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Principal Contents

NOTES AND COMMENTS

The correspondence about the suggested addition to Westminster Abbey still continues, and, rather naturally, has produced suggestions for various other alterations and improvements. We are not particularly impressed with the argument that opposition to the suggested addition argues a lack of faith in the capabilities of our architects. That specious plea was advanced about Waterloo Bridge; although, if there had not been such a widespread agitation concerning that structure, it is extremely doubtful whether any architect would have been asked to so much as sketch a design for a new bridge at this point. Most architects, we feel, would rather be engaged in designing new buildings than in tinkering about or altering the good old ones. It is one of the maddening phenomena of the present age that most of the interesting or important proposals for new building work arise out of or involve the destruction or alteration of some fine, complete and beautiful example of the architecture of a past age. With acres of slums in every direction calling for destruction, both architects and the community would be benefited if the erection of our important new buildings were projected on the sites of these sordid areas instead of at the expense of the diminishing stock of good buildings that we possess. There will, of course, be occasions when the needs of the people necessitate a sacrifice, but they are not to be welcomed. We do not, for a moment, doubt that, if an addition to the Abbey is imperative, the architect will be found who will make a seemly contribution of it. But we are not convinced that the Sub-Committee of the Cathedrals Commission have made out a case on either of their main grounds. They reported that there was no room for more memorials. It is a moot question whether further memorials should be allowed in the Abbey, certainly of the kind that has been allowed in the past; whether the ecclesiastical uses of the church are to be sacrificed to the exigencies of sepulchral sculpture. Even so, the Sub-Committee appears to have overlooked the very considerable space in the Triforium, to which Sir Frederick Radcliffe, a member of the Cathedrals Commission, has drawn attention. And the other ground advanced by the Sub-Committee in support of their proposal, that sepulture or a memorial in a separate building on another site, would not carry the same honour or solemnity as burial in the Abbey, seems to us without point. For unless you made a very decided breach somewhere in the Abbey walls, which few people would countenance, your addition would be no more than a modern outbuilding, however fine, and the sentiment attaching to burial within long-hallowed walls would be as much absent as if the building was on the other side of the street. Our chief objection to an addition, however, is the fact that it would take up a good deal of the none too large area of open ground about the Abbey, which is so necessary for its adequate setting, and to enable it to be properly seen. If some addition must be made, therefore, let it be on a fresh site—on, say, the site of the Abingdon Street houses, and linked up with a cloister to the main building.

* * *

The controversy has, however, produced one suggestion, by Mr. Gerald Henderson, for an improvement in the Abbey which is worth consideration. He points out that the screen which shuts out the choir from the nave is neither old nor necessary from a religious point of view. According to him, the western face, containing two 18th-century monuments, was erected in 1831, while the stalls of the dignitaries on the eastern side was set up in 1848, and the present divided organ-case was placed in position in 1884. The removal of the screen would open up a magnificent vista from the west door; it would, moreover, remove an impediment that has often proved a nuisance at Coronations and other important ceremonies. Incidentally, though Mr. Henderson does not advance this, it would give, in the nave, more room for the congregation, which is at present limited to the restricted accommodation of the transepts.

* * *

The present position of the campaign instituted by the Association of Architects, Surveyors and Technical Assistants to establish a scale of minimum salaries for architectural assistants appears to have been misstated in our issue for November 4. We are given to understand that representatives of the A.A.S.T.S. and a sub-committee of the Allied Societies Conference met eighteen months ago, and agreed upon a report which recommended certain basic rates of pay. These were not the scales originally drawn up by the A.A.S.T.S., but were those proposed to, and accepted by, them, and approved by a number of the Allied Societies. They provide for salaries of £3 to £3 10s. per week, according to class of town, for junior assistants with not less than four years' training, either in an architect's office or in a recognised school, or both, who have passed the R.I.B.A. Intermediate Examination; and for salaries of from £5 to £6 per week, according to class of town, for assistants, of not less than seven years' training, who are either Associates or Licentiates of the R.I.B.A., or who have qualified by examination for election as Associates.

Neither scale to apply to persons who have had less than twelve months' full-time employment in an architect's office. A schedule, showing the divisions of towns and districts into Classes "A," "B" and "C," forms part of the scales recommended, and is based on the official grading published by the Ministry of Labour for wages in the building industry. The position now is that these scales, recommended in the report of the joint conference of A.A.S.T.A. representatives and the Allied Societies Conference, have been turned down by the R.I.B.A. Council. The reason for such action has not, apparently, been vouchsafed; but it can hardly be contended that the basic rates put forward were unreasonable or extortionate. Presumably, the R.I.B.A. Council is moved by some feeling that this question of basic rates has an unprofessional savour; but, since the Institute has a recognised scale of fees for practising members, any such apprehension is obviously ruled out. Moreover, it should be one of the duties of the R.I.B.A. to safeguard the interests and welfare of all their members, even though they may only be assistants. The British Medical Association takes a very strong line with public bodies who offer salaries to medical men which are considered to be inadequate for the posts and responsibilities to be undertaken. The attitude of the R.I.B.A. Council leaves the rather unpleasant impression that, while it is prepared to battle for its recognised scale against the public, it is indifferent to exploitation by members of the assistants, even though the latter may also be members. The subject is, of course, more or less bound up with the question of the salaried architect, upon which the Institute still occupies an anomalous and unsatisfactory position. The medical, legal, engineering and other large professional organisations have frankly accepted the existence of the salaried man, and the fact that he has come to stay; and we think it would be well if the R.I.B.A. followed suit. It would give them opportunities for securing the appointment of better trained men to these posts. And for the same reason we are of opinion that it would improve the general standard of the assistants if the Institute Council applied themselves to the question of their remuneration on the suggested basis of their qualifications as determined by the Institute's own examinations.

* * *

Our recent note concerning the "restoration" of Great Casterton Church has brought us later information about the remodelling of the interior of the building, which is dedicated to St. Peter and St. Paul. We have, first, an assurance by the Rector, in an interview with a correspondent, that no fear of any spoiling of its ancient beauties need be apprehended. He explains, apparently in answer to some other adverse comments, that "the present scheme of restoration was drawn up four years ago by a very well-known ecclesiastical architect, of renowned conservative views." Valuable advice has also been given by the Society for the Protection of Ancient Buildings. The box pews, which have already been removed, were not of ancient date, being only painted deal of late eighteenth century production. They were ugly, uncomfortable and prevented people from seeing the conduct of services, and the conductor from seeing the people. By their removal the accommodation for worshippers has not only been made more commodious, but more comfortable as well. With regard to the font, it is not proposed to make any alteration either with regard to its structure or position. We are not ashamed of having put in a plea for painted deal box pews 150 years old, but they, apparently, have few friends, though connoisseurs pay heavy sums for "houses of character" which happen to possess pine or deal panelling of similar date. Certainly, with experience of both, we prefer for comfort the box pew to the average Cathedral chair. But as the parishioners, according to the Rector, rejoice in the new form of seating, "and are delighted as the work of improvement and restoration progresses," there is no more to be said on this score. It is their church. One can only regret the tendency to think that beauty in ecclesiastical things ceased about 1500; also that such a unique example of a post-Reformation interior has ceased to exist. One must be satisfied that "it is not proposed to make any alteration either with regard to the structure or position of the font," although this argues that the noble work of "restoration" will be left incomplete.

* * *

The Stonehenge Preservation Fund now amounts to £13,200, of which £8,000 has been expended in acquiring one plot of about 400 acres, lying to the south and south-east of the remains. This includes the derelict aerodrome, the demolition of which has commenced. Rather more than £2,000 more is now required to complete the purchase of the second plot, lying towards Amesbury, which is threatened with building development, and Mr. J. C. Squire, Hon. Secretary to the Preservation Committee, is making an earnest appeal for this amount, as the Committee's option expires in a few weeks. It is hoped to secure this amount, and also further funds to secure a third plot, which will bring the total area up to 1,400 acres, and secure the solitude which is so necessary in the surroundings of this national monument. Subscriptions may be sent to Mr. Squire at the National Trust, 7 Buckingham Palace Gardens, S.W.1.

* * *

We welcome the formation of a new organisation, which has been formed mainly to guarantee the competency of those registered by it. The rapid growth of the electrical industry has drawn into its ranks numbers of incompetent people who undertake work which they have neither the knowledge nor the skill to carry out properly. Very naturally, the results of this incompetence recoil equally upon the qualified members of the industry, so that all firms carrying out electrical work become more or less suspect in the eyes of the public. The reputable firms of electrical installation contractors have, therefore, adopted the principle of registration, and have instituted "The National Register of Electrical Installation Contractors." It has a strong Council of Management or Registration Board, made up of members nominated by the Institution of Electrical Engineers and other representative bodies in the industry. A list of contractors who have given evidence of their competency has been issued. The Executive will investigate any *bonâ fide* complaint of bad workmanship on the part of a registered contractor, and may cancel his certificate if the complaint is established to their satisfaction. Certificates are only valid for one year, and renewal is dependent upon there being no complaints as the result of the annual local enquiry.

COMPETITION RESULT

Herne Bay Municipal Buildings

First Premium: Mr. C. H. Norton, F.R.I.B.A., 14 Bedford Row, London, W.C.1.
Second Premium: Messrs. W. L. Clunie and W. Tarn, 42 Mona Road, Walkley, Sheffield.
Third Premium: Messrs. Symington & Prince, 8 Market Street, Leicester.

THE CHILDREN'S THEATRE, ENDELL STREET, W.C.2.
W. Braxton Sinclair, F.R.I.B.A., Architect.

The entrance to the Children's Theatre, room for which had to be found in a narrow street frontage, is particularly well designed. The arched doorway, although of modest dimensions, by being deeply recessed is given a formal emphasis which the function of the hall behind it deserves. Additional publicity for the theatre is obtained by two octagonal sign-boards and also an illuminated sign, while a small arched window shows an attractive poster devoted to the purpose of advertising the plays. Balancing this, on the right of the entrance is a charming little shop window; thus the frontage is not only elegant in itself, but has been put to its fullest economic use.

Plastic Yield, Shrinkage and other Problems of Concrete Design

Being an abstract from a paper by Dr. Oscar Faber, O.B.E., D.Sc., M.Inst.C.E., before the Institution of Civil Engineers on Tuesday last, November 15.

Steel is a simple elastic material, changing in length (within the elastic limit) under two influences only—change of stress and change of temperature. The effect, either singly or combined, of these changes are determinable; and, moreover, the deflection of such a structure due to loading (within the elastic limit), disappears when the load is removed. The application of the same factors to structures of concrete and reinforced concrete was the result of imperfect understanding of these materials. The author put forward a thesis that structures of reinforced concrete, taking stresses within those allowed in good practice, continue to deflect without change of load or temperature, a result due partly to shrinkage and partly to plastic yield. It followed, therefore, that the absence of permanent set or deflection must not be insisted upon as a necessary criterion of safety where the test involves an appreciable time limit. The effect of this plastic yield and shrinkage is to produce a gradual redistribution of stress between the steel and the concrete in reinforced concrete structures of such a nature, generally, as to relieve the stress on the concrete and add to that of the steel. Such structures were not dangerous by reason of these phenomena, if these were taken into account in designing; but special care is necessary in binding compression steel, whether in beams or columns. The deflection of reinforced concrete beams, while only about six-tenths of the calculated deflection when the load is first applied, may amount to about six-tenths more than the calculated deflection after six months, the final deflection being about two and two-thirds times the original. When the load is removed, only the initial elastic deflection disappears, the balance, attributable to shrinkage and plastic yield, remaining as a permanent set. Present regulations take no account of these factors and leave much to be desired.

In support of his thesis, the author first adduced the results of observations in recent years by American and German engineers, bearing on continuing deformation under normal stresses at the end of various periods of time, ranging from 60 to 950 days. The main part of his paper, however, dealt in great detail with the results of special researches undertaken by him with the assistance of Mr. R. H. H. Stanger, Assoc. M.Inst.C.E., who conducted the actual tests, the object being to ascertain how yield varies with stress. Constant conditions as to temperature, humidity, etc., were aimed at and, for this reason, the tests were carried out in Mr. Stanger's laboratory on four small reinforced concrete beams, of 15 feet span. One of the beams, used as a control, carried its own weight; the other three had central loads of 30 lbs., 60 lbs. and 90 lbs. respectively. The results of observations on the behaviour of these beams are set out in numerous tables and graphs. The readings of deflection commenced four

weeks after the casting of the beams, with a record of the dead load deflection at that date, and readings were taken at frequent intervals for the following 36 weeks. The control beam (unloaded), with a deflection of 0.3 inches at commencement of readings, showed a gradually increasing deflection up to 0.85 inches after 36 weeks. The beam, with 30 lbs. centre load, showed a deflection increasing from 0.35 inches, at time of loading, to 1.02 inches in the same period. The other two beams showed similar increases. Extensometers were fitted to two of the beams (those loaded 30 lbs. and 60 lbs.), and readings were taken from the sixth to twelfth weeks of test, recording the top shortening and bottom lengthening of the beams.

The continued deflection, exceeding that calculated for in the usual way (taking Young's modulus for concrete), after four weeks of testing, the author attributes to shrinkage and plastic yield; but further experiments were undertaken to determine, as far as possible, the relative responsibility of these two factors. For this purpose, two additional beams were constructed, in all respects like the others, save that they were symmetrically reinforced top and bottom. One of these carried dead load only, the other having a load of 30 lbs. applied mid-span. Shrinkage in these beams would be resisted equally by the steel top and bottom; but not only did they continue to deflect, but the deflections increased at first at practically the same rate as those of the corresponding beams in the first four. That it is not easy to distinguish between deflection due to shrinkage and that due to plastic yield, is admitted, but the inadequacy of the shrinkage explanation rests on the fact that, if attributable solely to shrinkage, the deflection of all four beams should have increased equally, whereas in the highly-stressed ones it increased more than in those moderately stressed; also, on the fact that the measured shortening of the top flange was greater than the shrinkage of unstressed concrete.

Proceeding from the extensometer readings, the deformation of the tops of all four beams due to yield and shrinkage was determined. The strain due to elastic compression was also calculated (from the known value of Young's modulus) and the concrete stresses, and all the results were plotted in a graph. From this the author deduces that:—

(1) At a stress of 1,000 lbs. per square inch, the plastic yield in 36 weeks is approximately equal to the total shrinkage, and each is approximately twice the elastic strain.

(2) The plastic yield varies with the elastic strain, being roughly double its value, while the shrinkage remains constant.

(3) The total deformation in 36 weeks is roughly six times the elastic strain at 600 lbs. per square inch, about five times that at 1,000 lbs. per square inch, and about three-and-a-half times that at 1,400 lbs. per square inch.

The author did not expect to find that the plastic yield varied proportionately with the stress, but the tests indicated that this was so, and it is not difficult to believe or account for. The effect of shrinkage and plastic yield in increasing the respective stresses on compression and tensile steel are then calculated in regard to the sixth beam, on the basis of neglecting tension in concrete. From this the total stress on the compression steel was determined after yielding of the concrete at 15,253 lbs. per square inch, or an additional stress of 11,700 lbs. per square inch, which is clearly important.

The effects of plastic yield in various directions were discussed at considerable length. One point was the possibility that if plastic yield occurs in the concrete in compression, it might also occur in concrete in shear and adhesion, which would allow some gradual slip and relief of stress in the rods. Though it is impossible to speak dogmatically about this, the author, for various reasons, is of opinion that this effect, if it occurs at all, was too slight in the experiments described to be important.

One of the beams was wetted and kept wetted, with the object of throwing further light on shrinkage and plastic yield. The idea was that if shrinkage was due merely to drying-out, wetting should remove it and part of the deflection on account of shrinkage should disappear. Actually, a slight reduction of deflection was observed at first, but this was followed by a further increase in deflection. This would seem to indicate that shrinkage is attributable more to the irreversible changes associated with hardening than with drying-out, the subsequent increase of deflection resulting from the restarting of the hardening process by the wetting; and this is consistent with the fact that concrete only grows in strength when kept moist.

Removal of the load from one of the beams 30 weeks after casting, resulted in a reduction of deflection corresponding with the elastic deflection due to the load; all deflection due to breaking down of concrete in tension, shrinkage and plastic yield remaining as a permanent set.

The effect of shrinkage and plastic yield on stresses and design was then discussed, and the results of calculation based on these factors are claimed to be entirely consistent with actual stresses and strains recorded on buildings given earlier in the paper. They are held to prove that rods stressed in compression to 21,500 lbs. per square inch require to be provided with close and efficient cross ties.

The author, in conclusion, recognises that the safety of reinforced concrete rests, not on laboratory tests, but on practical experience on a large scale. The laboratory tests help to explain phenomena encountered in practice and to avoid weak forms of construction. Columns with longitudinal rods and little binding have proved to be weak in practice. The tests, indicating very high stresses in the rods, supply the reason; but the weakness can be avoided by the use of close and ample bindings and hoopings.

The question arises as to the effect of this newly-recognised factor in structural members of large size as compared with the small specimens used in the tests described. Arguing that large members will have more volume for a given surface and will take longer to dry out, it is at least possible that they may remain in a (colloidal and) plastic condition so that the yield may be greater. The possibility of the steel stresses ultimately reaching the yield point may have to be considered. It is clear that they will not go beyond this point, since any further shortening of the concrete will be less than the shortening necessary to raise the stress in the steel after the yield point. If this is regarded as the final condition which may in time be reached, the stresses can easily be determined.

It remains to consider whether a concrete column with a low stress in concrete and the steel stressed to the yield point would be dangerous. A steel strut stressed to the yield point would be highly dangerous, and would buckle if it were unsupported; it is not clear that it is dangerous when encased in concrete and hooped laterally with efficient and close lateral bindings. Experience in actual buildings, many of which have carried their full load for much more than twelve years, is very strong evidence that the construction is entirely safe. Failure of concrete buildings of reputable design and construction are practically unknown.

That the effects of gradually increasing deflections have not been more noticed in practice, the author

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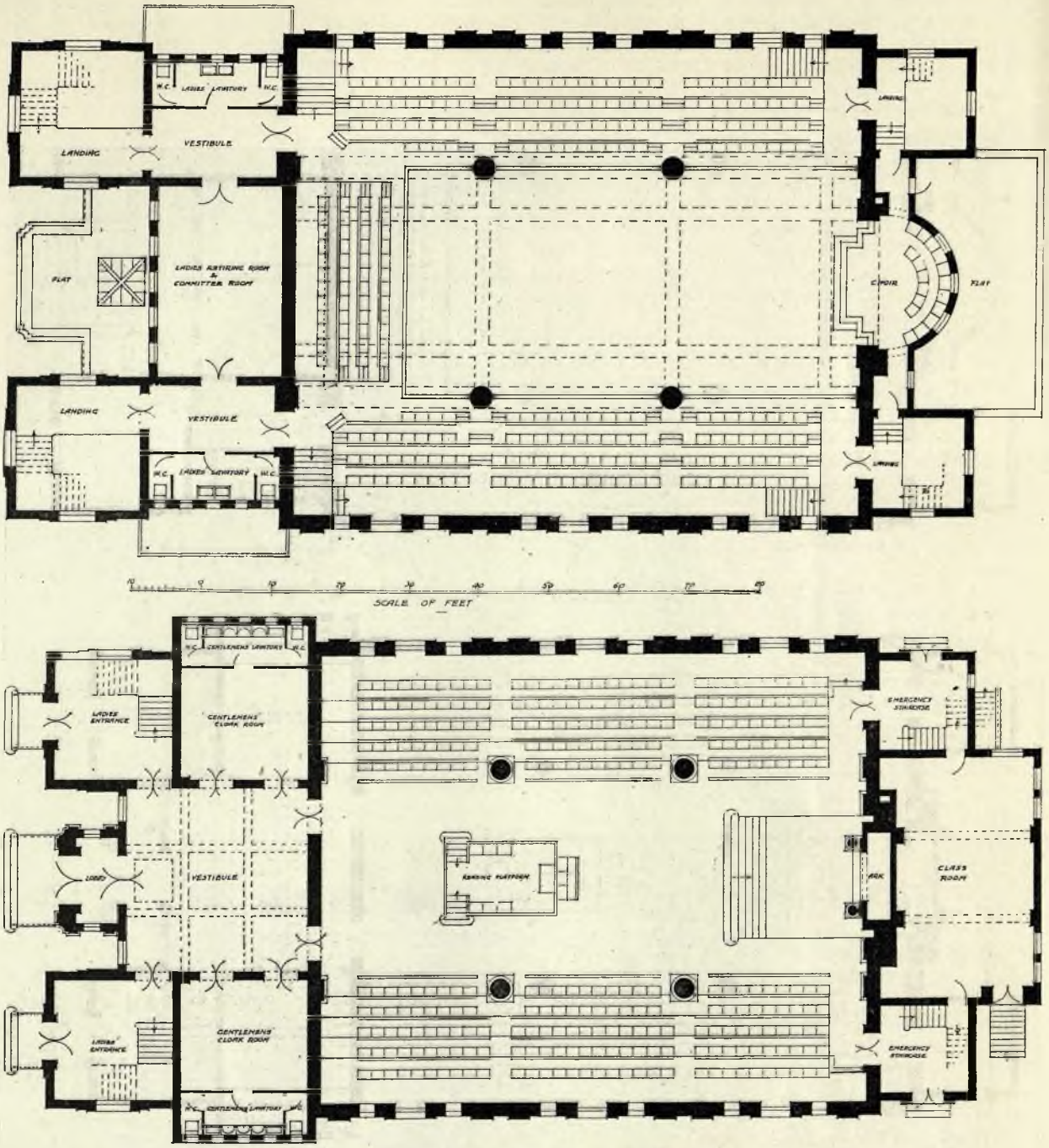
NEW SYNAGOGUE, WITHINGTON, MANCHESTER.
The late DELISSA JOSEPH, F.R.I.B.A., Architect.



NEW SYNAGOGUE, WITHINGTON, MANCHESTER: GALLERY AND GROUND FLOOR PLANS.
The late DELISSA JOSEPH, F.R.I.B.A., Architect.

New Synagogue at Withington

It is understood that great difficulty has been experienced in establishing an architectural convention which is universally suitable for synagogues. Halls for religious observances must always have some distinctive mark such as will separate them not only from secular buildings, but also from other halls belonging to different denominations. It cannot be said that the building here illustrated, a synagogue designed by the late Mr. Delissa Joseph, and completed under the supervision of Mr. Joseph Sunlight, has this distinctive quality in any special degree, but at least it has the merit of being an agreeable composition, in which the Classic style is utilised to give an effect of restraint and sobriety. The entrance portico, an essay in Roman Doric, is set between two projecting wings, which are, however, successfully dominated by the tall façade of the main hall behind. The general grouping of the parts is skilful and the building looks well from all sides.

The plan leaves nothing to be desired. The vestibule leads to an entrance hall, with staircases on either side giving access to a gallery. The hall of worship or auditorium is a lofty rectangular chamber, having at its far end a platform with an apse in which the choir is accommodated. The interior view here reproduced shows a view of part of the platform and apse, and also the gallery with clerestory above. It is perhaps unfortunate that the Ionic columns supporting the latter should ignore the parapet of the gallery, which feature, in consequence, appears to be an afterthought; for the organic shapes of the columns are complete in themselves and take no formal cognisance of this important horizontal element impinging against them at a point approximately half-way between their bases and capitals. Apart from this, however, the composition has the quality of repose and is not without dignity.

The general contractors were Messrs. Wm. Thorpe & Son, Ltd., Manchester. The sub-contractors included: Messrs. The Crittall Manufacturing Co., Ltd., Braintree (windows); Messrs. Fenning & Co., Ltd., London (marble); Messrs. W. H. Fraley & Son, Ltd., Birmingham (marble); Messrs. J. & H. Patteson, Manchester (marble); Messrs. W. J. Burroughes & Sons, Ltd., London (heating); Messrs. J. Gibbons & Son,

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NEW SYNAGOGUE, WITHINGTON, MANCHESTER.
The late DELISSA JOSEPH, F.R.I.B.A., Architect.

CORRESPONDENCE

The City of Towers

To the Editor of THE ARCHITECT AND BUILDING NEWS.

Sir,—I read with interest Mr. Edward Unwin's comment on the article which I wrote on Mr. Raymond Hood's suggestions.

I have given a copy of Mr. Unwin's letter to Mr. Hood, who unfortunately was just on the point of returning to the United States, but I have hopes that he will comment upon it later.

From verbal comments of Mr. Hood's I gather that he is not in agreement with Mr. Unwin's remarks with regard to elevators. Mr. Unwin suggests definite limitations to the heights of buildings due to the elevator problem, but it is difficult to feel perfectly convinced that such apparent limitations will not be overcome. Apparently the tall building is still a very practicable proposition: the Book Tower in Detroit is 80 storeys high and the proposed Larkin Building in New York was to have been considerably taller than that. Not very many years ago the elevator problem for such buildings as these would have been considered insoluable, but engineering science makes such rapid strides that no one can definitely lay down limitations. It is not for me to make suggestions, but even such a thing as a two-decker elevator is not beyond the range of possibility.

