Wednesday, December 9, 1925. Vol. LXII. No. 1614.

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal."

FROM AN ARCHITECT'S NOTEBOOK.

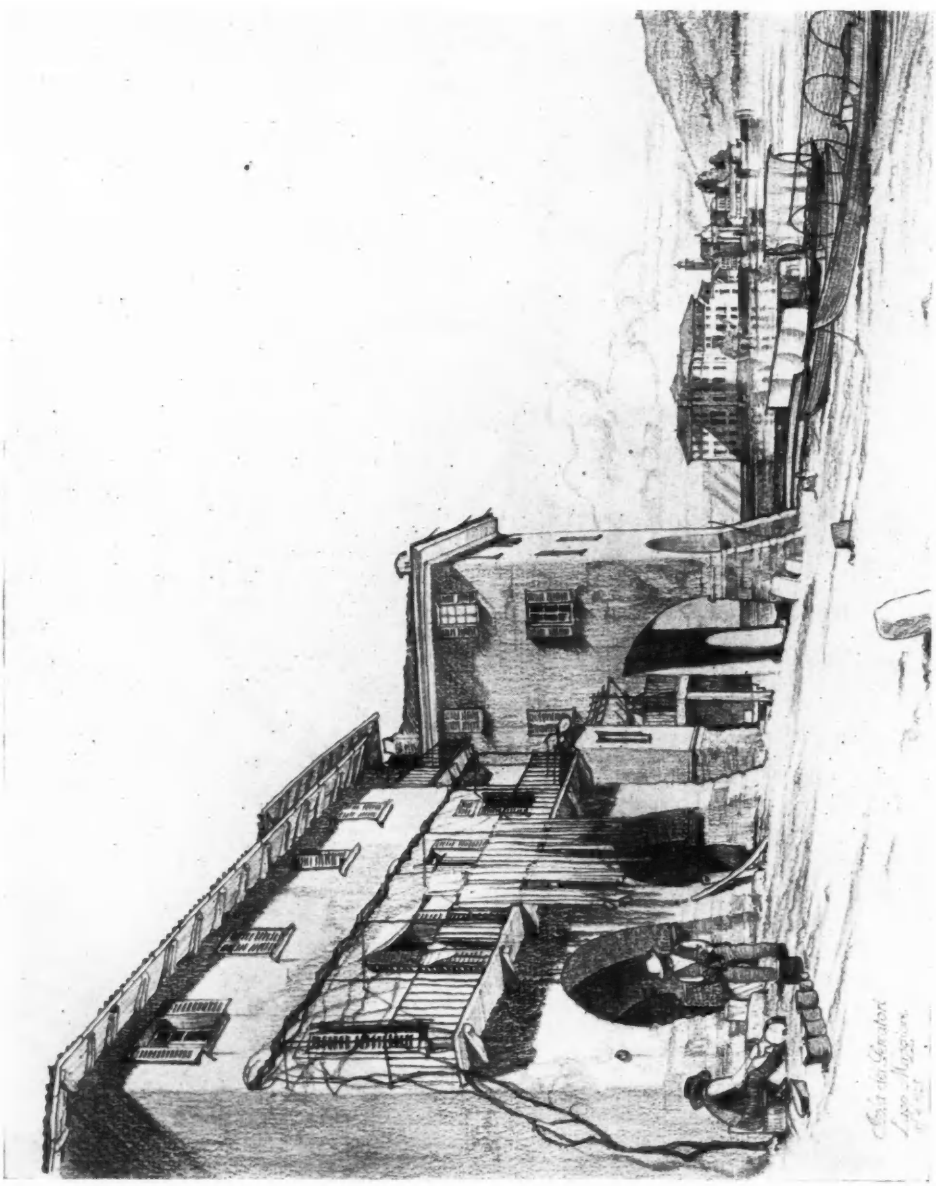
A LORDLY PLEASURE HOUSE.

The walls within the palace which were not covered with the finest frescoes and stuccoes were inlaid with gold, precious stones, and mother of pearl; the floor with the costliest of mosaics of which one can hardly give an idea. The ceilings of the banqueting-halls were covered with plates of ivory, from between the crevices of which a shower of odours was spread over the guests. The largest banqueting-hall was a rotunda, the ceiling of which—adorned with pictures of the stars—moved day and night at an equal pace with the vault of heaven. "Now I begin, finally, to live like a human being," said Nero, when the palace was finished.

VICTOR RYDBERG.

9 Queen Anne's Gate, Westminster.

Isola dei Pescatori, Lago Maggiore



(From a Pencil Drawing by Arthur Welford.)

THE

ARCHITECTS' JOURNAL

9 Queen Anne's Gate. Westminster.

Wednesday, December 9, 1925. Volume LXII. No. 1614.

"Wake Up, England!"

THERE are many injuries perpetrated against the community by vested and other interests which have insidiously spread and wrought immense harm before any collective action is taken, and then, only when it is too late, is the public consciousness aroused.

The havoc of industrialism spread in just this way, with evil consequences which it will still take many a generation to set right. Just now we are in the midst of another injurious process which threatens to rob England of one of her most precious possessions. We refer to the spoliation of the countryside; to the rapid spread of ugliness which flows like some terrible and inexorable flood over hill and through dale, so that already, except for some quite remote and inaccessible parts of the country, a few districts in Wales, in Derbyshire, or in the northern counties, it is well-nigh impossible to travel two or three miles without encountering some architectural disfigurement upon the landscape.

In view of the general unconcern with which this destructive process is tolerated, we were particularly pleased to read recently in the "Observer" an interview with Mr. Morley Horder, in which he vigorously inveighs against this state of affairs, calling upon the R.I.B.A. to take some action in the matter.

"What is the use of the Institute if it does nothing for British architecture?" he pertinently asks. What use indeed! In the R.I.B.A. we have a potentially influential body, but, for the nonce at any rate, one that is lamentably tongue-tied—tongue-tied, too, upon a matter of far-reaching import both to itself and to the country at large. "A more active policy on the part of the Institute . . . would awaken public opinion to the alarming extent of the degradation of England by bad architects and ignorant builders."

There is much which the Institute could do towards assisting to stem this devastating flood. Waterloo Bridge is not the only public matter worthy of its attention, neither is it the most important. Indeed, we are scarcely uttering a heresy when we say that the destruction of Waterloo Bridge would be as nothing compared with this degradation on mass-production lines to which Mr. Horder refers.

What can the R.I.B.A. do? We ourselves can at once suggest one or two lines of action. In the first place, influential members, whenever they speak in public, should take occasion to allude to the matter. Next, the secretary or the honorary secretary might write to the Press on the subject whenever an opening occurs (and sometimes when it doesn't). Then members might be circularized with a request to take every opportunity that presents itself in the locality of their homes, when on their holidays, or when travelling in the course of their work, to protest against the spoliation of the country. Such protests may be private or public, written or spoken. So much of this ugliness is tolerated through lack of observation. We ourselves know of cases where, when attention has been drawn to some offending erection or group of erections, the reply which has been elicited has expressed surprise. "I never thought about it myself. Perhaps you're right; it is rather ugly," or, "It does spoil the view." People must be made to realize that these things do matter. What right have we, indeed, to cast stones at the perpetrations of the Victorians, seeing that we ourselves elect to live in the flimsiest of glass houses?

Mr. Morley Horder is fervid in his praise of the beauty of England. This beauty is again something which is insufficiently realized. We in England live in what he rightly describes as the "show-place of the world." There is surely no Englishman who has travelled abroad and does not return with a sense of delight at the rich soft beauty of his own country. Grander and more awe-inspiring sights he may have seen, but nowhere is there to be found just that serenity, just that glowing softness, just that tenderness, just that loveliness which abound in this small northern island. "We are living in a kind of Garden of Eden—the show-place of the whole earth. What a monstrous crime is it, then, to permit a commercially minded set of vulgarians to destroy this matchless beauty before our very eyes! Such a thing ought to be unthinkable."

Yet slowly and steadily the process of destruction continues. Where yesterday all was unadulterated loveliness, to-day it is unmitigated ugliness. Congeries of abominable bungalows, villas, and desirable (*sic*) residences, spring up in the night like some pestilential fungoid growth, or, what is perhaps even worse, straggle endlessly along an erstwhile country lane, shooting out from some small town or village until their progress is stopped only by an encounter with a similar project advancing in the opposite direction from a neighbouring town. Here and there the dwellings are punctuated by some garage, looking either like a gin-palace or a half-derelict corrugated-iron barn, all bespattered with advertisements, crude in message, design, and lettering. In front, sentry-like, stand the ubiquitous petrol pumps, completing the utter discord of the scene.

This is the state of affairs against which we earnestly implore every lover of this country to protest, and to protest now, while there is yet time, for to-morrow it may be too late. Let it be understood, we are not protesting against the inevitable; against the building of houses and garages in places which hitherto knew them not. It is the kind of houses, the kind of garages, the relation of the houses

to each other and to their environment: these are the matters which must be dealt with if we are to show ourselves worthy of our inheritance as Englishmen, and if we would protect ourselves from being held up to obloquy by our descendants.

Mr. Morley Horder has done good service both to the country and to the architectural profession. As to the R.I.B.A., we are in entire agreement with him when he says: "It ought to feel that it is responsible for the character of English building and the beauty of the countryside." Let it assume this responsibility and act accordingly.

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A Garden City for Glasgow?

A garden city is proposed for Glasgow. No definite site has yet been acquired, but a company, known as "Third Garden City, Ltd." has been formed, having an authorized capital of £10,000. The object of this preliminary company is to form public opinion in favour of the establishment of garden cities and to "Prospect for, investigate, and purchase a site in the West of Scotland for Third Garden City, or to enter into an agreement for such purchase on behalf of a company to be promoted to carry out the Third Garden City undertaking." The first company is busy creating an interest in the subject, and it is hoped that manufacturers may be found willing to co-operate and erect new factories, as has been done at Letchworth and Welwyn. The "Formation of public opinion in favour of garden cities" should not be a difficult matter in Glasgow, where slum conditions and traffic problems are acute, the latter accentuated by the difficulties of cross-river communication which have faced the civic fathers for so long. A satellite city, such as proposed, is a sound proposition from every point of view, and it is to be hoped, not only that the time will not be long before Third Garden City materializes, but that it will be speedily followed by others.

The Deportation of Warwick Priory

That Warwick Priory is being deported by the shipload to the United States is not at all surprising. Some such catastrophe was anticipated months ago, on the dismal failure of a somewhat feeble attempt to raise sufficient funds to keep the venerable relic at home. But why a wealthy American should want to buy the Priory, and why its owners should consent to sell it, are equally insoluble problems save to the expert professor of recondite psychology. Perhaps it is the old theory of one party possessing what the other wants. So long as the Americans have plethoric purses, and the English take too little pride in their priceless treasures, no covetable picture or statue, book or building, can be considered safe from deportation. Some sort of stringent embargo should be devised and rigidly enforced. What the Ancient Monuments laws are evidently powerless to effect, a prohibitive *ad valorem* export duty might perhaps accomplish; but absolute prohibition would be the better way, for mere cost, no matter how exorbitant, is no obstacle to the acquisitive multi-millionaire on the war-path.

Concrete and Plastic Art

In the "Times" article on "Modernity in Art," to which we drew attention a short time back, there was a strange confusion of terms. A passage in the "Times" article read: "The possibilities of artistic development are boundless when it is realized that modern science has given the architect a material as plastic as clay itself." That is a misstatement as regards concrete. Mr. W. G. Newton, the editor of the "Architectural Review," has written a letter to the "Times" to correct it. While welcoming the "Modernity" article as a sign of the recognition by "our foremost newspaper" of the importance of the subject, Mr. Newton complains of the curious confusion of thought implied by the statement that concrete is "as plastic as clay." "Concrete," Mr. Newton explains for the benefit of the laity, who, but for his timely correction, might fall into grievous misapprehension of the actual fact, "is not a plastic material. . . . The forms it must assume are absolutely conditioned, not by its own plasticity, but by the materials which are used for the mould into which it is poured. . . With us reinforced concrete is built in a timber mould. . . . Far from being released by the new material to roam fancy-free among new forms, the architect is strictly conditioned by the carpenter's skill." All this may be fresh information for the laity, who are ever prone to expect too much from the methods and materials for which they are eager but of which they have but little knowledge; but architects will have discerned at once, with Mr. Newton, that "plastic" is an incorrect term to apply to concrete; although it would be by no means surprising to find enthusiastic concrete specialists claiming that on occasion concrete can be treated as a material possessing semi-plastic adaptability to design.

The Guildhall Art Gallery

London City at length perceives, perhaps a little dimly, as through a London fog, that the building which at present houses the Guildhall Art Gallery is much beneath the dignity of an Empire capital. A new building being contemplated, reproaches for belated action would be churlish and untimely. Except by way of encouraging emulation, no comparison with the immeasurably superior art galleries in foreign capitals, and indeed in most of our own cities, should be made, lest the smoking flax be quenched. Rather should we feel disposed to congratulate the Corporation on its welcome though tardy awakening to æsthetic consciousness and to a healthier sense of what is due to itself in regard to architectural and graphic art. Doubtless the Corporation's own very competent architect has already tendered the advice which we here take leave to reiterate, that to get an art gallery of which the City and the nation may be justly proud, open competition, stage-managed of course by the R.I.B.A., is the one sufficient guarantee. Here, then, is a threefold opportunity of surpassing promise—for London to acquire a noble building, for some rising architectural genius to win reputation, and perchance for this country to raise the first fine flower of the new architectural mode.

Middlesex Hospital

Usually it is not until a building is doomed to destruction that the public bestirs itself to learn something of its history. Middlesex Hospital is a case in point. Few persons gave it a thought until shocked by the announcement of its impending downfall. Then there were inquiries about the architect. He was James Paine, the designer of Kedleston Hall, and in his day so fashionable an architect that he and Sir Robert Taylor are said to have divided between them all the architectural practice then worth having. It is on the records that the first stone of the hospital was laid on May 18, 1755, although the building was not completed until twenty years later. Since then various enlargements and reconstructions have taken place at the hospital, notably in 1800, and at intervals till 1859 and since. The school of medicine attached to the hospital was founded under the ægis of Sir Charles Bell in 1835. "The building," he wrote, "will be a complete little thing —theatre, museum, clinical classroom, and dissecting-room . . . and will cost £2,400."

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AN ARCHITECTURAL MAGAZINE ROOM.

[*"The Architects' Journal" and "The Architectural Review" have always made it their business to provide their readers with examples of the best contemporary architecture of foreign countries. It is impossible, however, to do more than make a small selection among the most distinguished; and the proprietors of these papers will be delighted if readers who are interested will spend a few minutes now and then at the magazine room at 9 Queen Anne's Gate. The most important Continental and American periodicals may there be read in quiet and restful surroundings.*]

Reconstruction Contrasts in France

By HUNTLY CARTER

TO anyone who, like myself, has been continually in and out of France since 1914, organizing regionalist symposia, attending conferences, especially the so-called Peace Conference in 1918, and in these and other ways keeping a vigilant eye on the path of peace and reconstruction, a very strong picture of reconstruction contrasts is always present. Nowadays, I never enter Northern France without asking myself what are the devastated regions like now? How much of the actual battle-zone, as I saw it in the eventful years of 1915–18, remains to be seen? The answer is that little or nothing of it remains to be seen. It is true there are still enterprising tourists' agents in Paris who are willing to whisk you round the Champs de Bataille, as they call it, for a sufficiently extortionate sum, but what they have to show is largely a matter for the imagination. Certainly no one who visited the battlefields in the winter of 1918–19 would recognize them now.

According to the latest statistics, practically the whole of the agricultural area has been put into cultivation, and a great number of villages and towns have undergone metamorphosis. Lens, where I was under canvas, was a heap of rubbish in 1918, and all one saw of the coal-mines were some skeleton girders pointing to heaven. As for Ypres, that was a heap of dust, amid which you saw a swarm of returning natives trying, ant-like, to burrow their way into cellars. To-day Lens has streets and streets of new and ugly houses, and many other signs of civilization; and Wipers, as our soldiers used to call it, is even gayer. It has simply waltzed with *aplomb* and skittishness into new life. It has many thousands of inhabitants, and scores of hotels to accommodate the multitude of sight-seers. The resumption of the markets is within sight, and a larger population even than 1914 is coming in a year or two. Likewise many another war-zone town and village have arrayed themselves in bright mantles and laurels, and contrive to wear them with a pretence of having achieved a conscious and final resurrection. Which they have not. It is all a pretence. Under the mantle there is a good deal of patchwork and make-believe which tells you that the fruit is not quite sound at the core.

