in so high a degree as at present, the older machines having been less delicate and complicated. I think that the light as it now exists would have been sufficient for any but the most recent kinds of machines. In my judgment no sufficient case for a mandatory injunction is made out in any view of the plaintiffs' rights. The inconvenience to which Baum was subjected can be, and to a great extent it has been, obviated by the removal of machines to the upper room, and in any case it can be remedied by some increased expenditure for gas. The question is whether the plaintiffs are entitled to damages. If they are, I assess the amount at £100 for the tenant and £200 for the reversioners.

"There are scarcely any authorities bearing on the question until 1865. It appears from Aldred's case that the nature of the cause of action in the case for infringement of rights to light was not clearly settled. It is classed with actions for nuisance, and the pleading closes with '*quod messagium horrida tenebrarum obscuratum fuit*'; but a prescription is alleged. In Luttrell's case it is laid down that (as was afterwards established by *Yates vs. Jack* and other cases), 'if a man has an old window to his hall and afterwards he converts the hall into a parlor or any other use, yet it is not lawful for his neighbor to stop it, for he shall prescribe to have the light in such part of his house.' In 1752, in *Fishmongers' Company vs. East India Company*, Lord Hardwicke said: 'It is not sufficient to say it will alter the plaintiff's lights, for then no vacant piece of ground could be built on in the city; and here will be 17 feet distance, and the law says it must be so near as to be a nuisance. It is true the value of the plaintiff's house may be reduced by rendering the prospect less pleasant, but that is no reason to hinder a man from building on his own ground.' In *Martin vs. Goble* a malt-house with ancient windows was occupied for seven years as a poorhouse. McDonald, C. B., directed the jury that 'the house was entitled to the degree of light necessary for a malt-house, not for a dwelling-house. The converting it from one into the other could not affect the rights of the owners of the adjoining ground. No man could by any acts of his suddenly impose a new restriction upon his neighbors.' In *Attorney-General vs. Nichol*, Lord Chancellor Eldon says: 'There are many obvious cases of new buildings darkening those opposite to them, but not in such a degree that an injunction could be maintained or an action upon the case, which, however, might be maintained in many cases which would not support an injunction.' In *Back vs. Stacey*, Chief Justice Best directed the jury that in order to ground an action there must be a substantial privation of light sufficient to render the occupation of the house uncomfortable and to prevent the plaintiff from carrying on his accustomed business (that of a grocer) as beneficially as he had formerly done. In the forty years after *Back vs. Stacey* there seem to have been few or no decisions bearing on the question, but in 1865 in *Clarke vs. Clark* the question was distinctly raised for the first time. Then Lord Cranworth refused an injunction in a case in which exceptionally good light had been materially diminished, saying that the plaintiff must show such an obstruction 'as to interfere with the ordinary occupations of life.' He proceeded to draw a distinction between town and country, which has not been fully adopted in later cases. In *Durell vs. Pritchard*, and *Robson vs. Whittingham*, Lords Justices Knight, Bruce and Turner adopted the language of Lord Cranworth. In *Yates vs. Jack*, Lord Cranworth established the rule which has ever since that case

been recognized as settled, so far, at any rate, as ordinary purposes of inhabitancy or business are concerned, that the owner of ancient lights is entitled to have them protected without reference to the particular purpose for which they were enjoyed during the twenty years; and he does not apparently draw any distinction between ordinary and extraordinary purposes. In *Dent vs. Auction Mart Company*, Vice-Chancellor Wood established another rule that an injunction would not be granted in equity, unless the case is a proper one for substantial damages at law. In *Lanfranchi vs. Mackenzie*, it was held by Vice-Chancellor Malins that where ancient windows had received an extraordinary amount of light during the twenty years, and the plaintiff had used it for a purpose requiring extraordinary light (examination of silks) for only a portion of that period, he had no right to an injunction on the ground of an obstruction which left him enough light for all ordinary purposes, though not enough for extraordinary purposes. He thought, however, that if the plaintiff had been 'in the enjoyment of an extraordinary user for twenty years, that would establish the right against all persons who had reasonable knowledge of it.' In *Kelk vs. Pearson*, Lord Justice James said: 'On the part of the plaintiff it was argued before us that this was an absolute right, that now, under the statute 2 & 3 William IV., c. 71, he had an absolute and indefeasible right by way of property to the whole amount of light and air which came through the windows into his house; and that he could maintain an action at law or a suit in equity upon that absolute legal right; and the only question as to the effect or extent of his right would be with regard to the discretion of this Court in considering whether it was a case for damages, or to be interfered with by way of injunction. Now, I am of opinion that the statute has in no degree whatever altered the pre-existing law as to the nature and extent of this right. The nature and extent of the right before that statute was to have that amount of light through the windows of the house which was sufficient, according to the ordinary notions of mankind, for the comfortable use and enjoyment of that house as a dwelling-house, if it were a dwelling-house, or for the beneficial use and occupation of the house, if it were a warehouse, a shop, or other place of business. That was the extent of the easement—a right to prevent your neighbor from building upon his land so as to obstruct the access of sufficient light and air to such an extent as to render the house substantially less comfortable and enjoyable.' Lord Justice Mellish concurred, but dissented from that part of Lord Cranworth's judgment in *Clarke vs. Clark* which suggested a possible difference between town and country. In *Dickinson vs. Harbottle*, Vice-Chancellor Malins followed his own decision in *Lanfranchi vs. Mackenzie*. The question was again raised in the Court of Appeal in *City of London Brewery Company vs. Tennant*, before Lord Selborne (Lord Chancellor) and Lords Justices James and Mellish. Lord Justice James said: 'In the case of *Kelk vs. Pearson*, the Lord Justice and myself endeavored to express what we thought to be the rule applicable to these cases, and I believe the Lord Chancellor entirely agrees with the mode in which it is there expressed. We only repeated in different words what is to be found in many previous cases—that the extent of the right of an owner of ancient lights is to prevent his neighbor from building so as to obstruct the access of sufficient light and to such an extent as to render the house substantially less comfortable and enjoyable.' Lord Chancellor Selborne said, 'I agree with the judgment which Lord Justice James has delivered,' expressly adhering to the language in *Kelk vs. Pearson*, and adding that the supposed rule as to 45 degrees is no rule of law, but that if 45 degrees of light is left that is some *prima-facie* evidence of the light not being obstructed to such an extent as to call for the interference of the Court. In *Leech vs. Schweder*, Lords Justices James and Mellish held that there was no difference in extent and nature between the right acquired under the statute and a right acquired by 'the disposition of the owner of two tenements,' and that 'practically there is no difference with respect to light in the amount of damage which would entitle a person to maintain an action at law and that which would entitle him to file a bill in equity.' In *Aynsley vs. Glover* it was finally settled that the right to light for a room is not limited by the fact that before the obstruction the room was used for purposes requiring little of the light which came to it, and *Back vs. Stacey*, as amended by Vice-Chancellor Wood, is approved; but the case does not seem to contain anything affecting the present question; nor are there any criticisms on *Kelk vs. Pearson* or *City of London Brewery Company vs. Tennant*. There are no subsequent reported decisions of the Court of Appeal which are in point, and the last-mentioned decision of that Court would, as I understand it, be decisive of the matter, subject only to review in the Court of Final Appeal. This view, however, seems not to have been universally adopted, a different view having been apparently taken by the Court of Appeal in Ireland, by the whole or a majority of a Divisional Court in England, and in two or three cases by my brother Kekewich."

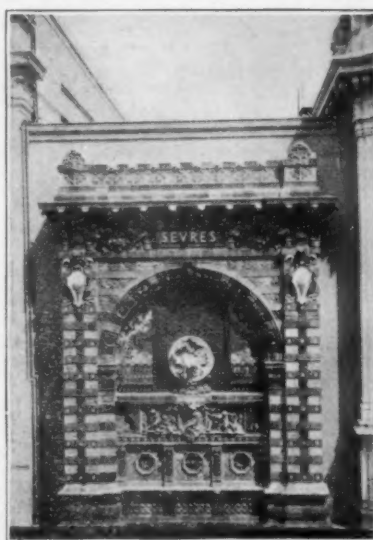
His lordship referred to *Moore vs. Hall*, in which Mr. Justice Mellor and Mr. Justice Manisty appear to have held that the plaintiff's right is to have the light flow in the same quantity as through the period of prescription; to *Mackay vs. Scottish Widows' Society*, in which Lord Justice Christian laid it down that "the right is to an average maximum of the light which nature has been shedding on the window for twenty years before the defendant interrupted it"; and to *Lazarus vs. Artistic Photographic Company*, in which Mr. Justice Kekewich held that the plaintiff was entitled to be protected

in the enjoyment of extraordinary light for photographic purposes, although he had not been using it for those or other purposes requiring extraordinary light for the full period of twenty years.

