

THE ARCHITECTS' JOURNAL & *Architectural Engineer*

With which is incorporated "The Builders' Journal."



FROM AN ARCHITECT'S NOTEBOOK.

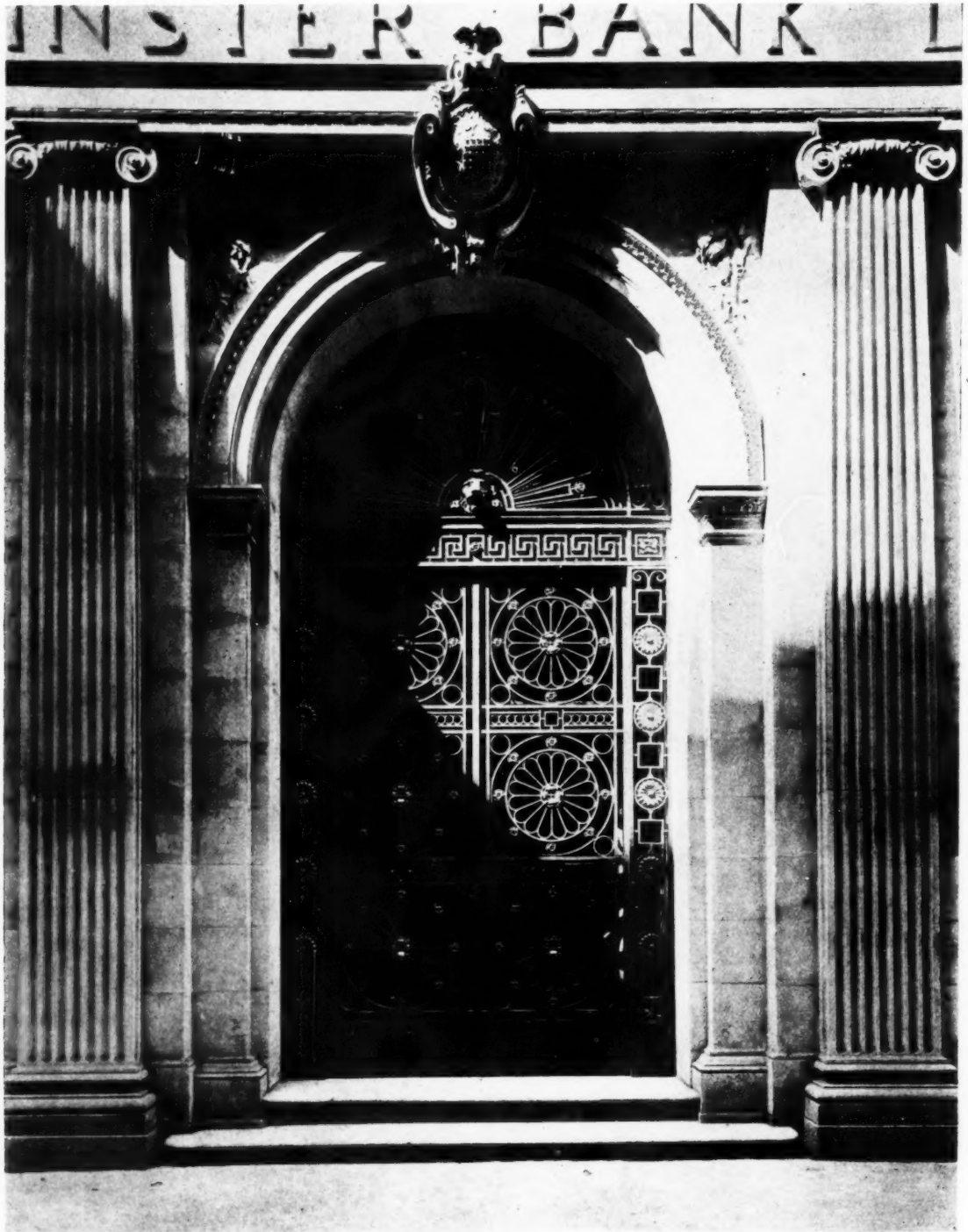
Great edifices, like great mountains, are the work of centuries. Art often undergoes a transformation while they are pending, pendent opera interrupta; they proceed quietly in accordance with the transformed art. The new art takes the monument where it finds it, incrusts itself there, assimilates it to itself, develops it according to its fancy, and finishes it if it can. The thing is accomplished without trouble, without effort, without reaction—following a natural and tranquil law. It is a graft which shoots up, a sap which circulates, a vegetation which starts forth anew. Certainly there is matter here for many large volumes, and often the universal history of humanity in the successive engrafting of many arts at many levels, upon the same monument. The man, the artist, the individual, is effaced in these great masses, which lack the name of their author; human intelligence is there summed up and totalized. Time is the architect, the nation is the builder.

VICTOR HUGO: "NOTRE DAME."

27-29 Tothill Street, Westminster, S.W. 1.

New Head Offices of the Westminster Bank, Ltd.: The Main Entrance
in Angel Court

Mewès and Davis, Architects



This detail of the main entrance to the bank in Angel Court is one of the features of the façade.

THE ARCHITECTS' JOURNAL

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Modernity in Design

THIS very word—modernity—implies self-consciousness somewhere. But contemporary thought—if by that is meant speculative and creative thought—is self-conscious. Doubtless it is due to the disparity established between two forces. On the one side we find a team with its talons deep in traditional ground; on the other, one with its antennæ, as it were, searching in yet unknown regions, and between the two, a rare tug-of-war takes place. This interesting struggle produces a state of sensitiveness upon which self-consciousness, in its turn, throws many searching beams.

Now, if we give it a thought, it shall not seem unnatural should speculations on architecture betray a certain liveliness, because of all the arts, architecture is the one most likely to offer difficulties. For one thing, it is static; but it is also for ever adapting itself to continually changed conditions and so, whatever strides progress may take, architecture must also follow. Further, the volition of progress during the last hundred years has been of so startling a character that the body architectural, in its laboured attempts at meeting transformed conditions, has been dislocated. This bodily ailment brought with it a touch of fever; fever, a suspicion of tenderness, or, in other words, self-consciousness. To be sure, a most healthy sign. Self-conscious architecture, as a phenomenon, may be likened, if a new simile be allowed, to some adolescent, or, shall we say, to some shy young girl concealing behind a screen of nervous apprehension the sap of grace and vigour? But, for all her nascent qualities, she needs guidance. It is not merely a question of deportment or of dress. Indeed, it would smack of foolish levity were this demure, sensitive maiden be given a Victorian upbringing and be clothed in the most alluring and modern attire! The guidance must be not so much strict as wise. Grant it, and the foibles of extremes will have no attraction.

Likewise with architecture. It is, perennially, a young body, and must be brought up in the ways of the world, *as it is*. Hence the parent must keep a tireless eye not on the whims of fashion, but on the evolution of fundamentals. What are these fundamentals in modern architecture, and when shall we assign its birth? To answer the last question first—and we would go by a standard of structural development rather than by the so-called historical standard of style—it took place when steam, gas, and electricity were harnessed. To these do we owe the advent of machinery, the true creator of modern architecture, for with it began the amazing series, no doubt still in its infancy, of industrial and commercial buildings. The railway brought forth the railway station; the steamer, the docks; the mechanical

loom, our factories. Thereafter, in quick succession came post, telegraph, telephone offices, power stations, gasworks, large stores, and so on to our own days, when airship sheds, silos, and wireless stations are so many contemporary milestones. Their erection, to follow the link of consequences, established those concentrations of people who had to be housed within a limited area. This new factor profoundly altered the practice of domestic architecture. Taken together, therefore, these provide the answer to the first question. The fundamentals of modern architecture are the building-types of the nineteenth and twentieth centuries.

But, you may say, what has that former digression on self-consciousness got to do with new types of buildings or their planning? With their planning, little enough, as far as the world is concerned; with their looks, a good deal. Now, the looks of a building are to be seen in its spatial relations in its façades, in its building materials. We get a little nearer, but, as a matter of accurate reasoning, we shall see that modernity in design cannot well ignore planning, even though its chief concern is with expression.

To the general public an architect expresses his building through the ratios of its volume, with the aid of rhythm. But the architect, before he sets in motion the aesthetic qualities needed so to express his building, has to consider the whole complex and technical matter of planning. This preliminary and indispensable work done, he can go ahead "expressing."

It is upon this groundwork, once settled, that the tug-of-war takes place.

Let us examine the rope—the tenets so firmly held by the traditional team. It consists of twines, of strands made slowly throughout the ages. "These strands," says the team, "are so many beliefs in the potency of *motifs*, those subtle and endearing symbols of the whole artistic and cultural legacy bequeathed by our forefathers, men mighty and good.

"It behoves us to pass on this legacy; it is an act of reverence, of faith, and, in a curious way, of energy, and its adequate performance (though it may take place under different conditions), is also and all the time an act of artistic creation. Further, the *motif* has the peculiar advantage that its use awakens in us sympathetic association of ideas. To use it is to show how sensible we are to the mute appeal of a past but fine polity.

"And remembering that certain motifs—by the very fact that from time immemorial they were employed in certain positions to express certain meanings—have by now an emphatic significance, like the letters of an alphabet, it behoves us to manipulate them. Hence, there is no reason

why the use of the orders, that arch-symbol of occidental civilizations, should not be made to express—or partly so—a government office, an emporium or, yea, even a large restaurant, if we bear in mind the noble qualities they embody, and if we think that the orders will express them all and be also a proper and beautiful means of decoration."

The theory has plausibility, but the other side is pulling its own end very hard, and wishes to ventilate its views: "We do not dispute the existence of beauty in the great monuments, or in the small buildings of the past," it answers. We, too, admire it, but we cannot abide by the past alone, nor can we accept its autocratic commands. Strictly, it has no command, for it is dead, if not buried, and its death has a glamour which, for too retrospective or too weak a mind, is charged with danger. Beware lest its spell so enthrals that your own creative faculties be sapped. Life has changed. Everything has so changed that if, by some miracle, a mediæval cart-driver were to stand now in Trafalgar Square, he would soon die of fright! It is, therefore, an abysmal anachronism to deck the bones of a modern building with the trappings and clothes of long ago. Your government office, your emporium, your restaurant have certain definite functions to fulfil. Express them. Set off their parts; show their power, their dignity, their gay busyness, and make the result harmonious. It is here that rhythm comes in, so to speak. Rhythm, skilfully wielded, will outdo in effectiveness the use of motifs, for it is proportion, balance, contrast. It infuses life to volume, line, and colour. But it needs a vehicle to convey its message—none other than materials.

We believe and assert that, given a sound plan, Beauty will spread her wings right across any building if this rhythm—and, of course, the observance of all technical requirements—control its materials. It should equally be observed that its application tends to simplicity. The main appeal ancient monuments make lies in their grand simplicity. That, more than the galaxy of motifs with which, for reasons now no longer valid, they were adorned, is what we should admire and study. The process of elimination may be difficult and, for many, uncongenial, but it does lead to strength and to abstract beauty, the rarest of all. More economical than the heaping of pretty excrescences, it does not impede the clear and unaffected tune all buildings should sing.*

In the meanwhile, it would be unfair to accuse "modernists" of imaginative paucity or of narrow prejudices. To cultivate simplicity is not to condemn, invariably, the use of certain traditional forms, nor to ostracize the display of legitimate exuberance. We had it in Baroque, when the prevailing mode of life demanded it, and we may have it again.

Modernity in design is for efficiency, truth, the apt use of contrasts, of reticence, but also, when needed, of a measured and striking richness. It proceeds from the plan, and, properly understood, does not, and indeed cannot, end, for, standing on the past, it lunges forward always.

GORDON HOLT.

* If we think in terms of future developments, then it can be said of modern architecture that it is barely born; it is about making its teeth. We have little ideas of the splendours, the audacities, the vast masses, which will presently rise and delight later generations. Astonishing as they would appear to us, they will be received without tremor, and this—our own—painful, transitional period well in the limbo of time, will not carry so abundant signs of self-consciousness.

The Speculative Builder

It is not often that the praises of the speculative builder are so enthusiastically chanted as they were in a letter to "The Times" last week. Mr. J. E. Drower, the writer, deplored the passing of "jerry," and his replacement by the local authority, "whose procedure differs completely from that of the speculative builder. Architects are now employed to design the houses" (would they were more often employed!) "careful specifications are written, and surveyors prepare bills of quantities. The builder is allowed

no discretion in his choice of material or method of building; he must provide the material and employ the methods specified, and none other . . ." and so forth, all of which, of course, is very sad, though very salutary from the point of view of housing standards. One thing for which this post-war period can at least claim credit is the awakening of a social conscience, whose still small voice has whispered that the shoddiest and the cheapest ought not to be the best that we can offer to the working classes. But we would have forgiven the speculative builder many of his constructional failings if he had only built to a decent design. Suburbia as we see it to-day is his special creation. When we contemplate it we have no regrets at the disappearance of the speculative builder.

The Fine Art Commission on St. Paul's Bridge

The first report of the Fine Art Commission, which was issued last week, concerns itself with the projected St. Paul's Bridge in relation to the cathedral. The terms of reference specify "aesthetic problems," which, however, are manifestly a minor consideration when the practical problems are of so grave a nature as they undoubtedly are in the case of St. Paul's Bridge. If it is going to bring St. Paul's dome tumbling about our ears, there is small consolation in knowing that the bridge is, or is not, finely designed and well-suited to its position. The Commission make this point clear when they observe: "Were it not for this dominant question of stability, we should have recorded a considered opinion as to the sense of disappointment resulting from a bridge which does not lead to the southern transept as its axial point. Cwing to financial and traffic objections, the Act of 1911 laid down that the thoroughfare running northwards from the bridge should pass the eastern end of the cathedral. The road will accordingly skirt the apse of St. Paul's, giving a partial and oblique view as one passes in either direction. A sense of failure, or of a singular opportunity lost, will be inevitable." The objections to the bridge from the standpoint of monumental possibilities are then set forth, and the Commission proceed: "We think it unnecessary to comment on the proposed design, or to amplify analogous arguments, since all considerations of access, construction, town-planning, and vista are subordinate to the central and all-important risk to the cathedral structure." It is pointed out that heavy motor traffic is increasing, and there is serious risk from the transmission of its vibration through the London clay, the chief effect of which is now confined to the southern side of the cathedral. "To intensify existing dangers by adding a fresh source of vibration at the eastern end of St. Paul's, with its inevitable reactions upon the perilous thrust of the dome on the piers at the crossing and upon the southern wall causes us [observe the Commission] such grave apprehension that we earnestly beg that immediate attention may be given to this serious aspect of the problem. Further shaking of the cathedral fabric may lead to a catastrophe." In face of this grave warning it is difficult to see how the City Corporation can proceed with the project. That we should be threatened with an unnecessary bridge is bad enough; but that this unnecessary bridge should menace the very existence of St. Paul's is a thought that the mind boggles at. Deliberately to accept a new menace to St. Paul's is not to be tolerated. Catastrophes to noble buildings do happen, even in these days as witness the fate of the famous Campanile at Venice, and there would be as little valid excuse in our case as in that, for the earnest note of warning has been sounded over and over again. Let us put away the plans of St. Paul's Bridge with Wren's plans for laying out the City after the Fire, and Inigo Jones's plan for a palace at Whitehall, and other schemes for the beautification of London which have been finally put away in tissue paper. Perhaps, now that the Fine Art Commission have passed judgment, we shall hear the views of the recently appointed Joint Bridges Committee of the City Corporation and the L.C.C.

A MONTHLY CAUSERIE

Joking Apart

Drains

IN years gone by this holiday season witnessed the great annual festival of British drains: it was the time when the family went off to the sea and gave opportunity for the drains to be attended to by small jobbing builders who got a living by taking up and relaying drains previously laid or relaid by each other. In those days a gentleman's drains sat heavily upon his conscience like an overdraft at the bank, and in every well-conditioned house the drains were regarded as a menace and tended with solicitude. The life of many an owner of a country house gained a romantic zest from the mystery and complexity of its drains, and great were the rejoicings when a dead mouse found under a floor-board answered inquiries that should properly have been addressed to a broken pipe or a forgotten cesspool below. In those days country gentlemen sat over their wine after dinner and talked drain, exchanging sanitary confidences, composing doubts, recounting latest adventures, comparing experiences, and espousing new theories; for in his heart each believed he knew what a drain should be, and if he had ideas on nothing else he had at least ideas on "stink pipes" as the earliest ventilation outlets were called.

Certain men became socially distinguished for sanitary exploits. Acquaintances meeting them would inquire after their drains as though asking after an invalid, and one still meets squires and noblemen who have not forgotten tastes formed in early life, and who show by their excitement when the subject comes under discussion how dearly, in their heart of hearts, they love a drain. I doted upon them myself long ago, but the absorption of pet ideas in the rigid enactments of our local authorities has banished the old joy, and close acquaintance has staled the affection that once possessed this bosom; at the same time a really well-laid scheme of drains is a delight to contemplate, and it is certainly true that the drains of a house, which from the earliest times have been always the worst thing about it, are now usually the best; and that the only thing of the least merit in the majority of small houses now built is their drains. It seems strange that the growth of sanitary science should coincide with the decay of most other things for which civilization can be esteemed. I confess to a growing scepticism on the subject of sanitation. Why is it that the cities of the world most worth visiting are the insanitary? Why are stinks and beauty so welded? I am old enough to remember when the distinctive thing about the artist was his dirt. He paraded personal uncleanness just as the early Christians did. I read the description of Queen Elizabeth's visit to Kenilworth in Scott's novel, and view the sanitary provisions still prominent in the castle ruins, and I begin to lose faith in drains.

Early in my career my high regard for drains was fortified by an old and experienced estate-hand named, let us say, Trudge, who, after a lifelong association with them, had formed so tender an esteem for the things that he spoke of them in the female gender. Trudge was one of those invaluable retainers upon estates who are endowed with minds of such remarkable vacuity as to be able, from experience, garnered hearsay and tradition handed down, to store away in their heads and keep undimmed by time, an exact knowledge of the unspeakable intricacies of the drains at the "great house." When any question of the drains arises at the Hall nothing can be done without Trudge. Trudge is sent for; Trudge attends, and the voice of authority sounds impassive and inexorable. "She coom acrost yonder where the old dairy used to be, before they moved the pigeon-loft to make room for the engine-house, she run along the stable wall, she turn sharp round the corner, and she pop in just by the servants' entrance." Trudge not only appears to have the whole tangle mapped in his head, and knows the circumstance and minutiae of each separate

addition, emendation, and substitution from the earliest ages, but also seems able to sense a drain under foot, and tell whether it be obsolete or operative, with the instinct of the dowser. Unluckily, Trudge's mind cannot be hung up for reference in the back corridor; and those who attempt to make a survey of it for this purpose will fail. Before one has gone far Trudge seems to be at fault. Drains reveal themselves in two places at once, or as running in opposite directions or uphill. It may be that it is one thing for Trudge to thread his way amid the tangle of lumber stored in his head, but quite another for him to hand out an inventory or even make gaol-delivery of it, but I am inclined to think that Trudge is not so simple as he seems. Certainly, if I were in his place, the whole professions of architects and surveyors in battle array should not succeed in sapping my vitals if I knew it.

Trudge is incident to years when sanitary science was feeling its way from the cesspool nursed in the heart of the English home, descendant of the Elizabethan midden, to the remote aerobic filter and tight, ventilated trapped pipes. The revulsion against the embosomed cesspool was due to medical alarms, but in these days, when doctors tell us of persons enjoying normal health who are yet in the infectious state of sufferers from typhoid and diphtheria, it is not unscientific to suppose, on the evidence available, that, broadly speaking, and in the long run, stinks may be nourishing. A daily cold bath is invigorating to all except the few defectives who cannot stand it; and in the same way a bad smell, if it be of the right sort, and though it be too much of a good thing for a few, may, for the generality, be not merely wholesome, but fattening. Witness the burly men who daily explore our sewers; they will tell you of a healthy life! Witness the gay existence in continental cities where sanitation stands where it stood eighty years ago in England! In such places the connoisseur may find unequalled gratification among smells of extraordinary novelty and variety, many of which are hundreds of years old and some reaching back into far antiquity. Witness, again, the relation of a friend of mine who lived to be a hale old man of ninety, with a defective cesspool under his dining-room. This cesspool served, among other things, as a barometer. When the atmospheric pressure fell its gases expanded and escaped, and its owner on coming down to breakfast would sniff and say: "Ha! We shall have rain to-day." He very wisely would not allow the thing to be interfered with; it suited him, which was all he cared about, and, unlike his neighbours, he never needed a change of air. To go outside was all the change he needed and, when he came in, his house welcomed him, for the atmosphere of home was, in his case, no mere figment, but a real thing.