I remember that when I ran across the war-zone in 1919, after spending four months in Paris at the Peace Conference, I went in search of actual rebuilding. After a good deal of weary travel I came to the conclusion that it was very doubtful whether rebuilding had then begun. There were several plans waiting to be carried out, but they had little or no relation to each other, and I could not help concluding that France was without a definite rebuilding policy. At the moment it appeared as though the battle-zone was the happy hunting-ground of anyone who was willing to undertake rebuilding. Foreigners of all kinds were rushing in to stake out claims as though at Klondyke, and relief societies, journalistic architects, speculative builders, the ever-present profiteer, and English contractors who had signed on for a term of years, so to speak, were in active competition with one another. But precious little had been done. One big firm of contractors was at work on the outskirts of the battle-zone, and expected to reach the bad places before the millennium arrived, or perhaps at the same moment. Work was being carried out, too, by the Society of Friends, who were starting to rebuild a harp-shaped sector of Verdun. But this particular work did not promise any lasting results. Indeed, all the Society aimed at was: (1) To accommodate returning families; (2) to survey the topographical possibilities of certain districts; (3) to organize building resources in money, men, and materials; (4) to rebuild in a temporary manner. The main object of the Society—an excellent one in itself—was to get homes together and set families going in as pleasant surroundings as financial circumstances would permit. As for pressing fundamental problems, they were not considered. For instance, what about the re-division of the land? Thousands of morsels had been knocked into one, and out of recognition. What was to replace the *morcellement* system imposed by the Code Napoléon?

I used to believe—it was very early in the war—that France would be reconstructed by the new regionalists. or according to their ideas: that the leaders of the movement, or their numerous followers, would perform the miracle of re-creating the regional life of France in a form more deeply and inspirationally French than ever. The belief was strengthened by the effect which the war had upon the economic regionalism of France. For instance, in August–September, 1914, a large part of the regions of France (without speaking of the invaded regions) found themselves more or less cut off from their relations with the capital towards which they were in the habit of turning. These regions—inexactly called provinces—were forced to be self-supporting, and, with the neighbouring localities, to maintain national life. The result was an extraordinary demonstration of spontaneous organization, in which

A newly built house in the Aisne. Brick, white stone, and blue slate roofing have been used here with sufficient judgment to make this a most harmonious and pleasing house from the standpoint of colour.

Type of new house in the "Cité-Jardin"—Reims. Striking principally in that it resembles a thousand American dwellings of the same type.

everyone co-operated—municipalities, local organizations, chambers of commerce, trade unions, etc. Such a life was said to be an education. It revealed the foundation of a new order of society, and it certainly seemed to point to the possibility of a reconstruction of civic centres based upon the co-operation of all who had combined to save France from a military defeat.

Another hopeful circumstance which also strengthened my belief that the devastated regions of France would be rebuilt by the French people themselves, who would thus take the unique opportunity of experimenting with regionalism, and for once avoid the ordinary centralized means of reconstruction, was the widespread interest in town planning, and the great impulse given to this movement by the action of the French Government in passing a new compulsory town-planning law. The result was to bring France into line with the progress in town planning in other countries in two essential particulars, namely, propaganda and organizations active in town planning, and town-planning legislation. For a time, after the war, under the direction of the Ministry of Liberated Regions, and as a result of the new law, town plans sprang up like mushrooms. In the years succeeding the signing of peace, no fewer than 150 towns and villages in the devastated regions started plans for rebuilding and improvement, intending to realize the plans as soon as the necessary clear-up of rubbish had taken place, and of course provided the necessary men, materials, and money, were forthcoming.

Several reconstruction associations were formed, one or two to act as advisory bodies, others to carry out actual work of rebuilding. These associations were more or less strongly touched by regionalism or urbanism, and sought to apply its principles. Foremost among the former was "La Renaissance des Cités," which made several plans, among them those for Reims, Arras, Albert, Tracey-le-Val, Chaunay, and Pinon (Aisne).

In respect to Pinon it made a very interesting experiment. It selected this village as a suitable foundation on which, with the collaboration of a Pinon architect, M. Charles Abella, to construct a working model of a village resting on urbanist principles. In doing so it aimed to provide an educative model, and not a standardized one. It made no proposal to fix a type of village to be produced in all other regions. On the contrary, it maintained that each new village should be planned and constructed according to the psychology of its inhabitants and to meet their special requirements. This decision was based on the principle that the dwelling-place should, as much from an æsthetic as from a practical point of view, be subordinated to, or better still harmonized with, its surroundings where it is erected.

Pinon offered certain natural and acquired features favourable to the experiment, being, for instance, situated near a station, amid very picturesque surroundings. The method followed was the systematic one of urbanism. There was first a detailed survey of topography, and an inquiry into number of inhabitants, present and possible, and their essential industrial, agricultural, commercial, and social requirements, and an examination of the possibility of the adjustment of former characteristics to the requirements of the present and future. One of the greatest difficulties experienced was that of meeting the desires of the inhabitants of the proposed new village, and bringing a thousand conflicting claims into harmony. Most architects are aware of the many and varied petty rivalries over building matters that exist even in a small village where the inhabitants, including the live-stock, are supposed to form a happy family, but in reality form themselves into sects as numerous as religious ones. This difficulty was, however, successfully overcome by the architect, and, in the end, the model village appeared to show what could be done in this direction of village planning, and to stimulate other villages to go and do likewise, plus their individuality and common sense.

Many statistics have been published since 1923 showing that the devastated regions are rapidly approaching the pre-war normal. Figures have been published to show that the population of the devastated regions then fell very little short of the pre-war figure of 4,690,062. Of 571,339 dwelling-houses which were destroyed or damaged, 402,950 had been repaired, either completely or merely provisionally; 22,258 buildings used in connection with agriculture had been entirely reconstructed; 52,933 had been repaired, and 21,165 had been rendered utilizable.

In spite of favourable reports, however, there has been much left undone which ought to have been done. The strong desire on the part of town planners and town-planning associations for a systematic rebuilding of damaged France on the æsthetic-scientific principle of the greatest good for the greatest number has not been realized as yet. Indeed, a visit by the writer to the devastated regions revealed that a great deal of rebuilding had been done that could only be described as cheap and nasty, and without the least consideration of future requirements of inhabitants and surroundings. Much again, was mere patchwork, and much was only temporary. In few instances did architecture rise above the mediocre. A very great deal of the work would require to be done again.

But if each region can pool its total resources—brains, brawn, money, materials, and so on, and provide itself with a capable and far-seeing architect, there is no reason why proper rebuilding should not proceed rapidly.

A new store building in Reims. A fair example of what is growing up in the midst of the wreckage. Wall surface a brilliant white stone, shop front of composition marble, and a faint attempt at polychrome decoration above the third-story windows.

Messrs. Selfridge's New Extension

GRAHAM, ANDERSON, PROBST, & WHITE, and SIR JOHN BURNET & PARTNERS, Associate Architects

THE new building for Messrs. Selfridge & Co., Ltd., at the corner of Oxford Street and Orchard Street, represents the second section of the extension to the original premises, which together with the first section covers about one-third of this important island site. The exterior with its commanding colonnade will be on completion 850 ft. in length on the three principal façades, and now only requires the central portion to join the two end buildings.

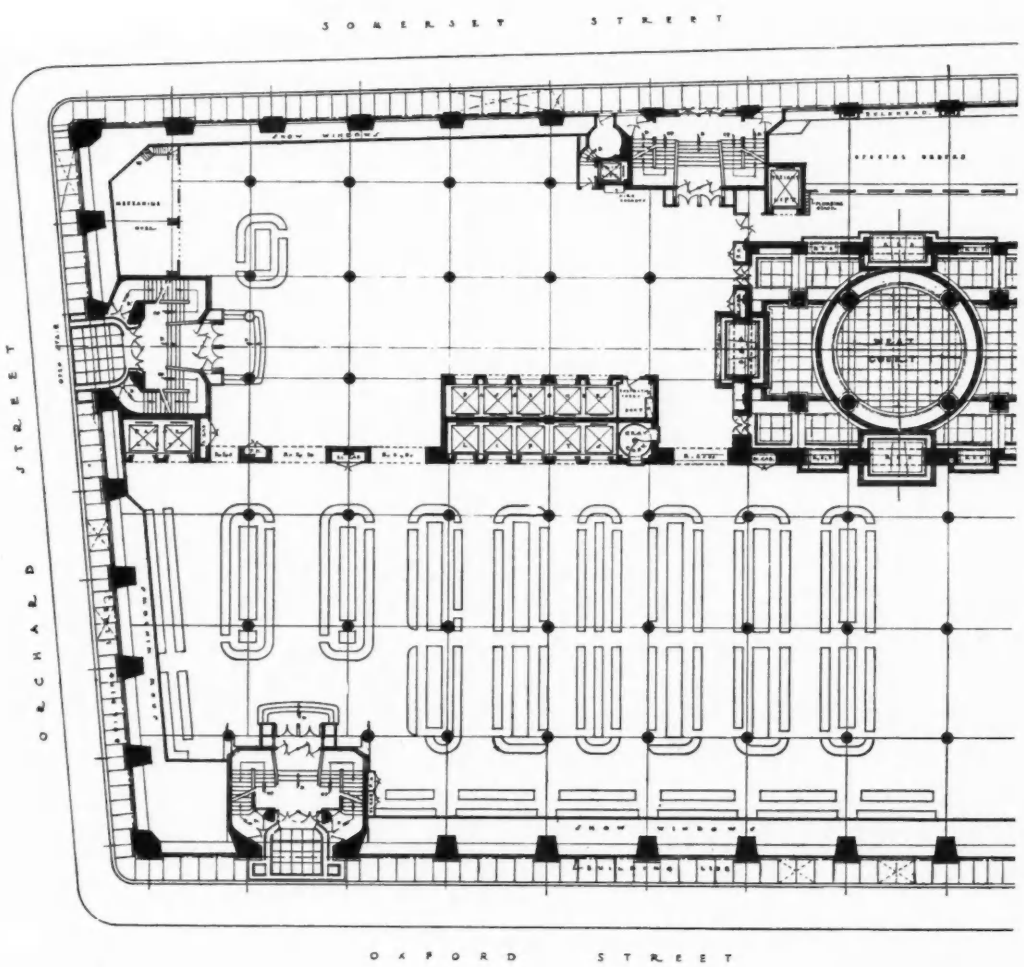
As in the previous sections, seven spacious stories constitute the building, two of which are below the street level.

The exterior motif is similar to the original building, and thus lends itself appropriately to the modern departmental store. The boldness of the conception is emphasized by vigorous well-proportioned detail, and large expanses of glass areas admit abundant light and air to the interior.

In the interior the new section is represented by one large compartment on each floor. The orderly arrangement of columns and intruding features is planned so as to allow for the greatest flexibility in the setting-out of the display cases and selling counters for all departments.

The fixed elements of the plan, with the maximum size of the compartments allowed, are all contingent upon the future monumental central court, but aim to provide spacious circulations for the public, allowing at the same time for the most effective display of merchandise.

In the centre portion, and to the rear of this island site, a semi-permanent building and passage-ways have been erected to connect the new section to the old building, and to provide a continuous selling area over the floors and through circulation over the entire site. These operations are to be eventually replaced by the monumental central court.



PLAN OF GROUND FLOOR

GRAHAM ANDERSON PROBST & WHITE. ARCHITECTS. 11 HANOVER SQUARE W.

CORNER FEATURES.

The carcase construction of the extension is composed of reinforced concrete independent retaining walls, steel-skeleton-framed throughout, with combination reinforced concrete and hollow-tile floors. The design of all structural and mechanical work has received its proper study consistently and in conjunction with the decorative design of the entire project.

The twin staircase to Oxford Street is a replica of the two similar staircases in the first operation of the extension, and retains the novel feature of connecting the ground-floor entrance to the store, basement, and upper floors from one common point of entry. The stair finishings of marble linings, terrazzo treads and stringers, and metal railings, have all proved their efficiency for economy of maintenance consistent with the scheme of decoration. Simplicity and restraint have been the keynote of the design, with materials so chosen and distributed as to form a reposeful background for the effective display of merchandise.

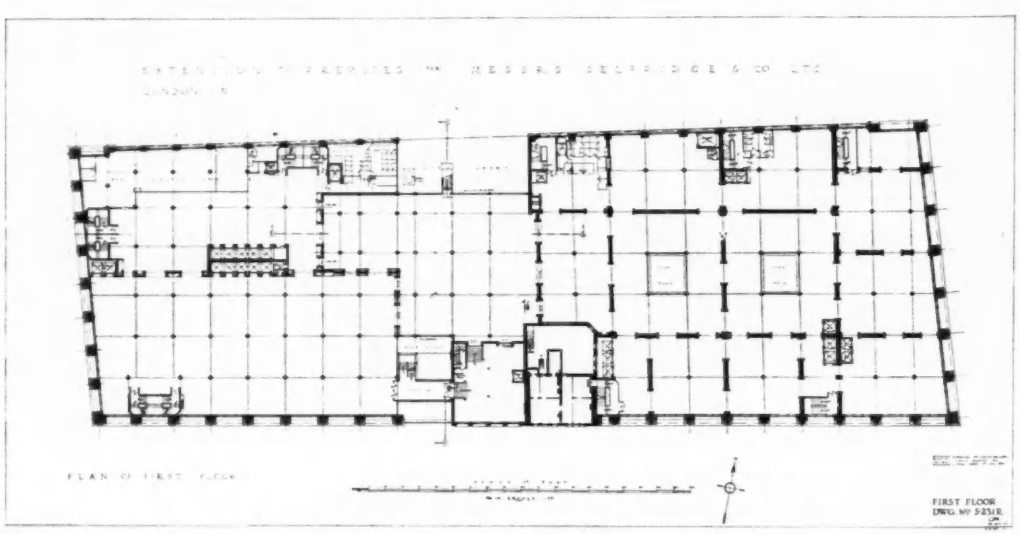
Spacious compartments have commanding vistas, and large doorways give a general feeling of openness, while the comfort, convenience, and safety of the public have received foremost consideration. The lifts are arranged in groups of five or less, and each has its individual type of design—red lacquer in Japanese, antique oak in Jacobean, silver in Pompeian influence—with paintings and mirrors intermittently dispersed; all reflecting the spirit to be followed for the future groups.

The ground floor is paved with large square Sicilian marble slabs, and coved marble risers to the selling counters—indications of permanence and serviceability. The upper floors are of maple woodblock, with carpet runners or—as in the gown and other special sections—with the floors completely covered with carpet. The basement floors are of terrazzo reinforced tiles made in large square with lead dividers to meet the heavy wear to which they are subjected.

Single pendant lighting has been adopted for the general illumination, with fittings of daylight bowls, profiled satin glass hoods, portable daylight counter standards, and strip lighting in the show cases—all selected for simplicity and efficiency. The show windows have the open-trough reflector type of lighting with spot lights for special displays, while the exterior flood-lighting, which lends itself so appropriately to the colonnade motif, has proved its effectiveness, and has served as an inspiration for many other lighting schemes throughout London and the provinces.