His lordship proceeded: "In this state of the authorities I think I must take it that the law is laid down in *City of London Brewery Company vs. Tennant*, agreeing, as that case does, with the criterion expressed by Lord Cranworth in *Clarke vs. Clark*, and that the plaintiffs, having an abundance of light left for all ordinary purposes of inhabitancy or business, are not entitled to relief on the ground that their extraordinary use has been interfered with. Unless, indeed, there is some such limitation of the right to light for ancient windows it is difficult, as Lord Hardwicke observed, in effect, in *Fishmongers' Company vs. East India Company*, to see how the ordinary extensions and improvements of towns could be carried on. If every house which has existed for twenty years is entitled to have all, or substantially all, the same light come to its windows as during the twenty years, no new houses could be built opposite to old ones unless at a distance which would impose on servient tenements an unreasonable burden, and might involve grave public inconveniences. Nor, if that were law, could there well be any presumption that so long as 45 degrees of light, or some approximate angle, is left there is no actionable wrong. It is not necessary in the present case to consider the question raised in *Lanfranchi vs. Mackenzie*, whether a right to an extraordinary quantity of light for extraordinary purposes can be acquired by prescription."

Judgment was therefore entered for the defendant with costs.

THE EXCAVATION OF PREHISTORIC CNOSSOS.



Detail from Projected Sevres Building: Paris Exposition. M. Risler, Architect.

AMONG the prehistoric cities of Crete Cnossos, the capital of Minos, is indicated by legend as holding the foremost place. Here the great lawgiver promulgated his famous institutions, which, like those of Moses and Numa Pompilius, were derived from a divine source; here he established a *θαλασσοκρατία*, or maritime empire, suppressing piracy, conquering the islands of the Archipelago, and imposing a tribute on subjected Athens. Here Dædalus constructed the Labyrinth, the den of the Minotaur, and fashioned the wings—perhaps the sails—with which he and Icarus took flight over the Ægean. In historic times the city waged a

protracted struggle with its neighbor, Gortyna, for the hegemony of the island. The attention of archaeologists has long been directed to Cnossos; the late Dr. Schliemann was anxious to excavate the site, which was partially investigated by Mr. W. J. Stillman. The difficulties attending the prosecution of research in Crete under Turkish rule have now been removed, and it has been reserved for Mr. Arthur Evans to make a systematic exploration of the ancient stronghold, with results which equal, if they do not surpass, in importance the discoveries of Schliemann at Tiryns and Mycenæ.

Like Athens, Megara, Corinth, and other towns which played a part in Greek maritime history, Cnossos was situated at some little distance from the sea. The Akropolis, or fortified place, now excavated, lies about four miles southeast of Candia, which, under the name Heraklion, was the seaport of the town in Classical times. The palace stands on a slight eminence, overlooking a brook and surrounded by an amphitheatre of hills, over which the ancient city apparently extended. Its site was marked by a wall of Cyclopean masonry, the only vestige of the structure remaining above the surface. A considerable portion of the building has now been brought to light. The entrance, which is approached from a paved court on the eastern side, is flanked by two columns, and leads into a large ante-chamber furnished with stone benches. Hence we pass into a singularly interesting apartment, which, adopting the system of nomenclature initiated by Dr. Schliemann, we may designate the "council-chamber of Minos." Against the wall on the right stands a throne of gypsum—the oldest throne in Europe by about 2,000 years—with a low seat and a tall, curiously carved back, which still shows traces of painting. Along the walls on either side are continuous stone benches like the seats in an old-fashioned family pew; on the opposite side, protected by a high parapet to which seats are also attached, is an oblong rectangular depression, constructed with finely compacted slabs and evidently intended to contain water. This was probably a kind of ornamental *impluvium*, open to the sky;

it is approached by gradually descending steps, but no outlet for the water is visible. The walls of the council-chamber are ornamented with frescos, still sufficiently preserved to enable us to distinguish landscapes, flowing water, and flowering plants; on either side of a door leading into a smaller apartment are two griffins seated on baskets and apparently engaged in hatching.

On the southwest side of the palace we find another and larger paved area leading to what appears to have been the principal portal of the structure, as distinguished from the royal entrance on the eastern front. We enter a long corridor, on each side of which are a series of frescos representing male and female figures arrayed in rich costumes. Unfortunately in many cases only the lower parts of the bodies have been preserved, but a large fallen piece shows the figures of two men to above the waist, draped in long, flowing mantles. On the left side, the central figure is a lady, distinguished from the rest by her wide flounces, and evidently a queen. In a room near the northeast corner were found parts of a fresco in an entirely new miniature style, showing groups of elaborately dressed young women, seated in what seems to have been the *haremluk* of the palace and engaged in animated conversation. Most interesting of all is the well-preserved form of a graceful youth or maiden—it is not easy to determine the sex—holding aloft a tall, slender vase, and apparently walking in a sacrificial procession. The color is still wonderfully fresh, and the outlines are clear and well drawn. A strange fascination is attached to this beautiful life-like figure, this visitant from a long-forgotten world, recalled to the light of day and the gaze of mankind from a night of three thousand years.

On the same side of the palace are also the royal magazines or store-rooms, approached by a long corridor which leads to a succession of twelve apartments. In many of these stand rows of enormous oil vases five feet in height, some highly ornate and furnished with numerous small handles through which ropes or bands were possibly drawn; one has a pair of handles on the inside, perhaps intended for the insertion of a strap to counteract the pressure when the vessel was full. Beneath the floors of some of the chambers and passages are curious receptacles of closely fitted stonework, one above the other, apparently designed for the concealment of treasures or the storage of supplies in case of a siege.

But of all the discoveries hitherto made in the course of the excavations the most important is that of the prehistoric Cretan script, by which the long-debated question of the existence of writing in the Mycenaean age has been definitely solved. A series of signs, both of the linear and of the pictographic class, had already been observed on early Cretan seal-stones and other objects which suggested the conclusion that a regular system of writing was in use among the prehistoric Cretans. A number of clay tablets have now been brought to light bearing inscriptions in the indigenous linear character, and upwards of a thousand examples have been secured. These tablets, which were found at various times during the excavations, are in all probability palace archives or lists of stores and munitions of war in the royal arsenal; some of them are illustrated with representations of chariots and horses' heads. Within the last few days of the operations a new discovery of extraordinary interest was made. A deposit of clay bars and perforated tablets was unearthed inscribed with pictographic characters resembling the Egyptian hieroglyphics and corresponding with those already found on the early Cretan seals. Thus we obtain conclusive evidence that two distinct systems of writing—the linear and the pictographic—were employed in the island during the Homeric age.

It is impossible to describe at present more than a few of the other interesting objects found in the course of the excavations. Numerous remnants of the "Stone Age," obsidian tools, and specimens of early rude pottery have been discovered, some at the lowest levels, others in the immediate vicinity of the walls, having apparently been dug up when the foundations of the Mycenaean buildings were being laid. These indicate the existence of a still earlier city on the same site. A vast amount of pottery of the Mycenaean and geometric types has been obtained, together with specimens of the peculiar Cretan ware of which the cave at Kamáres has hitherto supplied the best examples. Among the numerous handsome stone vases are several of the graceful tapering form depicted in the fresco already described. A remarkably life-like head of a Molossian hound, executed in the finest white marble, some floriated mouldings, very delicately carved, and a beautiful clay ewer with spiral ornamentation may also be specially noticed. The crowning discovery, however, was made in the last few days of the excavations, when the remains of a painted stucco bull, a marvellously realistic work, were brought to light in the northeast propylea. The head, which is fortunately in perfect preservation, is unquestionably the most remarkable specimen of Mycenaean plastic art as yet discovered. Here we have, perhaps, the effigy of the beautiful animal which won the heart of Pasiphaë, or of the equally famous quadruped that transported Europa to Crète.

The excavations, in which Mr. D. G. Hogarth and Mr. Mackenzie, of the British School at Athens, have been associated with Mr. Evans, have been brought to a close for the present season, but will be resumed next year, when it is hoped that sufficient funds will be forthcoming for their successful prosecution.—*Athens Correspondence London Times.*

ILLUSTRATIONS

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

HOUSE OF CHARLES H. COSTER, ESQ., TUXEDO PARK, N. Y. MR. W. A. BATES, ARCHITECT, NEW YORK, N. Y.

THE ARCHITECTURAL BUILDING: HARVARD UNIVERSITY, CAMBRIDGE, MASS. MESSRS. MCKIM, MEAD & WHITE, ARCHITECTS, NEW YORK, N. Y.

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SQUARE TOWER WINDOWS IN EAST ANGLIA.

This plate is copied from *The Builder*.

[Additional Illustrations in the International Edition.]

ENTRANCE-FRONT: HOUSE OF C. H. COSTER, ESQ., TUXEDO PARK, N. Y. MR. W. A. BATES, ARCHITECT, NEW YORK, N. Y.