Does it not seem possible that the weakening of the influence of home in the lives of the people, which is now so much deplored by social observers, may be due to the disappearance of that atmosphere of home which previously gave individual character to every house, rich or poor? What will our plight be when the sanitary experts have had their will of us and the police thrust upon every home the bleak, inhuman, aseptic character of hospitals? In these days of standardized sanitation and open windows all houses smell very much alike, but a hundred years ago this was most decidedly not the case, and the atmosphere of each home was a tangible, recognizable, individual thing. The extraordinary vividness of associations depending on odours was long ago commented upon by O. W. Holmes, has since been examined by Francis Galton and others, and is now a commonplace confirmed in the observation of each of us; and when every home had an individual atmosphere which could not be matched anywhere throughout the world, and which was reminiscent of a thousand thrilling sensations and affections, home must have had a stronger

attraction for the traveller and the prodigal than it has now. The above paragraph will probably be considered to be not merely twaddle, but annoying twaddle. Exactly! And why annoying? Simply because it vexes us by its thread of truth, which we cannot ignore without invoking the emotion of indignation. I must pass over the psychology of smells, which is all in my favour, but with reference to the implied disparagement of drains I would like to ask on what grounds do we set up a biologist and a test tube against the evidence of the whole history of humanity? Man is not inferior to the animals, and if it were inimical for him to live amid his natural effluvia he would have discovered the fact for himself thousands of years ago and not waited till A.D. 1880 for a professor armed with a microscope to inform him. This same professor, or another, sub-

sequently discovered that microbes exist in all milk, which, accordingly, should be sterilized for infants; and someone else directed that the teeth of the young should be protected from hard foods. Infants died and teeth went wrong for the same reason, namely, that when our natural functions are not exercised we degenerate. We have now for forty years enjoyed a sanitary purity, a state of chemical disinfection and elimination of microbes, unsurpassed in the length and breadth of the world, and it is to-day discovered that as a nation our physique is inferior to that of any other. For tens of thousands of years we have lived in the full enjoyment of bad odours, and it is hard to think that the new habit has not had some result. But what is the result? Can anyone say we are better with drains than we were without them?

KARSHISH.

The British Pavilion, Paris, 1925

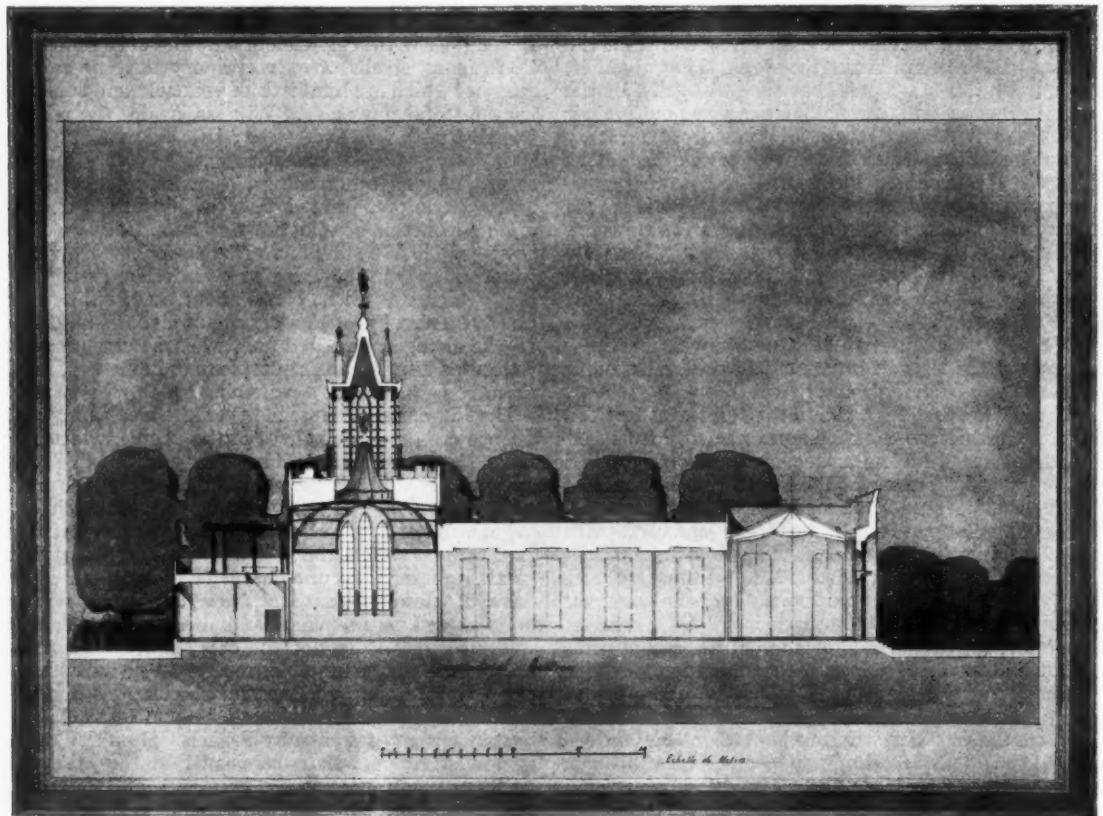
HOWARD ROBERTSON, S.A.D.G., F.S.Arc., and J. MURRAY EASTON,
A.R.I.B.A., Architects

AS we were able to announce last week, the design of Messrs. Easton and Robertson has been placed first in the competition for the British Pavilion at the International Exhibition of Modern Decorative and Industrial Art, which is to be held in Paris next year. The competition was limited to six competitors, and the assessor was Mr. Goodhart-Rendel, whose award was subject to the approval of the Fine Art Commission.

In this issue we illustrate the winning design. Structurally it is to be mostly of wood and plaster. It is conceived as an exhibition building and not as a reproduction of a

permanent one in stone. The restaurant will be covered with gaily coloured awnings. The site for the British Pavilion is on the north side of the Seine, adjoining the Pont Alexandre III and the Cours la Reine.

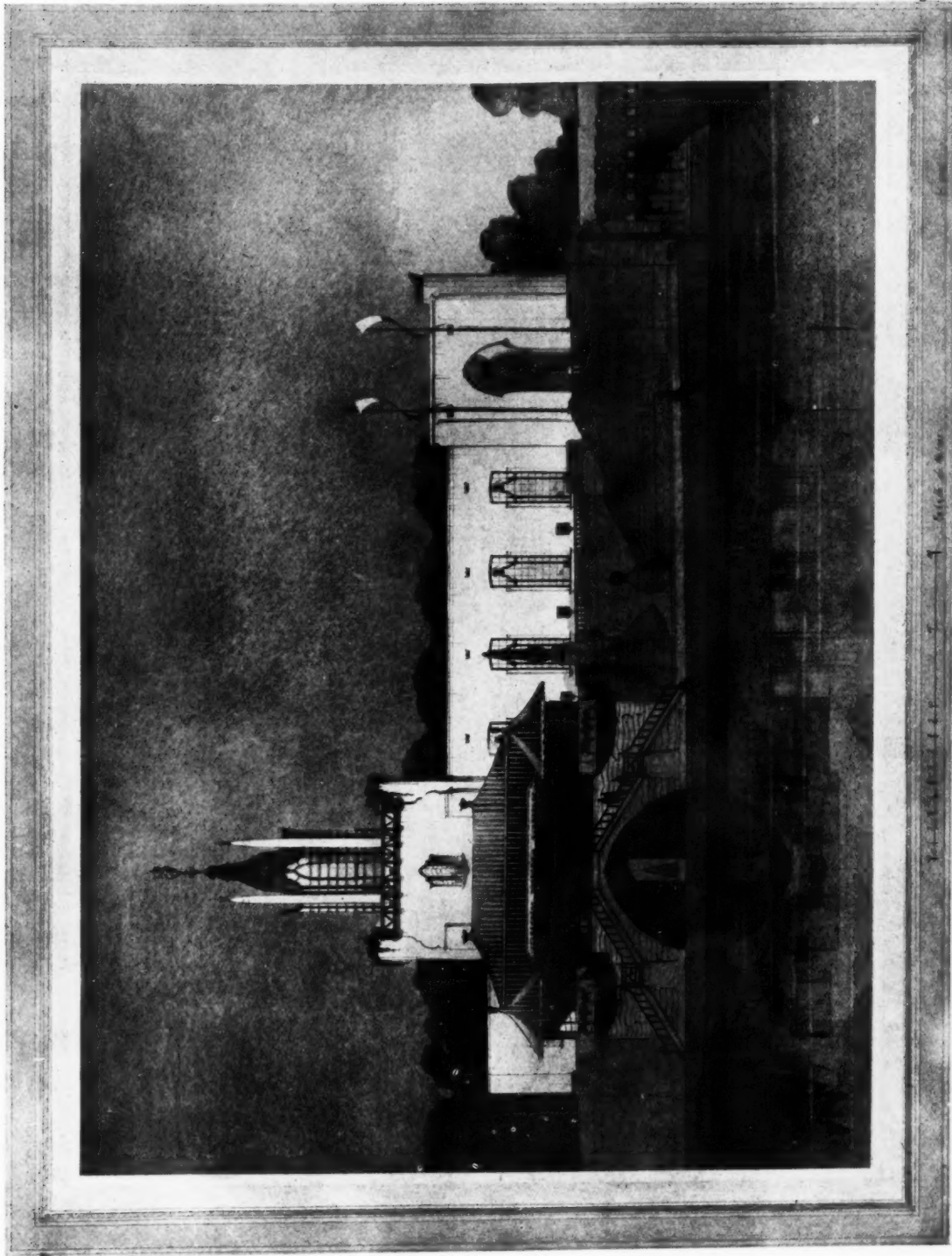
A general account of the object and scope of the exhibition was given in an article by Mr. Bartle Cox in our last issue. It may, however, here be reiterated that an important feature of the exhibition will be the exclusion of any work which is a reproduction of the antique or *pastiche*—which obviously accounts for the very original and stimulating character of Messrs. Easton and Robertson's design.



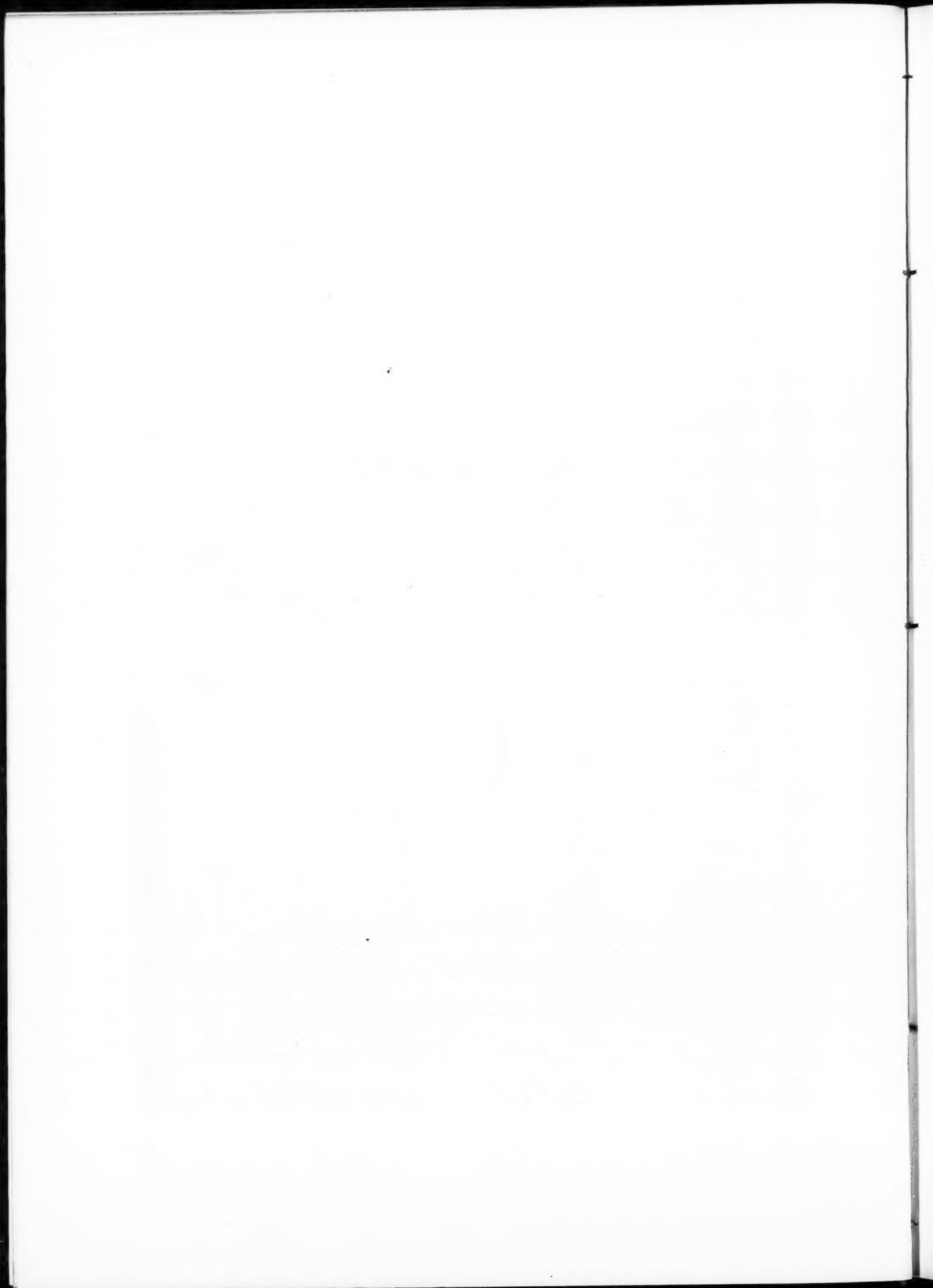
LONGITUDINAL SECTION.

The British Pavilion at the Paris Exhibition

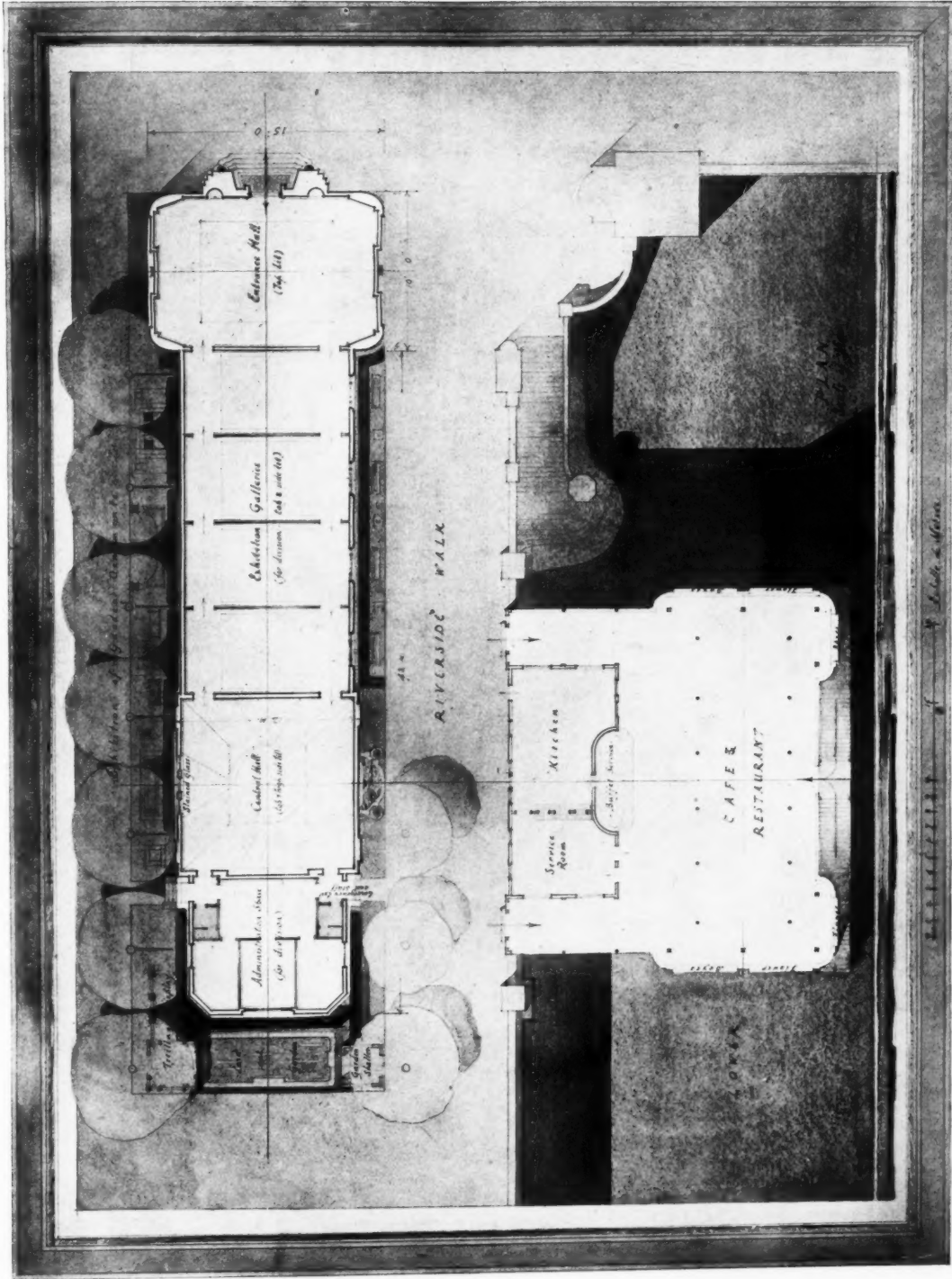
Howard Robertson, S.A.D.G., F.S.Arc., and J. Murray Easton, A.R.I.B.A., Architects



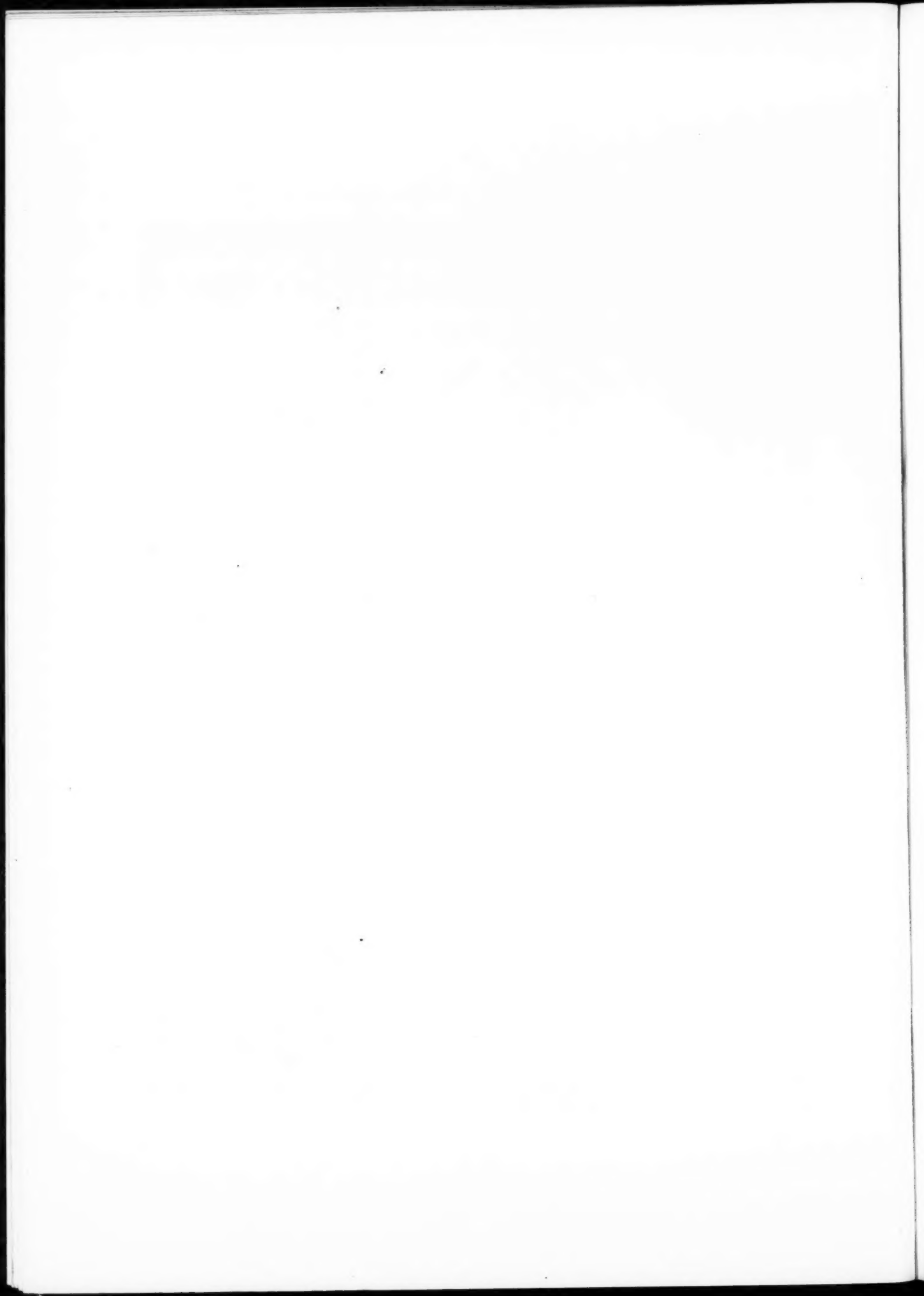
The above is the winning design for the British Pavilion at the International Exhibition of Modern Decorative and Industrial Art, which will be held in Paris next year. All buildings and exhibits at the exhibition are to be modern in character.