The mechanical installations, with all modern appurtenances, have received particular technical study by the architects' specialists in conjunction with the development of the architectural design, and not by outside specialists as is usual. Pipe leads and other services have the minimum length of runs concealed from view in accessible chases. Heating, domestic hot water, and vacuum cleaning requirements, are supplied by ring mains and cable racks in the sub-basement from supply sources and other sections of the building. Special gravity and band conveyors transfer goods to dispatch departments. Signal calls, synchronized clocks, O.K. and G.P.O. telephone systems with the centralized distribution boards, are located in relation to the department control desired. Concealed sprinklers with outlets arranged symmetrically in conjunction with the lighting points, and a liberal supply of electric floor plugs,

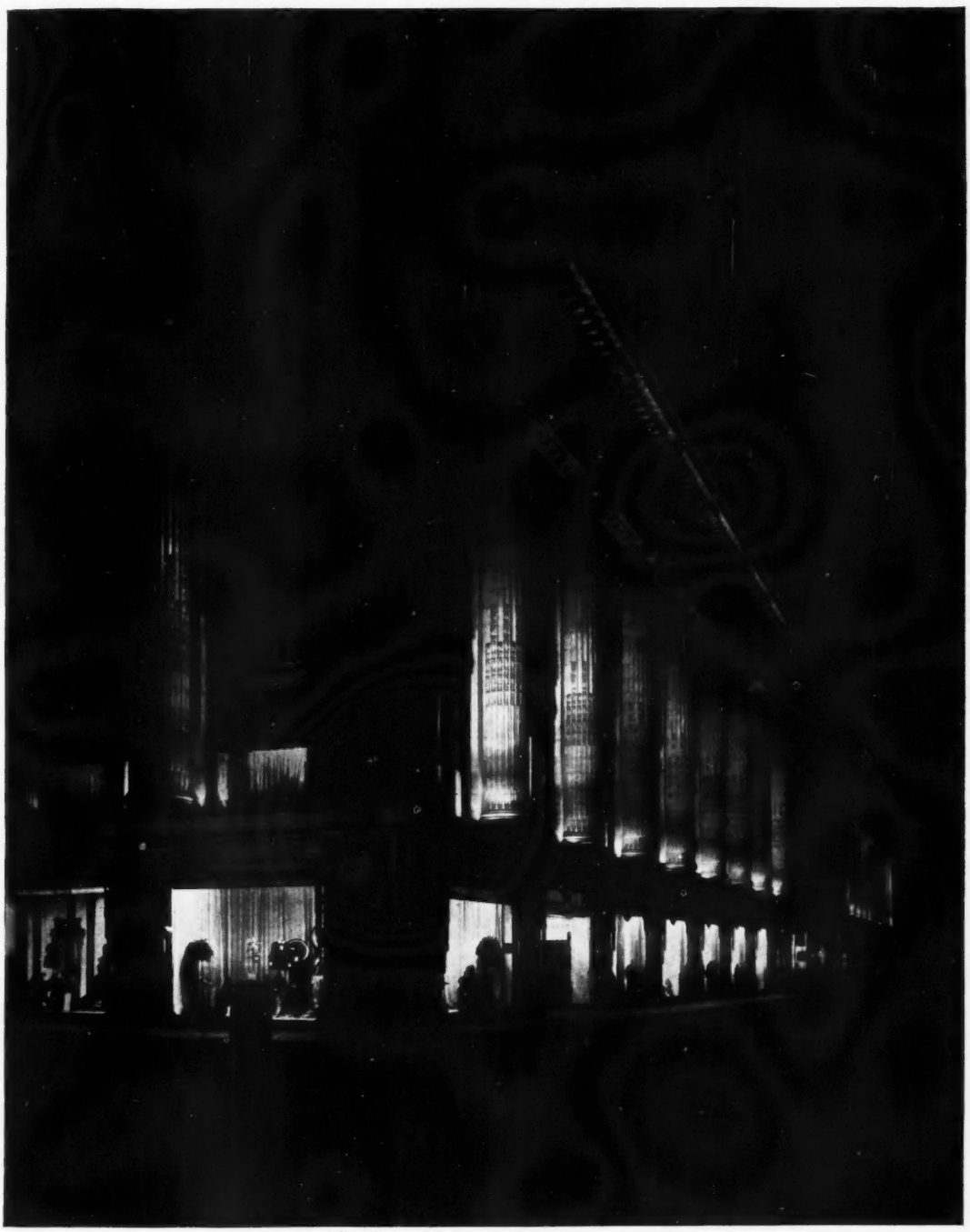
(*Continued on page* 864.)



FIRST-FLOOR PLAN OF THE COMPLETE BLOCK.

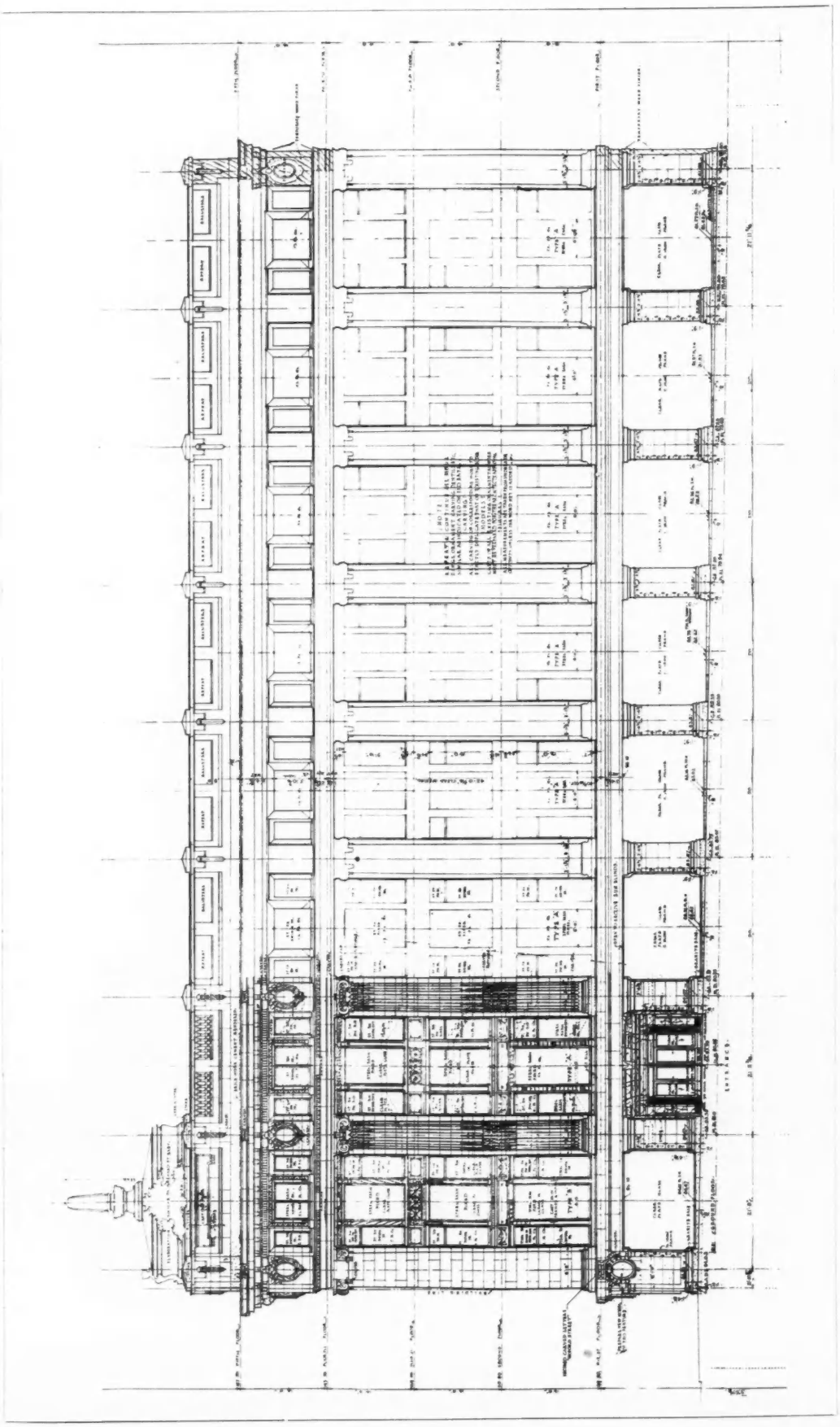
Messrs. Selfridge's New Extension

Graham, Anderson, Probst, and White, and Sir John Burnet and Partners, Associate Architects

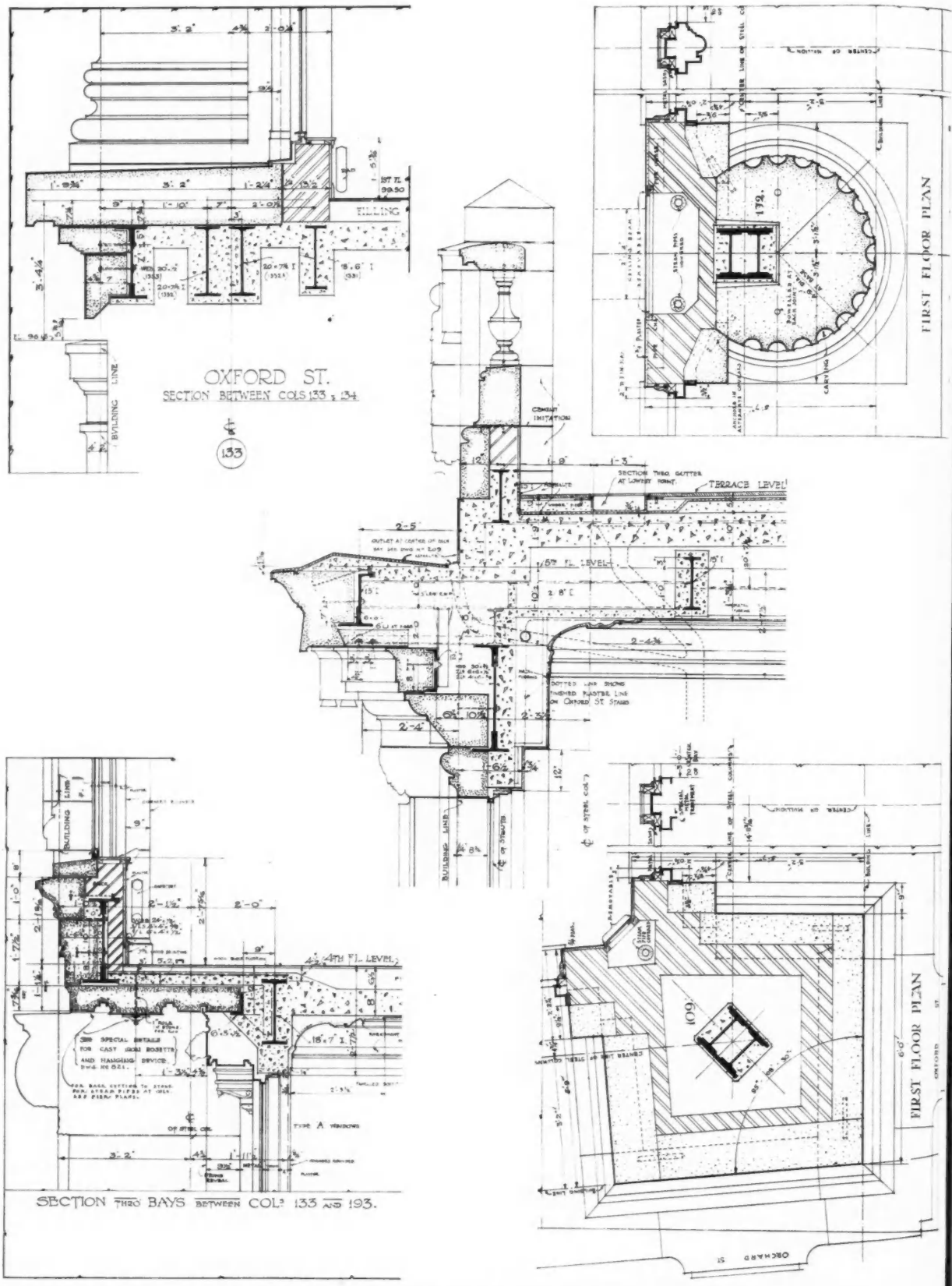


A view of the Exterior, Flood-lighted.

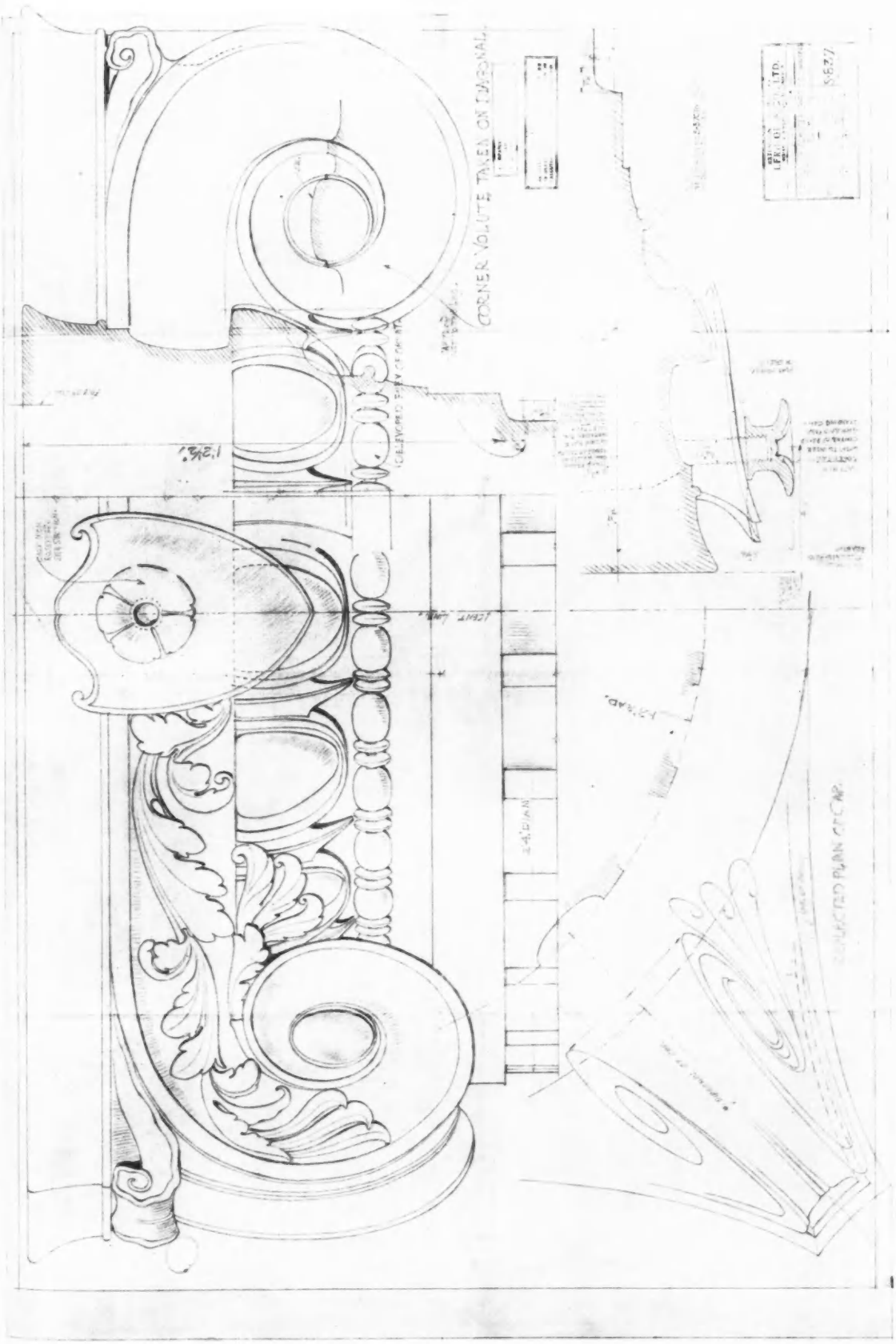
(From the Oxford Street and Orchard Street Corner.)



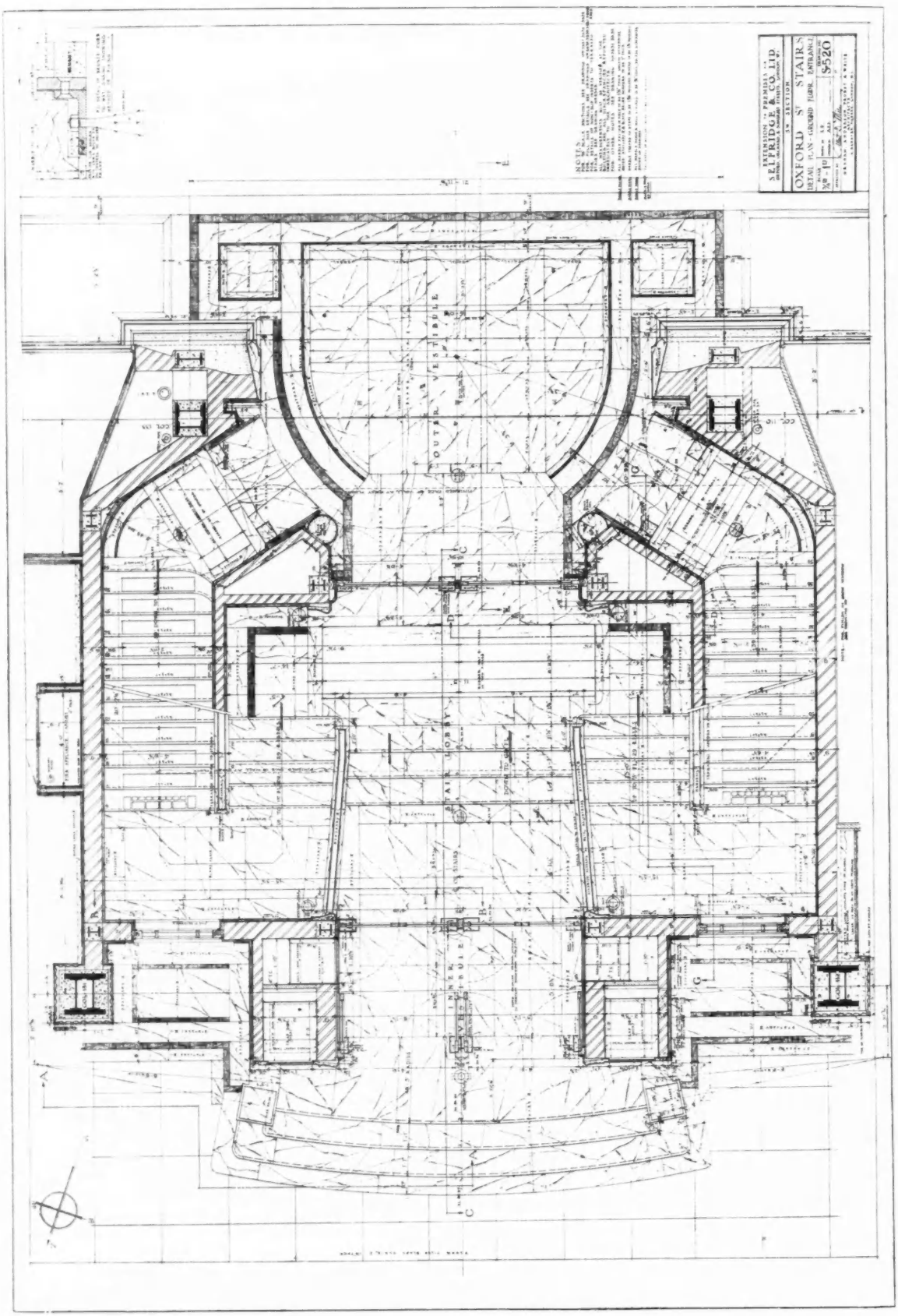
MESSRS. SELFRIDGE'S NEW EXTENSION: THE OXFORD STREET FACADE.
GRAHAM, ANDERSON, PROBST, AND WHITE, AND SIR JOHN BURNET AND PARTNERS, ASSOCIATE ARCHITECTS.



