# THE ARCHITECTS' JOURNAL


THE ARCHITECTS' JOURNAL
WITH WHICH IS INCORPORATED THE BUILDERS' JOURNAL AND THE ARCHITECTURAL ENGINEER IS PUBLISHED EVERY WEDNESDAY BY THE ARCHITECTURAL PRESS (PROPRIETORS OF THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, SPECIFICATION, AND WHO'S WHO IN ARCHITECTURE) FROM 9 QUEEN ANNE'S GATE, WESTMINSTER, S.W.

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CHRISTIAN BARMAN, *Editor*

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WEDNESDAY, MAY 11, 1927 NUMBER 1686: VOLUME 65


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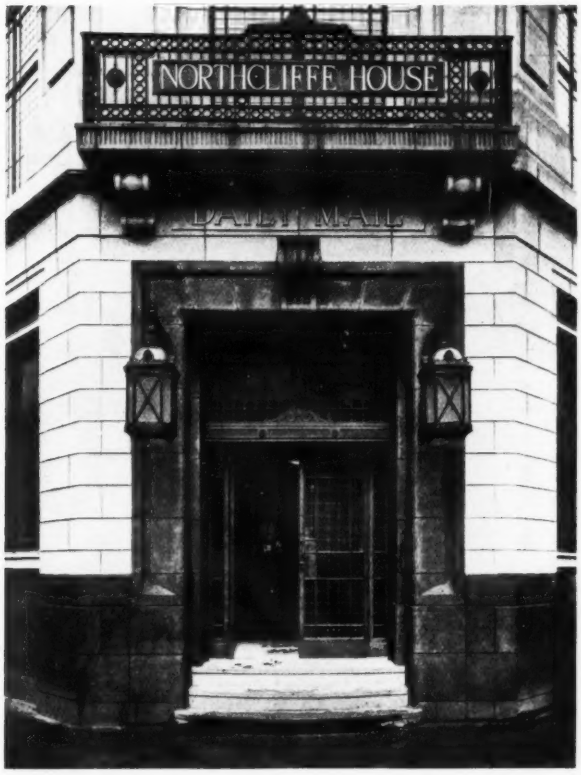



*[A working detail of this entrance appears on the following page]*

ENTRANCE TO NORTHCLIFFE HOUSE

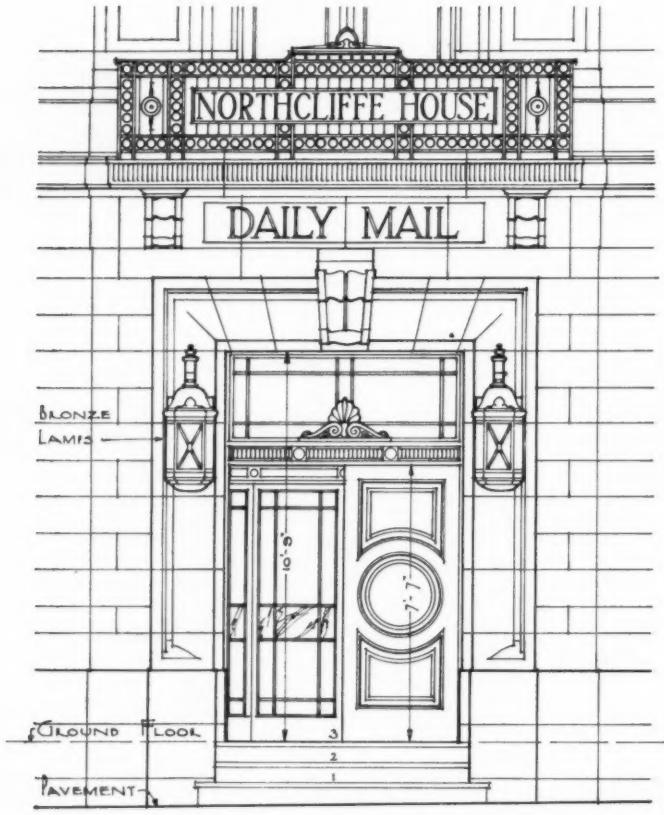
*[ BY ELLIS AND CLARKE ]*

## *THE WEEK'S DETAIL*

[ BY ELLIS AND CLARKE ]

*Northcliffe House is the new headquarters of the* Daily Mail *and* Evening News, *and the doorway which is here illustrated is the main entrance to the Editorial and Commercial offices. The architrave, and the plinth from which it springs, are of cast grey granite, and the steps are York stone. The bracket lamps on each side of the door are bronze; the lettering on the metal balustrade and the panel below it is also of bronze, but covered in English gold. The door opening is 6′ 6″ wide and 10′ 9″ high in the clear of stonework; and immediately beyond it a vestibule of bronze and glass gives protection to the entrance hall. The middle rail of this enclosure is of black marble, which takes up the line of the band of the wall treatment of the hall. The street doors are of mahogany, and slide back out of sight. The surround to the mat pit in the vestibule and the paving to the entance hall are of Roman stone.*

# NORTHCLIFFE HOUSE
## DETAIL OF ENTRANCE.

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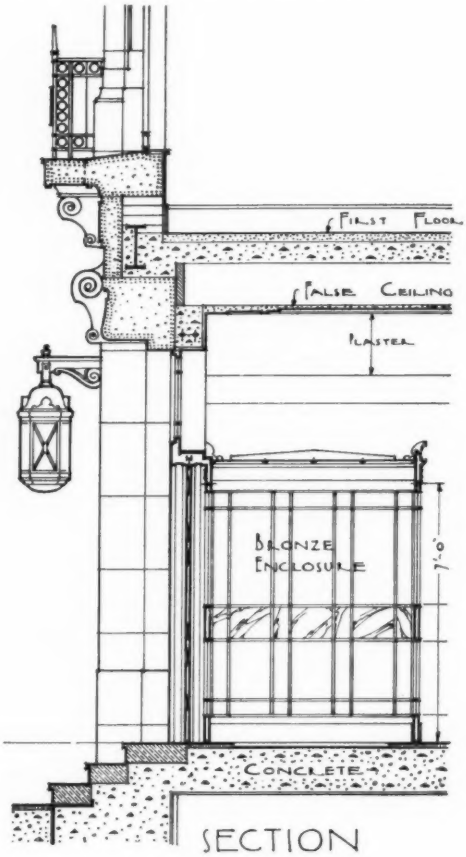


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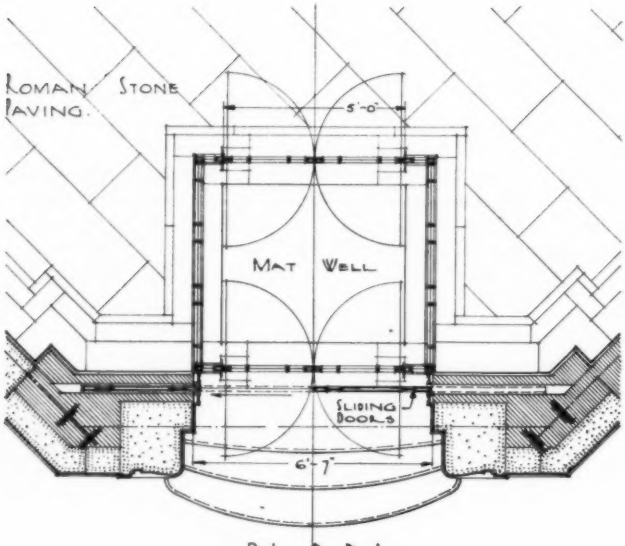


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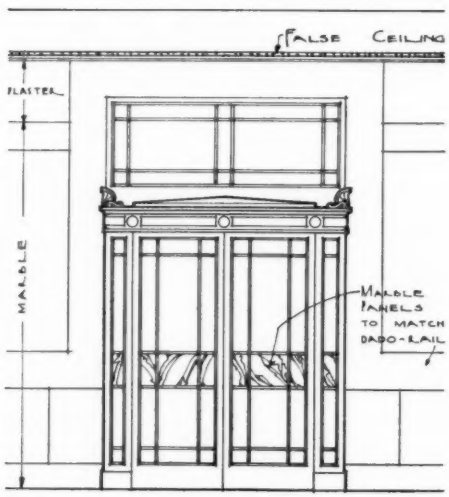


ELEVATION IN VESTIBULE

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HERBERT O ELLIS & CLARKE
3, 5 & 7 OLD QUEEN ST. SWI
F.F.R.I.B.A.

*A photograph of this detail is given on the preceding page.*

THE ARCHITECTS' JOURNAL

*Wednesday, May 11, 1927*

# APPRENTICESHIP OR SCHOOLS?

The respective merits of a system of school education and a system of articled pupilage is a matter which the architectural profession has considered, and about which it has come to fairly definite conclusions. The pupilage system is moribund and the schools are flourishing. Other professions, however, are now having to face the same alternatives, and in order to sound the feeling of its members on this very important subject, the Institution of Structural Engineers adopted, a fortnight ago, the very interesting course of holding a debate on the matter. The president, Mr. H. J. Deane, was in the chair, and the motion before the meeting, proposed by Professor J. Husband, and opposed by Mr. Ewart S. Andrews, was: "That the system of education of structural engineers by articled pupilage is contrary to the best interests of the student, and should be superseded by education in recognized engineering schools." The motion was carried, but the debate was an interesting one.

It was evident that the real opinion of the meeting was in favour of a compromise, for it is surely clear that both systems have something to offer. In this respect the engineering profession approximates to the architectural, for in both the ideal education is undoubtedly that which affords a combination of the theoretical and the practical, and whereas knowledge of the former is best obtained at the schools, knowledge of the latter is best obtained in the office. Moreover, there are two distinct branches of practical knowledge which must be acquired in the office before the tyro is fit to stand on his own; he must understand the practical problem of his work, and he must be familiar with office routine and professional practice.

Perhaps the greatest weakness of the pupilage system is that it is open to easy abuse. A pupil may find himself articled to a principal whose practice is so small that it affords him no scope of experience, or, on the other hand, to a principal whose practice is so large that he finds himself tied to a routine and unable to get a vision of the whole. And there is yet another alternative whereby the principal looks upon the pupil solely as a source of income, and wilfully evades or ignores his own responsibilities and undertakings. At a recognized college these abuses are not possible; some schools may be better than others, and they may vary from time to time according to their policy and the capabilities and ideals of their staffs, but for the most part they give fair measure to those who are determined to take. Perhaps the chief danger in the schools is that the teaching staff, unless they are themselves in practice, and, if so, it becomes difficult for them to devote sufficient time and energy to teaching, are apt to lose sight of the changes and developments in the world of practice, and to forget that for most students the theoretical is but a means to an end.

How to obtain the just combination of the theoretical and the practical must always remain one of the most acute problems in the professional training of both engineers and architects. In this matter it is just possible that there is something to learn from army methods. They may be abused by the ignorant, yet in matters of training they prove extremely efficient, and one reason for this is the judicious manner in which theory and practice are mixed. For example, the method of instructing an officer—whose duty in the field is almost exclusively supervisory, analogous to that of the architect or engineer—in an intricate and highly technical branch of the service is almost always to give him practice in the execution of the work in all its manifold forms, in addition to a thorough theoretical exposition. This, it would appear, is the ideal way of conducting technical instruction, and it seems to us to be one which might be adopted for the engineering and the architectural student.

But there is yet another aspect of this very complex matter that was emphasized by some of the speakers at the debate. Assenting to the necessity for some kind of practical training, in addition to the school or college, there remains the question as to which of the two kinds of practical training is most desirable; practical training in the office or practical training in the works or shops, or both? Here again there is an analogy with the architect. It has often been suggested that even school and office training are insufficient for the architect, and that a further period should be included which should be spent in a contractor's office or under a clerk of works. How else, indeed, is the young architect to understand the full significance of the many phrases which slip so glibly from his pen as he writes his specification?

From the general tenor of the debate we ourselves gathered that the assembly, if it came to making a definite decision between school and pupilage training, favoured the school, but the rider was added, as it were, that school education by itself was insufficient, and that no student could consider himself qualified until he had obtained office experience. Thus the Institution of Structural Engineers have arrived at the same conclusion as the R.I.B.A., and it may be said that another bond of sympathy is established between two professional bodies, whose destiny it may be, we hope, to work together in harmony and understanding in all those multitudinous mutual undertakings which await them.

# NEWS AND TOPICS

RESPONSIBILITY FOR ANCIENT MONUMENTS — TOWN PLANNING UPSIDE DOWN — OLD LONDON — THE NEW EMBASSY BUILDING AT WASHINGTON—ADVERTISING HOMES

VISCOUNT LEE OF FAREHAM, in an after-dinner speech to members of the Commission on Cross-river Traffic on May 6, drew attention to the historic statements issued by the L.C.C. that Waterloo Bridge was on the point of collapse, and that they did not think they could wait for the Commission's report. He commented on the fact that the report had been presented five months ago, but nothing had been done, and suggested that an explanation was due to them both from the L.C.C. and the Government. It would appear that the pressure of a strong expression of public support for the Commission's report will be needed if it is to be carried into effect. The publication of the conclusions arrived at by the Commission seems to have had the result of taking off the edge of public controversy and leaving the L.C.C. free to carry out their old demolition scheme, unless active measures can be taken to prevent them. Viscount Lee does well to revive interest by calling the Government and the L.C.C. to account for their apathy.

* * *

The serious floods in the lower valley of the Mississippi, and the desperate measures taken by the American engineers to save New Orleans from inundation, indicate the limitations of man's foresight in regard to the management of natural resources and the command of natural forces. Embankments which have been laboriously built up and maintained for the purpose of excluding flood water from low-lying lands have now to be breached in haste to relieve the unprecedented head of water threatening important towns. Ideal conditions of safety and convenience would demand that the whole river and all its tributaries should be made to run in beds nicely graduated as to width, depth, and fall, in accordance with the maximum quantity of water that can be delivered by rainfall into the gigantic natural basin they drain, but this arrangement can only be brought about in the course of centuries under the stimulus of recurring disasters such as that now taking place. Even with unlimited supplies of dynamite and the will to use them the situation is not yet in hand, for the breaches are not discharging water at more than the rate at which the flood is bringing down excess over normal supplies. Any increase in the height of the flood through present rainfall means renewed danger. Cities naturally grow on the flood plains of great rivers where vegetation provides food, fuel, and merchandise. It is only after they have been established that full account can be taken of the dangers incidental to their exposed position.

* * *

Public control of street architecture is certainly alluring in theory. Edinburgh is about to show how it will " pan out " in practice. It would be delightful to keep in touch with so interesting an experiment. But, alas! Auld Reekie is far beyond the ken of a Londoner, and I cannot undertake to keep the movement under close and constant observation. I must needs depend largely on reported evidence. Which is a great pity, seeing that I am sore beset with both hopes and fears (in about equal measure) for the effects of the Dean of Guilds Court's periodical decisions as to building amenity. Nor can I keep constant watch for developments of the city engineer's laudable resolve to preserve the architectural dignity of Prince's Street and other noble thoroughfares. While hating to throw cold water on good resolves, I must confess that I am harassed by doubts as to whether the curb will gall. Arbitrary judgments on works of art of any kind are so notoriously provocative that I foresee constant appeals to the advisory committee of four to be chosen by the Secretary for Scotland—one each from the Royal Scottish Academy, the Incorporation of Architects of Scotland, and the Municipal Corporation of Edinburgh. Nevertheless, I like to think that to secure Parliamentary powers of control over street architecture was a step forward. But I would fain see how the scheme works. These powers come into force on May 15. It is quite conceivable that comprehensive control over height, colour, material, and character of design might tend to restrict originality and to check enterprise. Nevertheless, I am inclined to assume that too much restraint is preferable to none at all—is the lesser of two evils, if you will. Without conceding the stupendous claim that Prince's Street, Edinburgh, is the finest in the world, one may acknowledge that it certainly contains many excellent structures that deserve protection against the evil associations that corrupt " good manners " in buildings. I note that the powers of control extend to all Edinburgh; so that the dignified works of the brothers Adam, of Greek Thomson, of W. H Playfair, and of other makers of the Modern Athens, will be safeguarded from this peril. To say the least, Edinburgh's definite declaration for amenity is highly creditable as an aspiration, and in that respect it very happily coincides with the inauguration of the monument on Castle Hill.

* * *

A day or two ago, I bethought me to take train to Oxford to reassure myself that St. Aldate's still stands where it did. Of course, the quarter remains pretty much what it seems to have been in the salad days of Tom Brown, or of Verdant Green and his friend little Mr. Bouncer. But I was quite prepared for the " extensive modern improvements " observable in the denizens. Yet the lavishly ample grey " bags " of the undergraduates, and the *chic* varsity cap of the " undergraduette," strike one as being vastly more new and incongruous than the college buildings that have been put up in Oxford by architects still living and working. Ere long those venerable precincts may be thronged with " prudes for proctors, dowagers for deans, and sweet girl-graduates in their golden hair." But, alas ! Oxford is not yet all compact of sweetness and grace. Plodding laboriously afoot (the better to take observation) from the railway station along " The High," I felt compelled to agree that this particular approach to the delectable city is sadly lacking in charm. A colossal motor garage and a huge marmalade factory, both abutting on opposite sides of an exiguous highway, defy amenity; and there are other more squalid items that I would rather not catalogue. It shall suffice that in my short journey from the railway station to Maudlin Bridge I saw quite enough to justify current protests. I felt it to be poignantly true that, as a Fellow of the Institute recently remarked in a lecture, Oxford, one of the most beautiful old towns in England, was being fringed with outskirts betraying a lamentable disregard of the elementary principles of town planning. *Hélas !* for Hellas !

I know an old gentleman who once knew an old gentleman who was a keen photographer in the days before kodaks were thought of. He was, besides, a great lover of London, although he would never have dreamed of calling himself a topographer, and it was his pleasant custom to wander about the City perpetuating, through the medium of his lens, features which were of historic interest in themselves and which it seemed only too probable would sooner or later disappear. Many artists did the same in terms of watercolour or black and white, but not many photographers, for people, as a rule, troubled themselves little about such things in those days, 1860 to 1880, although in later years they were glad enough to see records of what they remembered, but which were then no more. It so happens that he has in his possession a little volume containing a number of the old friend's photographs of London, both in the east and west.

* * *

The first picture in his little book is of an old galleried inn, one of the many which once congregated in London, of which the partially mutilated "George,"

in Southwark, is the sole survivor, and stood just off Warwick Lane, from which it was approached by a passage-way extending to Amen Corner. It must have been rebuilt after the Great Fire, which gutted all the houses in this quarter, but its reconstruction was obviously on much the original lines. Coming down the centuries, the "Oxford Arms" was in Georgian days a noted coaching house, and here Sherman, whose chief headquarters were at the "Bull and Mouth," in St. Martin's le Grand, carried on a subsidiary coaching business. In earlier times, as was usual with these old inns, it was a calling place for carriers, and one of these from Oxford, Edward Bartlet, advertised in 1672 the fact that he had removed "his Inn" thither from the "Swan" at Holborn Bridge, returning to the place he had patronized before the Great Fire. As late as 1868, although much of the building was then let as tenements, the place was still used as a calling house by carriers. But it was closed in 1875, and in the following year was pulled down. It is pleasant to think that at one time Dr. Johnson may have visited the "Oxford Arms," for here once lived that John Roberts who published the doctor's *Life of Savage* in 1744, and who, at an earlier date, had issued most of the libels written against Pope. The name of the picturesque old place is now only perpetuated by Oxford Arms Passage, which runs through the spot on which it stood.

* * *

The fourth volume of the Wren Society is to be published early in June. This volume is entirely devoted to Hampton Court Palace. In recollection of the life and work of Queen Mary II at the Palace from 1689 to 1694, it has been specially dedicated to the present Queen. It will contain reproductions of a number of original Wren drawings taken from the Sir John Soane's Museum and All Souls' Collections. There will be some seventy pages of official documents showing the three Pipe Roll accounts for the building, and two for the gardens. Light should be thrown on the historic building disaster at the Palace in December 1689, when two men were killed and eleven injured. There are to be papers illustrating Sir Christopher Wren's relations with his official staff.

* * *

Colours are more and more being adopted by Atlantic liners and American railways. The Canadian Pacific has returned to the use of white paint for their Trans-Pacific Empress liners, while the United Fruit Line running across the Atlantic also shows a glistening white hull. For some time past American railways have been painting all their passenger coaches with brilliant colours. Thus the Pennsylvanian Railway has adopted Tuscan red, the Milwaukee yellow, and other lines a bright blue. The famous ghost train belonging to the New York and New England Railway thirty years ago was, of course, painted dead-white. It is believed that brighter colours will have their effect upon traffic returns and encourage employees to take a pride in the coaches.

* * *

A lamentable state of affairs at Haughley, near Stowmarket, in Suffolk, has been brought to light by a series of letters in the daily Press, where the village is described as being "Worse than a slum." The details of sewage disposal, given in a letter from the vicar, amply bear out this description, and create a picture reminiscent of the conditions of life among the Jewish squatters in their loathsome suburbs around Jerusalem during the last days of Turkish rule and the beginning of the Zionist colonization. The introduction of the water-carriage system of sewage disposal in many English towns and villages has had the unfortunate effect of throwing the older method of burial out of use and into contempt, although it is a perfectly satisfactory system when thoughtfully and conscientiously applied. At Haughley the water-carrier and the burial methods are both in use, though in their least efficient forms. Liquid sewage is allowed to stagnate in open channels, and solid matter is heaped in middens, or nominally buried over and over again in the same minute yards adjoining the cottages. The feeling of helplessness which afflicts the so-called "civilized" man over this question of sewage disposal is evidenced by the vicar's admission that drains from the vicarage discharge into an open moat like those of other folk. So little is thought and taught upon this important subject that a householder will bail out liquid waste from a sump-pit 3 ft. deep when by digging it another foot deeper he would reach thirsty chalk into which liquid would drain away automatically. The vicar might get a useful hint from Deuteronomy 23, 13, or, if that is too old-fashioned for him, from *Modern Building Practice*, which contains a chapter on "Country Methods of Sewage Disposal."

D

In giving my first notice last week of the Modern British Architecture Exhibition at the R.I.B.A. I touched upon everything but the domestic work. As a young girl will leave the finest strawberry till the last, so have I. I said that the domestic section was supreme. Chiefly this exhibition reveals the enthusiasm with which English architects have carried on the fine domestic brick architecture of Queen Anne. Our real genius is for brick, and the imprint of Wren is everywhere. If anything, we are too eighteenth century; but that is not a complaint. We are in a frame of healthy conservatism. There is not a strange, an extraordinary, much less a mad building anywhere. Our achievement is in the extent to which we enrich our native style, and "The Pavilion and Swimming Pool, Prestatyn," by Easton and Robertson, is a notable enrichment of the Classic. It is a work of character

* * *

A complete list of the good domestic buildings is out of the question. Here are some of them: "Houses for Speculative Builders at Welwyn Garden City," by Louis de Soissons and A. W. Kenyon; "Heathcroft Flats, Golders Green," by J. B. F. Cowper; "Rest House for Miners, Hucknall," by Sir Reginald Blomfield, R.A.; "White Bear House, Park Street," by Wimperis, Simpson and Guthrie; "Residence, Purley," by W. Braxton Sinclair; "No. 21 Cheyne Place, Chelsea," by Darcy Braddell and Humphrey Deane; "Stowell Hill, Templecombe," by E. Guy Dawber, A.R.A.; "Raspit Hill, Ightham, Kent," by Baillie Scott and Beresford; and "House at Folkestone," by W. Harding Thompson. Semi-domestic is the beautiful little "Memorial Hall, Danehill, Sussex," by two women architects, Eleanor K. D. Hughes and Winifred Maddock. The model of "Portmeirion Holiday Village," by Clough Williams-Ellis indicates an architect of imagination. There are only a few good interiors shown in the exhibition, and there is no indication of any unusual activity in the art of interior decoration. An outstanding interior is that of "Marlborough College Memorial Hall," by William G. Newton, in which the curving ambulatory is beautifully treated with hangings between the windows. It also shows a fine use of lettering. The interior of "The Dance Pavilion, Cromer," by G. G. Wornum, has appropriate character, and his chimneypiece at "No. 37 Hamilton Terrace" is a fine piece of design in curved forms.

* * *

Mr. R. J. Allison, C.B.E., general architect to the Office of Works, accompanied Sir Edwin Lutyens to Washington in connection with the proposed new Embassy building. The approximate estimate for the cost of this building is £165,000, but it would cause no surprise if, when the tenders are received, this figure is found to be rather on the low side. At the same time it must be remembered that the Office of Works have made a good bargain in Washington, for they have received a very satisfactory price for the old site which more than covers the cost of the new one.

* * *

There has been an interesting development the last few months in the designing of small houses in the United States. Even families who live in modest six-roomed houses are now asking for at least two bathrooms, a sun-porch, where they can sit and bask in the sunshine, and a garage that will accommodate two cars. Last year the Home Owners' Institute employed an architect, Mr. Arthur Bates Lincoln, to prepare plans for six types of houses, but so insistent was the public demand that he has now had to redraft three of his six basic designs in order to include an extra bathroom. Part of this demand is due to an advertising campaign to instruct the public about model homes. This year over $250,000,000 is to be spent by the Home Owners' Institute alone to advertise the essentials of construction in small houses.

