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Principal Contents

NOTES AND COMMENTS

The London correspondent of *The Manchester Guardian* has recently drawn attention to the number of new buildings in the northern city that are faced with Portland stone; and Manchester, like London, must seemingly be credited with a considerable amount of Dorsetshire in its composition. Since 1918 about 25 new buildings, many of considerable size and importance, bear witness to the efficacy of the southern limestone for weathering pleasantly in the northern city's climate. Our contemporary has long been noted for its attention to, and sound criticism of, new architectural works, and the devotion of the correspondent in question, Mr. James Bone, to the cause of good building has recently been fittingly recognised by his election as an hon. associate of the R.I.B.A. Mr. Bone, who has also been a member of the Council of the Architecture Club since its inception, will be known to many readers as the author of that excellent book "The London Perambulator."

* * *

Our sympathies must lie with the plea of a St. Pancras Borough Councillor for soundproof flats. The L.C.C. are committed to the erection of a large block of flats on the Ossulston Street site in that borough. This, it is stated, will house 3,000 inhabitants, of whom, approximately, two-thirds will be children. Councillor Stone himself lives in a solid-looking block of flats, which provides a fine playground on the roof. Yet even the few children in the block cannot be permitted to play there. "Every sound, every footstep, is heard and felt below. Not a game, however gentle, but gas mantles are broken; sick people disturbed." One is tempted to think that this block of flats is less solid than it looks; but the capacity of concrete floors as conductors of sound must sometimes be experienced to be believed. We can recall one comparatively new Government office where every footfall on the concrete floors can be heard below, even though the floors are covered with wood blocks. The possibilities of noise in a building housing 3,000 people is rather appalling, and we trust that the L.C.C. have duly considered and provided as far as possible against them.

* * *

The C.P.R.E. held their first annual general meeting last week, and one may gather from the remarks of Lord Crawford and his co-adjutors that they are greatly encouraged for a year of effort by the effect already produced in the minds of our rural population and its local governing bodies. The meeting has been so generally reported in the general press that we may limit our review of it to one topic—"ribbon development"—which Professor Patrick Abercrombie introduced in seconding the adoption of the report. "Ribbon development," in the deliberations of the C.P.R.E. and kindred bodies, seems, unhappily, to be becoming something of an obsession; but it does not appear to us to be the worst or even the most pressing of the problems which the countryside preservers have to face. We have many times drawn attention to the evil manner in which it is carried out, but the vital objections to the principle we do not remember to have seen explicitly stated. Presumably, the gradual extention of buildings along the roadside, linking up hamlet to village and village to town, is a potent factor in urbanising the country; in destroying the rural appearance of large stretches of countryside for the sake of a comparatively small amount of house accommodation. The objection can scarcely arise from the fact that the houses shut out the view of the country from people who speed along the roads with no other idea but getting from one point to another in the shortest possible time. Nor need the pedestrian and the country rambler be considered, for they cannot now walk along country roads with safety, let alone comfort; and their only course is to take to the footpaths behind the houses, where the view, at any rate, may be uninterrupted.

"Ribbon development" is no new thing; it is the plan on which all our great urban centres have developed, and the principle has become more or less ingrained in the national mind. It has certain obvious advantages to the builder who wants to erect houses cheaply, for it eliminates the construction of roads on the lavish scale required by local by-laws; it offers some possibility of getting drainage, water, gas and electric current without incurring the extortionate charges which local authorities and public utility companies invariably demand for a few yards of extra main. Nor can one ignore the selfish factor, for the man who elects to live in the country, may, from his roadside dwelling, obtain very fine open views, either back or front (even though his house interrupts the rural solitudes or interferes with some other person's prospect), which he would not enjoy in a closer form of development.

* * *

Still, "ribbon development," if it is an evil, will not be cured by taxing it out of existence, as Professor Abercrombie appeared to suggest. That would merely be to substitute one evil for another, for apart from all the expense of officials and cumbrous machinery required to collect the toll, its imposition would promptly shut down the building of the houses that are

so urgently required. It seems to us that, before we get rabid about "ribbon development," we must realise that the whole economic system of the countryside has been radically altered. Its basic industry was deliberately sacrificed, generations ago, to the exigencies of industrial development and growing town populations, since when, until recent years, it has been kept going mainly through the efforts and sacrifices of the great landowners. The herding of the major part of the population in ever-growing towns and cities brought with it a crop of new difficulties and evils with the Legislature has endeavoured to cure with panaceas, involving an ever-increasing drain upon the public purse; and the super-tax and the death duties have now practically brought about the extinction of the old order of landed proprietors. In their place we have the land speculator, anxious to see the return of his capital with interest; or the farmer compelled, in a time of great agricultural depression, to buy his holding, and only averting ruin, in many cases, by selling strips of his road frontage to all and sundry. The old race of landlords are no longer present to exercise control in the interests of seemly building and the amenities of their estates. Thus we find, spreading along the roadside, the ugly bungalows and shacks of the town dweller who, having acquired a motor, desires a healthy country home; of the out-of-work handyman seeking fortune with a garage; of the victim of a depressed industry who thinks he can keep going by small-scale poultry farming or market gardening. One can only hope, in many cases, that the existence preserved in some of these dwellings is less drab and squalid than the surroundings appear to suggest.

It is this aspect of development that the C.P.R.E. has to confront; not the development of the land *per se*, but the ugly and squalid character of the development; and we fail to understand how, what is an æsthetic evil will be cured by force of economic pressure. For the same taxation that would, admittedly, prevent the squalid type of dwelling from coming into existence would operate equally to prevent the more enlightened builder from providing seemlier houses of which these refugees from the towns are in urgent need. Primarily, the main energies of the C.P.R.E. must be expended in education. Education of the rural inhabitants and the rural local authorities to a sense of their responsibilities; education of Parliament to the fact, partly appreciated already, that urban by-laws should not be adopted for rural areas, that open spaces must be provided in all schemes of development, and that kerbed and paved roads are neither necessary nor desirable to give access to houses erected on backlands in rural localities. The new landowners might be helped by gratuitous advice, to the better development of their property; and local utility bodies brought to understand that their interests and those of the community would be better served, very often, by extending a main up an access drive than along a main road. Finally, there is the bringing home to the public generally, *and especially the rising generation in the schools*, the fact that they cannot destroy the beauty of the countryside and still have it; that every member of the public has a duty towards his neighbour as well as to himself; and that even the birds do not foul their nests. The process of such educative action would be slow; less satisfying, perhaps, to the ardent spirit than repressive legislation, but, in our opinion, it is the only course to be adopted which will eventually achieve the objects which the Council have in view.

* * *

The annual prize distribution at the Royal Academy gave the P.R.A. another opportunity of laying a verbal cudgel about him for the chastisement of sinister tendencies in modern art; but as his remarks were impersonal, the protagonists of all the modernist groups and coteries have taken his strictures as applying to "the other fellow," and, anyway, the R.A. is a back number. One can well understand the dismay of the older school at the appearance of these new schools and groups, some of which appear, to the average man, to regard an ability to draw and a perception of colour as entirely unnecessary qualifications for the pursuit of their profession. Sir Frank Dicksee is appalled at the abandonment of the old standards of beauty, and at the ugly and barbaric types which have usurped their place. We fear, however, that little is to be gained by denunciation, for the modernist school seems to thrive upon it, and not a few believe that it is deliberately sought as an effective means of advertisement. Certainly the attention of the British public seems to be more easily and effectively attracted by a shock to its feelings than by experiencing a sensation of pleasure or interest. The older type of artist essayed to establish some common ground of understanding between himself and his public; and, if successful in that endeavour, reckoned that he had fulfilled his purpose. The modernist is not interested in other people's mental processes, but only in his own. To establish contact is not his business, but ours, and if we omit to try or fail in the attempt, what scorn and contumely fall to the lot of the hapless philistine. Life is becoming very difficult. Many of us do try to keep up with the times, to honestly understand the newer manifestations, to correctly interpret the message which we are assured lies behind them. It is so perplexing to find grass blue, trees red and houses all out of perspective. True, the perspective of the primitives was often a little weird, but we attributed it to their limitations. Perhaps, after all, there was some hidden meaning in it. Even the unflinching *realism* of the present day is a little mystifying. Some of us have seen in the flesh a mother and child, very comely specimens of their race, who sat as models for a bronze group now disclosed with much eclât to the newer world. One did not expect a portrait, but somehow the comeliness seems to have escaped the sculptor's eye, the mother in his vision has become an aged and faded grandmother. We are led to wonder what "realism" conveys to the modernist mind; whether to him there is no half-way house between the "pretty-pretty" and the doubly ugly. Is it essential in order to get "guts" into his work that the artist must make us spectators of his metaphorical disembowelment? Modern art is terribly difficult to understand. We have our little difficulties with modernist architecture; yet they are nothing compared to those presented by modern music. A distinguished musical critic has been reassuring listeners-in that neither they nor a modernist composer, some of whose work has recently been broadcast, are mad. The listening audience had not understood the music because the human ear is very conservative, and because the composer was expressing himself in a new idiom which they must learn in order to appreciate his work. He proceeds to explain what learning a new musical idiom entails. Having been mystified by the work of another modernist musician, he bought this composer's published pianoforte works, arranged them in the order of composition, and engaged a talented pianist, acquainted with the works, to play them over to him. The playing was continued for several hours on two days of the week; playing the entire set of works extended over three weeks; while a second and third performance of the cycle prolonged the process over months, at the end of which time this critic, with a trained and understanding musical mind, thought he could appreciate what the composer was driving at. The prospect seems somewhat dismal for the unhappy man who has had no musical training. As we said before, life is becoming very difficult.