MESSRS. SELFRIDGE'S NEW EXTENSION: DETAILS OF SPANDREL SECTIONS AND PIER PLANS
GRAHAM, ANDERSON, PROBST, AND WHITE, AND SIR JOHN BURNET AND PARTNERS, ASSOCIATE ARCHITECTS.



MESSRS. SELFRIDGE'S NEW EXTENSION: DETAIL OF GROUND-FLOOR COLUMN CAPS
GRAHAM, ANDERSON, PROBST, AND WHITE, AND SIR JOHN BURNET AND PARTNERS, ASSOCIATE ARCHITECTS.



MESSRS. SELFRIDGE'S NEW EXTENSION: GROUND-FLOOR ENTRANCE, OXFORD STREET STAIRS.
GRAHAM, ANDERSON, PROBST, AND WHITE, AND SIR JOHN BURNET AND PARTNERS, ASSOCIATE ARCHITECTS.

MESSRS. SELFRIDGE'S NEW EXTENSION: GROUND-FLOOR ENTRANCE, OXFORD STREET STAIRS.
GRAHAM, ANDERSON, PROBST, AND WHITE, AND SIR JOHN BURNET AND PARTNERS, ASSOCIATE ARCHITECTS.

INTERIOR OF OXFORD STREET EXIT.

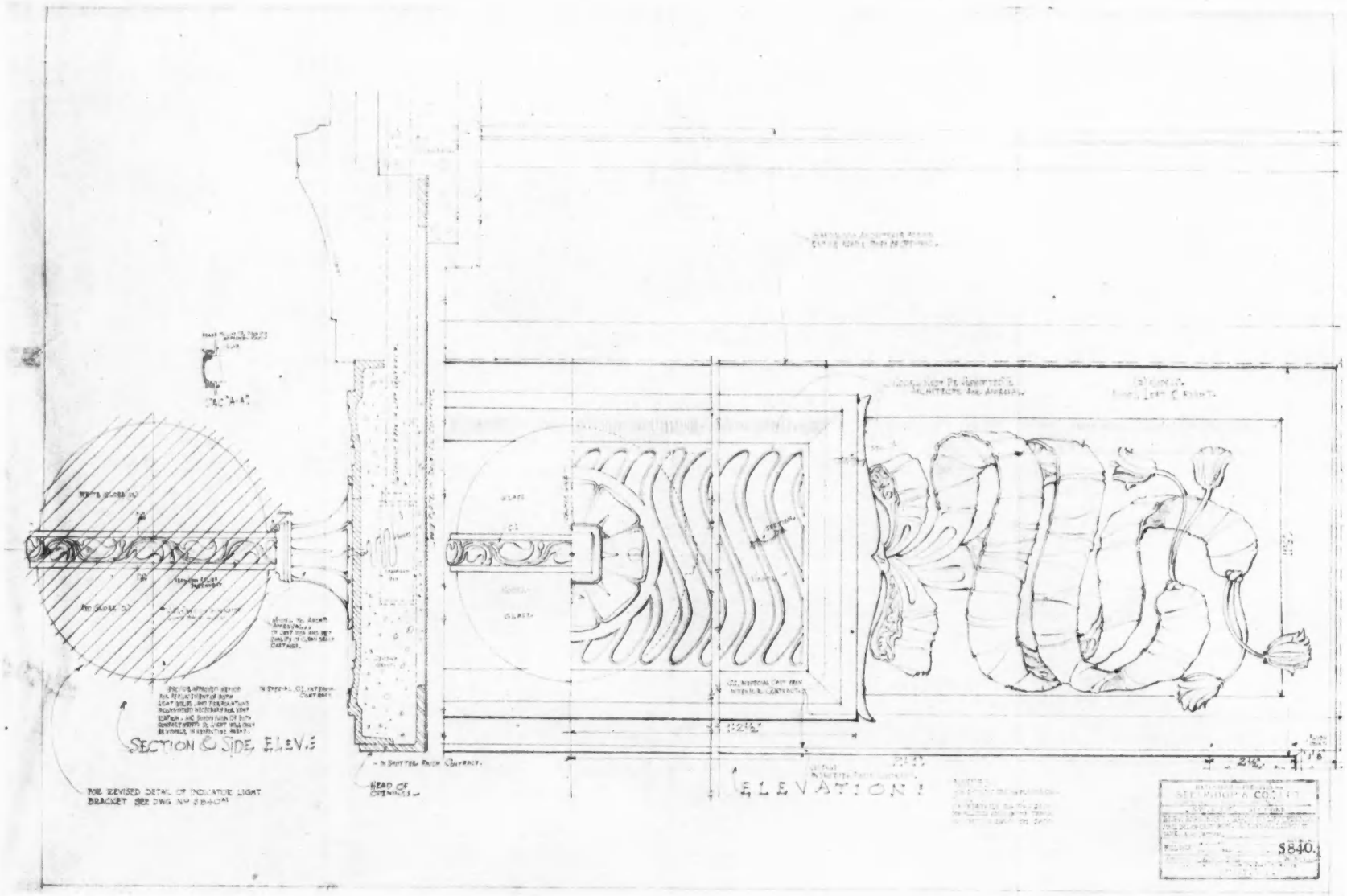
INTERIOR GROUND-FLOOR STAIRWAY.

MESSRS. SELFRIDGE'S NEW EXTENSION. GRAHAM, ANDERSON, PROBST, AND WHITE, AND SIR JOHN BURNET AND PARTNERS, ASSOCIATE ARCHITECTS.

MESSRS. SELFRIDGE'S NEW EXTENSION: DETAILS OF INTERIOR WALLS AND LIFT ENCLOSURES.

GRAHAM, ANDERSON, PROBST, AND WHITE, AND SIR JOHN BURNET AND PARTNERS, ASSOCIATE ARCHITECTS.

MESSRS. SELFRIDGE'S NEW EXTENSION: DETAILS OF INTERIOR WALLS AND LIFT ENCLOSURES.
GRAHAM, ANDERSON, PROBST, AND WHITE, AND SIR JOHN BURNET AND PARTNERS, ASSOCIATE ARCHITECTS.



MESSRS. SELFRIDGE'S NEW EXTENSION: DETAIL OF HEAD OVER LIFT OPENINGS.
GRAHAM, ANDERSON, PROBST, AND WHITE, AND SIR JOHN BURNET AND PARTNERS, ASSOCIATE ARCHITECTS.

allow for flexibility and interchange of departments as desired.

Show-window backs have been provided in the most inexpensive manner, as these are only used intermittently between special displays. The management prefer the more theatrical type of display setting, which allows greater variety of display and avoids the monotony of being committed to a definite scheme of colour and treatment for the background.

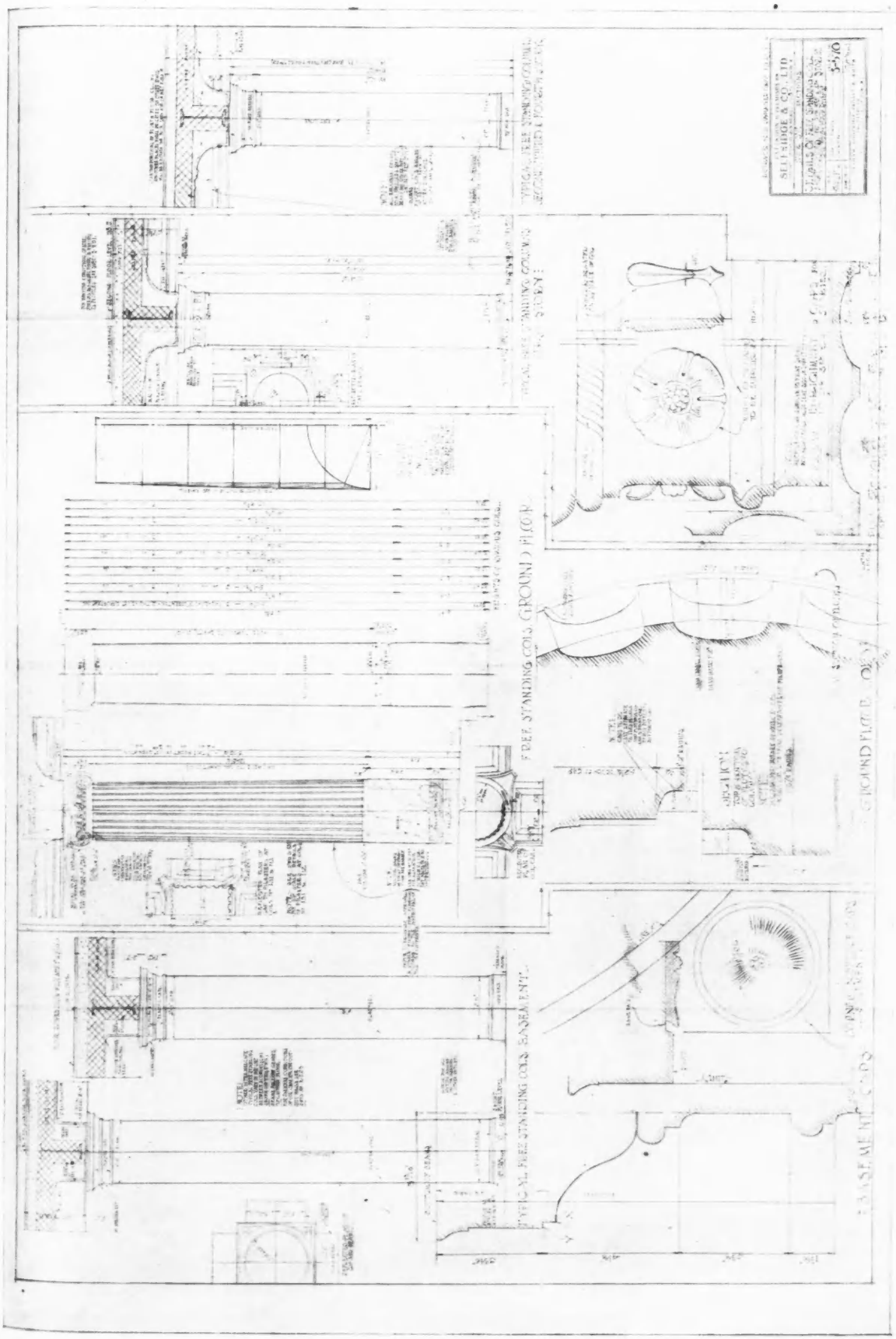
Of the special installations in the new section is the fur vault located in the basements and running through two stories. This contains about 65,000 cubical feet, with fur racks accessible from four gallery levels. CO_2 direct expansion is the means of cooling adopted, and the vault can be maintained at 24° F. when desired. Large fans circulate the cold air over the cooling coils through a series of ducts which distribute the air in equal volumes in order to maintain balanced temperatures in the fur store. The refrigerating plant is in duplicate to ensure constant supply of cold air. Furs are received in a separate room, where they are inspected and sorted out, and a sealed chamber provided with necessary appurtenances for cleaning the furs before they are stored in the vault.

Messrs. Graham, Anderson, Probst, & White—represented in England by Mr. A. D. Millar—and Sir John Burnet & Partners, are the associate architects for the extension. Messrs. Graham, Anderson, Probst, & White are also the designing structural and mechanical engineers and superintendents of construction. Messrs. F. D. Huntington, Ltd., were the contractors.

It is interesting to recall that the original Selfridge building was opened in 1909, having been completed to designs of Messrs. D. H. Burnham & Co. (predecessors of Graham, Anderson, Probst, & White), which designs were revised and the work finally executed under the direction of the late Mr. R. Frank Atkinson, F.R.I.B.A.

Messrs. F. D. Huntington, Ltd., were the general contractors for the Selfridge's extension (second operation), and the sub-contractors were as follows: Aston Construction Co., Ltd. (constructional steelwork); Kleine Patent Fire-resisting Flooring Syndicate (fireproof floors); Bath and Portland Stone Firms (Portland stone); St.tson, White & Co. (plumbing work, etc.); Clark and Fenn, Ltd. (plastering); Wyllie and Lochhead, Ltd. (joinery); Mather and Platt, Ltd. (sprinklers); R. Marus & Co. (terrazzo work); Bromsgrove Guild, Ltd. (interior ironwork); Acme Flooring Co., Ltd. (woodblock flooring); Fenning & Co. (marble work); Ragusa Asphalte Co. (asphalt); Waygood-Otis, Ltd. (lifts); Higgins and Griffiths (electrical work); John Blaikie and Sons, Ltd. (heating); Sturtevant Engineering Co. (vacuum cleaning); Walter Macfarlane & Co. (exterior ironwork); C. H. Mabey (stone carving); Art Metal Equipment Co., Ltd. (rolling steel shutters); Stuarts Granolithic Co. (reinforced concrete stairs); Newsome & Co. (copperlite glazing).

INTERIOR VIEW, FRONT OF LIFTS.



MESSRS. SELFRIDGE'S NEW EXTENSION: INTERIOR PLASTER DETAILS.
GRAHAM, ANDERSON, PROBST, AND WHITE, AND SIR JOHN BURNET AND PARTNERS, ASSOCIATE ARCHITECTS.

Architects' Own Homes—10

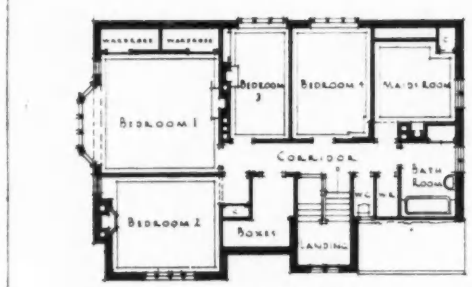
"High Barns," Leek: The Residence of Mr. R. T. Longden, F.R.I.B.A.

This house was built during the year 1912 on a hillside site on the south of the town, and commands from all its windows a view of some ten miles of open countryside and moorland.

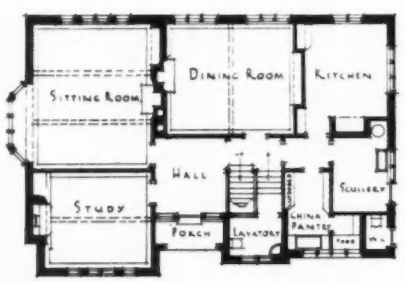
The slope from the road to the rear was so great that the garden level on the west side admitted the introduction of the lower ground floor, comprising the day nursery, loggia, and workshop.

The house is constructed largely of old oak, removed from Trentham Hall during the demolition of the latter, and is faced throughout the exterior with 2-in. Collier's multicoloured bricks.

The various rooms are shown in the accompanying illustrations, which give respectively the plans of the basement, the ground floor, and the first floor. It will be seen that the ground floor contains dining-room, sitting-room, and study. See also views on opposite page.



FIRST FLOOR PLAN.



GROUND FLOOR PLAN.

BASEMENT PLAN

SCALE OF FEET

"HIGH BARNS," LEEK, FOR R. T. LONGDEN, F.R.I.B.A.

"Greywoods," Birchall, Leek: the Residence of Mr. W. J. Venables, Licentiate R.I.B.A.

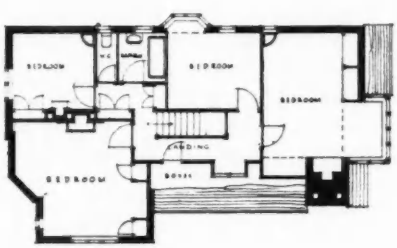
Some three years ago a building estate was opened up on the south side of Leek, around the newly formed eighteen-hole golf course of the Leek Club, and the whole of the lay-out scheme and links were the work of Messrs. Longden and Venables, F. and Licentiate R.I.B.A.