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NOTES AND CLIPPINGS

NOLLEKENS IN WESTMINSTER ABBEY.—While Nollekens was examining in Westminster Abbey the site for the sumptuous monument of the three commanders who fell in Rodney's battle, Smith accompanied him. The sculptor was fortunate in a pupil who modelled and stood for models of gods as well as men, ran errands, soothed difficult customers, made ribbon garlands for the neck of his mistress's dog, attended his master on all excursions of pleasure or of art, and, finally, when the grave had closed over him and his will was read, lifted the pen and filled more than a volume with anecdotes of him and his wife, his boy Tom, his maid Bronze, and his dogs Favorite and Daphne. With this pupil by his side, and his thoughts on the future monument, the sculptor addressed himself to all who approached him. Catling, a verger, came, and the following curious conversation ensued: "Nollekens: Why, Catling, you seem to be as fond of the Abbey as I am of my models by Michel Angelo. Pray why do you suffer the schoolboys to chalk the stones so? I have been spelling pudding, grease, lard, butter, kitchen-stuff, and I don't know what else. Catling: Why, thereby hangs a tale. You must know that the Dean married a woman—here one of the clergymen appeared, and the conversation took a different turn. Nollekens: My wife bid me ask you where the Cottonian Manuscripts are kept. Catling: In Ashburnham House, Little Dean's Yard; it has a stone entrance, designed by Inigo Jones, and Dr. Bell lives there, who was chaplain to the Princess Amelia. Nollekens: Ah! I know; he was robbed by Sixteen String Jack in Gunnersbury Lane. Well, my wife wants also to know what you have done with the wooden figures in wax masks, all in tattered silk, which the Westminster boys called the ragged regiment—she says they were borne before the corpse formerly. Catling: They are put up in those very narrow closets, between our wax figures of Queen Elizabeth and Lord Chatham, in Islip's Chapel, where you have seen the stained-glass of a boy slipping down a tree and the eye slipping out of its socket. Nollekens: What, where the poll-parrot is? I wonder you keep such stuff. I don't mind going to Mrs. Salmon's waxwork, where

Mother Shipton kicks you as you go out. You should not have such rubbish in the Abbey — and then to take money for this foolish thing and the other foolish thing, so that no one can look at the works of art without being bothered about Queen Catherine's bones, the Spanish ambassador's coffin, the lady who died by pricking her finger, and then the begging-cap called General Monk's, that people must put money into. You had better bid the Dean see that his monuments don't want dusting — and look after the Westminster boys and not let them break the ornaments off to play at scone within the cloisters. Now, at Rome and all other churches abroad an artist may go in and draw, but here he must apply and wait, and then be brought up like a criminal before the Dean. Stothard, the Academician, had much trouble with the man, and was talked to about the proper fees. Bless my heart, it is all very bad." During this conversation Gayfere, the Abbey mason, a worthy and clever man, came up and said, "Ah! Mr. Nollekens, and you are here? Nollekens: Here, yes. Why do you suffer that Queen Anne's altar to remain here in a Gothic building? Send it back to Whitehall, whence it came. And why don't you hinder the Westminster boys from breaking off noses and fingers from the statues? Gayfere: What an ungrateful little man you are — don't it give you a job now and then? Did not Mr. Dolben have a new nose put upon Camden's face the other day at his own expense? Nollekens: What have you done with the old Gothic pulpit? Catling: It has been conveyed to our vestry, the chapel of Saint Blaize, a curious part of the Abbey, and very dark. There is an ancient picture on the east wall of a figure which can be made tolerably out. Did you ever notice the remaining colors of the curious little figure painted on the tomb of Chaucer? Nollekens: No, that's not at all in my way." Here a Mr. Champneys joined them, and said, "Mr. Nollekens, can you tell me the name of the sculptor who executed the bas-relief of Townshend's monument? The composition and style of carving are admirable, but I am sorry to see that some base person has stolen one of the heads. Nollekens: That's what I was talking about; Dean Horsley should look after the monuments himself — hang his waxworks. Yes, I can tell you who did it — Tom Carter had the job, and one Eckstiene modelled the tablet part — it is very clever. I don't know what else he has done besides. Bartholomew Cheney modelled and carved the figures of Fame and Britannia for Captain Cornwall's monument. Sir Robert Taylor paid him four pounds fifteen shillings a week." — *The Architect*.

NATURAL COKE-OVENS. — Both in America and Europe numerous deposits of coke, made in Nature's furnace and of better quality than the artificial, have been discovered. Such have been formed by molten lava bursting through coal-beds. The process of conversion into coke under such circumstances is called by scientists "contact metamorphosis." One of the best-known deposits of this nature is that at Fünfkirchen, in Hungary, where the coal-bed was not only penetrated, but also largely flooded over by the lava, which actually also insinuated itself into the coal-strata. In some places pieces of coal are found intact, imbedded in the lava. Similarly, fragments of lava are met with imbedded in the coal. As a rule, however, wherever the lava had come in contact with the coal the latter was changed into coke. Recently in Mexico large coke-deposits have been discovered which bear a striking resemblance to that described. The coal-fields of Santa Clara have suffered extensively from the breaking through of lava. In the clefts are sand and stone imbedded. The volcanic stone forms a thin covering over the coke. Here, too, pieces of lava are sometimes found in the centre of a coal-mass and *vice versa*. The first discovery was of a comparatively useless layer of mixed coke and lava, but later a good coke-bed of from 7 to 10 feet thick was found, safely packed in beneath a thin covering of lava, but not mixed therewith. It is usually soft coal which has thus been turned to coke, but occasionally a bed of anthracite coke of about 3 feet thick is met with. Such a deposit is generally betrayed by a glassy lava covering. Occasionally in the same bed there are alternate pockets of coal and coke, separated only by a clay layer of a few inches thick. Natural coke is of a dark gray color, of fine composition — much closer than oven coke. It is no more difficult to light than is anthracite coal, and therefore furnishes an excellent fuel, which when burned up leaves only a very small amount of white ashes. — *Boston Transcript*.

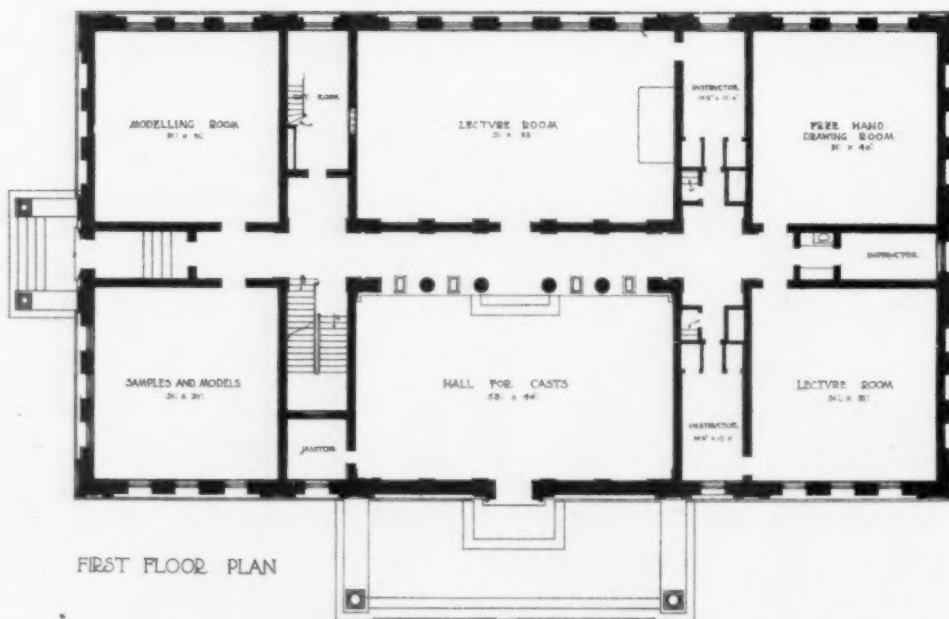
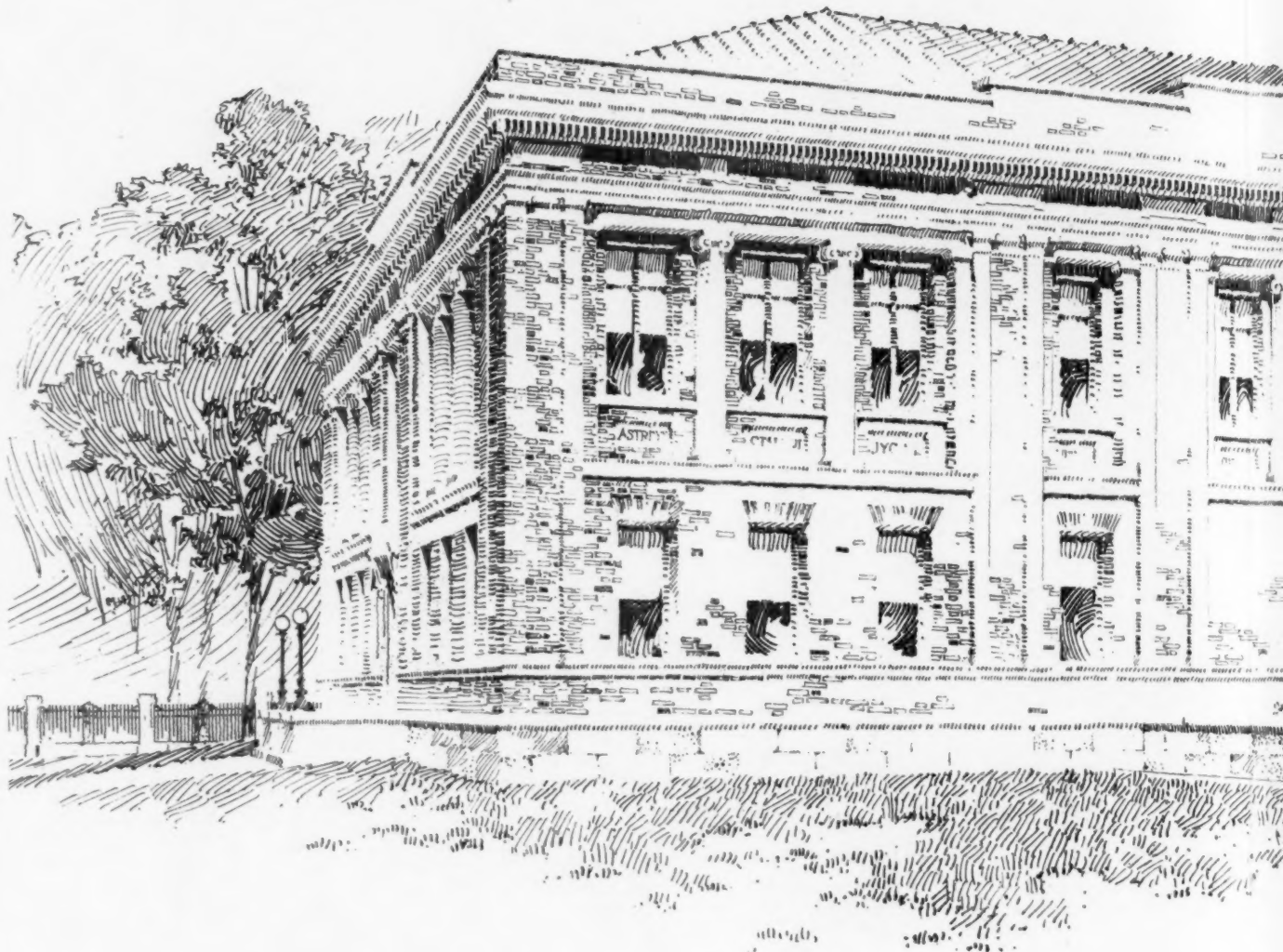
CARNOT'S FATEFUL STATUETTE. — A highly curious anecdote has just been made public relating to a mysterious and maleficent statuette which would seem to have exercised a strange and baneful influence on the destiny of the late President Carnot. At the time when M. Sadi Carnot was Minister of Finance, and before there was any question of his election to the Presidency, his intimate friend, Dr. Gustave Le Bon, the well-known sociologist and traveller, offered to make him a present of a statuette he had brought back from one of his many journeys to India. When making the offer, Dr. Le Bon was careful to acquaint M. Carnot with the circumstances in which the statuette had come into his possession, and with the legend which attached to it. It had been given him by a rajah, who was most thankful to get rid of it for good and all by presenting it to a foreigner about to leave the country. The rajah explained that, according to a legend in which he firmly believed, the owner of the statuette, however humble his origin, was certain to become the principal personage in his country, but was equally certain to die a violent death. M. Carnot made light of this typically Eastern story, and had no hesitation in accepting the present. When most unexpectedly he was elected President, Dr. Le Bon received a brief and playful note from Mme. Carnot, saying that it was the statuette that had worked a miracle. Seven years later President Carnot was struck down by Caserio, and the mysterious and terrible legend had thus come true in every particular. Mme. Carnot was so impressed by these inexplicable coincidences that in her will she solemnly adjured her family to rid themselves of the fateful statuette. The truth of this anecdote is vouched for in every particular by unimpeachable witnesses, and it is certainly as strange a story of the uncanny as it is easy to recall. — *Paris Correspondence Pall Mall Gazette*.