* * *

At Philadelphia, a so-called "Visa-built" house has been constructed under the supervision of the Professor of Finance at the University of Pennsylvania. This house is somewhat like a museum. Various kinds of brickwork, good and bad, are shown. Attention is drawn to the construction of the floors, to correct caulking of the half-windows, bonding stone, stone footings, asphalt pointed joist ends for damp-proofing, and fire-stops. In this way it is hoped to encourage building owners to demand good construction and the best possible materials.

* * *

Some weeks ago I referred to the fact that the Oxford City Council acted with the utmost goodwill, but improperly from the legal point of view, when they included in their Preliminary Statement of proposals for development in connection with their town-planning scheme, provisions for the regulation of advertisements and night-signs. The Ministry have therefore advised them that they must omit the provisions made for this purpose, but suggest that they should consider how far it will be possible for them to secure the desired protection by procedure under the Advertisement Regulation Act of 1925. The Oxford City Council last week accepted the correction, but pointed out that they particularly desired to have control of night-signs, and signs with moving or intermittent illumination and also roof and sky signs. They suggested that the Minister of Health should devise some means whereby such control might be secured, and I understand that this matter is now under the consideration of Mr. Pepler and other Ministry officials.

ASTRAGAL

## ARRANGEMENTS

THURSDAY, MAY 12

*At the Institution of Structural Engineers.* 8.0 p.m. Ordinary General Meeting. A. G. Pugsley, B.SC., M.I.STRUCT.E., on Some Problems in the Design of Steel Roof Truss Members.

MONDAY, MAY 16

*At the Royal Institute of British Architects.* 8.0 p.m. Lionel G. Pearson, on Foreign Hospitals.

MONDAY, MAY 23

*At the Architectural Association.* 7.30 p.m. General Meeting. Election of Officers and Council for the Session 1927-28.

*At the Royal Institute of British Architects.* 8.0 p.m. Arthur J. Davis, on the Moorish Architecture of Northern Africa. (Illustrated by lantern slides.)

# SCULPTURE AT THE ROYAL ACADEMY

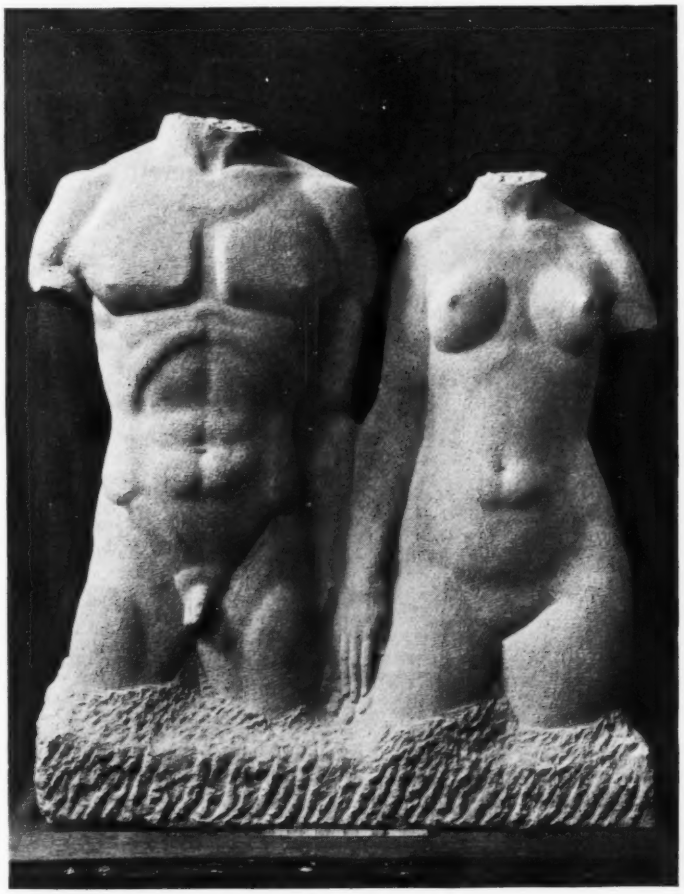
[BY KINETON PARKES]

GOOD selection has waited on appetite at the Academy so far as the paintings are concerned. The sculpture is a thoroughly indigestible mass of incoherent items huddled into groups without reason or justice. The worst spectacle is in the shabby-walled lecture-room, where several fine works are discounted by incongruous juxtaposition. Far too many small and poor pieces have been accepted, and several large things might very well have been omitted.

What emerges from this jungle of ineptitude, however, is wholly satisfactory. At least four members of the Academy appear as craftsmen and support as such the few acknowledged craftsmen who have long striven to realize an ideal in this direction. There are forty pieces carved in wood and stone, and ivory and marble, which are largely the handiwork as well as the brainwork of their authors. There are about twenty pieces of figure pottery, mostly glazed, some of which have been fired by their modellers. There are certain pieces of cryselephantine sculpture direct from the hands of their creators. All this is as it should be, for the artist has done his work himself and done it in the proper direct way. As a rule, his modelled work has been produced by direct plastic method, his carving by direct glyptic.

The direct carving movement originated in Paris a few years ago, and this year's Academy is sufficient to prove its acceptance here and its implied criticism of the previously prevalent pernicious practice of pointing. That moulding in clay for mechanical reproduction in carved marble is wrong is being widely recognized, and while the majority of the marble pieces at the Academy are so produced, the leaven of more or less directly carved work is marked. The recognition of figure pottery as one of the best, finest, and most ancient of the plastic arts is now assured, together with the meaning of the true plastic in the moulding of metal by founding or by electric deposition. An example of the latter conveniently appears, placed well on its handsome marble pedestal in the centre of the lecture-room. It is the "Portrait Statuette" of W. Reynolds-Stephens, that authentic artist-craftsman and President of the Royal Society of British Sculptors. It is a work made with the artist's own hands in his own studio without the intervention of outside influences. It is made of various metals and inlays with precious stones to add their colours to the patinas of the metals. No less authentic is the same artist's "St. Olaf," a gallant figure, not only modelled by its maker, but plastically produced by him with all the devotion of true craftsmanship. Another accomplished artist is Richard Garbe, whose exquisite craftsmanship is seen in the only piece of ivory carving. It is "St. Elizabeth of Hungary," a statuette of perfect grace cut from a single tusk of perfect quality and retaining the suggestive curve of the natural shape of the material.

The respect for material as well as its suggestiveness are further exploited in most of the wood and stone works shown. To deal with the members of the Academy first: Henry Poole has come into his own by his carved group of half-figures of woman and child called "The Little Apple," life-size. The material is Chipping Camden stone, which is of a delicate pale pink with faint striations which the craftsman has used artfully in his rendering. This piece is different from the realistic modelling to which this artist, until a year or so ago, accustomed us, and is slightly stylized while retaining all its structural truth and suggestiveness. More prolific still as a carver, William McMillan also appears as an *animalier* in the delightful group, "Panther and Cub," in beautiful, deep grass-green—Verde di Prato—stone with fine white lines; this material has taken a very high polish; it is hard, and so its planes have been simplified. In the same material, the same artist has carved the head of a well-known Chelsea painter, a highly successful rendering. Unpolished green slate is the material in which McMillan has carved a "Statuette Group" of



*"Man and Woman." A group in limestone. By Charles Wheeler.*

two female figures and two peacocks which forms a suggestive contrast to the work in Verde di Prato. W. Reid Dick has two works in fine cream-coloured stone, a statuette group, "The Child," and "Lola," a bust, the carving smooth with a delightful tactile surface. Arthur G. Walker is represented less bountifully this year in his carved work by two marble portrait busts.

As a direct carver, Charles Wheeler is the most uncompromising, for he not only attacks the material directly, but follows most closely its suggestions and intimations. He produces two excellent examples at the Academy: the imposing double torso in limestone, "Man and Woman," and a "Carving in Unseasoned English Oak." In the double torso the cutting instinct is broadly as well as subtly exploited; the chisel work is interesting, while the naturalism of the forms is rendered with what really amounts to an inspired glyptic touch. In the unseasoned oak piece the artist found an amusing but by no means uninstructive exercise. The shape of the log is slightly bent, the shrinking of the wood has caused it to fissure all round the trunk from top to bottom. These fissures have been incorporated into an effective pattern for the robe of the woman evoked from the oak, with inclined head, and arms carved in low relief over the breast. A stone carving of great interest is the "Europa" group in red marble of Paul Manship, the American sculptor, and Jo Davidson, another American, has a stone bust of the Earl of Ypres, and C. W. Dyson-Smith a fine carved portrait head in stone of "James Whale, Esq."

With the exception of Charles Wheeler's unseasoned oak the wood sculpture is small. Harold J. Youngman has a group, "Thomas called Didymus"; Frederick Gardner, a "Boy with Melon"; and Samuel Cameron, statuettes of "Adam" and of "Eve." Dora Clarke, Alfred Southwick, and Alec Miller provide portrait heads, and Albert Miller a statuette. An owl and a vulture are the contributions to wood animal sculpture of Alfred Wilkinson and Arthur Ayres respectively.

While most of these carvings have an architectural application, there are in the architectural room two pieces of wood-carving directly applied to architecture, "Charity" and "Justice," by Alice Meredith-Williams, small things forcibly and characteristically cut for their special purpose. Applied architectural sculpture comes out prominently in the modelled work, included in which are several examples of garden ornament. An extremely vigorous group is Charles Jagger's Pan and Woman, considerably over life-size and dominating the lecture-room with its ponderous realism. It requires a sylvan scene with great trees as background, where its starkness would be modified and its proportions apparently reduced. In contrast is the very delicate "Garden Decoration" of William McMillan, which consists of a simply stylized female bronze statuette poised on a graceful stone pillar incised with birds and deer. The same artist's beautifully stylized marble "Decorative Relief" is another fine example of architectural application. E. Whitney Smith's quaint bronze figure, called "The Scarab," is an admirable piece of garden ornament. An interesting sketch in plaster of a big idea is Henry Poole's "Lighthouse," in conjunction with J. F. Wilson, architect. Francis W. Sargant's large "Model for a Sarcophagus in Stone and Bronze" is excellent, and another work with architectonic intention is Alfred Turner's "Allegory."

Of the figure pottery a great deal might be written. It is, on the whole, excellent in design, modelling, and execution. The sculptors, as such, include Gilbert Bayes, whose experiments in salt-glazing have now passed the experimental stage; his "Water Baby," a fountain group, and his coloured "Mask" are admirable. Nicholson Babb has also carried his craftsmanship farther in this direction and produced two charming works in "Diana" and "Pharaoh's Daughter," and Harry Parr is to the fore again. Stanley Thorogood's group, "The Challenger," stands out, and another fine technician is Charles Vyse, who has two groups.

Of ostensible painted decorations there are few, but potential ones abound in an Academy which is chiefly remarkable for its achievements in the technique of painting, as it is in those of carving. Painting, as such, reaches a high general level quite apart from the virtuosity which it is expected the masters of portraiture will display. It is a level which is not reached in any other exhibition of contemporary picture painting in the world. In applied as well as implied decoration it is found at its best, from the "Weeping Venus" of Glyn Philpot to the dream allegory (No. 156) of Ancell Stronach, with its dark, rich colour and tapestry effect. Among the pseudo-decorative works are Maurice Greiffenhagen's "Pool of Bethesda," Otway McCannell's "Throne of the Gods," Charles Ricketts' "Death of Montezuma," Henry Burney's "Still-Life," John Keating's "Allegory," and Francis Taylor's "East India Docks." Works with expressed claims for decorative value are Harry Morley's "Diana," and "Danaë," Ernest Procter's "Judgment of Paris" and "Sleep," and Dod Procter's "Morning." Mary Adshead's "Picnic" is an altogether delightful piece of pictorial decoration.

The Academy is rich this year in architectural paintings, both interiors and exteriors, and by groups especially. Standing out among the interiors are the two Buckingham Palace subjects by Richard Jack, "The Blue Drawing-room" and "The Chinese Chippendale Room." "An Artist's Home," by H. Davis Richter, is another fine interior; as is also A. van Anrooy's "Landsdowne House." Among the best realizations of architecture in open atmosphere are the several extremely able representations of Sydney Lee; "The Sleeping Square," with its moonlight, "The Theatre Marcellus," and "The Pack-horse Bridge." Another fine bridge subject is "A Link with the North," which Reginald Brundrit has rendered with complete assurance and success.

*St. Olaf (copper deposited). By W. Reynolds-Stephens, P.R.B.S.*

# THE CARLTON THEATRE

[BY STANLEY C. RAMSEY]

In the latter half of the nineteenth century London, as a result of the industrial revolution, became definitely provincialized in men, manners, and architecture; or to be more explicit, she lost for the time being that urbanity which had been so distinguishing a feature of the capital during the eighteenth and earlier centuries. As Professor Fleuse says in one of his books, the new wealth was made in the coalfields of the north and the Midlands, "aways from the old centres of traditional culture," with the consequence that the new industrial movement took on a harshness which might, perhaps, under more favourable conditions have been somewhat alleviated. Urged on by Ruskin and the admirers of *Christian* architecture the energetic "barbarians" from the north invaded the metropolis and inflicted on us a strange medley of confused pietistic shapes expressed in terms of glazed terra-cotta. To me they are inexpressibly horrible, interesting, and inevitable, they register as nothing else does, the enormous change in the social structure. The benevolent autocracy of the old ground landlords which gave us amongst other


*The Carlton Theatre, Haymarket. By Fran': T. Verity.*

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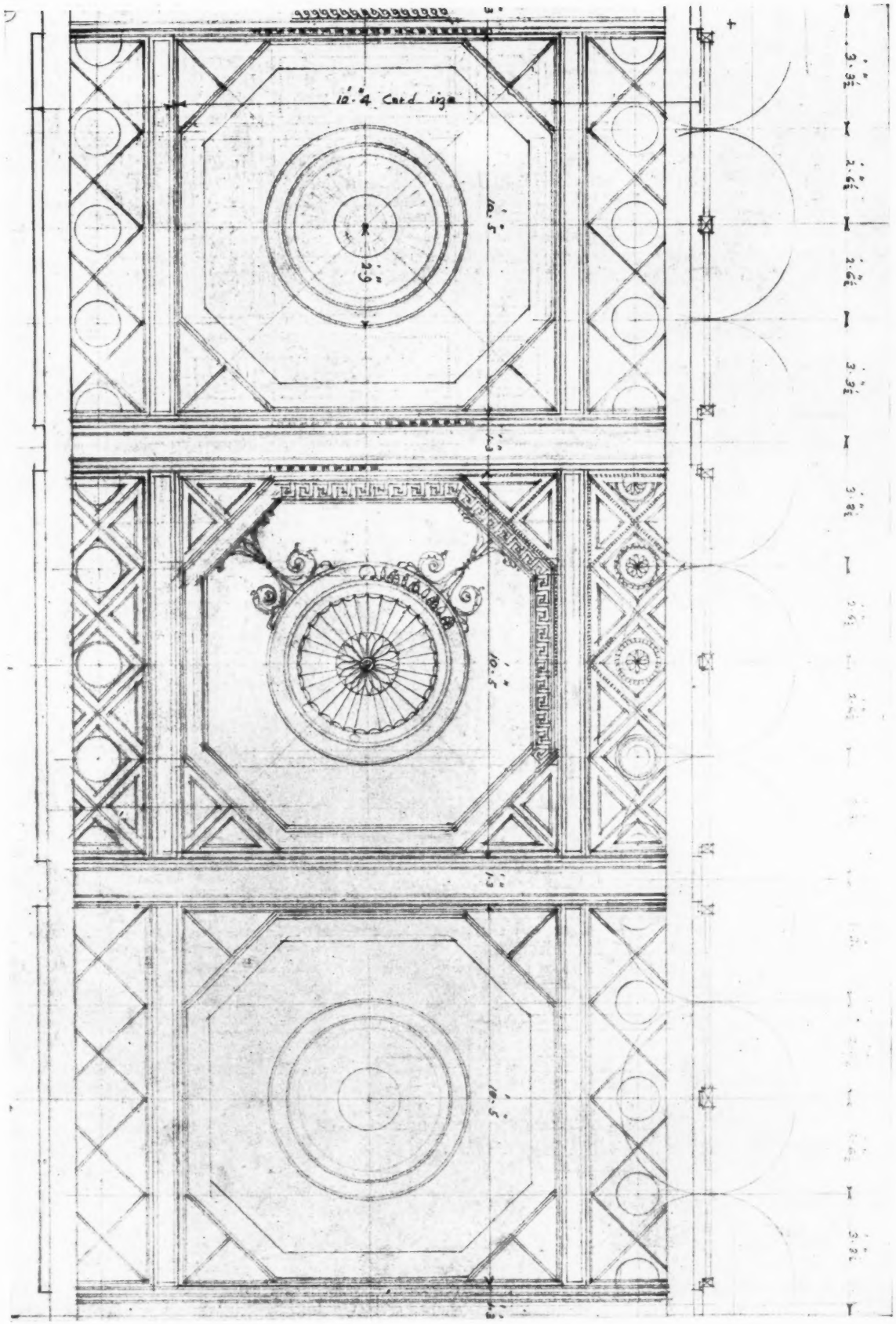
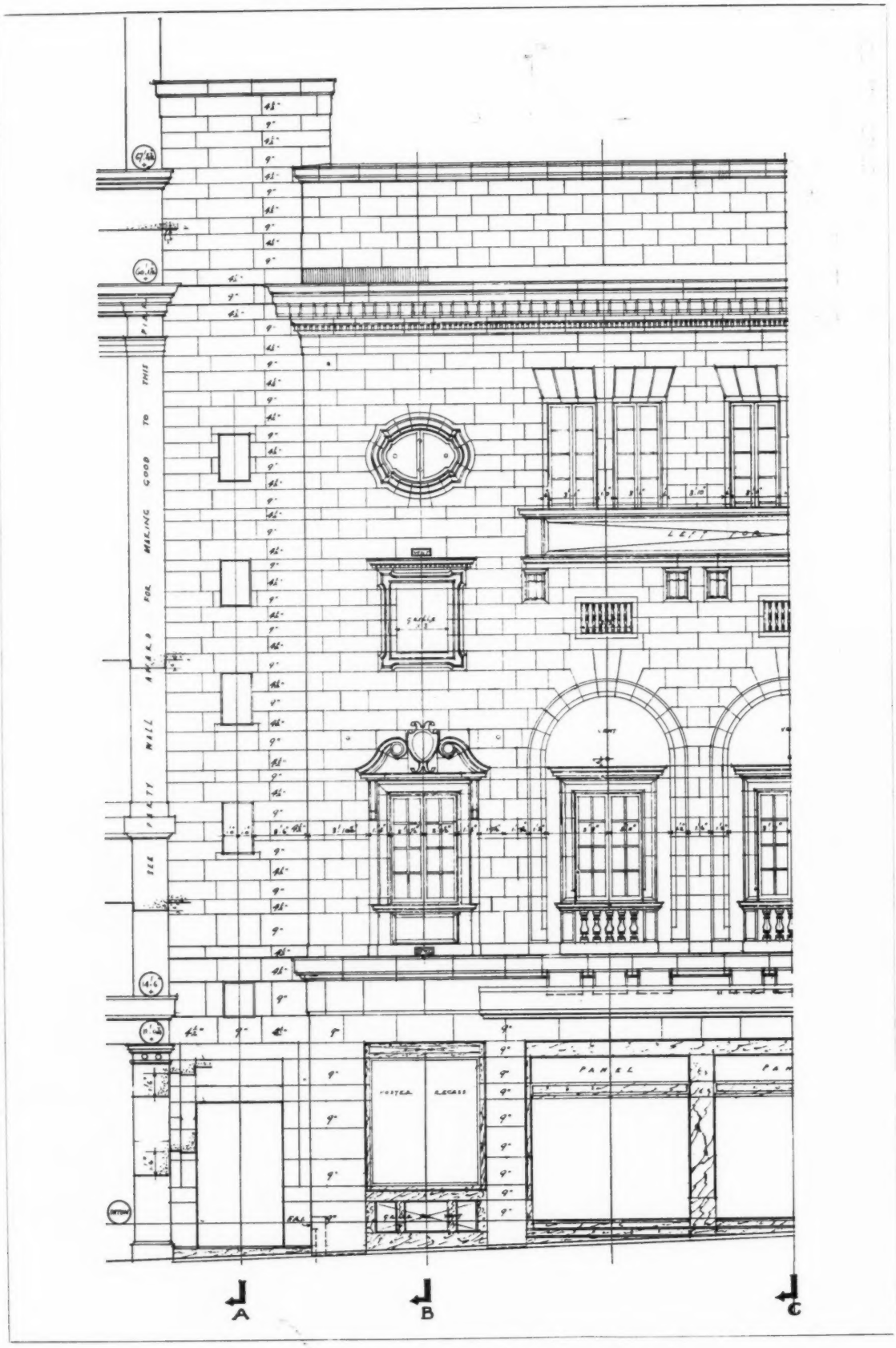
good things the London squares was gone, and there was no adequate authority to take its place; the new plutocracy and the newer democracy had yet to learn their job. It was an age of hastily improvised villas with the public buildings as glorified villas, the product of villa minds. The dawn of better things architecturally was witnessed by the advent of Mr. Norman Shaw, whose later work, if it was exorcized of the villa, was indicative of country town culture—it escaped the provincial to express the bucolic.

Many years ago when the present century was in its infant years, and I was a raw recruit to the ranks of architecture, I went down to Westminster to see one of Ibsen's plays which was then being performed at a little theatre called the Imperial. I have forgotten the name of the play and everything connected with it, but I shall never forget the theatre. Without knowing how or why, and I should have been hard put to it to have had to translate my thoughts into words, I instinctively realized that this was a different class of architecture from that generally prevailing, that it was the architecture of a great capital city with splendid traditions of art and refinement. The interior was a little masterpiece, and as with the first loved book of an appreciated novelist to which all subsequent works must lose by the

*The Carlton Theatre, Haymarket. By Frank T. Verity. Above, the entrance foyer. Below, the staircase in the entrance foyer.*




*The Carlton Theatre, Haymarket. By Frank T. Verity. A detail of the ceiling of the entrance foyer.*




*The Carlton Theatre, Haymarket. By Frank T. Verity. Half-elevation.*

glamorous comparison ; so privately I have never really thought that any of Mr. Frank Verity's later interiors quite came up to that of the little Westminster playhouse which, alas, was so soon to pass away. From the time of my discovery of this theatre I have watched Mr. Verity's architectural progress with an ever-increasing appreciation, an appreciation founded on my recognition of Mr. Verity as an artist, but also on my recognition of him as the first architect since the " industrial deluge " who aimed at and who achieved a high urban standard of architecture. Whether you regard his flats in Bayswater Road, which were amongst his earlier buildings, or his flats at the corner of Park Lane, which are amongst his latest, there is always this fine note of urban graciousness.

As a critic once said of Meredith's novels, " whether you liked them or no, you did at least feel you were in the company of distinguished people " ; so whether you admire or dislike Verity's buildings one has to admit that they are singularly distinguished, and that, despite the reticence of their refinement, they do emphatically protest that they are the buildings of a cultured metropolis; they are the antithesis of all that is provincial, bucolic, or suburban. The only other living English architect with whom I can compare him is Mr. Arthur Davis, for he, too, is able to express, though in a different way, this same urban note. They, of course, have this much in common, that they owe much to France and more to Paris. When you have lost your way you must seek a guide, and what more natural when we had lost the way of city building that we should turn to that beautiful Sister City a few hours distant. Paris provides the antidote and the corrective, and, let it be said in a whisper, also the foil, for the better one knows Paris (and this as a true Paris lover I say in no disparagement) the more one loves London—that is if one is a Londoner. Another characteristic that both these architects have in common is that their buildings are progressively more English as they proceed. It has always been an amazement to me that neither of these distinguished artists has been elected to the Royal Academy; the omission is certainly no reflection on them, whatever it may be on the Academy, which is still, perhaps, a trifle provincial or, perhaps it would be truer and kinder to say, country - townish in its outlook.

I should like to spend the rest of my time discussing the merits or otherwise of Mr. Verity's buildings as a whole, with all their implications and their especial significance to us today, but I am reminded that my contractual obligation to my Editor is to say something about the latest of his buildings—the Carlton Theatre in the Haymarket. This is of particular interest, apart from its architecture, because it is one of the few theatres, as distinct from picture palaces, built since the war. Externally the building at once challenges comparison with the Plaza picture palace, built so recently by the same architect, in Regent Street, and I must at once confess (possibly because I have not been asked to write about it !) that of the two I think I admire the Plaza the more—I say " I think," because I realize that in these two elevations Mr. Verity has attempted the solution of two entirely different problems.

In the Plaza elevations there is a striving after perfection even at the expense of interest, and I certainly think that the Regent Street elevation is one of the most perfect pieces of restrained architecture that I know—it is almost too perfect for everyday humanity. I am sure the proprietors realize this, because they sought to cure it of this blemish by an enormous sign of a very imperfect soldier with a girl on his knee, and they were so successful that they almost succeeded in vulgarizing the whole building—though not quite ! I can quite understand, even if I cannot sympathize with those who find this quality of restraint a little irksome.