Mr. Venables' house was the first erected on this estate, and occupies a position overlooking the golf course.

The site of about two-thirds of an acre is laid out in a formal manner, and the house itself is faced with Messrs. Tucker & Co., Loughborough, sandfaced 2-in. multi-coloured stocks.

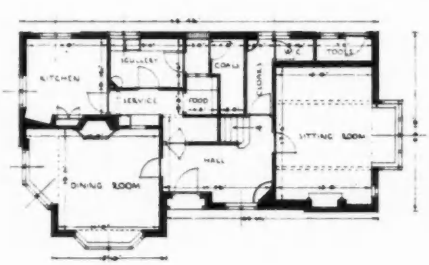
The interior planning arrangements and treatment are shown herewith. See also page 868.

On the ground floor are the dining-room and sitting-room, with the kitchen, scullery, and the usual services and offices, and it will be seen that the first floor comprises four bedrooms with the usual adjuncts.



FIRST FLOOR PLAN

SCALE OF FEET



GROUND FLOOR PLAN

"GREYWOODS," BIRCHALL, LEEK, FOR W. J. VENABLES.

"HIGH BARNS," LEEK: THE EXTERIOR

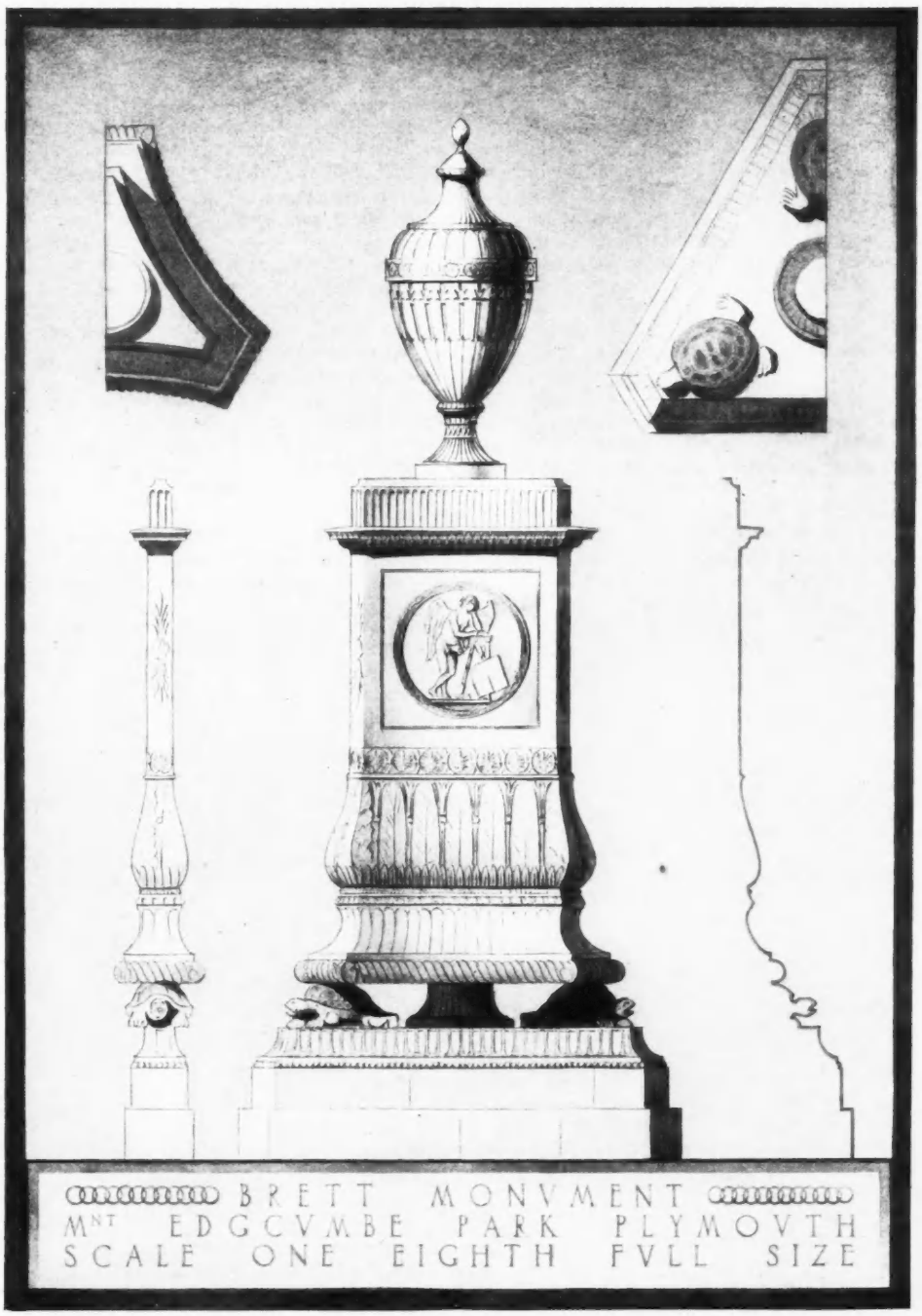
"HIGH BARNS," LEEK: THE DINING-ROOM FIREPLACE.

"GREYWOODS," BIRCHALL, LEEK: EXTERIOR VIEW.

"GREYWOODS," BIRCHALL, LEEK: SITTING-ROOM.

The Brett Monument, Plymouth

Measured and Drawn by John H. Millman



A note about the above appears on page 873.

Practical Architectural Modelling—V

By EDWARD W. HOBBS

THE construction of an architectural model of any kind always seems to involve the solution of a problem. At the outset everything seems perfectly simple and straightforward, but before long some difficulties are sure to crop up. Particularly is this the case with small details of construction—for example, with rainwater fittings. If these are to be nicely modelled, it is almost imperative to construct the work in metal. True, it can be done in other materials that some workers may find more adaptable, but such work as rainwater guttering, and the like, is in the writer's opinion most easily effected by the use of thin tinned steel plate, commonly known as tinplate.

The simplest plan is to prepare the guttering in separate sections. First file up a block of steel so that one of its edges is of the correct form for the guttering, or sufficiently so for the purpose. This is then held in the vice as shown in Fig. 1, and the tinplate hammered to shape on the bending-block. Generally it is possible to commence the bending with the aid of a pair of pliers, and to finish the work with light, rapid hammer blows, the while holding the tinplate firmly in place on the block in the vice. It is desirable to make these sections of suitable scale length, and as nearly scale size and proportion as possible. A supply of stopped ends, outlet nozzles, and other details should be prepared in readiness for assembly on the model. The stopped ends are easily made by soldering shaped pieces of tinplate into the ends of the short sections of guttering.

The outlet nozzle is made by piercing a hole through the lower part of the guttering and soldering into it a little piece of tube. The rainwater pipes can be made from thin tube if necessary, but it is generally more practicable to use solid brass rod. This rod should have a brass ferrule soldered to it, with separate ears soldered to the ferrule, somewhat as shown in Fig. 2. The amount of detail to be put into these small parts will be determined by the nature and purpose of the model. Here, again, the length of the rod, as well as its diameter, should be governed by considerations of scale size. Swan-necks are made in a similar manner, but of course have to be bent to the desired curvature, and an example is also shown in Fig. 2.

FIGURE ONE.—SHAPING A RAINWATER GUTTER.

When sufficient of these parts have been prepared, they are fastened to the model with fine pinheads driven through holes pierced in the ears, thus simulating actual practice. Sanitary fittings, pipe-lines, and the like, can also be made upon much the same lines. For the smaller systems ordinary metal tube answers very well for drain-pipes. Another plan, when the scale is fairly large, is to cast them in moulds.

These moulds can be made of hardwood carefully carved to shape, or if only a few castings are to be made up from them may be of plaster. In the latter event it is best to make one very good model drain-pipe, turning this in a lathe from hardwood to its exact shape. Instead of making the model tubular, little projecting pegs are left on at each end, slightly less in diameter than the desired bore. These ends are known as prints.

The model, having been made in this way, is coated with white vaseline. The next operation is to prepare two cardboard boxes of suitable size for the model. For example, if the latter is $2\frac{1}{2}$ in. in length, and $\frac{1}{2}$ in. in diameter, the boxes may conveniently be about $3\frac{1}{2}$ in. in length, and $1\frac{1}{2}$ to 2 in. in width, with a depth of about $1\frac{1}{2}$ to 2 in. Both boxes should be of the same size and shape. One of them is then filled with liquid plaster of Paris. This should be of the very finest quality—that known as "double superfine Italian" being the best for the purpose. It should be mixed by putting some water into a small bowl and then pouring the plaster gently into the water, stirring during the whole of the operation. Continue pouring and stirring until the mixture is of the consistency of thick cream. Then pour it carefully but quickly into one of the boxes until it is level with the top.

Then lay the model on the surface of the plaster and press it down until it is half submerged. Have in readiness a couple of pieces of round wooden rod, about $\frac{3}{16}$ in. diameter; press these for half their length into the surface of the plaster, and allow the whole to set hard. Treat the second box in the same way; coat the whole surface of the model and the plaster in the first box with white vaseline, immediately place it upside down on the second box, which should be filled with moist plaster, and press the two firmly together; allow them to stand for about an hour, then carefully separate the two boxes and remove the model.

There should now be in each surface of the plaster a partial depression corresponding to the shape of the model and the prints. Now prepare a little hardwood peg that will fit nicely into the core print—that is, the depression in the plaster corresponding with the projections on the model. This peg must be liberally coated with vaseline, and can then be laid in place in the mould. Next cut away the surface of the plaster to form a V-shaped groove, called a "gate," by cutting from the outside of the box across the surface to the depression, its purpose being to allow of the plasters being poured through. Make two fine cuts on the opposite side of the depression to the outside of the box, and make these cuts at about the ends of the depression.

Then put the two boxes together as before. Their position is determined by the dowel pins, which are already in

FIGURE TWO.—ASSEMBLING RAINWATER FITTINGS.

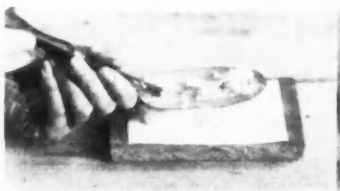


FIGURE THREE.—SHAPING THE WAX FOR A MODEL BATH

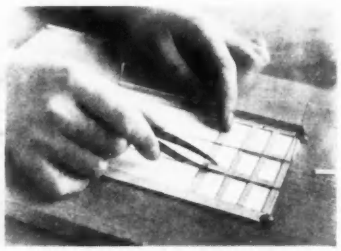


FIGURE FOUR.—MAKING A SECTION OF PANELLING.

place. Fasten the two halves together by binding them round with string, and then carefully pour in the plaster through the V-shaped aperture known as the gate. The other two small holes will allow the air to escape so that the plaster can flow freely into the space around the wooden core, and entirely fill the cavity. Allow the whole to set for about an hour, and then carefully separate the boxes as before, withdrawing the plaster model by lifting it out with the aid of the wooden core. Allow the plaster to stand for an hour or two to get quite hard, when the core can be gently drawn from the centre of the plaster model.

Any slight raggedness in the vicinity of the gate or vent holes can then be cleaned off with sandpaper, and the result should be a good model drain-pipe in plaster, which can be coloured with water-colours, or, if preferred, oil-colours, similarly to originals. The plaster mould made in this way should make a dozen or more satisfactory models, and as the original master model is in existence a new mould can quickly be made if necessary.

Awkward-shaped articles, such as baths, lavatory basins, closet pans, and so forth, can best be modelled of plastic material. If only one is wanted, Necol plastic wood, or any of the modelling clays, can be used, and the modelling carried out in the usual way with modelling tools. After the work is completed, the article is best set aside to dry thoroughly hard. This will take several days, and the drying must on no account be unduly accelerated, or the material will crack. When the clay is hard, the final touches can be imparted by judicious scraping with the blade of a pocket-knife, and the hollow parts with the end of a gouge, or specially-made little modelling scrapers. These can be cut to the desired curve from a piece of sheet zinc, the edges being made perfectly smooth and square on an oilstone, and then used with a kind of stroking motion on the clay. The final operation is to paint or enamel the model to represent the original.

Another good plan, when several models are required, is to cast them in plaster, somewhat in the manner described for the drain-pipe. An excellent way of making the master-model is to employ paraffin wax. This can be purchased from the chemist at small cost, and is in the form of lumps. It has first to be dissolved by gentle heat, and an excellent method, that should be used, however, with care, is to warm the pieces of the wax in an enamelled iron saucepan heated by a very small spirit-burner. The great thing is to employ only gentle heat, and avoid all risk of the wax spilling and becoming ignited. The wax burns very fiercely, but the flame can be effectually smothered with a wet cloth or the like.

The wax, being melted, should be poured into a cardboard container, made up to the approximate size of the desired object. In the example illustrated by Fig 3 this is for a bath. The container is simply a strip of cardboard bent to the right shape, and held to a cardboard base with a few pins, as clearly visible in the illustration. When the wax has cooled in the container, and become solidified, the interior of the bath is shaped by gouging away the wax with ordinary wood-carver's tools. The next operation is to remove the cardboard box from the wax and turn it upside down, laying it upon a piece of smooth card. The exterior of the bath has now to be shaped, and this can generally be accomplished easily with the aid of an ordinary pocket-knife, but care is necessary, as the wax is rather fragile, and is easily distorted. Should an accident happen the form of the bath can be quickly restored by slightly warming the wax and working it into shape with a modelling tool.

When the model of the bath is finished in wax it is used as a model for the making of a plaster mould, in exactly the same manner as described for the drain-pipes. If care is exercised when separating the two boxes, the wax model can be removed without distorting it, and can be preserved

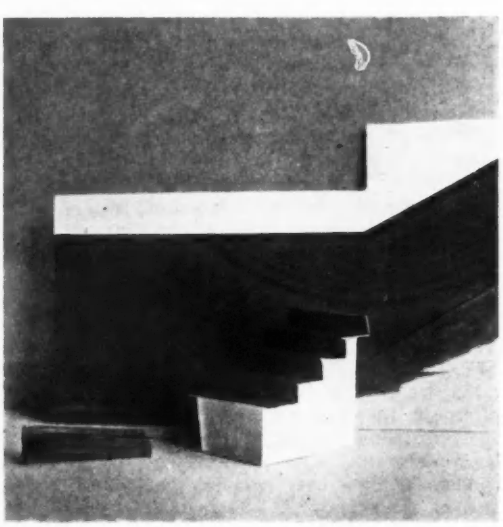


FIGURE FIVE—DETAILS FOR A STAIRCASE.

FIGURE SIX.—DETAILS OF A LANDING, ETC.

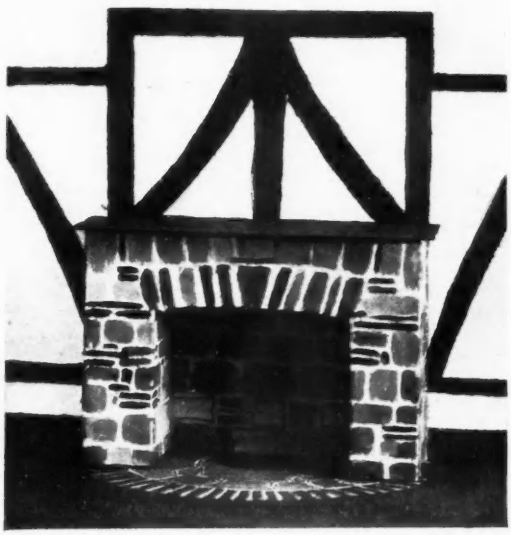


FIGURE SEVEN.—A MODEL OF AN OLD-WORLD FIREPLACE.

until the requisite number of plaster castings have been satisfactorily made. When a two-part moulding-box is made, such as that mentioned before, it is of course necessary that no part of the model shall be undercut, otherwise it could not be withdrawn from the mould. This is no detriment to work of this character, however, as any undercutting that has to be shown can be modelled on the castings themselves, which will in any case probably want a little touching up to make them perfect.

Lavatory basins and other fittings can be made up in the same way, and for that matter so can a great number of small intricate details of which several are required of uniform size and scale. When working such details as panelling, for the interior of a model, the method illustrated in Fig. 4 is quite good. Here a section of the panelling is shown in process of construction. The procedure is to prepare a piece of card to form a base, which will represent the surface of the most recessed portion of the panelling. This card is then mounted on a piece of building-board by means of drawing pins, and the wainscot and frieze rail, or the top rail of the panelling, is applied. These are simply parallel strips of card of appropriate width and thickness, and are fastened to the card with seccotine or other adhesive. The vertical and horizontal members are applied in the same way, and to keep the small portions in line pins can be driven into the baseboard at their appropriate places, and black thread stretched between them, the threads representing the upper or lower edges of the framing and acting as a guide when setting the small parts. Another plan of course is to mark out the card with pencil, but this may necessitate the subsequent removal of the pencil marks, and in any case it takes longer than the setting up of the threads.