RUSKIN AND POETS' CORNER. — The protest of certain friends of Ruskin against the erection of a memorial to him in the Poets' Corner appears ill-advised. They assume that Ruskin, having remarked "the incoherent fillings of the aisles at Westminster" and "costly obelisks and sculptures of sorrow, which spoil half of our most beautiful cathedrals," is himself on record against a memorial in the Abbey. It appears that they have been more nice in the matter than Ruskin was himself, for a member of the Committee quotes from Ruskin's "Oxford Museum": "There is no man of worth or heart (he writes in 1859, when suggesting decoration for the Oxford Museum) who would not feel it a high and priceless reward that his statue should be placed where it might remind the youth of England of what had been exemplary in his life or useful in his labors, and might be regarded with no empty reverence, no fruitless pensiveness, but with the emulative, eager, unstinted passionateness of honor which youth pays to the dead leaders of the cause it loves, or discoverers of the light by which it lives. To be buried under weight of marble, or with splendor of ceremonial, is still no more than burial; but to be remembered daily with profitable tenderness by the activist intelligences of the nation we have served, and to have power granted even to the shadows of the poor features, sunk into dust, still to warn, to animate, to command, as the father's brow rules and exalts the toil of his children — this is not burial, but immortality. The family respected Ruskin's wishes in refusing burial in the Abbey; his friends and the public have his own warrant for commemorating him in the British Walhalla." — *Exchange*.

WESTMINSTER ABBEY AS A BURIAL-PLACE FOR MODERNS. — The discussion excited by the opposition of a few of the personal friends of the late John Ruskin to the erection of a suitable memorial to the great critic in Westminster Abbey, on the ground that he himself would have objected to it, as a profanation of the venerable national shrine, has been conducted and maintained with considerable vigor and some asperity, in the London press. It is not probable, however, that any attention will be paid to the protest. Mr. Frederic Harrison, in a public letter, points out that a committee which includes the President of the Royal Academy, members of Mr. Ruskin's own family, and the supervising architect of the Abbey is not likely to consent to any design which would deface the famous church, even if the selected sculptor, Mr. Onslow Ford, were capable of suggesting it. He then goes on to say that inasmuch as the wish of Mr. Ruskin to be buried at Coniston has been fulfilled, there can be no harm in following historical precedent, and paying him the tribute of honor conferred upon other great men even at the cost of disregarding one of his prejudices. Mr. Harrison concludes as follows: "This discussion will be useful if it again reminds the nation that its sacred burial-place is now absolutely full. Not a foot of ground remains for burial, not a square yard of space for a memorial, such as the nation would desire to have in the future. Unless our breed of great men is exhausted (and I for one do not deny this), or unless the nation has ceased to honor any great men it may have, some expansion or annex to the Abbey is a necessity of our age. Our committee, with the architect, searched every available corner and barely found a free square yard." — *N. Y. Evening Post*.