"NOW, COOK, MAKE IT LOOK PRETTY."
"YES, MUM—BUT WHAT ON EARTH MADE YOU REFUSE HELP EARLIER?"

THE PROPOSED CHARING CROSS BRIDGE

We print on another page the correspondence that has passed between the R.I.B.A. and the Ministry of Transport in regard to the consideration of the scheme for a double-decked bridge at Charing Cross. In brief, the position stands as follows: After the report of the Royal Commission in favour of this scheme, the Government proposed that it should be reviewed in detail by a committee of three engineers, one to be nominated by the Ministry of Transport, one by the L.C.C., and one by the Southern Railway. The first two selections were duly made, but the railway, for reasons not fully disclosed, but which may be guessed at, preferred not to make any appointment.

It might be imagined that the two engineers now engaged on framing a report on the scheme, having both of them previously advocated the rebuilding of Waterloo Bridge, would necessarily be unsympathetic towards it, but such an assumption ought not to be made, as we have no reason to suppose that they will not approach the question with minds unbiassed by what has gone before, and therefore do their best to arrive at the most economical and practical solution of the problem presenting itself.

Let us suppose that they succeed. How far does that carry us towards the goal aimed at? Surely we must not content ourselves with a merely "economical and practical" interpretation of a proposal that would have such a far-reaching effect on the character of London as must a bridge and its accessories, on the scale demanded, placed in this central and dominating position.

This is the point clearly visualised by the R.I.B.A. The problem is undoubtedly more an æsthetic than a practical one; indeed its practicability was demonstrated in the report of the Royal Commission, only in sketch form, it is true, and with merely approximate estimates, but granted that something more definite was required, such definition was bound to implicate architectural considerations quite as much as economic ones. What is the use of having a bridge we can afford if it is to be æsthetically a disaster when completed? We need not only a useful bridge but also a fine one, and the method hitherto adopted, and apparently still approved, of obtaining a design from an engineer and then inviting an architect to titivate it up, never has and never will secure a satisfactory result. The R.I.B.A. recognises this, and very reasonably suggests the collaboration should take effect from the start. The Government does not, and replies that when the scheme is worked out, then and then only may the architect be invited to put a few frills on. Possibly the Ministry of Transport may not be aware that the scheme, more or less in its present form, was submitted to the Royal Commission by an architect and adopted with no fundamental variation; possibly it is aware and the scheme is the more suspect on that account; in either case this is not the important point, the main issue being to find some way of influencing our Government towards giving just a little attention to the artistic aspects of the matters within its control.

How is it that the State contrives to get so badly served? Look at the recent coinage issue and note the poverty of the designs, so far below the current standard of the sculptor's art both in this and other countries. If the negotiations between the Royal Mint and some of our leading sculptors were disclosed, what a delightful farce could be built up around them; and there is but little difference in the attitude of other Government departments towards the artists with whom they happen to come in contact. Possibly as a matter of conscience, or, possibly, to save their face before the public, the Royal Commission of Fine Art was appointed, but it does not seem to get the opportunity of dealing with any matter of major importance. The worst feature is that the example set by

this apathetic attitude on the part of the State induces a like apathy in nearly all our controlling bodies, municipal and the like, where the last consideration is almost invariably the artistic implications of any course of action proposed.

Attempts have been made to remedy this by the formation of voluntary bodies recruited from those who possess a wider and more cultured outlook than our rulers, but the difficulties these are confronted with and the snubs they receive form a melancholy story. Even when they have done their best, our general standard of art in public undertakings ranks far below that of other European countries with much fewer opportunities and smaller resources. This is not due to our inferior capacity for the practice of the arts, but to the lack of recognition by the State of its duty towards their encouragement.

But to return to the specific instance now under discussion, what result may be anticipated from the refusal of the Ministry of Transport to bring an architect into consultation over the problem of Charing Cross Bridge? If the engineers report that the scheme is in their opinion a practicable one, they are bound to accompany this report with at least a sketch design for the bridge they have in mind. Now it is a regrettable fact that, owing to the unfortunate divorce between architecture and engineering in our day, engineers have been left to solve practical problems without considering the factors of proportion and scale, while architects who understand the latter have lost the faculty for dealing with structural conceptions of a comprehensive character. Therefore if, as may be expected, the design produced represents a practical solution, it is more than likely that it will none the less be æsthetically inappropriate, and in a form that no architect could possibly render suitable, without entirely recasting it, a process that would involve the same collaboration in the end that might have been secured at the beginning. Besides, it will be much more difficult to get this done by reason of the fact that while it is not difficult for experts in two branches to collaborate, it is a different matter when one of them has prepared a design which the other wishes to remodel. The first is inclined to resent changes, and the second will inevitably have his imagination hampered by what has already been done.

It will, after what we have said, be fairly clear that the R.I.B.A. took the right view in making the claim that they did; the only point on which the wisdom of their action may be doubted is as to the body they approached. Ought it not to have been the Government as a whole rather than the Ministry of Transport? The Ministry of Transport is a body with specific functions, unrelated, in the popular mind, to any of the arts; it was deputed by the Government to appoint an engineer: it did so, and may have rightly assumed that there its functions ended. This might have been its reply but for the fact that it would perhaps have led to an undesired result. Thus the R.I.B.A. has been side-tracked, and will find it difficult to make a fresh start.

That it ought to make a fresh start we feel little doubt; the matter is too important to be left in its present position, as if it is the future of London may be seriously prejudiced. Considering the possible alternatives—we have, first, unqualified condemnation which can hardly be imagined as probable; secondly, a condemnation on economic grounds which would certainly not be accepted as conclusive; and, thirdly, an acceptance as practicable structurally and economically which would yet be open to the objections previously recited. No other result seems likely, and in any case no finality can be anticipated, as neither the opponents nor the supporters of the scheme will rest satisfied with a verdict framed on such an inadequate reference if it goes contrary to their own views.

Professional Societies

The Royal Academy Prize List

The Royal Academy annual prizes were awarded at the distribution on Saturday last as follows:

An Architectural Design—Landseer Prize, £20, and Silver Medal: C. S. W. Strange.

An Architectural Design (1) £10 and Silver Medal: J. A. Schofield; (2) £5 and Bronze Medal: H. C. Farmer.

Design for Public Building Decoration—(1) Landseer Prize, £30, and Silver Medal: Edith A. Saunders; (2) Landseer Prize, £10, and Bronze Medal: Lilian D. Saunders.

Composition in Sculpture—R.A. Gold Medal and Edward Stott Travelling Studentship of £200: Lilian E. Birch.

Model to a Design—(1) Landseer Prize, £30, and Silver Medal: Alice B. Tippin; (2) Landseer Prize, £10, and Bronze Medal: Ethelwyn Baker (ineligible, having received same prize before).

Two Models of Busts from Life—£5 and Silver Medal: A. J. Marshall.

Model from the Antique—£5 and Silver Medal: A. J. Marshall.

Design in Relief, containing Figure and Ornament—£10 and Silver Medal: A. J. Marshall.

Set of Three Models of a Figure from Life—(1) Landseer Prize, £30, and Silver Medal: Alice B. Tippin; (2) Landseer Prize, £20, and Bronze Medal: A. J. Marshall.

Landseer Scholarships in Painting and Sculpture—£40 a year, each tenable for two years—In Painting: Dorothy M. Barber, E. C. M. Hall and Edith A. Saunders; in Sculpture: Alice B. Tippin.