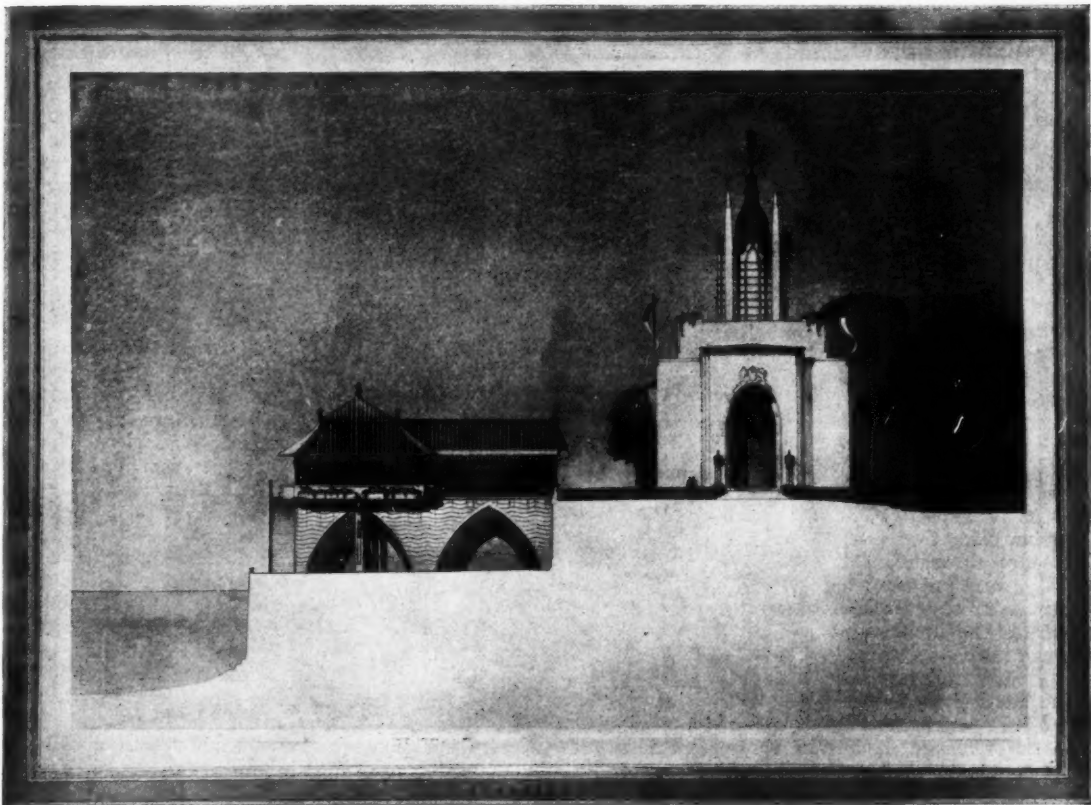


The British Pavilion at the Paris Exhibition
Howard Robertson, S.A.D.G., F.S.Arc., and J. Murray Easton, A.R.I.B.A., Architects



The site for the British Pavilion is a particularly fine one. It is on the north side of the Seine adjoining the Pont Alexandre III and the Cours la Reine.





THE BRITISH PAVILION FOR THE PARIS EXHIBITION, 1925: END ELEVATION.
EASTON AND ROBERTSON, ARCHITECTS.

New Banking Premises in the City

Head Offices of the Westminster Bank, Ltd.

MEWÈS and DAVIS, Architects

DIFFICULTY was experienced in planning the required accommodation on this site owing to the congested nature of surrounding property and the requirements of ancient lights. Underpinning to considerable depths was necessary, the old Walbrook being encountered in excavating for foundations. Consideration also had to be given to temporary and ultimately permanent communication with the future head office building fronting on Lothbury.

Angel Court being a narrow thoroughfare, interest is concentrated on the ground floor, where the large windows which provide maximum light are separated by narrow piers treated with Ionic pilasters.

The fenestration of the upper floors was considered with a view to giving good light to all the rooms consistent with good proportion.

The entire façade is in Portland stone.

A feature is made of the wrought-iron gates to main entrance, arranged to slide, owing to the restricted space available. The entrance lobby is in San Stephano marble.

A heated vestibule with double doors is provided to exclude the possibility of draught. The radiator grilles are unusual, having closely-spaced turnings set in San Stephano marble casings. The staff entrance door is of Italian design, in oak.

The decoration to the banking hall is reminiscent of Italian Renaissance with Ionic columns and coved ceiling.

The wall surfaces are of plain polished plaster relieved by small V-jointing, decoration being confined to doors, which have richly-carved architraves and pediments in San Stephano marble. The counters are fitted with bronze grilles, and all internal woodwork is fully polished Burma Padouk of rich colour.

The mezzanine floor introduced to provide extra accommodation forms part of the decorative scheme, and is supported by grouped pilasters in San Stephano marble, the entablature at the floor level being surmounted by a wrought-iron balustrade. The public space is paved diagonally in black and white marble tiles.

The main staircase giving access to the upper floor galleries is designed to harmonize with the general treatment at each floor.

The stringer is painted dull finish putty colour, with oak brackets and treads. The wrought-iron balustrade is of Adam design with bronze handrail.

The first-floor gallery gives access to the board-room, chairman's room, the principal officers' rooms and their secretaries, and the treatment is a modern adaptation of the Georgian period.

In the board-room a painted panel scheme of typical Georgian detail has been adopted with enriched plaster panels and cornice and plain ceiling. The chimney-piece is of Pavonazza marble bolection moulded, with burnished steel dog-grate.

The two pairs of double doors connecting with gallery, and the door to the chairman's room, are in carved mahogany with figured panels, and the architraves and pediments in pine are specially carved and waxed finished.

The adjoining chairman's room is of the same period, with an old carved stone chimney-piece. The door surrounds again are in pine, waxed finished. An Adam scheme has been adopted for the decoration of the galleries serving the first and second floors, having enriched panels of classical detail.

On the second floor are situated the chief general manager's room and committee-room, which are again Adam in treatment, the chief general manager's luncheon-room and the principal officers' luncheon-room being Georgian.

The colour throughout is warm putty, and all enrichments are slightly scumbled. In some cases the architraves and pediments to the carved mahogany doors are of waxed pine. The chimney-pieces are either fine old examples or reproductions of classic models in various marbles.

The third floor gallery differs from the others, being roofed by a plain cross vault treatment springing from Ionic pilasters. The directors' luncheon-room and adjoining smoking-room occupy this floor. For the smoking-room a grouped pilaster treatment has been arranged; the walls are plain, surmounted by a rich entablature and decorated ceiling all of Georgian detail.

The stone antique chimney-piece which was selected for



THE FRONT TO ANGEL COURT.

this room is of contemporary date and beautifully carved.

The double doors connecting with the luncheon room are in mahogany, faced on the reverse side with richly-carved and figured walnut panels.

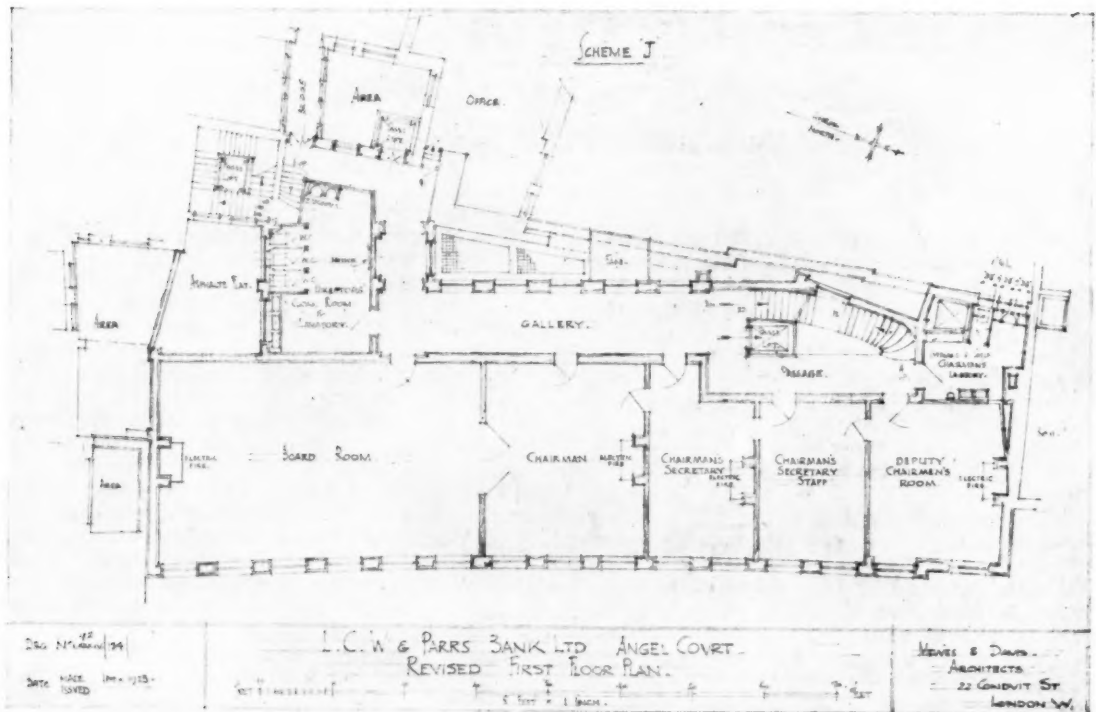
The directors' luncheon-room is also Georgian, having plain walls with rich dado and cornice surmounted by cove and enriched plaster ceiling. The chimney-piece is in statuary and Jasper marble.

Furnishing includes electrically heated service tables designed in contemporary style. The hearths to fireplaces throughout are of marble.

The basement of any big modern building is as full of interest as the "show rooms" above. It is here that all the electrical and ventilating plants are housed. In the basement of this particular building will also be found the strong rooms. Practically indestructible seem these strong rooms—a triumph of matter over mind. The suite of securities and bullion strong rooms are stated to be collec-

tively the largest bank vaults yet constructed in London for modern banking requirements. The vaults have been constructed with heavy blue brick walls, faced with reinforced concrete, and lined throughout with compound steel slabs embodying a special resistance to the action of the oxy-acetylene blow-pipe. Special consideration has been given to the risk of an attack by tunnelling below the foundations of the vaults, and the entrances

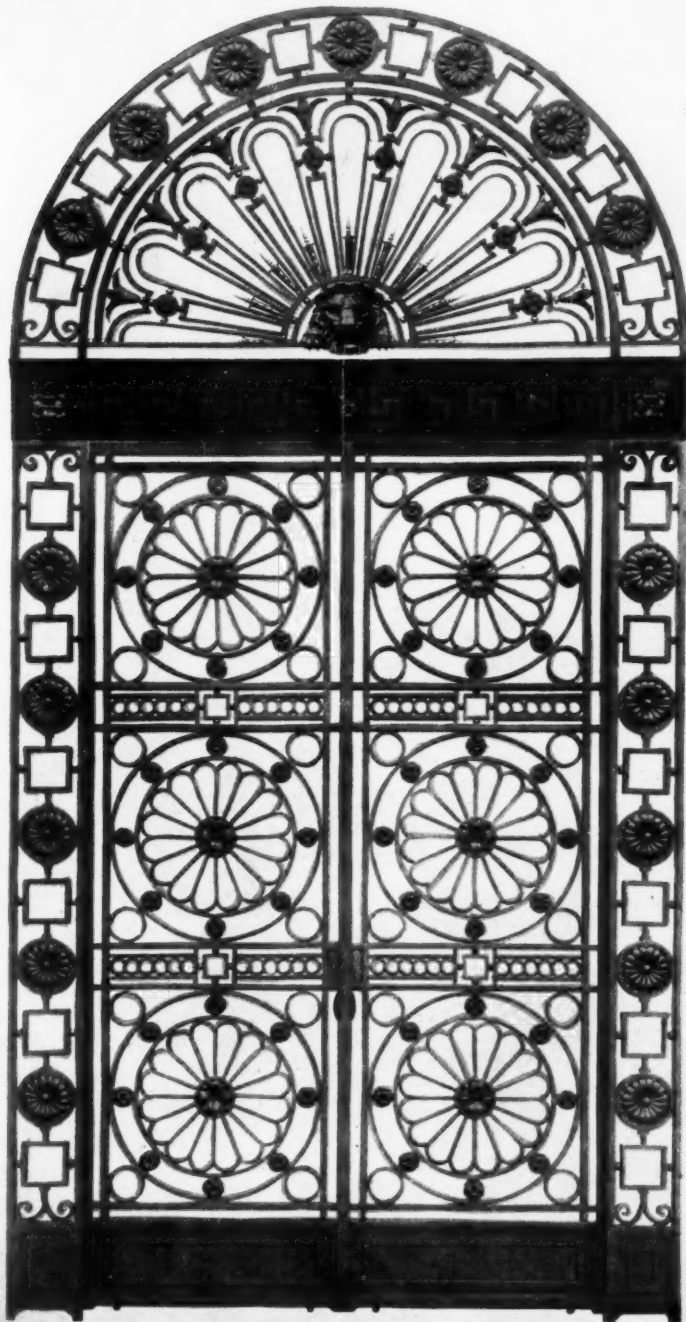
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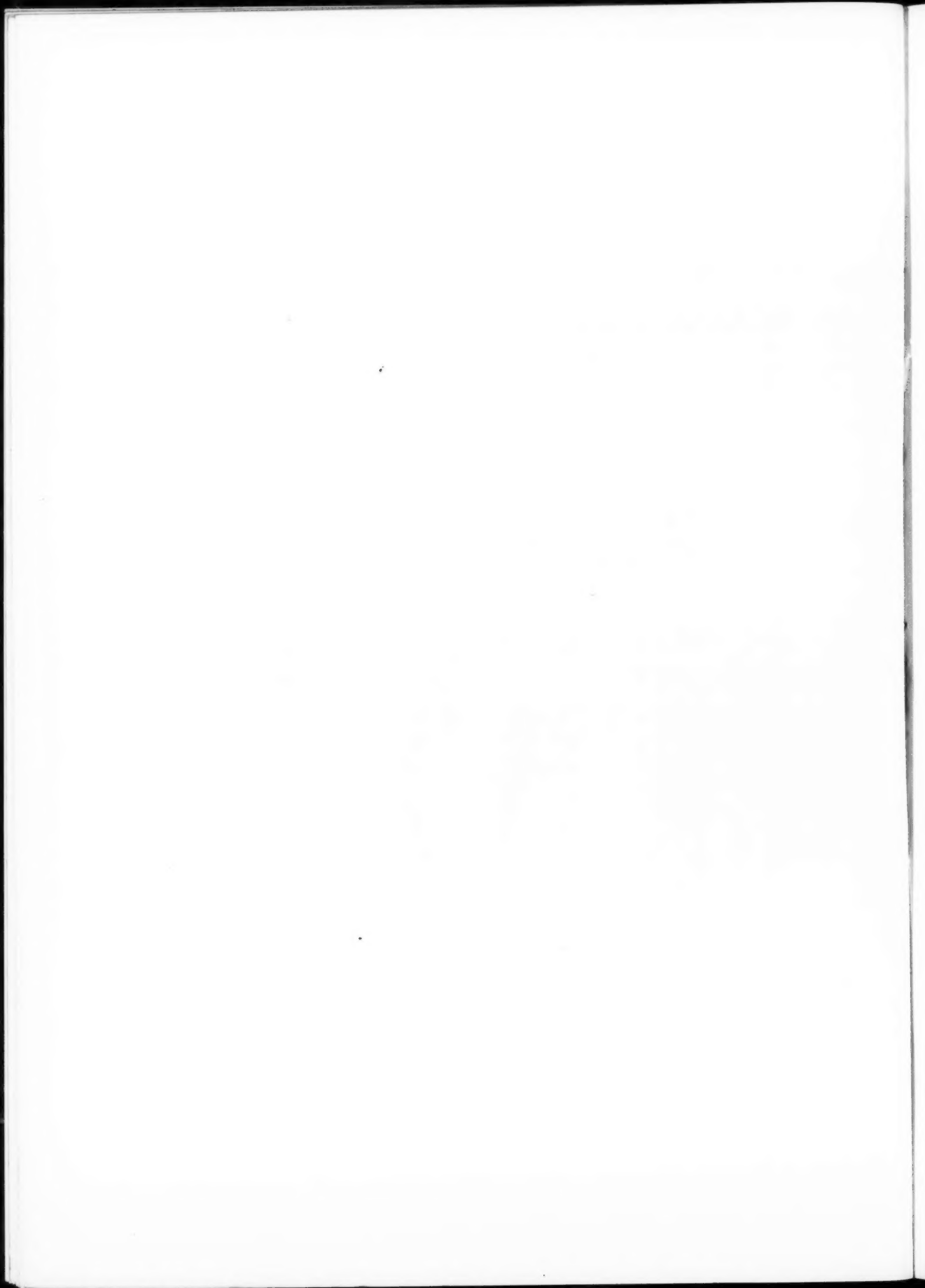
THE NEW HEAD OFFICES OF THE WESTMINSTER BANK, LTD.: FIRST-FLOOR PLAN.

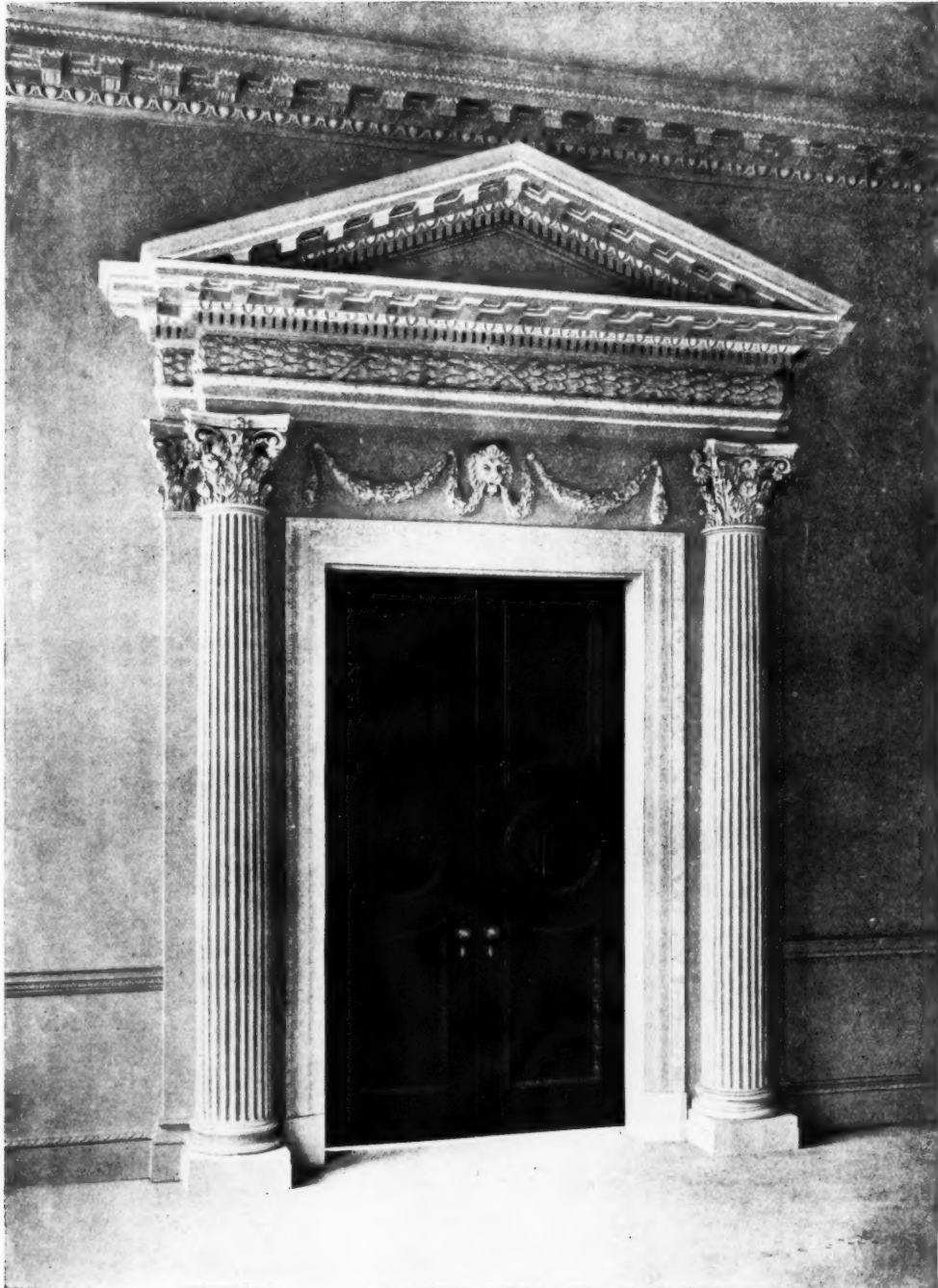
Details of Craftsmanship. 26.—The New Head Offices of the Westminster Bank, Ltd.: Entrance Gates in Wrought Iron