As regards the traffic difficulties. It does not necessarily follow that all the ground gained by the adoption of towers would be devoted to street area, but even if this were the case there is no reason to believe that the problem of handling very many lines of traffic could not be solved. The delay at the crossings, for instance, might conceivably be overcome by an extension of the round-about system. In other words there would be main crossing centres and small centres would be spaced or crossings permitted only at stated intervals. In addition, the wide traffic avenues may be so arranged that they contain permanent parking spaces for cars: an extremely important point as, with our present streets, even when they are fairly wide, the available area is enormously reduced by parked vehicles. It seems a little unfair to suppose that with streets, say, twice as wide, the congestion would be as great as at present, and therefore it is conceivable that traffic arrangements might be worked more rapidly and smoothly. Once the space is provided the organisation of the space seems feasible.

I am not in a position to argue with any weight on Mr. Hood's proposals, but experience seems to show that the first objections raised to schemes of this kind can often be overcome by a careful development, provided that the basis for the proposal has a fair element of logic, which seems to me to be the case here. I can only hope that Mr. Hood himself will be able to reply to Mr. Unwin's interesting criticism.

Yours faithfully,

HOWARD ROBERTSON.

36 Bedford Square, W.C.1.

Deterioration of Pine Wood

To the Editor, THE ARCHITECT & BUILDING NEWS.

SIR,—I take the liberty of sending you a few samples of wood taken from separate beams which have deteriorated, and I would be pleased if you would let me know what the disease is, and what in your opinion would be the remedy to prevent it taking place.—Yours faithfully,

P. REILLY, *Secretary.*

Co. Council Office, Court House, Cavan.

[The samples of wood submitted are pieces of pine sapwood tunnelled by the common furniture beetle (Anobium punctatum). This beetle lays its eggs in chinks, cracks and crevices in various timbers, and the grubs or worms hatching from the eggs tunnel into the wood, often seriously honeycombing it. Not infrequently this beetle and its grubs are associated with Dry Rot and other fungi, and in the present instance fungal decay is also present.

The remedies for furniture beetle are numerous, but it should be pointed out that only repeated treatment of infested timber with a reliable insecticide or wood preservative is of any real value.

Of the many substances available for treating wood, apart from such substance as creosote, which discolours the wood, petrol, paraffin and turpentine are the cheapest and most efficient; but recently a substance known as Ortho-di-chlor benzene has been used with success. It can be obtained from most chemists. —J. W. M.]

[*Note.—We are always glad to assist readers when possible with expert opinion on matters of technical detail or difficulty. On account of pressure on our space, and the fact that most of the enquiries received are of individual rather than general interest, it is our rule to send the replies by post and not publish them in our columns. We reserve the right, however, to publish replies on any matter, as in the case above, that appear to us to be of value to readers generally.*—ED.]

Westminster Abbey

To the Editor of THE ARCHITECT AND BUILDING NEWS.

As regards the proposed addition to Westminster Abbey, there is no architect *in the world* who could do the work. The Spirit that inspired such works has gone, the art is lost; look at St. Alban's Abbey, for instance.

Is there anyone who would have the impudence of suggesting an alteration to the Parthenon or an improvement in a picture by any of the Masters?—I am, yours faithfully,

THOS. M. DEANE, B.A.

Penmaenmawr, N. Wales.

The Doric Column

To the Editor of THE ARCHITECT AND BUILDING NEWS.

Sir,—I have followed with interest the controversy in your columns with regard to the teaching of the Orders, and particularly a recent letter in reply to "Student." I have duly noted the literary style of the letter, and its provocative excellence. Might I be allowed to take up the cudgels for a moment on behalf of the "die-hard" method?

Your correspondent has, it appears, suffered much from the Doric Order—griefs comparable to those we bore in early youth from the multiplication-table, five-finger exercises and Latin verbs! Such are growing pains. But behold us proudly on the threshold of our profession, and plunged again into a similar drudgery. We may well ask—Can beauty be lassoed with a tape measure? When we have committed the Doric Order to paper in terms of modules and parts, are we any nearer to the secrets of the Parthenon? What have we gained besides self-discipline and a sense of virtue? I maintain that you cannot master the perfection of that outline without training your sense of beauty. Turn modules and parts into feet and inches, you have a scale to work to—in the same terms in which you yourself are destined to work. The mistake is probably that there it generally stops, and the Doric Order is next begun, to stop again at the vital part. The whole form must be visualised—and that takes trouble and imagination and a little knowledge. It is not enough to study the Cap in the British Museum, fine though that is—or the frieze, or even the Elgin Marbles—seen as they are close to the eye. Study these things

(*Continued on p.* 814.)

WITHINGTON PUBLIC LIBRARY.
HENRY PRICE, A.R.I.B.A., Manchester City Architect.

Ltd., Manchester (plaster work); Messrs. General Electric Co., Ltd., London (electric light fittings); Messrs. W. T. Allen & Co., London (wrot-iron work, handrails, etc.); Messrs. Redpath, Brown & Co., Ltd. (steelwork); Messrs. T. Lightfoot & Co., Manchester (plumbing); Messrs. Electric Lighting and Power Co. (E. M. Austin), London (wiring, etc.).

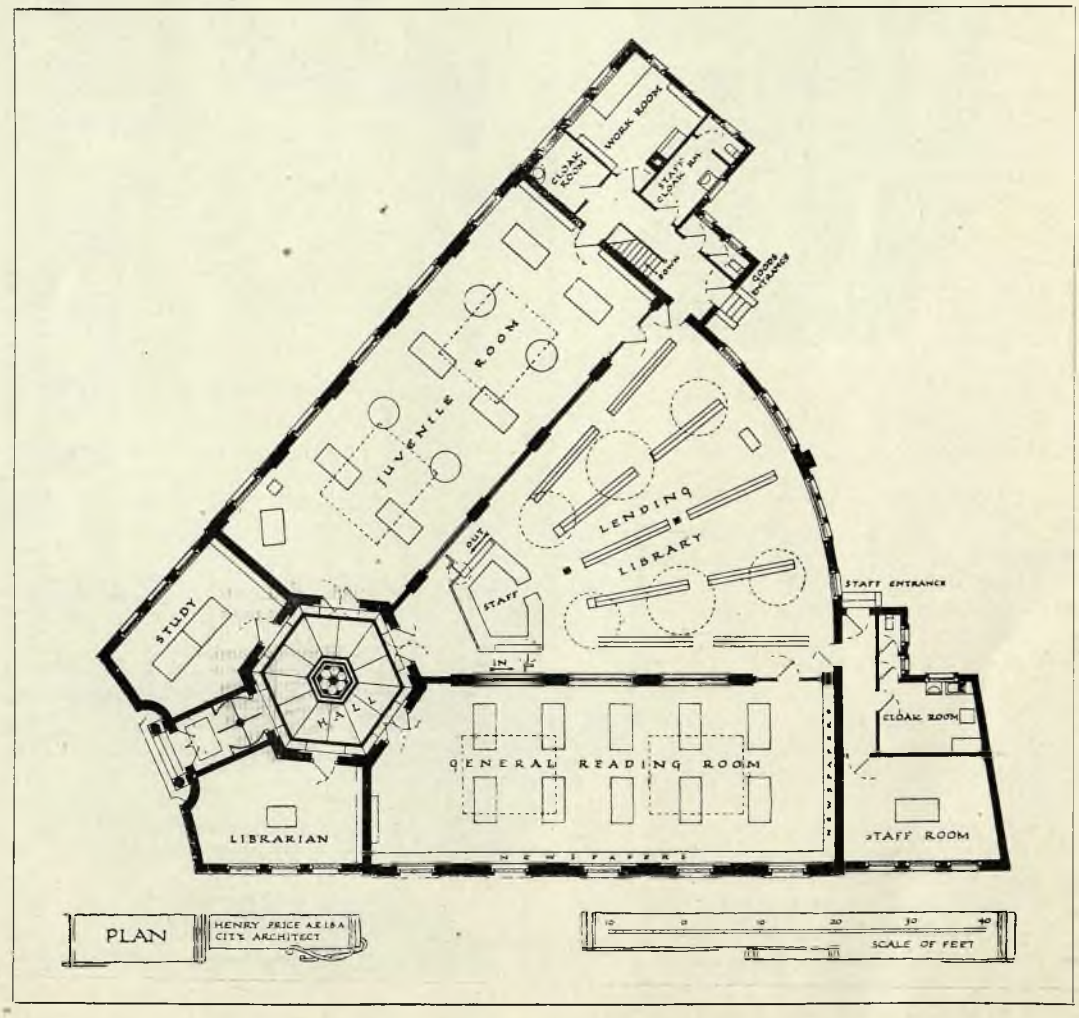
Withington Library

This building, designed by Mr. Henry Price, the City Architect of Manchester, is a highly attractive composition, in which full advantage is taken of the corner site. Entering by a vestibule, we proceed to a lofty hexagonal hall which, although of small area on plan, amply suffices to give access to five rooms, of which the largest is the lending library immediately opposite the entrance. This is of triangular shape, and, besides being illuminated by a series of windows on the curved frontage towards the rear, has six circular top lights. The bookshelves radiate towards the entrance, where counters for the staff are conveniently placed. To the right and left of this central apartment are the general reading room and juvenile room respectively, both fine rectangular rooms with rows of tall windows towards the street. The hall also gives access to a study and to the librarian's private room. At the far end of the three large rooms are doors leading to cloakrooms, lavatories and separate entrances for the staff and workrooms. The plan is admirable in its apparent inevitability. The elevations also reflect the ordered simplicity of the plan and display an admirable formality. The entrance portico is pedimented and set between two blank wall faces relieved by decorative panels, while the requisite focal interest to the whole building is provided by the hexagonal tower over the hall, which is surmounted by a tall stone parapet. The flanks of the building form symmetrical compositions of which the centre portions are higher than the wings. The façades are of sand-faced brick and Portland stone. This is an example of a small public building excellently planned and imbued with an appropriate architectural character.

The general contractors were Messrs. C. H. Normanton & Son, Ltd., Plymouth Grove, Manchester. The sub-contractors included: Mr. F. C. Heys, Clarence Road, Longsight (fittings carried out in polished oak); Messrs. Van Kannel Revolving Door Co. (1926), Ltd. (entrance doors); Messrs. Elliott, Ellis & Co., Manchester (heating); Messrs. S. Oakley & Sons, Manchester (plumber work); Messrs. Conway & Co., Manchester (wall tiling and terrazzo paving); Messrs. J. Broomhead & Sons, Ltd., Salford (plaster work and painting); Messrs. R. H. Clampett, Paton Street, Piccadilly (electric lighting); Messrs. Robinson & Kershaw, Manchester (smith and ironfounder work); executors of Alex. Mackay, Oldham (mason work).

The Parr's Wood Motor Bus Depot

The enormous increase in the number of motor-buses which nowadays crowd the streets has necessitated the building of garages so large that they demand an architectural treatment. It is to the credit of the Corporation of Manchester that it is the first municipal body to give to such a garage the importance and status it deserves, and the building here illustrated, designed by Mr. Henry Price, the City Architect, is a praiseworthy attempt to find a suitable



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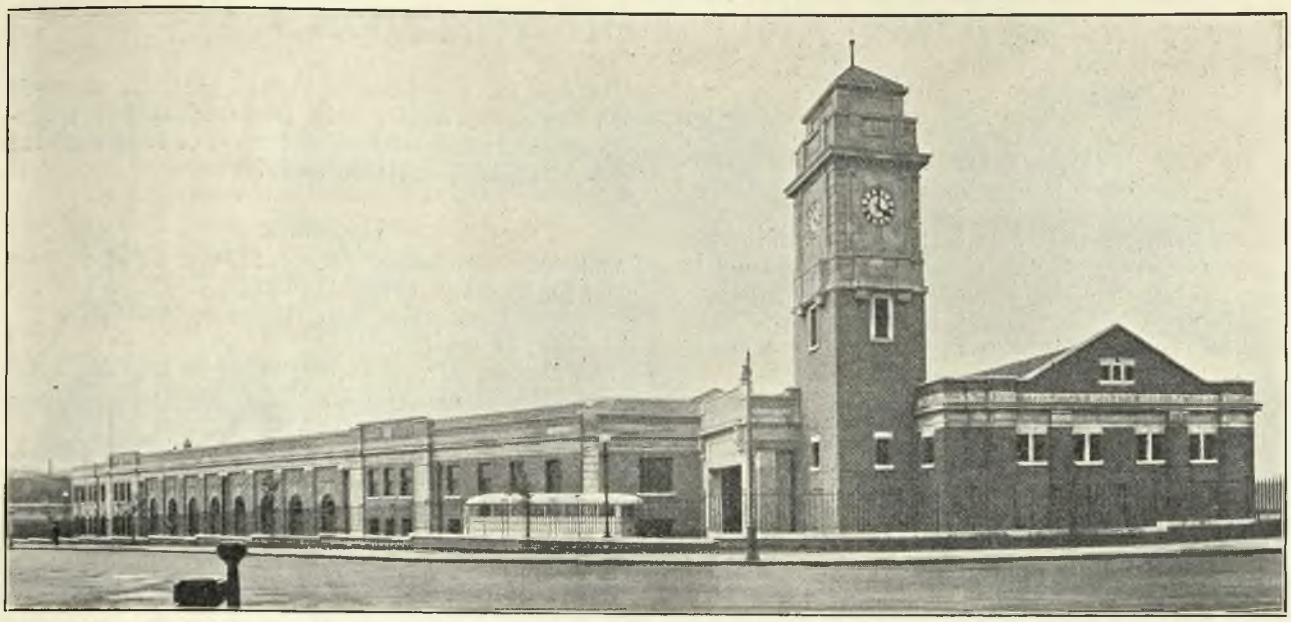
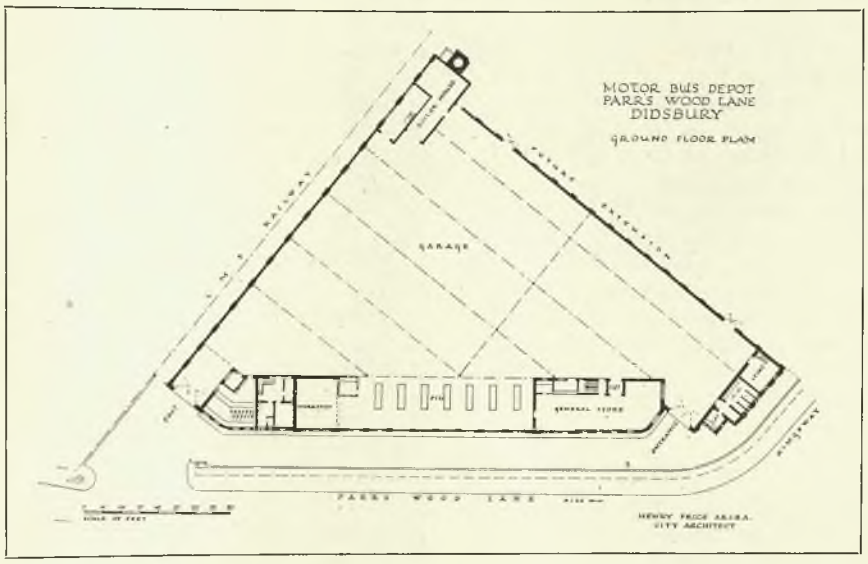
HENRY PRICE, A.R.I.B.A., Manchester City Architect.



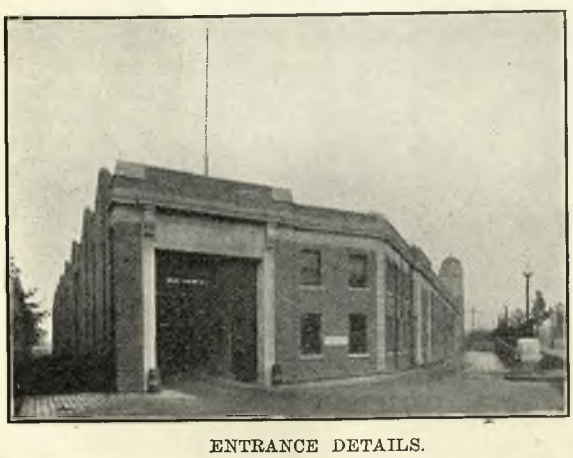
MOTOR BUS DEPOT, PARR'S WOOD LANE, DIDSBURY.
HENRY PRICE, A.R.I.B.A., Manchester City Architect.

formal expression for a bus garage. As might be expected, such a structure must necessarily comprise a large area of one storey only, so that it is not easy to make it highly imposing architecturally. The utmost that can be done is to create a centre of interest by elevating one portion of the façade, and this is what Mr. Henry Price has done; at one corner of the building he has erected a clock tower which is justifiable inasmuch as it serves a utilitarian purpose, while at the same time it provides the requisite formal emphasis without which the design would appear somewhat dull. Even apart from the tower, however, the building has elements of composition which give it a certain distinction, as, for instance, the arcade on the long façade, which has pilasters between each bay and has at either extremity a slightly projecting pavilion with raised parapet. Moreover, the contrast of red brickwork with stone facings brightens up the design, the stone being used effectively yet economically at special points of the composition. The tower itself is of interesting design, but it is perhaps questionable whether the horizontal projection, or "belt," halfway up its height is altogether a satisfactory feature. In the interior, which is also here illustrated, there is accommodation for fifty motor-buses.

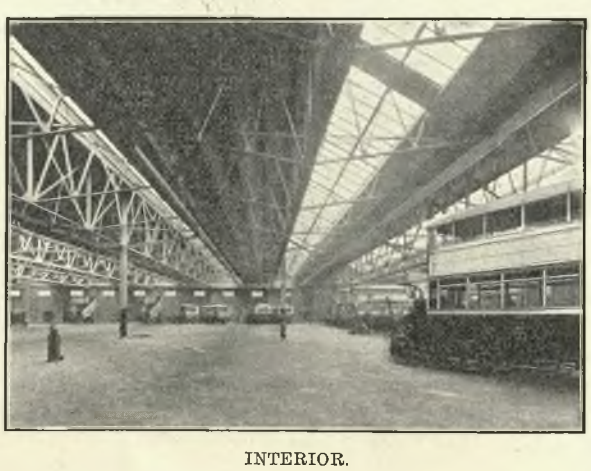


The general contractors were Messrs. J. H. Billings & Co., Green Lane, Chorlton-on-Medlock, Manchester. The sub-contractors included: Messrs. Lambourne & Co., Ltd., Manchester (steelwork); Messrs. J. & E. Moores, Manchester (mason work); Messrs. Fearnley & Sons, Ltd., Salford (carpentry and joinery work); Messrs. T. Kilburn & Son, Manchester (slating); Messrs. J. A.

(*Continued on page* 814)



ENTRANCE DETAILS.



INTERIOR.

MOTOR BUS DEPOT, PARR'S WOOD LANE, DIDSBURY.
HENRY PRICE, A.R.I.B.A., Manchester City Architect.

BOOKS AND PUBLICATIONS

Landscape Architecture

The Life and Work of an English Landscape Architect; an Autobiography. By T. H. Mawson. Pp. xvi, 368. (London: The Richards Press.) Price 25s. net.

It is pretty generally held that the man who writes an autobiography never presents himself in the character most clearly recognised by his intimates. True, it requires more than a little courage to write one at all; and there is always an urge, in the writing, to colour one's accomplishments by one's ideals, by those deeply-hidden aspirations that are concealed from, and unsuspected by, even bosom friends. Generally, the most successful kind of autobiography is that which deals very fully with a man's work, for it is always possible to learn from it much of the personality of the author which modesty or diffidence prevents him from putting directly on paper. Mr. Mawson presents us with just such an autobiography, giving a very full account of his early struggles to obtain a competence and recognition; of his gradual progress, despite the difficulties attendant on a rather specialised profession, and the placating of uncomprehending or obstreperous clients, to a position of eminence as a designer of gardens and parks and as an authority on the lay-out of cities.

As a designer, Mr. Mawson stands midway between the extreme formality of Le Notre and his school and the naturalistic ideas of Capability Brown and Paxton. His aim has been to unite nature and art unobtrusively, to shade off, as it were, the purely artificial lines of the building into the natural forms of its surroundings. For this reason, his formalised setting of the house is never pushed too far into the surrounding landscape, and it becomes less formal as it extends from the house.

It was probably the experience gained in the lay-out of private and public gardens that no doubt led him to study that larger type of lay-out which town-planning represents; and this new interest, coinciding with the beginnings of the world-wide movement towards better and more beautiful cities, eventually led to his engagement to draw up plans for city development in many parts of two continents of the world.

It is sad to reflect that, but for ill-health, the leisure to write this book might never have come about in such a busy life. Mr. Mawson's regrettable loss in this respect leaves us the gainers by a very interesting volume, from which much useful information may be acquired about the rehabilitation of a branch of design that had been allowed to languish and fall into disrepute during the greater part of the Victorian era.

Kelly's Directory of the Building Trades

The 16th edition of the above-mentioned Directory has just been published, price 50s. net.

This Directory covers, and constitutes a guide to, the Building and Allied Trades. It embraces England, Scotland and Wales, and the principal towns in Ireland, the Channel Islands and the Isle of Man. In addition to the names of upwards of 20,000 builders, it gives also the names of those engaged in the allied professions and trades, such as builders in concrete; plumbers and glaziers; gasfitters; sanitary engineers; architects; land and estate agents; surveyors, etc.; and of manufacturers and suppliers of the different articles and materials used.

The book comprises:—A places section, giving the names of each county, arranged alphabetically under the towns and villages; an alphabetical classification of trades for the London Postal District, arranged with the names under each trade heading in alphabetical order; a similar classification of trades for the rest of England, Scotland and Wales.

Denmark

Denmark. A Modern Guide to the Land and its People. By Clive Holland. Pp. xii-180, 33 illustrations. London: Simpkin, Marshall & Co. Price 3s. 6d. net.

The average Briton is beginning to manifest some of the interest in Denmark which the Dane has long taken in England as the best customer of his country. That accounts, in some measure, for the appearance of this guide, which is packed with information about this little country, its people, institutions, customs, art and historic buildings. No one need be deterred from visiting Denmark on account of language difficulty, for the Danes not only take account of the likes and dislikes of their chief customer in bacon and other produce, but also study his language as a useful adjunct to retaining and increasing trade with him. Mr. Holland does not go deeply into the reasons for the success of Danish agriculture, nor does he give us a survey of modern developments in Danish architecture that those in the know have stated should be studied as a prelude to inspecting the modern buildings in Sweden which have excited so much attention in recent years. But upon the historic buildings, such as the Royal Castles and Palaces, the book provides a wealth of information. We may expect, therefore, that students of architecture will visit Denmark in increasing numbers, and for practical assistance in their travels they could not be better armed than with a copy of this guide.

The Ideal Kinema

Architects will find much to interest them in *The Ideal Kinema,* the special supplement to *The Kinematograph Weekly,* of November 10. This is a record of progress in the design and equipment of the Kinema, with numerous illustrations of recent examples in England, America, Germany, etc. Mr. Robert Atkinson contributes an article on "The Architect's Problem"; Mr. J. R. Leathart deals with "The Provincial Kinema," where design is a box-office asset; Mr. Hope Bagenal has an article on proper planning to meet acoustical requirements; Mr. Clough-Williams Ellis discusses "Atmospheric Decoration"; and Mr. R. E. Enthoven considers the effect of "Colour Decoration" in its appeal to the emotions. Various specialists deal with the technical equipment of these buildings.

Books Received

Twenty Woodcuts by George H. Wood. With a Foreword by John F. Greenwood, A.R.E. (Manchester: Sherratt & Hughes). 5s. net.

The Ley Hunter's Manual. By Alfred Watkins. (London: Simpkin, Marshall & Co.). 2s. net.

National Ancient Monuments Year Book. (Illustrated). Edited by John Swarbrick, F.R.I.B.A. (The Wykeham Press). 3s. 6d. net.

A Short Critical History of Architecture. By H. Heathcote Statham. Second Edition, revised and enlarged under the editorship of G. Maxwell Aylwin, F.R.I.B.A. (Batsford). 16s. 0d. net.

The Natural Lighting of Picture Galleries. Published by the Department of Scientific and Industrial Research under the authority of His Majesty's Stationery Office.