I remember once making a study of Peruzzo's Roman buildings in company with an American friend, also an architect, whose taste inclined more to the baroque. After a prolonged contemplation of the Massime Palace he said, with an inimitable drawl, that if he saw " any more of that perfect architect's perfect work he'd have to go and have a drink." Perhaps this is something what the designer thought, for it would seem that when he turned to the Carlton he was determined to have a little more interest even at the risk of a certain restlessness, though, judged by any standards less exacting than his own, it would be considered to be rather severe. It is a little more exuberant than the Regent Street building, a little

*The Carlton Theatre, Haymarket. By Frank T. Verity. The auditorium and side-box.*

more gorgeous, perhaps, and it is full of a very vivid interest.

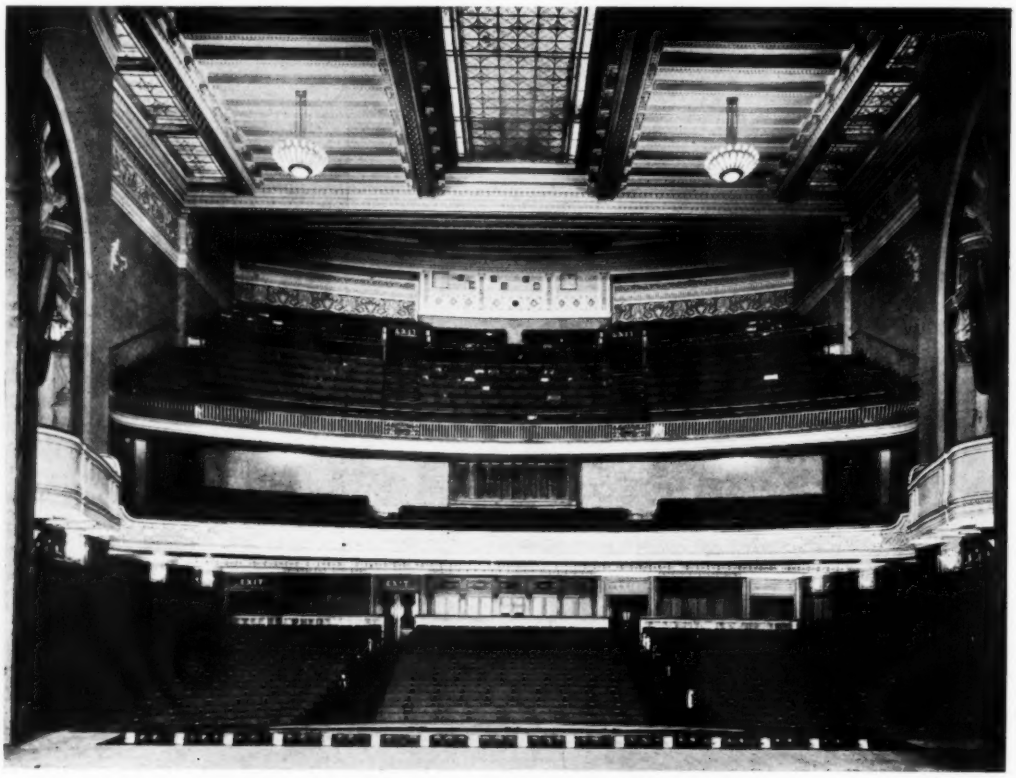
It exemplifies Mr. Verity's genius for surface treatment; everything has been studied and re-studied to the n'th degree, and the different gradations from the plain wall to the enriched tympanums of the first-floor windows are most dexterously maintained. If I had a criticism to make I should say that the sculpture is not quite up to the architecture; the heads to the top-story windows appeared to me to be a little commonplace, and the filling of the tympanums, though beautifully disposed as regards light and shade, were somewhat weak in execution—the sculpture work, in my judgment, lacked the distinction that is so notable a feature of the sculptured decorations at the Bush building for instance. But here again I saw the building at a disadvantage, the scaffolding was still partly up, and the whole front was raw from the chisel; when it has weathered even as long as the Plaza it will, I am certain, become much more mellow.

Inside the theatre is equally interesting. You enter on the dress-circle level and descend to the stalls, or ascend to the upper-circle, according to your purse and inclinations, so that there is none of that mountaineering feeling which must so frequently afflict the occupiers of the cheaper seats in most of the London theatres. It is, as I have indicated, a two-tier house, and in spite of its size has an agreeable air of intimacy, in fact, it is difficult to realize whether it is a small or a large theatre. In plan and arrangement it follows much on the lines of Mr. Verity's other theatres—there are the two boxes on plain slopes leading up to the stage, all concentrating on a simply-treated proscenium front.

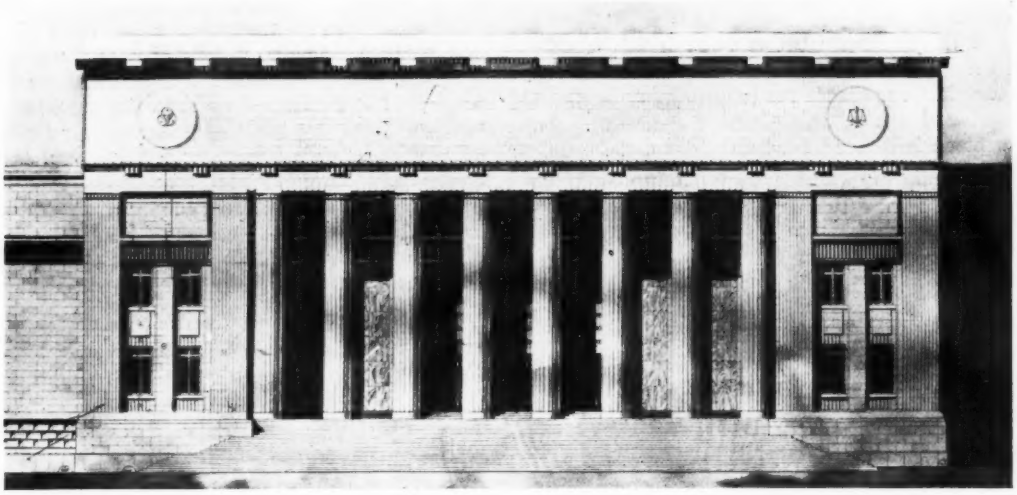
The ventilation is, I understand, an entirely novel one, the warmed air *descending* from the ceiling through a series of perforated beams. This perforation gives a lace-like appearance to the beams, and the architect has eagerly seized on this suggestion for the main motif of his decoration.

The lace-like feeling is maintained throughout the decoration of the auditorium, in fact, so great is the power of suggestion that it appears to have overflowed into the vestibules, entrance halls, etc. In one or two cases, if Mr. Verity will forgive my saying so, I don't think it has quite come off; but if the interpretation of the lace forms has not always been uniformly successful (this is only my opinion, and it is certainly most amazingly interesting) there is no question as to the entire success of the colour-scheme.

The auditorium has gold scrumbled walls, the lower part of the walls round the stalls being panelled in a golden brown oak, whilst the boxes and proscenium front are in low tones of cream and grey picked out in dull pinks and bands of wedgwood blue and white—the whole is summed up in a red carpet on which are placed mulberry-coloured chairs. The walls of the entrance hall and vestibule are scrumbled with blue and silver, and the contrast between these approaches and the auditorium proper is delightful. London should be very proud of its new theatre and of the architect whose creation it is.



*The Carlton Theatre, Haymarket. By Frank T. Verity. The auditorium looking from the stage.*



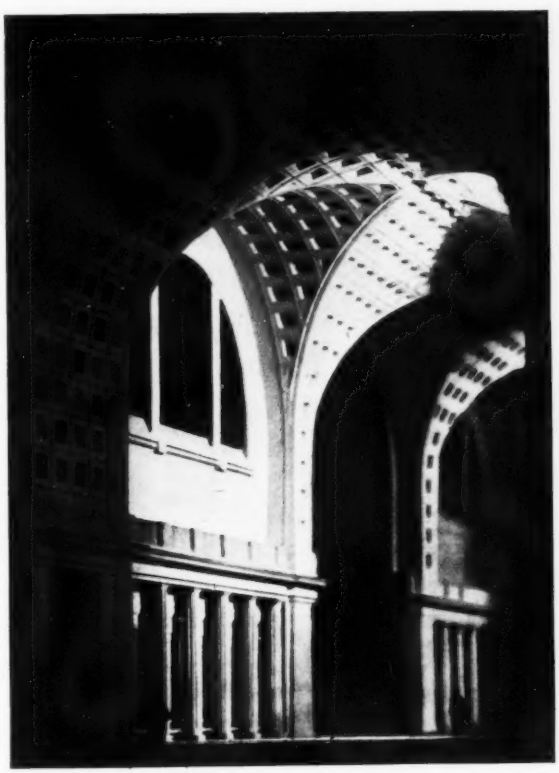
# THE NEW LAW COURTS AT CAIRO

[BY W. W. WOOD]

THERE are four exciting incidents in the history of a great architectural competition. The first is the announcement that a competition will take place; the second is the promulgation of the assessors' award; the third is the commencement of work on the foundations; and the fourth is the opening ceremony. The interval between the third and fourth events involves arduous labour, but is yet for the architect a period of great reward, when he sees his conception gradually take material form. The Cairo Palais de Justice is just entering upon this stage—the foundations are complete, and one awaits with interest the renewal of operations, the raising up on these foundations of the important pile that will be one of Cairo's most imposing public buildings.

The competition was international; 141 intending competitors applied for the conditions, and of this number thirty-five presented *projets*. Messieurs Azéma, Edrei et Hardy were awarded the first premium, and were instructed to proceed with the work.

The site is located at the angle of Fuad el Auwal Avenue and the Avenue de la Reine Nazli (the old Sharia Boulac and Sharia Abbas respectively). The north-west front of the building will run behind the new Batiment des Hypothèques and parallel to the Avenue de la Reine Nazli; the north façade will be on Fuad el Auwal Avenue. The monumental entrance for the general public will close the long perspective of Fuad el Auwal Avenue, which runs almost due west from Opera Square before its sharp bend to the north, and there will be a small triangular public garden on the main axis before it. The continuous south and south-east elevation will front on to Sharia Mouillard and Sharia Champollion (the late Sharia Wabour el Miah). The admixture of English, French, and Arabic in the naming of streets is typical of this most cosmopolitan of cities; I have quoted old street names in addition to the new for the information of those who knew Cairo before the renaming took place. The south-west boundary adjoins the proposed site for the future Church of England Cathedral, to be built to the designs of Mr. A. Gilbert Scott. From the foregoing description it will be seen what a very awkward and irregular site the competitors had to cope with, and it required all the ingenuity of French planning to solve it with dignity and efficiency.



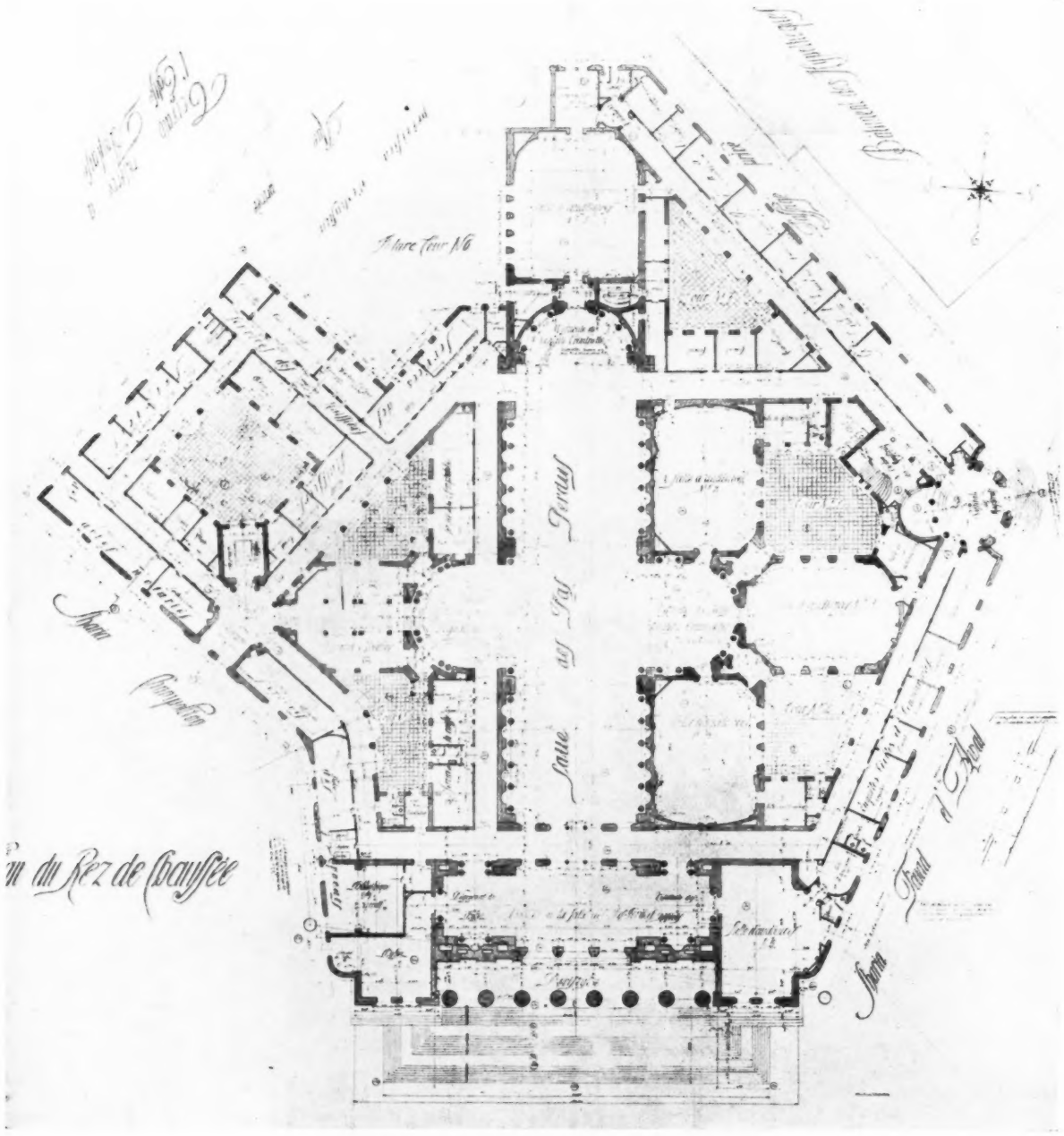
Beyond peristyle and vestibule the body of the building is occupied by the Salle des Pas Perdus (a wonderfully descriptive name for a seatless waiting

*The new Law Courts at Cairo. By Azéma, Edrei et Hardy. Above, the main entrance. Below, the Salle des Pas Perdus, or main hall.*

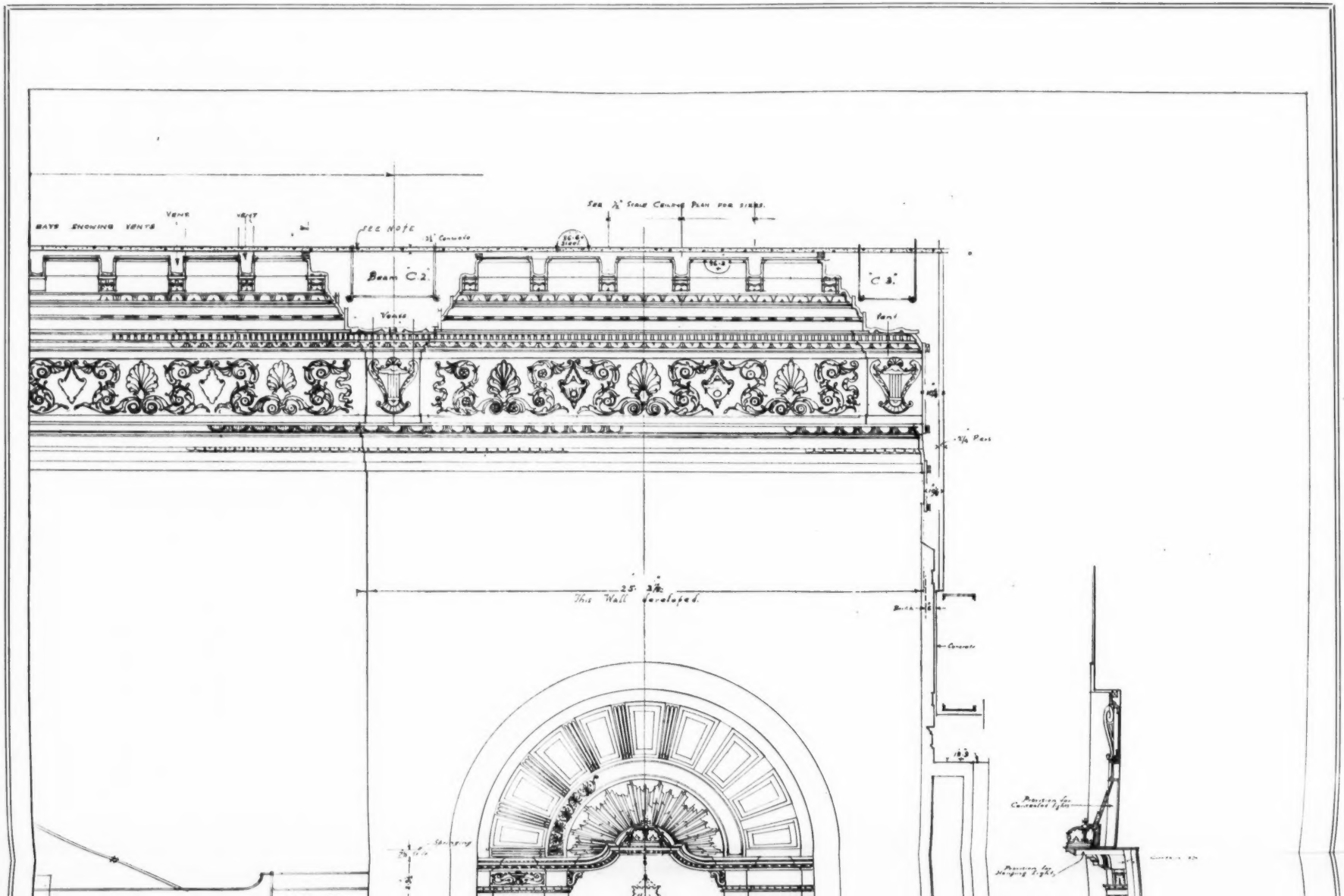
hall, when you come to think of it), its length traversed by the main axis. To the north of it lie the courts themselves, and beyond them, throughout the whole height of the building, the offices of the judges, the public prosecutor, etc. To the south are placed the registry and other public offices, barristers' offices, and library for counsel. Thus the entire block is divided vertically into three sections: the judicial and private region on the right, the public and administrative region on the left, with the Salle des Pas Perdus in the centre.

The northern, or private, portion has been kept quite apart from and independent of the purely public services. It has its own separate entrance, and by means of its staircases and circulatory corridors any portion of the building can be reached without contact with the general public. The administrative section has its entrance at basement level—in the podium—in Sharia Champollion. Thus the whole of this great building possesses only three entrances, each with its own particular use, and yet is adequately served, a matter of no small compliment to its designers.

The authors have sought to combine in one building the atmosphere of the architecture of Rome, "puis qu'il s'agit d'un monument dont le but est l'application des lois dérivées des Romains," as they state in their report, the



*The new Law Courts at Cairo. By Azéma, Edrei et Hardy. The ground-floor plan.*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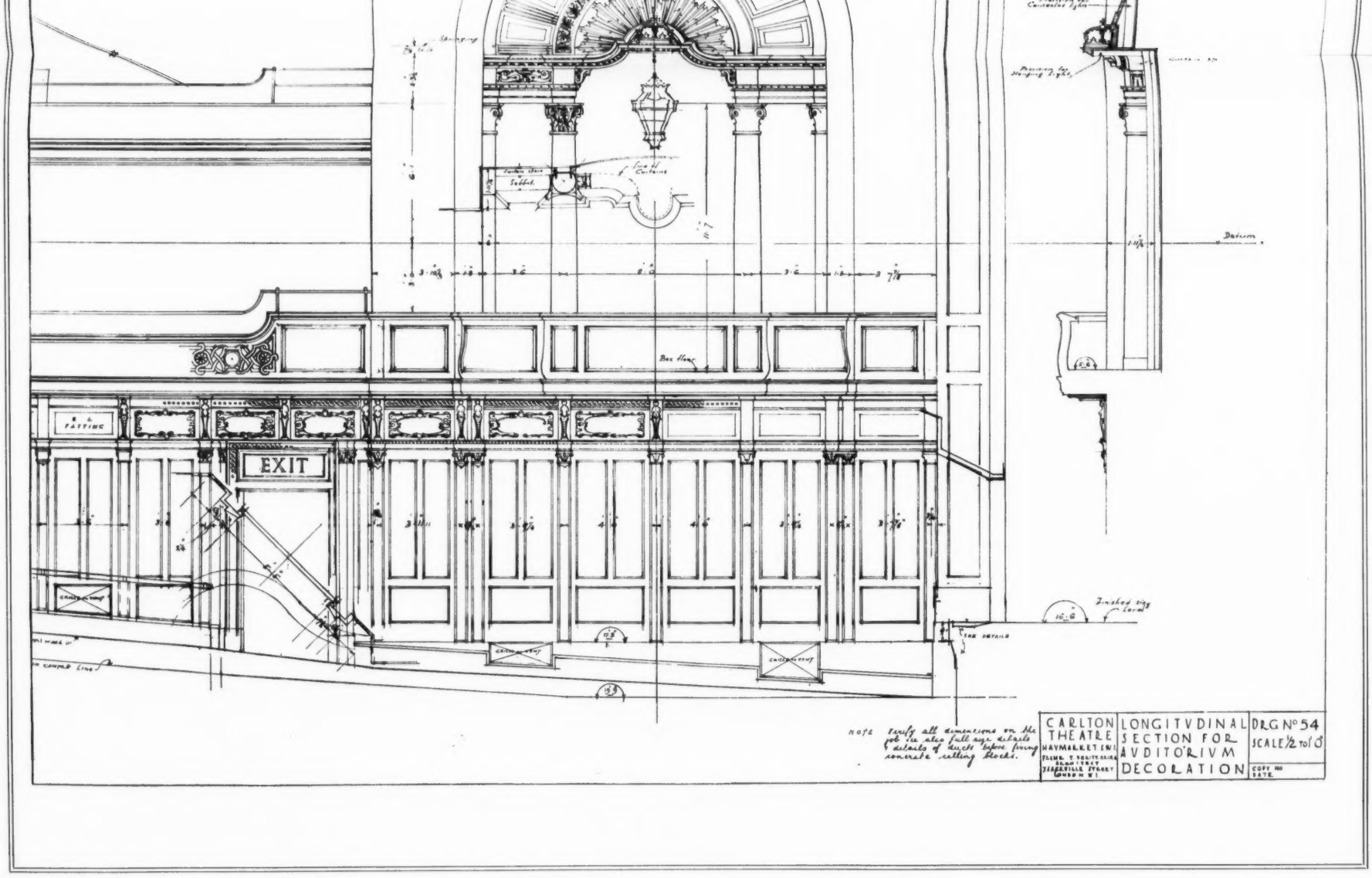
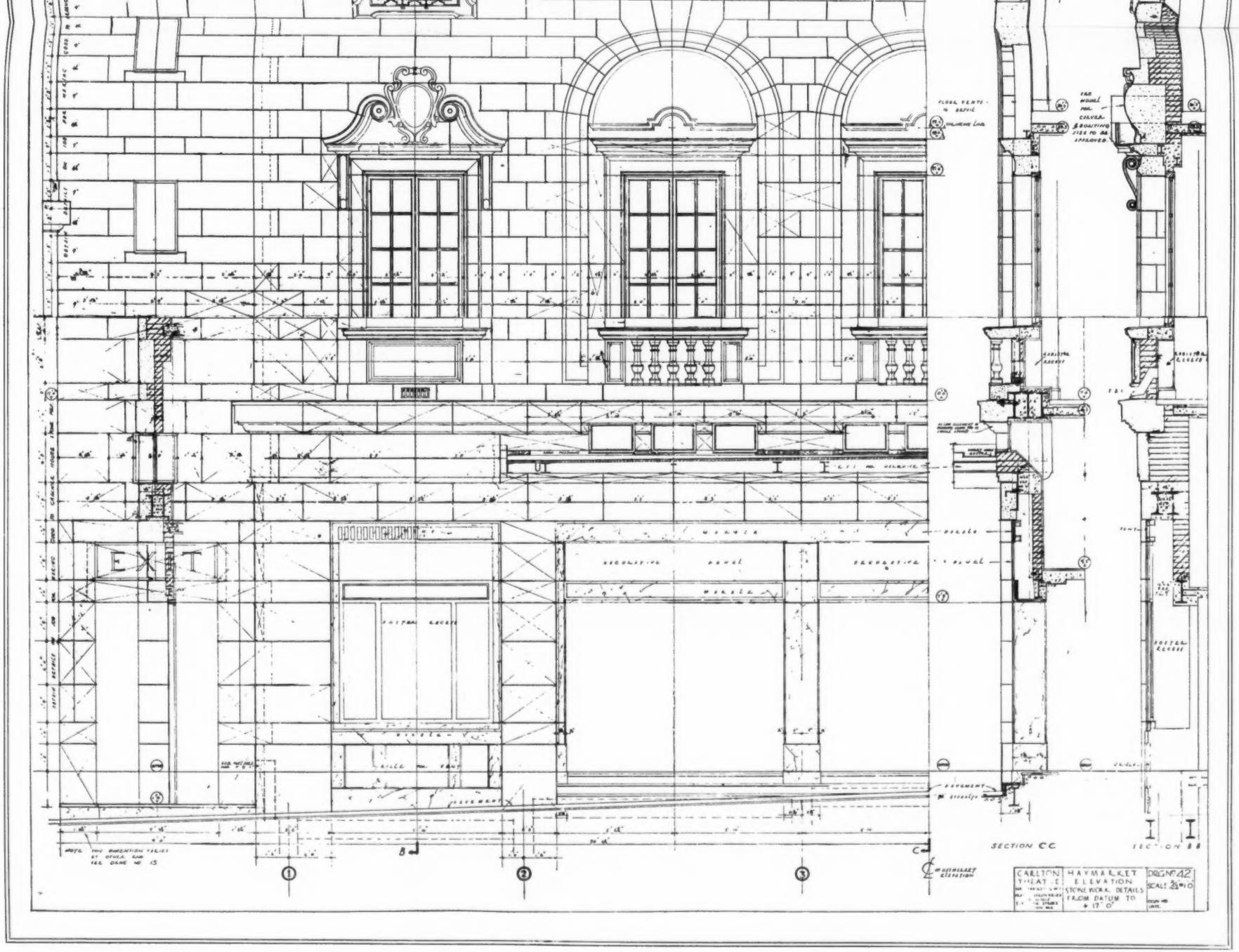
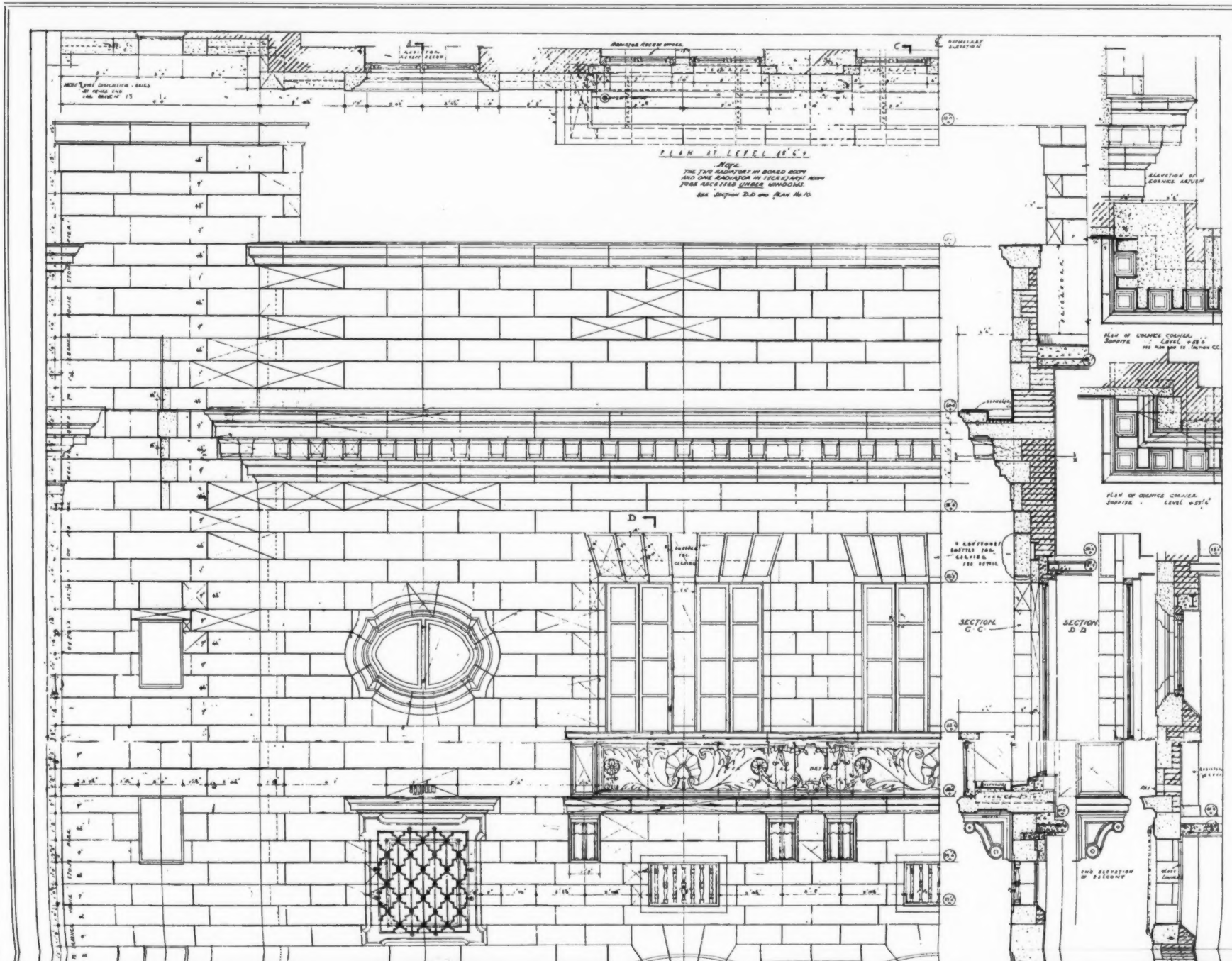