Mewès & Davis, Architects

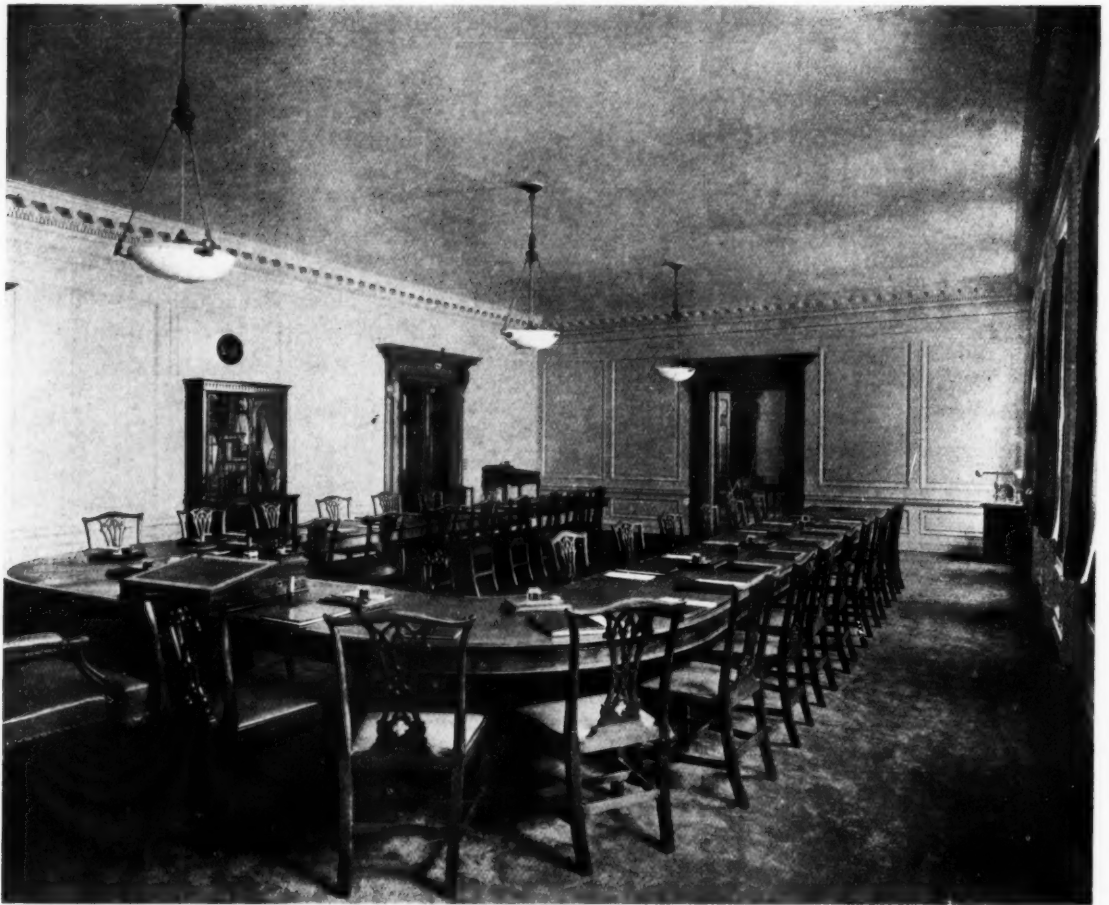


The wrought-iron gates to the main entrance are a feature of the façade. Owing to the restricted space they are made to slide.

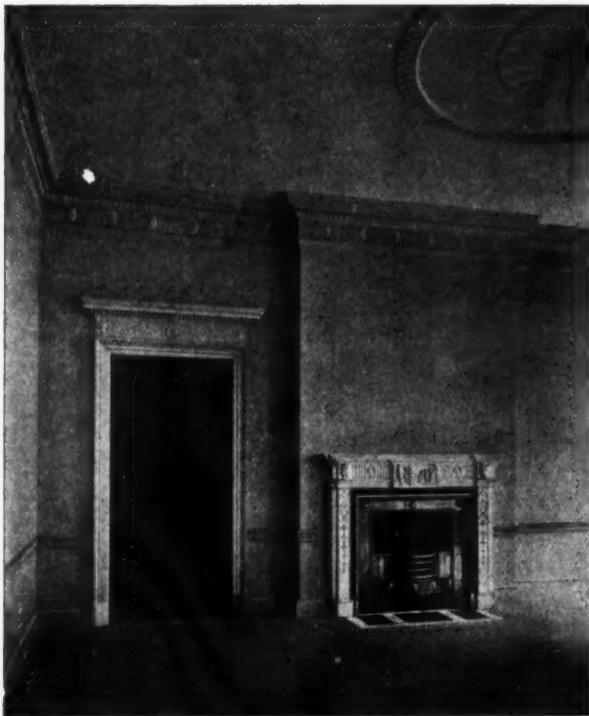




THE NEW HEAD OFFICES OF THE WESTMINSTER BANK, LTD., LONDON: DOORWAY IN DIRECTORS' LUNCHEON ROOM. MEWES & DAVIS, ARCHITECTS.



THE BOARD ROOM.



THE DEPUTY-CHAIRMAN'S ROOM.

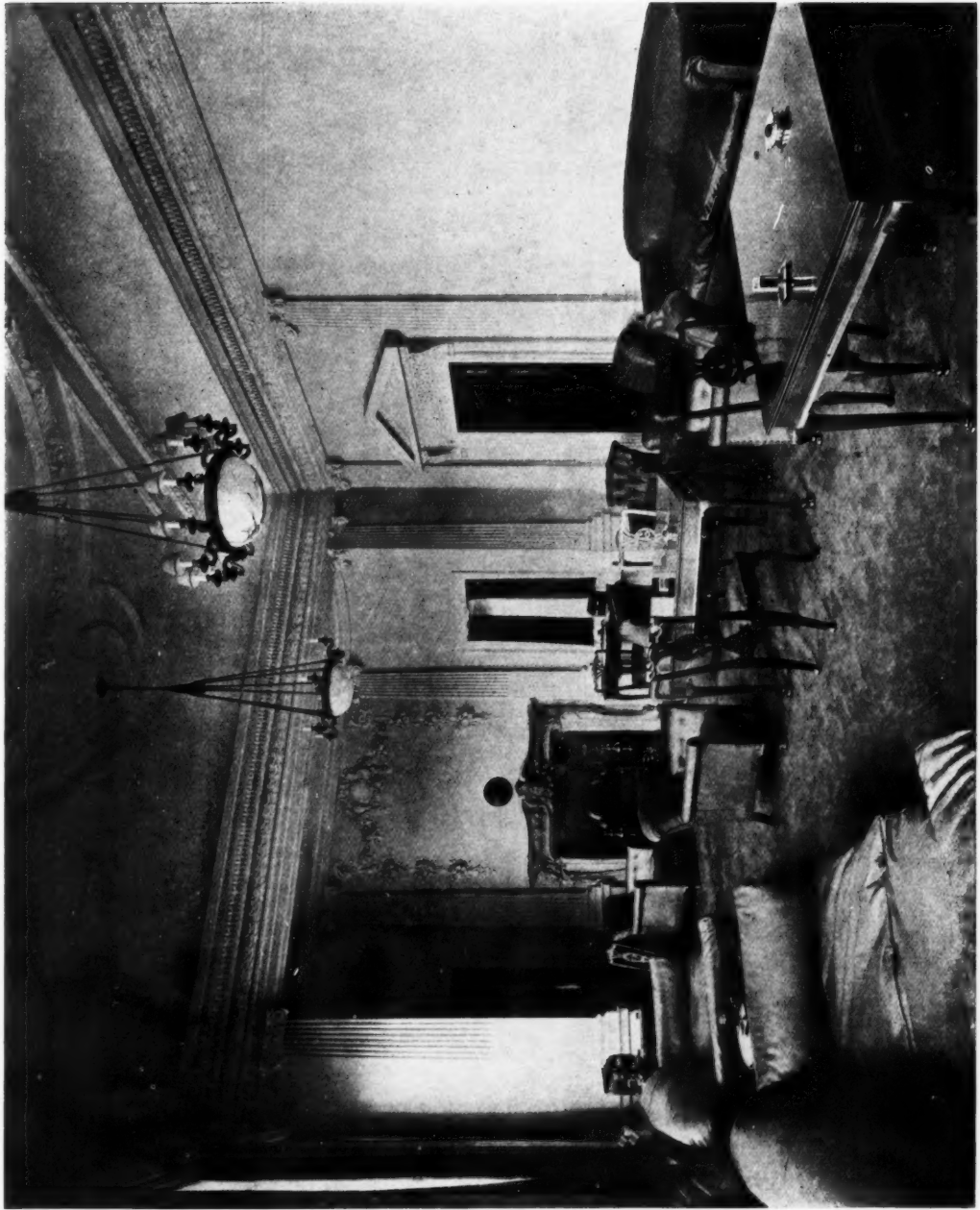


THE CHAIRMAN'S ROOM.

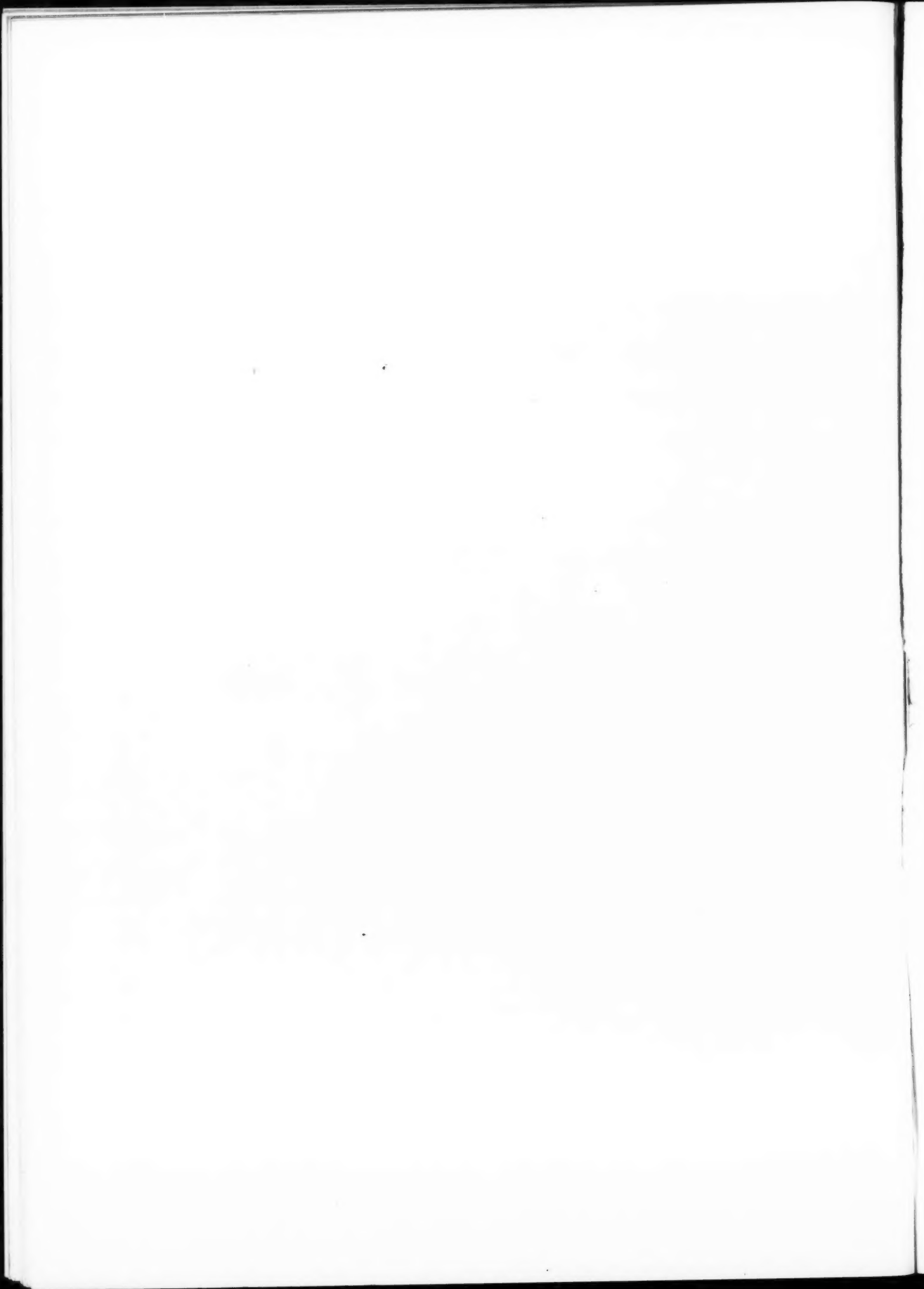
THE NEW HEAD OFFICES OF THE WESTMINSTER BANK, LTD., LONDON

Current Architecture. 240.—The New Head Offices of the Westminster Bank, Ltd.:
The Directors' Smoking Room

Mewès and Davis, Architects

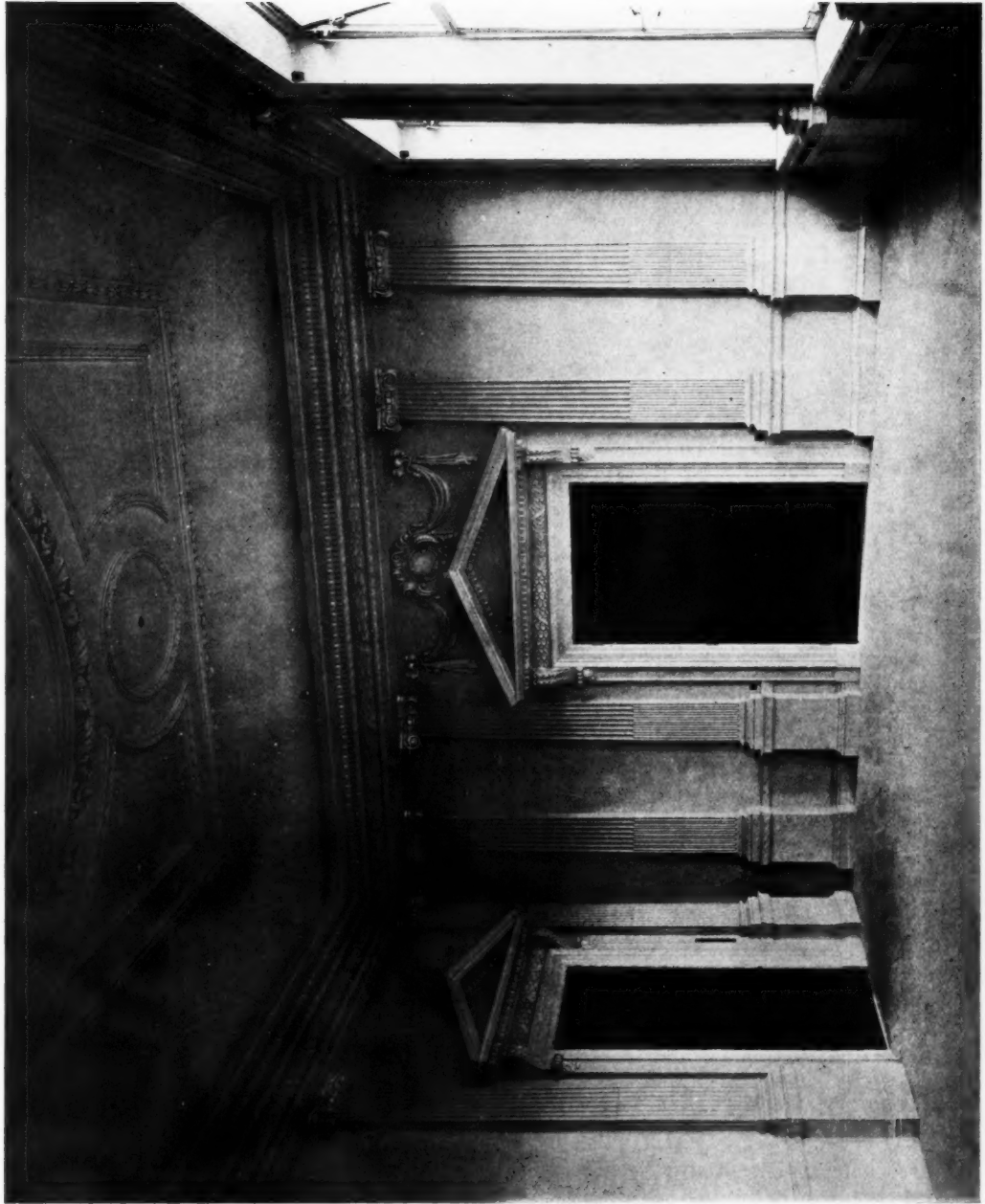


The Directors' smoking room is Georgian with a grouped pilaster treatment. The chimney-piece is of antique stone.



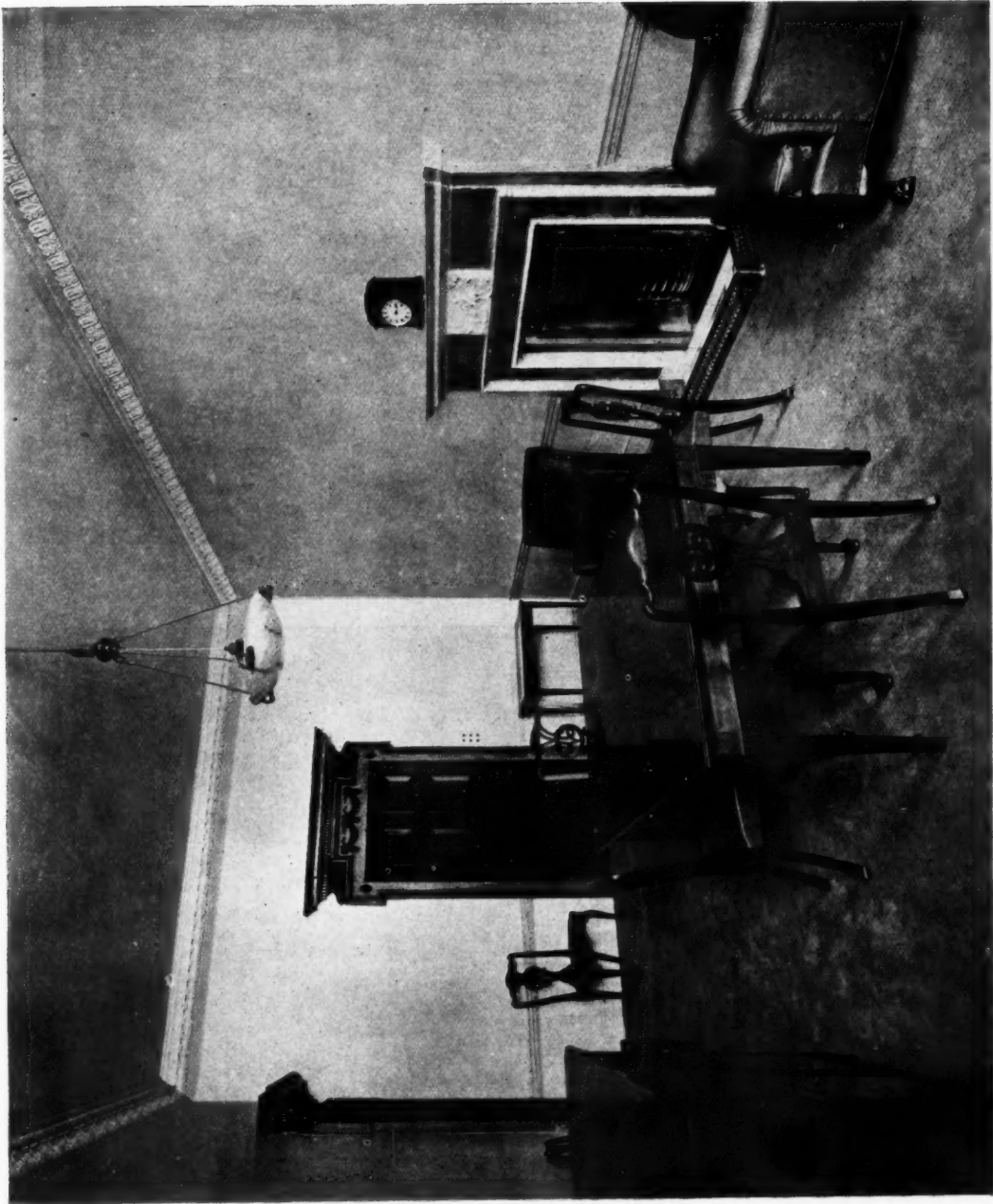
Current Architecture. 241.—The New Head Offices of the Westminster Bank, Ltd.:
The Directors' Smoking Room