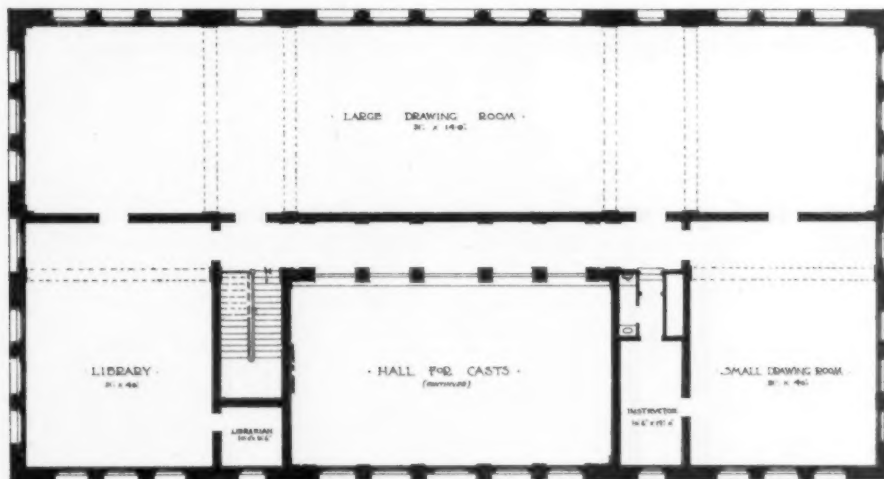
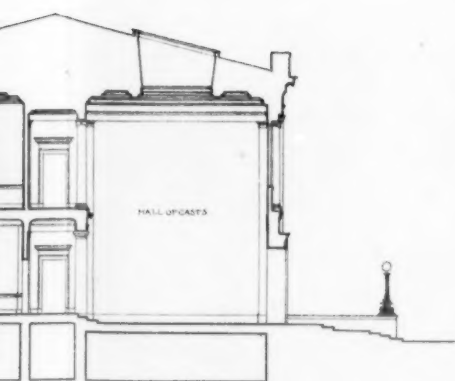
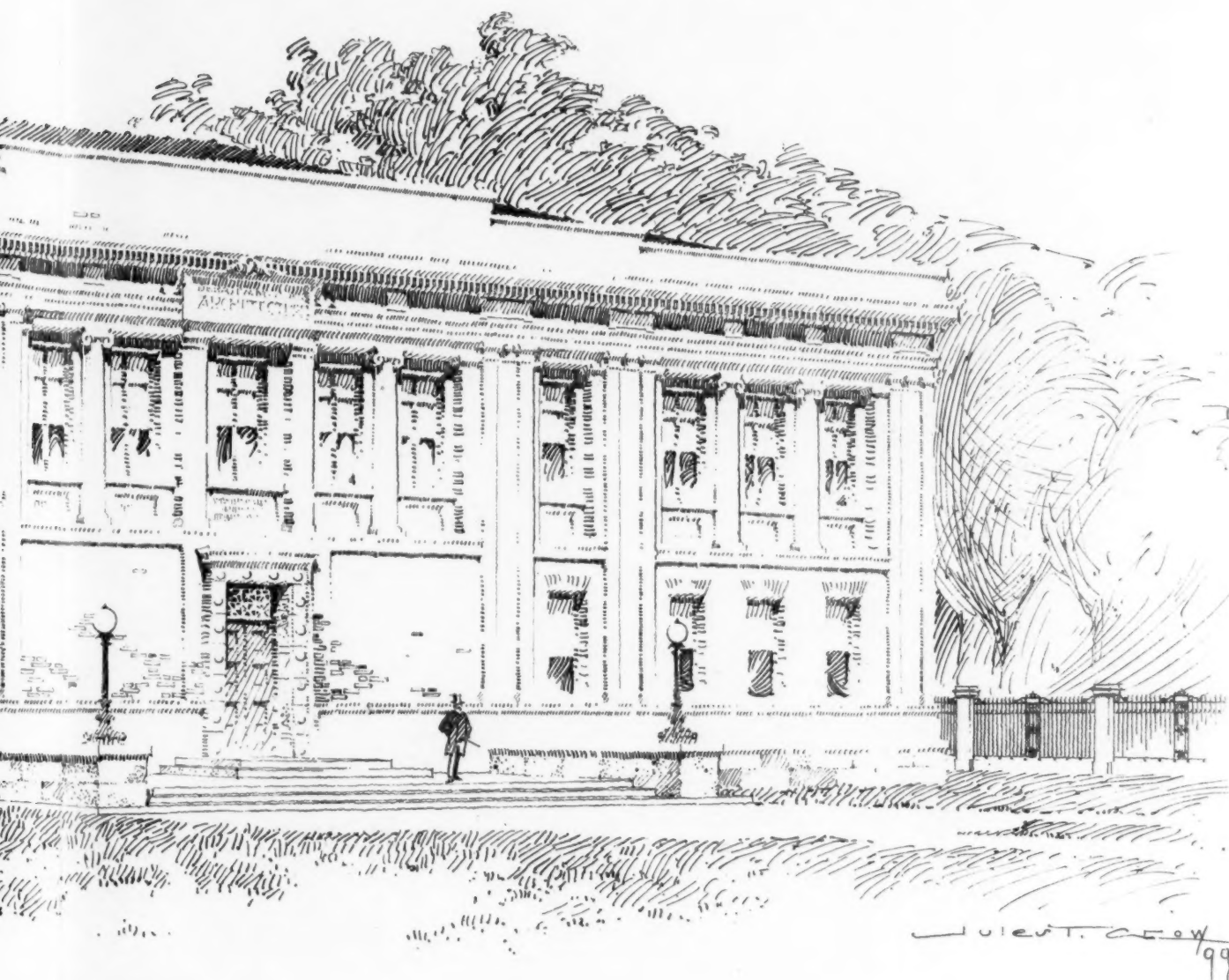
"BIG BEN." — Since the close of the session and the departure of Members of Parliament for the moors and the mountains, the precincts of Westminster Palace have presented an unusually deserted and disconsolate appearance. Even "Big Ben," high up in the Clock Tower, has been showing symptoms of late that he requires a holiday quite as much as legislators, whose daily actions he helps to regulate. The great clock, which is said to be one of the best timekeepers in the world, has been stopped for some days by order of Her Majesty's Office of Works. It has been a little erratic in its movements recently, and has taken to striking wrongly and committing other irregularities, so that the authorities (says the London correspondent of the *Scotsman*) have found it necessary to thoroughly overhaul the mechanism of this gigantic horologe. "Big Ben's" temporary silence is in the nature of a public loss, for the sonorous sound of the great bell chiming the hours can be distinctly heard, when the wind is favorable, for a radius of 4 miles. This is the more remarkable owing to the fact, which is not generally known, that "Big Ben" has been cracked for many years. There is an interesting history connected with the great bell. Named after Sir Benjamin Hall, who was the first Commissioner of Works when the order for the clock was given, "Big Ben" was cast in 1856 at Norton, near Stockton-on-Tees. It weighed 16 tons, and cost £3,343. Its shipment to the Thames was a serious undertaking, and once or twice during the voyage it was feared that the weight of the enormous bell would send the vessel bearing it to the bottom of the sea. Shortly after the bell had been placed in a temporary position at Westminster, and while it was being rung at one o'clock on a Saturday, according to the custom at that period, it was noticed that it had a cracked, uncertain sound. A minute examination revealed a crack extending from the rim of the bell about half-way up the side. This discovery raised the question as to who should pay for the recasting. The founders repudiated all responsibility, declaring that the clapper, which weighed 12 cwt., was too heavy. How the dispute was settled it is not necessary to say, but the authorities placed it on record that the casting was defective. "Big Ben" was eventually broken up and recast at a cost of £750. Its weight when completed was 13 tons 10 cwt., its diameter 9 feet, and its height outside 7½ feet. The new bell was rung for the first time on November 18, 1858, but in less than a year afterwards it ceased to strike the hours, and on examination a crack 3 inches in extent was discovered on the inside. For the next three years the hours were struck on the largest of the quarter bells, but ultimately the use of the great bell was restored, the defect being practically overcome by the simple method of turning the bell round so as to present a fresh surface for the hammer or clapper to strike on. Thus for nearly forty years "Big Ben" has been ringing out the hours, day and night, without giving the slightest indication to the public of any inherent imperfection in its constitution.

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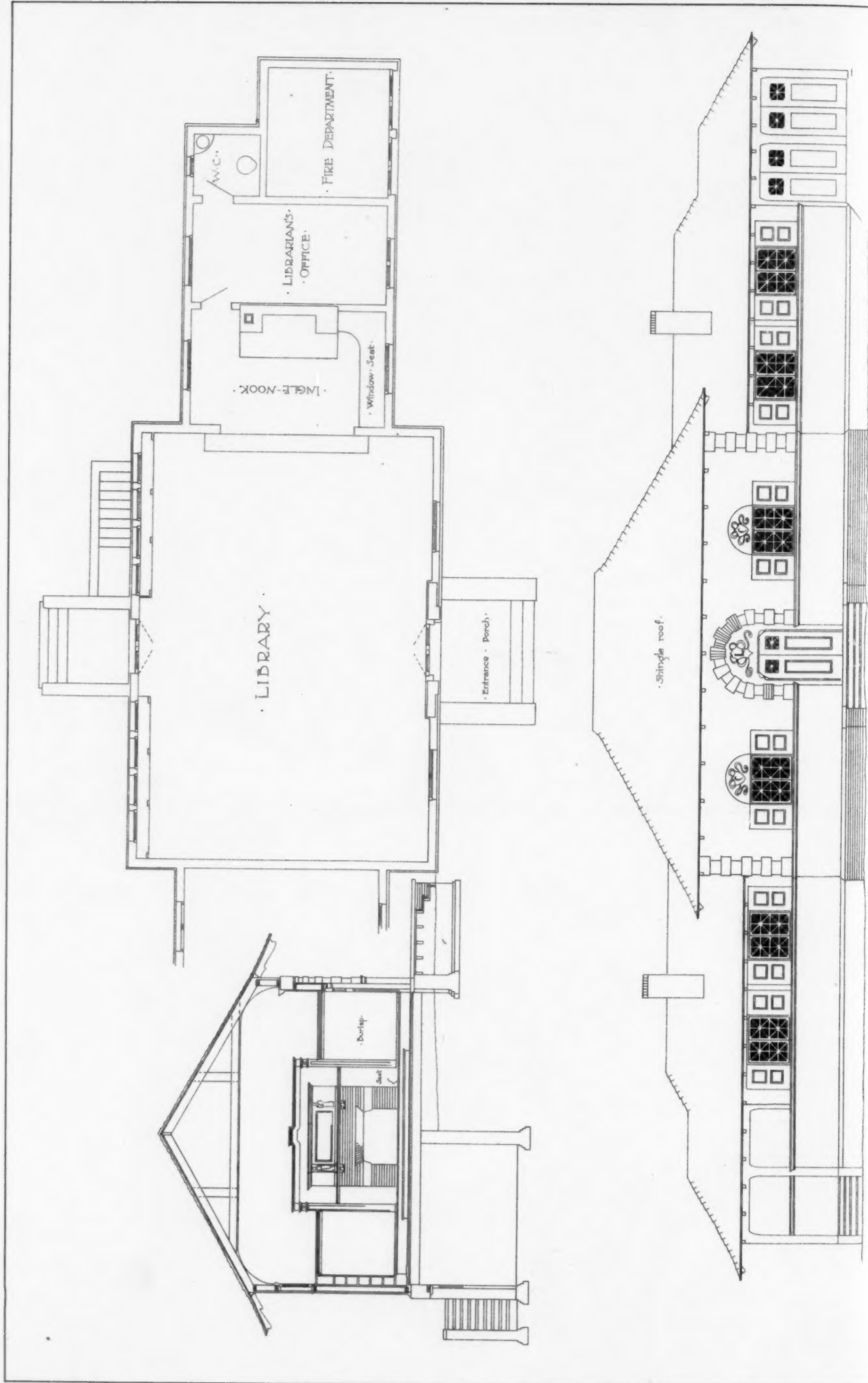