Staircases may call for a great deal of detail work, and often are as much a problem to the model-maker as they are to the architect and builder. For many purposes the stairs can be made up in the manner shown in Fig. 5, which illustrates part of the well for an interior model, and shows on the right the place where the stairs are to rise. The treads and risers of the stairs themselves can be made from strips of card, their length equal to the width of the staircase, and their breadth equal to the width of the tread plus the height of the riser. The card is scored at the junction between the two, and bent at right angles.

A number of these L-shaped sectioned pieces are prepared and then assembled on rough card strings, the upper edge of the card notched to support the treads and risers, as clearly visible in the illustration. This method is appropriate when the underside or soffit of the stairs is not revealed, otherwise it will be necessary to make rather more substantial strings, and mount the steps on them. A quarter-landing is shown in Fig. 6, complete with corner-post and banister rail. The bottom step is here shown with a rounded corner, modelled by cutting the tread to the right shape and making the bottom of the riser from a strip of card, curving this to correspond with the shape of the tread. The card should be set back slightly so as to leave a little projection to represent the stair-nosing.

Considerable care is necessary to make up the different portions of the staircase so that they will all fit together perfectly, but this of course applies to almost all aspects of architectural modelling.

Fireplaces offer the practical model-maker considerable scope, and are often very effective. An example is illustrated in Fig. 7, which shows a fireplace of the old-world type. The method of construction can follow very much along the same lines that would be adopted for small external projections on a model. The back of the fireplace will be taken as a foundation or commencing point, and on this card will be built up the jambs and projecting portions of the fireplace proper, which are modelled and coloured to represent the original.

(To be concluded.)

The Brett Monument, Plymouth

Measured and Drawn by John H. Millman

The beautiful and imposing edifice illustrated on page 869, stands in the Italian Gardens of the Earl of Mount Edgcumbe's grounds, near Plymouth.

The monument rises from a triangular-shaped podium, and is borne by an ancula pedestal and three tortoises, which stand one at each corner of the podium.

It has three concave faces, each face being adorned with a tri-colour panel. Two of the panels are carved with figure subjects in low relief; on the other is an inscription which reads:

M. S. VIRI OPTIMI ET AMICISSIMI TIMOTHEI BRETT.
M . DCC . XCI .

The whole is crowned by an urn of distinct beauty.

The monument is built of Carrara marble and skilfully carved.

It shows some signs of wear, parts of the cornice and tortoises being absent, but this is recompensed by the wonderful effects of colouring bestowed upon it by weathering.

There is reason to think that it was designed by the Adam Brothers in the eighteenth century. Its chaste design, the remarkable carving, of which much is similar in design to that of the Georgian Period, and the date of the inscription lend considerable weight to this theory.

New Methods of Using Set-Squares

By R., Author of R.'s Methods

EQUAL division of line and many other apt workings can be done with our 60°, 30°, and 45°, 45° set-squares, sliding on the blade of a Tee-square; few architects know how to divide a straight line, even into three equal divisions, with a set-square.

Many of these divisions can be got in several different ways, of such equal simplicity that it is hard to decide which to show; I will select very easy ways to divide a line into two, three, four, five, six, seven, eight, nine, ten, eleven, twelve equal parts; using only the 60°, 30° set-square, except in dividing into eleven equal parts, in which case I will use also the 45°, 45°.

In each case I will divide the line AB (Fig. 1).

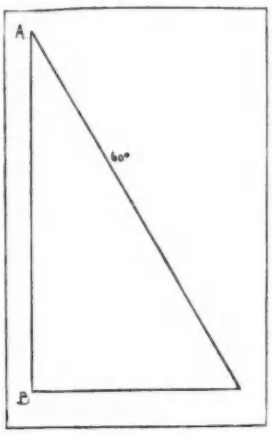


FIGURE 1.

To divide the line AB into two equal parts: (Fig. 2) 60° lines from A and B cross at point through which a horizontal line will divide AB into two equal parts.

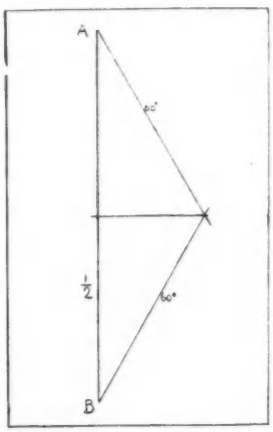


FIGURE 2.

To divide into three equal parts: (Fig. 3) Starting with the triangle ABC; a 30° line from C gives $\frac{1}{3}$ of AB; a 60° line from this point and a horizontal line as shown in dotted lines gives the other divisions.

To divide into four equal parts: (Fig. 4) A 60° line from A, and a 30° line from B, cross; then a horizontal line through crossing gives $\frac{1}{4}$ of AB. The preceding diagram gives other divisions.

To divide into five equal parts: (Fig. 5) Starting with the triangle ABC, 30° lines from A and B cross, and a line through their crossing and C gives $\frac{1}{5}$ division of AB.

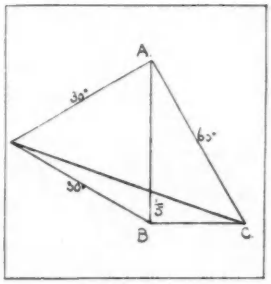


FIGURE 5.

To divide into six equal parts: (Fig. 6) Starting with the triangle ABC, 30° lines from B and C cross; a horizontal line through this crossing gives $\frac{1}{6}$ of AB.

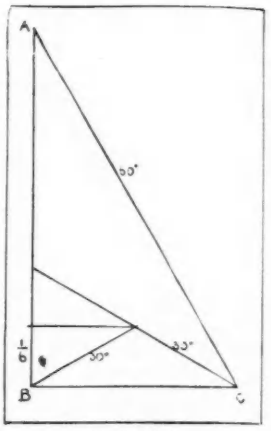


FIGURE 6.

To divide into seven equal parts: (Fig. 7) Starting with the triangle ABC; a 60° line from A and a 30° line from B cross; a line through their crossing and C, gives $\frac{1}{7}$ of AB.

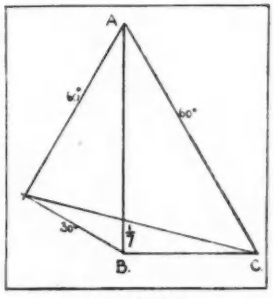


FIGURE 7.

To divide into eight equal parts: (Fig. 8) Divide AB into $\frac{1}{4}$; then $\frac{1}{2}$ of $\frac{1}{4}$ gives $\frac{1}{8}$ of AB.

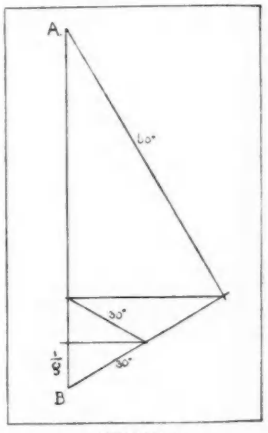


FIGURE 8.

To divide into nine equal parts: (Fig. 9) Divide into $\frac{1}{3}$; then $\frac{1}{3}$ of $\frac{1}{3}$ gives $\frac{1}{9}$ of AB.

To divide into ten equal parts: (Fig. 10) 60° lines from A and B on one side; 60° line from A, and 30° line from B on the other side of AB; then a line through their crossings

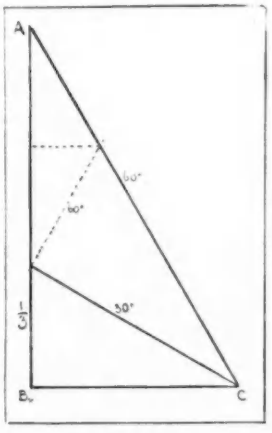


FIGURE 3.

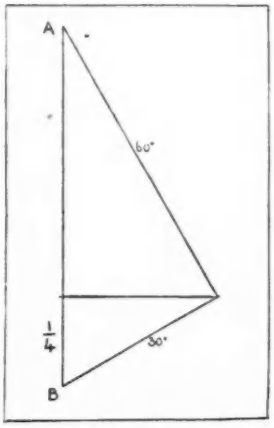


FIGURE 4.

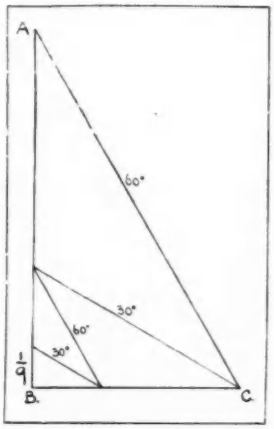


FIGURE 9.

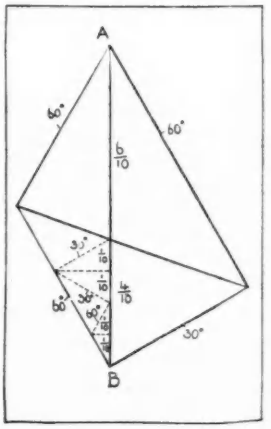


FIGURE 10.

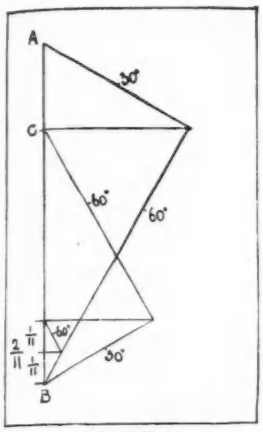


FIGURE 11.

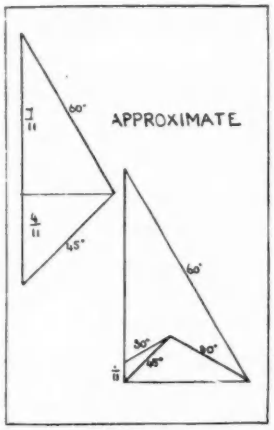


FIGURE 12.

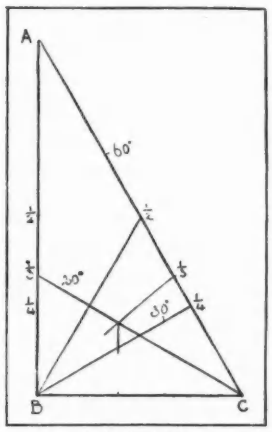


FIGURE 15.

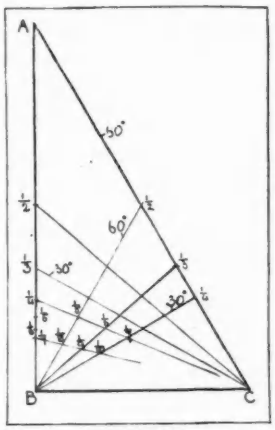


FIGURE 16.

divides AB into $\frac{6}{10}$ and $\frac{4}{10}$; then divide $\frac{4}{10}$ into four equal parts as shown in dotted lines.

To divide into eleven equal parts: (Fig. 11) A 30° line from A and a 60° line from B cross; a horizontal line through their crossing gives $\frac{1}{4}$ of AB, at C. Divide CB into $\frac{1}{4}$; this gives a near approximation to $\frac{2}{11}$ of AB. Divide this into 2 to get $\frac{1}{11}$ of AB.

It actually gives $\frac{3}{16}$; the difference of $\frac{3}{16}$ and $\frac{2}{11}$ is $\frac{1}{176}$. Here are two other ways of getting $\frac{1}{11}$ of a line. (Fig. 12.)

To divide into twelve equal parts. Divide into $\frac{1}{3}$ of AB; then divide this into $\frac{1}{4}$; this gives $\frac{1}{12}$ of AB (Fig. 13).

The $\frac{1}{12}$ part having been got, it will be evident how to get the remaining $\frac{1}{12}$th divisions, either by applying the division along AB with the compasses, or by drawing a vertical through apex a, and taking 30° slope lines from this vertical. This will also apply to the other diagrams of division.

The extended range of set-squares representing a natural scale of form I use for other purposes enable many of these divisions to be made much more easily and expeditiously. My aim here is to show how greater rapidity and much more interesting and intellectual working can be performed with our ordinary drawing instruments.

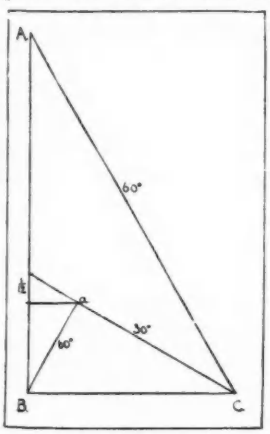


FIGURE 13.

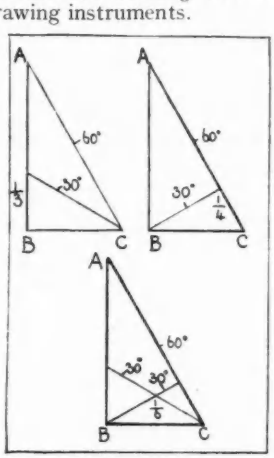


FIGURE 14.

From Fig. 14 it will be seen that the same 30° slope cuts the vertical at $\frac{1}{3}$ of AB, and the hypotenuse at $\frac{1}{4}$ of AB, and that these lines cross at a point giving $\frac{1}{6}$ of AB. Now very useful information and a valuable law can be got from these facts. First, if any slope line is drawn from ends of base of a triangle, the measure of the line from crossing of hypotenuse to base will have one more in its denominator than the fraction on the vertical line; so knowing one fraction, at once gives the other. Then there is the following useful rule: Draw any slope line from ends of base to vertical and hypotenuse; add the denominators of the fraction together; deduct 1; then remainder gives the denominator of fraction at vertical from crossing point to base; thus, in diagram above the denominators are 3 and 4; add together, and deduct 1; 3+4=7; 7−1=6, the demoninator of fraction of vertical from crossing point to base.

Take set-square ABC (Fig. 15); the 60° line from B cuts hypotenuse at $\frac{1}{2}$; transfer this $\frac{1}{2}$ to the vertical. The 30° line from C gives $\frac{1}{3}$ on vertical; transfer this to hypotenuse; the 30° line from B gives $\frac{1}{4}$ on hypotenuse; transfer this to vertical.

Now, required $\frac{1}{5}$ of AB; 3+3 −1=5; so lines from $\frac{1}{3}$ to B and $\frac{1}{3}$ to C will cross at a point from which a vertical to base will be $\frac{1}{5}$ of AB. In similar manner any division up to $\frac{1}{7}$ can be got.

The slope line from $\frac{1}{4}$ to C (Fig. 16) cuts the three opposite slope lines at $\frac{1}{5}$, $\frac{1}{6}$, $\frac{1}{7}$ of AB; transfer these divisions to vertical, and draw a slope line from $\frac{1}{7}$ to C; this cuts the opposite slope lines at $\frac{1}{8}$, $\frac{1}{9}$, $\frac{1}{10}$ of AB; transfer these divisions to AB and AC (Fig. 17); now by crossing of two slopes one can get any division of AB up to $\frac{1}{19}$; for illustration: Required $\frac{1}{17}$ of AB. The slopes from $\frac{1}{9}$ to B and $\frac{1}{9}$ to C will cross at $\frac{1}{17}$.

Again; required $\frac{1}{15}$ of AB;

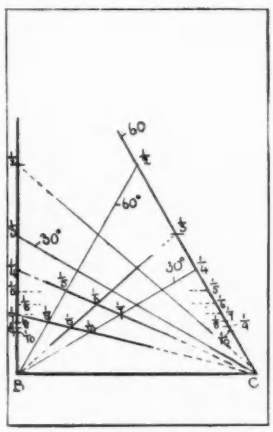


FIGURE 17.

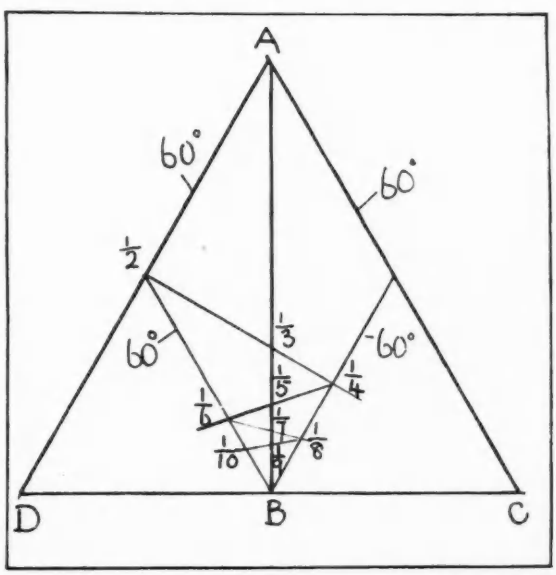


FIGURE 18.

the slopes from $\frac{1}{7}$ and $\frac{1}{7}$; or $\frac{1}{10}$ and $\frac{1}{4}$; or $\frac{1}{5}$ and $\frac{1}{5}$, or any that add up to 14 will cross at $\frac{1}{14}$ of AB.