Historical Painting—R.A. Gold Medal and Edward Stott Travelling Studentship of £200: Marjorie Brooks.

Landscape Painting—Turner Gold Medal and Scholarship, £50: Lilian D. Sawyers.

Landscape Painting—Creswick Prize, £25, and Silver Medal: Violet P. Gould.

Composition in Colour—£5 and Silver Medal: L. H. Wells.

Two paintings of a Figure from Life—(1) £10 and Silver Medal: Violet P. Gould; (2) Bronze Medal: Marjorie Brooks.

Portrait Study of a Lady in Evening dress, showing Arms and Hands—Arthur Hacker Prize, £30, and Silver Medal: Elsie D. Hewland.

Painting of a Head from Life, life size—Arthur Hacker Prize, £20, and Silver Medal: Lilian D. Sawyers.

Set of Four Drawings of a Figure from Life (best finished drawing of a head in any set)—(1) not awarded; (2) £5 and Bronze Medal: R. D. Greenham; (3) £5: L. H. Wells.

Drawing from the Antique—£5 and Silver Medal: R. D. Greenham.

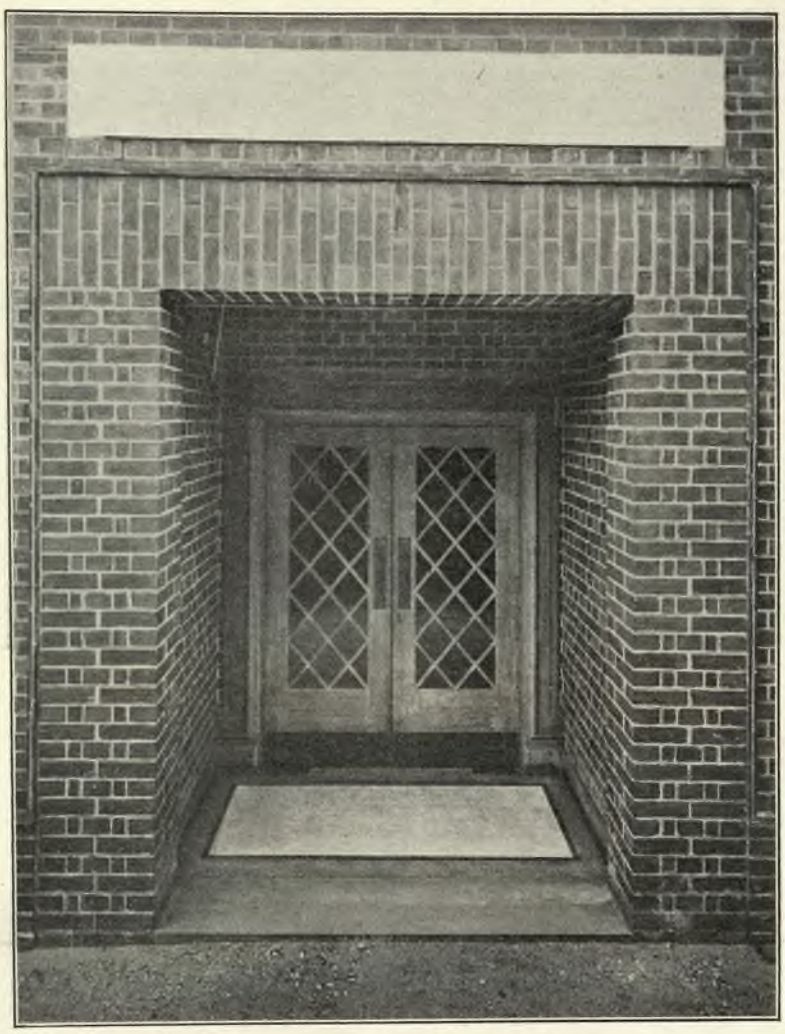
Lecturing at the Royal Society of Arts last Monday on "The Old Adelphi," Mr. A. R. Powys said he had little hope for the future of the famous Terrace. The site was extremely valuable—so valuable that the buildings standing there had little financial relation to it. Unless it was bought and maintained by some millionaire who was not asking for a big return, or unless the present owners of the leases formed themselves into a company and purchased the property, it was likely that in a few years Londoners would see a great change on the river front. The threat to Waterloo Bridge and the threat to the Adelphi, which two places, with Somerset House, formed the most beautiful scene in London, was one which must make nervous every Londoner who loved his City.

CHURCH OF CHRIST, SCIENTIST, SOUTHPORT

Sunday School Building

The first part of this building to be completed is the Sunday school, the designs of which are shown in the accompanying photographs. Before examining these in detail it may be well to refer to the plan of the main building to which it is attached, for otherwise we should not be able to appreciate the manner in which the relationship between the church and school have found architectural expression. As usual we find the hall or auditorium symmetrically disposed in front of the platform.

Other elements in the plan are equally logical and well arranged. A large entrance portico contains two doorways into the church and corridors from either side of the vestibule circle round the main hall, giving access to lavatories and cloakrooms for men and women respectively. On the left hand the corridor enters a loggia providing a secondary access to the church, and then leads to the two readers' rooms that are in direct communication with the platform; on the right the other corridor merges into a large foyer, from which we enter the lobby to the Sunday school. This is a hall of ample dimensions, and has a second entrance with separate cloakrooms and lavatories for boys and girls. Four small classrooms lead out of the school room, and are screened from the latter by glazed partitions. All parts of the building are very well lit and ventilated.