Mewès and Davis, Architects

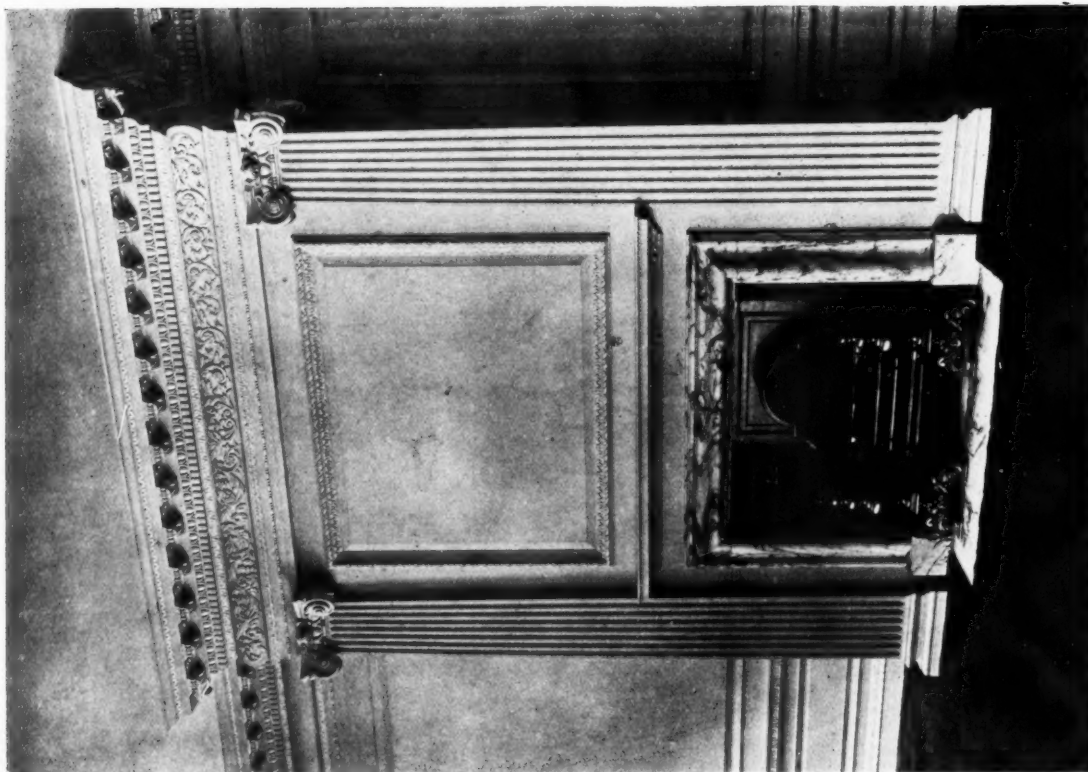


The doors of the Directors' smoking room are in figured mahogany. The walls, including the cornice, are warm putty colour, and the ceiling is white.



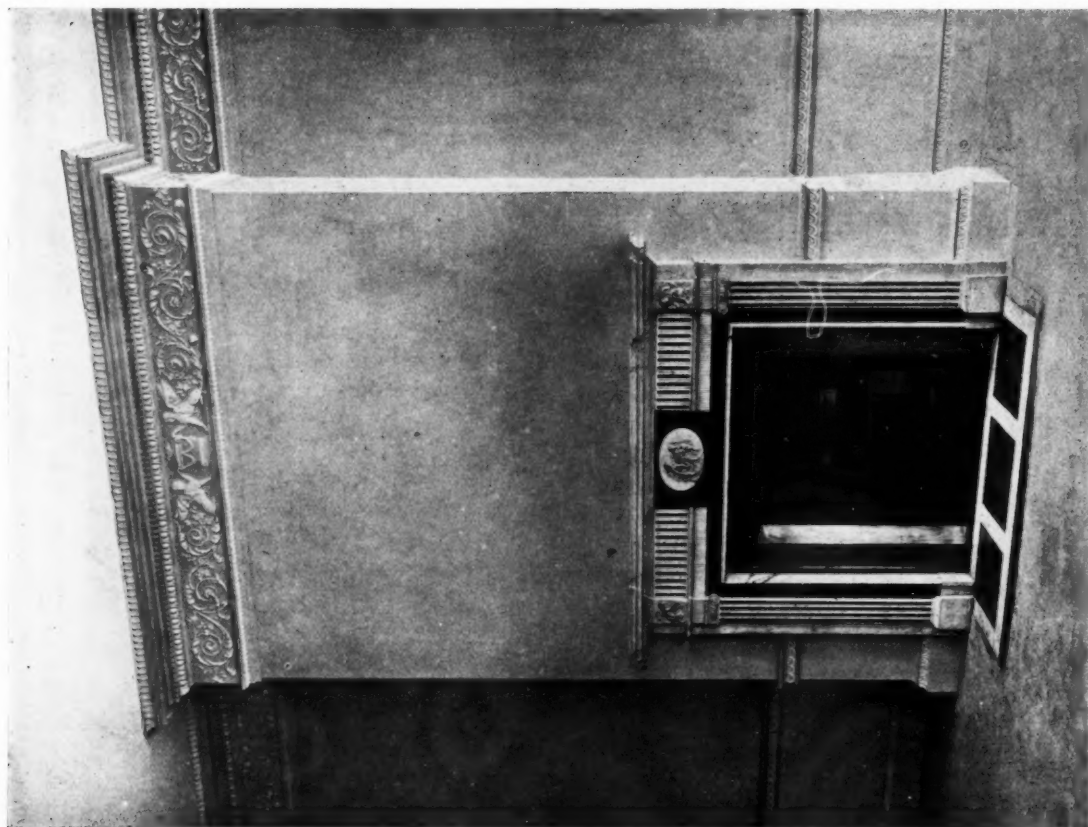


THE NEW HEAD OFFICES OF THE WESTMINSTER BANK, LTD., LONDON: THE CHIEF GENERAL MANAGER'S LUNCHEON ROOM.
MEWES AND DAVIS, ARCHITECTS.



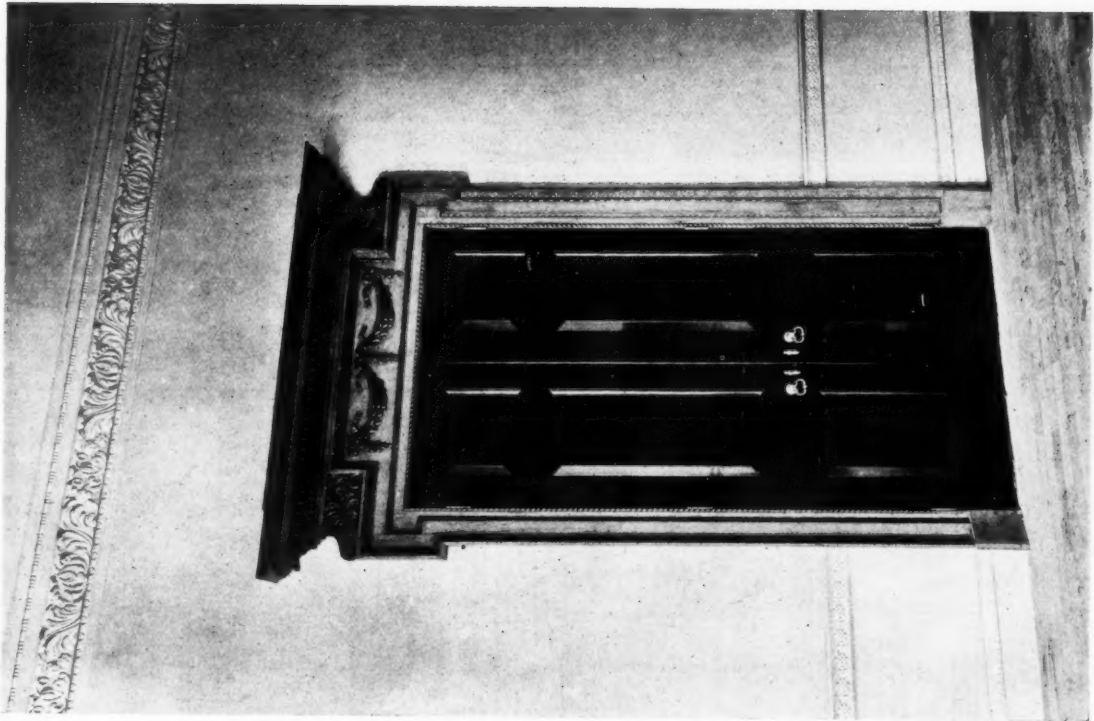
THE BOARD ROOM CHIMNEYPIECE.

THE NEW HEAD OFFICES OF THE WESTMINSTER BANK, LTD., LONDON MEWES & DAVIS, ARCHITECTS.

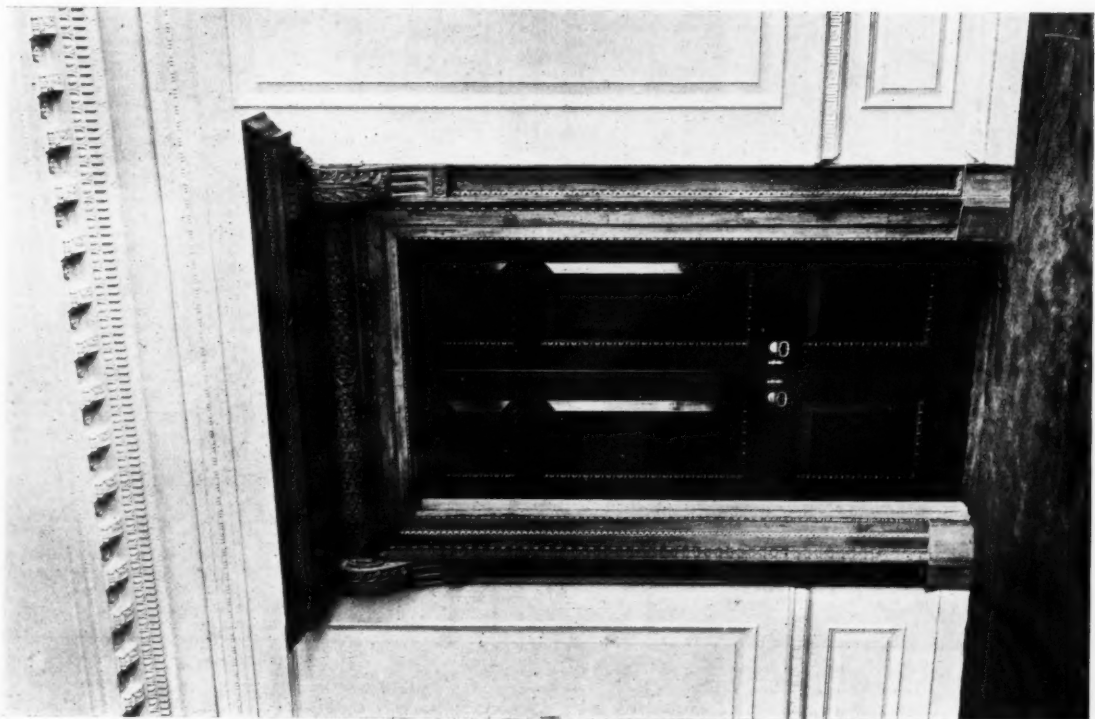


CHIMNEYPIECE IN THE CHIEF GENERAL, MANAGER'S OFFICE.

THE NEW HEAD OFFICES OF THE WESTMINSTER BANK, LTD., LONDON MEWES & DAVIS, ARCHITECTS.



DOUBLE DOORS TO BOARD ROOM.



DOUBLE DOORS TO CHAIRMAN'S ROOM.

THE NEW HEAD OFFICES OF THE WESTMINSTER BANK, LTD., LONDON. MEWES & DAVIS, ARCHITECTS.



THE GALLERY.

to the vaults are closed by a series of vault doors, of great weight but easy movement, obtained by the special means of suspension employed, the doors being hung upon compound crane hinges, with four-point suspension, and special ball-bearings are employed throughout. The doors are forced into their frames by powerful compression gearing, and secured by a series of patent clutch bolts which grip the frame and prevent its being forced apart from the door. The bolting mechanism is controlled by a series of locks of unique construction; these locks are of large size, and operate at multiple points in the main bolting mechanism in order to decentralize the control. The locks are provided with a special key-hole closing device operating in connection with a patented anti-explosion safeguard, which is automatic in action in the event of explosives being used in an attack upon the doors. The approach to the strong rooms is barred by heavy steel grilles, and the door openings are also provided with strong wrought-steel gates. The whole of the strong rooms are equipped with forced ventilation during the periods that the vaults are open, and provision is also made for electrical heating when required.

The general contractors were Messrs. Rice and Son, and sub-contracts were carried out by the following firms: Seyssel and Metallic Lava Asphalte Co. (roofings and asphalt-lining work); Plowman & Co. (bricks); F. J. Barnes, Ltd., Portland (stone); W. Aumonier and Son (carved stonework); Rice and Son (ferro-concrete construction, plumbing and sanitary work, lead down pipes and R.W. heads (special make), stone flooring, oak stair-treads); Redpath, Brown & Co., Ltd. (steel construction girders); Diespeker & Co., Ltd. (fireproof floors); J. A. King & Co. (fireproof partitions); Art Pavements and Decorations, Ltd. (Biancola partitions, wall, ceiling, and floor tiles); Williams, of Rotherie (slates); The Luxfer Co. (casements and fittings, and patent glazing and fittings); Bratt Colbran & Co., "Magic Cool Electric" (fires, grates); Doulton & Co. (sanitary ware and fittings); Stanhope Flooring Co. (wood block and parquet flooring); F. Geere Howard, Ltd. (electric wiring); G. Jackson and Sons (fibrous or modelled plaster work and special woodwork, panelling, carving, and marble chimney-pieces); J. W. Singer and Sons, London and Frome (lay lights and art metal work); Higgins and Griffiths, Ltd., and Tredegars, Ltd. (electric light fixtures); Richard Crittall, Ltd. (gas fixtures,

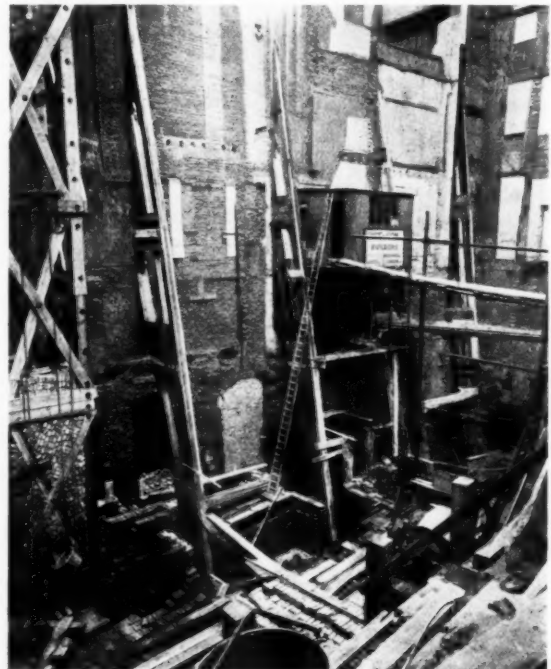
and cooking and laundry machinery); N. F. Ramsay (London), Ltd. (door furniture); J. W. Singer and Sons, of Frome (sliding entrance gates, etc.); J. Whitehead and Sons, Ltd. (marble-work and floors); Waygood-Otis, Ltd., and Butters Bros. (lifts and cranes); Richard Crittall and Co., and Benham and Sons (heating and ventilating, and boilers); Foot, Milne & Co. (bells and telephones); Samuel Elliott and Sons, of Reading (bank wood fitting); Hobbs, Hart & Co., Ltd. (strong-room doors, safes, etc.); Birch and Gaydon, Ltd., and Synchronome Clock Co. (clocks); Howard and Sons (furnishings of council chambers, board room, and directors' rooms); J. Hill & Co. (nickel cloak-room fixtures and door furniture).

The Bank of England Reconstruction Scheme

There have been persistent rumours that the work of rebuilding the Bank of England was to be undertaken immediately. That the famous building is to be reconstructed is well enough known, and the public have from time to time been informed of the details of the project—the main idea of which is the reconstruction of the interior, with the preservation of the existing façades, which form so distinctive a feature of the architecture of the City. Not only the external fabric, but some of the old banking halls are not to be interfered with in the erection of the high edifice designed to provide accommodation to meet the present-day requirements of the Bank. The impression that the demolition of the old Bank is to be commenced within a day or two has been produced by the posting up on the outside walls of the Bank of a notice headed: "The London Building Act, 1894: Height of Building," and stating:—

"Notice is hereby given that the London County Council did, on the 28th day of July, 1924, consent to the erection of a building at the Bank of England, Threadneedle Street, Prince's Street, Lothbury, and Bartholomew Lane, of a greater height than that prescribed by the above Act."

The posting up of the notice is, however, merely a formal compliance with the requirements of the regulations in connection with intention to rebuild.



SHORING AND UNDER-PINNING, 30 FEET BELOW PAVEMENT LEVEL.

The Business of an Architect

14.—Contracts (*continued*)

By C. MURRAY HENNELL, F.S.I.

CLAUSE 17 of the R.I.B.A. Conditions of Contract provides for the amendment of defects after completion, and the architect should be careful to notify the contractor of all such defects before the expiration of the maintenance period. There can then be no question as to whether the defects, shrinkages, or other faults appeared during the time when the contractor was still responsible. If it is possible to do so, it is advisable for the architect to go over the whole building with his client when preparing his schedule of items requiring attention or completion, as the latter will, in the course of daily life, inevitably have discovered defects which may be overlooked on a technical inspection. Incidentally, the architect generally learns something on these occasions of his own achievements and shortcomings, real and imaginary, and both he and his next client may profit by the experience.

Sub-Contracting

Clauses 19 and 20 deal with sub-contractors, but no remedy is prescribed in cases where assignment or sub-letting takes place without the architect's consent. This, which is a clear breach of contract, unfortunately goes on to a considerable extent, especially when unsubstantial builders are employed, and it frequently leads to disastrous results. The action in some cases merits cancellation of the contract, but this is a difficult and dangerous course, which should not be pursued without legal advice, and it is usually safer, and more often than not it is possible, to take refuge under Clause 16 and to order the removal and proper re-execution of the work which the sub-contractor has done badly. In case of default on the part of the contractor to carry out such order, the employer has power, under that clause, to employ and pay other persons to carry out the same, and the contractor must bear the expense. Then if the contractor makes default in that respect more than once, notice can be given under Clause 26. Furthermore, if the sub-contractor is, in the opinion of the architect, incompetent, the architect has power under Clause 9 to order his immediate dismissal.

Prevention being better than cure, much trouble in this direction, as in many others, can be saved by satisfactory knowledge of the contractor before the contract is signed. With every new builder who is about to enter into a contract, it is as well for the architect to draw attention to Clause 19, and to ask point blank what trades, if any, he wants to sub-let, and to whom.

Architects are, as a rule, comparatively reasonable beings, and do not withhold consent to the sub-letting of certain trades to reliable specialists, but when it comes to the assignment of much of the structural work, and perhaps all the joinery, it is time to draw the line, for troubles will most probably ensue.

Insurance against Fire

Clause 22 provides for insurance of the works against fire, and in the case of a new building the contractor has to effect this. How seldom it is that he seeks the approval of the architect to his insurance office, and then sends along the policy without being asked for it. The architect must, therefore, remind the contractor at an early stage, preferably before he issues the first certificate, of this item, so as to safeguard his client's interests. In alterations to an existing building the architect should draw the employer's attention to the fact that he must look to the insurance.

Clauses 23, 24, and 25 deal with those important and contentious matters, date of completion, damages for non-

completion and extension of time. In filling in the dates under Clause 23, it is important that a reasonable time shall be allowed to the contractor in which to complete the works. In some cases the contractor is required to state in his tender the time in which he undertakes to complete, and when speed is essential the builder who says he will do the work in the shortest time may be appointed, even though his price may not be the lowest. In such cases the dates are governed by the contractor's own undertaking.

Various statements, some of them without foundation, are made in respect of the "damages" Clause (No. 24), and of the power of enforcing this, but it would be well for both architects and builders to make some study of the law on this subject, which is extremely interesting.

Damages for Non-completion, etc.