I give here (Fig. 18), what I believe to be an original method of division: Dividing AB into $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, and up to any required part. Draw slope from $\frac{1}{2}$ to C, to get $\frac{1}{3}$, $\frac{1}{4}$; draw slope from $\frac{1}{4}$ towards D to get $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$; draw slope from $\frac{1}{6}$ towards C to get $\frac{1}{6}$, $\frac{1}{7}$, $\frac{1}{8}$, and proceed in like manner to get smaller parts. This method can be used with 45°, 30°, or any other slope.

(To be continued.)

Enquiries Answered

Enquiries from readers on points of architectural, constructional, and legal interest, etc., are cordially invited. They will be dealt with by a staff of experts, whose services are specially retained for this purpose. If desired, answers will be sent direct through the post. In no case is any charge made for this service. Whenever diagrams accompany an enquiry, they must be clearly drawn and lettered and inked in.

TROUBLE FROM WATER-HAMMER.

A Subscriber writes: "Can you suggest a remedy for the 'knocking' that takes place in so many of the service pipes of the modern small house? The houses in all cases are on the main, and the noise only takes place on the cold supply to the cistern. I have tried extending the main to 2 ft. higher than the cistern with a view to forming an air cushion, but this experiment has failed."

—A definite water-hammer in a pipe is sometimes caused by the actual impact of the column of water on starting or stopping when the taps are turned on or off. The provision of slow-acting screw-down taps is often beneficial in such cases.

Where the hammer persists in spite of this precaution, expansion chambers may be formed at the end of the pipe run and at each of its right-angle or acute-angle bends.

The expansion chambers should be wide and round-ended, not merely extensions of the pipe at the same bore, for water being practically incompressible, the same concentrated blow would be dealt to the end of the extension as was originally delivered at the former end of the pipe. The point is to diffuse the blow.

Screwing down the pressure by means of the stop-cock on the main outside the house sometimes alleviates the trouble. Abrupt changes of direction in the pipe runs provide a natural invitation to water-hammer which would be minimized by having all pipes run in graceful curves from the main to expansion chambers near the taps. The non-splashing curves of a manhole give a useful hint of the value of easy bends in hydraulic apparatus. W. H.

HAIR IN PLASTER.

"F" writes: "I am having some trouble with plaster—the hair in the pricking-up stuff seems to be eaten away, and looks as if it is gradually disappearing. I am informed that the cause may be owing to some chemicals used when removing the hair from the beast's hide, and that when the hair is worked up with the lime it is apt to cause some reaction."

—The sample of plaster seems to have contained lime-putty and sand gauged with some patent plaster knocked up again after its initial set.

It would not have been excellent plaster even with long and strong hair in it.

The hair contained in the sample was short and brittle as if burnt by hot lime. This action may have taken place through the use of quicklime in detaching the hair from the hide or through the hair having been mixed in the lime-putty while the chemical action of slaking was still in progress and the causticity of the lime was at its mosf violent stage.

Hair is frequently rendered feeble by being removed from the hide with quicklime, the same action which detaches the hair also tending to disintegrate it.

In its feeble state it is then added by careless workmen to the hot, newly run lime-putty, since it is easier to mix in the milky liquid than in the paste formed by the putty on cooling. When both operations are performed on the same sample of hair it is rotted and becomes entirely worthless.

Unless hair can be procured in a sound condition by hand-scraping, or some equally satisfactory process, strong vegetable fibre is preferable.

Whichever material is used it should be mixed in the putty when this is cold and well knocked-up when the coarse stuff is being turned over for use.

Modern chemistry may have discovered something still more damaging to the hair than hot lime for use in removing it from the hide, and experiment with the hair before it is mixed in the putty might determine its nature, but hot lime is quite destructive enough to account for the state of the hair in the sample. W. H.

DAMP IN INTERIOR WALLS.

"Worcs." writes: "My house was built about fifteen years ago, and during the last year or two dampness has appeared. This occurs at the top of the 'skirting' boards, more especially on the 'inside' walls, as, for instance, on both sides of the hall, which is between the dining and sitting-rooms. The dampness appears to be getting gradually worse. The house occupies a somewhat low situation, and I presume the trouble is due to ground damp rising from defective dampcourses. Would you suggest a remedy? I propose to instal central heating in the house, and perhaps the dampness could be remedied at the same time."

—If water in the low-lying ground is to blame for the dampness it may be possible to improve matters by subsoil drainage outside the house. A trench is cut all round the building at a distance of 7 ft. or 10 ft., with the bottom of the trench sloping down towards a sump pit, or sump pits, from which the water can be run away into drains, or can be absorbed by porous subsoil.

Very often a house is built on land that has been provided with agricultural drains, and these continue to bring moisture right up to its walls, unless precautions are taken to redirect their course and dispose of the water. Natural drainage of the adjoining land surface may also tend to accumulate water under the site of the house.

Trenches made to cut off the flow may be provided, either with agricultural drains to pick up the water and discharge it at the sump pits or gulleys, or a filling of hard, rough clinker, or broken stone may be used for the purpose.

If draining the site is impracticable owing to its position in the very bottom of a hollow, it will be necessary to give greater attention to damp prevention in the construction of the walls themselves. The house may then be regarded as a floating box, and its bottom and sides should be impervious to water. Good cement concrete, 6 in. thick, over the site, will keep moisture at bay if provided with a surface rendering of cement mixed with an approved waterproofing material.

New dampcourses can be inserted in existing walls by cutting out a course of bricks at dampcourse level, and inserting sheets of lead, whole slates bedded in cement, or other impervious materials. The work is done in short lengths, so as to avoid depriving the building of its proper support during the process. The replacing of the brick course in cement mortar demands special tamping to ram the mortar tightly into the joints and pick up the weight of the work above.

Warmth and ventilation are necessary to remove dampness in the interior of a building. Warmth alone merely brings moisture to the spot, and a current of air is demanded to carry the water off the premises through flues and windows. A change from open fires to central heating may mean an increase of damp in the building if all fireplace openings are blocked up and windows are not habitually kept open.

Adequate air circulation under the ground floor must also be provided by means of air bricks in the enclosing and partition walls. The air bricks must be placed where it will be possible for them to actually permit of movement in the air, for stagnation results if the air bricks can only be provided on one side of the house.

Dampness in the interior walls may indicate the lack of a through current, and this should be arranged for in any case, whatever other measures may be found necessary. If a difference of level in the earth at back and front of the house, or a soild scullery floor makes ventilation difficult, the through ventilation may be provided by means of pipes communicating with the air bricks and penetrating the obstacle. W. H.

Law Reports

Pathway Passing Front of House

Leader and Wife v. *Varley.*

Court of Appeal. Before Lords Justices Bankes, Warrington, and Scrutton.

This appeal raised a point as to a right of way over the plaintiffs' land and passing the plaintiffs' windows at Church Mount, Sutton-on-Hull. The defendant claimed a right of way over the land to Town Street, Sutton-on-Hull. The plaintiffs originally sought an injunction against the defendant for trespass in the Hull County Court, and the judge found in favour of the defendant. The plaintiffs appealed to the King's Bench Divisional Court, and Justices Swift and Finlay reversed that decision and gave judgment for the plaintiffs. The defendant now appealed from that judgment, and Mr. Ward Coldridge, K.C., argued the case on his behalf.

It appeared that previously there had been a user of the path for years, and that if the defendant's conveyance gave him the legal user and the right to pass that way, the plaintiffs could not contest it, but their contention was that the most the defendant's conveyance gave him was a right of way in one direction, and not to the other and past the plaintiffs' house.

In the Divisional Court their lordships held in favour of the plaintiffs, expressing the opinion that the defendant's rights were expressly defined in his conveyance, and that he trespassed by going past his boundary line in the direction of the plaintiffs' property.

Their lordships now dismissed the appeal of the defendant with costs, endorsing the judgment of Justices Swift and Finlay, expressing the opinion that the right of way claimed by the defendant did not pass under his conveyance, and was not intended to pass under it.

Building Plans—Misused Legal Method

The Justices of Kensington.

King's Beach Divisional Court. Before the Lord Chief Justice and Justices Talbot and Finlay.

This matter came before the Court on a rule calling upon the Justices of Kensington to show cause why they should not deal with the question of refusing to give reasons for disapproving plans for the rebuilding of the "Duke of Cornwall" public-house in the Fulham Palace Road.

Sir Travers Humphreys, for the justices, contended that the justices were within their rights, but said that in an affidavit they had stated that the reason was that an increased area had been provided in the plans for drinking purposes.

Mr. Cecil Whiteley, K.C., for Watney, Combe, Reid & Co., Ltd., agreed that now, although the rule would be discharged against the owners, they had got what they wanted.

The Court discharged the rule.

The Lord Chief Justice said Mr. Whiteley had got what he wanted by a legal method he should not have used. Proceeding, his lordship said: These owners have had the courage, by a roundabout method, to use this Court to get justices to state reasons which by law they need not have stated, and in my view it is wrong. The Court is careful to observe any attempt to use its machinery in this way.

Justices Talbot and Finlay agreed.

Loss of a Licence—Alleged Breach of Covenant

Saunders v. *Young & Co.'s Brewery, Ltd.*

King's Bench Division. Before Mr. Justice McCardie.

This case arose out of the loss of a licence of certain premises known as the "Railway Tavern," Belmont Terrace, Chiswick, plaintiff alleging that the defendants had been guilty of a breach of covenant contained in the lease.

Mr. Norman Birkett, K.C., for the plaintiff, said defendants held the lease of the premises, and under that lease it was covenanted that the house would be kept and conducted in such an orderly, proper, and regular manner that the licences or certificates for the sale of ale or beer and wine and spirituous liquors might not be taken away or refused to be renewed, and would from time to time do what should be requisite for obtaining a renewal of the licences. In October, 1913, the licensee was convicted of an offence under the Licensing Acts of being privy to the sale of intoxicating liquor on the highway adjoining the premises, and the renewal of the licence was refused, which decision was later confirmed by Quarter Sessions. Plaintiff said under these circumstances the defendants had been guilty of a breach of the covenant in the lease.

Mr. Merriman, K.C., for the defendants, said his case was that there had been no breach, though the defendants did not dispute that the covenant was binding on them. This was not a public-house, but an off-beerhouse, having a retail off-beer licence. The whole matter turned on the construction to be given to the covenant, the defendants having done all that was possible to get the licence back.

His lordship, after hearing the evidence of experts as to value of the licence, assessed the damages at £550, and gave judgment for plaintiff for that amount, with costs. His lordship, in his judgment, said there was a separate clause and a separate obligation that the lessee would keep and conduct the messuage—that was the premises—in such orderly and proper manner that the licences, whatever they might be, should not be taken away or refused to be renewed. He had no doubt that there had been a breach of that covenant, and gave judgment for the plaintiff.

Alleged Damage to a House

Easterbrook v. *Otway.*

Chancery Division. Before Mr. Justice Astbury.

In this case the plaintiff, Mr. A. C. Easterbrook, brought an action against Mr. F. E. Otway, of 19 Frant Road, Thornton Heath, his (plaintiff's) tenant, for an injunction to restrain defendant from damaging the house by storing, it was alleged, furniture and lumber in the loft. Defendant contended that the plaintiff had no cause of action as plaintiff could not restrain apprehended damage.

His lordship dismissed the action, with costs, characterizing the charges as ridiculous. His lordship said on the facts he was satisfied that no harm had been done. The furniture had been there fifteen years and was across a beam. It was in no way injuring the lath and plaster.

The Cost of Building Schools

A small committee of architects who have also special experience as to the use of new methods and materials in building is at present at work in order to advise Lord Eustace Percy, the President of the Board of Education, as to possible alternative methods that may be adopted in the building of schools. The cost of these has been steadily rising in recent years. In 1913 the ordinary elementary school of any type could be built at the average cost per place of about £13, whereas now the cost is about £28 to £30. Although building costs depend on many local factors, it was officially stated in the House by the Duchess of Atholl that the cost of place, exclusive of the cost of site and furniture, in secondary schools is about £100. In view of these prices, a Departmental Committee is investigating as to whether it would be cheaper to build in steel and other materials rather than in brick. On the committee are Sir Charles Ruthen, the Director-General of Housing at the Ministry of Health, and Sir Frank Baines, the Director of Works at the Office of Works, both of whom are members of Sir Ernest Moir's committee that has been investigating similar problems in house building. There are also on the committee, Mr. Topham Forrest, the architect of the L.C.C., who examined school design during his recent visit to the United States, and Mr. G. F. N. Clay, the architect of the Board of Education. The new Permanent Secretary of the Board, Sir Aubrey Symonds, took a keen interest in this question when he was second Secretary at the Ministry of Health.

A Little Book of Caricatures

The Architectural Press are publishing on December 14 a little volume of Caricatures of well-known architects and patrons of architecture. The forty studies included in the book are the work of H. de C., who has endeavoured in each case to catch his victim in a characteristic pose.

Amongst the well-known personalities who have come under the eye and pencil of the caricaturist may be mentioned Professor Adshead, Robert Atkinson, Major Barnes, Hilaire Belloc, the Right Honourable Winston Churchill, the Earl of Crawford and Balcarres, E. Guy Dawber, Sir Edmund Gosse, J. Alfred Gotch, Professor Lethaby, the late Viscount Leverhulme, Sir Edwin Lutyens, William G. Newton, Professor Reilly, Lord Riddell, Dr. Raymond Unwin, Sir Aston Webb, and many others.

Parliamentary Notes

[BY OUR SPECIAL REPRESENTATIVE.]

Mr. N. Chamberlain, the Minister of Health, informed Mr. R. Smith that the number of houses completed during the year ended September 30 last under each of the Housing Acts was as follows :

Act of 1919	1,497
Act of 1923	78,409
Act of 1924	12,385
Total	92,291

In addition, over 67,000 houses were built during the same period by private enterprise without assistance under the Housing Acts.

Sir J. Gilmour, Secretary for Scotland, informed Mr. Kennedy that the increased housing subsidy for Scotland was proposed for houses of any alternative construction which did not require more than 10 per cent. of skilled building labour; and the houses now approved by the Scottish Board of Health were of various types, including concrete, timber, and "steel." This increased subsidy was for a limited number of houses, forming only a small fraction of the Scottish needs, and he was unable to see that it would have any prejudicial effect on the general building industry.

Mr. Westwood asked the Secretary for Scotland whether contractors had been selected for the erection of the 4,000 houses under the special subsidy of £40 per house; what were the names of the contractors, and what special types of house were to be erected under the scheme; whether any formula had been agreed upon which will enable the Board of Health to decide whether the limitation of the employment of 10 per cent. skilled labour had been complied with; and, in case this special condition is found not to have been complied with, how was it proposed to impose the penalty of £40 per house ?

Sir J. Gilmour said that contractors had been selected for the erection of the 4,000 houses under the special subsidy of £40 per house. The names of the selected contractors, with their respective makes of houses, were : Corelite Construction, Ltd., poured concrete; Corviesons, Ltd., timber and steel; James Jones and Sons, Ltd., timber; G. and J. Weir, Ltd., timber and steel.

Asked by Mr. Wright the weight of steel used in the construction of each of the four types of houses specially selected for the additional housing subsidy, and what was the weight of steel used in other types of steel houses, Sir J. Gilmour said that only two of the four makes of houses approved for additional subsidy used steel sheets in their construction. The firms were Messrs. Corvieson, and Messrs. Weir, of Glasgow, and the weight of steel sheets per house used by the former was 1 ton 9¼ cwt. for the bungalow type, and 1 ton 8½ cwt. for the cottage type; and by the latter, 1 ton 3¾ cwt. for the Blanefield type, 1 ton 4½ cwt. for the Eastwood type, and 1 ton 16 cwt. for the Douglas type.

Mr. Basil Peto asked whether the First Commissioner of Works would approve of the question of the retention or removal of the panel by Mr. Epstein from the Hudson memorial in Hyde Park being referred to the Royal Fine Arts Commission ?

Mr. Locker-Lampson, for the First Commissioner of Works, said that after full consideration the First Commissioner saw no reason for referring this question to the Fine Arts Commission.

Societies and Institutions

The Wessex Society of Architects' Badge of Office.

The members of the Wessex Society of Architects have recently presented their president with a badge of office. It is a piece of interesting and vigorous design, and is the work of Wessex artists and craftsmen, having been modelled by Mr. W. G. Simmonds, of Oakridge, from a sketch design by Mr. Thomas Falconer, F.R.I.B.A., of Amberley, and cast in nine-

WESSEX SOCIETY OF ARCHITECTS: PRESIDENTIAL BADGE.

carat gold by Messrs. Singer of Frome. The golden dragon depicted was the old ensign of Wessex set up by King Harold at Senlac, and carried by Ethelhun at the Battle of Burford. The rim of the badge has the following inscription : "This badge was presented to the Wessex Society of Architects by members, A.D. 1925. G. C. Lawrence, President."