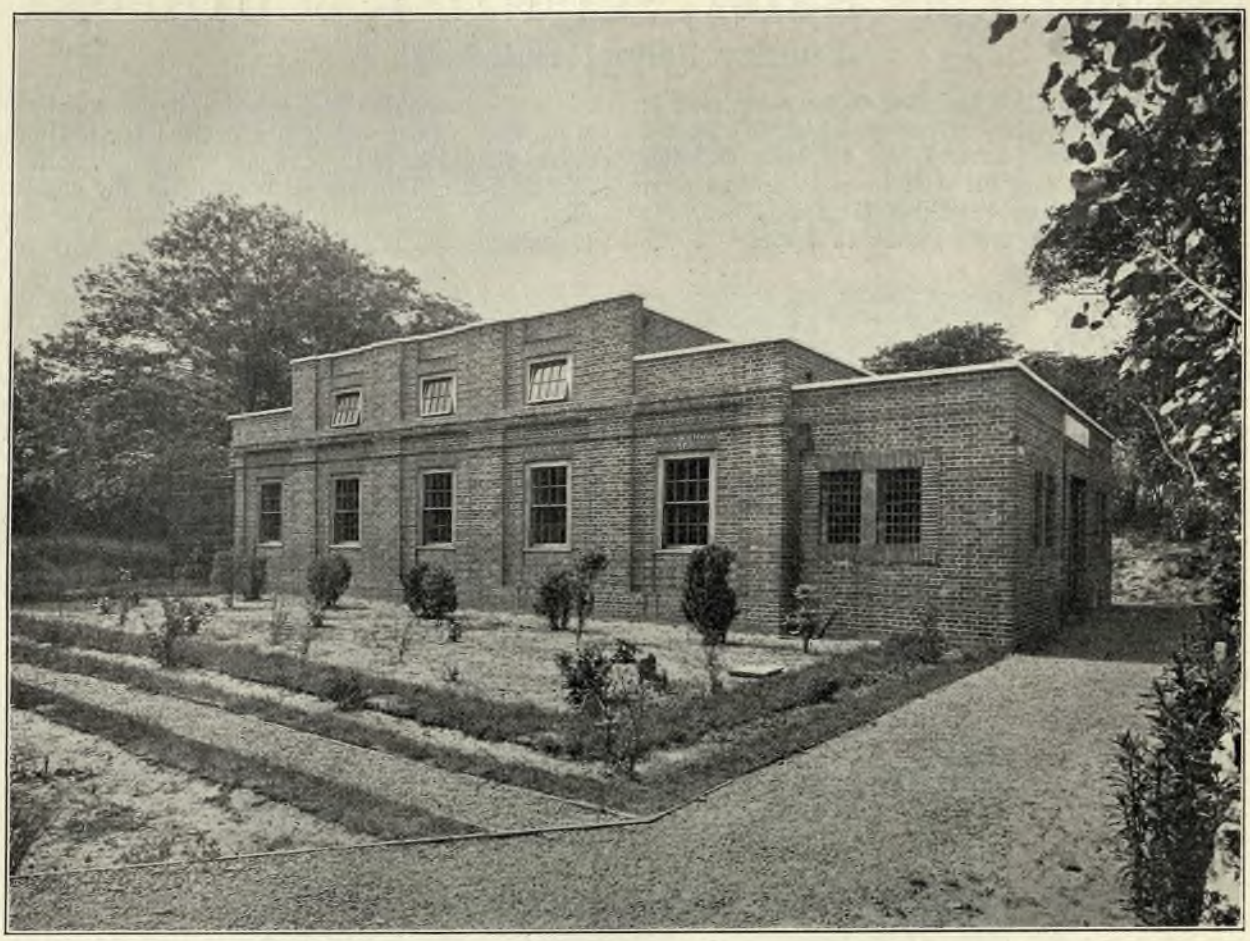


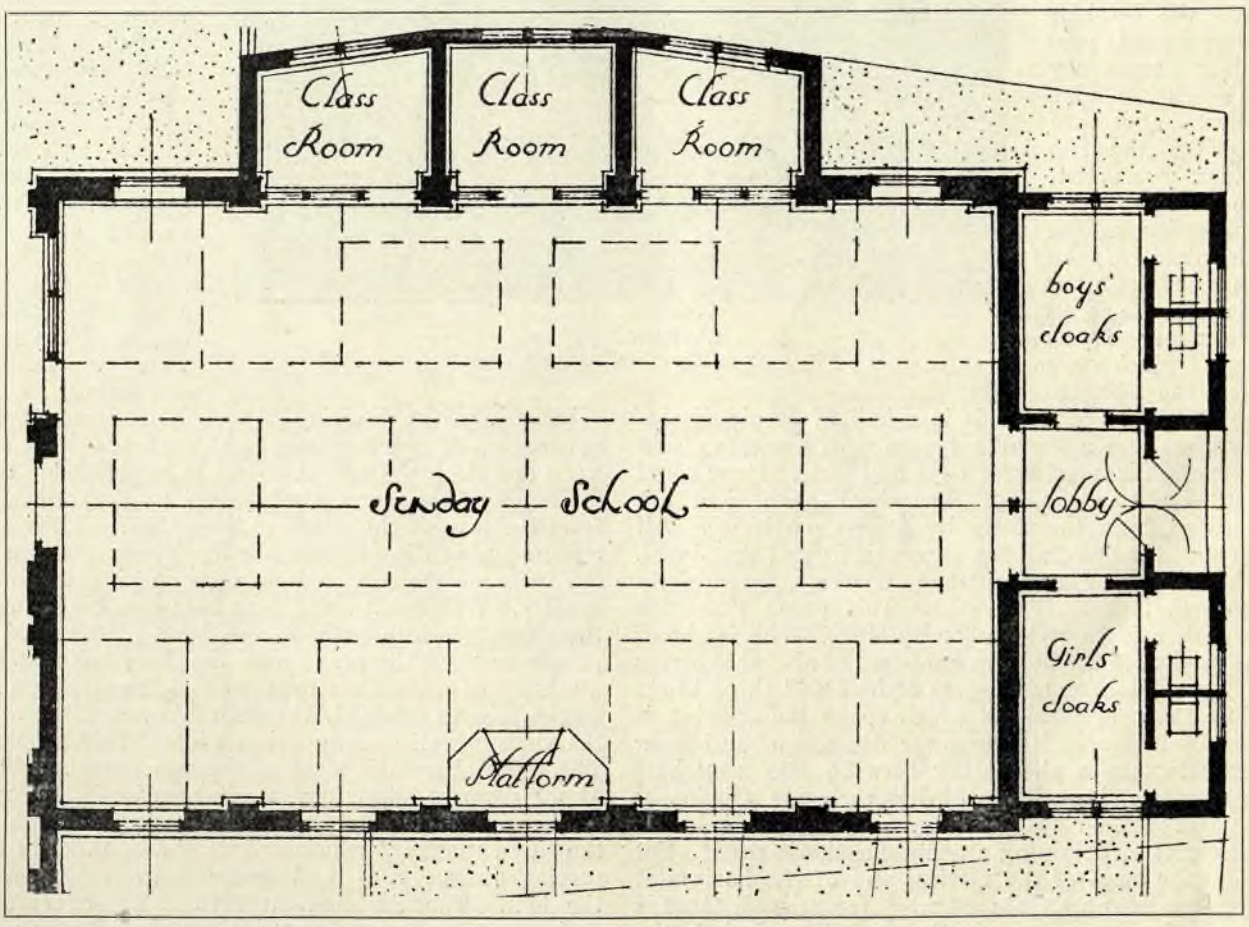
ENTRANCE DETAIL.
W. Braxton Sinclair, F.R.I.B.A., Architect.

The last-mentioned entrance doorway, very deeply recessed, is here illustrated. This porch takes the form of a plain rectangular aperture. The jambs of the brickwork are in bond composed of alternate layers of two stretchers, and layers of half and third brick, while the " bressamer " which spans the opening is also 18 inches in its narrower dimension, and is in vertical courses alternating between two stretchers and one stretcher with half bricks each side. Obviously the arrangement has been very carefully studied with the object of obtaining a definite æsthetic result. Yet while the bond of the vertical and of the horizontal members is to a certain extent differentiated, there is a lack of expressiveness in their equality of girth, the jambs being 18 inches wide and the " bressamer " 18 inches deep, while, granted that there is a concrete lintel behind the brickwork of the latter, and every architect knows this lintel exists, it seems a little unhappy that a bond originally devised for horizontal courses should have been placed vertically, as if the designer were incapable of recognising the constructional impropriety of this arrangement. The doors themselves are of interest inasmuch as they are formed of single panels with glazing bars set diagonally. No attempt has here been made to effect a formal differentiation between the upper and lower portions of the door except by the broader lower rail which provides a base to the composition; otherwise the large panels are capable of being turned upside down indiscriminately, and thus seem to lack a consciousness of their position. The architect, however, was probably anxious to depart from the somewhat hackneyed convention according to which a door is divided horizontally into two or more panels of unequal vertical dimension, the lower panel being generally the shorter and surmounted by a middle rail in alignment with the handle of the door, which is thus incorporated.

Internally the Sunday school hall presents the appearance of spaciousness, and its white ceiling and walls are luminous and cleanly. It is noticeable that the heads of the lower windows are on different level from the tops of the doors to the entrance lobby and classrooms, and in consequence the formal patterns of the walls of the school room seem lacking in homogeneity. Whether it could have been possible to bring these features into æsthetic relationship by means of panels or " ventilators " over the doors, or whether a scheme of decoration by means of framed pictures would help to establish the desirable accord between the various wall openings, is an interesting problem. The walls above the level of the two lower portions of the room at either end are harmoniously enclosed within a moulded string which takes up the cills of the three " attic " windows and relates these to the vertical dimension of the bressamers stretching across the hall. The electric-light fittings are of elegant design, yet are treated as " incidentals " in the compositions, the ceiling being in no way prepared for their reception. The general impression of the

(*Continued on page* 926.)





CHURCH OF CHRIST, SCIENTIST, SOUTHPORT. SUNDAY SCHOOL.
W. Braxton Sinclair, F.R.I.B.A., Architect.

CHURCH OF CHRIST, SCIENTIST, SOUTHPORT, SUNDAY SCHOOL.
W. Braxton Sinclair, F.R.I.B.A., Architect.

CORRESPONDENCE

Concrete and Reinforced Concrete

To the Editor, THE ARCHITECT & BUILDING NEWS.

SIR,—There are one or two points in the paper read by Mr. T. H. Bryce, and reported in your issue of December 9, that deserve more emphasis. The first is, that if uniformity in the quality of the finished concrete is to be obtained, the amount of water added in gauging must be varied according to the initial water content of the sand and aggregate. Within certain limits, the strength of the resultant concrete is decreased as much by the addition of too much water in gauging as if an equal quantity of cement had been omitted. This shows the need for an intelligent variation in the quantity of water used for gauging the concrete, according to the condition of the aggregate—which may vary in the course of a few hours in consequence of changes in the weather.

Mr. Bryce recommends that concrete buildings should be left from the shuttering, owing to a supposed tendency for cement renderings to peel off. The very great cost of preparing shuttering that will leave the concrete with a face suitable as an exterior finish is prohibitive to all but a few clients. There are many examples of concrete buildings finished externally with cement renderings which fully establish the suitability of this treatmenet when proper care is taken in the execution of the work, and particularly in obtaining a good bond between the first coat and the surface of the concrete.

Many architects are disappointed with the results obtained by the colouring of concrete and cement mixtures with added pigments, and the trend of practice is to obtain colour effects by the use of naturally coloured sands and aggregates which form the major part of the exposed surfaces and therefore dominate their colours. In the lighter colours the use of white Portland cement is of great value, and, of course, is an absolute necessity when a white effect is to be obtained.