Damages, according to English law, may be either liquidated or unliquidated. The former means compensation of a fixed amount agreed and decided on between the parties, and unliquidated damages means compensation not so agreed, but yet to be decided upon, usually by a jury. Clause 24 of the R.I.B.A. Conditions of Contract clearly states that the sum mentioned is "as liquidated and ascertained damages," and we need, therefore, now only consider the law on this branch of the subject. This clause shows that at the time of entering into the contract, the parties consider the possibility of a breach happening, namely, that the contractor may take longer to complete the works than the agreed time, and they provide what shall be compensation or amount of damages to be paid to the injured party, the employer. Consequently there is a definite agreement on breach to pay a certain sum actually by way of agreed and liquidated damages, and then, other things being equal, that amount is recoverable, *even though it may exceed the actual amount of damage sustained*.

However, in any case of this nature the court looks at the contract with great care, and the mere fact that the parties have stipulated, on breach, a certain sum shall be paid by way of compensation by the one to the other, will not always entitle that other to recover the exact amount; and this even although the parties may have expressly stipulated that the amount agreed to be paid shall be by way of liquidated damages; for in many such cases the sum agreed to be paid may really be a penal sum, and if it is so, then the court will not enforce it, but will relieve against it.

The court, in doing this, does not at all interfere with the power that persons naturally must have of estimating their own damages, but what it does is to seek the real and true intention of the parties, not being bound down by the mere words used by them, but looking at the whole instrument to arrive at the true construction.

Thus, in the case of a private house, costing, say, £2,000, if the "liquidated and ascertained damages" are agreed in the contract at £4 per week for every week beyond the contract date or extended time that it takes to complete, this will in all probability be regarded as the amount of damage the employer might reasonably have been expected to suffer by such breach, but if £40 per week had been inserted it would seem uncommonly like a *penalty*, and this sum, except in extraordinary circumstances, probably could not be enforced.

More often than not one hears the word "penalty" used in connection with the condition as to damages for non-completion to date. It even appears in some specifications and bills of quantities. This is a mistake, for where a sum is expressed in an agreement to be a penalty, it will, as a

rule, but not necessarily, be so considered, and on breach the action must generally be brought for unliquidated damages and not for the fixed amount. However, it has been held that where the real damage would be extremely difficult to arrive at, a sum stipulated to be paid, although mentioned as a penalty, may be construed and recovered as liquidated damages. Whether a sum agreed to be paid is really a penalty, or liquidated and ascertained damages, is, in fact, a question of law to be decided by the judge on consideration of the whole instrument, even if the sum is called liquidated damages in the contract.

"Where it is doubtful from the terms of the contract whether the parties meant that the sum should be a penalty or liquidated damages, the inclination of the court will be to view it as a penalty. But the mere largeness of the amount fixed will not *per se* be sufficient reason for holding it to be so." (Ibid.) It is for consideration of the whole instrument, whether a sum stipulated to be paid is a penalty or liquidated damages, and the principle to guide the court is the real intention of the parties, to be ascertained from the language they have used. This in itself is a good reason for using the R.I.B.A. form of contract and for not endeavouring to invent one.

The legal points mentioned above are in accordance with Indermaur's "Principles of the Common Law."

Cases relating to "damages for non-completion" often come before a court of law, although disputes of this nature in a building contract are usually referred to arbitration, and if the R.I.B.A. contract is used they must be so referred under Clause 32. However, the underlying principles are the same whether the court is a law court or an arbitration court, and the competent arbitrator will consider the law on the subject in basing his award.

Position of the Architect

Although the onus of enforcing or waiving the question of damages under Clause 24 rests with the employer and not with the architect, it is for the latter to advise his client as to the right and proper course in the circumstances; furthermore, the architect has power under Clause 25 to grant extension of time. The proviso "and the architect shall certify in writing that the works could reasonably have been completed by the said date," is an important one to which the client's attention should be drawn. Employers have been known to deduct the damages from their payments to contractors without the architect having certified as to the reasonable possibility of such completion. This, of course, is a breach of contract on the employer's part, and the amount thus deducted is recoverable by the contractor. The architect should be extremely careful in certifying as to the reasonably possible date for completion, for he is on dangerous ground, and he must consider all the factors which may have contributed towards delay, as set out in Clause 25. One might say that some of these reasons for delay appear in every building job that happens; at all events the contractor who is behindhand will inevitably use them as excuses.

The architect must in this, as in other things, for that matter, be scrupulously fair, allowing proper time for the execution of all variations, for exceptionally inclement weather, strikes, lock-outs, and all the other proper reasons for delay named in the contract.

[The previous articles in this series appeared in our issues for April 4, 11, 25; May 9 and 30; June 27; July 18; August 1; November 7 and 21; December 12, 1923; and January 23; February 20; and June 25, 1924.]

A House in Vera Avenue, Grange Park, Middlesex

GORDON PRINGLE, B.A., Architect

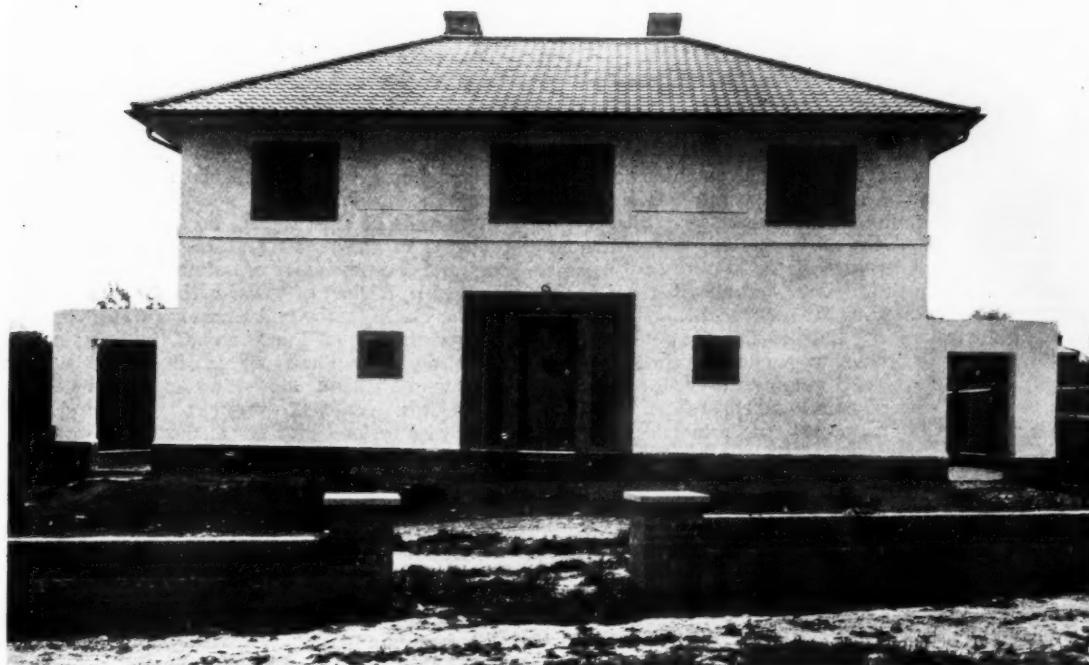
This house, designed by Mr. Gordon Pringle, B.A., has been planned so that all the principal rooms face south and look on to the garden. The external walls are finished with smooth Portland cement and distempered white. The steel casements are fixed in artificial stone frames finished a cream colour.

The contractors were Messrs. R. Wright and Son, of Enfield. Courtrai tiling was supplied by Roberts, Adlard & Co.; steel casements by W. James & Co.; window and door frames by the "Try" Concrete Co.; and floor and wall tiling by Cope & Co.

The approximate cost was £1,550.



GROUND- AND FIRST-FLOOR PLANS



A HOUSE IN VERA AVENUE, GRANGE PARK, MIDDLESEX.
GORDON PRINGLE, B.A., ARCHITECT.

Little Things that Matter—36

The Materials of Construction and the Processes of Architectural Design. Experimental Models

By WILLIAM HARVEY

FROM the days when King Solomon overlaid fair cedar wood with beaten gold, the practice of covering the actual materials of construction with a decorative surface treatment has been recognized as an important element of architectural design. Buildings in which the actual constructional frame has also been considered from the point of view of beauty, and left without further added adornment, are distinctly exceptional, and the examples of normal building construction include all stages from the disguise and concealment of bad construction to the embellishment of materials that are, in themselves, thoroughly good, but which do not perhaps carry the desired colour to complete the artistic scheme.

There is nothing new, therefore, in our method of putting the building together with substances of too poor a quality either to resist the weather or to be interesting and then protecting and disguising them with some added superficial treatment, but it may be claimed that we have enormously developed and systematized the practice (Figs. 1 and 2). Monuments of antiquity, which have been strong enough to survive to the present day, generally exhibit the nobler side of this art of concealment in that their good and substantial constructive materials were merely clothed by an added decorative coating, whereas systematic forethought and deliberate planning have to be adopted in a great deal of modern work to adjust the points of contact between the ugly skeleton framework and the stylistic trimmings with which it is to be hidden from view.

Whether the detailing of stonework to fit the flanges of girders and stanchions is a useful exercise or a pernicious waste of time and intellectual gifts, may be left to the discussion of purists and practical men, but it is important to realize that architecture of this composite character must inevitably fail to do justice to the structural interest of either the stone or the steel, and that features accurately copied from the buildings of antiquity which are applied to modern buildings in this way do not carry the same conviction as to their suitability for their position that they possessed in the original.

A lintol composed of several stones strung along a hidden bressummer does not impress the spectator as a genuine great stone might do, and to carve upon this collection of small masonic cover plates the mouldings and ornaments of the megalithic architecture of the ancients only points out more clearly the vital nature of the difference. The composite method of building has been established, however, as suited to our way of life, and the time has gone by when a plea for strict adherence to ancient methods of construction would have carried weight.

An experiment, sincerely undertaken and painstakingly carried out in the interests of "true principles" of construction failed in the case of the Gothic Revival, not because the vaulting and buttressing of modern Gothic buildings were not adequate but because the paramount claims of practical convenience had been ignored. If the application of stonework to steel is a real convenience it is vain to regret the older fashion of solid construction in a single material, but it is also vain to expect to attain lasting fame by the design of a building whose artistic features are confessedly imitative. Some element of invention in construction or in artistic expression, or both, in accordance with the needs of the time is recognizable in every masterpiece of architecture, and the adroit exploitation of the past styles and periods now so fashionable on both sides of the Atlantic is distinctly lacking in this necessary qualification of greatness.

The main object of dual construction, economy in the floor space occupied by the principal supports of the building, is seconded by another important consideration. Simple solid forms of construction do not lend themselves to the effective concealment of electric wires, water-supply pipes, heating circuits or drains, all of which are supplied in ugly forms requiring either further treatment or to be kept out of sight.

Modern opinion is practically unanimous in advocating the second alternative for all parts of the building except the sanitary annexe, and these services vital to the civilized life of an intensively populated country are accepted as normally and necessarily unpleasant in appearance. Advances in hygiene have been accompanied by retrograde movements in art, and our improved methods have eliminated much of the interest that could be woven into building in more primitive times but which cannot now be afforded in an age when time is recognized as the equivalent of money.

In these days of cast-iron down-pipes, a gargoyle is no longer a thing of life. Genuine water-spouting gargoyles are forbidden by the bye-laws in places where they would discharge water over public pavements, and a gargoyle that performs no function merely encumbers the building and holds about the same relation to the real thing as a stuffed museum specimen holds to a living animal.

The necessity for taking thought beforehand for such things as pipe tracks applies pressure upon the architect and causes him to accept the purely imitative forms of artistic presentation both because he has pipes to hide and added trimmings afford a method of hiding them, and because so much time and energy are used in working out the scientific and practical side of the supply that little remains for the invention of new and specially appropriate methods of artistic treatment.

Until the experiment had been made it might have been doubted whether it was possible to accept pipes and electric wires as pleasant visible features, and no architect has been found courageous enough to try the effect of colour decoration on the soil pipe, which generally disfigures a modern house with its unbalanced line of black scrawled across the façade.

Where funds exist for the decoration of the exterior the thoughts of the architect turn towards an internal pipe duct and the possibility of obtaining permission to run the pipes in it, instead of towards the composition of a design which would embody an appropriate arrangement of exposed pipes. As things stand, the soil pipe is accepted by neither system and remains in view as a concession to the law of the land, though no one likes its looks or takes the slightest trouble to improve it even by replacing the mean wire balloon cage demanded by the sanitary authorities with any more interesting form of capital (see Fig. 7).

A purist in constructional design who holds that all necessary features should be given a beautiful form might view the whole subject of architecture anew by considering the question as primarily a matter of supply pipes and of a proper building to contain them.

Makers of high-class sanitary fittings have already adopted this attitude towards architecture in respect of their contribution to it and they are quite justified by the excellent appearance often achieved by working along these lines (see Fig. 5). In one great public office, where the design of decorative trimmings has been the subject of much expense, both of money and skill, the neatly and suitably tiled lavatories are at least as attractive as the elaborate committee rooms encrusted with costly panelling

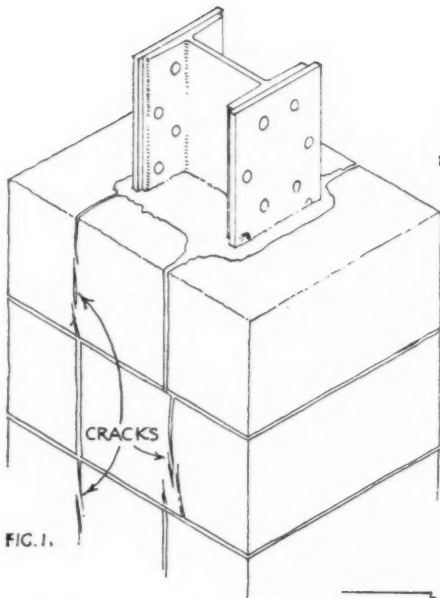


FIG. 1.

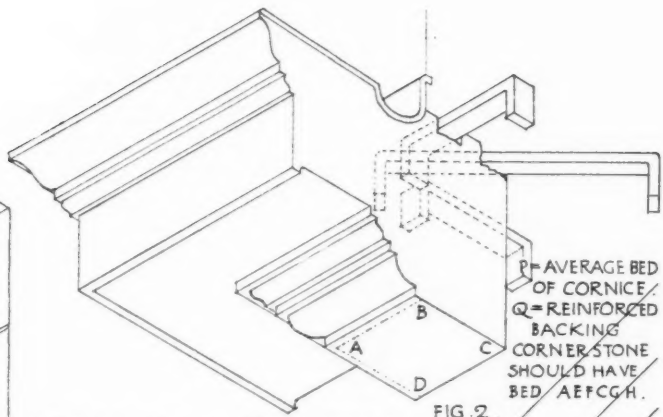


FIG. 2.

APPLIED FACING MATERIAL MUST BE STRONG & SECURELY FASTENED TO THE FRAME. FIG. 1. SHOWS FACINGS OF SOLID GRANITE CRACKING IN A LARGE BUILDING. FIG. 2 ANGLE OF CORNICE WITH INSUFFICIENT BED. ABCD.

P = AVERAGE BED OF CORNICE.
Q = REINFORCED BACKING
CORNER STONE SHOULD HAVE BED AEFCH.

PIPES ENTER INTO MODERN ARCHITECTURE & VERY CONSIDERABLY AFFECT DESIGN.

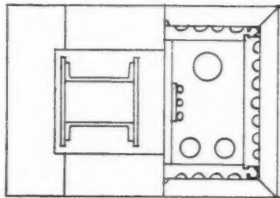


FIG. 3. DETACHABLE "PILASTER" HIDES UGLY PIPES & WIRES.

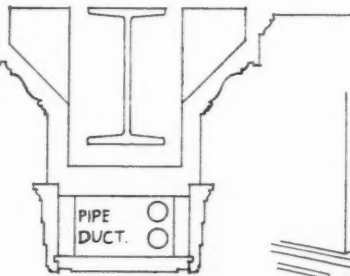


FIG. 4. AN EXCUSE FOR ARCHITECTURAL TRIMMINGS

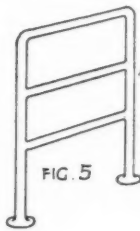
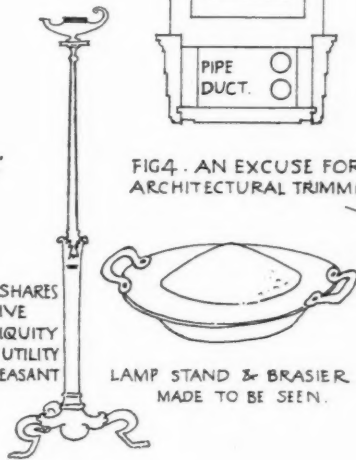


FIG. 5

A TOWEL HEATER SHARES WITH THE PRIMITIVE APPARATUS OF ANTIQUITY THE CHARACTER OF UTILITY COMBINED WITH PLEASANT APPEARANCE.



LAMP STAND & BRASIER WERE MADE TO BE SEEN.

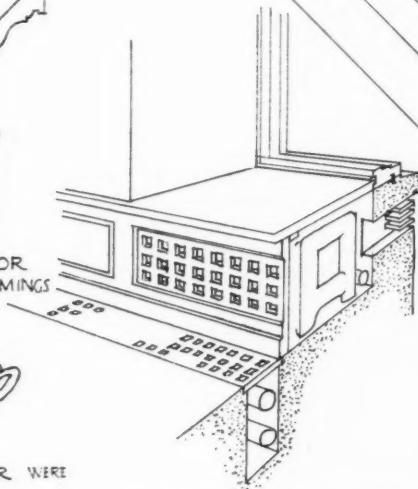


FIG. 6. NEITHER RADIATOR NOR HOT WATER PIPE ACTS BETTER FOR BEING SCREENED BUT THEY ARE NEITHER OF THEM BEAUTIFUL.

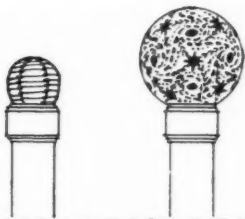


FIG. 7. VENT PIPES END IN POOR, ILL-PROPORTIONED WIRE CAGES BUT BIGGER FINIALS MIGHT BE USED.

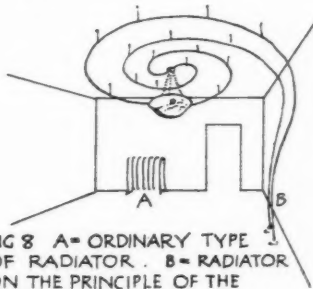


FIG. 8. A = ORDINARY TYPE OF RADIATOR. B = RADIATOR ON THE PRINCIPLE OF THE TOWEL RAIL.

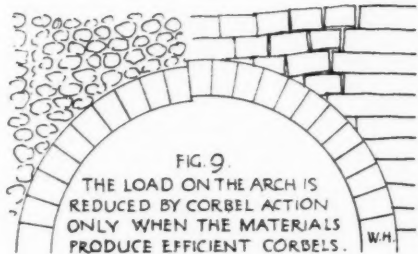


FIG. 9. THE LOAD ON THE ARCH IS REDUCED BY CORBEL ACTION ONLY WHEN THE MATERIALS PRODUCE EFFICIENT CORBELS. W.H.

and marble. Within the limits of the space set apart for sanitary accommodation the architectural purist has a free field. Boxings and casings and other forms of disguise favoured by an earlier generation are no longer tolerated but have been abolished on grounds of fitness and efficiency, and appliances are now designed to be sightly, as well as serviceable, and so stand in need of no disguise. This is real progress and sound architectural art though there is no possibility of making it harmonize with the system of added trimmings and stylistic imitations based on the work of a certain chosen period. Exposed pipes cannot be made to fit in with cornices and panelling though they can be arranged pleasantly enough in rooms that are free from such borrowed details and whose walls are unencumbered by pilasters. The experimental exposing of all pipes was made in the large block of building erected for the Ministry of Pensions at Acton, as a means of reducing the cost of construction, and although the simplest possible effects were produced the rightness of the whole suggests that such a method of design is worthy of development.

The radiator enters into almost every important building at the present time replacing the bulky hot-water-pipes of thirty years ago, but both are dust collectors as usually fixed near walls (see Fig. 6). An alternative position for a heating coil would be to arrange it in a circle beneath the ceiling with the electric lights designed in conjunction with it (see Fig. 8). Long sweeping curves would offer far less opposition to the flow of the heating agent, whether hot water or steam, and air circulation would be encouraged and the efficiency of the apparatus increased. Elaboration that is now lavished upon the radiator grille would be saved, and might be spent in paying for the superior finish of the pipe circuit itself and the rust and tarnish-proof surface that would be needed to make an artistic success of the installation.

In a similar way a staircase might be heated by a circuit following the spiral of the handrail and which might be made to count as a golden line wreathing around the well.