THE CARLTON THEATRE, HAYMARKET. BY FRANK T. VERITY. A SECTION THROUGH THE AUDITORIUM




THE CARLTON THEATRE, HAYMARKET. BY FRANK T. VERITY. A DETAIL OF THE ELEVATION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THE TWO RADIATORS IN BOARD ROOM AND ONE RADIATOR IN SECRETARY ROOM TO BE RECESSED UNDER WINDOWS.
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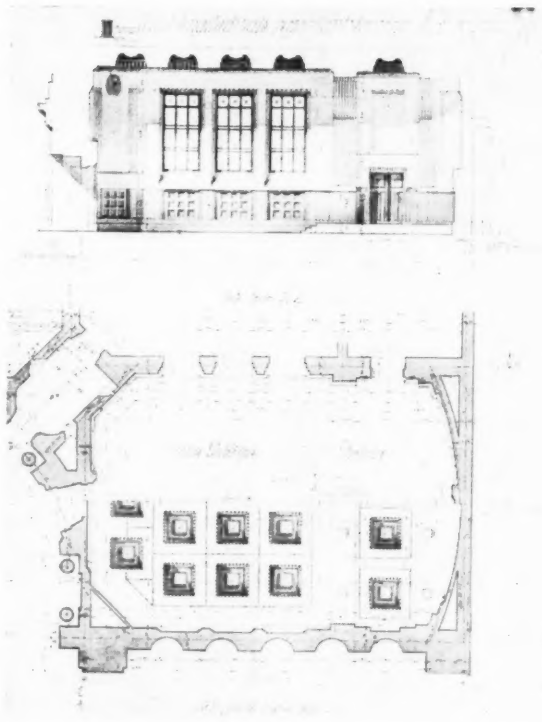
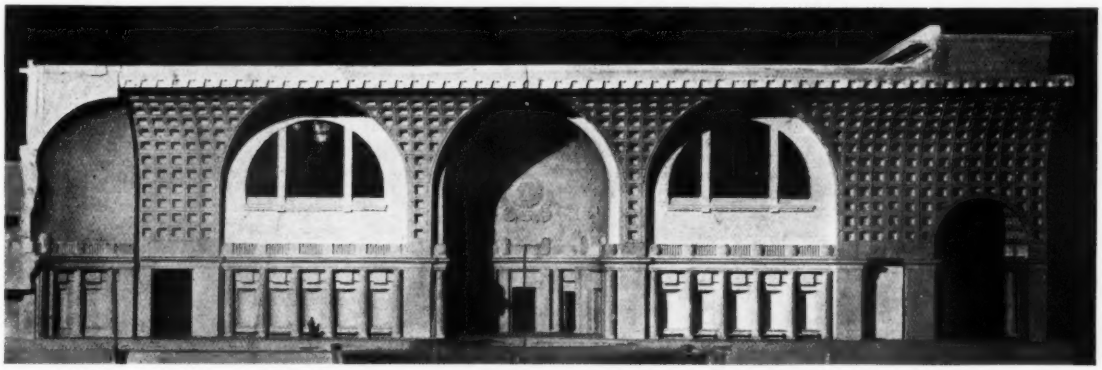
massivity and imperishability of Egypt, the regularity of outline demanded by a clear and brilliant light, and the expression of era which is never absent in the best modern French work. The measure of their success is considerable. There is a large-scale model housed in a building on the site, which the courtesy of Monsieur Hardy enabled me to visit. At first sight the enormous frieze over the main entrance oppresses one with a feeling of overloading, to be quickly followed by an impression of Egyptian accentuation of mass *qua* mass. The columns possess no more than mere acknowledgments of the conventions of cap and base. The former consists of a beaded necking, between which and a square abacus the concave flutes are made convex, and the latter is just a small section of unfluted cylindrical drum. Within the peristyle there is a remarkable sculptured frieze. On the background formed by the outspread wings of the Egyptian ibis are grouped draped female figures, appealing—for justice, one supposes—to dignified bodies of senators (?). And over the centre portal is the unwinking eye of Truth. This, at least, seems to be the intended symbolism.

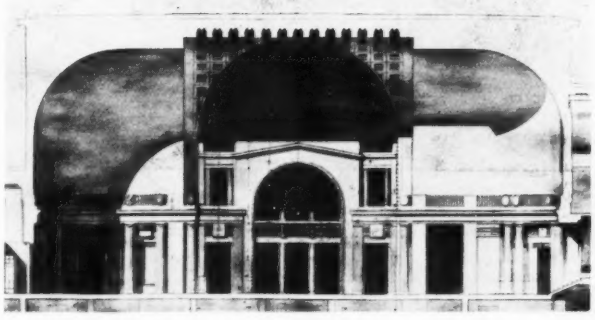


The two long street façades are in four stories, of sub-ground or basement, ground and first floors, and attic. The first-named serves as a podium, emphasized by means of a rather elaborate form of rustication. The windows are in groups of eight, two in the podium and two in the attic, the four in the ground and first floors recessed in a manner reminiscent of Saracenic work, separated by a pilaster and supported by quarter pilasters, all coming within the frame. They are of the *croisée* type in metal, on all save the attic floor. The first-floor windows have deep, plain aprons; under the aprons Greek Doric fluting—as on the bodies of the columns of the principal elevation—and between ground floor sills and plinth concave fluting again.

The principal *motif* of the frieze engirdling the building is convex fluting, a fondness for which in the work of these architects may possibly be ascribed to interest in the recently discovered Third Dynasty temple at Sakkārah.

The Salle des Pas Perdus is barrel-vaulted and coffered; its simplicity and vastness bring before the mind pictures of the Basilica of Constantine in the Roman Forum. The coffers are extremely deep, the direct result of construction, formed immediately by the reinforced concrete ribs of the vaults. The hall rises above the adjoining courts and is





*The new Law Courts at Cairo. By Azéma, Edrei et Hardy. Above, section and plan of a typical Salle d'Audiences, showing the large ceiling coffers.*

*Centre, longitudinal section through the Salle des Pas Perdus and the vestibule. Below, cross-section through the main hall looking towards the entrance.*

lighted over them by means of enormous semicircular mullioned windows penetrating the main vault. The extreme end of the Salle des Pas Perdus is terminated apsidally, and has at its centre the entrance to the criminal court.

Below the court are the cells, and beyond it the jury room. On the cross axis are semicircular " transepts." That to the north gives access to the three principal civil courts, which are thus preserved from the noise created by the public coming and going in the main hall; the other opens on to the main staircase and also serves as a link in the chain of administrative corridors. Each court, in addition to the room provided for the deliberations of the jury, has a distinct entrance and a waiting-room for counsel, in which last-minute notes can be made and deliberations take place.

In order to avoid the annoyance of a continual passing to and fro by counsel awaiting their turn to plead, proceedings in the court can be watched by them through an *œil-de-bœuf*, or peep-hole, specially provided for the purpose.

Sufficient has been said to give a fairly comprehensive idea of the general disposition of parts and treatment of the building.

The impression left in the mind by the plan is of an efficient lay-out, good floor-shapes cleverly devised under difficult conditions, and a striking clarity of conception. It loses by its lack of symmetry and consequent partial absence of monumental effect, due to the unavoidable irregularity of the site. The exterior is a little cold and hard; shadow has not been made to play quite such an important part as it might have done in a country of Egypt's bright sunshine. It is scholarly, dignified, and restrained, and suggests Justice inviolable, but perhaps somewhat lacking in Mercy—maybe an ideal Justice, but a rather daunting one.

Messieurs Azéma, Edrei et Hardy must be ranked amongst the most distinguished of France's younger architects. In addition to their highly successful handling of this most difficult problem, they have secured laurels in many other fields.

M. Leon Azéma was born at Alignan-du-Vent (Hérault) in 1888. He was educated at Béziers, Saint-Etienne, and in Paris. He, together with his future partners —M. Max Edrei, born in 1889 and educated at Alexandria and Paris, and M. Jacques Hardy, born at Paris in 1889, and educated at Neuilly—entered the Ecole des Beaux-Arts in 1908. M. Edrei volunteered for service as a pilot in the air service during the war, was twice wounded, and decorated with the *Croix de Guerre*. MM. Azéma and Hardy were both wounded and captured at the Battle of Charleroi, and spent four years in the hands of the enemy.

In 1921 M. Azéma was awarded the Grand Prix de Rome, and he and his partners then began to attack public competitions. After a number of minor successes they obtained the first premium and the execution—now in hand—of the Ossuaire de Douaumont, which is to shelter 400,000 of the Allies' dead, in competition with sixty leading architects, including something like a dozen Grands Prix de Rome. They have now an extensive and ever-growing practice in both France and Egypt.

*The Basilica of Constantine in the Roman Forum*

# SIMPLE CURVES

[BY R, AUTHOR OF R'S METHODS]

## THE HYPERBOLA

STUDENTS of architecture should be able immediately to recognize the beautiful conic forms, and know their more important characteristics. Our usual want is to draw the curve from one point to another. Books on conics do not often give this information, being written from another point of view.

Take any set-square, draw a vertical from A to D (figure one). From C as centre and C A as radius draw a circle. The line C D V F now gives the essential points for construction of a hyperbola. C A is the asymptote, F is the focus, V is the vertex, D A is the directrix.

D V: V F is the eccentricity (figure two). F to any point on curve (*always same ratio*) as that point to directrix A D. A V bisects the angle F A D. F V always greater than V D.

The 45° set-square used here (figure two) gives the rectangular hyperbola, i.e. the asymptotes X C C X make a right angle. The hyperbola starting from vertex V curves round towards the asymptotes, getting gradually nearer, but never touching them.

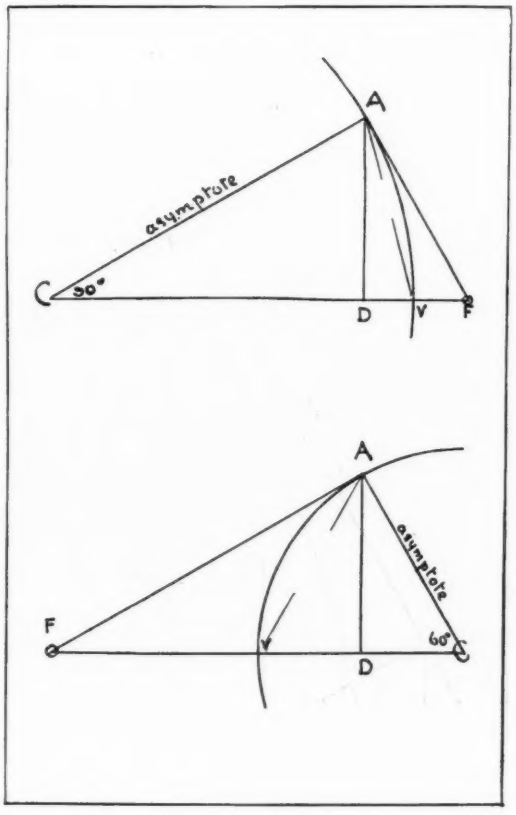
The 60° 30° set-square is used in figure three. It will be seen now that the hyperbola can be a curve almost from a straight line to a line doubled from the centre till the two parts are nearly parallel. After leaving the vertex the curve passes through the end of the latus rectum, the vertical through the focus. The variation of the hyperbolic curve is dependent on the size of the angle at C and the distance of C from the vertex, but this latter only alters the scale (figure four).

A vertical from D (figure five) and a 45 from F give a point O, a line from O through V will cut semi-latus rectum at height from axis or abscissa.

The next point (figure seven) 2C distance from V and ½ distance from asymptote from V.

Figure eight shows the hyperbola got by intersections of circle F1 and F1+V V from *f*, circle F2 and F2+V V from *f*, and in like manner.

The hyperbola (figure nine). Divide P P and P*v* into same



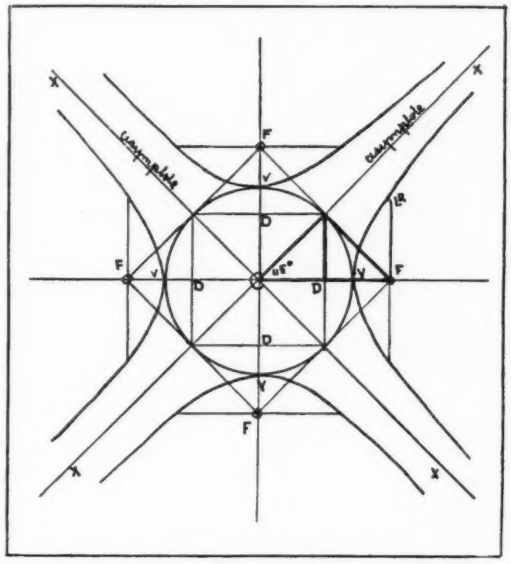




*Figure two.*

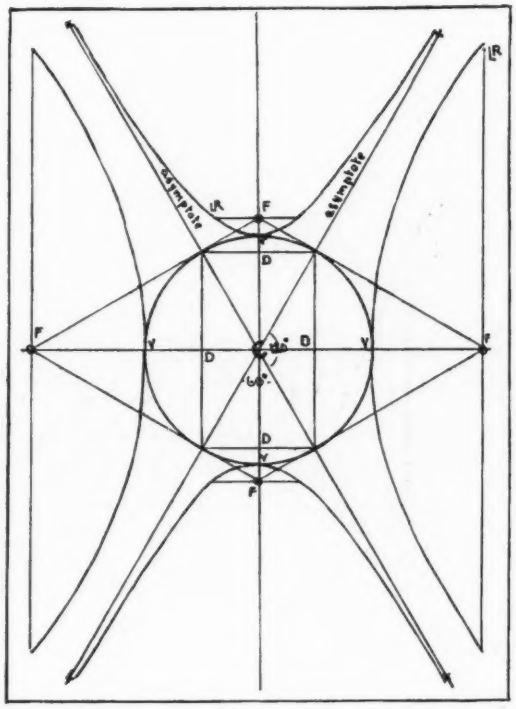



*Figure three.*

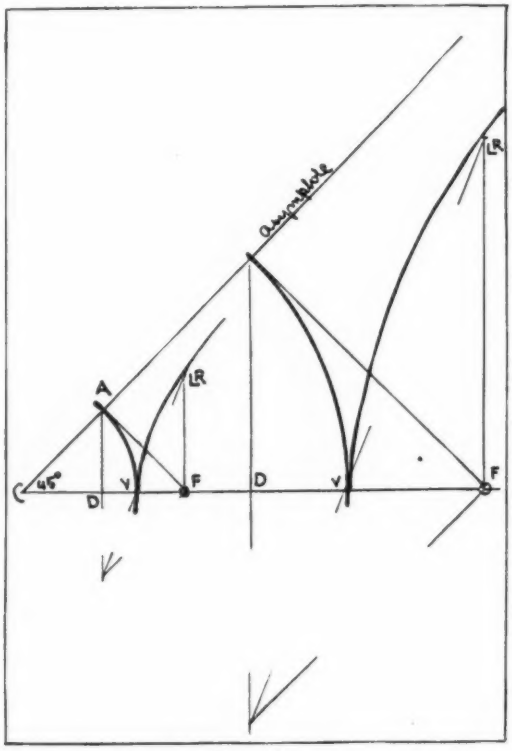



*Figure four.*

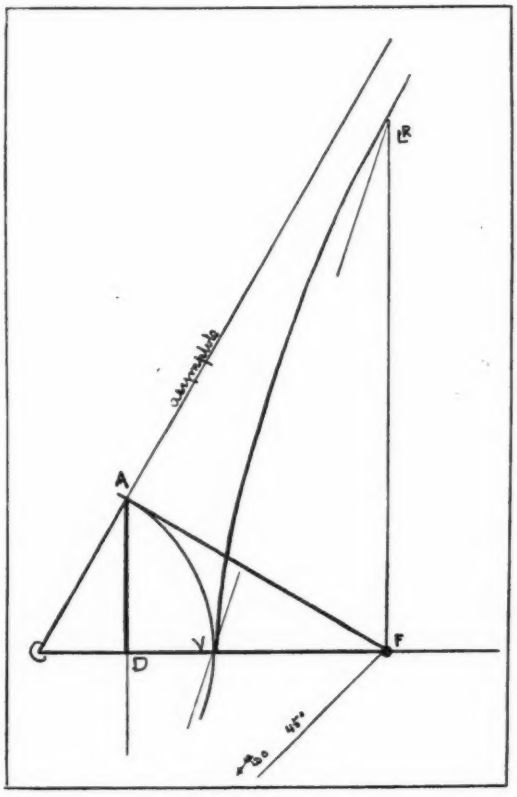



*Figure six.*

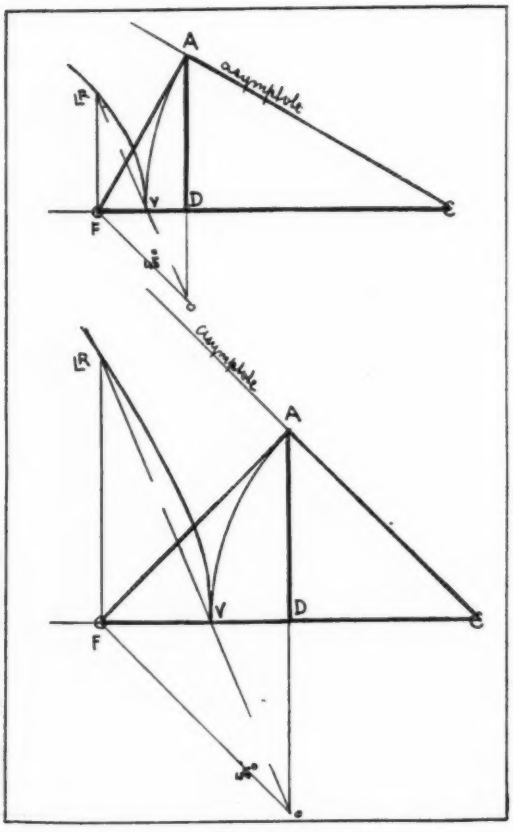



*Figure five.*

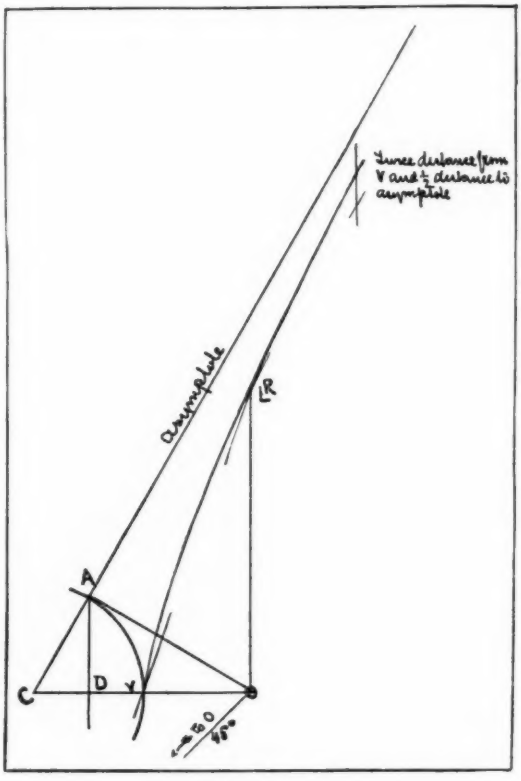



*Figure seven.*

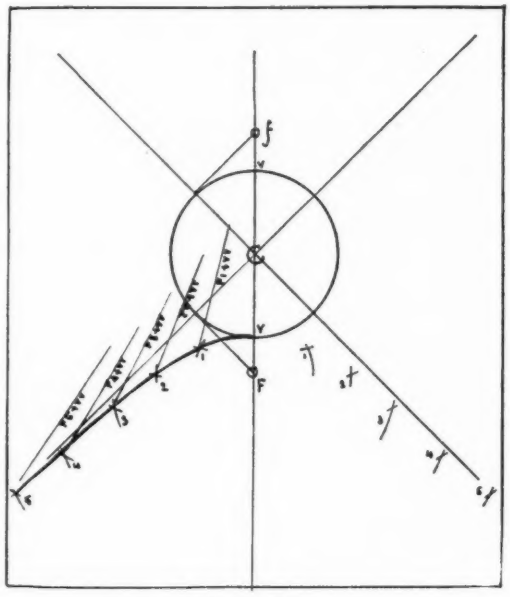


*Figure eight.*

number of equal parts, and join 1 2 3 4 V; 1 2 3 4 C; curve is at crossing of 2 and 2, 3 and 3, 4 and 4.