A question which concerns many architects is, what will the appearance of these cement-faced buildings be a few years hence? The weather-scoured whiteness and soot-stained shadows give an added beauty to Portland stone, but it does not seem evident that cement facings will acquire these mellow tones. The bleached high lights of Portland stone masonry seem to result from a disintegration of the surface, which is not likely to occur with Portland cement.

As ordinary cement surfaces are porous, to an appreciable degree, it is obvious that their pristine brightness will be toned down by the absorption of rain and dirt, but it seems likely that this will only result in a uniform dinginess rather than the acquisition of bright high lights, half tones and sombre blacks, which, in our stone-faced city buildings, have been the inspiration of so many artists.

A conclusion that seems obvious is that cement surfaces should be made impervious, so that although dirt may be deposited upon them it is not carried inwards by the absorption of water, and the building may, therefore, acquire some high lights when the surfaces of the more exposed portions are cleaned by the scour of the weather of the superficial deposit of dirt.—Yours faithfully,

L. EDMUND WALKER.

3 Mount Street, King's Lynn.

A City of Towers

To the Editor, THE ARCHITECT AND BUILDING NEWS.

SIR,—With further reference to Mr. Edward Unwin's criticism on Mr. Hood's proposal for a City of Towers, I have received a letter from Mr. Hood, who feels that he is too far away to enter into a controversy. He makes some remarks, however, which may be of interest in this connection.

"Mr. Unwin apparently has never heard of the latest developments in elevators. The possibility of running one or more elevators in the same shaft, like several trains on the same railroad tracks, is not a speculation, for one of the largest elevator companies in the world is ready to start to-morrow on such an installation, provided a building high enough to warrant it is projected.

"His comments on traffic do not go much further than his comments on elevators. Certainly increasing the amount of available street area would not make conditions any worse. Mr. Unwin is a very brave man to define so concisely the limitations of traffic under such new conditions. For my own part, I am inclined to believe that someone will have the intelligence to find a practical use for the extra space.

"There is a suggestion in Mr. Unwin's last sentence that should not be overlooked. Why not take up my scheme with Mr. Heath Robinson and see what he can get out of it as a Town planner? And, in the meantime, Mr. Unwin might take up some of the humorous works of Mr. Heath Robinson!"

Yours faithfully,

HOWARD ROBERTSON.

36 Bedford Square, W.C.1.

Competition News

Loughborough College Scholarships

The governors invite applications for the award of five open scholarships in the Faculty of Engineering—each of the value of £75—open to British subjects, not less than 16 years of age on October 1 next, in any part of the Empire, and tenable at the college for the Diploma Course. An entrance examination for the session 1928-29 will take place on April 24, 25 and 26, 1928. Particulars and application forms may be obtained from the Principal, Dr. Schofield, of the College, Leicestershire, England.

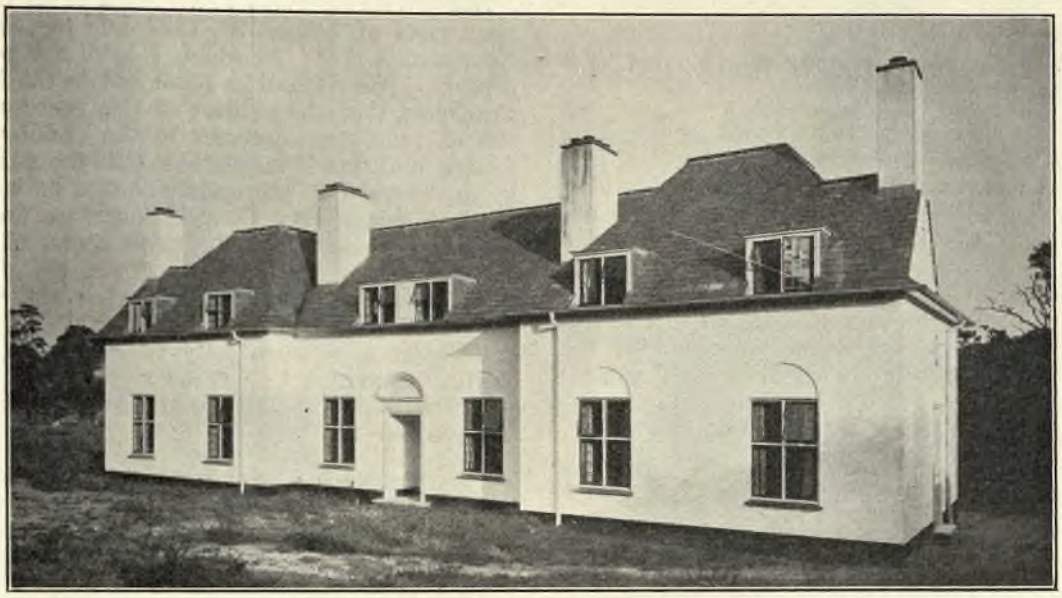
Personal Notes

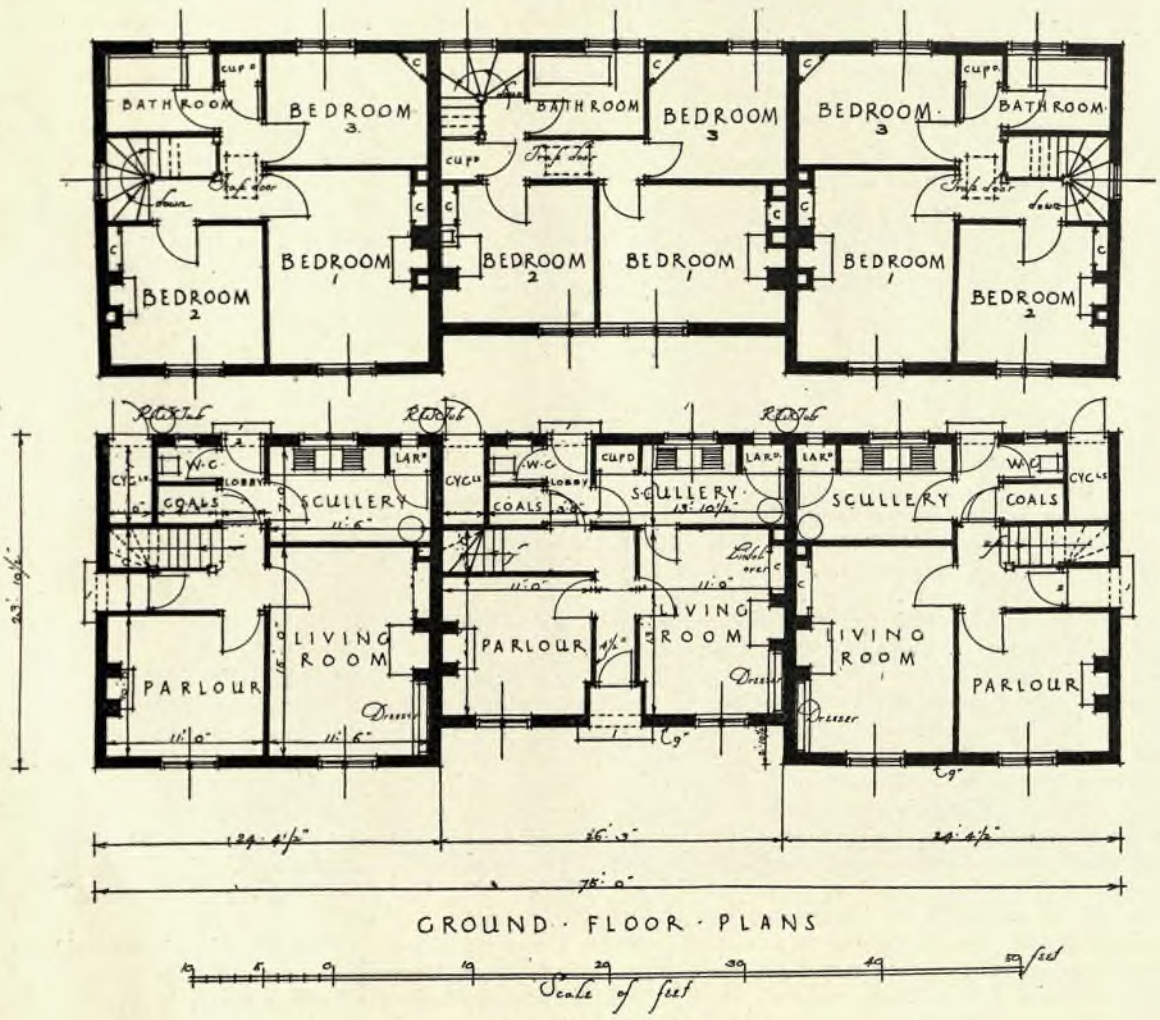
Mr. A. C. Carter, Mrs. E. M. Gabriel, Mrs. M. R. Mitchell, Mr. G. H. Paulin, A.R.S.A., and Mr. H. Tyson Smith have been elected associates of the Royal Society of British Sculptors.