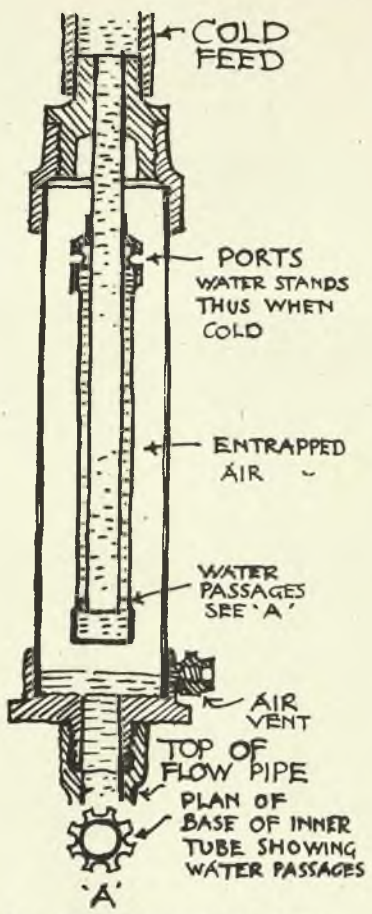
NEW NEEDS AND MODERN NOTIONS—X

By Edwin Gunn, A.R.I.B.A.

The recent foretaste of winter turns everyone's minds to ways and means of house-warming, and those who possess mechanical appliances are hastily overhauling them, while those who do not are either envying or pitying those who do. Not a year—hardly a month—passes without the addition of some new means or device to the resources available for generating or utilising heat, and though many such merely do in a slightly easier or better way what has already been possible, yet some are of a distinctly innovating kind.

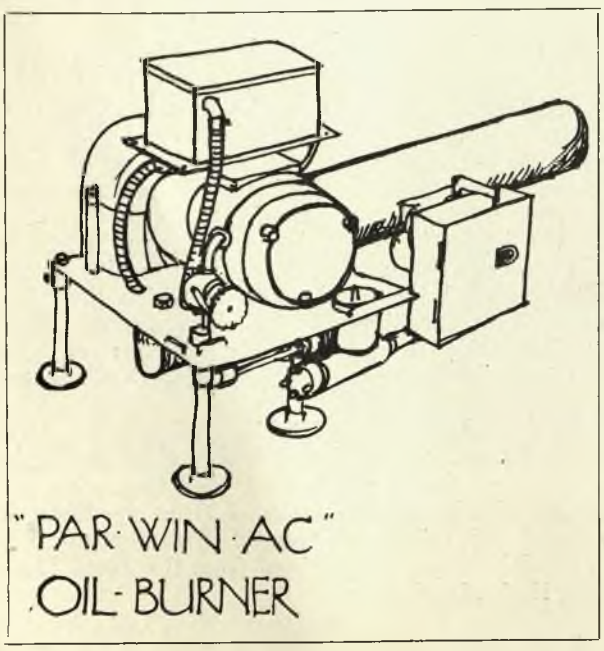
A few such accessories which may be of use in connection with existing services have recently come to my notice, and a few remarks may be of use to others who have been faced with similar difficulties to those which led to their discovery.

There are in existence many central heating systems in which, whether from long rambling pipe-runs, unfavourable levels or original niggardliness in fixing pipe sizes, the circulation to distant points is apt to be sluggish unless the boiler is continually forced—and sometimes even then. In such circumstances an accelerated circulation has been a possible resource, where power to drive some type of forcing apparatus is available. This is not always the case, however, and even when it is, the rhythmic noise of a pump or circulator can become very worrying during the stillness of night—we all harbour recollections of the annoyance of a dripping tap or pipe, and sometimes even the tiny noise of an electric transformer proves enough to wear weak nerves to breaking point. The introduction of a motor-driven pump or circulator into a private house is therefore not to be undertaken lightly. A novel appliance, called by the makers a "booster," seems admirably fitted for use in such conditions. This utilises the expansive force of water when heated, to compress imprisoned air and impart an impulse to the circulation. Its installation involves some changes in an existing installation, chiefly involving the cold feed and the expansion pipe, but these are usually not serious. In a new installation considerable reductions in pipe sizes and boiler power can be effected if a booster is installed from the start. The booster itself is a small simple device made in four sizes, from 12 inches to 13 inches long and 2½ inches to 3 inches in diameter. It is attached to the expansion pipe and becomes the only passage for expanding and contracting water or make-up feed water. The makers of the apparatus are Messrs. Bagley & Parker, Ltd., 121 Suffolk Street, Birmingham.

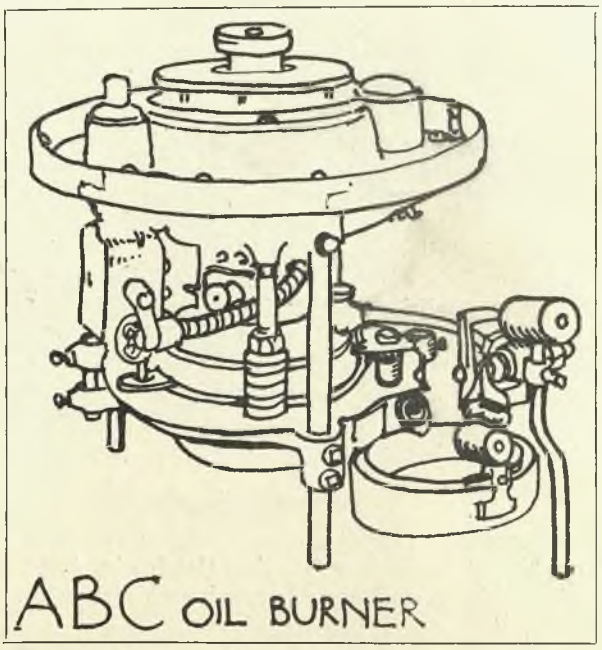


"BOOSTER" SKETCH SECTION

The average man has hardly been convinced that to instal a coke or anthracite boiler and some system of heat distribution from a central source is the normal thing, before he must be prepared to consider it old-fashioned. Within the limits of the moderate-sized house the sounds of stoking, clinkering, and fuel shovelling are apt to be painfully apparent, and as the two former almost necessarily take place last thing at night and early in the morning, and are admirably conducted by the network of metal pipes to which the boiler is attached, there are found to be drawbacks (as usual) to the most seemingly perfect of systems. America, which is an oil-producing country, has for some time since turned to liquid fuel in such cases. The direct financial advantage which America enjoys from this change is lacking in this country, but the incidental benefits of cleanliness, quiet, responsiveness, and automaticity remain and



"PAR·WIN·AC" OIL-BURNER



ABC OIL BURNER

make a strong appeal. Earliest efforts here were directed to the large heating plant, and many such have run on oil-fuel now for some years. The smaller self-contained unit plant is now, however, becoming available, including types adapted for installation inside the vertical hot water boiler in place of the grate bottom, and also externally to the fire-front in the case of sectional boilers. Though an extraordinary degree of automaticity is reached and safety devices to guard against almost every predicable contingency are incorporated, it must not be overlooked that all such appliances are intricate pieces of mechanism, so that some degree of understanding is desirable among users. In these days of "owner-drivers" and "wireless fans," however, the degree of knowledge necessary to be assured of the plant's continued well-being is common property and needless apprehension may be decried. Two points, however, which are not strictly of a mechanical nature, should be carefully guarded. The heavy fuel oil will be stored in a tank, which for economical replenishment should contain a margin of capacity over that of the ordinary road-delivery tank. Though there is no special reason to anticipate leakage of this tank, if it should occur, six tons or so of heavy oil is an unpleasant thing to find flowing about the floor, and it is desirable to arrange for its restriction within the cellar or other store in which the tank is located by building up a solid wall to sufficient height across the doorway to constitute the apartment a well or sump capable of holding the contents of the tank. The second safeguard requisite is against the danger of accumulation and subsequent explosion of unconsumed gases in the boiler flue—very similar in effect to the familiar explosion of motor gases in the silencer, and more alarming in result. The boiler flue should be without pockets such as might occur if an iron pipe were connected to the partially filled-in throating over an old range-opening, and it should be of approximately even diameter throughout.

In the field of electric heating we are all now familiar with the two most general types of heater—the little bowl heater, and the more powerful "electric fire." In passing, I cannot help expressing regret that so many of both types seem to be based on perverted ideals of "flashiness" coupled with expiring remnants of *l'art nouveau* shapes. A relative newcomer is the "Morganite" radiator, which has its distinctive points. "Morganite" is a specially prepared glazed pottery which is itself the heating element. Made in panels, it contains no metal parts other than the terminals, and emits radiant heat at a temperature which never rises to glow-point and is incapable of igniting paper or fabric. As such it seems very well adapted for bedroom or nursery heating, where it can be introduced in portable panels mounted somewhat similarly to fire-screens. It is also made up suitably for public halls and similar buildings, as a permanent attachment, where it offers some advantages as compared with other systems in ease of installation and freedom from disturbance of existing decorations. For ordinary domestic use its negative qualities on the side of cheerfulness detract from its appeal. The Morgan Crucible Co., of Battersea, are the patentees of the material, and manufacture fittings for various public and private uses.

Personal Note

Plymouth Corporation Works Committee has appointed Mr. Edgar Gooding Catchpole, A.R.I.B.A., of Blackburn, as deputy borough architect.

Competition Review

Proposed Extension to the Municipal College of Technology, Manchester

The Corporation of the City of Manchester have decided to invite designs for an extension of the College of Technology on a site adjoining the present building in Sackville Street and Whitworth Street. Mr. Alan E. Munby and Mr. Henry M. Fletcher will be the assessors for the competition. Premiums of £500, £400 and £300 will be awarded. The usual conditions attach to the payment of fees to the architect carrying out the work, which, it is estimated, will cost not more than £170,000. Designs must be submitted to the Town Clerk not later than 5 p.m., Friday, March 30, 1928, and the last day for asking questions with regard to the conditions is Saturday, December 10.

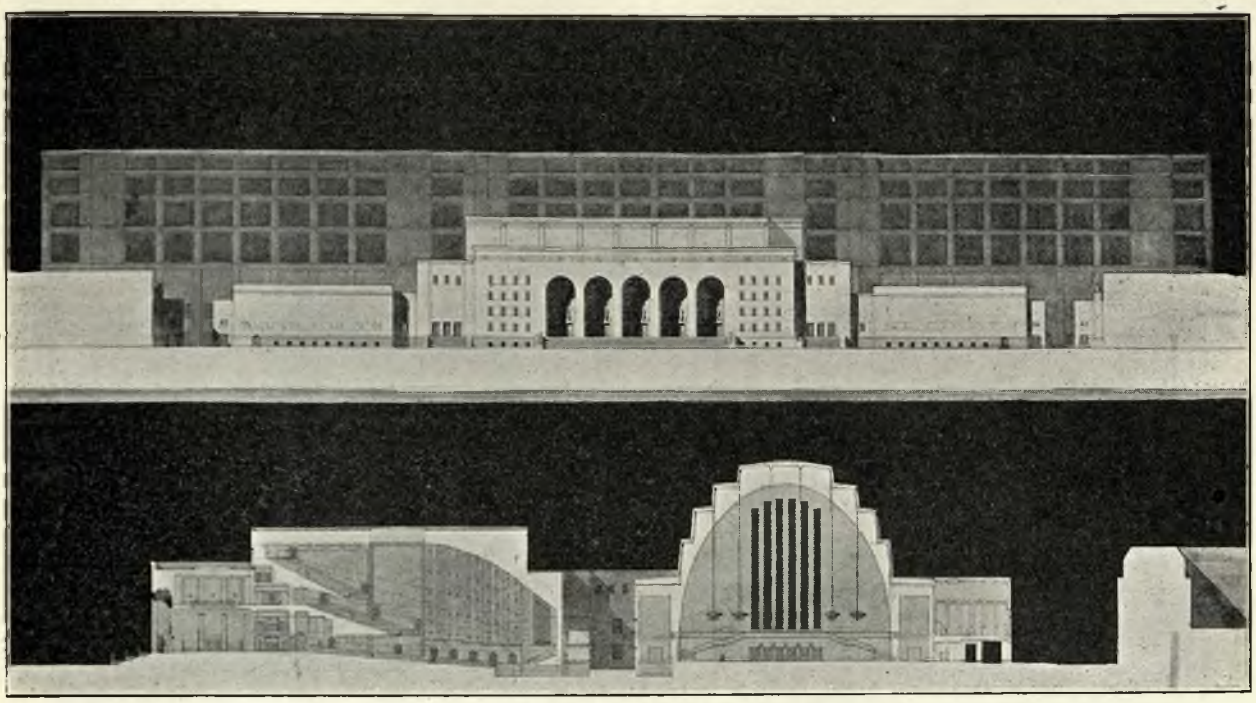
The entrants will here be required to show a very great knowledge of all the technicalities connected with the building of workshops and laboratories, and the task of satisfying the practical conditions and at the same time designing dignified elevations will be an exceptionally difficult one, but it is anticipated that the very difficulties involved will attract a large number of competitors for what must be counted a considerable architectural prize.

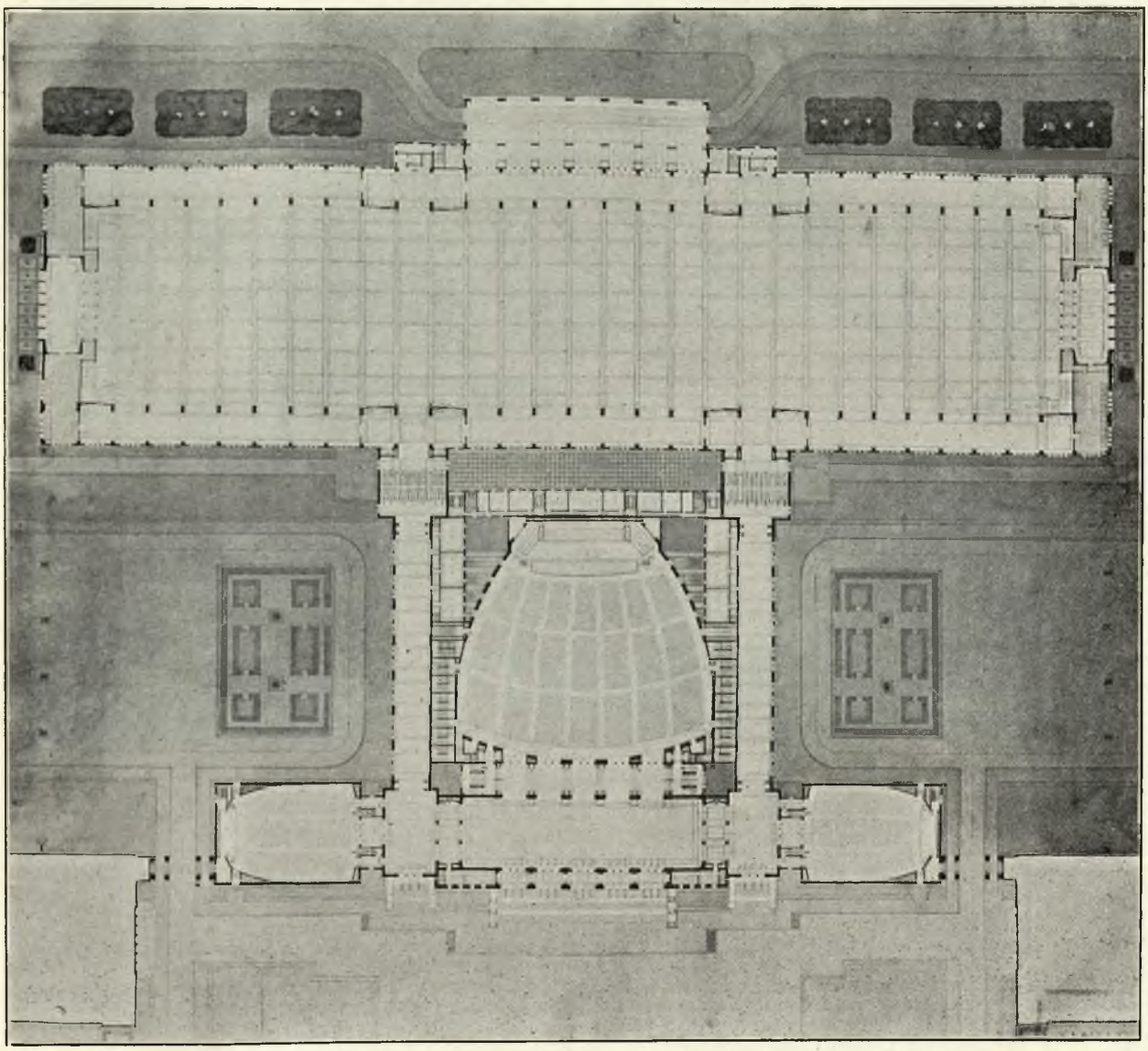
Accommodation must be found for departments of mechanical and electrical, municipal and sanitary engineering, and for the study of textiles, building, physics, mining, fuel, dyes, metallurgy and chemistry, in addition to a library, refectory, staff and lecture-rooms and store-rooms, cloak-rooms and lavatories. Nowadays building owners, whether public or private, require a great deal for their money, and one is not surprised to learn that the Corporation of Manchester want not only underground garages for motor-bicycles, pedal-bicycles and cars, but also a fives court "if a suitable position can be found"!

A very long list of special requirements includes top-lit laboratories for the study of heat engines, boiler house for testing purposes, dynamo rooms, research laboratories "to be as free from vibration as is practicable," weaving sheds, carpenters' and machinists' shops, lithographic rooms, and laboratories for gas analysis. In several of the rooms travelling cranes will need to be provided. The assessors suggest that in the design of the extension it is desirable to obtain the maximum of flexibility and adaptability. In many parts of the plan it should be made possible to turn two or more rooms into one, or *vice versâ*, and, generally speaking, there should be as few fixed and permanent features in the design and construction as is compatible with safety and convenience.

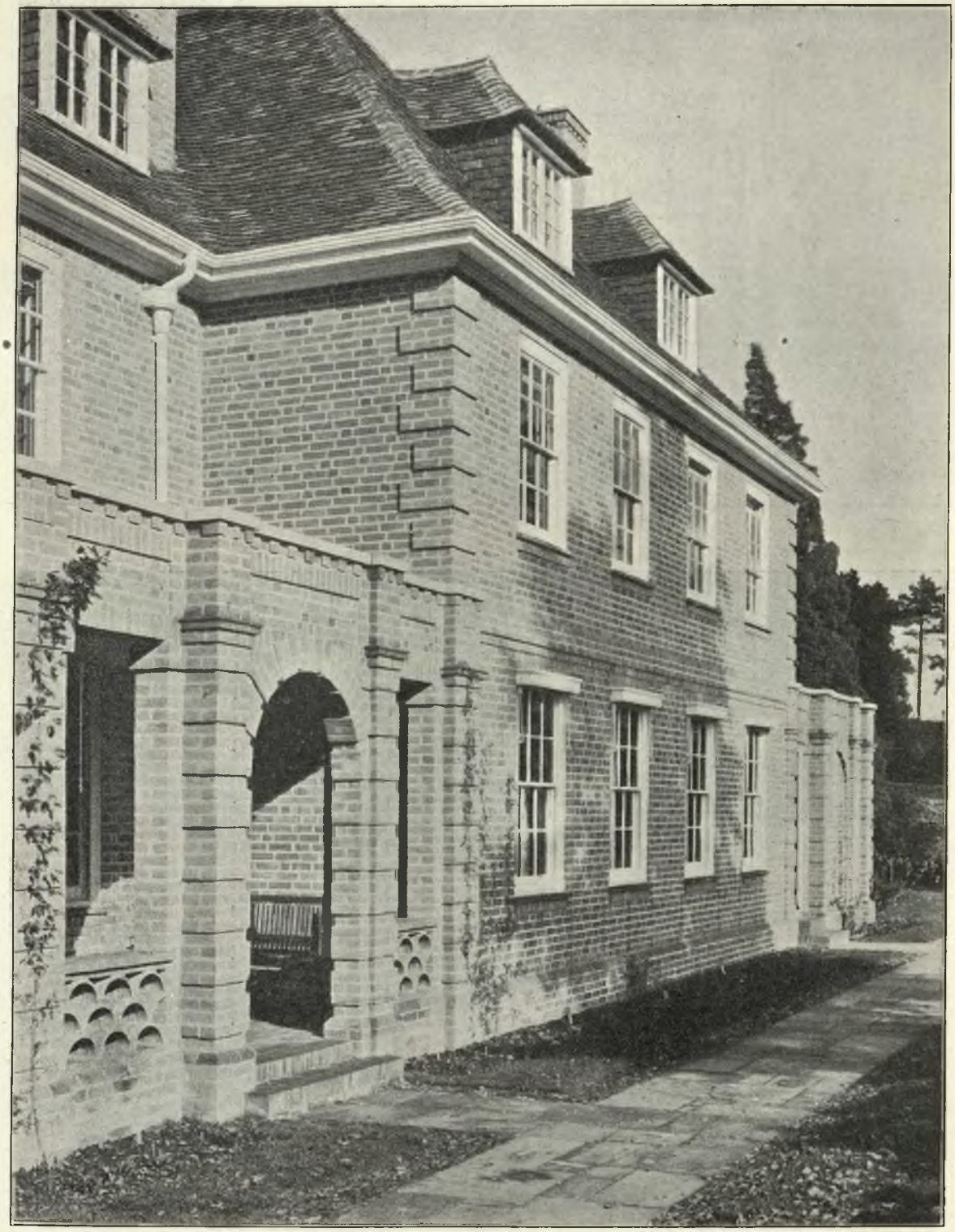
With regard to the elevations, considerable freedom will be left to the competitors, who may, if they think fit, set back any portion of the new building from the street line. Nor is it necessary for the new façades to conform in material or style with the existing building so long as the main horizontal lines of the latter are taken account of. It appears probable that this competition will be judged very largely on the plans. Entrants will be required to give in considerable detail the particulars on which their estimates of cost are based. An allowance of 1s. 8d. per foot cube is specified, plus 10 per cent. of the total cost for engineering, heating, lighting and other services.

The drawings will need to be workmanlike rather than spectacular, and the assessors give precise instructions as to the method of rendering. No perspective will be allowed, nor need the elevations be rendered with colour or shadows. Full particulars of the conditions may be obtained from the Town Clerk, Town Hall, Manchester.





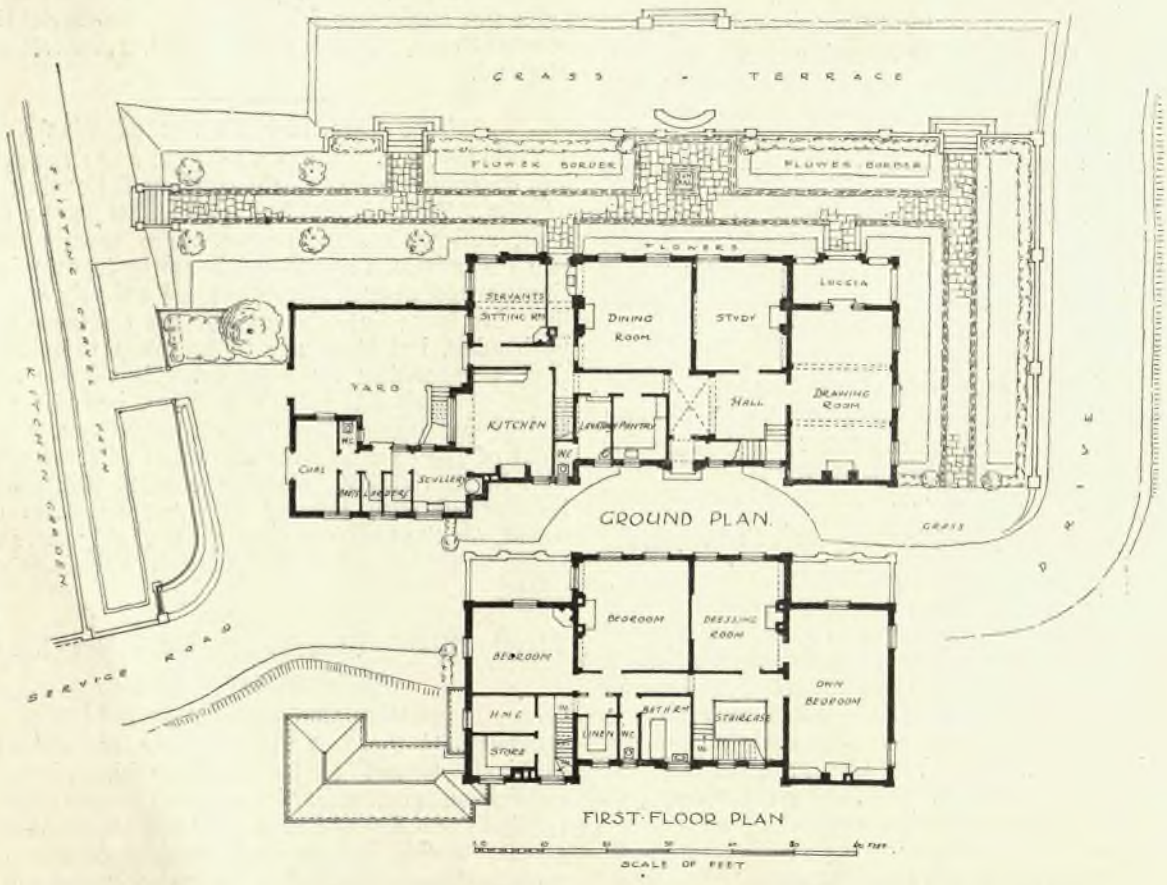
DESIGN FOR AN "EMPIRE CENTRE" IN A CAPITAL CITY.
ROME SCHOLARSHIP, 1927: DESIGN SUBMITTED BY MR. J. BREAKWELL.