R's new method rapidly to draw the hyperbola from point P to vertex (figure ten). Draw axis through V; it can be at any inclination. From any point C on axis beyond V. Draw C P the direction line. With C as centre, C V as radius, draw a circle. Put a set-square, as shown by dotted lines, and stick a pin where set-square crosses axis, the set-square touching circle; the pin is

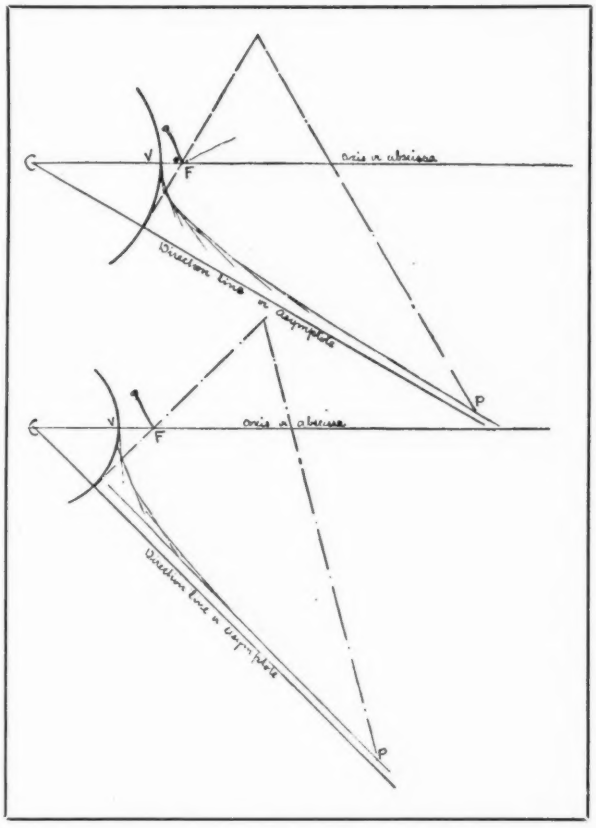



*Figure ten.*

at focus F. Slide set-square along pin, keeping right angle at circle, and draw tangents; these cross and form the hyperbola. The hyperbola is a very variable curve.

Every possible tangent falls within C V.

As C gets nearer V the pin gets more distant, the angle at C gets larger, and less of the curve is drawn.

A slight improvement on the rod and string method is shown in figure eleven, but it has a very limited use. The string must be less than the length of the rod.

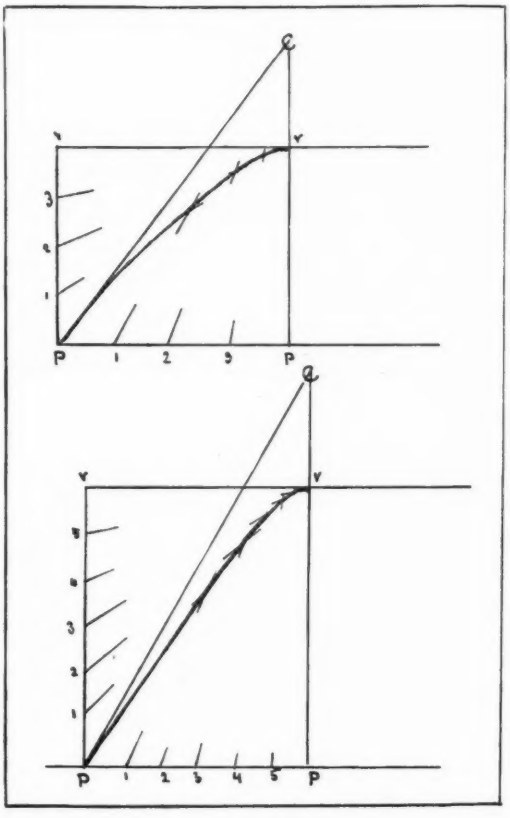



*Figure nine.*

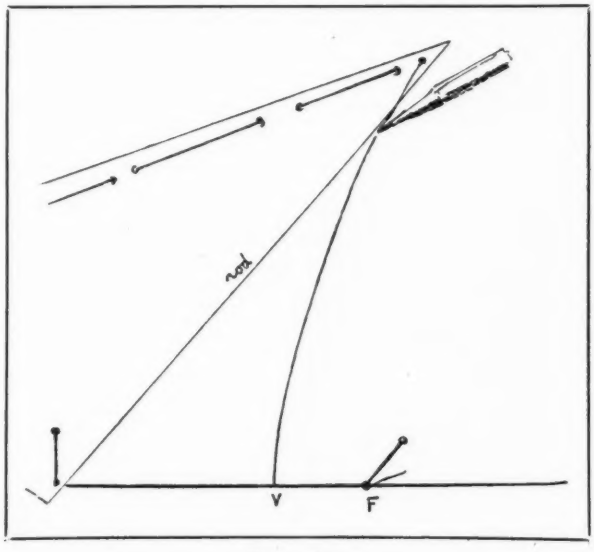



*Figure eleven.*

# LITERATURE

## THE SAFETY OF ST. PAUL'S

Canon Alexander, treasurer of St. Paul's Cathedral, has reprinted in this little book some of the addresses he has delivered from time to time in appealing for funds for the cathedral repairs. He endeavours to indicate that there has been consistency of policy in the repair scheme, and declares in his introductory chapter "there has been an unbroken continuity in the work since it began in 1913." As regards his own views, he states: "I cannot plead guilty to the charge brought against me by occasional critics of 'alternate optimism and pessimism.' I have consistently stated for twelve years that, in my opinion, which is not that of an expert, the building was running too near the margin of safety."

Contrasting these assumptions of consistency with the abundant evidence of a contrary order that has been published during the last few years, the reader will be inclined to examine the succeeding pages of the Canon's book to discover any grounds he may have upon which to base his claim, and will be surprised to read on the very next page to that on which the author has stated the opinion quoted above that the "Dangerous Structure Notice" is described as an "astonishing document . . . served on the Dean and Chapter as if they were the owners of a small shop in Aldersgate Street or Cheapside, and as if they had not, through a long period of controversy and consultation, been seeking and acting upon the best advice in the country." It would appear that the Canon does, indeed, express pessimistic and optimistic views alternately without realizing his own inconsistency. If the building is "running too near the margin of safety" there is nothing astonishing in the serving of a "Dangerous Structure Notice" unless we are to be astonished when a public official performs the duties for which he has been appointed. Or if the Canon was really astonished that the "Dangerous Structure Notice" was served it must have been because he felt that the experts consulted by the Dean and Chapter were really prepared to deal adequately with the situation. But the course of events since the serving of the notice has revealed the inadequacy of the repairs then contemplated by the Cathedral experts, and the Canon's astonishment ought by now to have been dispelled by the same evidences which are gradually substantiating before the public the good sense of Mr. John Todd, the dangerous structure surveyor. It was not till after his official action had brought pressure to bear that the central portion of the building was closed and the two eastern piers of the dome examined, although the St. Paul's Commission's *Final Report had already been published* before detailed information as to their condition was available!

Far from proving the consistency of the repair scheme, the Canon's book, which contains the Commission's Reports, actually demonstrates the contrary, for the Final Report embodies, in a dangerously mangled form, suggestions which were put forward by critics immediately after the inadequate scheme of the Commission had been published in the Second Interim Report. The Final Report also contains the theory that the cracks in the building are due to "cumulative temperature stresses rather than to unequal settlement," and it would be interesting to know whether the members of the St. Paul's Commission bless the Canon for giving additional publicity to this unlucky guess.

Architects will view with mixed feelings the author's summing up of Wren's genius. "Beginning with the study of mathematics, he became, before he was yet thirty years of age, Professor of Astronomy at Oxford, and would, no doubt, have achieved a very high scientific reputation if he had permanently given to experiment and research powers which men of note had already described as 'miraculous'; and yet his main contribution to history was that of an architect of fertile gifts, large and original conceptions, and deeply religious feeling." ——"and would, no doubt,——and yet"!——It is at least something gained if Wren's "deeply religious feeling" is recognized by the Church that has recently shown such a strong inclination to pull down his buildings and turn his church sites into capital.

WILLIAM HARVEY

*The Safety of St. Paul's.* By S. A. Alexander, M.A., Canon and Treasurer of St. Paul's. London: John Murray, Albemarle Street, W. 1927. 2s. 6d.

## THE EUROPA YEAR BOOK

Much may be learnt in little time in turning the pages of the new edition of *The Europa Year Book*. It carries one's thoughts far across the seas to that "new world which is the old across the seas and far away"; to the architectural wonders raised by the ambition of ages; to the white-hot skies and grandeur of the romantic East, with its great cities lying buried beneath the earth; to sleeping lands where nothing changes and "where under the same wheel the same old rut would deepen year by year"; to lands ringing of revolution, hate, strife, and envy; to many odd corners of this great world, "spinning for ever down the ringing grooves of change." Economies and social conditions, and other matters of fact of European life concerning which people "watch, starve, freeze, and sweat" to know, are clearly reflected by distinguished contributors. The book is divided into three parts: 1: A Survey of economic and social conditions; 2: a European directory and who's who in politics, trade, science, art, and literature; and 3: a European bibliography. The who's who still remains the main feature of the book, the publishers stating in the preface that they have received ample testimony of its utility both as a guide to contemporary European conditions and personalities, and as a work of reference. The selection of the personalities whose names shall appear needs great providence and circumspection, and diversities of opinion are bound to occur as to whether the architectural, artistic, literary, musical, or other achievements of any particular figure warrant his inclusion. A case in point is the list of architects of Great Britain. Without deep thought the mind becomes aware of many other names which might well be added to those of the thirty distinguished architects given. At random one thinks of Baillie Scott, Darcy Braddell & H. Deane, Oswald P. Milne, Louis de Soissons, and many others whose work is adding to the charms of the fair lands of this country. But the compilation of such a book deserves the greatest praise—it has already received the commendation of thousands of public men—whether the detail can be more elaborate or not. It is a colossal undertaking, and no matter with what energy the editors are spurred to make the book more comprehensive in scope, or more reliable in detail there must in a work of this nature always be criticism and disappointment until the end of time.

E. R.

*The Europa Year Book, 1927.* Edited by Michael Farbman, Ramsay Muir, and Hugh F. Spender. Europa Publishing Co., Ltd., George Routledge and Sons, Ltd. Price 15s.

# IN PARLIAMENT

[BY OUR PARLIAMENTARY REPRESENTATIVE]

The Select Committee which is to consider the Architects' Registration Bill has held its first meeting, which was private. Sir C. Kinloch-Cooke has been appointed chairman, and the other members of the committee are Mr. Gardner, Mr. Wm. Hirst, Sir Alfred Hopkinson, Mr. Lindley, Sir Murdoch MacDonald, Col. Moore, Sir Frederick Rice, Mr. Tasker, Captain Wallace, and Dr. Watts. No formal evidence was heard at the meeting.

At question time Mr. E. Brown asked the Secretary of State for Air whether consideration was being given to regrading certain posts of architectural and engineering assistants and draughtsmen in his department; whether he was aware that the establishment branch of the Air Ministry had refused to consult with the

organized body representative of the interests of the ex-Service staff involved; and whether he could now give an assurance that in any such regrading consultation would be made with this body before any final decision was come to, so as to ensure ex-Service men's interests?

Sir S. Hoare said that the answer to the first part of the question was in the affirmative. The adoption of the title "draughtsman" or "architectural assistant" was a professional and not an ex-Service question, and any negotiations were appropriately conducted with the professional associations concerned through the medium of the Whitley Council. The Air Ministry was fully aware of the wishes of the staff affected, which had been put forward not only through Whitley channels, but also in a special memorial.

### THE OUTPUT OF BRICKS

Mr. Betterton informed Sir J. Power that the output of bricks in Great Britain in 1926 was estimated at about 6,000 millions, which, allowing for Sundays and holidays and the half-day on Saturday, would be about 21½ millions for each full working day. The number of insured bricklayers in the building trade in July 1926, less those recorded as unemployed, was about 64,000. There were no precise statistics as to the number of bricklayers employed in other trades, which, however, was considerable.

### HOUSING QUESTIONS

Mr. Hore-Belisha asked the Minister of Health whether he would consider the desirability of introducing legislation whereby tenants of council houses who wished to purchase their houses might be enabled to do so?

Sir Kingsley Wood said that local authorities already had power under the Housing Act, 1925, to sell houses erected by them, and a number of local authorities had adopted schemes for the sale of houses to tenants and others. It did not appear that further legislation on the point was necessary.

Mr. Chamberlain informed Mr. H. Williams that the average price of parlour-type houses included in contracts let by local authorities during the three months ended in March last was £490, as compared with an average price of £513 for the previous December quarter.

Mr. Thurtle asked the Minister of Health if he was aware that both the housing committee of the London County Council and the Manchester Corporation had recently reported that they had not discovered any reduction in prices tendered for the building of houses following the publication of his order giving notice of certain reductions in the housing subsidy; if he had any evidence to show that the reduction in tender prices which he anticipated had taken place; and, if not, would he, in view of the urgent need for houses which still existed, reconsider the question of reducing the subsidy?

Mr. Chamberlain said that according to the monthly returns furnished to his department by local authorities no contracts for the erection of subsidy houses under the Housing Acts of 1923 and 1924 had been let by the London County Council since the date of the publication of the order reducing the housing subsidy, and it was not therefore possible for him to make a comparison in the case of that authority. As regarded Manchester, he found that prices of houses included in contracts let in January last were 6d. per superficial foot less for non-parlour, and 3d. per superficial foot less for parlour-type houses than prices obtained for houses in October last. As regarded the country generally, the average prices of non-parlour houses in contracts let by local authorities during the quarter ended March last was £425, as compared with £448 for the quarter ended December, 1926, and £443 for the quarter ended September, 1926. It would be seen that those figures afforded no ground for reconsidering the decision to reduce the subsidy.

Mr. Chamberlain informed Sir W. de Frece that he anticipated being able to state the Government policy on the future of the Rent Restriction Acts before Parliament was prorogued for the summer recess.

# LAW REPORTS

### PUBLIC HEALTH ACT. BREACH OF BY-LAWS

*Attorney-General* v. *Ellis. Chancery Division. Before Mr. Justice Clauson*

In this case the Attorney-General sued, as the relation of the Uxbridge Urban District Council, the defendant for a declaration that in converting certain stables at Park Lodge, Uxbridge, he had contravened the Council's by-laws. It appeared that the stables had been converted into two maisonnettes, and this, Mr. Merriman, K.C., contended, on behalf of the Attorney-General, brought them within the definition of buildings under the Public Health Acts. The buildings, counsel added, were in breach of the by-laws, and further, no plans had been deposited with the Council.

Defendant submitted that the buildings were not subject to the by-laws, that they did not come within any statutory definition making them either a new building or the erection of a new building.

His lordship gave judgment for the Attorney-General, with costs, holding that the operations amounted to the erection of a new building within the Council's by-laws.

### ARCHITECT'S CLAIM FOR FEES

*Nield and Davy* v. *Joseph. King's Bench Division. Before Mr. Justice McCardie and a special jury*

This was an action by Mr. Geo. Ernest Nield and Mr. Clifton Robert Davy, lately carrying on partnership as Messrs. Nield and Davy, architects and surveyors, of the Outer Temple, Strand, against Mr. Hyam Joseph, of High Holborn, to recover the sum of £2,572 2s. 10d. for professional services rendered to the defendant as architects and surveyors.

Mr. Blanco White appeared for the plaintiffs, and Sir Henry Maddocks, K.C., for the defendant.

Plaintiffs are Fellows of the R.I.B.A. Plaintiffs' case was that, at an interview with the plaintiff Nield, the defendant verbally engaged the plaintiffs to act as architects and surveyors in connection with a proposed building scheme on the site of the Blue Coat School at Birmingham. The engagement of plaintiffs was subsequently confirmed, and in July 1925 the defendant verbally agreed with the plaintiffs that the fees of the plaintiffs should be in accordance with the scale of the professional charges of the R.I.B.A. This scale, plaintiffs said, was a reasonable one. From March 16, 1925, until June 2, 1926, the plaintiffs acted as architects and surveyors, and did a large amount of work in connection with the scheme, taking the defendant's instructions and considering with him the prospects of the site, etc. Plaintiffs also showed the method of development of the site and prepared complete drawings and made approximate estimates of costs. In June 1926 defendant informed plaintiffs that the scheme had been abandoned. Plaintiffs then put forward their claim for one-and-a-half per cent. of the estimated cost of the works, £171,500.

The defence set up was that in the early part of 1925 defendant hoped and intended to purchase, or to organize some syndicate or company to purchase, the land in question. It was a term that plaintiffs should not receive payment unless the defendant or some such syndicate or company, in fact, purchased the land, and that if the land were purchased the defendant would use his best endeavours to secure the employment of the plaintiffs as architects. Defendant said the plaintiffs did the work they did in the hope of being appointed architects should the estate be developed. This the plaintiffs denied.

Mr. Nield gave evidence in support of his case.

A settlement of the case was then arrived at on terms endorsed on counsels' briefs, and the juror was withdrawn.

Sir Henry Maddocks said his client appreciated that there was some misunderstanding and undoubtedly there was a misunderstanding so far as the defendant was concerned. It was quite obvious from the plaintiffs' evidence that there was a misunderstanding on the part of the defendant that the plaintiffs' fees

should be borne by the company when formed. Under these circumstances the parties had agreed terms of settlement, which were endorsed on counsels' briefs.

Mr. Blanco White said his clients, the plaintiffs, thought there might be a misunderstanding and that therefore it was a matter of compromise, and they had agreed terms which involved a judge's order if his lordship approved of the terms.

His lordship said he was glad to know that the parties had arrived at a satisfactory settlement.

Sir Henry Maddocks: It is very pleasing to say that there has not been the slightest allegation of bad faith on either side.

His lordship: I think you cross-examined plaintiff in a way which showed you recognized the plaintiffs' ability and integrity and honesty.

## SOCIETIES AND INSTITUTIONS

### *R.I.B.A. Council Meeting*

Following are notes from the minutes of the last Council meeting of the R.I.B.A.:

The Royal Gold Medal. The Council were informed that the King had approved the award of the Royal Gold Medal to Sir Herbert Baker, A.R.A.

The Registration Bill. The result of the debate on the second reading of the Registration Bill in the House of Commons was formally reported to the Council, who passed a very hearty vote of thanks to Sir Clement Kinloch-Cooke and the chairman and members of the Registration Committee.

The Preservation of Old Bridges. On the recommendation of the Art Standing Committee a grant of £100 was made to the S.P.A.B. Special Bridges Fund.

The Moorish Architecture of North Africa. It was decided to invite Mr. Arthur J. Davis to read a paper on "The Moorish Architecture of North Africa" this session.

Annual Service for Art in Westminster Abbey. It was decided to give the cordial support of the Institute to the arrangements made by the Royal Academy for the holding of an annual service for Art at Westminster Abbey.

Visit of Danish Architects. Permission for the use of the Galleries was granted to the Architectural Association for the dance to be held on May 27 in honour of the Danish architects visiting England. It was also decided to invite the Danish architects to meet the President and Council at the Exhibition of Modern British Architecture.

List of Examinations Recognized for the Probationership. It was decided to make history and geography alternative subjects in the list of subjects required to be covered by the certificates recognized for the Probationership.

The School of Architecture, Leicester College of Arts and Crafts. Recognition for exemption from the R.I.B.A. Intermediate Examination under the usual conditions was granted to this school for its three years' full-time day course.

The Victory Scholarship, 1926–1927 Competition. It was decided to grant a Certificate of Honourable Mention to the author of the drawings submitted under the motto "Sea."

Presentation of Prizes at the R.I.B.A. It was decided to institute certificates to be presented to the following prize-winners at the annual presentation of prizes: R.I.B.A. (Henry Jarvis) Student (British School at Rome); R.I.B.A. (Archibald Dawnay) Scholars; R.I.B.A. (Anderson and Webb) Scholar at Cambridge University School of Architecture; R.I.B.A. (Henry Jarvis) Student at the Architectural Association; R.I.B.A. (Howard Colls) Travelling Student at the Architectural Association; R.I.B.A. Donaldson Medallist at the Bartlett School of Architecture, University of London.

The Arthur Cates Prize. It was decided to approve the proposal of the Charity Commissioners that the amended scheme for the Arthur Cates prize should provide for the offer of an annual prize for the promotion of the study of architecture, more especially in relation to the application of geometry to vaulting, etc. (i.e. the object especially indicated by the founder), with a proviso that if in any year (either owing to absence of competitors or the fact that no work of sufficient merit is submitted) no prize is awarded, then the following year the prize shall be offered in connection with some other architectural subject, e.g. town-planning. The scheme would further provide that the income of the charity unexpended in any year should be added to the capital endowment, so that the value of the annual prize might ultimately be augmented.

The R.I.B.A. (Henry Saxon Snell) Prize. It was decided to amalgamate the R.I.B.A. (Henry Saxon Snell) Prize with that offered by the Architectural Association and to institute a Henry Saxon Snell Scholarship to be offered every third year, and administered by a Joint Committee of the R.I.B.A. and the Architectural Association, the income of the two funds being amalgamated for the purpose of providing the scholarship fund. The Council of the Architectural Association have agreed to this proposal.

The Constitution of the Board of Architectural Education. The officers of the Board of Architectural Education for the ensuing session were appointed as follows: Mr. Henry M. Fletcher, chairman; Mr. L. Sylvester Sullivan, chairman of Examinations Committee, Mr. Howard Robertson, chairman of Schools Committee, Mr. Robert Atkinson, chairman of Prizes and Scholarships Committee, vice-chairmen; Mr. W. H. Ansell, hon. secretary. It was decided that the two past-chairmen serving immediately prior to the present chairman should be ex-officio members of the Board.

The Victory Scholarship Medal. It was decided to institute a medal to be awarded with the Victory Scholarship in commemoration of members of the Society of Architects who fell in the war. A selection of *esquisse* designs for the medal has been obtained from the recognized schools of architecture, and that prepared by Mr. E. B. O'Rorke, of the Architectural Association School of Architecture has been selected as most suitable. The generous offer of a former member of the Society of Architects to defray the cost of making the dies for the medal has been accepted.

Committee on Standard Methods of Testing Small Clear Specimens of Timber. Mr. E. H. Evans, F.R.I.B.A., was appointed as the R.I.B.A. representative on a new committee set up by the British Engineering Standard Association to undertake the standardization of methods of testing small clear specimens of timber.

London Building Acts Committee. Mr. Louis D. Blanc, L.R.I.B.A., was appointed as an additional member of the London Building Acts Committee.

Forms for the Appointment of Arbitrators. On the recommendation of the Practice Standing Committee it was decided to adopt for future use two forms for the appointment of arbitrators, one form to be used when the dispute is a general one and no agreement has been made for submission to arbitration, and the other form when the dispute arises under a building contract wherein there is a submission to arbitration.

R.I.B.A. Scale of Charges. It was decided, on the recommendation of the Practice Standing Committee, that in future a loose slip should be inserted in each copy of the Scale of Charges sent out by the Institute intimating that members are advised to take the earliest opportunity of bringing the scale to the notice of their clients.

### *The Leeds and West Yorkshire Architectural Society*

The fifty-first annual meeting of the Leeds and West Yorkshire Architectural Society was held at Leeds. The Society has a membership of 258, including honorary members. The following officers and Council were elected for the session 1927-28: President, Col. Albert E. Kirk, O.B.E., A.R.I.B.A.; vice-presidents, Messrs. Victor Bain, A.R.I.B.A., and F. L. Charlton, A.R.I.B.A.; hon. treasurer, Mr. Wm. Whitehead, A.R.I.B.A.; hon. librarian, Mr. F. W. H. Allison, A.R.I.B.A.; hon. secretary and representative R.I.B.A. Council, Mr. T. Butler Wilson, F.R.I.B.A. Members of Council: Messrs. Douglas Bowman, Norman Culley, F.R.I.B.A., J. E. Stocks, J. F. Walsh, F.R.I.B.A., G. H. Foggitt, A.R.I.B.A., A.R.C.A., and Joseph Addison, M.C., A.R.I.B.A.