Planning would be immensely facilitated if it could be assumed at the outset that neither pipe ducts nor added architectural trimmings would be required, and the present tendency for design to become more and more an affair of the drawing-board would receive a welcome check.

Where the materials are few and are habitually employed very little designing is necessary. The dome of a cesspool can be built without centering by a country builder in about the same time as it would take to write a detailed account of the processes employed, and it is in this habitual contact with the shapes of things that architecture finds its opportunity of development on experimental lines.

With reinforced concrete work the preliminary shuttering has to be both designed and made before the actual building can be put in hand, and the technical details, both of calculation and of execution, tend to overburden the design. Ideally speaking, the nature of reinforced concrete, with its abundant possibilities of internal tensile connection, renders it particularly suitable for vaulted forms endowed with great economy of support and abutment. Practically speaking, it is the exception to find reinforced concrete used for vaulted surfaces owing to the great cost of the skilled joiners' work required in constructing curved shuttering. A dome on a circular base would be abandoned by an architect for one of weaker form with flat sides to permit of straight boards being used in composing the falsework.

Other methods will doubtless be perfected which will remove this obstacle to the free use of a highly valuable building material, but until this comes about, the cost in time of calculating the strength of the finished work and of designing and calculating the strength of the shuttering, has to be added to that of the building itself and acts as a repressing influence.

The comparative novelty of any material of construction contributes to the difficulty of designing, as it cannot be taken for granted that its use will be fully understood by the builder or indeed by the designer himself, and perhaps the most satisfactory method of design in connection with

a new material is to contrive experimental models instead of trusting to drawings and calculations alone. Design by means of model making has the great advantage over design by drawing that the main outlines of the structural problem are clearly placed before the designer as well as the appearance of the work.

A model of a vaulted church constructed in plasticene will settle and crack in a similar way to the full size executed work and affords a most valuable means of determining weak places and preparing safeguards in advance. The use and limitations of reinforcement in certain positions in the structure can be made clear in a model by the insertion of threads in the substance and by noting the different behaviour of the model after the tensile connection has been severed. And if these practical methods of approaching architecture may savour of the elementary, they are also elemental in that they direct attention to important matters that might be overlooked in a drawing, which only shows one aspect of a building at a time.

It is objected, and with a certain degree of truth, that a small model cannot be relied upon to give accurate mathematical results, and for obvious reasons this is too much to expect of it. Where the model is valuable to the calculator, is in allowing him to state his problems with some assurance that the behaviour of the building under stress will not differ too widely from his reasonable anticipations. Where masses of walling shown on a drawing may leave it an open question whether stability will be attained by cantilever action, by supported girder action, or by action on the lines of a continuous girder with ends fixed, a model will demonstrate in favour of one or the other possible solutions in a clearly comprehensible manner. This problem arises in everyday practice in connection with the support of the upper parts of street fronts during the insertion of new bressummers or the repair of existing arches or piers, and though the principles on which calculation may be made are suggested in the table books on construction, the tendencies of the building masses to collapse and the appropriate measures to guard against them are far more readily grasped if the factors of wall and floor and roof loads are assembled in the form of a model.

The very ambiguous problem of the behaviour of a loaded arch is also one on which a model is capable of throwing light. The assumption that a certain portion of a brick or masonry wall built above the haunches of an arch will be carried by its own corbel action is practicable in certain cases but not in others. Upon a drawing both cases would appear pretty much the same, and the danger of mental confusion would not be pointed out. A model on the other hand would show clearly the immense difference that takes place in the arch loading when the corbel action of the masonry fails (see Fig. 9). It would also indicate the desirability of tensile reinforcement in certain parts of the out-corbell masonry and its enormous structural value in proportion to the small additional cost of its insertion. In problems of this class, and architecture abounds in them, it is not so much a question of working out to so many places of decimals, according to such and such a formula, but an accurate and comprehensive grasp of the conditions of the case that is of importance, and this does not fall within the scope of a formula and a book of logarithms.

From an artistic aspect the construction of architectural models has the great advantage of concentrating attention upon the main masses, and the work produced in the few offices where modelling is habitually resorted to as an aid to clear thinking is characterized by simplicity and directness distinctly above the normal. Where the model making is done by a professional from designs made on the drawing-board this advantage is lost, and as a result the two classes of architecture are often seen side by side in models placed on show in the same exhibition. One model is roughly executed by the architect but is full of interest and right in its main lines and colour, the other is laborious in the extreme with every joint marked, every edge precise, but is uninspiring because constructed under conditions which permitted of no adjustment.

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 should be clearly drawn and lettered and inked in.

THE CUBE COST OF A BUILDING.

"T. S. T." writes: "What do you consider a reasonable price to cube the building described below in order to arrive at approximate cost? The building is 80 ft. by 42 ft. by 32 ft. high, and is proposed to be built on steel-frame principle, with stanchions at about 13 ft. 6 in. spacing, main girders to span 40 ft., and reinforced concrete floors of the pre-cast type. The flat roof will be asphalted, and between the stanchions for a height of 3 ft. 11 in. there will be cavity brickwork cemented externally. Above that height there will be large iron casements between the stanchions. A white lime finish would be applied throughout the inside. The building will have continuous reinforced lintels at each floor."

—If the proposed building is to be built upon an easily accessible site, then the cube cost, based upon labour and material rates at July 5, would be about 1s. 3d. to 1s. 4d. per foot cube for the structure only. The addition of internal fixtures, office enclosures, etc., will very quickly increase the figures given. A cube cost should never be made the basis of a firm estimate.

E. I.

PURCHASE OF A PARTNERSHIP IN AN ESTABLISHED ARCHITECT'S PRACTICE.

"I should be glad to know if there is any general rule as to the sum to be paid in purchasing a half-share partnership in an architect's practice. Is the sum in any way proportional to the average net profits of the business and estimated at so many years' purchase?"

"A portion of the purchase money is to be applied to the business and another portion is claimed by the principal personally. Is this usual and fair?"

"Where the principal is in failing health, and managing duties will fall upon the purchaser of the partnership, should this be taken into account?"

—There is no absolute standard in the matter, and each case is settled by agreement between the parties concerned, but the transaction is governed by the general consideration that a business partnership on the basis of equal shares of expenses and profits pre-supposes that each partner brings to the partnership equal money-earning capacity.

This may consist either in capital invested in the business or in skilled service, or in opportunities for their profitable exploitation.

The average net profits of the business may be taken as evidence of the opportunity afforded by it for the exploitation of both capital and skill, and the principal of an existing practice in accepting a partner definitely deprives himself of certain profits and opportunities for which he can reasonably require a personal money payment.

Skilled services have a money value, and the amount of money paid or capital invested will vary according to the relative professional status of the parties. Where both are admittedly equal in money-earning capacity an amalgamation of equally profitable businesses might take place without necessitating any payment from either party to the other.

On the contrary, a large sum would be required from a person of no great professional ability who desired to purchase a half-share partnership in a profitable business as a means of investing his capital.

Where the purchaser of the partnership will be required to manage the business and receives less from his share of the profits than would pay his salary as a managing assistant the difference should count in his favour and a corresponding deduction should be made from the purchase money.

Supposing him to be a capable man he will be contributing skilled services and some capital in return for the opportunity of exploiting both his skill and his capital. At the same time he assumes the status of a principal without undergoing the uncertainty of establishing an independent practice for himself.

The financial aspect is, of course, only one side of partnership, and in a profession such as architecture, where decisions are made on the grounds of personal judgment and taste, a probationary period is sometimes arranged, during which the intending partners can decide whether they are temperamentally compatible with one another.

W. H.

JOINTLESS FLOORING.

"J" writes: "Will you tell me the materials required, how to mix, and the way to use the same for jointless flooring?"

—Two distinct kinds of jointless flooring are produced.

1. Where the aggregate is composed of fine granite chippings or clean sharp sand, and the floor is to be laid upon a concrete base. This type of floor is suitable for heavy wear.

2. Where the aggregate is composed of sawdust, powdered cork, or other relatively soft waste material, and the floor may be laid upon either wood or concrete. This floor is suitable for light wear.

In each case a special binding composition is mixed with the aggregate and the colouring material, and is applied to the floor and floated to a smooth surface.

1. The binding material for the first-mentioned kind of flooring may be purchased separately from the manufacturers, The Ironite Company, Limited, 11 Old Queen Street, Westminster, London, S.W.1. This material is very thoroughly mixed dry with dry Portland cement, conforming to the British standard specification in the proportion of from 15 lb. to 25 lb. of binding composition to each 100 lb. of cement. One part of the resulting mixture is added to two parts by bulk of clean crushed granite, free from dust, or clean sharp sand. Fresh water is added with the same precautions, and in the same manner as in good concrete mixing. The jointless flooring is laid while the base is green, the work being set out in strips to permit of the alternate deposition of concrete and flooring. Where the concrete base exists, or has already set, it must be thoroughly soaked with water and dressed with a slush composed of 25 lb. ironite flooring to 100 lb. of cement, made into a heavy paste with water, and well brushed into the surface. The jointless flooring mixture is then laid while the dressing is wet, and must be well tamped before floating. An extra hard floor may be made by sprinkling a little dry flooring mixture on the surface immediately after laying and trowelling it in. Old surfaces must be scrupulously cleaned and all oils and grease removed before the application of the flooring.

2. Floors of the sawdust type are mixed with powdered magnesite and a solution of magnesium chloride. A dressing of magnesium chloride solution is used to prepare the existing surfaces before the jointless flooring is laid. New wooden floors are covered with fine wire mesh secured by staples to the floor-boards, and an undercoating of flooring mixture made with coarse sawdust is used to cover the wire and absorb the spring and twist of the floor-boards. The surface layer of about $\frac{1}{4}$ in. thickness of flooring mixture is made with finer sawdust, coloured with the requisite quantity of pigment, is laid on the undercoating and floated to a smooth surface. Pigments in common use for colouring jointless flooring are Spanish oxide of iron, red, yellow

ochre and vegetable black. Elaborate colour schemes are produced by laying down a pattern composed of small rods and blocks when the plain background is being made and filling the space left by the removal of the rods and blocks with a flooring mixture coloured with fine pigments, such as powdered pearl shell and the like. The setting and drying of the material is affected by the temperature and humidity of the atmosphere, both in respect to speed of set and expansion, and experience is necessary to ensure permanent results. Concrete is a satisfactory base for this class of floor provided that its upper surface has been screeded level and left rough enough to afford a good key. It should be bone dry when the jointless flooring is laid. The surface of the jointless flooring is treated to wax polishing, or may be wiped down with the usual oils and furniture polishes sold for such purposes.

WILLIAM HARVEY.

Book Reviews

The Architect in Practice.

Many a young architect who sets up on his own is confident of his ability to plan and design reasonably well; he is prepared to survey a site, and to draw up a specification—and then he comes up against the boggy: what will he do when it comes to questions of professional practice? Where can he turn for guidance? He sees himself faced with party-wall notices, with angry neighbours gesticulating about a right of light, with clients asking him what on earth he wants with a clerk of works—and his knees turn to water. He wishes that he were a painter or a composer who presumably do not bump so hard into the practical business side of life. At this point a fairy godfather appears (in the shape of Major Barnes) and leads him by the hand whispering advice, coupled, it must be admitted, with ominous warnings.

The author insists upon the importance of the architect himself living in a reasonably respectable office. He is to ask himself "How would this impress me if it were someone else's office and not my own?" This query may well make some of our established architects uneasy, for architecture is a job in which the physician often omits to heal himself. In passing the chapter devoted to the client we must urge that Hamlet was responsible for quite enough sayings without being loaded also with those of Mercutio. Is the author quite sure (p. 43) that the architectural competition results in a building which in "utility, economy and architectural design is the best possible"?

There is one point that might be more stressed, and that is that the architect's job is to be an architect, and that it is the height of unwisdom for him to trespass in the domain of the solicitor or of any expert on technical side-issues. The client's solicitor can be of great assistance, and any client can understand that when it comes to questions of law, such as title deeds, it is for the solicitor to see that everything is legally in order. The author rightly says that the tendency of the architect when he makes an approximate estimate is to be an optimist. It is a bad tendency, because nothing is more annoying to a client than to find himself let in for a heavier expenditure than he was led to expect.

Excellent advice is given on the preservation of objects of antiquarian interest, and every architect should make it his business, when occasion arises, to preserve these or at least to see that drawings and records are made and passed on to those who will prize and treasure them.

Those who fight, without adequate provocation, with local authorities, are as foolish as boys who fight with their schoolmasters when the last word must rest with the enemy. When a local authority or the surveyor attempt to exceed their powers a fight may become necessary, but the young architect should do all in his power to be on friendly terms with all officials, whether of the State or the municipality. Officials are human, and their actions are influenced by their personal relationship with the other party. They

can, if they like you, go out of their way to help. Let us hope that associations and societies of architects will take Major Barnes's further tip and play a larger part in public life. A lively and vocal architect on a local council can be of immense service to his art and to the district. M. R.

The Architect in Practice. By Harry Barnes. London: Ernest Benn, Ltd. Price 7s. 6d. net.

Hampton Court.

In a foreword to this "Short History of Hampton Court" (enlarged from a previous edition), the author explains that the volume has been compiled from his larger work with the view of affording a continuous narrative of events, and a picture of life at Hampton Court, up to the death of Charles I, in a more compact and compendious form.

All who are familiar with Mr. Ernest Law's histories will know what knowledge he brings to his subject. There are, indeed, few other historians with us who have the same amount of material at their disposal and intimacy with the Tudor period. And so we get exact information from him of the times of Wolsey, Henry VIII, and Elizabeth, with especial reference to the architecture and other arts.

The book before us is fully illustrated with sketches and line-drawings of the various details of the palace, and a very useful appendix is provided on the three rooms which, by the King's directions, have been detached from the private suite, of which they had formed part for 200 years or so, and which are now accessible to visitors. Nobody knew of the association of this angle of the palace with Wolsey, and it was only in the early 'eighties that the discovery was made that the modern battening and papered canvas covering the walls concealed fine oak panelling, and one of the ceilings displayed the badges and cognizances of the great cardinal. But not until the winter of 1913-14 was anything done, when investigations were undertaken by H.M. Office of Works, and the long-hidden panelling, fire-places, and doorways, which had been covered up for 230 years, were revealed.

A detailed description of these rooms is supplied by Mr. Law. The rooms are: a panelled ante-chamber; Wolsey's Privy Chamber, and—largest of the three—one which has suffered most from eighteenth-century alterations. Georgian sash windows have been substituted for the mullioned bay and others, and half of the beautiful ceiling has been dragged down. The setting out of the design by the original workmen can be traced here and there on the flat surface of the plaster where the old ceiling has been destroyed. It is one of those little touches which seem to roll the years away, and place before one's eyes the very life of a bygone age.

"A Short History of Hampton Court in Tudor and Stuart Times, to the Death of Charles I." By Ernest Law, C.B., with illustrations by Herbert Railton and others. New enlarged edition. London: G. Bell and Sons, Ltd. Price 6s. net.

The "Quarterly Illustrated."

In the spring number of the "Quarterly Illustrated of the Incorporation of Architects in Scotland" begins a new series of illustrated articles on Great Scottish Architects of the Past. The first article deals with the career and architectural works of James Gibbs, and is specially contributed by Mr. T. Harold Hughes, A.R.I.B.A., Principal and Professor of Architecture, Glasgow School of Architecture. In the same issue are notes and drawings by Mr. Stewart Sim, of Edinburgh School, on Hamilton Palace, an outstanding example of palatial architecture which is passing away, and notes on the history of The Glasgow School of Architecture Club. Another outstanding feature is The Students' Vista, contributed by students of the Architectural Schools in Scotland. The "Quarterly Illustrated" is published at 257 West George Street, Glasgow. Price 1s. net.

Publications Received

"A Book of Design." By Senior Students of the Architectural Association School. Price 21s. net. Ernest Benn, Ltd., 8 Bouverie Street, London, E.C.4.

"Erich Mendelsohn Structures and Sketches." Translated from the German by Herman George Scheffauer. Price 21s. net. Ernest Benn, Ltd., 8 Bouverie Street, London, E.C.4.

Parliamentary Notes

[BY OUR SPECIAL CORRESPONDENT.]

The Housing Bill has passed through the House of Lords without any very material alteration except that the housing position is to be reviewed every two years instead of every three.

Their lordships also agreed to a motion, moved by the Earl of Middleton and accepted by the Government, in the following terms: "That this House resolves that, having regard (1) to the great charge on public and municipal funds involved in the Bill; (2) to the deficiency of skilled labour and increasing cost of materials; (3) to the consequent delay and enhanced cost in erecting the necessary houses, an immediate inquiry should be set on foot by H.M. Government as to the possibility of building houses of other materials than brick, which could be erected more rapidly and at less cost."

The Lord Chancellor said the Government welcomed the motion, and would be glad to consider any plan that would produce houses cheaply and quickly.

In the House of Commons Mr. Wheatley informed Lieut.-Col. Vaughan-Morgan that the following table showed the dwelling-houses erected and in course of erection in the County of London and in the area of Greater London in the last three years:—

COUNTY OF LONDON.

Nature of Scheme.	Completed.	In Course of Erection.	Total.
1919 Act, Assisted Scheme ..	11,988	399	12,387
Private Builders' Subsidy (1919 Additional Powers Act) ..	452	—	452
1923 Act—			
By Local Authorities ..	33	947	980
By Private Enterprise ..	121	166	287
By Public Utility Societies ..	—	—	—
	12,594	1,512	14,106
Private Enterprise without State Assistance (figures only available for 18 months prior to March 31, 1924—no information since this date) ..	2,563	1,379	3,942

GREATER LONDON (Including the County).

Nature of Scheme.	Completed.	In Course of Erection.	Total.
1919 Act Assisted Scheme ..	23,897	399	24,296
Private Builders' Subsidy (1919 Additional Powers Act) ..	971	—	971
1923 Act—			
By Local Authorities ..	256	1,497	1,753
By Private Enterprise ..	628	1,827	2,455
By Public Utility Societies ..	16	78	94
	25,768	3,801	29,569
Private Enterprise without State Assistance (Figures only available for 18 months prior to March 31, 1924—no information since that date) ..	16,663	8,739	25,402

Mr. Wheatley informed Sir K. Wood that the following were the average prices of non-parlour houses (excluding cost of land and development) included in contracts let by local authorities during each of the months from January to June, 1924: January, £384; February, £389; March, £418; April, £416; May, £408; June, £421.

Mr. W. Thorne asked the Minister of Health whether all the brickfields in the country were now working at their full capacity; and, if not, was he taking any steps to see that all the brickfields would turn out the full capacity for his housing schemes?

Mr. Richards, who answered for the House, said that the Report of the National House Building Committee showed that all the brickfields of the country were not yet working at full capacity. The Government had taken the most practical steps for securing an increase in production, by the adoption in their Housing Bill of a long programme of

house building which would enable manufacturers with confidence to develop their resources and increase their output.

Mr. Jowett, First Commissioner of Works, informed Major Church that it had now been decided to proceed with the erection of a new building at South Kensington to house the offices of the Geological Survey and the Museum of Practical Geology.

The Prime Minister informed Sir K. Wood that the second reading of the Building Materials (Charges and Supply) Bill would be one of the first orders that the Government would invite the House to consider on its re-assembling in the autumn.

Major Church asked the First Commissioner of Works whether his attention had been called to the suggestion to restore certain parts of Hadrian's Wall; and whether he would give his earnest consideration to the project, seeing that it would provide work for a certain number of unemployed under skilled supervision, and at the same time present to the nation a memorial of great historical and educational interest.

Mr. Jowett said such a project would be viewed with the greatest sympathy by his department. There was, however, no part of the wall in the charge of the department, and, under the existing legislation dealing with ancient monuments, the department is not empowered to spend money on repairs or excavations at monuments not in its charge.

In reply to Major Moulton, who asked whether he had given, or proposed to give, permission to the sect of Latter-Day Druids or any other body of persons to bury the ashes of the members of their body within the precincts of Stonehenge, Mr. Jowett said that no formal permission had been given, but he did not propose to raise any objection, provided there was no serious disturbance on the ground.

The Royal Assent has been given to the Housing (Financial Provisions) Bill.

At question time Mr. Jowett, the First Commissioner of Works, informed Major Church (who asked whether he would schedule Hadrian's wall under the Ancient Monuments Act so as to ensure its preservation), that, unless in cases of immediate urgency, his department consulted recommendations from the Ancient Monuments Department before scheduling monuments. He was not aware that there was any need to depart from this practice in the case of any portions of the Roman wall. The Ancient Monuments Board for England, however, recently recommended for scheduling a few of the portions of the wall which were still preserved, and they would no doubt deal with other sections in due course.

In reply to a further inquiry from Major Church, Mr. Jowett said that the office of Works, through its inspectors and their local correspondents, did what it could to keep a watch on the condition of ancient monuments and historic buildings scheduled under the Act of 1913, and when cases of neglect were reported, representations were made to the owners as to the need for carrying out repairs.