WHITEWAYS END, FARNHAM, SURREY

H. H. JEWELL, F.R.I.B.A., Architect.

This house is an attractive example of the style of architecture which is partly derived from the traditions of the 18th century, but yet has a countrified air. The high pitched roof and tall chimneys strike the note of domesticity, while the plan in its symmetrical formation widely spread out over the site suggests an orderly and convenient arrangement of rooms. The entrance vestibule leads to a staircase hall, from which access is obtained to three living rooms, the spacious drawing room extending the whole depth of the house. On the first floor are three bedrooms and a dressing room, while accommodation is found for servants' bedrooms in the attic. Special attention has been paid to aspect, and all the principal rooms face south towards the garden, while the windows on the main frontage are confined to staircases, landings, and minor apartments. The lay-out of the grounds is skilfully managed. The drive swells into a circular turning-space before the front door, but towards the garden front the requisite formality is obtained by a well-designed terrace with steps leading down to the lawns.



WHITEWAYS END, FARNHAM, SURREY.

H. H. Jewell, F.R.I.B.A., Architect.

Professional Societies

R.I.B.A.

The following notes are from the Minutes of the Council Meeting held on October 24, 1927.

Standard Sizes of Bricks.—On the recommendation of the Science Standing Committee, it was agreed to invite the Institutions who were parties to the original agreements on the standard sizes of bricks, as printed in the R.I.B.A. Kalendar, to a further conference to consider the advisability of preparing additional standards for smaller bricks. The Science Committee have been requested to arrange this conference and to confer with the Art Standing Committee upon the matter.

Schedule of Uses of Native Timber.—The Council agreed to contribute the sum of £10 10s. towards the cost of printing a "Schedule of Uses of Native Timber," drawn up by a Joint Committee on which the R.I.B.A. is represented by Mr. H. D. Searles-Wood (F).

Limited Liability Companies and Use of Designation "Chartered."—The Council agreed to support the Surveyors' Institution in endeavouring to secure an amendment to the Companies Bill to prevent the use of the term "Chartered" by limited liability companies.

Conference on Garden Planning.—Mr. Gilbert H. Jenkins (F) was appointed to represent the R.I.B.A. on a Committee of the Conference on Garden Planning, which the Royal Horticultural Society propose to hold in November, 1928.

The Royal Sanitary Institute Congress at Hastings.—A report was received from Mr. H. D. Searles-Wood (F) and Lieut.-Col. P. A. Hopkins (L), the R.I.B.A. delegates at the recent Congress of the Royal Sanitary Institute at Hastings. The thanks of the Council were conveyed to Mr. Searles-Wood and Lieut.-Col. Hopkins.

Retired Fellowship.—The following members were transferred to the Retired Fellowship:—Walter J. N. Millard, elected Associate 1885, Fellow 1921; and Charles Harrison Townsend, elected Fellow 1888.

Resignations.—The following resignations were accepted with regret:—James Henry Coram (A.), and Langton Dennis (A.).

The late Mr. George Northover.—The President referred to the sad news of the death of Mr. George Northover and spoke of the valuable services which Mr. Northover had rendered to the Institute for so many years as Editor of the Journal.

Registration of Architects

Communications on this subject should be sent direct to the Secretary of the R.I.B.A., Registration Committee, at 28 Bedford Square, W.C.1.

The Architects', Engineers' and Surveyors' Defence Union, Ltd.

Members of the R.I.B.A. practising in Great Britain or Northern Ireland are eligible to apply for membership of the Union. The annual subscription is £3 13s. 6d., which includes the insurance premium for the same period in respect of the policy issued by the Cornhill Insurance Co., Ltd. The Secretary of the Union is Mr. C. McArthur Butler, L.R.I.B.A., 28 Bedford Square, W.C.1, from whom further particulars and forms can be obtained.

Competition News

Kensington

The Kensington Housing Trust, Ltd., 138 Portobello Road, Notting Hill, W.11, have acquired property in Mary Place and Bloomfield's Yard, overlooking Avondale Park Gardens, where it is proposed to build a block of 30 or 40 flats, to assist in the housing problem in this borough. The question of plans may be the subject of a limited competition.

Lewisham

The Borough Council has appointed Mr. F. Winton Newman, F.R.I.B.A., as assessor in connection with the development of the Lewisham Town Hall Extension Scheme, which is to be the subject of open competition. Mr. Newman will advise the Council on the question of cost and premiums to be offered.

Nottingham

The prize of £100 offered by a Nottingham newspaper for the best lay-out design for the town's market place has been awarded to Mr. F. Hamer Crossley, 16 Arnside Road, Rake Lane, Nottingham. Sir Edwin Lutyens was the assessor of the competition.

The Amsterdam Exhibition

The Department of Overseas Trade is informed that the third Housing, Furniture and Interior Decoration Exhibition at Amsterdam, will be held in February next. The following articles will be admitted for Exhibition:—Furniture, chair-frames, beds, painted furniture, cane and iron furniture, wall-papers, wall-hangings, upholsterers' and furniture makers' requisites, glass, marble, mirrors and frames, curtains, upholstery materials, furniture leather, lamps, lampshades, etc., linens, damasks, wood, woodworking machines and tools, Japanese and Chinese goods, artificial leather, waxed and oilcloth, carpets, linoleum, rubber and parquet floor coverings, enamels, varnishes, paint, etc., bedding, sanitary ware, fireplaces, stoves, etc.

Further particulars, plans, etc., may be obtained from the Managing Directors, Woning-Inrichting en Meubel-Beurs, Keizergracht, 324, Amsterdam C. Holland.

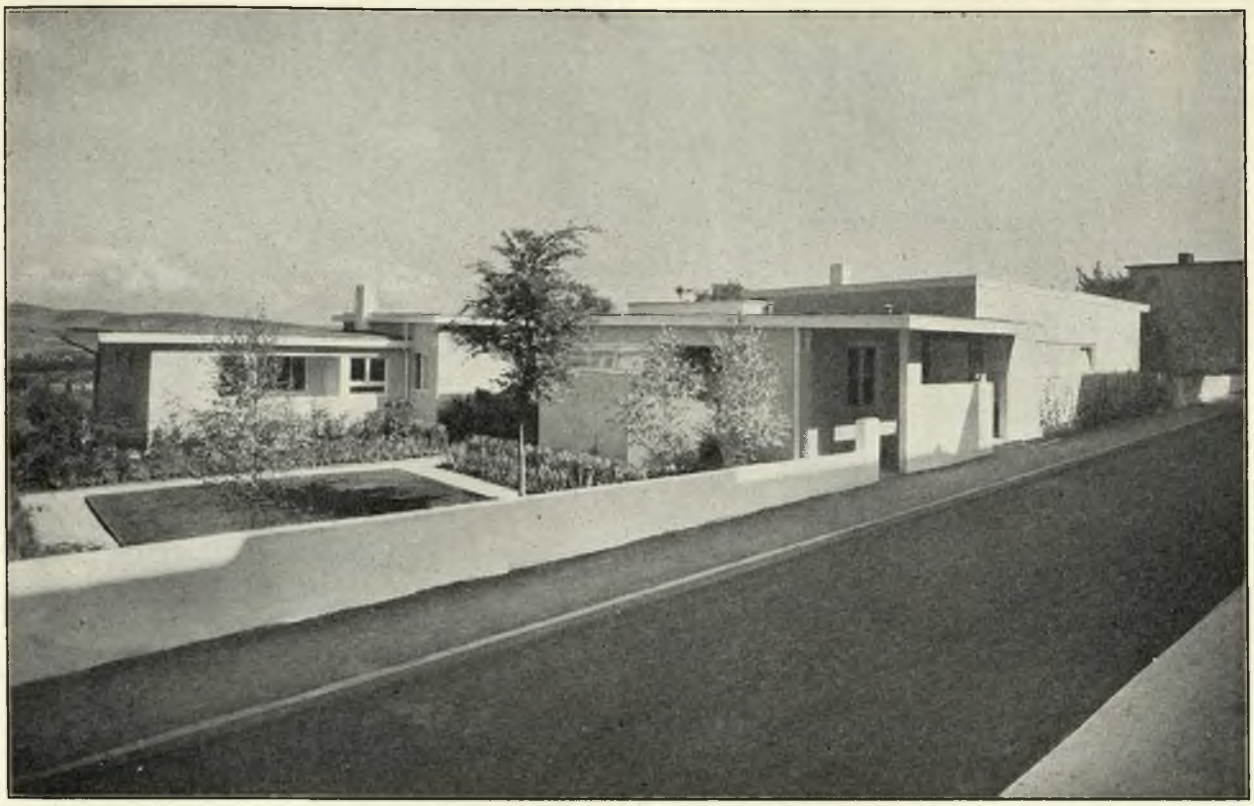
The Leaning Tower of Pisa

Periodically, fears are awakened as to the stability and continued safety of the celebrated Leaning Tower of Pisa. There is another such alarm at the present time, and with more reason, since examination, by two Commissions appointed recently to examine this singular monument, have disclosed a slowly increasing list. No immediate danger for the Campanile is apprehended, but steps are to be taken to relieve any doubts regarding its security. A scheme of preparatory work has been drawn up, including a geological and geometrical service, soundings, reinforcement of the base and the diversion of streams which flow in its vicinity. Further reports will, no doubt, be awaited with interest in most countries of the world, for the Leaning Tower is probably more widely known than most of the famous buildings of the world.

Plastic Yield, Shrinkage and other Problems of Concrete Design

(*Continued from page* 784.)

attributes to the fact that, usually, the deflection is so small as not to be visible without measuring apparatus, and such apparatus is generally only applied for a day or two during test loading. Usually a considerable increase of small deflection over a period of years does no harm and does not constitute a danger. There are special cases, however, where it would matter, and two have occurred of which the author has had knowledge. More research on these values is desirable, and, indeed, on many other matters in connection.



THE STUTTGART HOUSING EXHIBITION: HOUSE BY DR. DÖEKER, OF STUTTGART.

THE STUTTGART HOUSING EXHIBITION—II

By Howard Robertson, F.R.I.B.A., S.A.D.G., and F. R. Yerbury.

For an exhibition of intensely novel work, there could be no pleasanter and at the same time no more exacting setting than that which the city of Stuttgart naturally provides.

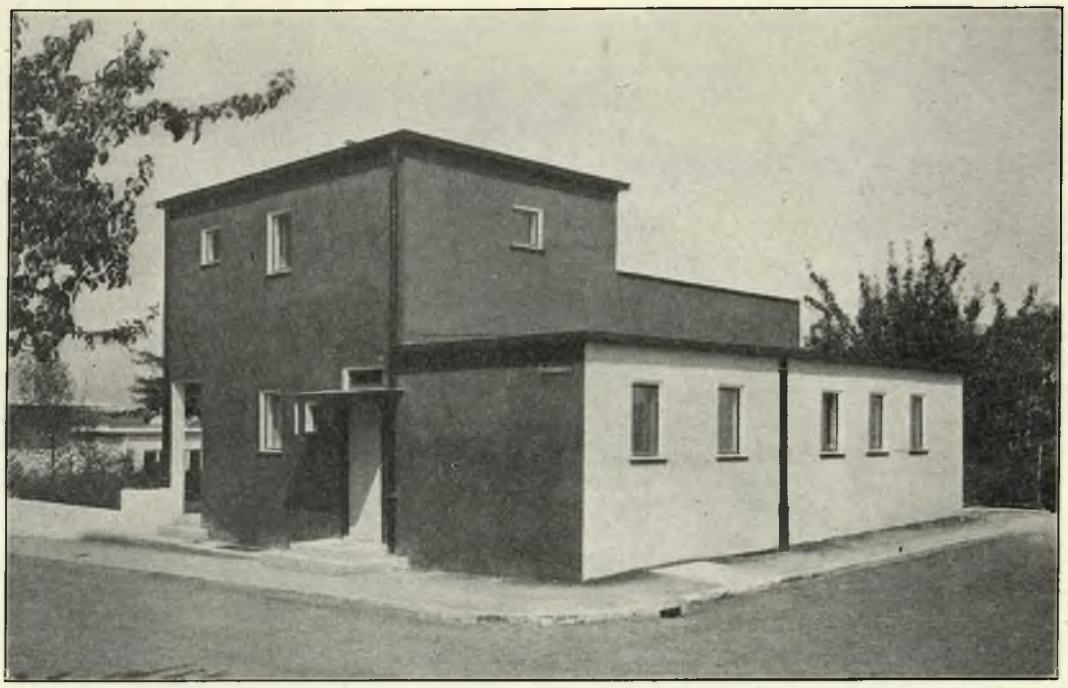
Stuttgart itself is situated in a valley, and the hills which surround it are dotted with houses in a picturesque setting of trees and rock. It is a setting which is pleasant and even romantic in a homely way, and with it accords in the degree to which we have become accustomed in continental cities, the architecture of the newer residential quarters. It is in these pleasant surroundings that is situated the Housing Exhibition.

The Exhibition was organised under the joint auspices of the Deutscher Werkbund (German Workers' Guild) and the Stuttgart Municipality, the object being to improve the standard of housing by making available the latest developments of the most modern architectural thought. The main points which the organisers had in view as susceptible of improvement by modern designers, were the organisation of space, new methods of construction, technique in handling and improvements in hygiene, to all of which there have been important contributions made by the modern school. The principal object of the Exhibition was not therefore, it will be seen, a test of the æsthetic possibilities of this new work.

The site of the Exhibition was provided by the Municipality, and the cost of erection was jointly borne by the Municipality and the Werkbund. The houses were decorated and furnished under the direction of the architects responsible for the design, so that every possibility was afforded for the most complete expression of individual ideas. A further advantage to the architects lies in the fact that the houses are not built merely for exhibition purposes; they are permanent structures, erected as far as possible of the special materials which the architects recommended, and in this way will afford most useful data as to suitability and lasting qualities. It is intended that at the close of the Exhibition, which has lasted all the Summer, the houses will be sold to the public, and it is understood that during the Exhibition many enquiries and tentative offers have been received from would-be tenants.

The promoters realise that the houses represent more a tentative effort than a definite solution of the problem of the working and middle-class houses; they ask indulgence, which no thinking person could withhold, for the obvious difficulties encountered in an experiment of this kind, and they do not claim that deductions drawn from it will be necessarily conclusive. There seems to be some question, however, as to whether particulars of cost will be available, a subject on which information is absolutely vital if fair comparisons are to be drawn; but it is likely in any case that the expense of building isolated blocks for the purposes of the Exhibition would be considerably higher than under normal conditions, and it is perhaps for this reason that in no printed particulars which we have seen have figures of actual price or even estimates been given.

The architects who are represented are drawn from various countries, and include men who have a European reputation, not only in Housing, but in other fields:—Oud, Mies van der Rohe, Bourgeois, Le Corbusier, Bruno Taut, Schneck, Hilbersheimer, Max Taut, Poelzig, Doeker, Radwig, Behrens, Frank, Stam, Scharoun and Walter Gropius. All these men have done work in the modernist manner—Le Corbusier is already well known in this country, and will be more so now that his book "Towards a new Architecture" has been translated into English. Oud is the Rotterdam architect who has made such a sensible and practical contribution to Dutch housing; Mies van der Rohe will be familiar to many through his designs for steel and glass office buildings and factories; Behrens for his work abroad and his house



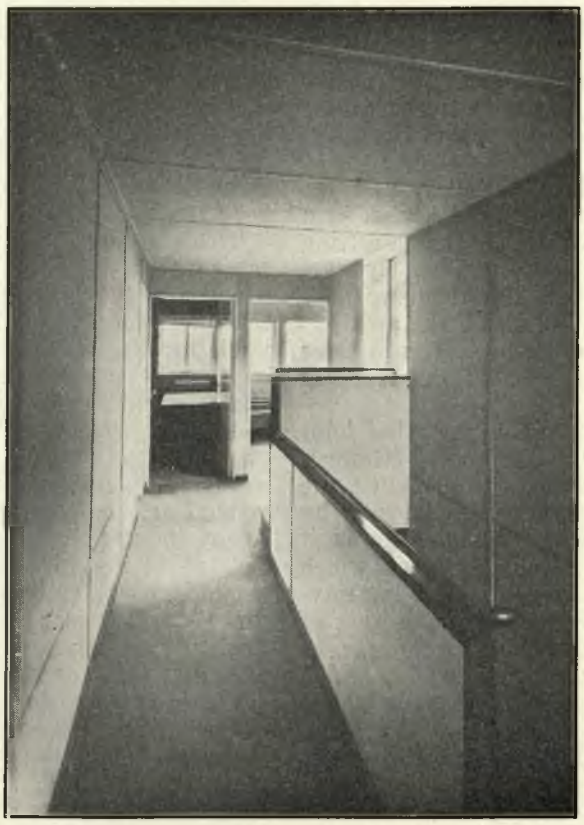
THE STUTTGART HOUSING EXHIBITION: HOUSE BY BRUNO TAUT, BERLIN.

at Northampton for Mr. W. J. Bassett-Lowke; Poelzig for his Berlin theatre with the "stalactite" ceiling, and Walter Gropius for his factories and his fine designs erected at the 1914 Cologne Exhibition, while the names of Max and Bruno Taut are also known to English readers of foreign periodicals.

Perhaps to many visitors the first impression of the Exhibition will have been that all the wildest modernists of Europe have been allowed to do their worst, and have found a cynical satisfaction in being able to find someone who would give them the opportunity of putting into solid form their most eccentric ideas. But a more thoughtful study of the Exhibition revealed the fact that the architects concerned were working with serious and sincere motives, and were all endeavouring to find some solution for the ever-growing needs of simplifying the home and eliminating complications.

Fortunately for the new work, on the way to the Exhibition are several bad examples of the old school which revelled in romanticism to excess, and these serve to show better than any other example one reason for the drastic severity which has governed the design of the new houses. It is easy to understand the intensity of the reaction which has taken place abroad, the real sincerity of those who have been sickened by a silly and sentimental plagiarism, and have desired to begin afresh. In this country, where we find in the main that architects of repute have always followed a tradition of more or less simplicity, it is more difficult to realise the intensity of the desire for a new architectural broom.

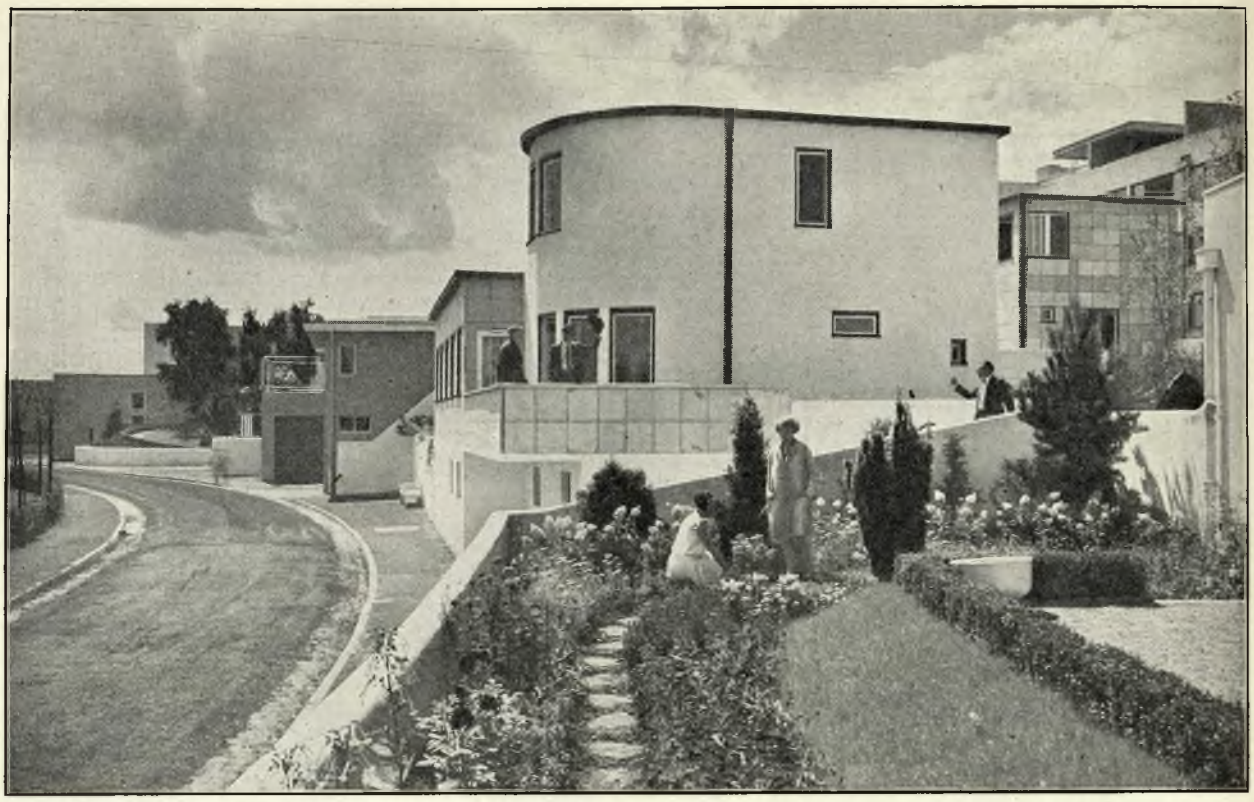
In the mass of the houses, the dominant note is one of rectangularity and flat roofs. Nowhere are there any slopes, and as regards shape, only Hilbersheimer has essayed curves, and the pleasant relief which is supplied by his bow-fronted dwelling is very noticeable. This example serves to show that in the matter of form the possibilities of the new architecture have scarcely been exploited, and that very interesting results may be in store, for the rectangle only attains its full value when associated with curves or angular planes.



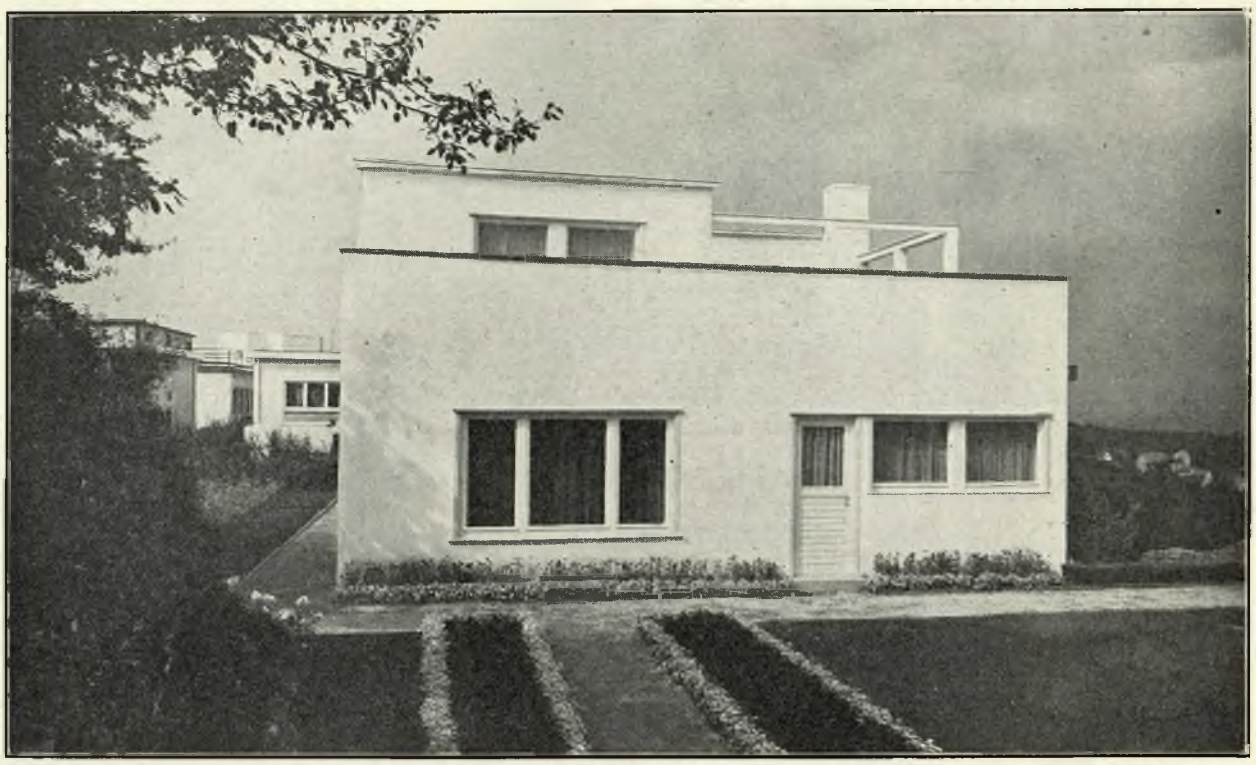
STAIRCASE AND HALL IN HOUSE BY WALTER GROPIUS, DESSAN.