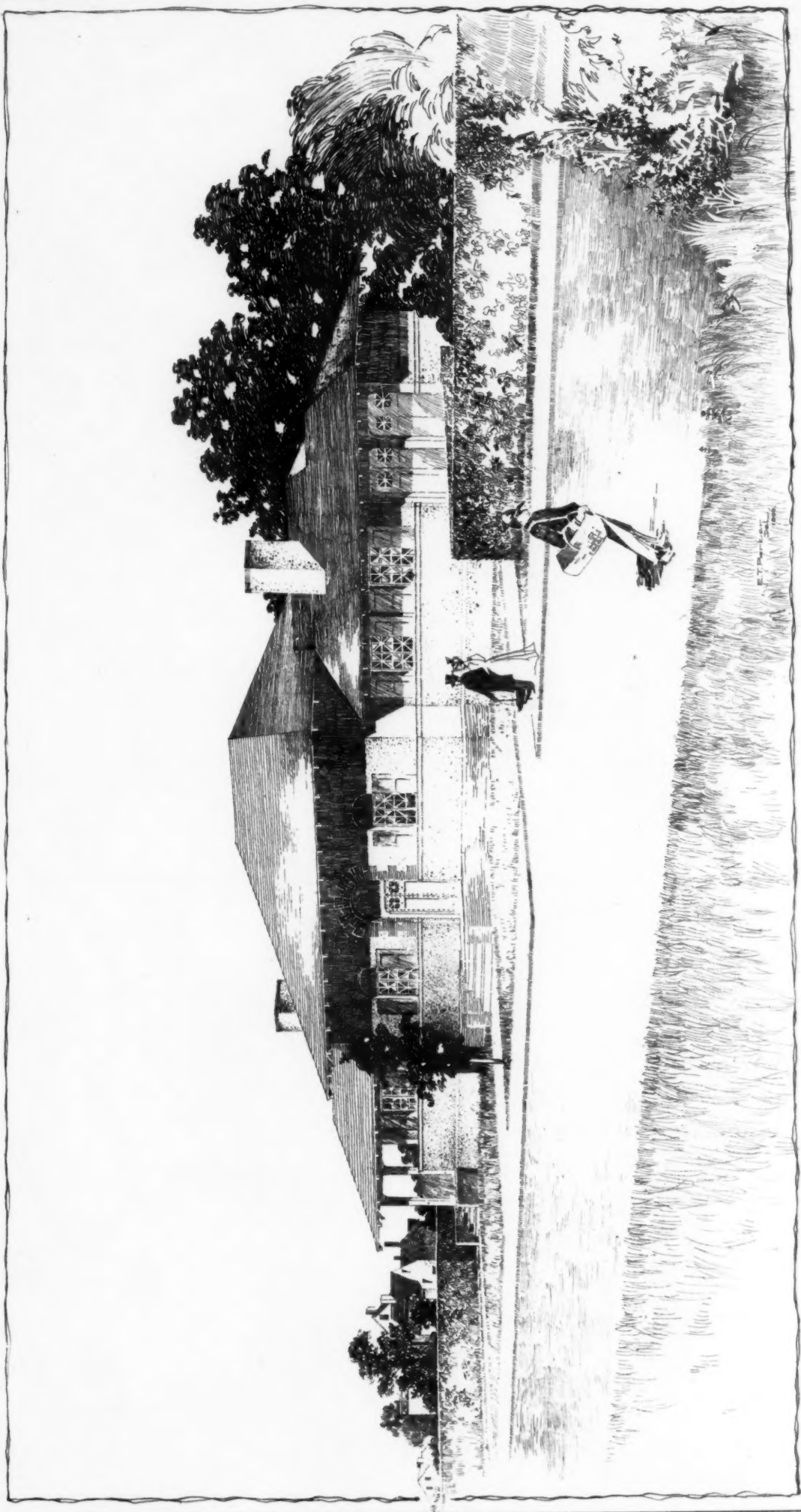
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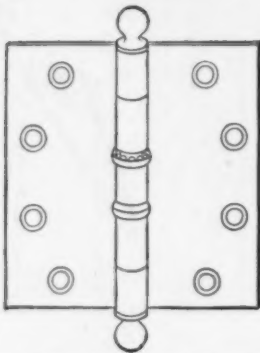


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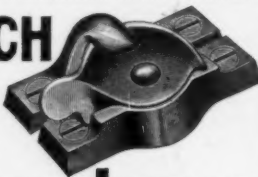
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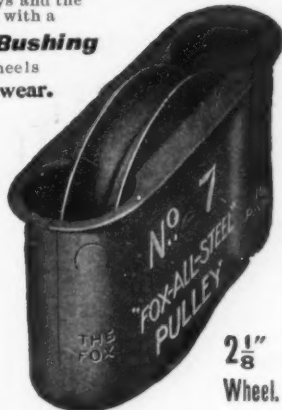
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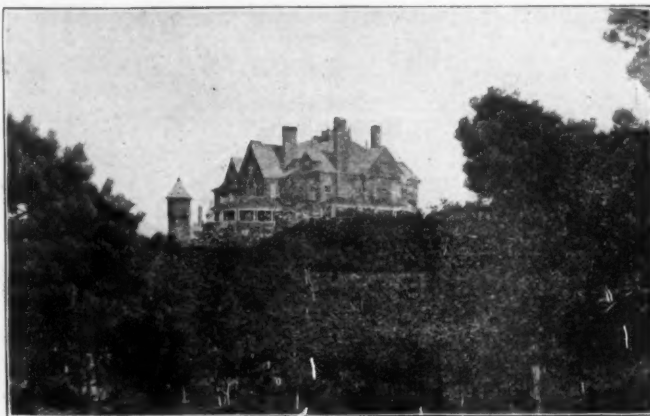
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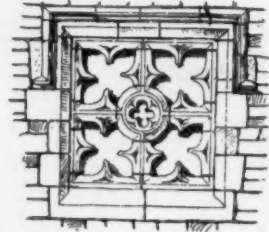
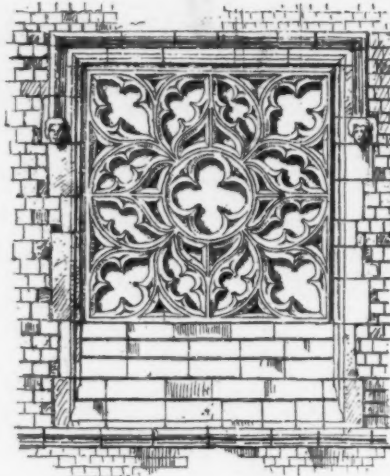
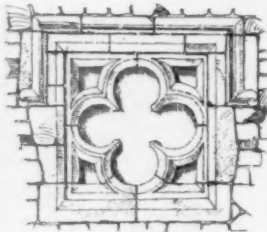
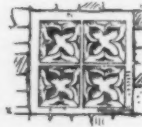
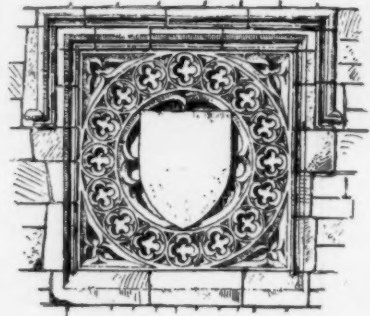
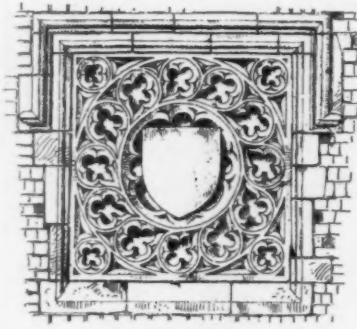
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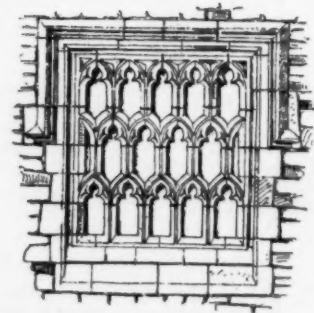
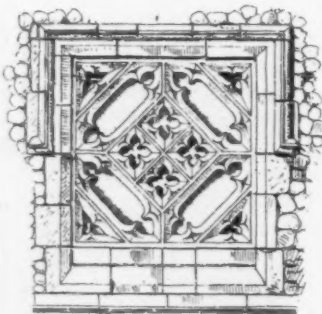
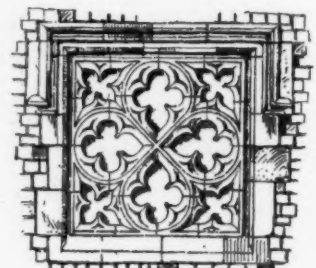
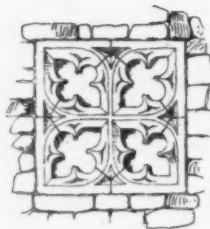
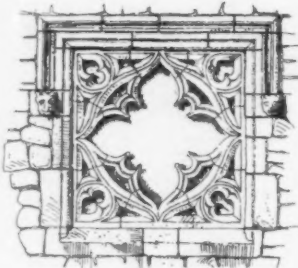
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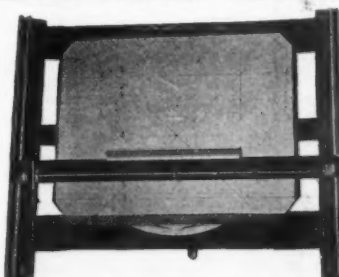
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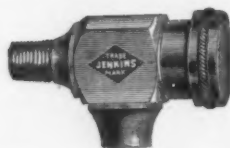