Mr. William Hunter, Mr. Alexander Jamieson and Mr. William T. Wood, R.W.S., have been elected members of the Royal Institute of Oil Painters.

An enquiry has been held, on behalf of the Council of the British Archæological Association, by Miss Rose Graham, M.A., F.S.A., and Mr. P. M. Johnston, F.S.A., F.R.I.B.A., into the merits of a claim that a small chapel or cell at Luton Parish Church, about 8 feet long and 3 feet wide, was a "Pyx" chapel, or connected with a receptacle for the reservation of the Sacrament The referees find the claim to be unfounded, the term "Pyx" having nothing to do with the Sacrament, but with the current coinage of the realm, as at Westminster Abbey, being, moreover, unknown before the Reformation. The carvings which were supposed to confirm the sacramental idea are also found to be a punning allusion to part of the name of Vicar Barnard, a former incumbent.

Penryn is to have an all-concrete road, the local authority having decided to adopt this form of construction in Commercial Street, to withstand the damage caused by the spring tides which, normally, flood the main roads each year. The cost will be £2,800.





COTTAGES, GANWICK CORNER, BARNET, HERTFORDSHIRE

C. Wontner Smith, F.R.I.B.A., Architect.

CHARING CROSS BRIDGE

The following are copies of correspondence between the Royal Institute of British Architects and the Ministry of Transport.

To Lt.-Col. Rt. Hon. Wilfrid W. Ashley, P.C. M.P., Minister of Transport.

SIR,—I am directed by the Council of the Royal Institute of British Architects to suggest to H.M. Government that, as architectural problems are likely to arise during the investigation of the problem of a new Charing Cross Bridge, an architect should be added to the Committee of Engineers now charged with the enquiry.

My Council would be very glad if you will be good enough to give this suggestion your careful consideration and, if possible, to act upon it.—I am, Sir,

Your obedient servant,

(Sgd.) IAN MACALISTER, Secretary.

August 9, 1927.

To The Secretary,

The Royal Institute of British Architects.

SIR,—I am directed by the Minister of Transport to refer to your letter of August 9, and to inform you that engineers have been appointed for the purposes of investigating the practicability, alignment and cost of the suggested bridge at Charing Cross, and that it is not considered that any architectural problems are likely to arise at this stage, and accordingly the Minister is of opinion that no useful purpose would be served by the appointment of an architect to collaborate with the engineers at the present time.—I am, Sir,

Your obedient servant,

((Sgd.) J. S. POOL GODSELL.

Ministry of Transport Roads Department.

August 23, 1927.

To J. S. Pool Godsell, Esq.

SIR,—I have now brought your letter of August 23 before the Council of the Royal Institute of British Architects and in reply I am asked to call attention to the statement made by the Prime Minister on March 16, 1926, to the effect that the Government "will be prepared to contribute to the scheme if, after examination of its engineering, financial and æsthetic aspects, it appears satisfactory." Unless this means that an architectural enquiry is to follow the engineering one, which can hardly be the case, it would appear to be essential for the architectural standpoint to be represented on the present Committee of Enquiry, and especially so because the leading architectural considerations are the question of the level of the bridge in relation to the Strand, the alignment of it as affecting the matter of sites for important buildings, and, most important of all, the question of whether the bridge should carry both roadway and railway, or the railway be taken under the river at some convenient point.

The design of the bridge itself as an architectural composition is, of course, very important, but these other considerations and possibly many more are fundamental and should certainly not be dealt with by engineers alone.

I am directed to express the hope that the matter may have further and very serious consideration, and that steps may be taken to ensure that the architural aspects of the problem may be dealt with on broad lines at the outset.—I am, Sir,

Your obedient servant,

(Sgd.) IAN MACALISTER, Secretary.

November 4, 1927.

To J. S. Pool Godsell, Esq.

SIR,—With reference to my letter of August 9, 1927, your reply of August 23, 1927, and my last letter of November 4, 1927, to which I have not yet received a reply, I am desired to point out to the Minister of Transport that the subject of this correspondence is one of very great interest to the architectural profession, and that it is desirable that the attitude taken by my Council in the matter should be made known without delay. My Council therefore desire me to send at once to the public press copies of the correspondence that has passed between us. Before this action is taken I shall be obliged if you will kindly let me know whether the Minister of Transport has any objection to such publication.—I am, Sir, your obedient servant,

(Sgd.) IAN MACALISTER, Secretary.

November 28, 1927.

To the Secretary, Royal Institute of British Architects.

SIR,—I am directed by the Minister of Transport to refer to your letters of November 4 and 28 on the subject of the investigation which is now proceeding into the question of the construction of a double-decker road and railway bridge at Charing Cross.

I am to enclose a copy of a Parliamentary question which was addressed to the Minister on November 29 and of the Minister's reply.

As stated in this reply, the examination of the scheme of the Royal Commission is for the present directed primarily to its engineering and financial aspects. Your Institute may rest assured that the Minister recognises the importance of architectural considerations which must arise in connection with a project of this kind and that they will not be overlooked, but he does not consider that any useful purpose would be served by an examination of the architectural and æsthetic aspects of the scheme until its general features, which must depend on engineering and financial considerations, have been investigated.

I am to add that the Minister has no objection to the publication of this correspondence in the Press should the Royal Institute of British Architects so desire.—I am, Sir, your obedient servant,

(Sgd.) H. H. PIGGOTT, Assist. Sec.

Ministry of Transport, Roads Department.

December 1, 1927.

Parliamentary Debate in the House of Commons on November 29.

SIR WILLIAM DAVISON asked the Minister of Transport whether he can inform the House as to the progress which has been made by the Committee of Engineers who were appointed in March last to examine the scheme of the Royal Commission for a double-decker road and railway bridge at Charing Cross, having regard to its engineering, financial and æsthetic aspects; and when it is likely that their Report will be submitted to Government and to Parliament.

COLONEL ASHLEY: The examination of the scheme of the Royal Commission for a double-decker road and railway bridge at Charing Cross is for the present directed primarily to its engineering and financial aspects. The problem is one of great difficulty and complexity, and although all possible progress is being made, I do not anticipate that the engineers charged with the investigation will be in a position to report before next spring. I should add that the engineers received their instructions on May 14 last, and not in March, as stated in the question.