The houses are set in charmingly laid out gardens, gay with flowers, and in the trenchant and very interesting attack on "modernistic" architecture which Mr. Gilbert Jenkins recently made in his Presidential address to the Architectural Association, he seemed to suggest that the riot of flowers was a sign of the weakness of the architecture, and that the promoters of the Exhibition had evidently felt the advisability of distracting attention therefrom. This argument, however, rather plays into the hands of defenders of the modern school, who have always maintained that garden and house should go together, and that the simple lines of the new work forms an admirable accompaniment to Nature, whether wild or potted. Planting on ground or terrace (in the case of Le Corbusier and Jeanneret, even on the roof), seems

THE STUTTGART HOUSING EXHIBITION: A BLOCK BY PROFESSOR PETER BEHRENS, BERLIN.



FROM LEFT TO RIGHT ARE HOUSES BY TAUT, DÖEKER AND HILBERSHEIMER.



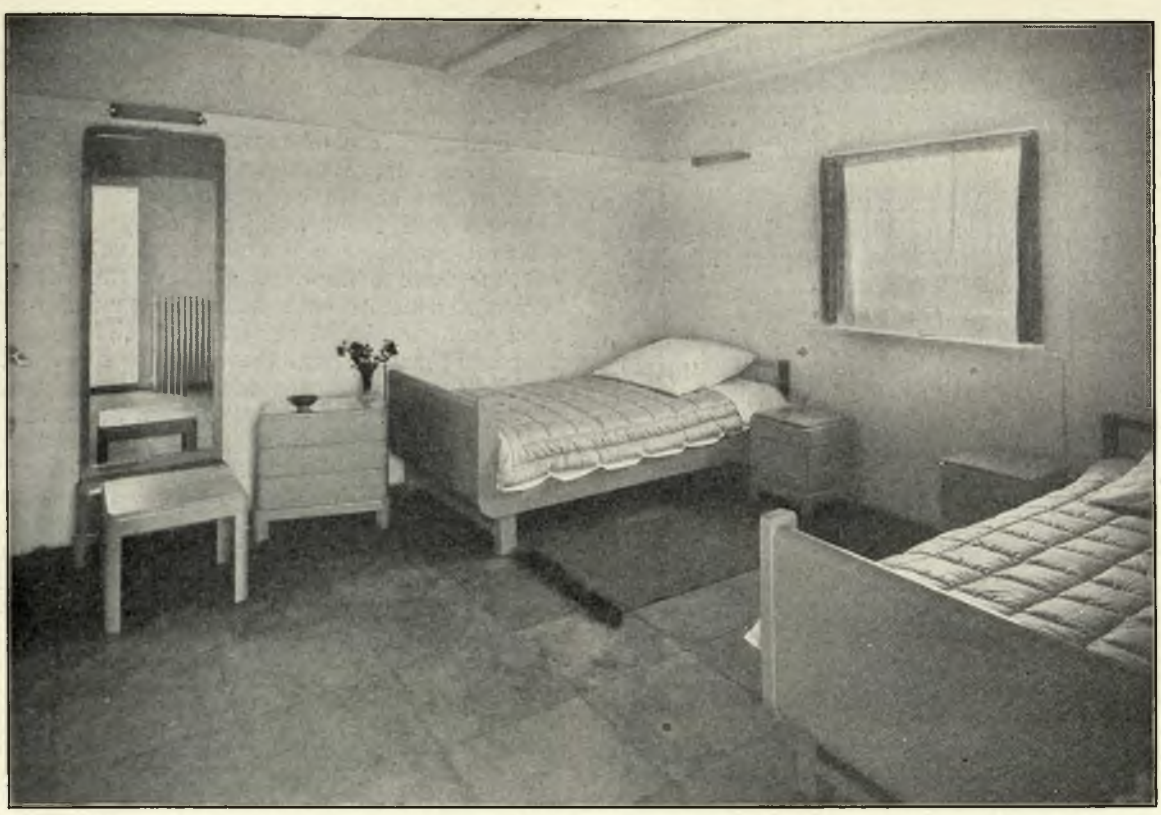
THE STUTTGART HOUSING EXHIBITION: A HOUSE BY HANS POELZIG, BERLIN.

to have been considered as a desirable decorative and domestic adjunct, and the presence of flowers in profusion at Stuttgart is only a reminder of this fact.

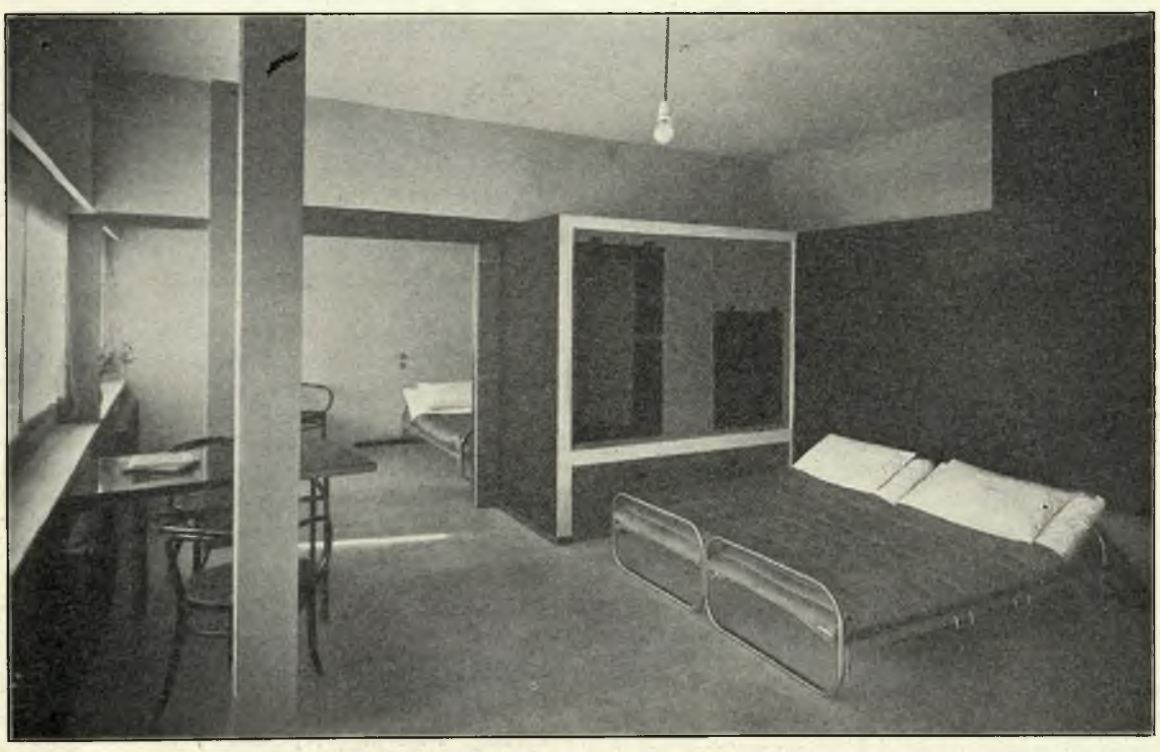
Apart from mass and setting, the most striking novelty in the houses was the cult of the wide window area, and the next—to the uninitiated—alarming feature was the use of colour, which was introduced in such a way as to give, with few exceptions, the impression that the architect is so wrapped up in the psychology of colour that he feels it necessary to swamp his clients with a complication of actions and reactions, all of which may be founded in a logical theory, but which result in interiors which at times appear unlivable, and exteriors which are often crude.

For at Stuttgart, the new psychology of colour finds its expression both within and without. A house by Bruno Taut, for example, had a coloured exterior with one side crimson, another in strong Prussian blue, and a third in a violent yellow. All this colour undoubtedly means something to the initiated, but very little to the average visitor.

In very many of the interiors experiments in colour have been made, Bruno Taut again being the leader,



A BEDROOM INTERIOR BY HANS POELZIG, BERLIN.



INTERIOR BY LE CORBUSIER AND JEANNERET.
THE STUTTGART HOUSING EXHIBITION.

but a rather violent one. In his living room, for instance, two of the walls were in Prussian blue, one having a white window with a yellow frame, and in the recess the ceiling was crimson, while in the major part of the room it was orange. That all this variety of colour has a significance must be taken for granted, since Bruno Taut, in his own house near Berlin, has carried out a scheme of decoration along similar lines.

Many of the other houses were decorated in the same note, and the fashion seems prevalent of varying the colours of the four walls in any one room, such as using black on the outer wall, red on the two side walls, and perhaps white on the wall opposed to the black wall, with possibly a blue green or an orange ceiling. Perhaps the influence of Le Corbusier and Jeanneret is responsible, for Jeanneret appears to be an artist who can apply colour to interiors with a soft and yet crisp effect, both in scheme and finish excelling all the colour work at the Exhibition. As a rule the interiors of Le Corbusier and Jeanneret are in dark tones, blacks, browns and greys, which well counterbalance the almost too dazzling light admitted by their vast expanse of window; but it is perhaps questionable whether these colours would be equally successful with artificial lighting.

(*To be concluded*).

Points from Papers

Preservation of the Countryside

From the Presidential Address of Mr. E. S. Cox to the Surveyors' Institution on Monday last, November 14.

A matter that will, I am sure, appeal generally to country land agents is the spoliation of the countryside, the unfortunate modern tendency of which I hope he will do all he can to check. There is no doubt whatever that much of the loveliness of rural England is being ruined. Owing to the high cost of road-making people who build houses and bungalows naturally go where they can build without incurring the expense of road charges, and so it happens that along our country roads and lanes houses and bungalows are breaking like a rash upon the face of what once was a lovely country-side. The buildings are frequently of an ugly style of architecture and out of harmony with the surroundings. Ornamental timber is cut down, ferro-concrete bridges, often of hideous design, span the streams, and petrol stations with their pumps of many colours spring up here, there and everywhere, without thought as to whether their garish appearance and the noise created by their customers is not ruining the charm of our once quiet villages. All art and beauty seem, in fact, to be giving place to a devouring utilitarianism. Surely with a little thought these things need not be. We shall all wish God-speed to the Council for the Preservation of Rural England, which was started with the object of preserving the natural beauties of our country.

I am glad to find that some of our towns and cities are inserting clauses in their General Powers Bills by which an advisory committee, consisting of a member of the town council, a nominee of the Royal Institute of British Architects and a nominee of The Surveyors' Institution, will advise on the elevations of new buildings. This seems a move in the right direction, and should do something to extend to urban areas the movement initiated by the Council for the Preservation of Rural England.

From the Presidential Address of Col. Albert E. Kirk, O.B.E., A.R.I.B.A., to the Leeds and West Yorks Architectural Society.

Most of the Societies which have grown up in the last year or two for the purpose of protecting the threatened amenities of the countryside are endeavouring to check the erection of ugly houses—these same houses whose erection the Government is encouraging. Whereas seven years ago the Ministry of Health or, at any rate, its temporary staff, scrutinised layouts, plans and elevations, suggesting, and sometimes insisting upon, amendments, to-day the Ministry of Health or, at any rate, its permanent staff, is concerned merely with numbers. There must be more houses; there must be a million houses by the end of September before Parliament reassembles, no matter that they be ever so ugly, a veritable outrage to behold; no matter that they spread here, there and everywhere, singly or sprawling formlessly along England's shores; no matter that they impudently spawn adjacent to England's most venerable monuments, or spring up promiscuously in the midst of her loveliest landscapes; no matter that they are built of blocks and slabs of any material that can be compressed into temporary adhesion—for the aim of those in authority is to obtain quantity, not quality.

I do not think that it is generally known that in Housing (Rural Works) Act, 1926, financial assistance is available both for the converting into dwellings of buildings not previously used for that purpose, and for the improvement of existing dwelling accommodation. Amongst the applications which will be made for financial assistance, perhaps the largest proportion will be concerned in making dilapidated houses which are situated in areas of no particular interest, as, for instance, in completely spoiled manufacturing areas, or among groups of buildings that have no architectural character whatever, and which in themselves are of most commonplace description. However, a large proportion of cases in connection with which assistance will be sought may be old cottages and farm buildings of pronounced architectural character and traditional value, which it is of the greatest importance to retain. It is in the reconstruction of such buildings that the assistance of a well-qualified architect is of the utmost importance. It may be that there will be cases where such architectural assistance will not be easily available, and where the work may necessarily be carried out without professional assistance. In such cases, timely advice and reference to well-established principles will be of great value to those responsible. In order to provide help and assistance, the C.P.R.E. has thought well to lay down general rules for guidance, and I think the Press could greatly assist the working of this Act if they made known to the general public the advantages to property-owners in this country.

Legal Notes

The Architects' Copyright

In the Chancery Division on Wednesday, Mr. Justice Romer heard a motion by Mr. George Alan Fortescue, architect, of White Walls, Queen's Drive, Thames Ditton, for an injunction restraining H. C. Jones & Co., builders, their servants and workmen, from erecting any building or structure which would infringe the plaintiff's copyright in the drawing or plan of a house designed by him.

Mr. Eardley Wilmot, for the plaintiff, said that in 1922 he designed and planned a house which he erected for himself, and the design and plan was reproduced in the *Architects' Journal.* In August and October of this year advertisements appeared in certain daily newspapers, inserted by the defendants, in which certain designs for houses were shown which they said they were prepared to erect for purchasers, and these included the house designed by the plaintiff. In the capacity of a prospective purchaser, Mr. Fortescue got inspection of the plans and found that they were identical with his own. This pirating of plans by builders, said counsel, had become fairly common, and in the interests of his profession Mr. Fortescue had brought this action. The defendants did not deny the allegation, but said that no house had actually been erected or commenced which infringed plaintiff's design. Mr. H. C. Jones said he was willing to give an undertaking to destroy the plans prepared by him, and not again to infringe the plaintiff's copyright. In view of that Mr. Fortescue was prepared to treat the motion as the trial of the action and dispose of the whole matter on the footing that a perpetual injunction was granted against the defendant's firm and partners and that all infringing plans and drawings were delivered up. He had not seen Mr. Hecksher, who represented the defendants.

The matter was again mentioned later when Mr. Wilmot stated that he and Mr. Hecksher had agreed to the following terms—by consent to treat the motion as the trial of the action with a perpetual injunction against the defendant firm and the partners in the terms of the notice of motion, delivery up on oath of all infringing designs and plans, and the defendants to pay the plaintiff's costs.

His lordship: You say a " perpetual " injunction. It must of course be limited to the term of the copyright.

Mr. Hecksher said he agreed to those terms.

His lordship: Very well.

NOTES IN BRIEF

At the Armistice Day celebrations at Edinburgh last week, Prince Henry unveiled the city's Cenotaph, or Stone of Remembrance. The Stone, of granite, is a replica of those erected in the British War cemeteries in France by the War Graves Commission. The endowment of a ward in Edinburgh Royal Infirmary comprises the other part of the city's war memorial. At Nottingham, on the same day, the Mayor unveiled, in the new gardens on the Trent Embankment, the city's War Memorial Arch, consisting of a triple gateway built of Portland stone in Roman-Doric style, flanked by wing walls. The memorial was designed by the city architect, Mr. T. Wallis Gordon.

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The Westminster City Council adopted without discussion the proposal to set back the entrance gate to Marlborough House, and take about 3,458 square feet of ground into the thoroughfare of Pall Mall. The proposal was made by the Commissioners of Crown Lands, with the consent of the King, through the Minister of Transport. It will provide a better entrance to Marlborough House and improve the traffic facilities at Marlborough Gate. The new gate to Marlborough House will be in a line with the Pall Mall front of St. James's Palace.

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A new building for the Law Stationers' Office is being erected in Lincoln's Inn, London, plans for which have been prepared by Sir John W. Simpson, K.B.E., 31 Verulam Buildings, Gray's Inn. The demolition of the present Stationers' Office and adjoining temporary buildings will open up to view the ancient kitchen garden, round which a low wall and an ornamental iron gate is to be constructed.

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The Bishop of Central Tanganyika is appealing for funds for the building of a cathedral at Dodoma, a rising town on the railway lines about 250 miles from the coast and very centrally situated for the whole diocese. Australia is co-operating in this enterprise, and English subscriptions may be sent to Barclay's Bank, 81 Fleet Street, E.C.4, marked "Tanganyika Cathedral Fund."

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Subject to approval by a town meeting, which has been called, the Seaford Urban District Council have decided to purchase Seaford Head and the golf course there, an area of about 200 acres. The cost will be £16,500, and the purchase would practically complete the preservation, as an open space, of all the coast land between Seaford and Eastbourne.

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Some interesting excavations are being made in the Vicarage Field at Lancaster by Professors Newstead and Droop. A section has been cut through the outer rampart of a Roman Fort and several specimens of pottery discovered. Upon a high plateau in the south-east corner of the field a Roman road, 27 feet wide, has been revealed.

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Mr. J. D. Rockefeller has offered the Palestine Government £400,000 for the erection of a museum on condition that the building is completed within three years. The offer, it is understood, has been accepted, and prospective sites are already being considered.

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With some generous donations from the United States, including an endowment fund of £100,000, trustees of the Shakespeare Memorial Theatre now have about £200,000 in hand for the new building.

Mr. Mervyn Macartney, the architect to the Dean and Chapter of St. Paul's, lecturing at Sion College last week on "The Pre-Fire City Churches of London," drew attention to the neglected state of the fine stained glass in some of these churches, comprising All Hallows (Barking), St. Andrew Undershaft, St. Bartholomew the Great, St. Ethelburga, St. Giles (Cripplegate), St. Helen (Bishopsgate), St. Catherine Cree, St. Olave (Hart Street), St. Peter-ad-Vincula, and St. John's Chapel, the two last being in the Tower. Much of the glass was in urgent need of cleaning, and its present condition made the churches very dark.

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Messrs. G. & T. Earle are about to erect a large cement works near Hope, in Derbyshire. The works will be about 14 miles from Sheffield, 25 miles from the centre of Manchester, and they will also serve the Chesterfield, Barnsley and Potteries area. The Hope Valley is one of the most beautiful districts in England, and precautions are being taken to ensure that this beauty will not be spoiled. The works are to be placed at a distance from the main road, and a considerable amount is being expended to make the plant as attractive as possible.

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In connection with a scheme for the provision of three new bridges over the Thames at an estimated cost of £1,107,000, the Middlesex County Council, in conjunction with the Surrey County Council, have decided to promote a Bill in the ensuing session of Parliament to enable them to proceed with the work. The bridges, which are to be 70 feet wide, are to connect Richmond and Twickenham, Chiswick and Mortlake, while the existing bridge at Hampton Court is to be replaced.

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During excavations in Narrow Street, Peterborough, many relics of antiquarian interest have been discovered. Local antiquarians consider that the building which is being uncovered is a portion of a great mediæval Assize Court. The most notable discovery has been the figure of a bearded man with evidence of a crown upon his head, who, it is conjectured, may be Pædra, King of Mercia, who was ruling in the year 655.

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The Cheltenham Town Council recently ratified a provisional agreement to buy Leckhampton Hill Estate, of 387 acres, for preservation as an open space for public use. The property forms one of the most beautiful spurs of the Cotswold Hills, commanding extensive views of the Severn Valley.

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The Birmingham City Council are considering a scheme proposed by its Water Supply Committee for a scheme to supply the whole of the city with water from the Elan Valley, Radnorshire. The cost is estimated at £750,000.

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The School of Dalcroze Eurhythmics is considering the purchase and adaptation, for the purposes of the building of the Hampstead Conservatoire, near the Finchley Road, London. Mr. Edward Maufe, F.R.I.B.A., is the architect consulted.

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Objections have been lodged to the proposed town planning scheme for the Chipping Sodbury rural areas. The effect of the scheme, it is stated, will be to isolate the country districts instead of permitting access for modern transit and other facilities.

BUILDING NEWS IN PARLIAMENT

London Squares

FIRST SITTING OF ROYAL COMMISSION.

Westminster, Tuesday.

The first sitting of the Royal Commission which was appointed in the earlier part of this year to consider the question of London Squares was held to-day in one of the committee-rooms of the House of Lords. Lord Londonderry, the chairman, presided.

Mr. Frank Hunt, who is the head of the Valuation, Estates and Housing Department of the London County Council, was the first witness. He stated that he is responsible for advising Committees of the Council with regard to the valuation and purchase of all property for all purposes, and he has advised on the circumstances of Squares which are threatened with extinction. The London County Council requested the Government to institute an inquiry into the question of London Squares. After pointing out that there are comparatively few garden squares in South London, and that the latter are, on the average, of less than one-half the extent of those in North London, witness said that the provision of garden squares had been a distinctive feature of the high-class residential development of London from about the middle of the 17th century till the middle of the 19th century. Though it could not be said that there were no squares in the City of London, they were not a feature of the City development nor of the early extensions of the City outwards to Finsbury and Holborn and westwards to Westminster. It was not till the West End development of high-class residences began that the fashion of building in squares was adopted. Among the earliest to be laid out was St. James's Square, Westminster.

While the fashion of the laying out of squares and enclosures in building development almost ceased about the middle of last century, there had been since the War some reversion to this method of lay-out, and it had been adapted, in particular, in the lay-out of housing estates developed by local authorities under the Housing Acts. This was no doubt the result of the increased attention paid to town-planning principles and the provision of amenities in recent years.

A feature of building development by squares was the absence in many cases of gardens to the individual houses. On some squares the houses are built back to back or only with a small lighting well; in other cases there is a small space at rear not exceeding 10 feet. In others there is a garden of about 50 feet, but in very few is there extensive garden space appropriate to the class and value of the houses. It follows, therefore, that, excluding the garden square, a very high proportion of the site is covered by buildings; and, even taking the garden square into account, the proportion of the land covered is in most cases high. In the case of Portman Square, taking the houses alone, about 82 per cent. of the land is covered, whilst, including the garden square (2.56 acres), the proportion is about 54 per cent.

Under the Town Planning Act (witness continued) building density is one of the matters that is always stringently regulated, the highest density usually authorised by town-planning schemes being 12 houses to the acre for working-class development, including the housing estates of local authorities. This in practice means that the land is on the average covered with buildings to somewhat less than 20 per cent. of its area. There was a further limitation on the proportion of any building plot that can be covered, which, it is generally provided, shall not exceed, for houses not exceeding 30 feet in height, one-third, and for houses exceeding 30 feet one-fourth. This limitation of density is without compensation, it being provided in the Town Planning Act that this, amongst other things specified, is not to be the subject of compensation.

Several of the more important squares are, as regards maintenance and management, governed by Act of Parliament, the earliest of these, relating to St. James's Square, being passed in 1726, about 60 years after the square was laid out. The preservation of the squares, in their present aspect had arisen from time to time since, at any rate, 1863, when a proposal to build upon one of the oldest—Leicester Square—led to a prolonged controversy.

Having detailed the various Acts of Parliament which had been passed for the preservation of London squares, witness said the question of taking action for the preservation of the squares under the Town Planning Act had been considered by the London County Council. This Act applies to land which is in course of development or appears likely to be used for building purposes, and, no doubt, it would be possible to make a town-planning scheme for a square proposed to be built on. To preserve it under a scheme, however, required that it should be scheduled as a public or a private open space. If the former, it would be necessary to purchase the square; and, if the latter, to pay compensation in respect of prohibition against building on it, and it was possible that, as in the case of Endsleigh Gardens, the cost in the latter would not be much less than in the former.

In this or any other method of preservation the difficulties arise chiefly from taking the square and the houses surrounding separately. Under the Town Planning Act, however, it may be possible to include some neighbourhood development. The London County Council have not applied the provisions of the Town Planning Act to any individual square. It had done so in respect to an area in Bloomsbury, one of the chief objects of the proposed scheme being the preservation of the garden squares in the neighbourhood. All the squares in the area have been scheduled as private open spaces. Under this proposal, they were to remain the property of the present owners but were not to be built on. The owners would be entitled to make a claim for compensation, when the scheme was finally approved, in respect to any injury to the property by the restriction. If such claims were made, and they should lead to awards of considerable compensation, the Council might find it necessary to reconsider the proposal.

The Chairman: The Council, I notice, are anxious that the squares should be preserved. I take it that the problem that the Council feel themselves unable to solve is whether it would be equitable, having regard to the history and conditions attaching to the squares and enclosures, to restrict them against building without compensation; or, if compensation should be payable, to whether it would be justifiable to assess the compensation on some special limiting basis.

The witness said he imagined those were some of the considerations which the Council had before them when they passed their resolution. They felt, apparently, that they had not got enough information to declare anything in the nature of a policy.

In answer to Colonel Vaughan-Morgan, witness said he was not sure that the application of the Town Planning Acts would necessarily protect the squares and enclosures in their present form from future building.

Questioned as to the attitude of the speculative builder, witness said such a man had usually no regard for amenities and very little for his neighbour. He would put on a site the very maximum of building that the law would allow.