## COMPETITION CALENDAR

*The conditions of the following competitions have been received by the R.I.B.A.*

*June* 15. Shakespeare National Memorial Theatre, Stratford-upon-Avon. The competition is open to architects of the British Isles and America. It will be in two sections—a preliminary competition for sketch design only, from which six designs will be selected by the assessors; each of the selected competitors will be paid £100 premium towards the cost of preparing a further more detailed design, which will form the second half of the competition. The selected architect will be paid in accordance with the Schedule of Charges sanctioned by the R.I.B.A. Assessors, Mr. E. Guy Dawber, P.R.I.B.A., and Mr. Cass Gilbert, who will both act in an honorary capacity, and Mr. Robert Atkinson, F.R.I.B.A. Particulars, with site plan, etc., from the Secretary, Shakespeare Memorial Theatre, Stratford-upon-Avon. Deposit £1 1s., which will be refunded should the conditions be returned within one month.

*June* 30. Designs for the planning of the Civic Centre, Birmingham. Assessor, Mr. H. V. Lanchester, F.R.I.B.A. Premium of £1,000 to the design placed first, and a further sum not exceeding £1,000 divided between the authors of other approved designs. Particulars from Mr. Herbert H. Humphries, M.INST.C.E., City Engineer and Surveyor. Deposit £1 1s., which will be returned after the receipt of a design or the return of the documents supplied.

*June* 30. New school for 1,000 boys for the Governors of the Bradford Grammar School. Premiums, £300, £200, and £100. Assessor, Mr. Arnold Mitchell, F.R.I.B.A. Particulars and plan of site from Mr. W. Brear, Secretary, Grammar School, Bradford, Yorks. Deposit £1 1s.

*The conditions of the following competitions have not as yet been brought to the notice of the R.I.B.A.*

*July* 1. The Reading Corporation invite architects residing or practising in Berkshire, Buckinghamshire, or Oxfordshire, to submit, in open competition, designs for a chapel which it is proposed to erect in a new cemetery. A premium of 50 guineas will be awarded to the author of the design placed first by the assessor, Mr. Charles J. Blomfield, F.R.I.B.A., and twenty-five guineas to the author of the design placed second. Particulars from the Borough Surveyor, Town Hall, Reading. Deposit £2 2s., which will be returned after receipt of a *bona fide* design. Should architects, on receipt of the particulars, not desire to compete, the deposits will be repaid provided the papers are returned within four weeks. Designs in sealed packages, endorsed "Design for Chapel," to Mr. Charles J. Blomfield, F.R.I.B.A., 13 Ashburn Gardens, London, S.W.7.

*No date.* New municipal technical college and school of art for Rotherham Education Committee. Premiums: £200, £100, and £50. Assessor, Professor S. D. Adshead, F.R.I.B.A. Instructions to architects and site plan from Mr. J. A. Mair, Secretary for Education, Education Offices, Rotherham. Deposit one guinea, cheques to be made payable to the borough treasurer. The last date for the receipt of applications for instructions, etc., is April 30.

## COMPETITION NEWS

### *The League of Nations Competition*

The International Jury of Architects which, for the past six weeks, has been examining the thousands of designs submitted in the world's competition for the construction of a new headquarters for the Secretariat and Assembly of the League of Nations, has given its decision. The jury declares, according to the *Times*, that though the competition has produced an extraordinary wealth of valuable suggestions and many original designs, the results do not justify the recommendation that any of the designs submitted should be carried out. In the absence of a suitable design, the jury has divided the prize money of 165,000 Swiss francs into nine prizes of 12,000 Swiss francs (£480) and a number of honourable mentions of less monetary value. No British architect has received a prize, though it is understood that some hundreds of designs were received from Great Britain. The nine best designs were submitted by the following: Carlo Broggi, Giuseppe Vaccaro, and Luigi Franzi (Rome); Nils Einar Eriksson (Stockholm); Camille Lefèvre (Paris); M. Corbusier and P. Jeanneret (Paris); Erick Zuputlitz, Rudolf Klophaus, and August Scheck (Hamburg); Georges Labro (Paris); Professor Emil Fahrenkamp and Albert Beneke (Düsseldorf); Julien Flegenheimer (Geneva) and H. P. Henot (Paris); Giuseppe Vago (Rome). The next step in regard to the new headquarters for the League rests with the General Assembly in September.

## TRADE NOTES

The annual general meetings of E. Pollard & Co., Ltd., and E. Pollard (Sundries), Ltd., were held on May 10. The profits of the combined companies for 1926 were £37,718, after providing for depreciation, etc., and all management expenses, plus £34,366 brought forward—total £72,084. The dividend on the preference shares has been paid, also 10 per cent. on the ordinary shares of E. Pollard & Co., Ltd., and 7 per cent. on the ordinary shares of E. Pollard (Sundries), Ltd., leaving £41,052 to carry forward after reserving for income tax. The retiring directors, Messrs. H. E. Pollard, A. C. Caldicott, E. B. Richardson, and J. G. Edwards, were re-elected. Last year's profits were £46,065.

The motor travelling exhibit of the National Radiator Company Limited, containing a working installation of the Ideal Cookanheat and Ideal Classic Radiators, will be demonstrated on May 12 on the east side of the Municipal Buildings, West Hartlepool. On the afternoon of May 13 and up to and including May 16, demonstrations will be given in the Market Place, Darlington.

A dinner was given by Messrs. W. H. Gaze and Sons, Ltd., to their employee shareholders at Kingston-on-Thames. Mr. W. H. Gaze, proposing the toast of "Our Co-partners," said that the co-partnership scheme began in 1910, and had gone on year by year until they had built up the business they had today, which was a very successful undertaking. In the first year, 1910, there were about 5,637 co-partnership shares; today there were 191,000. This was a splendid record of progress. Mr. R. H. Limming, in responding, outlined the advantages of co-partnership, both as regards providing additional interest in one's work, and "the excellent dividends which have been maintained since the inauguration of the company." Mr. J. G. White proposed the toast of "The Ladies," and Miss Browne responded.

## THE CARLTON THEATRE

Following are the names of the contractors and sub-contractors of the Carlton Theatre, for the Carlton Theatre Company, Ltd., by Frank T. Verity, F.R.I.B.A., illustrated on pages 647 to 652. General contractor, Arthur Vigor, Ltd.; clerk of works, Mr. John Rendall. Sub-contractors for the structure: Greenham's, demolition; F. H. Pride, lay lights; Expanded Metal Co., expamet work; J. W. Gray & Co., lightning conductor; Thos. Faldo & Co., asphalt; Novocrete and Cement Products, steppings to royal circle; F. Bradford & Co., concrete steppings to circle and staircases; Ham Hill and Doulting Stone Co., stone; F. Bradford & Co., artificial stone; Moreland, Hayne & Co., structural steel; Frank Burkitt, gridiron and curtain; Gimson & Co., special counterweighting; Knight & Co., curtain controls; Carter & Co., mosaic work; F. Fell, general painting work; Alfred Goslett, mirrors and glazing; J. Chater & Co., patent glazing; Marc Henri and Laverdet, decorative artists; Acme Flooring Co., wood-block flooring; Marbello, Ltd., patent flooring. Sub-contractors for the equipment: Young, Austen and Young, heating and hot-water service; Sturtevant Engineering Co., vacuum cleaning installation; E. J. and A. T. Bradford, stone carving; Davey Paxman & Co., boilers; Berkeley Electrical Engineering Co., electric wiring and electric light fixtures; General Electric Co., Cyclorama and Schwabe-Hasait lighting apparatus; Carrier Engineering Co., ventilation; A. Grant and Sons, plumbing; John Bolding and Sons, sanitary fittings; Comyn Ching, door and window furniture; Helliwell & Co., casements; Sinclair & Co., hydrants, etc.; Mather and Platt, automatic sprinklers; S. W. Francis & Co., rolling shutters; J. A. King & Co., pavement lights; Light Steelwork Ltd., iron staircases. Sub-contractors for decoration and specialities: G. Jackson and Sons, decorative plaster; Comyn Ching, metalwork and cloakroom fittings; Allensor, Ltd., joinery; Ham Hill and Doulting Stone Co., stonework; Fenning & Co., marble; Carter & Co., tiling; Waring and Gillow, textiles and furniture; E. Pollard & Co., pay-boxes; Waygood-Otis, lifts; Berkeley Electrical Engineering Co., clocks.

# THE WEEK'S BUILDING NEWS

An elementary school is to be built at BECONTREE at a cost of £35,000.

*

Messrs. P. E. Brand, Ltd., are to erect shops at the junction of Beehive Lane and Eastern Avenue, ILFORD.

*

A new telephone exchange is to be built at EAST FINCHLEY.

*

In connection with the development of Sea Mills housing estate, the BRISTOL Town Council has decided to widen the Avonmouth Road at an estimated cost of £13,000.

*

The Scottish Board of Health has sanctioned the purchase by the AIRDRIE Corporation of the lands of Whinhall, and of the lay-out and type plans of the new slum clearance housing scheme for the erection of 160 flatted houses (120 of three apartments and forty of two apartments).

*

Application has been made by the LONDON Power Company, Ltd., to the Electricity Commissioners for consent to the establishment of a generating station for the purposes of the London Electricity (No. 2) Act, 1925. The site of the proposed station, about 15 acres in extent, is situate between the south bank of the River Thames and the Great Western Railway goods depot in Battersea Park Road.

*

The Finance Committee of the CARSHALTON Council recommend that application be made to the Ministry of Health for sanction to the raising of the following loans: £25,000 for advances to builders under the Housing Act; £10,000 for subsidies under the Housing Act, 1923; £3,000 for private street works in Wallace Crescent, Weihurst Gardens, and The Chase; £1,850 for buildings and works at Stanley Park.

*

The Housing Committee of the TREDEGAR Rural District Council is considering the question of applying to the Ministry of Health for sanction to proceed with the second instalment of the second hundred houses at Ashvale.

*

A new church is to be built in Appleton Road, WOOLWICH.

*

Two churches and a Salvation Army hall are to be built on the Woolwich Council estate at ELTHAM.

*

The BOLTON Corporation has approved plans submitted by Mr. Flintoff Moorhouse for the conversion of a school in Fern Street into a picture house.

The Norhyrst estate, in SOUTH NORWOOD, is about to be built upon.

*

The BOLTON Corporation is to seek sanction to grant a further 100 housing subsidies.

*

An agreement has been reached between the MARYLEBONE Borough Council and Madame Tussaud's (1926), Ltd., which will enable the Marylebone Road to be widened during the coming summer for a distance of 100 yards. The improvement will be made in connection with the rebuilding of Madame Tussaud's, the whole of the old forecourt, which is 25 ft. in width, being surrendered. This will enable the carriage way to be widened by 20 ft. and give a footway 16 ft. wide. The site is to be occupied by a super cinema to seat 1,700 people, a restaurant, and the new waxwork exhibition, and it is hoped to open all three by Christmas.

*

Plans for seventy-nine new houses and three bungalows were passed at the last meeting of the EALING Town Council.

*

The Newcastle Corporation Town Improvement Committee has passed plans for a new picture hall to be erected at the junction of Westgate Road and Gowland Avenue. The new hall is to accommodate 1,500 persons. The ground floor at the front will be occupied by shops.

*

Plans passed by the BOLTON Corporation: Tennis pavilion, Seymour Road, for the All Souls' Tennis Club; extension to tearooms and shelters, Sharples Park, for Messrs. Barlow and Jones, Ltd.; pattern stores, Bark Street, for Messrs. Ryder Bros.; alterations, 13 Newport Street, for Messrs. J. Hilliard and Sons; extensions, Dove Mill, Deane Church Lane, for the Dove Spinning Co., Ltd.; ten houses, Leighton Avenue, for Mr. Joseph Uttley; four houses, Regent Road, for Mr. W. Reddyhough; alterations, "Farmers' Arms," Derby Street, for Mr. J. Hamer; alterations to "Rope and Anchor," Kay Street, for Mr. W. T. Settle; shop premises, Knowsley Street, for the Whitehead Estate Co., Ltd.; bank premises, Derby Street, for the Manchester and County Bank, Ltd.; twenty-one houses, Crompton Crescent, for Messrs. Haworth and Kilburn.

*

Plans passed by the WARRINGTON Corporation: Sixteen houses, Grantham Avenue, for Mr. J. Broadhurst; sections of new roads off Queen's Avenue for Mr. J. Broadhurst; fourteen houses, Thelwall Lane, for Messrs. J. P. Booth and Son; bakehouse, 10 Florence Street, for Messrs. P. and L. Walker.

Plans passed by the GLOSSOP Corporation: New works and bridge, Derby Street, for Messrs. J. Hadfield and Sons; shop and alterations, 55 High Street West, for Messrs. Bowdens, Ltd.; two houses, Fauvel Road, for Mr. Harold Broadhurst and Mr. Frank H. Cook.

*

Plans passed by the OLDHAM Corporation: Waiting-room, St. Mary's R.C. Church, Siddall and Shaw Streets, for the trustees; two houses, Edge Lane Road, for Mr. Geo. Crossley; six houses, Oriel Avenue, for Messrs. W. and H. Bloor, Ltd.; ten houses, New Road, for Mrs. Helen Collins; extensions, St. Aidan's Mission, Cranbrook Street, for the trustees; extension to laundry, Collier Hill, Chamber Road, for Mr. R. J. Ashworth; two houses, Turf Pits Lane, for Messrs. Wm. Lees, Ltd.

*

The Herts County Council, after negotiation with the Board of Control, recommends the erection on the Hill End Mental Hospital estate, near ST. ALBANS, of an institution for mental defectives, such institution to provide immediate accommodation for 600 patients and an administrative block for 600 patients, at an estimated cost of £186,000.

*

The BERKHAMSTED R.D.C. is acquiring a site in High Street, Northchurch, for the erection of offices.

*

The Lancashire Education Committee has purchased a site at TARLETON for the erection of an elementary school.

*

The Lancashire Education Committee is seeking sanction for a loan of £17,350 for the erection and equipment of a central school at IRLAM.

*

The Lancashire Education Committee has acquired land at NEWCHURCH for the erection of an elementary school.

*

The SMETHWICK Corporation has obtained consent to a scheme for the erection of 108 houses on land in Warley Road.

*

Plans passed by the SMETHWICK Corporation: New road, Dibble estate, for Estate Company; alterations, Conservative Club, High Street, for committee; nine houses, White Road, for Messrs. W. Lees and Sons; ten houses, Hugh Road, for Messrs. Strong Bros.; shop, High Street, for Messrs. Peacocks, Ltd.; extensions, North Works Foundry, for Midland Motor Cylinder Co., Ltd.; extensions, Surrey Works, for Messrs. Evered & Co., Ltd.; extensions, Soho Foundry, for Messrs. W. and T. Avery, Ltd.

Plans passed by the CHELTENHAM Corporation: Four houses, Naunton Place, for Mr. T. W. Smith; additions, 28 Promenade, for Messrs. Sarsfield, Walsh & Co.; shop, Belle Vue Place, for Messrs. Griffiths Bros.

*

The BOLTON Watch Committee has passed amended plans submitted by Mr. Frank S. Hampson for structural alterations at the Rumworth Cinema.

*

The trustees of the Wesleyan Church are to erect schoolrooms in Norris Street, WARRINGTON.

*

Plans passed by the OSSETT Corporation: Alterations, "Carpenters' Arms," Bank Street, for John Smith's Tadcaster Brewery Co., Ltd.; office off Nettleton Street, for Mr. Luther Ingham.

*

The NEWCASTLE Corporation has adopted a proposal for the provision of an additional tuberculosis pavilion at Walker Gate Hospital, the estimated cost of the work, including furnishings, being £10,830.

*

Messrs. Gibbs, Flockton and Gibbs have prepared a design of a proposed new church to be erected on the Manor estate, SHEFFIELD. The proposal is to erect the building in reinforced concrete and artificial stone; the reinforced piers will be faced with coloured cement to match the stonework.

*

Plans passed by the SHEFFIELD Corporation: Three houses, Hartingdon Avenue, for Messrs. Plant Bros.; four houses, Arbourthorne Road, for Messrs. Mason and Robinson; four houses, High Storrs Road, for Mr. Riley Watson; six houses, Dalewood Road, for Messrs. Smith and Hawley; fourteen houses, shops, and thirteen garages, road off Pingle Road, for Earl Fitzwilliam; four houses, Newlyn Road, for Mr. F. Wolstenholme; six houses, Truswell Road, for Mr. J. H. Freeborough; four houses, Huntley, Edale, and Falkland Roads, for Mr. R. Ramsden; five houses, Langsett Avenue and Milden Road, for Mr. P. H. Slater; six houses, Dalewood Road, for Mr. J. W. Bailey; six houses, Woodseats and Todwick Roads, for Mr. Jos. Enock; one house and school, Prince of Wales and Pipworth Roads, for the Sheffield Education Committee; four houses Myrtle Road, for Messrs. T. Wilkinson and Sons, Ltd.

*

The LEEDS Corporation Gas Committee has further considered the question of erection of new workshops and offices, etc., at the junction of New York Road and Bridge Street, and agreed on a modified scheme for the erection of a one-story portion of the proposed new gas depot at an estimated cost of £55,000.

Messrs. Thomas Winn and Sons, architects, are to rebuild the Yew Tree Inn, Ellerby Lane, LEEDS.

*

Messrs. Thomas Winn and Sons, architects, have prepared plans for the rebuilding of the Old Hall Inn, at the junction of Kelsall Street and Wade Lane, LEEDS.

*

The LEEDS Corporation is seeking approval to the granting of a further 500 housing subsidies.

*

Plans passed by the LEEDS Corporation: Four houses, Water Lane, Farnley, for Mr. Albert Hustwit; twelve houses, Skelton Terrace and Ings Road, on the White Horse estate, for Mr. Albert Cryer; three houses, Barwick Road, Stanks, for Mr. F. B. Booth; four houses, Scott Hall Road, and Wensley Drive, Chapel Allerton, for Messrs. W. Batty & Co.; twenty houses, Easterly Crescent, Harehills, for Messrs. C. H. and F. Lax.

*

The LEEDS Corporation Electricity Committee has obtained consent of the Electricity Commissioners to the establishment of the new generating station at Kirkstall, and appointed the chairman, deputy-chairman, and Councillor J. H. Walker to consider and report generally upon the question of the making of any necessary appointments in connection with the establishment of the new station.

*

Plans have been prepared by Messrs. Benfield and Loxley for the development of a housing estate on the south-west side of Cowley Road, beyond the OXFORD City boundary.

*

Sketch plans have been submitted to the Notts County Council for a new cinema theatre, to be known as The Regent Picture Palace, to be erected at RETFORD.

*

The RIPON Corporation is to erect forty-six houses on the Aismunderby estate at a cost of £20,850, which sum includes road construction.

*

Plans have been prepared by the RIPON Board of Guardians for alterations at the Poor Law Institution.

*

The WIMBLEDON Corporation Electricity Committee has obtained sites for the erection of three substations in Albany Road, New Malden, Kingston Road, Merton, and Egmont Road, New Malden.

*

The MANCHESTER Markets Committee is considering a report of the city architect for the provision of additional lairage accommodation at the city abattoirs.

A church for the Smethwick Spiritualists is to be erected in Church Lane, SMETHWICK.

*

The BOLTON Corporation has obtained sanction to borrow £150,000 for further housing advances.

*

The WIMBLEDON Corporation Housing Committee is discussing the possibility of erecting further working-class dwellings on a site or sites within the borough.

*

Plans passed by the WATFORD Corporation: Eight houses, Haydon Road, for Mr. P. W. Jaggard; ten houses, Cassiobury Avenue, for Messrs. C. Brightman and Son; new shop premises, 162-164 High Street, for Mr. W. Le Vay; extension of storage sheds, Chester Road, for the Standard Range and Foundry Co.; workshop, Euston Avenue, for Mr. H. Robinson; twelve houses, Bushey Mill Crescent, for Messrs. W. Wilkins and Son; addition to factory, Tolpits Lane, for Messrs. Scammells; shop premises, Beechen Grove, for Mr. S. W. Hewitt; addition to factory, Stanborough Park, for Messrs. Granose Foods, Ltd.; eight houses, Woodland Drive, for the Headstone Manor Estates Co.; twelve houses, for Mr. A. J. Eldridge; additions to factory, High Street, for Messrs. Reeve, Ayles.

*

Mr. F. E. Fisher has prepared plans for alterations and additions to the National Schools, Church Street, WATFORD.

*

The Governors of the Girls' Grammar School, Lady's Close, WATFORD, have prepared a scheme for additions.

*

The WATFORD Corporation proposes to have designs prepared for a library at Little Nascot.

*

The Cardiganshire Education Committee is acquiring a site in CARDIGAN for the erection of a secondary school.

*

The NOTTINGHAM Education Committee has decided to provide an elementary school for about 1,000 children in the Beeston district.

*

The president and chairman of the HULL Royal Infirmary are raising £150,000 for the provision of a hospital annexe at Sutton.

*

The DURHAM County Education Committee has arranged that sketch plans be prepared for a mining centre at West Stanley.

*

The MANCHESTER city architect has prepared plans for the erection of a motor-bus garage in Queen's Road, the cost being estimated at £20,000.