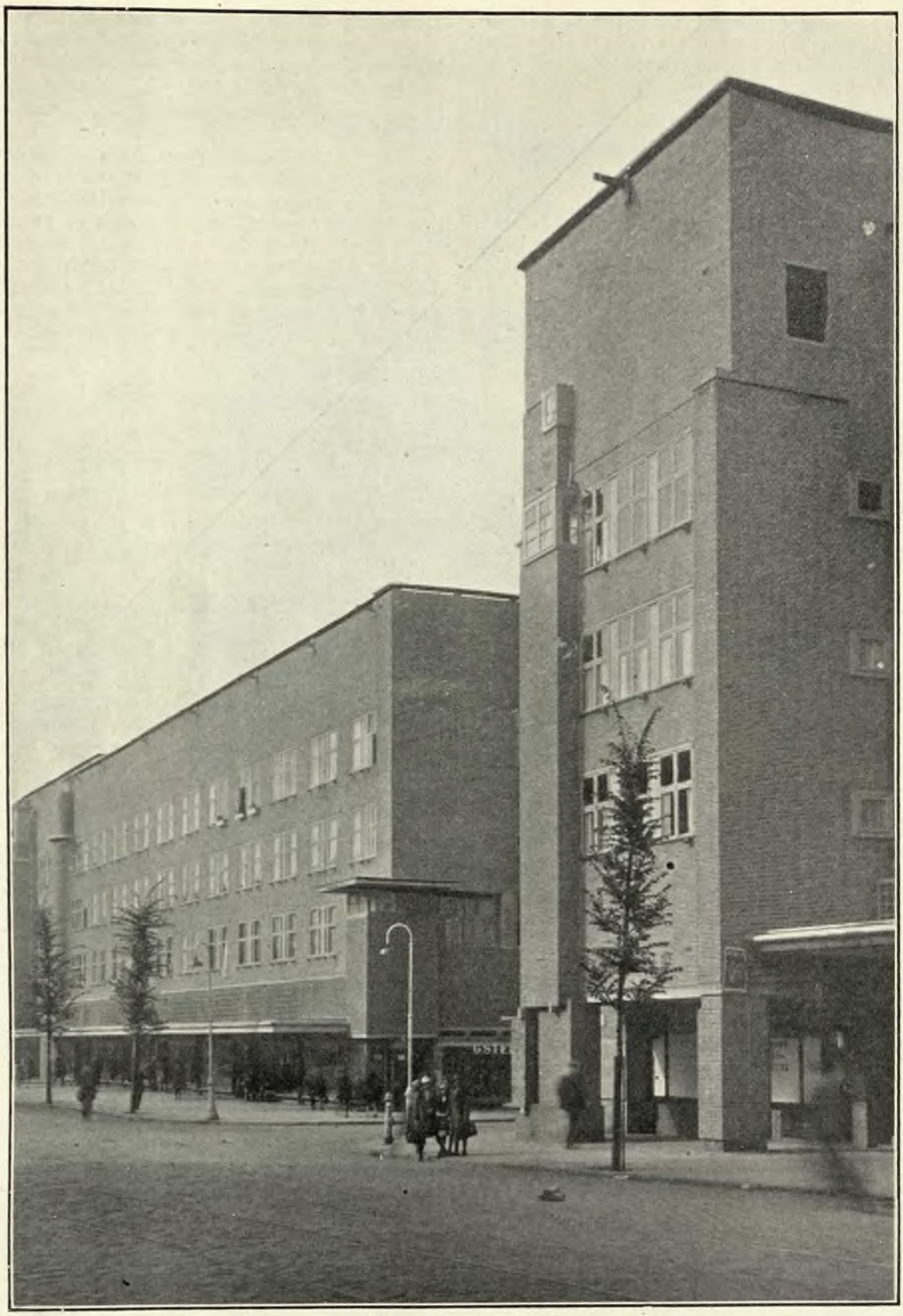


Fig. 5.—IN THE NEW QUARTER OF AMSTERDAM. THE FOOTWAY IS SHELTERED BY A CONTINUOUS MARQUISE.

THE COVERED SHOPPING CENTRE

A New Development in Amsterdam Architecture

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

Whether it was under the black and white façades of Chester, the stately arcading of the Rue de Rivoli, the vaulted passages of Prague, or the porticoes which are such a charming feature of the eighteenth century façades of Berne, the shopper of all ages must have been grateful for the architectural forethought which enabled him to window-gaze under shelter and in comfort.

In London, however, the one city in Europe where a daily shower of rain is almost as assured as a

November fog, the covered pavement is a rarity. Occasionally the attempt is made, as in the Ritz Hotel —which is almost a Parisian importation—to obtain a grudging permission of the authorities which indirectly exert such a restraining influence on architectural invention. But as a general rule the practice of covering the footway is officially discouraged, and even the continuous glass marquise is a device for which permission can be obtained only by converting one's façade into a series of doorways; and these doorways must lead to interiors of a certain well-defined and restricted category, such as those of theatre, restaurant, shop, or station. There are certain valid objections to the marquise method of sidewalk protection. In the first place there is, particularly in narrow thoroughfares, an obstruction to street vistas. The upper parts of façades are largely cut off, and this is no doubt one reason why, in the districts under L.C.C. control, the overall height of shelters is restricted to a maximum of two feet. Another point is that the shop front below is considerably darkened, but this is a drawback which is susceptible of being largely overcome, and the solution of the problem may sometimes give rise, as is the case in some of the new business blocks in Amsterdam, to some exceedingly interesting architectural solutions.

Under the conditions of climate which obtain in Holland, where there is a good proportion of rainy weather, it seems illogical that in shopping centres, where a great deal of time is necessarily spent every day in the purchase of household supplies, the shopper should be subjected to avoidable discomfort. The modern idea is all towards the provision of amenities and there is no reason why these should stop short within the dwelling. The shop and the home are closely linked, the one being after all only the external supply cupboard of the other. It should be feasible for the housewife to go about the daily business of supply replenishment with a minimum of exposure to the elements, for the energy spent in protection against the elements is so much energy wasted. The aim of modern appliances is to conserve energy, so that it may be directed towards productive ends, and the aim of architects of the modern school is largely one of designing to create in architecture the means for attaining this end. This is a point which is very largely missed by critics of the modern architectural expression; they do not seem to realise that the new and seemingly bizarre forms of the ultra-modern school arise much more from a close intellectual study of certain practical problems than from a desire to arouse æsthetic reactions.

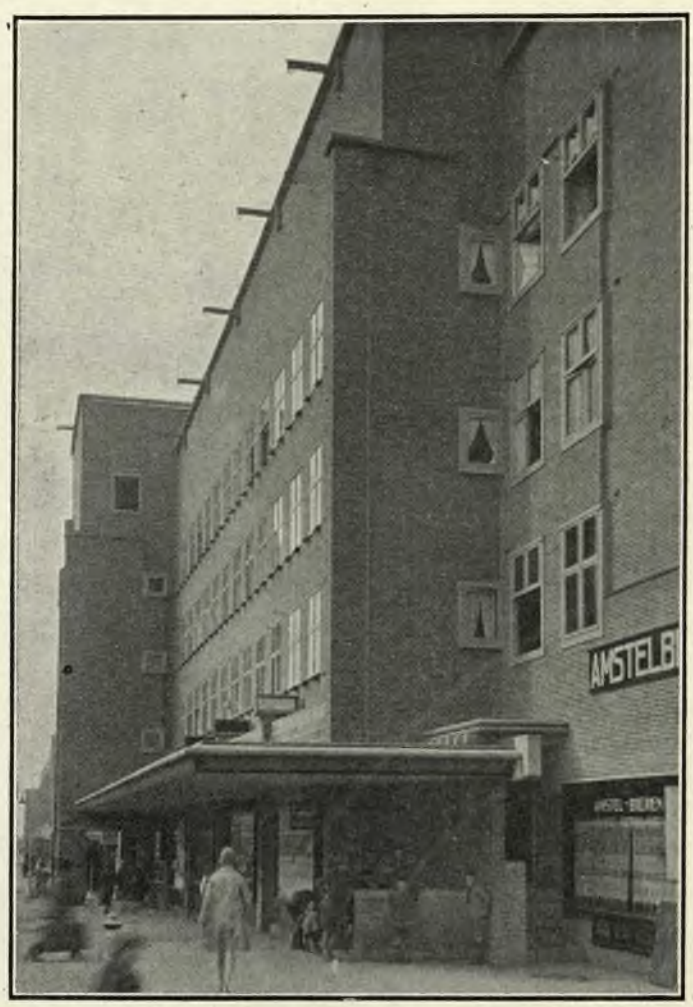


Fig. 6.—IN THE NEW SUBURB OF AMSTERDAM. A DETAIL OF THE MARQUISE: THE CLERESTORY LIGHTS TO THE SHOPS ARE VISIBLE ABOVE THE SHELTER.

In some of the latest housing developments in Amsterdam a very definite attempt has been made to turn the street pavements, or the footpaths of public courtyards, into sheltered areas. This has given rise to some very interesting architectural effects, largely due to the fact that the modern Dutch manner is free and elastic, enabling the designer to use wide cantilevered overhangs and great sheets of glass or uninterrupted lengths of window without fear of disturbing some period-dictated system of proportions.

On the outskirts of Amsterdam has arisen during the last few years a new suburb which is a city in itself, with a population of 40,000, its own shopping and civic centres, and streets which present unbroken frontages of the new architecture. And in the creation of the streets the idea of the protected footpath has largely been incorporated, so that they are given a fresh and novel aspect marking a great difference even with the quarter of Municipal housing which was created immediately after the war, with its long blocks of flats by Kramer and De Klerk which have become fairly familiar to English students of modern work. In addition, arcaded blocks are being created in the more central part of the city, and if the experiment is successful it is quite likely that within the next few years the street architecture of Amsterdam will be even more strikingly conspicuous than it is at present.

In the case of the street arcade, there is obvious advantage in space gained for the upper floors, but the problem of lighting becomes a difficult one. Either the openings are very tall, in which case the element of protection is largely lost, or the arcading is reduced in height and the lighting of entrances and shop-fronts suffer.