The Committee afterwards adjourned.

London Building Notes

AGAR STREET.—New showroom premises for the Civil Service Supply Association, Ltd., are to be erected in Agar Street, W.C.2. The building, seven storeys high, has been designed by Messrs. Herbert O. Ellis & Clarke, 3-7 Old Queen Street, Westminster, S.W.1.

ALDGATE.—Extensive building work is being commenced in connection with Portsmouth House. Plans have been prepared by Mr. Val Myer, architect, Abbey House, Victoria Street, Westminster. The contractors are Messrs. John Greenwood, Ltd., 11 Arthur Street, London Bridge.

BALHAM.—A block of buildings, comprising twelve flats on four floors, is to be erected on the north side of Hazelbourne Road. Plans have been prepared by Mr. J. H. Taylor, M.S.A., 61 Chancery Lane. The builder is Mr. E. J. Logan, 212A, Shaftesbury Avenue, W.C.2.

BALHAM.—Messrs. John Laing & Son, Ltd., are to erect 100 houses on the Bell Estate.

BARNES. — Premises in Lowther Parade, Ranelagh, are to be converted into branch premises for Messrs. Westminster Bank, Ltd., Lombard Street, E.C.3.

BAYSWATER.—The foundation-stones have been laid for the new public hall and library buildings in Porchester Road. Plans were prepared by Mr. H. Shepherd, F.R.I.B.A., 80 Queen's Road, W.2.

BECONTREE.—A row of 30 shops, with flats above, is to be erected in Harbutt Street, on the L.C.C. Housing Estate. The builders are Messrs. Steadman Bros., Roden Street, Ilford. Plans by Mr. Edward Merideth, A.R.I.B.A., 7 Goodmayes Road, Goodmayes, Essex.

BERMONDSEY.—The L.C.C. have accepted the tender of Messrs. E. D. Winn & Co., Ltd., £12,595, for a fire station at Dockhead.

BERMONDSEY.—The Southern Railway Co. are to build a new railway station, with booking hall, shops, etc., in Lampa Road. Plans are being prepared by Mr. J. R. Scott, the Railway Co.'s architect.

BRENTFORD.—The architects for extension at the Hospital are Messrs. Dodge & Reid, 120 High Street.

CHELSEA.—A row of old property in King's Road has been acquired by a building syndicate who are to erect a modern block of shops and flats. Plans have been prepared by Mr. C. H. Roberts, A.R.I.B.A., 58 Frith Street, W.1.

CLAPHAM COMMON. — Sir Edwin Cooper, Verulam Buildings, is the architect for extensions at the South London Hospital for Women to provide for a further 200 beds and accommodation for the nursing staff. The contractors are Messrs. William Downs, Ltd., Hampton Street, S.E.17.

CLERKENWELL.—The Metropolitan Asylums Board recommend the tender of Messrs. Lilly & Sons, Clapham Common, £2,100, for the enlargement of ward verandahs at St. Luke's Hospital.

CROYDON.—The large super cinema (accommodating 3,800 persons), restaurant (seating 2,000 people), shops, etc., in Croydon High Street, are to be erected by Messrs. Grace & Marsh, Ltd., New Bridge Works, Waddon Street. The plans have been prepared by Mr. Robert Cromie, F.R.I.B.A., 73 Edgware Road, W.2., architect to Davis' Theatres (Croydon), Ltd. The cost is estimated at £250,000.

HORNSEY.—The governors of the Hornsey General Hospital are to consider plans by Mr. J. M. Lethbridge, F.R.I.B.A., 205 Archway Road, Highgate, N.6., for a new nurses' home, to cost about £15,000. The intention is to proceed immediately with one portion costing about £10,000. The secretary is Mr. S. W. Homewood.

MUSWELL HILL. — New Sunday schools are to be built for the Congregational Church. Plans have been prepared by Mr. F. Stanley Griffith, F.S.I., 36 Victoria Street, S.W.1.

RICHMOND. — A two-storey V.D. clinic is to be built adjoining the Royal Richmond Hospital. Plans by Mr. T. H. Smith (Messrs. Brewer, Smith & Brewer), 11 The Green, Richmond.

RICHMOND.—New shops, with offices above, are to be erected at the junction of George Street and Hill Street for Messrs. A. J. Smith & Co. The builder is Mr. J. Parsons, 190 Waterloo Road, S.E.1. Plans by Mr. Wilfred Travers, O.B.E., F.R.I.B.A., 36 Furnival Street, E.C.4.

RICHMOND.—The contract for the building of the new shops, showrooms and offices at the corner of George Street and Church Alley for Messrs. Montague Burton, Ltd., Leeds, has been placed with Messrs. Lansdowne Building Co., Lansdowne Road, Brixton. The architect is Mr. Harry Wilson, North Lane, Roundhay, Leeds.

ST. JOHN'S WOOD.—Operations are shortly to be commenced in connection with the erection of a block of flats in Park Road. The architects are Messrs. Wills & Kaula, A.R.I.B.A., 22 Southampton Street, Bloomsbury Square, W.C.1.

ST. MARTINS-LE-GRAND.—The Corporation Sanitary Committee recommend the tender of Messrs. C. P. Roberts & Co., Ltd., £8,496, for the reconstruction of the convenience.

SAVILE ROW.—Old premises at Nos. 9-10 are being pulled down to make way for a large block of shops and offices for Messrs. R. M. Phillips. The contractors are Messrs. Rice & Son, 15 Stockwell Road, S.W.8. Plans by Mr. J. J. Joass, F.R.I.B.A., 40 St. James's Place.

SHAFTESBURY AVENUE.—The French Protestant Church is being demolished to make way for a block of shops and offices for the Museum Estates, Ltd. Plans for a building in the Egyptian style have been prepared by Messrs. Hobden & Porri. The contractor is Mr. Albert Monk, Lower Edmonton.

SOUTH AUDLEY STREET.—No. 77 South Audley Street, W.1., is to be improved and redecorated.. The agents are Messrs. Winkworth & Co., Curzon Street, W.1.

STRATFORD.—Plans by Mr. Watkins are being considered for an isolation block at Queen Mary's Hospital, estimated at £17,900.

STREATHAM.—An L.C.C. elementary school is to be built at Streatham Vale. Plans by the Architects' Department, County Hall, Westminster.

TEDDINGTON.—The Council are considering the erection of new Municipal buildings, including a Council Chamber. The architect is Mr. M. Hainsworth, surveyor to the Council.

TOTTENHAM.—A further section of the U.D.C. housing scheme is to be put in hand and a contract for 100 houses has been placed with Messrs. J. Laing & Sons, Ltd., Mill Hill, N.W.7., at £60,559. The architect is Mr. E. C. P. Monson, F.R.I.B.A., Finsbury Pavement House, Moorgate, E.C.2.

TWICKENHAM. — Messrs. Barker Estate, Sheen Road, Richmond, have completed their contract for the purchase of Jubilee Farm Estate, where several hundred houses are to be erected. Their architect is Mr. S. E. Castle, 40 Albemarle Street, W.1. To obtain access to the estate a concrete bridge is to be built across the River Crane, and plans and specifications are being prepared by Messrs. Edmond Coignet, Ltd., 125 Gower Street, Bloomsbury, W.C.

UPPER GROSVENOR STREET.—Alterations and additions are being effected at 8 Upper Grosvenor Street. Plans by Messrs. Forbes & Tate, FF.R.I.B.A., 97 Jermyn Street, W.1. The builders are Messrs. G. H. Carter, Ltd., 57-69 Green Lanes, N.6.

WANDSWORTH.—The South London Greyhound Racecourses, Ltd., 174 Finsbury Pavement House, E.C.2., have acquired ten acres of land at Plough Lane for a racing track, with stands and buildings providing all-weather accommodation for 30,000 persons. Plans have been prepared by Messrs. Elcock & Sutcliffe, FF.R.I.B.A., 21 Northumberland Avenue, W.C.2., in conjunction with Sir E. Owen Williams, B.Sc., 5 St. George's Road, Westminster, S.W.1.

WALHAM GREEN.—For electricity showrooms, the contractors are Messrs. W. J. Marston & Son, Fulham, £11,547. The architect is Mr. H. M. De Coleville, 48 Bedford Row, London.

WARWICK GARDENS.—The National Provincial Bank, Ltd., 15 Bishopsgate, E.C.3., have acquired premises in Warwick Gardens and Warwick Road, S.W., for a branch bank. Plans will be prepared by Mr. F. C. R. Palmer, F.R.I.B.A., bank architect, and Mr. W. F. C. Holden, F.R.I.B.A., assistant architect.

WILLESDEN.—Several hundred houses are to be built on a large estate in Sherricks Green Road, N.W. The first 50 houses are to be built by Messrs. Pearce & Taylor, Ltd., 93, Dewsbury Road, Dollis Hill, N.W. The architect is Mr. W. Taylor.

CROYDON.—It is proposed to develop a large corner site on the main road, having frontages of 242 feet and 186 feet, by building a cinema theatre, shops, etc. The agents are Messrs.

Edwards & Forrester, Bridge Estate Offices, Croydon.

WOOLWICH.—Buildings at the Cambridge Barracks are to be converted into a regimental institute by the War Office to plans prepared by the Royal Engineers. The contractors are Messrs. J. B. Edwards & Co., Station Yard, Whyteleaf, Purley, Surrey.

EAST DULWICH GROVE.—For a nurses' home for the Southwark Board of Guardians. The contractors are Messrs. J. Eliman & Son, Ltd., Vanburgh Hill, London. Plans by Messrs. A. Saxon Snell & Phillips, Manchester Square, London.

ENFIELD. — "Old Ford House" is to be converted into a club-house for the Bush Hill Park Golf Club at an estimated cost of £3,500. Plans by Mr. J. H. Somerset, architect, 75 Seymour Street, Marble Arch, W.2.

EUSTON ROAD. — The L.C.C. have accepted the tender of Messrs. Allen Fairhead & Sons, Ltd., Enfield, £23,500, for a weights and measures office.

EXHIBITION ROAD.—The Royal Geographical Society propose to grant a building lease of land.

FAIRFIELDS. — A group of five shops is to be erected on the site of Nos. 64-68 Allfarthing Lane, to plans prepared by Mr. Clifford S. Banks, Oakfield Road, Croydon. The builders are Messrs. William Akers & Co., Ltd., 13 High Street, South Norwood.

HAMMERSMITH. — Old buildings are being demolished at Ravenscourt Park to make room for a large modern laundry. Plans have been prepared by Messrs. Elcock & Sutcliffe, 21 Nortumberland Avenue, London.

HIGHGATE.—Extensive additional accommodation for patients and staff is to be erected at the Highgate Hospital in Dartmouth Park Hill. Plans have been prepared by Messrs. H. V. Ashley & Winton Newman, FF.R.I.B.A., 14 Gray's Inn Square, W.C.2.

HORNSEY.—A chancel, vestries and chapel are being added to the Church of St. George in Priory Road. The builders are Messrs. T. H. Adamson & Sons, 145 High Street, Putney. Plans by Mr. W. C. Waymouth, F.R.I.B.A., 104 High Holborn.

KENSINGTON.—Old premises in Hornton Street are being pulled down prior to the erection of a large block of shops and flats for the Metropolitan Railway, to cost about £20,000. Plans have been prepared by Mr. E. S. Iles, L.R.I.B.A., surveyor to the railway.

KENSINGTON.—A large nine-storey block of residential flats is to be erected in Holland Park Avenue, with frontages to Lansdowne Road. The architect is Mr. Sidney B. Caulfield, F.R.I.B.A., 1 Woburn Square, W.C.1.

NEW FLATS, PARK STREET, W.
Messrs. WIMPERIS, SIMPSON & GUTHRIE, FF.R.I.B.A., Architects.

In this design the architects have had to contend with the difficult problem of giving architectural interest to a large block of flats with tall façades showing a multiplicity of windows of almost equal dimension. On the principal elevation they have increased the apparent scale of the building by the employment of the Order. Projections on either side of the façade show two pairs of Corinthian columns with full entablature above. Thus three storeys are here grouped together in single units, with the result that the general pattern of the fenestration is improved by breaking the monotony of the repetitive element.

LEADENHALL STREET.—Portions of the ground floor of the new Lloyds' Building have been acquired by Messrs. Westminster Bank, Ltd., and Messrs. Midland Bank, Ltd., for adaption as branch offices. The architect is Sir Edwin Cooper, F.R.I.B.A., Verulam Buildings, Gray's Inn, W.C.2.

MARSHALL STREET.—For baths and washhouses for the Westminster City Council. The quantity surveyors are Messrs. Gleed, Sons & Co., 8-9 Martin Lane, Cannon Street, E.C. Plans have been prepared by Mr. A. W. S. Cross, F.R.I.B.A., 45 New Bond Street, W.1.

MITCHAM.—The Surrey C.C. have accepted the tender of Messrs. Patman & Fotheringham, Islington, £33,994, for a secondary school for girls and a caretaker's cottage.

MITCHAM.—For a new cottage hospital. Plans have been prepared by Messrs. Chart, Son & Reading, Croydon. The contractor is Mr. S. Dale, builder, London Road, Mitcham.

NEWINGTON BUTTS.—A branch bank is to be erected for the Midland Bank, Ltd. The old buildings which at present occupy the site are to be demolished. Plans are being prepared by Messrs. Whinney, Son & Austen Hall, FF.R.I.B.A., 8 Old Jewry.

NEW STREET, MIDDLESEX STREET.—The Corporation Sanitary Committee recommend the tender of Messrs. L. & W. Whitehead, Ltd., £24,986, for a second block of shops and flats.

NORTH KENSINGTON. — The Kensington Housing Trust, Ltd., 138 Portobello Road, Notting Hill, W.11, hope to take up a lease of a row of derelict houses in Wormington Road, which are to be reconstructed into blocks of flats. The scheme is to be carried out in sections, the architect being Mr. E. B. M. Hamilton, F.R.I.B.A., 16 Old Square, Lincoln's Inn, W.C.

OLD BROAD STREET.—A six-storey block of office premises is to be erected on the west side of Old Broad Street. Plans have been prepared by Messrs. Richardson & Gill, FF.R.I.B.A., 41 Russell Square.

OXFORD STREET. — The builders in connection with alterations at No. 235 Oxford Street are Messrs. C. Spreckley & Co., Ltd., 21 Phœnix Place, W.C.1.

PADDINGTON.—The Bayswater Jewish Schools Committee have decided to build new schools in Lancaster Road. Plans have been prepared by Messrs. Josephs, 2 Pauls Bakehouse Court, Godliman Street, E.C.4.

PURLEY.—A fire station and other public offices are to be erected. Plans by Messrs. Nicholls & Hughes, AA.R.I.B.A., Verulam Buildings, Gray's Inn, W.C.2. The contractors, are Messrs. C. H. Gibson, Ltd., 124 George Street, Croydon. Steelwork will be supplied by Messrs. Young & Sons, Westminster.

RAYLEIGH.—For the Hadleigh telephone exchange. The contractors are Messrs. Falkus Bros., Ltd., 46 Bishopsgate, E.C.3. Plans by H.M. Office of Works, Storey's Gate, Westminster, under Sir R. J. Allison, F.R.I.B.A.

REGENT STREET.—Ground floor premises in Lower Regent Street, S.W.1., are to be converted and equipped as branch offices for the Midland Bank, Ltd. The Bank's architects are Messrs. Whinney, Son & Austen Hall, FF.R.I.B.A., 8 Old Jewry, E.C.2.

RICHMOND.—A new factory is proposed for Messrs. Cellon, Ltd. Plans are being prepared by Messrs. Bishop & Etherington-Smith, 30 Duke Street, London, S.W.

DURRANT'S HOTEL, GEORGE STREET, MANCHESTER SQUARE, W.1.
GEORGE VERNON, A.R.I.B.A., Architect.

In this instance, a terrace of houses has been changed into a large hotel. The metamorphosis has been accomplished without doing violence to the spirit of the original building. A prominent entrance portico has been substituted for the plurality of doorways which formerly existed, while above the ground floor storey the windows have been grouped between tall pilasters with "Tower of the Wind" caps. The design has distinction and elegance, and shows that the policy of adapting eighteenth century buildings to modern usages, besides being more economical than that of demolition, may result in an attractive architectural scheme.

The Week's Building News

The following abbreviations are used: U.D.C. for Urban District Council; T.C. for Town Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; P.C. for Parish Council; B.C. for Borough Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B.E. for Board of Education. Direct confirmation should be obtained before commitments, for which we cannot be responsible, are made.

ALTRINCHAM.—The T.C. have approved draft plans by the surveyor for seven pairs of type B houses on the Oldfield Brow Estate.

ALTRINCHAM. — Funds are being raised for a new Congregational Church. Mr. E. Henings, Kingston Lodge, Stockport Road, is the consulting architect.

BARNSLEY.—The E.C. are to borrow £3,000 for the provision of handicraft centres at the Grove Street, the Doncaster Road, and the Racecommon Road schools. Plans by Messrs. Dyson, Cawthorne & Coles, Regent Street, Barnsley.

BILLINGHAM.—Durham County E.C. have acquired a site for an elementary school. Plans by Mr. F. Willey, F.R.I.B.A.

BIRKENHEAD.—The architect for the parochial hall to be built in High Street, Neston, is Mr. H. F. Russell, 15 Sweeting Street, Liverpool.

BISHOP'S STORTFORD.—The Herts E.C. are to enlarge and improve the Northgate School, at an estimated cost of £4,000.

BLAYDON.—Durham County Council are to interview the M.H. regarding a proposal for the extension of the Blaydon, Ryton and Whickham Joint Hospital, at a cost of £6,000.

BOURNEMOUTH.—The E.C. are seeking sanction for a loan of £8,000 for a site at Iford for a secondary school.

BRAMPTON.—Mr. T. Scott, F.R.I.B.A., Lowther Street, Carlisle, has prepared plans for a new auction mart at How Hill.

BRIGHTON.—The Brighton British Legion Club, Ltd., propose to carry out alterations and additions to their premises in West Street. Plans have been prepared by Messrs. Garrett & Son, 34 Ship Street.

BRIMSDOWN.—An estate of about 10 acres, facing the station on Enfield Highway, is to be developed for building purposes. Arrangements are in the hands of Messrs. Naylor & Co., 29 High Holborn, W.C.1.

BURNAGE. — Messrs. Mauldeth (Builders), Ltd., Mauldeth Road, Burnage, have acquired a site to be called the "Avonlea Estate" off Mauldeth Road, where they propose to erect eight shops and 29 dwelling houses. Plans have been prepared by Mr. H. G. Lonsdale.

BURNLEY.—The Borough Land and Building Society, Ltd., 12 Nicholas Street, propose to extend their premises. Plans are being prepared by Messrs. G. & S. Keighley, 23-27 Nicholas Street.

CANNOCK.—A revised lay-out of the Huntington Terrace Road Housing Estate has been approved. Plans prepared by Mr. S. Harrison, architect.

CANNOCK.—Mr. S. Harrison, architect to the education authority, is pre-

paring plans for the proposed new school in Bridgtown.

CARSHALTON. — Preliminary steps are being taken by the L.C.C. for the development of the St. Helier Estate, where 3,000 houses are to be built.

CHEADLE (CHESHIRE).—The U.D.C. are considering a further housing scheme.

CHESTER-LE-STREET.—A new dance hall and extensions to the Empire Theatre are proposed. Plans have been prepared by Mr. A. H. Fennell, Bridge End Chambers.

CLAYBURY.—Plans have been prepared under Mr. Topham Forrest, F.R.I.B.A., architect to the L.C.C., for a nurses' home at the asylum, to cost about £23,500.

DERBY. — In connection with the restoration of All Saints' Cathedral Church, the Executive Committee has consulted Mr. J. N. Comper, architect, upon the interior of the cathedral.

DONCASTER. — A local syndicate has acquired a site of about 20 acres on the Great North Road for the construction of a greyhound racing track with accommodation for 20,000. The plans have been prepared by Mr. H. B. Hobson, 188 Oxford Road, Manchester.

DOUGLAS (I.o.M.).—The Corporation have asked Mr. Teare, architect, to prepare plans for a further 50 houses on the Pulrose Estate.

DUDLEY.—The Corporation have accepted the preliminary plan of Messrs. T. H. Mawson & Sons for the development of the Priory Estate, and appointed the firm to act in an advisory capacity in regard to the architectural features and plotting of the estate.

NEW PREMISES, LEADENHALL STREET, E.C.
Messrs. JOSEPHS, Architects.

In this commercial building, occupying a site at the junction of two streets, the entrance has been placed at the corner, but instead of continuing the corner "splay" in the plans of the storeys above, the architects have substituted for this a concave curve which becomes a very conspicuous feature when at the top of the building the heavy medellion cornice is taken round it. The principal entrance to the ground floor storey is surmounted by a decorative oriel marked by Neo Grec detail, while a subsidiary doorway, slightly projected in front of the façade, gives access to the offices above. The fenestration is of orderly pattern and skilfully managed.

EDINBURGH.—It is proposed that the new George Watson School be erected in two sections: one, to accommodate 1,050 senior boys, on the Merchiston Castle playing-field, and the other for elementary boys on the Merchiston Castle site, where wings would be added to the old keep.

FALLOWFIELD.—Mr. H. F. V. Newsome, architect, 2 Blue Boar Court, Manchester, is preparing plans for Mr. J. Baines for the conversion into flats of the premises known as "Richmond House," 313 Wilmslow Road.

GLASGOW.—The Director of Housing has prepared a scheme for 30 houses at Keppockhill Road.

GLASGOW. — Plans for additional slipper baths at Govanhill have been prepared by the city engineer.

HITCHIN.—The governors of the Girls' Grammar School are to erect additional classrooms, at a cost of about £2,500.

HIXBERRY.—Herts County Hospital Committee have arranged terms with Mr. Carter Pegg, the architect, for the proposed new mental institution at Hixberry on a fixed percentage basis of the certified cost to include the preparation of preliminary plans, etc., whether rejected or not.

HULL.—The city architect is to revise the plans of the Malet Lambert High School.

HULL.—Mr. C. Donald Allderidge, architect, has prepared plans for 39 houses in Clarance Street and Church Street, Hull.

HULL.—The Corporation Housing Committee are asking Messrs. Con Greenwood & Sons, Ltd., to quote prices for additional houses on the "Boot" system.

KIRKCALDY.—It is recommended that ten classrooms be built at the Crosshill site to replace the previous structure, which was destroyed by fire, and that an annexe of four classrooms and play-room for infants at Ballingry School be provided. The scheme is estimated at £17,900.

LEEDS.—The city engineer, Mr. W. T. Lancashire, Municipal Buildings, is to prepare plans for the extension of the sun-ray department of the Cookridge Street baths.

LEIGH.—Plans are being prepared by Mr. A. Ellis, 17B The Temple, 24 Dale Street, Liverpool, for a Roman Catholic Church.

LEVENSHULME.—A new cinema and café is to be erected at the corner of Mosley Road and Kingsway. Plans by Mr. John Knight, F.R.I.B.A., 5 Cross Street, Manchester.

LYE (WORCS.). — The U.D.C. are shortly to commence 52 houses on the Wynall Lane site. The architect is Mr. Hugh E. Folkes, Hagley Road, Stourbridge.

MANCHESTER.—In connection with the Grammar School at Fallowfield, Mr. S. Thomas, 6 Brown Street, has been appointed to prepare quantities. Plans by the associated architects, Dr. Worthington, F.R.I.B.A., and Mr. Francis Jones, F.R.I.B.A., 178 Oxford Road, Manchester.

MANCHESTER.—The Corporation Town Planning Committee have refused to sanction a proposal for the development of land at Fallowfield as a greyhound racecourse.

MEXBOROUGH.—Plans for a new cinema to be known as the "Majestic" are now in hand. The architect is Mr. Harry Slater, 5 Lawn Avenue, Doncaster.

NORDEN.—A school for 400 children is to be built by the county authority. Plans have been prepared by the county architect, Mr. S. Wilkinson, F.R.I.B.A., Preston.

NORTHAMPTON. — The borough engineer is to prepare plans for the erection of B3 type houses on the Kettering Road housing site.

ORSETT.—The R.D.C. are to apply to the M.H. for sanction to erect a further 200 houses.

PILLGWENLLY.—Plans have been prepared for the rebuilding of St. Michael's Schools by Mr. Cyril Bates, A.R.I.B.A., 30 Commercial Street, Newport, Mon.

REDDITCH.—The U.D.C. propose to proceed with the clearance of the Silver Street area, and the surveyor has been instructed to prepare plans for non-parlour houses.

ROTHERHAM.—An elementary school is to be erected at Thorpe Hesley.

ROTHERHAM.—The Rotherham and District Greyhound Sports Club, Ltd., has acquired land at Hellaby Hall for a racing course, with stands, offices, etc. Mr. J. E. Whitehead, 34 Goddard Hall Road, Sheffield, is the architect.