# RATES OF WAGES

| | | | I | II |
|---|---|---|---|---|
| | | | s. d. | s. d. |
| A | ABERDARE | S. Wales & M. | 1 8 | 1 3½ |
| A₁ | Abergavenny | S. Wales & M. | 1 7½ | 1 2½ |
| B | Abingdon .. | S. Counties | 1 6 | 1 1½ |
| A | Accrington | N.W. Counties | 1 8 | 1 3½ |
| A₃ | Addlestone | S. Counties | 1 6½ | 1 2 |
| A | Adlington .. | N.W. Counties | 1 8 | 1 3½ |
| A | Airdrie .. | Scotland | *1 8 | 1 3½ |
| C₁ | Aldeburgh | E. Counties | 1 4 | 1 0½ |
| A | Altrincham | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Appleby .. | N.W. Counties | 1 4½ | 1 0½ |
| A | Ashton-under-Lyne | N.W. Counties | 1 8 | 1 3½ |
| A₃ | Atherstone | Mid. Counties | 1 6½ | 1 2 |
| B₃ | Aylesbury .. | S. Counties | 1 4½ | 1 0½ |
| B₃ | BANBURY | S. Counties | 1 4½ | 1 0½ |
| B₃ | Bangor .. | N.W. Counties | 1 5 | 1 1 |
| A | BarnardCastle | N.E. Coast | 1 8 | 1 3½ |
| A | Barnsley .. | Yorkshire | 1 8 | 1 3½ |
| B₁ | Barnstaple | S.W. Counties | 1 5½ | 1 1½ |
| A | Barrow .. | N.W. Counties | 1 8 | 1 3½ |
| A | Barry .. | S. Wales & M. | 1 8 | 1 3½ |
| B₃ | Basingstoke | S.W. Counties | 1 4½ | 1 0½ |
| B | Bath .. | S.W. Counties | 1 6 | 1 1½ |
| A | Batley .. | Yorkshire | 1 8 | 1 3½ |
| B | Bedford .. | E. Counties | 1 6 | 1 1½ |
| A₃ | Berwick-on-Tweed | N.E. Coast | 1 7 | 1 2½ |
| A₂ | Bewdley .. | Mid. Counties | 1 7 | 1 2½ |
| B₃ | Bicester .. | Mid. Counties | 1 4½ | 1 0½ |
| A | Birkenhead | N.W. Counties | *1 10 | 1 4½ |
| A | Birmingham | Mid. Counties | 1 8 | 1 3½ |
| A | Bishop Auckland | N.E. Coast | 1 8 | 1 3½ |
| A | Blackburn | N.W. Counties | 1 8 | 1 3½ |
| A | Blackpool | N.W. Counties | 1 8 | 1 3½ |
| A | Blyth .. | N.E. Coast | 1 8 | 1 3½ |
| B₃ | Bognor .. | S. Counties | 1 4½ | 1 0½ |
| A | Bolton .. | N.W. Counties | 1 8 | 1 3½ |
| A₃ | Boston .. | Mid. Counties | 1 6½ | 1 2 |
| B₁ | Bournemouth | S. Counties | 1 6 | 1 1½ |
| B₂ | Bovey Tracey | S.W. Counties | 1 5 | 1 1 |
| A | Bradford .. | Yorkshire | 1 8 | 1 3½ |
| A₃ | Brentwood | E. Counties | 1 7 | 1 2½ |
| A | Bridgend .. | S. Wales & M. | 1 8 | 1 3½ |
| B₂ | Bridgwater | S.W. Counties | 1 5 | 1 1 |
| A₁ | Bridlington | Yorkshire | 1 7½ | 1 2½ |
| A | Brighouse | Yorkshire | 1 8 | 1 3½ |
| B₁ | Brighton .. | S. Counties | 1 6 | 1 1½ |
| A | Bristol .. | S.W. Counties | 1 8 | 1 3½ |
| B₃ | Brixham .. | S.W. Counties | 1 4½ | 1 0½ |
| A₂ | Bromsgrove | Mid. Counties | 1 7 | 1 2½ |
| C | Bromyard .. | Mid. Counties | 1 4 | 1 0½ |
| A | Burnley .. | N.W. Counties | 1 8 | 1 3½ |
| A | Burslem .. | Mid. Counties | 1 8 | 1 3½ |
| A₃ | Burton-on-Trent | Mid. Counties | 1 7 | 1 2½ |
| A | Bury .. | N.W. Counties | 1 8 | 1 3½ |
| A₁ | Buxton .. | N.W. Counties | 1 7½ | 1 2½ |
| B | CAMBRIDGE | E. Counties | 1 6 | 1 1½ |
| B₃ | Canterbury | S. Counties | 1 4½ | 1 0½ |
| A | Cardiff .. | S. Wales & M. | 1 8 | 1 3½ |
| A | Carlisle .. | N.W. Counties | 1 8 | 1 3½ |
| B | Carmarthen | S. Wales & M. | 1 6 | 1 1½ |
| B₂ | Carnarvon | N.W. Counties | 1 5 | 1 1 |
| A₁ | Carnforth .. | N.W. Counties | 1 7½ | 1 2½ |
| A | Castleford | Yorkshire | 1 8 | 1 3½ |
| B₁ | Chatham .. | S. Counties | 1 5½ | 1 1½ |
| B₁ | Chelmsford | E. Counties | 1 5½ | 1 1½ |
| A₃ | Cheltenham | S.W. Counties | 1 6½ | 1 2 |
| A | Chester .. | N.W. Counties | 1 8 | 1 3½ |
| A | Chesterfield | Mid. Counties | *1 8 | 1 3½ |
| B₃ | Chichester | S. Counties | 1 4½ | 1 0½ |
| A | Chorley .. | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Cirencester | S. Counties | 1 5 | 1 1 |
| A | Clitheroe .. | N.W. Counties | 1 8 | 1 3½ |
| A | Clydebank | Scotland | 1 8 | 1 3½ |
| A | Coalville .. | Mid. Counties | 1 8 | 1 3½ |
| B₁ | Colchester .. | E. Counties | 1 5½ | 1 1½ |
| A | Colne .. | N.W. Counties | 1 8 | 1 3½ |
| B₁ | Colwyn Bay | N.W. Counties | 1 5½ | 1 1½ |
| A | Consett .. | N.E. Coast | 1 8 | 1 3½ |
| B₁ | Conway .. | N.W. Counties | 1 5½ | 1 1½ |
| A | Coventry .. | Mid. Counties | 1 8 | 1 3½ |
| A₃ | Crewe .. | N.W. Counties | 1 6½ | 1 2 |
| A₃ | Cumberland | ..... | 1 6½ | 1 2 |
| A | DARLINGTON | N.E. Coast | 1 8 | 1 3½ |
| A | Darwen .. | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Deal .. | S. Counties | 1 4½ | 1 0½ |
| B₁ | Denbigh .. | N.W. Counties | 1 5½ | 1 1½ |
| A | Derby .. | Mid. Counties | 1 8 | 1 3½ |
| A | Dewsbury .. | Yorkshire | 1 8 | 1 3½ |
| B | Didcot .. | S. Counties | 1 6 | 1 1½ |
| A | Doncaster .. | Yorkshire | 1 8 | 1 3½ |
| C₁ | Dorchester | S.W. Counties | 1 4 | 1 0½ |
| A₃ | Driffield .. | Yorks | 1 6½ | 1 2 |
| A₂ | Droitwich .. | Mid. Counties | 1 6½ | 1 2 |
| A₁ | Dudley .. | Mid. Counties | 1 7½ | 1 2½ |
| A | Dundee .. | Scotland | 1 8 | 1 3½ |
| A | Durham .. | N.E. Coast | 1 8 | 1 3½ |
| B₁ | EASTBOURNE | S. Counties | 1 6 | 1 1½ |
| A | Ebbw Vale | S. Wales & M. | 1 8 | 1 3½ |
| A | Edinburgh | Scotland | 1 8 | 1 3½ |
| A | E. Glamorganshire & Monmouthshire | S. Wales & M. | 1 8 | 1 3½ |
| B | Exeter .. | S.W. Counties | *1 7 | 1 2½ |
| B₂ | Exmouth .. | S.W. Counties | 1 5 | 1 1 |
| B | FELIXSTOWE | E. Counties | 1 6 | 1 1½ |
| A₃ | Filey .. | Yorks | 1 6½ | 1 2 |
| A | Fleetwood .. | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Folkestone | S. Counties | 1 5 | 1 1 |
| A | Frodsham .. | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Frome .. | S.W. Counties | 1 4½ | 1 0½ |
| A | GATESHEAD | N.E. Coast | 1 8 | 1 3½ |
| B₁ | Gillingham | S. Counties | 1 5½ | 1 1½ |
| A₃ | Gloucester | S.W. Counties | 1 6½ | 1 2 |
| A₃ | Goole .. | Yorkshire | 1 7 | 1 2½ |
| B | Gosport .. | S. Counties | 1 6 | 1 1½ |
| A₃ | Grantham | Mid. Counties | 1 6½ | 1 2 |
| A₁ | Gravesend | S. Counties | 1 7½ | 1 2½ |
| A | Greenock .. | Scotland | *1 8 | 1 3½ |
| A | Grimsby .. | Yorkshire | 1 8 | 1 3½ |
| B₁ | Guildford .. | S. Counties | 1 5½ | 1 1½ |
| A | HALIFAX .. | Yorkshire | 1 8 | 1 3½ |
| A | Hanley .. | Mid. Counties | 1 8 | 1 3½ |
| A | Harrogate | Yorkshire | 1 8 | 1 3½ |
| A | Hartlepools | N.E. Coast | 1 8 | 1 3½ |
| B₂ | Harwich .. | E. Counties | 1 5 | 1 1 |
| B₃ | Hastings .. | S. Counties | 1 4½ | 1 0½ |
| B₁ | Hatfield .. | S. Counties | 1 5½ | 1 1½ |
| B | Hereford .. | S. W. Counties | 1 6 | 1 1½ |
| B | Hertford .. | E. Counties | 1 5½ | 1 1½ |
| A₁ | Heysham .. | N.W. Counties | 1 7½ | 1 2½ |
| A | Howden .. | N.E. Coast | 1 8 | 1 3½ |
| A | Huddersfield | Yorkshire | 1 8 | 1 3½ |
| A | Hull .. | Yorkshire | 1 8 | 1 3½ |

The initial letter opposite each entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains, is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

| | | | I | II |
|---|---|---|---|---|
| | | | s. d. | s. d. |
| A | ILKLEY .. | Yorkshire | 1 8 | 1 3½ |
| A | Immingham | Mid. Counties | 1 8 | 1 3½ |
| B | Ipswich .. | E. Counties | 1 6 | 1 1½ |
| C₁ | Isle of Wight | S. Counties | 1 4 | 1 0½ |
| A | JARROW .. | N.E. Coast | 1 8 | 1 3½ |
| A | KEIGHLEY | Yorkshire | 1 8 | 1 3½ |
| B₁ | Kendal .. | N.W. Counties | 1 5½ | 1 1½ |
| B₁ | Keswick .. | N.W. Counties | 1 5½ | 1 1½ |
| B | Kettering .. | Mid. Counties | 1 6 | 1 1½ |
| A₃ | Kidderminster | Mid. Counties | 1 7 | 1 2½ |
| B₂ | King's Lynn | E. Counties | 1 5 | 1 1 |
| A | LANCASTER | N.W. Counties | 1 8 | 1 3½ |
| A₂ | Leamington | Mid. Counties | 1 7 | 1 2½ |
| A | Leeds .. | Yorkshire | 1 8 | 1 3½ |
| A | Leek .. | Mid. Counties | 1 8 | 1 3½ |
| A | Leicester .. | Mid. Counties | 1 8 | 1 3½ |
| A | Leigh .. | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Lewes .. | S. Counties | 1 4½ | 1 0½ |
| A₃ | Lichfield .. | Mid. Counties | 1 6½ | 1 2 |
| A | Lincoln .. | Mid. Counties | 1 8 | 1 3½ |
| A | Liverpool .. | N.W. Counties | *1 10 | 1 4½ |
| B | Llandudno | N.W. Counties | 1 5½ | 1 1½ |
| A | Llanelly .. | S. Wales & M. | 1 8 | 1 3½ |
| | London (12 miles radius) | | 1 9½ | 1 4½ |
| | Do. (12-15 miles radius) | | 1 9 | 1 4 |
| A | Long Eaton | Mid. Counties | 1 8 | 1 3½ |
| A | Loughborough | Mid. Counties | 1 8 | 1 3½ |
| B | Luton .. | E. Counties | 1 6 | 1 1½ |
| A | Lytham .. | N.W. Counties | 1 8 | 1 3½ |
| A₁ | MACCLESFIELD | N.W. Counties | 1 7½ | 1 2½ |
| B | Maidstone | S. Counties | 1 5½ | 1 1½ |
| A₃ | Malvern .. | Mid. Counties | 1 6½ | 1 2 |
| A | Manchester | N.W. Counties | 1 8 | 1 3½ |
| A | Mansfield .. | Mid. Counties | 1 8 | 1 3½ |
| B₃ | Margate .. | S. Counties | 1 4½ | 1 0½ |
| A₃ | Matlock .. | Mid. Counties | 1 6½ | 1 2 |
| A | Merthyr .. | S. Wales & M. | 1 8 | 1 3½ |
| A | Middlesbrough | N.E. Coast | 1 8 | 1 3½ |
| A₃ | Middlewich | N.W. Counties | 1 6½ | 1 2 |
| B₂ | Minehead .. | S.W. Counties | 1 5 | 1 1 |
| A | Monmouth S. and E. Glamorganshire | S. Wales & M. | 1 8 | 1 3½ |
| A₁ | Morecambe | N.W. Counties | 1 7½ | 1 2½ |
| A₃ | NANTWICH | N.W. Counties | 1 6½ | 1 2 |
| A | Neath .. | S. Wales & M. | 1 8 | 1 3½ |
| A | Nelson .. | N.W. Counties | 1 8 | 1 3½ |
| A | Newcastle .. | N.E. Coast | 1 8 | 1 3½ |
| A | Newport .. | S. Wales & M. | 1 8 | 1 3½ |
| A | Normanton | Yorkshire | 1 8 | 1 3½ |
| A₂ | Northampton | Mid. Counties | 1 7 | 1 2½ |
| A | North Staffs. | Mid. Counties | 1 8 | 1 3½ |
| A | North Shields | N.E. Coast | 1 8 | 1 3½ |
| A₃ | Norwich .. | E. Counties | 1 6½ | 1 2 |
| A | Nottingham | Mid. Counties | 1 8 | 1 3½ |
| A | Nuneaton .. | Mid. Counties | 1 8 | 1 3½ |
| B | OAKHAM .. | Mid. Counties | 1 5½ | 1 1½ |
| A | Oldham .. | N.W. Counties | 1 8 | 1 3½ |
| A₃ | Oswestry .. | Mid. Counties | 1 6½ | 1 2 |
| B | Oxford .. | S. Counties | 1 6 | 1 1½ |
| A | PAISLEY .. | Scotland | *1 8 | 1 3½ |
| C | Pembroke | S. Wales & M. | 1 4½ | 1 0½ |
| A | Perth .. | Scotland | *1 8 | 1 3 |
| A₃ | Peterborough | Mid. Counties | 1 6½ | 1 2 |
| A | Plymouth | S.W. Counties | *1 8 | 1 3½ |
| A | Pontefract | Yorkshire | 1 8 | 1 3½ |
| A | Pontypridd | S. Wales & M. | 1 8 | 1 3½ |
| B | Portsmouth | S. Counties | 1 6 | 1 1½ |
| A | Preston .. | N.W. Counties | 1 8 | 1 3½ |
| A | QUEENSFERRY | N.W. Counties | 1 8 | 1 3½ |
| B | READING .. | S. Counties | 1 6 | 1 1½ |
| B | Reigate .. | S. Counties | 1 5½ | 1 1½ |
| A | Retford .. | Mid. Counties | 1 6½ | 1 2 |
| A | Rhondda Valley | S. Wales & M. | 1 8 | 1 3½ |
| A₃ | Ripon .. | Yorkshire | 1 6½ | 1 2 |
| A | Rochdale .. | N.W. Counties | 1 8 | 1 3½ |
| B | Rochester | S. Counties | 1 5½ | 1 1½ |
| A₁ | Ruabon .. | N.W. Counties | 1 7½ | 1 2½ |
| A₂ | Rugby .. | Mid. Counties | 1 8 | 1 3½ |
| A₃ | Rugeley .. | Mid. Counties | 1 6½ | 1 2 |
| A | Runcorn .. | N.W. Counties | 1 8 | 1 3½ |
| A₃ | ST. ALBANS | E. Counties | 1 6½ | 1 2 |
| A | St. Helens | N.W. Counties | 1 8 | 1 3½ |
| B₃ | Salisbury | S.W. Counties | 1 4½ | 1 0½ |
| A₁ | Scarborough | Yorkshire | 1 7½ | 1 2½ |
| A | Scunthorpe | Mid. Counties | 1 8 | 1 3½ |
| A | Sheffield .. | Yorkshire | 1 8 | 1 3½ |
| A | Shipley .. | Yorkshire | 1 8 | 1 3½ |
| A₃ | Shrewsbury | Mid. Counties | 1 6½ | 1 2 |
| A₂ | Skipton .. | Yorkshire | 1 7 | 1 2½ |
| B | Slough .. | S. Counties | 1 5½ | 1 1½ |
| A₂ | Solihull .. | Mid. Counties | 1 7 | 1 2½ |
| A₃ | South'pton | S. Counties | 1 6½ | 1 2 |
| B₁ | Southend-on-Sea | E. Counties | 1 5½ | 1 1½ |
| A | Southport .. | N.W. Counties | 1 8 | 1 3½ |
| A | S. Shields .. | N.E. Coast | 1 8 | 1 3½ |
| A₂ | Stafford .. | Mid. Counties | 1 7 | 1 2½ |
| A | Stockport .. | N.W. Counties | 1 8 | 1 3½ |
| A | Stockton-on-Tees | N.E. Coast | 1 8 | 1 3½ |
| A | Stoke-on-Trent | Mid. Counties | 1 8 | 1 3½ |
| B | Stroud .. | S.W. Counties | 1 5½ | 1 1½ |
| A | Sunderland | N.E. Coast | 1 8 | 1 3½ |
| A | Swadlincote | Mid. Counties | 1 8 | 1 3½ |
| A | Swansea .. | S. Wales & M. | 1 8 | 1 3½ |
| B | Swindon .. | S.W. Counties | 1 6 | 1 1½ |
| A₁ | TAMWORTH | N.W. Counties | 1 7½ | 1 2½ |
| B₁ | Taunton .. | S.W. Counties | 1 5½ | 1 1½ |
| A | Teeside Dist. | N.E. Counties | 1 8 | 1 3½ |
| B | Teignmouth | S.W. Coast | 1 6 | 1 1½ |
| A | Todmorden | Yorkshire | 1 8 | 1 3½ |
| A₂ | Torquay .. | S.W. Counties | 1 7 | 1 2½ |
| C | Truro .. | S.W. Counties | 1 4 | 1 0½ |
| B₁ | Tunbridge Wells | S. Counties | 1 5½ | 1 1½ |
| A | Tunstall .. | Mid. Counties | 1 8 | 1 3½ |
| A | Tyne District | N.E. Coast | 1 8 | 1 3½ |
| A | WAKEFIELD | Yorkshire | 1 8 | 1 3½ |
| A₁ | Walsall .. | Mid. Counties | 1 7½ | 1 2½ |
| A | Warrington | N.W. Counties | 1 8 | 1 3½ |
| A₂ | Warwick .. | Mid. Counties | 1 7 | 1 2½ |
| B | Wellingborough | Mid. Counties | 1 6 | 1 1½ |
| A | West Bromwich | Mid. Counties | 1 8 | 1 3½ |
| B | Weston-s-Mare | S.W. Counties | 1 6 | 1 1½ |
| A₂ | Whitby .. | Yorkshire | 1 7 | 1 2½ |
| A | Widnes .. | N.W. Counties | 1 8 | 1 3½ |
| A | Wigan .. | N.W. Counties | 1 8 | 1 3½ |
| B₂ | Winchester | S. Counties | 1 5 | 1 1 |
| B | Windsor .. | S. Counties | 1 6 | 1 1½ |
| A | Wolverhampton .. | Mid. Counties | 1 8 | 1 3½ |
| A₃ | Worcester .. | Mid. Counties | 1 6½ | 1 2 |
| A₃ | Worksop .. | Yorkshire | 1 6½ | 1 2 |
| A₁ | Wrexham .. | N.W. Counties | 1 7½ | 1 2½ |
| B | Wycombe .. | S. Counties | 1 6 | 1 1½ |
| B₁ | YARMOUTH | E. Counties | 1 5½ | 1 1½ |
| B₂ | Yeovil .. | S.W. Counties | 1 5 | 1 1 |
| A | York .. | Yorkshire | 1 8 | 1 3 |

* In these areas the rates of wages for certain trades (usually Painters and Plasterers) vary slightly from those given. The rates for each trade in any given area will be sent on request.

# PRICES CURRENT

## EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 4½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour;* NAVVY, 1*s.* 4½*d. per hour;* TIMBERMAN, 1*s.* 6*d. per hour;* SCAFFOLDER, 1*s.* 5½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

| | |
|---|---|
| *Broken brick or stone, 2 in., per yd.* | £0 11 6 |
| *Thames ballast, per yd.* | 0 13 0 |
| *Pit gravel, per yd.* | 0 18 0 |
| *Pit sand, per yd.* | 0 14 6 |
| *Washed sand* | 0 15 6 |
| *Screened ballast or gravel, add 10 per cent. per yd.* | |
| *Clinker, breeze, etc., prices according to locality.* | |
| *Portland cement, per ton* | £2 19 0 |
| *Lias lime, per ton* | 2 10 0 |
| *Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.* | |
| *Transport hire per day:* | |
| *Cart and horse* £1 3 0 *Trailer* | £0 15 0 |
| *3-ton motor lorry* 3 15 0 *Steam roller* | 4 5 0 |
| *Steam lorry, 5-ton* 4 0 0 *Water cart* | 1 5 0 |

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

| | |
|---|---|
| RETURN, fill, and ram, ordinary earth, per yd. | £0 1 6 |
| SPREAD and level, including wheeling, per yd. | 0 1 6 |
| FILLING into carts and carting away to a shoot or deposit, per yd. cube | 0 10 6 |
| TRIMMING earth to slopes, per yd. sup. | 0 0 6 |
| HACKING up old grano. or similar paving, per yd. sup. | 0 1 3 |
| PLANKING to excavations, per ft. sup. | 0 0 5 |
| DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent. | |
| If left in, add to above prices, per ft. cube | 0 2 0 |
| HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. | 0 2 1 |
| DO. 6 in. thick, per yd. sup. | 0 2 10 |
| PUDDLING, per yd. cube | 1 10 0 |
| CEMENT CONCRETE, 4-2-1, per yd. cube | 2 3 0 |
| DO. 6-2-1, per yd. cube | 1 18 0 |
| DO. in upper floors, add 15 per cent. | |
| DO. in reinforced-concrete work, add 20 per cent. | |
| DO. in underpinning, add 60 per cent. | |
| LIAS-LIME CONCRETE, per yd. cube | £1 16 0 |
| BREEZE CONCRETE, per yd. cube | 1 7 0 |
| DO. in lintels, etc., per ft. cube | 0 1 6 |
| CEMENT concrete 4–2–1 in lintels packed around reinforcement, per ft. cube | 0 3 9 |
| FINE concrete benching to bottom of manholes, per ft. cube | 0 2 6 |
| FINISHING surface of concrete spade face, per yd. sup. | 0 0 9 |

## DRAINER

LABOURER, 1*s.* 4½*d. per hour;* TIMBERMAN, 1*s.* 6*d. per hour;* BRICKLAYER, 1*s.* 9½*d. per hour;* PLUMBER, 1*s.* 9½*d. per hour;* WATCHMAN, 7*s.* 6*d. per shift.*

| | |
|---|---|
| *Stoneware pipes, tested quality, 4 in., per yd.* | £0 1 3 |
| DO. *6 in., per yd.* | 0 2 8 |
| DO. *9 in., per yd.* | 0 3 6 |
| *Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.* | 0 6 9 |
| DO. *6 in., per yd.* | 0 9 2 |
| *Portland cement and sand, see "Excavator" above.* | |
| *Lead for caulking, per cwt.* | £2 5 6 |
| *Gaskin, per lb.* | 0 0 5½ |

| | |
|---|---|
| STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. | 0 4 3 |
| DO. 6 in., per ft. | 0 5 0 |
| DO. 9 in., per ft. | 0 7 9 |
| CAST-IRON DRAINS, jointed in lead, 4 in., per ft. | 0 8 0 |
| DO. 6 in., per ft. | 0 10 0 |

*Note.*—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

## BRICKLAYER

BRICKLAYER, 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour;* SCAFFOLDER, 1*s.* 5½*d. per hour.*

| | |
|---|---|
| *London stocks, per M.* | £4 15 0 |
| *Flettons, per M.* | 2 18 0 |
| *Staffordshire blue, per M.* | 9 10 0 |
| *Firebricks, 2½ in., per M.* | 11 3 0 |
| *Glazed salt, white, and ivory stretchers, per M.* | 24 10 0 |
| DO *headers, per M.* | 24 0 0 |
| *Colours, extra, per M.* | 5 10 0 |
| *Seconds, less, per M.* | 1 0 0 |
| *Cement and sand, see "Excavator" above.* | |
| *Lime, grey stone, per ton* | 2 17 0 |
| *Mixed lime mortar, per yd.* | 1 6 0 |
| *Damp course, in rolls of 4½ in., per roll* | 0 2 6 |
| DO. *9 in. per roll* | 0 4 9 |
| DO. *14 in. per roll* | 0 7 6 |
| DO. *18 in. per roll* | 0 9 6 |

| | |
|---|---|
| BRICKWORK in stone lime mortar, Flettons or equal, per rod | £33 0 0 |
| DO. in cement do., per rod | 36 0 0 |
| DO. in stocks, add 25 per cent. per rod. | |
| DO. in blues, add 100 per cent. per rod. | |
| DO. circular on plan, add 12½ per cent. per rod. | |
| DO. in backing to masonry, add 12½ per cent. per rod. | |
| DO. in raising on old walls, etc., add 12½ per cent. per rod. | |
| DO. in underpinning, add 20 per cent. per rod. | |
| HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup. | £0 1 0 |
| BEDDING plates in cement mortar, per ft. run | 0 0 3 |
| BEDDING window or door frames, per ft. run | 0 0 3 |
| LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run | 0 0 2 |
| CUTTING do. in old walls in cement, per ft. run | 0 0 4 |
| CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup. | 0 0 7 |
| TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run | 0 3 6 |
| DO. 14 ft. by 9 in. do., per ft. run | 0 6 0 |
| FLAUNCHING chimney pots, each | 0 2 0 |
| CUTTING and pinning ends of timbers, etc., in cement | 0 1 0 |
| FACINGS fair, per ft. sup. extra | 0 0 3 |
| DO. picked stocks, per ft. sup. extra | 0 0 7 |
| DO. red rubbers gauged and set in putty, per ft. sup. extra | 0 4 9 |
| DO. in salt white or ivory glazed, per ft. sup. extra | 0 5 6 |
| TUCK pointing, per ft. sup. extra | 0 0 10 |
| WEATHER pointing, do. do. | 0 0 3 |
| TILE creasing with cement fillet each side per ft. run | 0 0 6 |
| GRANOLITHIC PAVING, 1 in., per yd. sup. | 0 5 0 |
| DO. 1½ in., per yd. sup | 0 6 0 |
| DO. 2 in., per yd. sup. | 0 7 0 |
| If coloured with red oxide, per yd. sup. | 0 1 0 |
| If finished with carborundum, per yd. sup. | 0 0 6 |
| If in small quantities in finishing to steps, etc., per ft. sup. | 0 1 4 |
| Jointing new grano. paving to old, per ft. run | 0 0 4 |
| Extra for dishing grano, or cement paving around gullies, each | 0 1 6 |
| BITUMINOUS DAMP COURSE, ex rolls, per ft. sup. | 0 0 7 |
| ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup. | 0 8 0 |
| DO. vertical, per yd. sup. | 0 11 0 |
| SLATE DAMP COURSE, per ft. sup. | 0 0 10 |
| ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd. | 0 8 6 |
| DO. SKIRTING, 6 in. | 0 0 11 |
| BREEZE PARTITION BLOCKS, set in Cement, 1½ in. per yd. sup. | 0 5 3 |
| DO. DO. 3 in.. | 0 6 6 |
| BREEZE fixing bricks, extra for each | 0 0 3 |