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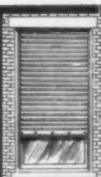
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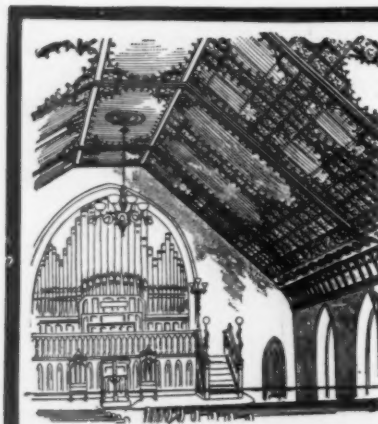
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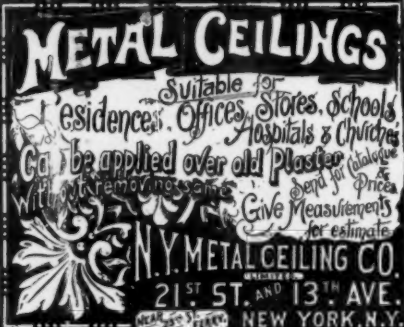
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Duluth, Minn.—J. J. Wangenstein is preparing plans for a hotel to be erected at W. Michigan St. and 6th Ave. by Fred R. Green, of Fredonia, N. Y. It will be a brick structure three stories in height, with modern equipments throughout; cost, \$25,000.

Eddyville, Ky.—James L. Long, Hopkinsville, is preparing plans for a two-story brick public school-house, to cost \$8,000.

Elkhart, Ind.—A. H. Elwood is drawing plans for the Academy of Music building to be erected on Main St. for the Conservatory of Music. It will be two stories high, 45' x 165', constructed of brick, terra-cotta and steel.

Haverhill, Ia.—The German Catholic Society will erect a church to cost about \$15,000.

Holyoke, Mass.—Plans are to be prepared at once for a new telephone exchange. The proposed structure will be fireproof and cost complete \$60,000.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Marine City, Mich.—E. C. Vanleyen, Detroit, is preparing plans for a new school-house to be built here; cost, \$22,000.

Milwaukee, Wis.—Fernekes & Cramer are preparing plans for remodeling the Greve Building at Market and Oneida Sts., into a hotel. A four-story addition, 18' x 60', and a one-story dining-room, 25' x 60', will be erected; cost, \$25,000.

Newport, R. I.—The N. Y., N. H. & H. R. R. has completed plans for an entire rearrangement of its yards, the prospective changes calling for a new station and a number of enlarged buildings for the handling of merchandise. The passenger-station will be of frame construction with slate roof, and will be two stories high. The freight-house will be frame, 60' x 90', with a 43' x 240' wing.

Providence, R. I.—The annual appropriation which was passed recently by the Common Council makes provision for a six-room school-house on Dora St., a fire-station on Lebanon St., and a fire-station on Douglas Ave.

Selma, Ala.—Wilson & Edwards, Columbia, S. C., have prepared plans for a new church for the First Baptist Society. It will be a stone structure with slate roof; cost, \$30,000.

Weyanwaga, Wis.—The plans prepared by Van Ryn & De Gelleke for the County Insane Asylum have been adopted. It will be a two-story, 80' x 190', brick and stone structure, costing \$27,000.

Worcester, Mass.—A corporation in which Boston capitalists have a controlling interest contemplate establishing a stove and range plant here. A

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

foundry, assembling shop and machine shop will be built at a cost of about \$50,000 to \$75,000.

HOUSES.

Boston, Mass.—Francis St., No. 90, 2½-st'y fr. dwell., 25' x 59', pitch roof, furnace; \$6,000; o., a. & b., J. C. Spillane.

Greenwood St., nr. York St., 2½-st'y fr. dwell., 34' x 48', pitch roof, furnace \$6,000; o. & b., J. D. McKay; a., Charbot & Co.

Barton St., Nos. 76-78, 2 bk. dwells., 18' x 22' x 48', flat roofs, stoves; \$10,000; o. & b., Nathan L. Dooker; a., C. A. Halstrom.

Highland St., No. 141, three-st'y bk. dwell., 30' x 45', flat roof, stoves; \$5,500; o. & b., Jos. A. McCloskey; a., A. Piotti.

Frankfort St., No. 13, three-st'y fr. dwell., 26' x 50', flat roof, stoves; \$5,000; o., Rocco Salitto; a. & b., D. D. Fish.

Lawn St., Nos. 27-55, 2 three-st'y fr. dwells., 25' x 45', flat roof, stoves; \$9,000; o., Sabrina L. Moore; a. & b., P. H. Moore.

Homestead St., nr. Humboldt Ave., 2½-st'y fr. dwell., 40' x 41', pitch roof, furnace; \$8,000; o., James Misochi; a., T. E. Sheehan; not let.

Ridgmont St., No. 41, 2½-st'y fr. dwell., 28' x 31' x 47', pitch roof, steam; \$6,000; o., a. & b., E. T. Stewart.

Barton St., Nos. 68-72, 3 three-st'y bk. dwells., 20' x 25', flat roofs, stoves; \$15,000; o. & b., Simon Hurvitz; a., C. A. Halstrom.

Milton St., nr. Barton St., three-st'y bk. dwell., 20' x 56', flat roof, stoves; \$5,000; o. & b., Nathan L. Dooker; a., C. A. Halstrom.

Moultrie Ave., nr. Seaborn St., 2½-st'y fr. dwell., 24' x 29' x 45', pitch roof, furnace; \$5,000; o., E. F. Burnham, trustee; b., Howard Bros.; a., W. H. Brainard.

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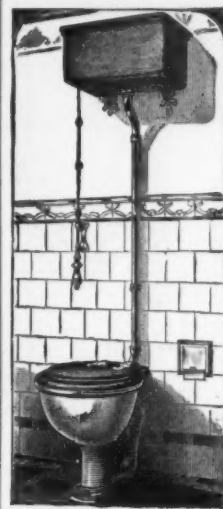
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(Houses Continued.)

*Perham St., No. 120, 24-st'y fr. dwell., 38' x 38',
pitch roof, furnace; \$6,000; o., Lillian M. B. French; b., Chas. Duran; a., H. W. French.*
*Cheney St., nr. Elm Hill Ave., fr. dwell., 34' x 54',
pitch roof, hot water; \$6,000; o., Isabella Amos; b., Otis Anderson; a., P. G. Reed.*

Somerville, Mass. — Willoughby St., nr. Sycamore St., three-st'y dwell., 28' x 50', tar & gravel roof, furnace; \$5,000; o., Joseph Howard; a. & b., John K. Ricker.

COMPETITIONS.

LIBRARY BUILDING.

[At Davenport, Ia.]
Competitive designs will be received by the Board of Trustees of the Free Public Library of the City of Davenport (Iowa), until November 15th, for a library building to cost not exceeding \$50,000. Plans, etc., governing the competition can be obtained by addressing S. F. SMITH, pres. 1291

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One sketch problem is given each month from September to June. The programme for the month of October, 1900, is announced below; send your design and \$1 at any time during the month of October, and on November 1st it will be remailed to you postage prepaid, with a written detailed analysis, critical of its faults and touching upon the merits of the design. In addition to this will be sent whatever prize (if any) its rank deserves.

For the month of October, 1900, there will be 25 cash prizes as follows:—

One first prize of \$30. Two prizes of \$15 each. Three prizes of \$10 each. Four prizes of \$5 each. Five prizes of \$3 each. Ten prizes of \$2 each.

PROGRAMME FOR OCTOBER.

A COUNTRY CHAPEL.

A Protestant congregation in a rural district has decided to demolish the frame building now used by them as a place of worship, the object being to replace it with another structure of about the same size and seating capacity, but of more substantial material and modern design. The congregation is one appreciative of good architecture and they can afford sound construction, but excessive cost should be avoided in the solution of this problem.

The new chapel will stand alone in a clearing in the heart of a grove; being thus placed in total isolation from other buildings, the effect of each separate facade should be considered by the designer. Provision shall be made on the exterior of the chapel for erecting in a suitable manner a bell to announce the hours of service. This feature may be in the form of a tower or otherwise.

The church membership numbers 200, but seats for 100 additional shall be arranged; this capacity may be with or without a small gallery, bearing in mind that 85 feet is the limit which the greatest dimension of the plan shall not exceed.