The R.I.B.A. (Henry Jarvis) Ex-Service Scholarships.

Immediately after the armistice the R.I.B.A. Council initiated a scheme for assisting ex-Service men who were students of architecture by the grant of scholarships at the leading schools of architecture. The working of this scheme has now been completed, and the results can be finally estimated. The ex-Service scholars have been drawn from no less than ten schools of architecture in England, Scotland, and Wales, thirty-five students have received financial help in obtaining their professional training, and a total sum of £2,500 has been distributed in this way.

The following table contains full particulars of the working of the scheme :

School.	1920.	1921.	1922.	1923.	1924.	Total No. of Students.	Total.
	£	£	£	£	£		£
School of Architecture, Architectural Association.	100	75	75	50	150	7	450
School of Architecture, University of Liverpool.	100	100	75	50	125	6	450
School of Architecture, University of London.	—	100	100	100	75	4	375
School of Architecture, The Victoria University, Manchester.	50	50	50	50	50	3	250
Glasgow School of Architecture	—	50	50	50	50	3	200
School of Architecture, Edinburgh College of Art.	—	50	50	50	50	4	200
Leeds School of Architecture ..	—	50	—	25	50	3	125
Robert Gordon's Colleges, Aberdeen.	—	50	50	50	50	2	200
The Technical College, Cardiff ..	50	50	50	50	—	2	200
School of Architecture, University of Cambridge.	—	50	—	—	—	1	50
					Total	35	2,500

Scholarships at Exempted Schools of Architecture.

The R.I.B.A. have issued a list of "scholarships in architecture at schools of architecture recognized by the R.I.B.A. for exemption from their examinations (under certain conditions)." The scholarships are available at the following schools of architecture : Architectural Association; Liverpool University; University of London, University College; Leeds School of Art; Cambridge University; Cardiff Technical College; Birmingham; Sheffield University; The Royal West of England Academy, Bristol; and Northern Polytechnic, Holloway. Copies of the list can be obtained from the R.I.B.A.

The Gilding of Wood Signs.

The following letter has been sent by Mr. A. Wyatt, secretary of the Master Sign Makers' Association, to the R.I.B.A., The Architectural Association, and the Royal Institute of the Architects of Ireland :—The Committee of this Association, representing the sign trade of London and the Provinces, respectfully call the attention of your members, and the profession in general, to a term frequently used in specifications for the gilding of outside work and wood-letter signs in particular, viz. "Double Gilded." Double gilding in oil is neither advisable nor practicable. The fact of coating with oil size to take a second gilding renders the first gilding useless. The correct specification is "Gilded with best English manufactured gold-leaf of double the regular substance, assaying not less than 23 carat in standard," or "Gilded with pure English manufactured gold-leaf (free from alloy) of double the regular substance," according to circumstances.

On the Loire : Vignettes of French Life.

In a second lecture on the Renaissance Architecture of France, at the Central School of Arts and Crafts, London, Sir Banister Fletcher described the châteaux on the Loire. They were built, he said, in that newly formed style which was the expression of the beauty of life and the unity of France. He said that the handsome Renaissance palace took the place of the frowning "donjons" of the mediæval castles. In the lovely valley of the Loire these palaces arose with a wealth and variety of skyline that made them natural features of the landscape, such as the Château de Chenonceaux, rising from its enchanted site, partly on the river and partly on the water-bridge. Sir Banister described also the famous Châteaux of Blois, Chambord, and others, with lantern slides to make the visits of imagination seem like actual trips to these romantic buildings. These châteaux were the vignettes of the French life of the period, and were to the French what the manor-houses were to England, and represented that charming mingling of Gothic and Renaissance in which the French excelled.

The Decline of a Great Movement.

The later art of the Italian Renaissance, especially the work of the declining Baroque spirit which reacted from the formalism of the older work, was the subject of a lecture by Sir Banister Fletcher at the Central School of Arts and Crafts. He dealt more particularly with the work of Venice and the neighbouring cities of Vicenza. Here much work was carried out by Palladio, including the celebrated Basilica, which was built round an earlier structure, and the circular type as Villa Carra at Vicenza. Palladio was the architect of Italy most associated with English Renaissance, as our Inigo Jones, on his visit to Italy, was inspired by much of Palladio's work, and introduced his regularized type of design into this country, as seen in the Banqueting Hall, Whitehall.

The Renaissance Architecture of Italy and France.

Sir Banister Fletcher, V.-P.R.I.B.A., dealt with the resemblances and contrasts between the Renaissance in Italy and in France in a lecture at the Central School of Arts and Crafts, London. He pointed out that whereas the earlier work of France was strongly flavoured with the Gothic spirit, as in the castles on the Loire, thus creating a transitional style, in Italy the classical tradition had been so prominent throughout even the mediæval period that the Renaissance was from the first a Roman style in nature. The differences in the positions and planning of the Italian and the French palaces were clearly brought out, and some interesting slides were shown to drive home the salient points.

The City Beautiful.

The first of a series of lectures inaugurated by the North Staffordshire Architectural Association was given at Hanley by Mr. G. Topham Forrest, F.R.I.B.A., Architect to the London County Council. The subject of his lecture was "City Development in the United States of America." Mr. Ernest Watkin occupied the chair. The lecturer said that a two months' tour of the principal cities of the United States, such as he was privileged to make in the autumn of 1924, left a mass of impressions on the mind of the visitor from England. The outstanding impression was probably that of bigness.

It might be wise to examine carefully what Americans were doing to make their cities great, not only from the architectural and æsthetic point of view, but from the aspect of usefulness and the healthiness and happiness of their citizens. He quoted from an official order concerning regulations that were to be put into force "to promote the health of the public, and the safety and welfare of the inhabitants of the city. . . . For the promotion of the growth and prosperity of the city, and the proper development and building of the city." In other words, there was to be no more haphazard city growth and development, as in the past. Everything was to be made to contribute to the general welfare and the health and happiness of the people.

The lecturer said the original builders of Washington visited Rome and Paris for their inspiration. He described the zoning regulations in Washington, Chicago, and New York, which restrict the height of buildings in proportion to the width of the streets, and draw a definite line between residential and commercial districts. Not only did American architects design imposing and beautiful buildings, but they took as much trouble over the lighting effect as over the architecture. Consequently, the illumination of New York at night-time was in striking contrast to the hideous and glaring advertisement displays which were to be seen in the neighbourhood of Piccadilly.

The Americans were also looking ahead, and had already prepared plans for the future development of their cities in keeping with the principles they had laid down.

In this country, he concluded, we must seriously consider the improvement of our main traffic routes. We must provide open spaces for recreational purposes, and retain woodland areas wherever they existed in our big cities. Advantage, even economically and financially, would accrue, if we adopted the principles of zoning and prevented congestion, and prevented factories and other incongruities being dumped down in residential districts and rendered impossible the degeneration of areas which were open and healthy into what were known as slums, affecting the physical and moral well-being of those who inhabited them.

The Lady Marshall Memorial Shield.

We illustrate below the central plaque of the Lady Marshall Memorial Shield. The shield was designed by Sir Banister Fletcher, F.R.I.B.A., and the plaque was modelled by Mr. C. L. Hartwell, R.A. Above the plaque is a plate inscribed, "The Lady Marshall Memorial Shield (President 1905–1921)," and beneath it one bearing the following inscription, "Young Leaguers' Union National Children's Home and Orphanage." Between the plaque and the lower inscription plate are five small shields. The plaque, the inscription plates, and the small shields, are in silver, the badge is enamelled, and all are mounted on a mahogany base of shield form. The shield was executed by Messrs. Jay & Co.

CENTRAL PLAQUE OF THE MEMORIAL SHIELD

List of Competitions Open

Date of Delivery.	COMPETITION.
Dec. 31	The Argentine Government offer prizes of 10,000, 5,000, 4,000, 3,000, and 2,000 Argentine gold pesos for the best architectural designs for a National Institute for the Blind. Apply Enquiry Room, Department of Overseas Trade, 35 Old Queen Street, Westminster, S.W.1.
1926 Jan. 1	New buildings for Liverpool College on a site at Mossley Hill. Assessor, Sir Giles Gilbert Scott, R.A. Premiums, £500, £300, and £200. Conditions and plan of site can be obtained from Mr. J. H. Lintern, secretary, Liverpool College, Sefton Park Road, Liverpool, on payment of a deposit of £2 2s.
Jan. 14	By the generosity of Mr. Willard Reed Messenger, of New York, engineer, an International competition is to be inaugurated to promote and facilitate the construction of houses for the smaller middle classes and intellectual workers. Mr. Messenger is offering a first prize of 500 dollars, a second prize of 300 dollars, and a third prize of 200 dollars. The competition is to be held under the auspices of the International Federation of Building and Public Works (whose headquarters are in Paris), and which has recently held its International Congress, when forty-two countries were represented. Certain rules regulating the competition have been formulated, and the jury will be composed of eleven members, representing various nationalities. Competitors will be required to send in sketches, descriptive particulars of any new processes of construction proposed, and of schemes intended to reduce costs. Apply Director-General of the International Federation, 17 Avenue Carnot, Paris.
Jan. 16	Branch library at Gabalfa, for the Cardiff City Council. Limited to qualified architects within the City of Cardiff. Premiums £75, £50, and £30. Mr. Sidney K. Greenslade, F.R.I.B.A., assessor. Apply Librarian, Central Library, Cardiff. Deposit £2 2s.
Jan. 30	Erection of a new art gallery and museum within the borough of Birkenhead. Competitors must have been resident or have had an office within twenty miles of the Birkenhead Town Hall during the whole period subsequent to January 1, 1923. Premiums £250, £175, and £100. Assessor, Sir Robert Lorimer, A.R.A., R.S.A., F.R.I.B.A. Conditions of competition, together with a copy of the site plan, particulars of the subsoil, etc., of the site, and photographs, can be obtained on application to Mr. E. W. Tame, Town Clerk, with deposit of £2 2s.
Feb. 13	Clock tower with drinking-fountains to be erected, for the Blackpool Corporation, in the new park as a suitable memorial to the late Dr. William Henry Cocker, J.P., first Mayor and Honorary Freeman of the Borough. Assessor, Mr. E. Bertram Kirby, O.B.E., F.R.I.B.A., president of the Liverpool Architectural Society. Apply Mr. D. L. Harbottle, Town Clerk. Deposit £1 1s.
March 31	Australian War Memorial, Canberra. Open to Architects of Australian birth. Apply High Commissioner, Australia House, Strand, London.
July 12	The following architectural competitions have been organized in connection with the Royal National Eisteddfod of Wales, to be held at Swansea next year: Design for a National Parliament House for Wales, prize £100 (no age limit). Design for a street façade to a large stores; prize £25, given by the South Wales Institute of Architects, Western Branch (competitors not to be over 21 years of age on January 1, 1926). Set of Measured Drawings of Architecture; prize £25, given by Mr. Ernest E. Morgan, A.R.I.B.A., Borough Architect, Swansea (no age limit). Entry forms can be obtained from Mr. W. Talog Williams, the general secretary, 24 Goat Street, Swansea, to whom they are to be sent between May 1 and 10, 1926. Drawings to Mr. Ernest E. Morgan, A.R.I.B.A., 3 Prospect Place, Swansea, not earlier than July 5, 1926, and not later than 5 p.m. on July 12, 1926. Mr. Arthur Keen, F.R.I.B.A., is the assessor.
No date.	Conference Hall, for League of Nations, Geneva. 100,000 Swiss francs to be divided among architects submitting best plans. Apply R.I.B.A., 9 Conduit Street.

Competition News

Competition for Larger Offices, West Bromwich Permanent Benefit Building Society.

The President of the R.I.B.A. has nominated Mr. W. Alexander Harvey, F.R.I.B.A., as assessor in this competition.

Blackpool Memorial Clock Tower Competition.

The president of the R.I.B.A. has nominated Mr. E. Bertram Kirby, O.B.E., F.R.I.B.A., as assessor in this competition.

Humidity in Closed Spaces

A report (No. 8) summarizing the results of an investigation carried out under the direction of the Engineering Committee of the Food Investigation Board, into the question of measuring the humidity of the atmosphere in closed spaces has just been issued. In it an account is given of experiments on existing types of hygrometers, together with a description of novel methods and instruments designed to meet special requirements. The investigation is still in progress, and the committee expect to be in a position to issue a further report later. In the present publication attention is directed primarily to the methods of measuring humidity, and no attempt is made to deal with commercial forms of apparatus for the regulation of humidity, or what is called "air-conditioning." In the introduction, however, a brief sketch is given of the principles underlying the design of such apparatus. Copies of the report can be obtained, price 2s. net, from H.M. Stationery Office.

A Valuable Fire Card

At a recent inquest, held under the Special City Fire Act, on a fireman who was electrocuted and killed by intermittent electrical current of 210 volts, at a fire at Byron House, Finsbury Street, City, Dr. F. J. Waldo, M.A., the coroner of the City of London and Southwark, said the fireman would have escaped had the tenants and the L.C.C. London Fire Brigade observed the rules drawn up by him (Dr. Waldo) to prevent fires and fire inquests. In his (the coroner's) "Fire Card and Poster," under "What to do in the Event of Fire," he said: "In all cases of fire in buildings cut off the gas at the meter without a moment's loss of time." It is also important when a fire occurs to cut off the electric current at the meter. He said that had this rule been put into practice the fireman would not have been killed. He (the coroner) trusted that in future the warning would be taken seriously, and acted upon. It would, he thought, be to the public advantage if the big poster (headed "Fire!" in red lettering) was exhibited—so that it could be read—at least in every City factory, workshop, warehouse, and school, as well as outside City public buildings. The smaller fire card was intended for use in every City office.

Copies of the "Fire Card and Poster" (written by Dr. Waldo) for distribution by the City Corporation of London, can be obtained—*gratis*—on application to the Town Clerk, Guildhall, City, E.C.

Obituary

Mr. H. Clement Ware.

We regret to record the death at Kingston, near Kingsbridge, Devon, of Mr. H. Clement Ware, aged fifty-seven, the second son of a former mayor of Exeter. Mr. Ware was for many years connected with the firm of Ware and Son, of Exeter, architects and surveyors, but had to relinquish business in consequence of a breakdown in health.

Mr. Robert M. Young.

We regret to record the death, in Belfast, of Mr. Robert M. Young, M.A., J.P., a leading Irish architect, and son of the late Right Hon. Robert Young. He was a member of the Royal Irish Academy, a Fellow and twice vice-president of the Royal Society of Antiquaries of Ireland, a Fellow of the Royal Institute of British Architects, a vice-president and later president of the Ulster Society of Architects, and warden of the Royal Academy of Ireland.

Alderman A. B. Plummer.

We regret to record the death of Alderman Arthur Benjamin Plummer, F.R.I.B.A., at Tynemouth, in his 69th year. A native of Newcastle, he was a son of the late Alderman Benjamin Plummer, and a brother of the late Sir Walter Plummer, a former member of Parliament for the City. He was educated at Durham School, and was afterwards articled to Mr. Matthew Thompson, F.R.I.B.A., of Newcastle, architect to the Duke of Northumberland. Subsequently he spent six years in London with prominent firms of architects. He commenced practice as an architect and surveyor in Newcastle in 1882, and in 1892 became diocesan surveyor for the Archdeaconry of Lindisfarne. In 1902 he became architect to the whole Diocese.

Mr. A. C. Thomson.

We regret to record the death at Ayr of Mr. A. C. Thomson, Licentiate R.I.B.A. A native of Paisley, he was trained in Glasgow and went through the Glasgow School of Architecture. Later he became an assistant to Mr. J. R. Hunter, of Ayr, where he started practice for himself about twenty-five years ago. Mr. Thomson's services were much sought after by school boards before they demitted office, and he was responsible for the design of the following schools—Ladyburn, Greenock, Kerse, Sinclairtown, Ochiltree, and Auchinleck. The following tribute is paid to him by a brother architect in the R.I.B.A. Journal: "Mr. Thomson did a considerable amount of work in Ayr and Ayrshire, and beyond the county's confines, and his work was always reticent and refined. Perhaps one of his simplest and best examples is his group of cottages built in the development of a part of Bellevale lands off Monument Road. Interesting in planning, good in material, and picturesque and seemly in an architectural sense, they touch a note rare and unexpected in these days of universal housing schemes and subsidized cottage building; and Ayr is fortunate above many towns in the possession of a characteristic example of simple, seemly, and effective cottage renaissance. Such work is to-day more than ever vital, in that it preserves something of a quality in harmony with nature, and which, like nature, is never strident, assertive, or vulgar."

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