RUGELEY.—The U.D.C. have instructed Mr. W. E. Rogers, architect, to prepare plans of a number of parlour-type houses to be erected on the Armitage Road site.

Building Contracts Open

*** *It is requested that information concerning Contracts Open, Tenders, etc., be forwarded to Rolls House, 2 Breams Buildings, London, E.C.4, not later than* 2 P.M. *on Tuesdays. The date given at the beginning of each paragraph is the latest date when the tender, or the names of those willing to tender, may be sent in; the name and address at the end is the person from whom quantities, forms of tender, etc., can be obtained.*

BECONTREE. — November 22. — For the erection of refreshment houses on the Beacontree L.C.C. Housing Estate. Particulars, the Valuer to the Council, Valuations, Estates, and Housing Department, Old County Hall, Spring Gardens, S.W.1.

ROXWELL.—November 28.—For 6 pairs of cottages, in either brickwork or concrete, for the Chelmsford R.D.C. Particulars, Mr. J. Dewhirst, Waterloo Lane, Chelmsford. Deposit £1.

CHESTER. — November 22. — For 152 houses on the Eaton Road Housing Estate. Particulars, Mr. Charles Greenwood, A.M.Inst.C.E., city engineer, Town Hall, Chester. Deposit, £2 2s.

CHESTER.—November 26. — For three timber-constructed kiosks at the Groves. Particulars, Mr. Charles Greenwood, A.M.Inst.C.E. Deposit £1 1s.

DEWSBURY.—December 8.—For a retort house and accessories at the Gas Works, Saviletown, Dewsbury. Particulars, Borough Gas Engineer and Manager, Gas Works, Saviletown, Dewsbury.

DEWSBURY.—November 22.—For 24 houses at Laithes Croft, Earlsheaton, and 126 at Pilgrim Farm for the T.C. Particulars, Mr. H. Dearden, borough surveyor, Town Hall. Deposit £1 1s.

HANWELL.—November 25.—For 32 houses and 80 flats on the Framfield Road Housing Estate. Particulars, Mr. W. R. Hicks, borough engineer, Town Hall, Ealing. Deposit £1 1s.

IRLAM.—November 17.—For a central school. Particulars, Mr. Stephen Wilkinson, F.R.I.B.A., county architect, 16 Ribblesdale Place, Preston. Deposit £2.

LEEK. — December 5. — For 110 houses in connection with the Station Street and Morley Street housing schemes, for the U.D.C., as follows: 18 blocks of 2 houses each, type A3; 8 blocks of 4 houses each, type A3; 2 blocks of 7 houses each, type A3; 7 blocks of 4 houses each, type A2. Particulars, Mr. W. E. Beacham, surveyor, Town Hall.

LEYTON.—November 25.—For the boys' county high school, for the Essex County Council. Particulars, Mr. Jno. Stuart, county architect, Springfield Old Court, Chelmsford. Deposit £2 2s.

LIVERPOOL.—November 21.—For an art room at the Holt Secondary School, Bagot Street. Particulars, the land steward and surveyor, Municipal Buildings.

MANCHESTER. — For steelwork for motor-'bus garage at Queen's Road Car Depôt. Particulars, city architect, Town Hall. Deposit £1 1s.

MANCHESTER.—November 21.—For extensions and alterations at Hyde Road Car Depot. Particulars, city architect, Town Hall. Deposit £2 2s.

MELKSHAM.—November 21.—For a police station and four married quarters. Particulars, Mr. T. Walker, F.R.I.B.A., county architect, County Offices, Trowbridge. Deposit £2 2s. (cheques only).

PLAISTOW. — December 5. — For alterations and additions to the Upton Cross School, Plashet Road, for the West Ham E.C. Particulars, Mr. John H. Jacques, L.R.I.B.A., architect to the committee, West Ham Lane, Stratford, E.15. Deposit £2.

SANDFORD MILL (CHELMSFORD).—November 21.—For a pumping station and filter house, and the conversion of existing house into workmen's dwellings, for the T.C. Particulars, E. J. Miles, A.M.I.C.E., Municipal Offices, Chelmsford. Deposit £2 2s.

SHEFFIELD.—November 21.—For a garage and extension, etc., at Lodge Moor hospital for the Sheffield Health Committee. Particulars, W. G. Davies, city architect, Town Hall. Deposit £1.

SOUTHEND.—November 21.—Reinforced concrete engineers and contractors are invited to submit schemes, with specification, etc., and estimate for the design and construction of proposed shelter on Leigh Cliffs. Particulars, Mr. R. H. Dyer, Municipal Buildings, Southend. Deposit £2.

ST. HELEN'S.—November 21.—For (*a*) the builders' work; (*b*) the iron and steel work, for a garage at Tolver Street, for the tramways department. Particulars, Mr. Arthur W. Bradley, borough and water engineer, Town Hall. Deposit £1 1s.

TAMERTON FOLIOT.—December 1.—For 20 houses in pairs. Particulars, Mr. Percy T. Loosemore, clerk to the council, Underwood House, Plympton. Deposit £2 2s.

WALLASEY.—November 21.—For 26 non-parlour type houses at Rycroft Road, Gorsedale Road, housing site. Particulars, borough engineer and surveyor, Town Hall. Deposit £2 2s.

WANDSWORTH.—November 25.—Applications invited from persons and firms desirous of being placed on the Council's lists of those to be invited to tender for the execution of new buildings, alterations, and extensions of existing buildings, not exceeding an estimated cost of £5,000 in each case. Particulars, Mr. E. J. Elford, borough engineer and surveyor, 215 Balham High Road, S.W.17.

WANDSWORTH.—November 23.—For the following work at the Swaffield Road Institution: (*a*) Removal of ventilating cowls and renewing of slating to laundry roofs; (*b*) alterations to "E" block, and new covered way, etc. Particulars, Mr. F. J. Curtis, clerk, Union Offices, St. John's Hill, S.W.18.

WEST BROMWICH.—November 14.—For medical officer's quarters, for the B.G. Particulars, Mr. A. H. Ward, clerk, 22 Lombard Street. Architects, Messrs. J. P. Osborne & Son, 95 Colmore Row, Birmingham. Deposit £2 2s.

Building Tenders

BLACKPOOL. — For the new Parochial Hall for All Saints' Church, the contracts have been let as follows: Messrs. Chadwick Bros., Little Layton, Blackpool, general contractors; steelwork, Messrs. Foster Bros. The architects are Messrs. F. T. & H. G. Waddington, L.R.I.B.A., 52 Abingdon Street.

DUNDEE.—Work has commenced on the erection of the new maternity block at the Dundee Royal Infirmary. The contractors are Messrs. J. B. Haig & Co., 61 South Tay Street, Dundee (brickwork); Messrs. Trussed Concrete Steel Co., Ltd., 12 Renfield Street, Glasgow (reinforced concrete). Plans were prepared by Messrs. Johnson & Baxter, 31 Albert Square, Dundee.

ESHER.—The Esher and Dittons U.D.C. have accepted the tender of Messrs. Milham & Sons, £3,689, for a central fire station. Plans by Mr. H. C. Fread, A.R.I.B.A.

GLASGOW.—The Corporation recommend the tender of Messrs. H. M. Murray & Co., £6,720, for a bridge over the railway in Fulton Road.

GLASGOW.—The Corporation Gas Committee recommend the tender of Messrs. Gray's Ferro-Concrete Co., Ltd., £4,799 10s., for a ferro-concrete coal bunker at Dawsholm gasworks.

HITCHIN.—The Herts E.C. have accepted the tender of Mr. Samuel Palmer, Hitchin, £15,852, for an elementary school at Fishponds Road.

IBROX (GLASGOW).—The Albion Greyhound Co., Ltd., have acquired a site which they propose to develop as a greyhound racing track. Plans have been prepared by Mr. H. B. Hobson, of Messrs. Hobson & Withington, surveyors, 188 Oxford Road, Manchester. The contractor is Mr. R. J. McCallen, Devonshire Road, Holywood, Belfast.

KING'S LYNN. — For a new Majestic Cinema and ballroom, on Baxter's Plain. Plans have been prepared by Mr. J. L. Carnell, F.R.I.B.A., and Mr. W. Dymoke White, L.R.I.B.A., joint architects, Paradise Chambers. The contractors are Messrs. A. Richmond & Son, West Street, Retford.

LEEDS.—The Corporation Highways Committee recommend the tender of Messrs. Wood Bros. (Leeds), Ltd., £1,797 13s., for a mess room and sheds at Pottery Field depot.

LEEDS.—A new church is to be erected on the main road between Leeds and Bradford. Plans by Messrs. Empsall, Clarkson, & Clarke, L.R.I.B.A., Permanent Chambers, Piece Hall Yard, Bradford. Contractors, Messrs. J. Horkins & Sons, builders, Hightown, Liversedge, Yorks.

LEICESTER.—For the new Wesleyan Church at Southfields Drive, Saffron Lane, Leicester, the contractors are Messrs. W. Haddon & Son, Gladstone Street. The architects are Messrs. Arthur Brocklehurst & Co., Palatine Buildings, Norfolk Street, Manchester.

LONGTON.—For the reconstruction of the Alexandra Picture Palace, the contractors are Messrs. Young & Son, Stone Road. Plans by Messrs. Wood & Goldstraw, A.R.I.B.A., Town Hall, Tunstall, Stoke-on-Trent.

MAIDSTONE. — Extensive alterations and improvements are being effected to Leeds Castle. The contractors are Messrs. Keeble (1914), Ltd., 10 Carlisle Street, W. Plans by Mr. Owen Little, F.R.I.B.A., 88 Gower Street, Bloomsbury, W.C.

MANCHESTER.—Messrs. G. Evans & Sons, Ltd., 761 Oldham Road, Newton Heath, are to erect a new garage in Reliance Street, Newton Heath. Plans are being prepared by their own staff. The contract has been placed with Messrs. A. & J. Main & Co., Ltd., Australia House, London, W.C.2.

MANCHESTER.—Messrs. Charles Sever, Ltd., 40 King Street West, Deansgate, are to alter their premises. Plans have been prepared by Messrs. Turtle & Son, builders and contractors, Fairfield Street, Ardwick, who will also carry out the work.

NETTLESWORTH. — Durham County E.C. have accepted the tender of Mr. J. G. Durham, East Boldon, £5,380, for an elementary school. Plans by Mr. F. Willey, F.R.I.B.A.

NORTH SHIELDS.—The contract for extensions to the British Traction Co.'s garage at Percy Main has been placed with Gilbert Park & Son, Ltd., Tynemouth Road. Steelwork by Messrs. Wright & Anderson, Coulthard's Lane, Gateshead. The architects are Messrs. Marshall & Tweedy, 54 Grey Street, Newcastle-on-Tyne.

SHEFFIELD.—The Watch Committee have accepted the tender of Messrs. M. J. Gleeson, Ltd., £2,945, for alterations and extensions at Woodseats police station.

SHEFFIELD. — The Corporation Electricity Committee have accepted the tender of Messrs. Thomas Roper & Sons, Ltd., £1,083 18s. 10d., for a substation in Exchange Street.

SHEFFIELD. — The Corporation Estates Committee have accepted the tender of Messrs. M. J. Gleeson, Ltd., £32,160, for 88 houses on the Longley Estate.

SHEFFIELD. — The Corporation Estates Committee have accepted the tender of Messrs. Drabble Bros., Mosborough, £15,628, for 47 houses on the Longley Estate.

SILKSTONE.—For a new school for 130 children. Plans by the county architect, Mr. Wormald, County Hall, Wakefield. Contractor, Mr. C. D. Potter, 119 Doncaster Road, Barnsley.

WALSALL.—The tender of Mr. Bert Denning, £3,149 10s., has been accepted for five combined houses and shops on the Blakenall Housing Estate.

WARRINGTON. — A contract has been placed for the proposed extensions to the premises of the Warrington Motor Co., Ltd., in Market Gate, with Messrs. Ashton & Sons, builders, Bridge Foot, Warrington. Messrs. William & Segar Owen, FF.R.I.B.A., are the architects.

WHISTON.—For the additions and alterations to Council Offices and Depot, Delph Lane. Plans prepared by W. Ellis, architect, 9 Hardshaw Street, St. Helen's. Contractor, Isaac Griffiths, Thatho Heath.

WIGAN.—Erection of a new church school, St. Patrick's Church, Wigan, estimated to cost about £12,000. Plans have been prepared by Messrs. T. Price & Sons, architects, of Lord Street, Liverpool. The contractors are Messrs. Massey Bros., of Enfield Street, Wigan.

WIGAN.—For the proposed improvements to the church and schools of St. Catharine's. Plans by Messrs. Pennington & Union, architects. Contractors, Messrs. D. Ablett & Sons.

WIGAN.—For the new school for St. Patrick's Church, Wigan. The contract has been placed with Messrs. Massey Bros., Enfield Street. Plans by Messrs. Thomas Price & Sons, architects, 77 Lord Street, Liverpool.

WILNCOTE. — The Warwickshire E.C. have accepted the tender of Mr. T. H. Clifford, £2,187, for a mining school.

WITHINGTON. — Twenty-one houses shops and two houses on Cotton Lane are to be erected. Plans by Mr. J. Dalby, architect, 9 Gainsborough Avenue. Messrs. Sparkes & Stephones, builders, Cotton Lane.

WITHINGTON.—The Withington & Fallowfield Liberal Club, Mauldeth Road, have acquired the premises of the late Spanish and Portuguese Synagogue in Mauldeth Road, which they propose to convert into new headquarters. Plans have been prepared under the supervision of the secretary, Mr. Ellis. The contractors are Messrs. J. & J. Parish, Ltd., Burton Road, Manchester.

WOKING.—A new ward block is to be erected at the Woking and District Victoria Hospital at an estimated cost of £6,500. The contract has been placed with Messrs. R. Pain & Son, High Street, Woking, and will be supervised by the architects, Messrs. W. A. Pite, Son & Fairweather, FF.R.I.B.A., 12 Carteret Street, Westminster.

WOKING.—For five pairs of houses for the U.D.C. at Granville Road, the tender of Mr. W. J. Drowley, £4,100, has been accepted.

WOKING.—For a new Fire Station on the St. Dunstan's ground in Church Street, the tender of Messrs. E. & R. Winn & Co., Ltd., 4 Halkin Place, Belgrave Square, S.W.1, has been accepted at £4,599.

WOLVERHAMPTON. — Work on the site of the new cold stores and abattoirs for the Markets Committee of the T.C., which were estimated to cost £70,000, has commenced. The building contractors are Messrs. H. Willcock & Co., Ltd.

WOLVERHAMPTON. — The following tenders have been recommended for acceptance in connection with the scheme for 200 houses on the Low Hill estate: Mr. A. M. Griffiths, Wolverhampton, 46 "A" type houses, £18,630 (£405 each), and 54 "A" type houses at £21,168 (£392 each); Mr. Arthur Powell, Wolverhampton, 50 "B" type houses, £25,400 (£508 each); and Messrs. Eadie Towers & Co., Wolverhampton, 50 "B" type houses at £25,700 (£544 each).

WOLVERHAMPTON. — A large factory is to be erected at Dunstall Hall by Messrs. Courtaulds, Ltd. The contract has been placed with Messrs. Melville, Dundas & Whitson, Bath Street, Glasgow, and will be supervised by Mr. Johnson, surveyor.

WORKSOP.—For a new parish hall in connection with St. Anne's Church. The contractors are Messrs. J. H. & M. G. Ilett, Station Yard. The architect is Mr. B. D. Thompson, L.R.I.B.A., 73 Bridge Street.

Trade Notes

Cementone Products, a range of special materials for use in concrete work, are produced by Messrs. Joseph Freeman, Sons & Co., Ltd., of "Cementone" Works, Garratt Lane, London, S.W.18. They comprise:—Permanent colourings in powder form for mixing with the cement for colouring concrete; colourless flat or glossy finish waterproofing liquids for exterior cement, brick plaster, rough-cast or stone walls; a binder to prevent the formation of dust on concrete floors; waterproof decorative flat finishes; wall glaze; liquid concrete hardener; and waterproofing composition. An instructive booklet is issued by the firm about these materials, the production of which forms a special branch of their business as manufacturers of paints, varnishes, enamels and distempers, etc.

Sir S. W. Royse & Co., Ltd., of 20 Albert Square, Manchester, have just completed arrangements to represent the Duriron Company, Incorporated, of Dayton, Ohio, in the United Kingdom and Ireland for the sale of their valves, fans, steam jets, pumps, pipes, etc. The Duriron Company have specialised for many years in the manufacture of metals highly resistant to acids and other corrosives, and have supplied plant for a large number of schools, colleges, hospitals and other public or semi-public buildings.

Messrs. Henry Hope & Sons, Ltd., of Smethwick, Birmingham, have issued a very finely produced and illustrated catalogue of their goods in art leadwork, both wrought and cast, comprising rain-water heads, down pipes, gutters, flower boxes, fleches, etc., and for purposes of comparison have included illustrations of some striking examples of old English leadwork.

Roads and Transport Exhibition

The Fourth Public Works, Roads and Transport Exhibition opened at the Agricultural Hall on Monday, November 14, and will close tomorrow, Saturday.

Sir Henry P. Maybury, K.C.M.G., C.B., Director-General of Roads, Ministry of Transport, presided at the opening luncheon. Delegates from all parts of the world are attending the Congress held in connection with the Exhibition.

The exhibitors include many specialists of note, who will give technical advice to any of our readers who visit the Exhibition.

Trade Publication

The Croft Granite, Brick and Concrete Co., Ltd., Croft, near Leicester.—Illustrated brochure showing recently-erected buildings in which Croft Adamant Reconstructed Stone has been used.

CURRENT MARKET PRICES (London)

CEMENT, LIME AND AGGREGATES.

Material.	Price.	Conditions.
Thames Ballast	9/–	Yard Cube delivered.
¾-in. ditto	10/3	Ditto
2-in. Broken Brick	9/–	Ditto
¾-in. ditto	10/6	Ditto
Pan Breeze	5/6	Ditto
Thames Sand	12/6	Ditto
Pit Sand	11/6	Ditto
Washed Sand	12/9	Ditto
Portland Cement	53/–	Per Ton.
Rapid Hardening ditto	63/–	Ditto
Granite chippings	29/–	Ditto
Grey Stone Lime	**50/9**	Ditto
Ground Blue Lias Lime	**53/6**	Ditto

BRICKS.

	Price	Conditions.
Flettons Bricks	54/3	Per 1,000 F.O.R. London
Slotted Flettons ditto	56/3	Ditto (Station
Bull Nosed Flettons ditto	69/3	Ditto
1st Hard Stock ditto	100/–	Delivered Loadon Site.
2nd Hard Stock ditto	94/–	Ditto
Picked Stock facing ditto	120/–	Ditto
Blue wirecut bricks	145/–	Per 1,000 F.O.R. London
Blue pressed ditto	185/–	Ditto (Station
Blue pressed bull nosed ditto	195/–	Ditto
Red multi-coloured facings	140/–	Ditto
Red Rubbers	244/–	Ditto
White Arlsey bricks	110/–	Ditto
White glazed brickstretchers	400/–	Ditto
Ditto headers	390/–	Ditto
Ditto bull nose or quoins	530/–	Ditto
Ditto double stretchers	570/–	Ditto
Ditto double headers	510/–	Ditto
Ditto 1 side and 2 ends	590/–	Ditto
Add for Buff, Cream and bronze to the cost of similar white glazed bricks	40/–	Ditto
Add for other colours to the cost of similar white glazed bricks	110/–	Ditto
Stourbridge Firebricks	203/–	Ditto
Breeze Fixing Bricks	80/–	Ditto
Breeze slab partitions 2in.	2/–	Per yard super delivered.
Ditto 3in.	2/10	Ditto

DRAINAGE GOODS.

GLAZED—	4in.	6in.	9in.	Unit.	Conditions.
Salt glazed sanitary pipes	10*d.*	1/3	2/3	per foot	In truck loads free on rail London —10% or +10% delivered on site If tested pipes are required add 35% to the net prices.
Ditto bends	2/6	3/9	6/9	each	
Ditto sanitary junctions	3/4	5/–	9/–	ditto	
Gullies—	6in.	9in.	12in.		
Ordinary pattern	6/10½	11/3	20/–	ditto	
Add for Black Iron Grid	1/3	2/6	5/5	ditto	
do. for Galvanized Grid	2/1	4/4½	9/7	ditto	
do. for Horizontal Inlets	1/6	1/6	1/6	ditto	
do. for Vertical Inlets	2/3	2/3	2/3	ditto	
	4in.				
Interceptor	16/3	21/3	36/3	111/3	ditto
Ditto locking or screw stopper	3/4	5/–	10/–	—	ditto

IRON—	Prices 4in.	Prices 6in.	Units.
Cast-iron coated drain pipe	6/–	8/4	per yard
Ditto bends	6/9	14/6	Each
Ditto junction	9/3	19/–	Ditto
Ditto gulley and grating	20/–	—	Ditto
Add for Horizontal back inlet	3/6	—	Ditto
Cast-iron coated interceptor with clearing arm, plate, bridge and screw	25/–	43/–	Ditto

MANHOLE COVERS—	24×18 in.	24×24 in	30×24 in.	36×24 in.
Single Seal Manhole covers coated medium weight	14/–	20/–	27/–	34/–
Ditto but double seal ditto	21/6	28/–	31/6	45/–

ROOFING MATERIALS.

SLATES—	Unit.	Cost.	Unit.	Cost.
Bangor or Portmadoc slates F.O.R. London	24×14 in.	£37 7 11	18×9 in.	£16 9 2
	24×12 in.	32 18 4	16×12 in.	18 4 7
	22×12 in.	29 17 11	16×10 in.	15 12 6
	22×11 in.	27 14 2	16×9 in.	13 10 10
	20×12 in.	26 5 0	16×8 in.	12 3 9
	20×10 in.	22 10 0	14×12 in.	14 13 3
	18×12 in.	22 7 11	14×10 in.	12 3 9
	18×10 in.	18 12 11	14×8 in.	9 7 6

Westmoreland Random first green slates, F.O.R. London £16 0 0 Per ton

Old Delabole Slates—

Size	Grey	Green	
24×12 in.	£42 11 3	£45 1 0	Per 1,200 delivered
20×10 in.	31 4 5	33 0 6	Ditto
16×10 in.	20 18 0	22 4 9	Ditto
14×8 in.	12 1 0	12 16 3	Ditto
Green Randoms No. 2		8 3 9	Per ton delivered
Grey Green ditto		7 3 9	Ditto
Green Peggies 12 in. to 8 in. long		6 3 9	Ditto

The above prices are subject to any impending increase in railway rates.

TILES—		
Plain Broseley hand-made, sand-faced tiles	£5 12 6	Per 1,000 F.O.R.
Hip and valley tiles	0 8 6	per doz. ditto
Red asbestos tiles	16 0 0	Per 1,000
Grey ditto	15 0 0	Ditto

Corrugated asbestos sheeting	0 2 11	Per yard super.
Corrugated iron sheeting	1 2 0	Per cwt.
Zinc sheeting	2 4 6	Ditto
Copper sheeting	3 10 0	Ditto

BUILDING STONES.

Per foot cube, delivered at Mason's Yard, London—

Bath.	Portland.	Yorkshire.	Hopton Wood.	Ham Hill.	Weldon.
3/4	4/10½	6/–	17/6	5/9	4/5

TIMBER.

Carcassing timber of good quality—
Per standard delivered

4×11 in.	4×9 in.	4×7 in.	3×9 in.	3×7 in.	2×7 in.	2×4 in.
£31	£29	£26	£25	£22	£22	£21

Joinery of good and well seasoned quality—

4×11 in.	4×9 in.	4×7 in.	3×9 in.	3×7 in.	2×7 in.	2×4 in.
£55	£50	£49	£48	£47	£46	£45

BOARDINGS—per square	⅝in.	¾in.	1in.	1¼in.	1½in.
Plain edge flooring delivered	—	—	25/–	31/–	34/–
Tongued and grooved ditto ditto	—	—	25/–	31/–	34/–
Matchboarding ditto	16/6	19/–	24/–	—	—

SUNDRIES—	
Cut clasp nails	19/6 cwt.
Scotch glue	60/– cwt.

HARDWOODS—		
Oak,	Austrian	17/–
Ditto	Japanese	15/–
Ditto	American	14/–
Ditto	English	12/–
Mahogany,	Honduras	17/–
Ditto	Cuban	26/–
Teak	Eng.	10/–
Ditto	Moulmein	14/–

Per foot cube in dry boards 1in. thick and upwards.

PLYWOOD—

Thicknesses	⅛in.		¼in.			⅜in.			½in.		
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	3	7	6
Oregon Pine	5	4	–	5½	5	–	6½	6	–	–	–	–
Gaboon Mahogany	4	3	3	6½	5½	4	9½	7½	–	1/0½	10	–
Figured Oak (1 side)	8½	7	–	10	8	–	11½	–	–	1/6	–	–
Plain Oak (1 side)	6½	6	–	7½	7	–	9½	–	–	1/–	–	–

STEELWORK.