Drawings.—A floor-plan and one perspective showing the front and one side of chapel, all at the scale of 3-32 of an inch equals one foot. The rendering of the problem is left to the discretion of the designer, but the paper must be cut to the uniform size of 10 1/2 x 15 1/2.

Send drawings unmounted to the Atelier Fitzwilliam on or before October 31, 1900, and do not deviate from the instructions given above. 1291

HIGH SCHOOL.

[At Buffalo, N. Y.]
Competitive designs will be received until September 24 for the construction of a new high school building, to be known as the West Side High School. R. G. PARSONS, Secy. Bd. Pub. Wks. 1291

PROPOSALS.

CHURCH.

[At Menasha, Mich.]
The Building Committee of the Finnish Evangelical Lutheran Society will receive bids until September 24th for the erection of a church. 1291

STEAM PLANT.

[At New York, N. Y.]
Sealed proposals for the materials and work re-

PROPOSALS.

quired for the erection of a new boiler-house and the installation of a central steam plant on Randall's Island will be received until September 24th at the office of the department of public charities. JOHN W. KELLAR, president. 1291

SCHOOL-HOUSE.

[At New York, N. Y.]
Proposals for erecting new public school 182 east side of Avenue C, between 8th and 9th Sts., Unionport, Borough of the Bronx, will be received until September 24 by the Bd. of Education. R. H. ADAMS, et al., committee on building. 1291

COURT-HOUSE.

[At Wytheville, Va.]
Sealed proposals will be received by the Supervisors of Wythe County until September 28th for the erection of a court-house. WM. B. FOSTER, clerk. 1291

FIRE STATION.

[At Chelsea, Mass.]
Sealed proposals will be received at the office of the Supt. of Public Buildings until 4 o'clock P. M., Friday, September 28, 1900, for furnishing materials and constructing a fire station. WALTER BACHELDER, City-hall, Chelsea, Mass. 1291

LIBRARY.

[At Galesburg, Ill.]
Sealed proposals will be received by the Library Building Committee until October 1st for the erection of a public library. ALBERT J. PERRY, chmn. 1292

COURT-HOUSE.

[At Westville, Miss.]
The Board of Supervisors of Simpson County will receive bids until October 1st for the erection of a court-house and jail. J. F. THAMES, clk. of bd. 1292

Treasury Department, Office Supervising Architect, Washington, D. C., September 18th, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 15th day of October, 1900, and then opened, for the construction (except heating apparatus, electric wiring and conduits) of the U. S. Post-office building at Carrollton, Kentucky, in accordance with the drawings and specification, copies of which may be had at this office, or at the office of the Postmaster at Carrollton, Ky., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1292

Treasury Department, Office Supervising Architect, Washington, D. C., September 18th, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 9th day of October, 1900, and then opened, for the construction of the basement of the U. S. Post-office building at New Brunswick, New Jersey, in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Postmaster at New Brunswick, New Jersey, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1292

Treasury Department, Office Supervising Architect, Washington, D. C., September 18th, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 16th day of October, 1900, and then opened, for the construction (except heating apparatus, electric wiring and conduits) of the U. S. Post-office at Annapolis, Maryland, in accordance with the drawings and specification, copies of which may be had at this office, or at the office of the Postmaster at Annapolis, Md., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1292

POLICE-STATION.

[At Cleveland, O.]
Sealed bids will be received until October 5th for a police-station. M. F. BARRETT. 1292

CHURCH.

[At Selma, Ala.]
Sealed proposals will be received until November 1st for a church for the First Baptist Society. WILSON & EDWARDS, archts., Columbia, S. C. 1293

ASYLUM.

[At Abilene, Tex.]
Sealed proposals will be received by the Comptroller of Public Accounts until October 8th for the erection of asylum building. T. W. ROBBINS, treas. 1293

EXPOSITION BUILDING.

[At Buffalo, N. Y.]
Sealed proposals will be received by the Ohio commission to the Pan-American Exposition until



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PROPOSALS.

September 25 for the erection of the Ohio State Buildings upon the Pan-American Exposition grounds. JOHN EISENMANN, architect and superintendent, 489 The Arcade, Cleveland, O. 1291

Treasury Department, Office Supervising Architect, Washington, D. C., September 10th, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 17th day of October, 1900, and then opened, for the interior finish, etc., of the U. S. Custom-house, Portland, Oregon, in accordance with the drawings and specification, copies of which may be had at this office, or the office of the Superintendent at Portland, Oregon, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1291

Treasury Department, Office Supervising Architect, Washington, D. C., September 10th, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 17th day of October, 1900, and then opened, for the low pressure, steam heating and mechanical ventilating apparatus, etc., for the U. S. Custom-house building at Portland, Oregon, in accordance with the drawings and specification, which will be furnished at the discretion of the Supervising Architect on application at this office, or at the office of the Superintendent of the building at Portland, Oregon. JAMES KNOX TAYLOR, Supervising Architect. 1291

HOSPITAL BUILDINGS.

[At Gallipolis, O.]
Sealed proposals will be received until September 25 for the erection of an administration building and a cottage for Ohio Hospital for Epileptics. H. C. RUTTER, sec. bd. trustees. 1291

HOSPITAL.

[At Fort Keogh, Mont.]
Sealed bids will be received in triplicate until September 25 for the construction, heating, plumbing and gas-piping of a hospital. GEORGE E. POND, C. O. M. 1291

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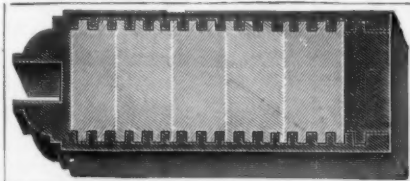
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SECTION 1. No Member should enter into partnership, in any form or degree, with any builder, contractor, or manufacturer.

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.

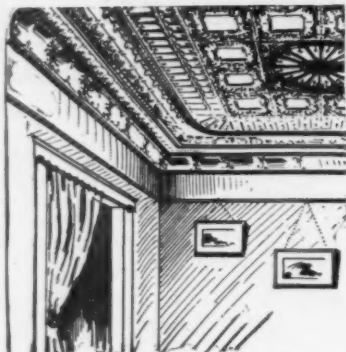
SECTION 12. The American Institute of Architects' "schedule of charges" represents minimum rates for full, faithful and competent service. It is the duty of every architect to charge higher rates whenever the demand for his services will justify the increase, rather than to accept work to which he cannot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

SECTION 15. The assumption of the title of "Architect" should be held to mean that the bearer has the professional knowledge and natural ability needed for the proper invention, illustration and supervision of all building operations which he may undertake.

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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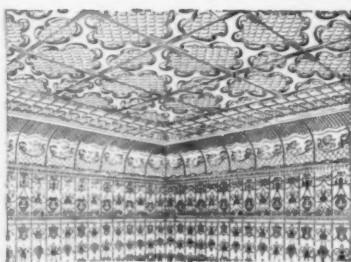
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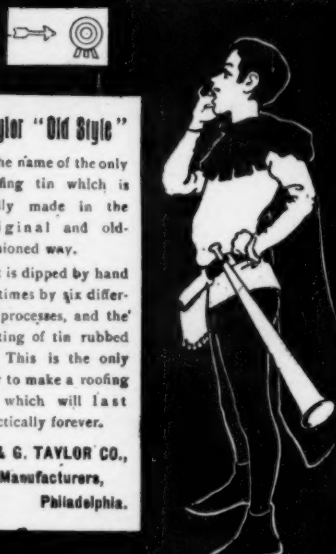


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Samuel Cabot, Boston, Mass.

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

DOOR AND WINDOW SCREENS.
Hartman Sliding Blind Co., Crestlin,
Ohio

DOORS (Interior Finish).
Compound Door Co., The.....

DRAINAGE FITTINGS.
Crane Co., Chicago, Ill.

DRAWING-TABLES.
Alexander Mfg. Co., Grand Rapids,
Mich

**EMERSON, F. W. Mfg. Co., Rochester,
N. Y.**

Laughlin-Hough Co., New York.....

DRAUGHTSMAN.
E. Eldon Deane, New York.

DRAWING MATERIALS.
Keuffel & Esser, New York.....

DUMB WAITERS.
Kinkade & Liggett Co., Columbus, O

ELEVATORS, ETC.
Dayton Automatic Elevator Co., The,
Dayton, Ohio.....

Morse, Williams & Co., Philadelphia.
Whittier Machine Co., Boston.....

ENGINES (Hot-Air).
Rider-Erleson Engine Co., New York.

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

FILTER.
Loomis-Manning Filter Co., Phila., Pa.
Seafie & Sons, Wm. B., Pittsb'g., Pa.

FIREPROOF BUILDING.
Pioneer Fireproof Construction Co.,
Chicago, Ill.

**Baritan Hollow and Porous Brick
Co., New York.....**

FIREPROOF LATHING.
Hayes, Geo., New York.....

FLOOR POLISH.
Butcher Polish Co., Boston.....

FOLDING BLINDS.
Hartman Sliding Blind Co., Crestlin,
Ohio

GALVANIZED IRON.
American Sheet Steel Co., New York.

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

GLASS (Stained and Ornamental).
Flanagan & Biedenweg Co., The
Chicago, Ill.

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