Mr. Wheatley, the Minister of Health, informed Sir K. Wood that the demands of the operatives in the building industry in the present dispute were not uniform throughout the country, but where the demand was for $\frac{1}{2}$ d. an hour, it was estimated that the average increase in the cost of a workman's house thereby entailed would be about £4.

Contemporary Art

The Royal College of Art.

The exhibition of students' work done during the year presented a worn and wilted appearance so far as the major arts were concerned. They showed little sense of importance or responsibility. There was no evidence of individuality, and none of creation. The incentive to original production seemed to be lost in a pathetic attempt at imitation of recent developments of contemporary English art such as is seen at the New English Art Club these days. There was no joy, and laughter was also conspicuous by its absence. In the old days the productions due to the efforts of Walter Crane, Morris, and the school which they represented and those due to legitimate efforts in decorative painting, had at least some brightness if they had less efficiency in drawing. Now there is good drawing as a basis but it is spoiled in its application. A cartoon by R. V. Pitchforth of a pond and ducks and boats was excellent, but all its virtues were obscured in its rendering into a painted panel. Another painting, by N. Dawson who secured a Travelling Scholarship, was of the toy-box variety without its naiveté. G. Gardner's work was a derivation of modern all-sorts. A decorative cartoon of the Fifth of November by F. W. Town was admirable as a cartoon but poor as painted decoration.

In architecture proper, the drawings were painstaking, but the designs were weak. The subject for competition was a Gate House for a Public School, of which there was no rendering showing any freshness of feeling, but one with a little invention was worked up with a lattice, key border, rosettes and two lions' heads—an innocuous design.

The drawings in the sculpture department were conspicuously distinguished by their real plastic quality and some of them had considerable distinctions: Milletts seemed to be the strong student, but even his work I prefer to judge from his capacity as a draughtsman. The drawings from the life in other directions, too, evinced careful training, Taylor's being very good, and the best paintings as apart from ostensible decorations were the work of Pauline Konody, some trees, a river scene, a head. In these were certain intimations of efficiency. As a whole there can be no doubt that there was too much Slade and too little Royal College of Art: I would rather have seen a more desperate differentiation.

The Arts and Crafts.

Turning to the minor arts was a distinct relief. Here there were many evidences of sound theory and practice. Again the drawing was conspicuously able. In the really splendid array of prints were etchings, aquatints, mezzotints, lithographs, and woodcuts which would have done honour to a professional exhibition. Here there was no crankiness even if there was imitations and derivation. The work was solid from the base, with a due appreciation of the claims of architecture to pictorial treatment. Lettering was less good than it ought to have been. The amount of wood-carving was small, but a squirrel by Margaret Budd showed much promise, both in technique and animal study. There was also a lettered shoe-box with Celtic interlaced design which was a pleasant, modest piece. Modesty too, was the note of the several sets of tiles, the simple designs by Lilian Palin and Winifred Davies being quite effective. In the ceramic department was the most accomplished work in the whole exhibition, that of the animated groups by Stella Crofts, of Zebra and Horses. Here, however, an exceptional craftsman made herself apparent, one who has quite suddenly established herself alongside the older professional practitioners. Other good and promising pottery figures were shown by Maud Reed Cooper. Among the actual examples of stained glass shown, that by K. Holmes was the freshest in design, a horse, a boat, and a canal, with some fancy in it, but, as was the case with the rest, painted and leaded quite arbitrarily. A better result in this school is required, on a sounder tradition. In applied design E. W. Ravilious to whom another Travelling Scholarship was awarded, showed some originality in various examples. The textiles were generally wholesome if imitative, the best being the unusual wax-resisting cloths made by Peter O'Brien, derived as to their making from the wax-cloths of the Indian craftsman, but as to their designs showing originality. The wall-papers were ordinary good patterns in several cases better than the trade-supplied material, and a good piece of wall-decoration had for its subject the King's Procession in the Mall for the opening of Parliament, a really naive and wholly pleasing production.

KINETON PARKES.

Etchings by Walter M. Keesey, A.R.E., A.R.I.B.A., A.R.C.A.

The etchings and pencil drawings of Mr. Keesey, who is well known to all A.A. men, are the subject of a "one-man show" at the St. Paul's Gallery, 56 Ludgate Hill. The exhibition remains open until the end of the month, and admission is from 10 a.m. to 5 p.m. daily, excepting Saturdays, Sundays, and Mondays.

Mr. Keesey's work is distinguished by its firmness and decision—his etchings at least are so distinguished, but with the pencil he does not achieve quite the same effect; some of the pencil sketches are rather flat and unsympathetic. Still, it is a good show, and architects especially should be interested in the subjects the artist places before them.

Death of the Kaiser's Architect

The death is announced of Herr Franz Schwechten, in his eighty-third year. Herr Schwechten, who was the "official" architect of the ex-Kaiser's reign, designed many Berlin churches. He is best known by his Hohenzollern Bridge in Cologne, and the Kaiser Wilhelm memorial church in Charlottenburg. Above the gilt cross which surmounts the highest spire of this church is a golden star on a long iron stem. It is said that the architect had marked on his plan an asterisk in order to indicate an explanatory footnote. The plan was laid before the

Kaiser, who at once remarked: "The star above the cross is an excellent idea, but it must be rather larger." Herr Schwechten was dumbfounded, but did not dare to contradict his Imperial master, and the gold cross was duly surmounted by a gilt star.

Law Report

A Question of Injurious Affection

Special Case for the High Court.

Mr. J. Seagram Richardson (head of the firm of Messrs. Debenham, Tewson, and Chinnocks, of Cheapside and St. James's), as umpire, has prepared his award in the form of a special case for the opinion of the High Court on two claims which he recently heard at the Auctioneers' and Estate Agents' Institute. The claims were made by Mrs. Ada Josephine Coish and Mr. S. T. Smurthwaite, against the London Electric Railway Company, and were for £600 and £1,000 respectively, on account of injurious affection of Nos. 44 and 46 Golders Green Crescent, Golders Green, alleged to be due to the construction by the Electric Railway Company of a viaduct and bridge in front of the houses.

In the case of Mrs. Coish, the umpire states: "(1) The question for the opinion of the court is whether, on the facts stated, I am right in law in holding that the injurious affection complained of is not loss or damage in respect of which the claimant is entitled to any compensation under the said Acts. If the court is of opinion that I am right in law in so holding, this award is to stand; (2) If the court is of opinion that I am wrong in law, and that the claimant is entitled to compensation in respect of any of the matters complained of, then I award and determine that the amount of compensation to which she is entitled is, in respect of (1) diminution of light and air, £125; (2) loss of privacy, £25; (3) loss of amenities, £350; subject to this special case, I award and determine that there is not lawful loss or damage."

In the case of Mr. Smurthwaite, the umpire puts the question in identical terms, and, in the alternative award, states compensation thus: (1) diminution of light and air, £175; (2) loss of privacy, £45; and (3) loss of amenities, £655.

At the hearing of the claims by the umpire, Mr. A. Boraston was counsel for the claimants, while the Hon. R. Stafford Cripps represented the railway company.

Mr. Boraston said the claimants owned leases of the houses for ninety-nine years from 1908, at ground rents of £14 and £11 each. Mrs. Coish had been in possession of No. 44 since February 15, 1910, and Mr. Smurthwaite had been in possession of No. 46 since December 4, 1918. The railway bridge was finished in the autumn of 1923, and its construction had considerably diminished the amount of sunlight in the front rooms, obstructed the view, and created loss of privacy, amenities, and other advantages. The houses formerly had a pleasant south-westerly aspect.

Evidence was given by the claimants, and expert witnesses on their behalf.

The Hon. R. Stafford Cripps, for the railway company, said his case was that no legal claim could be set up under any of the four items for which damage was claimed, namely, loss of light, loss of privacy, loss of amenities, and damage by vibration. None of the losses set up were actionable. There was no loss of ancient lights; the claimants had no vested right to privacy, as people could build opposite; and no action could lie for loss of amenities. The claim for vibration had been knocked out altogether, a test for vibration having given negative results. He offered evidence as to the depreciation of the property with the reservation that in his opinion of the law the umpire could not award any damages. He admitted these were hard cases, but as the railway companies were dealing with public money, they were bound to take up the attitude that there was no legal claim.

Expert witnesses then gave evidence on behalf of the railway company, that the depreciation of the property since the construction of the viaduct and bridge was considerably below the amount claimed.

Correspondence

The Drainage of Roofs

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—If your contributor, Mr. Beck, would kindly illustrate his reply to Mr. Broad's criticism with accurately drawn roof plans and sections, your readers would be in a better position to judge for themselves the accuracy of his statement that there is "no difficulty" in overcoming the point raised.

"Merely diagrammatic" roof plans are not very helpful; for instance, they do not indicate the position of the walls under; the projection of the eaves and verges; whether the gables are the walls carried up or "constructed of suitable framing"; if the ceiling level will be affected when setting the gables "sufficiently inwards"; and so on.

Regarding the question of which is the more expensive roof plan it is not possible to say definitely without fuller particulars. Generally speaking, however, if the usual methods of construction are followed, I am inclined to think Mr. Broad's contention is the more correct. It is an interesting question and worth while settling if only your contributor would supply more detailed information.

Mr. Beck's second article contains a remainder that Mr. Broad's statement that "water does not travel uphill" is subject to qualification.

W. PARRY-JONES.

The Building Dispute and the Masters' Organization

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—Through the medium of the "Daily Herald" the attention of my committee has been called to your editorial of August 13, with reference to the building dispute.

Your arrogation of the function of mentor to the building industry, and to the building employers in particular, might have justified itself had your partiality not been such that your daily contemporary seized upon your remarks as good copy. My committee feel bound to protest at the publication of so misleading an article on a day when the two sides of the industry, after lengthy negotiations, had begun to mark progress.

Although the building industry has been fully aware of the correctness of the official attitude of the Royal Institute of British Architects and the Society of Architects during the present dispute, we are aware that the readers of extracts from your Journal appearing in the daily press may assume that you are representing the views of the architectural profession in your attacks both on our public and domestic policy. We, however, are fortunately aware that professional etiquette is more strictly observed by these bodies than by a journal which may have claims to represent them.

Lest we seem unreasonable in our protest against the manner and matter of your leader, we will admit forthwith that it is within your competency fully and courageously to express your views on matters of public policy as affecting the building industry. When, however, you digress into the realms of the domestic affairs of the master builders' organizations and extend your attacks to permanent officials, who are carrying on their duties in difficult times, you render yourself liable to a reminder that a special standard of professional etiquette is expected from a technical journal of your standing.

If your object was to provide publicity for your journal, you are to be congratulated on your success. If your object is to aid in the solution of our present problems, you have chosen a singularly inept method. Didacticism will never succeed when responsibilities are heavy and nerves are strained.

With regard to your inquiry as to what is to be done to induce a better spirit in the relationship between employers and employed, we would remind your readers that the building industry by its use of joint machinery has for a long period accomplished many reforms by peaceable methods.

Your assumption that no consideration has been given to the question of time lost by operatives through causes outside their control is not only contradicted by the terms of the contingent agreement of June last, but also by the fact that two separate committees have already found the necessity for dealing with problems of this nature by long and careful statistical observations. You should be aware that a problem of this nature is not susceptible of settlement by means of an industrial dispute.

We find your article lacking in precisely that tact, judgment, and legislative capacity for which our leaders are brought to book by you. We would suggest that zeal at a vital crisis might well be tempered by the discretion that superior "educational qualifications" are assumed to provide.

In conclusion, we deny emphatically that there is any desire on the part of our members to return to pre-war conditions.

Yours faithfully, ALFRED HAWORTH, Secretary, The Press Committee, The National Allied Building Trades Employers, 48 Bedford Sq., London, W.C.1.

The Rome Scholarship

The conditions have just been issued of the forthcoming competitions for the Rome Scholarship and the Henry Jarvis Studentship. Candidates must be British subjects and less than twenty-seven years of age on July 1, 1925. Admission to compete may be granted at the absolute discretion of the Faculty to candidates over twenty-seven years of age, provided they have spent in war service at least that number of years by which their age exceeds twenty-seven. The Henry Jarvis Studentship is confined to students or Associates of the R.I.B.A. The competition, which will be conducted by the Faculty of Architecture of the British School at Rome, will be in two stages, viz.: a preliminary competition open to approved candidates and a final competition open to selected candidates. Application to compete in the preliminary competition must be made on the prescribed form to the honorary general secretary, British School at Rome, 1 Lowther Gardens, Exhibition Road, London, S.W.7, not later than October 15. The applicant must deliver to the honorary general secretary, c/o R.I.B.A., 9 Conduit Street, London, W.1, between October 1 and 15, a portfolio, not exceeding double elephant size, containing specimens of his work. The application and portfolio will be examined by the Faculty of Architecture in whose absolute discretion lies the granting or refusing of permission to compete.

Due notice will be given to approved candidates of the time and place of the preliminary competition, which will extend over a period not exceeding thirty-one days. The first twelve hours of the competition will be held *en loge* at approved centres, and during this time the candidate will be required to make a sketch design of the subject which will be announced at the opening of the competition. He will keep a tracing of the sketch design which he will deliver up at the end of the first twelve hours. The Faculty may at their discretion make a grant towards expenses incurred by a competitor in attending an "en loge" centre at a distance from his place of residence or study. The candidate may choose his own time and place for the execution of the finished designs, which must adhere substantially to the sketch design done on the first day. The finished designs, together with the sketch designs, will be examined by the Faculty of Architecture, who will make a selection of candidates to compete in the final competition.

The final competition is open to candidates selected from among those competing in the preliminary competition, and to not more than three candidates selected from among those competing in the final competition held in the previous year (1924). The total number of candidates admitted to the final competition may not exceed ten. The first part of this competition will be held in London at the R.I.B.A., and will consist of a continuous examination of thirty-six hours *en loge*, during which time the candidate will be required to make a sketch design of the subject which will be announced at the opening of the competition. He will keep a tracing of the sketch design which he will deliver up on its completion or at the end of the thirty-six hours. The Faculty may at their discretion make a grant towards expenses incurred by a candidate in this part of the competition. In the second part of this competition candidates will be allowed for the execution of their finished designs a period not exceeding twelve weeks. Candidates may complete their designs, which must adhere substantially to their sketch designs, in their own time and place. The successful candidate in this competition will be recommended for appointment to the Rome Scholarship, and the student or Associate of the R.I.B.A. who is placed next in order of merit, will be recommended for appointment to the Jarvis Studentship. From among the unsuccessful candidates a number not exceeding three may be selected for the privilege of entering the final competition of the following year without having to qualify in the preliminary stage, provided that the candidates thus selected are eligible in respect of age to compete in that competition.

The Week's News

Proposed Church Institute at Croydon.

Funds are being accumulated for the provision of a church institute at Woodside. The estimated cost is £3,000.

Proposed New Church at Leeds.

Canon Mitchell has a scheme in hand for erecting a new church at Chapeltown, Leeds, the cost of which will be about £10,000.

New Road for Wembley.

The Middlesex County Council have accepted a tender of £53,461 for the construction of Sudbury Spur Road, Wembley, as an unemployment relief works.

Sixty New Houses for Leigh.

The Leigh Town Council have decided to purchase for £775 five acres of land belonging to the Leigh Football Club in order to build sixty houses at a cost of £30,375.

Housing in Armagh.

Armagh Urban Council have decided to have plans drawn up for the erection of fourteen workmen's houses in Navan Street, on a site already the property of the Council.

The Great North Road.

The Ministry of Transport have agreed to pay the entire cost (£50,000) of resurfacing the Great North Road through Lincolnshire and the construction of a by-pass road at Foston.

More Houses for St. Helens.

The St. Helens Town Council have approved the decision of the Health Committee to erect eighty houses on the Windlehurst estate, and to apply for sanction to borrow £37,900 for housing purposes.

Wolverhampton Housing.

Wolverhampton Housing Committee recommend the purchase for houses of the Showell estate and Old Fallings Farm on the Bushbury side of the town, and comprising a total of 175 acres, at a cost of £20,800.

Making Sure of the Bricks.

By lending £20,000 for development purposes to the Prenton Brickworks, Birkenhead Town Council will secure priority in the supply of bricks for local house-building.

Lisburn Housing Scheme.

The Ministry having approved of their building scheme, Lisburn Urban Council propose proceeding without delay with the erection of ten houses on the County Down side of the town.

Council Houses at Surbiton.

Twelve new houses have been commenced on the Surbiton Council's housing estate, in addition to those already built. The scheme, when complete, will comprise sixty-six houses, many of which have been sold.

Free Bricks for Houses.

The Newtown Council have accepted a contract for the erection of sixteen houses for £6,080 under the Government housing scheme. A beautiful site has been secured, and Mr. David Davies, M.P., has undertaken to provide free bricks.

Houses for Miners.

The first block of 153 houses erected at Murton Colliery, Durham, by the South Hetton Coal Company for sale to miners, has been completed. Electric light, baths, and gardens are provided. For 7s. per week a man buys a house in fourteen years.

Changes of Address.

The British Dolomene Company, Ltd., have removed to Astor House, Aldwych, W.C.2.

Messrs. Falconer, Baker and Campbell, architects, have moved from 12 Buckingham Street, Adelphi, W.C.2, to 27 Soho Square, W.1.

£400,000 Kent Road Improvement.

The Kent County Council have approved in principle a £400,000 scheme for improving the Folkestone road between Maidstone and Folkestone, with by-passes at Lingham, Charing, and Ashford. The Ministry of Transport will contribute 75 per cent. of the cost of the scheme.

River Promenade Scheme.

An ambitious scheme for the building of a promenade along the Middlesex bank of the Thames between Kingston Bridge and Hampton Court, a stretch of about two miles, is under discussion, and efforts are to be made to interest the Government in the project.

Hastings Pavilion Scheme Sanctioned.

The Minister of Health has sanctioned the erection of the proposed new pavilion at Hastings, between White Rock Gardens and the Parade. The cost will be £12,000. The main hall will accommodate 2,000 people, and its accessory rooms 1,000 more.

Housing Plans at Sowerby Bridge.

Sowerby Bridge Council have decided to purchase 15,615 square yards of land, between Willow Street and Nelson Street, at 2s. per yard, and to apply to the Ministry of Health for sanction to borrow £1,610 to cover the purchase of the land, which is needed for housing purposes.

Workmen's 4959 Houses.

East Lothian County Council, proposing to build two roadmen's cottages, was told by an architect that the probable cost would be £1,000. Tenders were invited, but the lowest received was for £1,918, the high figure being due, it was stated, to the uncertainty as to future charges for materials.

Wider Streets in Sheffield.

Sanction has been given to the Sheffield schemes of street and road widening which will involve a first cost of £375,000. Twenty-four roads or streets are to be dealt with, which number constitutes the biggest street scheme in Sheffield for some years. One of the roads to be widened is the main road out of the city to Worksop, Retford, and Lincoln.

Care of Glastonbury Abbey.

All lovers of Glastonbury Abbey will be gratified by the decision of the Dean of Wells, on behalf of the trustees, to invite Mr. F. Bligh Bond, F.R.I.B.A., to take charge of the collection of architectural fragments that have from time to time been discovered by him during a long period of excavation in the Abbey grounds.

Dukinfield Housing.

Labour members of Dukinfield Council have opposed the letting of a contract for the construction of twenty houses in the town on the grounds that the firm tendering were employing non-union labour. The contract has, however, been accepted, it being felt that when the present dispute in the building trade concluded the firm would again employ union labour.

Exmouth Marine Drive Scheme.

Exmouth Council have under consideration an imposing cliff and marine drive scheme which, it is stated, will transform the resort into one of the most beautiful spots in the West of England. The details of the scheme are now being considered by the foreshore committee of the Council, and it is hoped that a lay-out will shortly be prepared by an eminent architect, and a start made on the construction of the road.

Architects' Fees.

At East Kerrier District Council meeting the clerk (Mr. M. H. Truscott) reported that Mr. Crump, of the Ministry of Health, met Messrs. Cowell and Drewitt, architects to the Council's housing scheme, and discussed the question of the balance due to them. They agreed to a reduction of £217 13s. on the amount due (£1,017 13s.), and would receive £80 subject to the sanction of the Ministry of Health.—Mr. J. Jewell: I doubt if the Ministry will sanction it.—Mr. H. R. Rashleigh: They ought to knock off £500.

Architect on the Defects of Council Houses.

The attention of Ottery St. Mary Urban Council was drawn to defects in the Council houses at Taleford. Letters were read from Mr. Sampson, architect, who stated that neither he nor the builders could be held responsible for what had occurred, principally through the houses being constructed according to the plans of the Ministry. He reminded the Council that he was not a free agent in the matter of construction. If he had been he should not have built them like the Ministry wanted. He pointed out at the time that the roof covering was not suitable for houses in such an exposed position.

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