Rolled Steel joists	12/6
Compound girders	15/6
Stanchions	17/6
Angles and Tees	14/6
Bars	15/–
Mild Steel Rods	13/6
Bolts and Nuts	36/–

Per Cwt. delivered to job

GAS, WATER AND STEAM TUBES (from Standard List).

Internal diameter	¼in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes (per foot)	4*d.*	5½*d.*	6½*d.*	9½*d.*	1/1	1/4½	1/10
Elbows square (each)	10*d.*	1/1	1/3	1/6	2/2	2/7	4/3
Elbows round (each)	11*d.*	1/2	1/5	1/8	2/4	2/10	4/3
Tees (each)	1/–	1/3	1/7	1/10	2/6	3/1	5/1
Crosses (each)	2/2	2/9	3/3	4/1	5/6	6/7	10/6
Sockets diminished (each)	4*d.*	6*d.*	7*d.*	9*d.*	1/–	1/4	2/–

Discounts off above—

	Tubes.	Fittings.	Galvanized Tubes.	Galvanized Fittings.
Gas	—67½%	—45%	—55%	—35%
Water	—63½%	—40%	—50%	—30%
Steam	—60%	—35%	—45%	—25%

RAIN WATER GOODS (Painted or Coated).

	2in.	2½in.	3in.	3½in.	4in.	5in.
Round pipes with ears, per yard	1/6¾	1/9¼	2/1½	2/6	2/10½	4/7½
2ft., 3 ft., 4 ft. lengths, per yard	1/8¾	1/11¼	2/3½	2/8	3/0½	4/10¾
Shoes (each)	10½*d.*	1/0¼	1/2	1/6½	1/8¾	3/1½
Bends (each)	1/0¼	1/2	1/5½	1/8¾	2/0¾	3/9
Heads (each)	1/5¼	1/7¾	1/11	2/4¾	2/7¼	4/8
Offsets, 4½ in. projection each	1/3	1/6¾	1/8	1/11¾	2/6	4/3¾
Ditto 9 in. ditto. each	1/7¾	1/10	2/2	2/8¼	3/2¾	5/1
Single junction each	1/6	1/9¼	2/2	2/6	3/0¼	4/10¼
Cast-iron half-round gutters. per yard	—	—	1/0¾	1/2	1/3	1/6¾
Ditto 2 ft., 3 ft., and 4 ft. lengths per yard	—	—	1/2¼	1/3½	1/4½	1/8¾
Angles and nozzles each	—	—	10*d.*	11*d.*	1/0½	1/5
Stop ends do	—	—	3*d.*	3*d.*	4*d.*	5*d.*
O.G. gutter per yard	—	—	1/5	1/5	1/6½	1/11¾
Ditto 2 ft., 3 ft., and 4 ft. lengths per yard	—	—	1/6½	1/6½	1/8	2/1½
Angles and nozzles each	—	—	**1/0¾**	**1/0¾**	**1/2**	1/6½
Stop ends do	—	—	**3*d.***	**3*d.***	**3*d.***	**4½*d.***

PLASTERING MATERIALS.

	Price	Unit
Wood sawn laths	2/9	Per bundle
Metal lathing	1/–	Per yard
Sirapite, coarse	69/–	Per ton
Ditto finish	77/–	Ditto
Plaster, coarse, pink	60/–	Ditto
Ditto white	72/6	Ditto
Ditto finish	112/–	Ditto
Keene's cement, pink	110/–	Ditto
Ditto white	115/–	Ditto
Plaster slabs	2/6	Per yard super
Chalk lime	59/9	Per ton
Hair	43/–	Per cwt.
6×6 in. white glazed tile	from 8/6	Per yard super
White Portland cement	300/–	Per ton
Lath nails	31/–	Per cwt.

CURRENT MARKET PRICES (LONDON)—*Continued.*

PLUMBER'S GOODS.

		4 lbs. lead and upwards in sheets	Lead pipes in coils		Lead soil pipes	
Lead delivered		28/9	29/3		32/3	
IRON SOIL AND WASTE—	Unit	2 in.	2½ in.	3 in.	3½ in.	4 in.
L.C.C. weight, coated with Dr. Angus Smith's solution	Per yard run	2/7	3/0½	3/2½	3/6	3/10½
2 ft., 3 ft., and 4 ft. lengths	Ditto	2/9	3/2½	3/4½	3/8	4/0½
Bends	each	1/9½	1/11½	2/1½	2/8½	3/0½
Swannecks, 4½ in. projection ..	Ditto	2/2	2/6	3/5	3/11½	4/6½
Ditto 9 in. ditto	Ditto	2/10½	3/2½	3/11½	4/6½	5/4½
Junctions	Ditto	2/9½	3/5	3/11½	4/6½	5/1½
Round access door, with three gunmetal screws	Ditto	4/6	4/6	4/6	4/9	4/9

GALVANIZED CISTERNS—	25 Galls.	50 Galls.	100 Galls.	150 Galls.	200 Galls.	250 Galls.
14 gauge	26/9	36/7	56/–	67/3	80/12	102/6
12 do.	30/–	43/6	62/6	76/–	97/–	115/–
¼ in. plate	33/6	47/–	70/6	90/–	107/–	123/6
Hot Water tanks—	20 Galls.	30 Galls.	40 Galls.	50 Galls.	60 Galls.	70 Galls.
in. plate	40/–	47/6	55/6	62/–	71/–	80/–
Hot water cylinders, with manhole and ring—	25 Galls.	31 Galls.	40 Galls.	45 Galls.	52 Galls.	60 Galls.
in. plate	57/6	61/–	68/6	74/–	80/–	86/6
	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	2½ in.
Screwed flanges, rivetted on extra over the usual number	1/9	2/–	2/3	2/9	3/6	5/–

PLUMBER'S BRASSWORK (first quality)—	Each: ½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Brass high pressure screw-down bibcocks	4/–	6/–	9/–	—	—	—
Ditto stop cocks	4/6	6/6	10/6	20/–	28/–	54/6
Brass ball valves	4/9	6/9	12/–	—	—	—
Plumber's unions	1/2	1/6	2/3	3/3	—	—
Boiler screws	8*d.*	11*d.*	1/7	3/–	—	—
	Each: 1¼ in.	1½ in.	2 in.	3½ in.	4 in.	
Caps and screws	1/–	1/6	2/2	5/4	6/4	

PLUMBER'S SUNDRIES—	1½	1½	2	3½	4
Lead P traps with cleansing eye (7 lb.)	2/5	3/–	4/2	8/6	11/–
Ditto S do. with do. (7 lb.)	2/9	3/8	5/4	9/6	12/6
Rubber cones	1/2	1/4	—	—	—
Brass sleeves	—	—	1/2	2/7	3/9
Ditto thimbles	—	—	1/–	2/3	3/6
Plumber's solder	..	..	..	1/3	Per lb.
Tinman's solder	..	..	..	1/6	Do.
Copper nails	..	..	..	2/–	Do.

GLASS.

Per foot super.	English sheet glass in crates, delivered 15 oz.	21 oz.	26 oz.	32 oz.	English sheet glass cut to sizes in quantities of 100 feet upwards 15 oz.	21 oz.	26 oz.	32 oz.
Clear ..	3⅜*d.*	5*d.*	5¾*d.*	8¼*d.*	3¾*d.*	5½*d.*	7*d.*	10½*d*
Ground ..	4⅜*d.*	6½*d.*	7¾*d.*	10¾*d.*	5¾*d.*	7½*d.*	9½*d.*	1/1
Fluted ..	7⅜*d.*	10¾*d.*	1/1⅜	1/5	8½*d.*	1/–	—	—
Enamelled ..	6*d.*	7½*d.*	9¾*d.*	1/1	7*d.*	9*d.*	—	—

Cut to sizes, per foot super. Figured rolled glass, including Muranese, Arctic, Flemish	⅛ in.	⅜ in.	½ in.	White 7¾*d.* ¾ in.	Tinted 10½*d.* ¾ in.
Rolled plate glass	4½*d.*	6½*d.*	6½*d.*		9*d.*
Rough cast glass	—	6½*d.*	6½*d.*	—	
Wired rolled	—	—	9½*d.*	—	
Wired cast	—	—	9¾*d.*	—	

	Feet super: 1	3	6	12	20	45	100
In pla'es not exceeding							
Ordinary substance polished Plate Glass cut to sizes at per foot super.	11*d.*	1/7	2/3	2/7½	2/9½	2/11	3/5½
Ditto silvered plates all as last	1/9	2/8	3/5	3/9	3/11	4/2	6/3
Embossing	Single Acid. 3/3			Two Acid. 4/6		French Shadde 6/9	

PAINTS AND VARNISH.

	Price	Unit
Aluminium Paint	25/– ..	Gallon
Dryers	36/– ..	Cwt.
Distemper, washable	45/– ..	Cwt.
Enamel, best white	25/– ..	Gallon
Gold leaf, English	2/9 ..	Book
Gold size	12/6 ..	Gallon
White Lead	47/6 ..	Cwt.
Linseed oil, boiled	3/3 ..	Gallon
Ditto raw	3/– ..	Gallon
Mixed Paint	56/– ..	Cwt.
Putty	16/– ..	Cwt.
Size	3/6 ..	Firkin
Tar	1/– ..	Gallon
Terebine	9/– ..	Gallon
Turpentine	3/6 ..	Gallon
Varnish, hard oak	15/– ..	Gallon
Varnish, copal	17/– ..	Gallon
Ditto flat	16/– ..	Gallon
Whiting Gilders	3/– ..	Cwt.

Correspondence

(*Continued from page* 788)

we must, and for study's sake the nearer the better. But the lines and forms are the mechanism of the building. Separately they are fine fragments, but fitted together in their completeness, lifted up on the Acropolis, in such a light and atmosphere as only belongs to Greece, silhouetted against the Greek sky and sea, in the place that it was built for—the building has power to tune the mind—to the universal harmonies—and that is architecture. We dissect buildings to learn architecture as we dissect flowers to learn botany, or murder classics to learn music, or annotate Shakespeare for schools. Need it be made useless desecration? A great building only happens once. To try to repeat it, or parts of it, is unimaginative and foolish. By comparative methods we may try, by inspiration we may hope, to produce those happy combinations, a mass of outline and atmosphere which alone make a work of architecture.—Yours faithfully,

EX-STUDENT.

To the Editor of THE ARCHITECT AND BUILDING NEWS.

SIR,—Your correspondent, Mr. H. C. Hughes, condemns the teaching of the Orders in the Schools of Architecture.

If he had visited the recent exhibition of Recognised Students' Work at the R.I.B.A., he would have found himself behind the times, for there were very few drawings there which showed the least understanding of Classical forms.

Those designs which were not definitely bad were attractive enough on paper, but would build poorly for sheer lack of intellectual interest.

This is the result of laziness and self-satisfaction where there should be close study and an earnest appreciation of the technique of the old Masters. Living architecture is more difficult of achievement than the schoolmen and Mr. Hughes care to admit.

Yours faithfully,

TRADITION.

The Parr's Wood Motor Bus Depot

(*Continued from page* 791)

McCrea & Sons, Manchester (the whole of the plumbing and glazing); Messrs. Mather & Platt, Ltd. (sprinklers); Messrs. Jones & Jackson, Ltd., Manchester (plaster work and painting); Messrs. Albert E. Sudlow & Co., Manchester (electric lighting); Messrs. The Synchronome Co., Ltd., London (synchronised system of clocks, including turret clock, two-faced bracket clock, master clock, two 12-in. dials); Messrs. Estler Bros. (steel stores and bins); Messrs. Cochran & Co. (Annan), Ltd. (boilers); Messrs. Holt & Willets (hoist).

The main shed is ventilated and warmed by means of a specially designed fan driven at 450 r.p.m. by a 30 h.p. De Laval Steam Turbine, delivering 50,000 cubic feet of air per minute. The air is passed through a battery of tubes heated by exhaust and live steam, and distributed by means of sheet metal trunking fixed immediately beneath the gutters of the roof, inconspicuous to the eye and giving ample headroom for the buses. The plant was designed and supplied by Messrs. Saunders & Taylor, Ltd., of Manchester and London.

Change of Address

The offices of the Association of Public Lighting Engineers have been removed to 68 Victoria Street, London, S.W.1. The hon. secretary is Mr. W. J. Liberty.

CURRENT MEASURED RATES

These Prices apply to a New Building, costing from £1,000 upwards, in the London Area. They hold 10 per cent. in excess of the actual prime cost, without Establishment Charges.

PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week.
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	½%
Allow for water, ditto	⅛%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/–
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅛th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	4/–
Planked gangway with handrail complete	4/–
Proper gantry complete	40/–
Sleeper roadways	8/–

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	6/–

DEMOLITION	Per Ft. Super reduced—In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/– per thousand	
Hack off old plaster	1/– per sq. yd.	

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube—5 ft. deep	5 ft. to 10 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	9/6	11/–	9*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/– „	„	

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast	28/6	35/6	2/6
Concrete in foundations			
Add if in ground floors	2/–	2/10	2/6
Add if in beams or lintels	3/–	4/–	2/6

	Earthenware—4 in.	6 in.	Iron—4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/11	2/10	3/–	4/6
Extra only for bends, each	2/6	3/6	11/6	20/–
Ditto, for junctions, each	3/–	4/3	19/–	35/–
Gullies, including concrete surround and iron grating, each	16/–	18/6	35/–	50/–

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced—Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	620/–	830/–	1060/–
„ „ cement mortar	635/–	845/–	1075/–

Damp course	Per Foot Super—Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
½-in. asphalte	9*d.*	1/–

Facings	Per Foot Super—Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%
Pointing (exclusive of scaffolding)		Per Ft. Super
Weather joint in cement		2½*d.*
Flat joint in cement (struck) and lime whiting		1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/–
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	6/–
Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super—1 in.	1¼ in.	1½ in.	2 in.	3 in.
Cement and sand	3/–	3/5	3/10	4/8	—
Granolithic	4/2	4/9	5/3	6/4	—
Asphalte	7/–	—	—	—	—
Tarmac	—	—	—	4/8	6/6

MASON.

	Per Foot Cube—Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	12/6 Stairs	16/6	22/6
Artificial stone	9/–	8/–	11/– To Elevation generally
Portland stone and all labours of usual character			19/6
Bath stone ditto			10/6

SLATER AND TILER.

ROOFING.	Per Square—Countess	Ladies
Welsh slating laid to a 2½-in. lap with two composition nails to each slate	80/–	72/–
Add for every ½-in. additional lap	2/3	3/7
Add for copper nails	2/3	3/4

Best selected green Westmorland slates laid to a 3-in. lap, with copper nails	135/–
Asbestos slates laid to a 3-in. lap, with compo. nails	36/–
Asbestos corrugated roofing with galv. screws and limpet washers	55/–
Plain red roof tiling 4-in. gauge, each tile in every fourth course nailed with two galv. iron nails	70/–
Add for vertical work	2/6
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

Old Delabole slates fixed complete—

Size	Medium Grey	Medium Green
24×12 in.	90/–	93/– Per square
20×10 in.	95/–	100/– Ditto
16×10 in.	86/–	91/– Ditto
14×8 in.	80/–	86/– Ditto
Green Randoms No. 2		115/– Ditto
Grey-Green Randoms		98/6 Ditto
Green Peggies 12 in. to 8 in. long		87/6 Ditto

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super
Edges and abutments	Equal ½ foot super
Ridge tiling	1/10
Fixing soakers	9*d.* per dozen.

CARPENTER.

Flat boarded centering, per yard super	5/–
Centering to beams, per yard super	7/6
Centres to arches, per foot super	2/–

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/–	6/–	3/10	8/9

At per square	¾ in.	1 in.	1¼ in.
Deal close boarding	31/–	38/–	48/–
Battening for slates	10/–	11/–	12/–
Roofing felt lapped and laid	12/– to 28/–		

Gutter boards and bearers per foot super	1/–

JOINER.

Per square	¾ in.	1 in.	1¼ in.
Deal plain-edged flooring	—	33/–	40/– 50/–
Deal tongued and grooved flooring	—	37/–	45/– 56/–
Deal matching	36/–	43/–	46/6 58/–

	1¼ in.	2 in.
Sashes, per foot super		
Deal moulded sashes, divided in squares	1/10	2/–

Windows, per foot super Deal cased frames, 1-in. linings, 1¼-in. pulley styles, 2-in. sashes in squares, oak sill, double hung with pulleys, lines and weights	Very small	Small	Normal	Large
	11/–	5/–	3/6	3/–

Doors, per foot super	1¼ in.—2 Panel	4 Panel	2 in.—4 Panel	6 Panel
Square frame both sides doors	2/–	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3½*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼-in. Deal tread, 1-in. riser, fixed complete per foot super	2/6
2-in. Deal strings, per foot super	2/–
Housing steps to strings, each	9*d.*

CURRENT MEASURED RATES—*Continued.*

JOINER—*Continued.*

	Very Small	Small	Large
	Per Foot Cube		
Mahogany French-polished handrail ..	87/-	69/-	53/-
Add if ramped	120/-	100/-	80/-
Add if wreathed	240/-	200/-	160/-

	1½ in.	1¾ in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super, Sundries	1 in.	1¼ in.	1½ in.
Deal shelves or divisions	1/-	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany—3 times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

	Section Area							
Fillets, rails and frames. Per foot run	1 in.	2 in.	4 in.	6 in.	9 in.	12 in.	14 in.	16 in.
Deal, wrot and fixed ..	2*d.*	3*d.*	4½*d.*	5¾*d.*	8*d.*	10½*d.*	11½*d.*	1/1½
Deal, wrot. fixed and moulded	2¼*d.*	3¼*d.*	5*d.*	6½*d.*	9*d.*	11¼*d.*	1/0½	1/2½
Deal, wrot, moulded, rebated, framed and fixed ..		6½*d.*	8*d.*	10*d.*	1/0½	1/1½	1/3½	

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third of every eighth of an inch rise on a foot chord line.

	Groove or Bead	Staff Bead or Nosing	Moulding per 1 in. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d*	½*d.*	2*d.*

	Barrel Bolts	Flush Bolts	Sash Fasteners	Locks and Furniture: Rim	Mortice	Casement: Cupboard	Stays	Fasteners	Grip Handles	Springs Catches
Labour and Screws only Fixing	1/-	2/-	1/-	2/-	4/-	1/3	1/-	1/-	1/-	1/-

SMITH AND FOUNDER.

	Up to 1st Floor	Above 1st Floor
	Per Cwt	
Rolled steel joists	15/6	17/6
Compound girders	18/6	20/6
Stanchions	20/6	22/6
Cast-iron columns	16/6	18/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/-	27/-
Chimney bars	36/-	34/-	32/-
Tie rods and ring bolts	47/6	45/-	42/6
Bolts and nuts	45/-	40/-	35/-
Handrail and balusters	55/-	50/-	48/-
Steel reinforcing bars bent and fixed	22/-	21/6	21/-

Rain water Goods.	2 in.	3 in.	4 in.
	Per Foot Run		
Pipes fixed with pipe nails	11*d.*	1/2	1/7
Bends or shoes, each	1/3	1/7	2/2
Junctions, each	2/-	2/7	3/6
	4 in.	5 in.	6 in.
Gutters fixed with brackets	1/3	1/7	1/11
Outlets and angles	2/1	2/9	3/5
Stop ends	10*d.*	1/-	1/1

PLUMBER.

	Soakers	Flats	Flashings and Gutter
	Per Cwt.		
Milled lead and laying	40/3	49/3	52/3

Copper Nailing	Soldered Angles	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
Per Foot Run			Each		
4*d.*	2/-	4*d.*	6*d.*	5/6	2/-

	½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	3½ in.	4 in.
	Per Foot Run							
Lead service	1/4	1/9	2/3	2/10	3/2	4/-	—	—
Lead waste	1/-	1/4	1/8	1/11	2/2	2/9	—	—
Lead soil	—	—	—	—	—	—	5/-	5/6

	Each							
Egg joints	2/9	3/-	3/7	4/3	4/10	5/9	8/2	9/-
Branch joints	3/-	3/3	3/11	4/7	5/2	6/2	8/8	9/6
Indiarubber joints ..	—	—	—	3/-	3/-	—	—	—
Stop ends	9*d.*	1/-	1/3	1/9	2/-	2/6	—	—
Bends	—	—	—	—	2/-	2/6	5/6	6/3
Beaded ends	—	—	—	10*d.*	10*d.*	1/-	—	—
Single tacks	—	—	11*d.*	1/-	1/1	1/5	2/-	2/3
Double tacks	—	—	1/2	1/3	1/4	1/8	2/7	3/1
Brass sleeves	—	—	—	—	8/11	10/4	15/3	17/8
Lead traps	—	—	—	12/5	14/8	18/6	28/-	33/-
Boiler screw	3/6	4/-	5/4	7/7	9/-	—	—	—
Bib cocks	7/2	9/8	13/6	—	—	—	—	—
Stop cocks	10/6	13/2	18/9	30/6	40/6	71/6	—	—
Ball cocks	8/-	10/-	16/6	30/-	42/-	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

PLUMBER—*Continued.*

	Per Foot Run 2 in.	4 in.
Iron (L.C.C.) pipes.		
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints	2/-	3/-
Extra for bends .. .. each	6/3	9/3
Extra for junctions .. .. each	7/6	11/6

GAS AND STEAM PIPES.

	Gas ½ in.	Gas ¾ in.	Steam Tubing ½ in.	Steam Tubing ¾ in.	Steam Tubing 1 in.	Steam Tubing 1¼ in.	Steam Tubing 1½ in.	Steam Tubing 2 in.
	Per Foot Run							
Tubes and all fittings fixed with clips complete ..	1/1	1/1½	1/4	1/7	1/10	2/3	2/7	3/5

PLASTERER.

On Walls and Ceilings.	Per Yard Super	Narrow Widths per Foot Super	Rounded Arris	Angle	Quirk	Flush or Staff Bead
			Per Foot Run			
Render, float and set in lime and hair	3/1	0/6	0/2	0/3	0/1½	0/8
Do. do. Sirapite ..	3/4	0/6½	0/2	0/3	0/1½	0/8
Do. do. Portland ..	4/-	0/8	0/2½	0/3½	0/2	0/9
Do. do. Keene's ..	4/6	0/8½	0/2½	0/3½	0/2	0/9
Sawn lathing	1/5	0/3	—	—	—	—
Metal lathing	1/10	0/3½	—	—	—	—
Screeding in Portland	2/1	0/4½	—	—	—	—

Per Foot Run	Per 1 in. Girth	Mitres	Stop Ends
Moulding in plaster ..	0/2	Equal to Value	Equal to ⅓rd of
Do. do. Portland ..	0/3	of 1 foot of	a foot of
Do. do. fibrous ..	0/3	moulding	moulding

Partitions.	2 in.	2½ in.	3 in.
	Per Yard Super		
Concrete slab partition fixed ready for plastering ..	5/-	5/6	6/-

GLAZING.

	Up to 10 ft.	From 25 to 50 ft.	From 50 to 100 ft.
	Per Foot Super		
Ordinary plate glass glazed	3/5	3/10	4/4

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	15oz.	Figured Rolled	⅛ in. Cast Glass Rolled	3/16 in.	¼ in.	½ in. Cast Glass	Wired Glass	Metal bar Patent Glazing
0/8½	0/7½	0/11½	0/9	0/10	0/10½	1/1½		2/-

PAINTER AND DECORATOR.

Washable Distemper	Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
	Per Yard Super			
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar .	0/3½	0/7	1/1	0/2

If on Moulded Work 100%	If on Enriched Work 300%	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
Add per Yard Super for the following					
		0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Stain	Size	Varnish	Enam.
Plain painting on surface in common colours, per yard super	0/8	0/8½	1/5	2/1	2/8	0/6	0/2	0/9	1/-
Do. on frames, each	0/8	0/8	1/4	2/-	2/6	0/8	0/3	0/10	1/1
Do. on large do., each	0/10	0/10	1/8	2/6	3/2	0/10	0/4	1/1	1/5
Do. on squares, per doz. ..	0/8	1/-	2/-	2/8	3/4	1/-	0/4	1/3	1/8
Do. on large do. do.	1/-	1/6	3/-	4/-	5/-	1/6	0/6	1/10	2/6
On small pipes or narrow bands, per foot run ..	0/0½	0/0½	0/1	0/1½	0/1½	0/0⅝	0/0½	0/0⅝	0/0⅝
On large pipes or do. do.	0/1	0/1	0/2	0/3	0/3½	0/0⅞	0/0½	0/1¼	0/1¼

Add to the above prices for the following per yard super:—

On Moulded Work	On Enriched Work	In Party Colours	Stippled
20 per cent.	150 per cent.	2*d.*	6*d.*

	Wax	French
	Per Foot Super	
Polishing	6*d.*	1/2

PAPERHANGER.

Hanging only.	Lining	Pattern
	Per Piece	
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5