THE wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

## MASON

MASON, 1*s.* 9½*d. per hour;* DO. *fixer,* 1*s.* 10½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour;* SCAFFOLDER, 1*s.* 5½*d. per hour.*

| | |
|---|---|
| *Portland Stone:* | |
| *Whitbed, per ft. cube* | £0 4 6 |
| *Basebed, per ft. cube* | 0 4 7 |
| *Bath stone, per ft. cube* | 0 3 0 |
| *Usual trade extras for large blocks.* | |
| *York paving, av. 2½ in., per yd. super* | 0 6 6 |
| *York templates sawn, per ft. cube* | 0 6 9 |
| *Slate shelves, rubbed, 1 in., per ft. sup.* | 0 2 6 |
| *Cement and sand, see "Excavator," etc., above.* | |

| | |
|---|---|
| HOISTING and setting stone, per ft. cube | £0 2 2 |
| DO. for every 10 ft. above 30 ft. add 15 per cent. | |
| PLAIN face Portland basis, per ft. sup. | £0 2 8 |
| DO. circular per ft. sup. | 0 4 0 |
| SUNK FACE, per ft. sup. | 0 3 9 |
| DO. circular, per ft. sup. | 0 4 10 |
| JOINTS, arch, per ft. sup. | 0 2 6 |
| DO. sunk, per ft. sup. | 0 2 7 |
| DO. DO. circular, per ft. sup. | 0 4 6 |
| CIRCULAR-CIRCULAR work, per ft. sup. | 1 2 0 |
| PLAIN MOULDING, straight, per inch of girth, per ft. run | 0 1 1 |
| DO. circular, do., per ft. run | 0 1 4 |

| | |
|---|---|
| HALF SAWING, per ft. sup. | £0 1 0 |
| Add to the foregoing prices if in York stone 35 per cent. | |
| DO. Mansfield, 12½ per cent. | |
| Deduct for Bath, 33½ per cent. | |
| DO. for Chilmark, 5 per cent. | |
| SETTING 1 in. slate shelving in cement, per ft. sup. | £0 0 6 |
| RUBBED round nosing to do., per ft. lin. | 0 0 6 |
| YORK STEPS, rubbed T. & R., ft. cub. fixed | 1 9 0 |
| YORK SILLS, W. & T., ft. cub. fixed | 1 13 0 |
| ARTIFICIAL stone paving, 2 in. thick, per ft. sup. | 0 1 6 |
| DO. 2½ in. thick, per ft. sup. | 0 1 9 |

## SLATER AND TILER

SLATER, 1*s.* 9½*d. per hour;* TILER, 1*s.* 9½*d. per hour;* SCAFFOLDER, 1*s.* 5½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour.*
N.B.—Tiling is often executed as piecework.

| | | | | |
|---|---|---|---|---|
| *Slates, 1st quality, per 1,200:* | | | | |
| *Portmadoc Ladies* | | | | £14 0 0 |
| *Countess* | | | | 27 0 0 |
| *Duchess* | | | | 32 0 0 |
| | *Old Delabole* | *Med. Grey* | | *Med. Green* |
| 24 in. × 12 in. | £42 | 11 | 3 | £45 1 0 |
| 20 in. × 10 in. | 31 | 4 | 3 | 33 0 6 |
| 16 in. × 10 in. | 20 | 18 | 0 | 22 4 9 |
| 14 in. × 8 in. | 12 | 1 | 0 | 12 16 3 |
| *Green Randoms, per ton* | | | | 8 3 9 |
| *Grey-green do., per ton* | | | | 7 3 9 |
| *Green peggies, 12 in. to 8 in. long, per ton* | | | | 6 3 9 |
| *In 4-ton truck loads, delivered Nine Elms station.* | | | | |
| *Clips, lead, per lb.* | | | | £0 0 6 |
| *Clips, copper, per lb.* | | | | 0 2 0 |
| *Nails, compo, per cwt.* | | | | 1 6 0 |
| *Nails, copper, per lb.* | | | | 0 1 10 |
| *Cement and sand, see "Excavator," etc., above.* | | | | |
| *Hand-made tiles, per M.* | | | | £5 18 0 |
| *Machine-made tiles, per M.* | | | | 5 8 0 |
| *Westmorland slates, large, per ton* | | | | 9 0 0 |
| DO. *Peggies, per ton* | | | | 7 5 0 |

| | | | | |
|---|---|---|---|---|
| SLATING, 3 in. lap, compo nails, Portmadoc or equal: | | | | |
| Ladies, per square | | | | £4 0 0 |
| Countess, per square | | | | 4 5 0 |
| Duchess, per square | | | | 4 10 0 |
| WESTMORLAND, in diminishing courses, per square | | | | 6 5 0 |
| CORNISH DO., per square | | | | 6 3 0 |
| Add, if vertical, per square approx. | | | | 0 13 0 |
| Add, if with copper nails, per square approx. | | | | 0 2 6 |
| Double course at eaves, per ft. approx. | | | | 0 1 0 |
| SLATING with old Delabole slates to a 3 in. lap with copper nails, at per square. | | | | |
| | Med. Grey | | | Med. Green |
| 24 in. × 12 in. | £5 | 0 | 0 | £5 2 0 |
| 20 in. × 10 in. | 5 | 5 | 0 | 5 10 0 |
| 16 in. × 10 in. | 4 | 15 | 0 | 5 1 0 |
| 14 in. × 8 in. | 4 | 10 | 0 | 4 15 0 |
| Green randoms | | | | 6 7 0 |
| Grey-green do. | | | | 5 9 0 |
| Green peggies, 12 in. to 8 in. long | | | | 4 17 0 |
| TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square | | | | 5 6 0 |
| DO., machine-made do., per square | | | | 4 17 0 |
| Vertical Tiling, including pointing, add 18*s.* 0*d.* per square. | | | | |
| FIXING lead soakers, per dozen | | | | £0 0 10 |
| STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square | | | | 0 10 0 |
| LABOUR only in laying slates, but including nails, per square | | | | 1 0 0 |

*See* "Sundries for Asbestos Tiling."

## CARPENTER AND JOINER

CARPENTER, 1*s.* 9½*d. per hour;* JOINER, 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour.*

| | |
|---|---|
| *Timber, average prices at Docks, London Standard Scandinavian, etc. (equal to 2nds):* | |
| 7 × 3, per std. | £20 0 0 |
| 11 × 4, per std. | 30 0 0 |
| *Memel or Equal. Slightly less than foregoing.* | |
| *Flooring, P.E., 1 in., per sq.* | £1 5 0 |
| DO. *T. and G., 1 in., per sq.* | 1 5 0 |
| *Planed boards, 1 in. × 11 in., per std.* | 30 0 0 |
| *Wainscot oak, per ft. sup. of 1 in.* | 0 2 0 |
| *Mahogany, per ft. sup. of 1 in.* | 0 2 0 |
| DO. *Cuba, per ft. sup. of 1 in.* | 0 3 0 |
| *Teak, per ft. sup. of 1 in.* | 0 3 0 |
| DO., *ft. cube* | 0 15 0 |

| | |
|---|---|
| FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube | 0 5 6 |
| DO. framed in floors, roofs, etc., per ft. cube | 0 6 6 |
| DO., framed in trusses, etc., including ironwork, per ft. cube | 0 7 6 |
| PITCH PINE, add 33½ per cent. | |
| FIXING only boarding in floors, roofs, etc., per sq. | 0 13 6 |
| SARKING FELT laid, 1-ply, per yd. | 0 1 6 |
| DO., 3-ply, per yd. | 0 1 9 |
| CENTERING for concrete, etc., including horsing and striking, per sq. | 2 10 0 |
| TURNING pieces to flat or segmenta soffits, 4½ in. wide, per ft. run | 0 0 4½ |
| DO. 9 in. wide and over per ft. sup. | 0 1 2 |

*continued overleaf*

## CARPENTER AND JOINER: *continued.*

| | | | |
|---|---|---|---|
| SHUTTERING to face of concrete, per square | £1 | 10 | 0 |
| DO. in narrow widths to beams, etc., per ft. sup. | 0 | 0 | 6 |
| USE and waste of timbers, allow 25 per cent. of above prices. | | | |
| SLATE BATTENING, per sq. | £0 | 12 | 6 |
| DEAL boarding to flats, 1 in. thick and firrings to falls, per square | 2 | 10 | 0 |
| STOUT feather-edged tilting fillet to eaves, per ft. run | 0 | 0 | 6 |
| FEATHER-edged springer to trimmer arches, per ft. run | 0 | 0 | 4 |
| STOUT herringbone strutting (joists measured in), per ft. run | 0 | 0 | 6 |
| SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square | 2 | 0 | 0 |
| RUBEROID or similar quality roofing, one-ply, per yd. sup. | 0 | 2 | 3 |
| DO., two-ply, per yd. sup. | 0 | 2 | 6 |
| DO., three-ply, per yd. sup. | 0 | 3 | 0 |
| TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square | 2 | 5 | 0 |
| DEAL skirting torus, moulded 1¼ in. thick, including grounds and backings, per ft. sup. | 0 | 1 | 0 |
| TONGUED and mitred angles to do. | 0 | 0 | 6 |
| WOOD block flooring standard blocks laid herringbone in mastic: | | | |
| Deal 1 in. thick, per yd. sup. | 0 | 10 | 0 |
| DO. 1¼ in. thick, per yd. sup. | 0 | 12 | 0 |
| Maple 1¼ in. thick, per yd. sup. | 0 | 15 | 0 |
| DEAL moulded sashes, 1¾ in. with moulded bars in small squares, per ft. sup. | 0 | 2 | 6 |
| DO. 2 in. do., per ft. sup. | 0 | 2 | 9 |
| DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup. | 0 | 4 | 6 |
| MOULDED horns, extra each | 0 | 0 | 3 |
| DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup. | 0 | 2 | 6 |
| DO. moulded both sides, per ft. sup. | 0 | 2 | 9 |
| DO. 2 in. thick, square both sides, per ft. sup. | 0 | 2 | 9 |
| DO. moulded both sides, per ft. sup. | 0 | 3 | 0 |
| DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup. | 0 | 3 | 6 |
| If in oak, mahogany or teak, multiply 3 times. | | | |
| DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube | £0 | 15 | 0 |
| Add for extra labours, per ft. run | 0 | 0 | 1 |
| STAIRCASE work: | | | |
| DEAL treads 1¼ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup. | 0 | 2 | 6 |
| DEAL wall strings, 1¼ in. thick, moulded, per ft. run | 0 | 2 | 6 |
| If ramped, per ft. run | 0 | 5 | 0 |
| SHORT ramps, extra each | 0 | 7 | 6 |
| ENDS of treads and risers housed to strings, each | 0 | 1 | 0 |
| 2 in. deal mopstick handrail fixed to brackets, per ft. run | 0 | 1 | 6 |
| 4½ in. × 3 in. oak fully moulded handrail, per ft. run | 0 | 5 | 6 |
| 1¼ in. square deal bar balusters, framed in, per ft. run | 0 | 0 | 6 |
| FITTINGS: | | | |
| SHELVES and bearers, 1 in., cross-tongued, per ft. sup. | 0 | 1 | 6 |
| 1¼ in. beaded cupboard fronts, moulded and square, per ft. sup. | 0 | 2 | 9 |
| TEAK grooved draining boards, 1¼ in. thick and bedding, per ft. sup. | 0 | 4 | 6 |
| IRONMONGERY: | | | |
| Fixing only (including providing screws): | | | |
| TO DEAL— | | | |
| Hinges to sashes, per pair | 0 | 1 | 2 |
| DO. to doors, per pair | 0 | 1 | 7 |
| Barrel bolts, 9 in., iron, each | 0 | 1 | 0 |
| Sash fasteners, each | 0 | 1 | 0 |
| Rim locks, each | 0 | 1 | 9 |
| Mortice locks, each | 0 | 4 | 0 |

## SMITH

SMITH, *weekly rate equals* 1*s.* 9½*d. per hour;* MATE, *do.* 1*s.* 4*d. per hour;* ERECTOR, 1*s.* 9½*d. per hour;* FITTER, 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 4*d. per hour.*

| | | | |
|---|---|---|---|
| *Mild Steel in British standard sections, per ton* | £12 | 10 | 0 |
| *Sheet Steel:* | | | |
| *Flat sheets, black, per ton* | 19 | 0 | 0 |
| *Do., galvd., per ton* | 23 | 0 | 0 |
| *Corrugated sheets, galvd., per ton* | 23 | 0 | 0 |
| *Driving screws, galvd., per grs.* | 0 | 1 | 10 |
| *Washers, galvd., per grs.* | 0 | 1 | 1 |
| *Bolts and nuts, per cwt. and up* | 1 | 18 | 0 |
| MILD STEEL in trusses, etc., erected, per ton | 25 | 10 | 0 |
| DO., in small sections as reinforcement, per ton | 16 | 10 | 0 |
| DO., in compounds, per ton | 17 | 0 | 0 |
| DO., in bar or rod reinforcement, per ton | 20 | 0 | 0 |
| WROT IRON in chimney bars, etc., including building in, per cwt. | 2 | 0 | 0 |
| DO., in light railings and balusters, per cwt. | 2 | 5 | 0 |
| FIXING only corrugated sheeting, including washers and driving screws, per yd. | 0 | 2 | 0 |

## PLUMBER

PLUMBER, 1*s.* 9½*d. per hour;* MATE OR LABOURER, 1*s.* 4½*d. per hour.*

| | | | |
|---|---|---|---|
| *Lead, milled sheet, per cwt.* | £2 | 4 | 6 |
| DO *drawn pipes, per cwt.* | 2 | 6 | 0 |
| DO. *soil pipe, per cwt.* | 2 | 8 | 0 |
| DO. *scrap, per cwt.* | 1 | 9 | 6 |
| *Copper, sheet, per lb.* | 0 | 1 | 0 |
| *Solder, plumber's, per lb.* | 0 | 1 | 2 |
| DO. *fine, per lb.* | 0 | 1 | 5 |
| *Cast-iron pipes, etc.:* | | | |
| *L.C.C. soil, 3 in., per yd.* | 0 | 4 | 1 |
| DO. 4 *in. per yd.* | 0 | 5 | 0 |
| *R.W.P., 2½ in., per yd.* | 0 | 2 | 0 |
| DO. 3 *in., per yd.* | 0 | 2 | 5 |
| DO. 4 *in., per yd.* | 0 | 3 | 3 |
| *Gutter, 4 in. H.R., per yd.* | 0 | 1 | 5 |
| DO. 4 *in. O.G., per yd.* | 0 | 1 | 9 |
| MILLED LEAD and labour in gutters, flashings, etc. | 3 | 12 | 6 |
| LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft. | 0 | 2 | 1 |
| DO. ¾ in., per ft. | 0 | 2 | 5 |
| DO. 1 in., per ft. | 0 | 3 | 3 |
| DO. 1¼ in., per ft. | 0 | 4 | 6 |
| LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft. | 0 | 6 | 0 |
| DO. 3 in., per ft. | 0 | 7 | 0 |
| DO. 4 in., per ft. | 0 | 9 | 9 |
| WIPED soldered joint, ½ in., each | 0 | 2 | 6 |
| DO. ¾ in., each | 0 | 3 | 2 |
| DO. 1 in., each | 0 | 3 | 8 |
| BRASS screw-down stop cock and two soldered joints, ½ in., each | 0 | 11 | 0 |
| DO. ¾ in., each | 0 | 13 | 6 |
| CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run | 0 | 1 | 6 |
| DO. 3 in., per ft. run | 0 | 1 | 11 |
| DO. 4 in., per ft. run | 0 | 2 | 9 |
| CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft. | 0 | 2 | 0 |
| DO. O.G., 4 in., per ft. | 0 | 2 | 3 |
| CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft. | 0 | 4 | 6 |
| DO. 3 in., per ft. | 0 | 3 | 6 |
| Fixing only: | | | |
| W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each | 2 | 5 | 0 |
| BATHS, with all joints | 1 | 3 | 6 |
| LAVATORY BASINS only, with all joints, on brackets, each | 1 | 10 | 0 |

## PLASTERER

PLASTERER, 1*s.* 9½*d. per hour (plus allowances in London only);* LABOURER, 1*s.* 4½*d. per hour.*

| | | | |
|---|---|---|---|
| *Chalk lime, per ton* | £2 | 17 | 0 |
| *Hair, per cwt.* | 0 | 18 | 0 |
| *Sand and cement see "Excavator," etc., above.* | | | |
| *Lime putty, per cwt.* | £0 | 2 | 9 |
| *Hair mortar, per yd.* | 1 | 7 | 0 |
| *Fine stuff, per yd.* | 1 | 14 | 0 |
| *Sawn laths, per bdl.* | 0 | 2 | 9 |
| *Keene's cement, per ton* | 5 | 15 | 0 |
| *Sirapite, per ton* | 3 | 10 | 0 |
| DO. *fine, per ton* | 3 | 18 | 0 |
| *Plaster, per ton* | 3 | 0 | 0 |
| DO. *per ton* | 3 | 12 | 6 |
| DO. *fine, per ton* | 5 | 12 | 0 |
| *Thistle plaster, per ton* | 3 | 9 | 0 |
| *Lath nails per lb.* | 0 | 0 | 4 |
| LATHING with sawn laths, per yd. | 0 | 1 | 7 |
| METAL LATHING, per yd. | 0 | 2 | 3 |
| FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ¾ in., per yd. | 0 | 2 | 4 |
| DO. vertical, per yd. | 0 | 2 | 7 |
| RENDER, on brickwork, 1 to 3, per yd. | 0 | 2 | 7 |
| RENDER in Portland and set in fine stuff, per yd. | 0 | 3 | 3 |
| RENDER, float, and set, trowelled, per yd. | 0 | 2 | 9 |
| RENDER and set in Sirapite, per yd. | 0 | 2 | 5 |
| DO. in Thistle plaster, per yd. | 0 | 2 | 5 |
| EXTRA, if on but not including lathing, any of foregoing, per yd. | 0 | 0 | 5 |
| EXTRA, if on ceilings, per yd. | 0 | 0 | 5 |
| ANGLES, rounded Keene's on Portland, per ft. lin. | 0 | 0 | 6 |
| PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin. | 0 | 0 | 3 |
| WHITE glazed tiling set in Portland and jointed in Parian, per yd., from | 1 | 11 | 6 |
| FIBROUS PLASTER SLABS, per yd. | 0 | 1 | 10 |

## GLAZIER

GLAZIER, 1*s.* 8½*d. per hour.*

| | | | |
|---|---|---|---|
| *Glass: 4ths in crates:* | | | |
| *Clear, 21 oz.* | £0 | 0 | 4½ |
| DO. 26 oz. | 0 | 0 | 5 |
| *Cathedral white, per ft.* | 0 | 0 | 7 |
| *Polished plate, British ¼ in., up to 2 ft. sup. per ft.* | 0 | 1 | 6 |
| DO. 4 *ft. sup.* „ | 0 | 2 | 9 |
| DO. 6 *ft. sup.* „ | 0 | 3 | 0 |
| DO. 20 *ft. sup.* „ | 0 | 3 | 7 |
| DO. 45 *ft. sup.* „ | 0 | 3 | 9 |
| DO. 65 *ft. sup.* „ | 0 | 3 | 11 |
| DO. 100 *ft. sup.* „ | 0 | 4 | 4 |
| *Rough plate, ⅛ in., per ft.* | 0 | 0 | 6½ |
| DO. ¼ *in., per ft.* | 0 | 0 | 6½ |
| *Linseed oil putty, per cwt.* | 0 | 17 | 6 |
| GLAZING in putty, clear sheet, 21 oz. | 0 | 0 | 11 |
| DO. 26 oz. | 0 | 1 | 0 |
| GLAZING in beads, 21 oz., per ft. | £0 | 1 | 1 |
| DO. 26 oz., per ft. | 0 | 1 | 4 |
| Small sizes slightly less (under 3 ft. sup.). Patent glazing in rough plate, normal span, 1*s.* 6*d.* to 2*s.* per ft. | | | |
| LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft. sup. and up | £0 | 3 | 0 |
| Glazing only, polished plate, 6½*d.* to 8*d.* per ft. according to size. | | | |

## PAINTER AND PAPERHANGER

PAINTER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour;* FRENCH POLISHER, 1*s.* 9*d. per hour;* PAPERHANGER, 1*s.* 8½*d. per hour.*

| | | | |
|---|---|---|---|
| *Genuine white lead, per cwt.* | £3 | 11 | 0 |
| *Linseed oil, raw, per gall.* | 0 | 3 | 7 |
| DO., *boiled, per gall.* | 0 | 3 | 10 |
| *Turpentine, per gall.* | 0 | 6 | 2 |
| *Liquid driers, per gall.* | 0 | 9 | 6 |
| *Knotting, per gall.* | 1 | 4 | 0 |
| *Distemper, washable, in ordinary colours, per cwt., and up* | 2 | 0 | 0 |
| *Double size, per firkin* | 0 | 3 | 6 |
| *Pumice stone, per lb.* | 0 | 0 | 4 |
| *Single gold leaf (transferable), per book* | 0 | 1 | 11 |
| *Varnish, copal, per gall. and up* | 0 | 18 | 0 |
| DO., *flat, per gall.* | 1 | 2 | 0 |
| DO., *paper, per gall.* | 1 | 0 | 0 |
| *French polish, per gall.* | 0 | 19 | 0 |
| *Ready mixed paints, per gall. and up* | 0 | 10 | 6 |
| LIME WHITING, per yd. sup. | 0 | 0 | 3 |
| WASH, stop, and whiten, per yd. sup. | 0 | 0 | 6 |
| DO., and 2 coats distemper with proprietary distemper, per yd. sup. | 0 | 0 | 9 |
| KNOT, stop, and prime, per yd. sup. | 0 | 0 | 7 |
| PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup. | 0 | 0 | 10 |
| DO., subsequent coats, per yd. sup. | 0 | 0 | 9 |
| DO., enamel coat, per yd. sup. | 0 | 1 | 2½ |
| BRUSH-GRAIN, and 2 coats varnish, per yd. sup. | 0 | 3 | 8 |
| FIGURED DO., DO., per yd. sup. | 0 | 5 | 6 |
| FRENCH POLISHING, per ft. sup. | 0 | 1 | 2 |
| WAX POLISHING, per ft. sup. | 0 | 0 | 6 |
| STRIPPING old paper and preparing, per piece | 0 | 1 | 7 |
| HANGING PAPER, ordinary, per piece | 0 | 1 | 10 |
| DO., fine, per piece, and upwards | 0 | 2 | 4 |
| VARNISHING PAPER, 1 coat, per piece | 0 | 9 | 0 |
| CANVAS, strained and fixed, per yd. sup. | 0 | 3 | 0 |
| VARNISHING, hard oak, 1st coat, yd. sup. | 0 | 1 | 2 |
| DO., each subsequent coat, per yd. sup. | 0 | 0 | 11 |

## SUNDRIES

| | | | |
|---|---|---|---|
| *Fibre or wood pulp boardings, according to quality and quantity.* | | | |
| *The measured work price is on the same basis . . . per ft. sup.* | £0 | 0 | 2½ |
| FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to | 0 | 0 | 6 |
| *Plaster board, per yd. sup.* . from | 0 | 1 | 7 |
| PLASTER BOARD, fixed as last, per yd. sup. . . . . from | 0 | 2 | 8 |
| *Asbestos sheeting, 5/32 in.. grey flat, per yd. sup.* | 0 | 2 | 3 |
| DO., *corrugated, per yd. sup.* | 0 | 3 | 3 |
| ASBESTOS SHEETING, fixed as last, flat, per yd. sup. | 0 | 4 | 0 |
| DO., corrugated, per yd. sup. | 0 | 5 | 0 |
| ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey | 2 | 15 | 0 |
| DO., red | 3 | 0 | 0 |
| *Asbestos cement slates or tiles, 5/32 in. punched per M. grey* | 16 | 0 | 0 |
| DO., *red* | 18 | 0 | 0 |
| ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup. | 0 | 7 | 0 |
| DO., ½ in. thick, suitable for domestic work, unpolished, per yd. | 0 | 6 | 6 |
| *Metal casements for wood frames, domestic sizes, per ft. sup.* | 0 | 1 | 6 |
| DO., *in metal frames, per ft. sup.* | 0 | 1 | 9 |
| HANGING only metal casement in, but not including wood frames, each | 0 | 2 | 10 |
| BUILDING in metal casement frames, per ft. sup. | 0 | 0 | 7 |
| *Waterproofing compounds for cement.* Add about 75 per cent. to 100 per cent. to the cost of cement used. | | | |

PLYWOOD, per ft. sup.:

| Thickness | 5/32 in. | | | ¼ in. | | | 3/8 in. | | | ½ in. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Qualities .. | AA. | A. | B. | AA. | A. | B. | AA. | A. | B. | AA. | A. | B. |
| | d. | d. | d. | d. | d. | d. | d. | d. | d. | d. | d. | d. |
| Birch .. .. | 4 | 3 | 2 | 5 | 4 | 3 | 7½ | 6 | 4½ | 8½ | 7 | 6 |
| Alder .. .. | 3½ | 3 | 2 | 5 | 4 | 3 | 6½ | 5½ | 4½ | 8 | 7 | 6 |
| Gaboon | | | | | | | | | | | | |
| Mahogany | 4 | 3 | 3 | 6½ | 5½ | 4 | 9½ | 7½ | — | 10½ | — | — |
| Figured Oak 1 side | 8½ | 7 | — | 10 | 8 | — | 11½ | — | — | 1 6 | — | |
| Plain Oak 1 side | 6½ | 6 | — | 7½ | 7 | — | 9½ | — | — | 1 0 | — | — |
| Oregon Pine | 5 | 4 | — | 5½ | 5 | — | 6 | — | — | — | — | — |