To solve the problem, the Dutch architects are having recourse to glass, a material having capacities for architectural treatment which in the last few years have been increasingly realised. The French have developed texture and decoration in glass to a degree surpassing anything practised in this country, and they have also progressed in the scientific direction of light values. The Dutch are doing the same thing in their own way; their treatment is different in effect, and quite characteristic, in harmony with the markedly cubist and prismatic forms which are predominant in the masses of their buildings.

The block of shops and apartments which we illustrate in Figs. 1-3 is one of the latest schemes in Amsterdam, in fact, it is only just on the point of

Fig. 1.—ONE OF THE LATEST STREET FRONTAGES IN AMSTERDAM, PROVIDING A COVERED SHOPPING CENTRE.

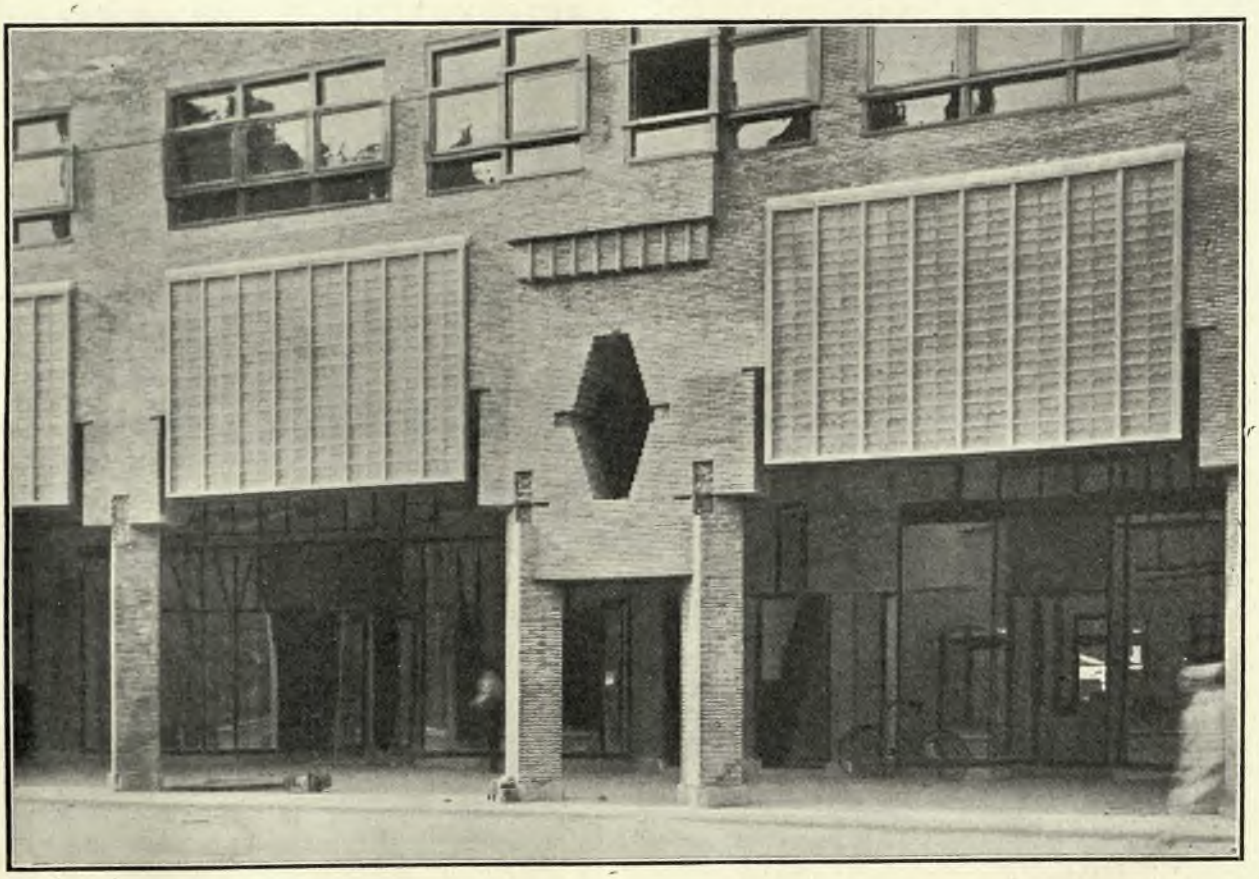


Fig. 2.—THE COVERED SHOPPING CENTRE, SHOWING THE PROTECTING GLASS VALANCES.

being completed; and in it the arcaded treatment has received a novel and stimulating solution.

The pavement runs along a lofty covered passage, the roof of which is formed of hollow tiles between steel joists. The supporting brick piers are set anglewise, which tends to reduce the objection of obstruction to passage, and gives an effect of greater openness. At a height of about 12 feet they become rectangular, and receive what is the most interesting feature of the design, the deep valances of glass which protect the pavement from the weather, but which are so constructed, on prismatic lines, that they project an astonishing amount of light on to the ground storey and mezzanine of the shops behind. The idea is not a new one, but it remained to adapt it in this novel way, and treat it with a bold frankness which is convincing and stimulating as regards the future possibilities of glass. For both from the street and within the arcade the architectural effect of these small dense lights, with their slightly greenish tinge and their cleverly obtained verticality of pattern, is very fine, and the possibilities of the all-glass façade are brought a step closer, particularly in respect of overcoming the problem of a satisfactory æsthetic treatment.

Above the arcade the front is treated in the characteristic manner of modern Holland. The surfaces are strongly modelled, the composition consisting of a repetition of powerful rectangles relieved by a secondary theme of polygonal bays linked by the deep recessing and horizontal banding of the balconies. Rhythm is strongly marked, almost excessive, but as is the case in so much of the Dutch work, the massive effect of the large unbroken surfaces of brickwork screening the upper storey creates a feeling of homogeneity and repose.

Adjoining this remarkable building is one which repeats the motive of the street arcade, but which is not nearly so originally or pleasingly handled (Fig. 4). Here there is no special provision for backlighting, and the architectural treatment of the block above is restless and agressive. There is here a hint of wilderness which, in spite of general impressions to the contrary, is not a characteristic of the bulk of the new Dutch work. One feels a suggestion of a very capable speculative builder having put up this building and having overridden the restraining influences of his architectural adviser.

The lower storey is built of concrete, with the board marks showing, but there is evidence of the surface having been worked while the surface was still green. Above, the walls are of the usual red-brown brick; the pointed windows of the first storey are in stone, the remainder being in wood.

Out in the new housing suburb the arcade gives way to the solid roofed marquise or continuous shelter, and here are some very fine effects obtained by the strong horizontal lines of the overhangs and the continuous lights (Figs. 5 and 6), which permit a clerestory illumination of the shops below. In some cases these lights are set out from the wall face, and the solid plaster soffit of the marquise is interrupted to give an almost continuous lighted well, so that not only is the shop well lit, but the area of pavement in front of the shop window receives a direct and strong sky light. This latter arrangement is as ingenious as it is simple, but it has remained for the Dutch architects to discover it.

The new blocks in which the shelter motive has been incorporated rank amongst the best in Amsterdam. They are simple and unaffected, of beautiful material handled in a straightforward way, without the disturbing bravura of some of the earlier brickwork craftsmanship. They are full also of fresh and stimulating ideas, ideas which have obviously arisen more from taking thought over the nature of the modern problem than from a courteous assumption of the inhibitions of our ancestors.

The Manchester Library

From his speech at the annual dinner of the Manchester Society of Architects last week, the Lord Mayor of Manchester made it clear that he has no sympathy with the attitude of that section of the City Council which would postpone indefinitely the building of the City Hall extension and the City Reference Library, for which the designs of Mr. E. Vincent Harris were awarded the first place in the recent competition. Said his lordship: "We plan a great building, and when we have the plans we have finished with it. We were quite good clients of the architects for the Art Gallery. We got to work to get plans and gave substantial prizes. We got the plans, and there we finished. I am exceedingly sorry for that; but notwithstanding all this pessimism, we shall get our library. Whether the Town Hall would be extended or not, the city would get the library. In not so very long—in a month or two—we meet again, and I am not the Lord Mayor if the resolution is not carried." One may hope that that threat, which *The Manchester Guardian* interprets as one of resignation, will move some of the more hesitant members of the civic Council to a definite decision to proceed. The Council appears to have developed a policy, and a very bad policy, of sacrificing the architectural profession on the altar of political expediency. If the mind of the Council is to be correctly inferred from recent events, it would seem that a considerable section, opposed to new building schemes, allow resolutions authorising them to pass merely to placate or keep quiet another considerable section who are pressing them forward; but with the fixed intention of effectively stopping the schemes before any actual building work is commenced. It is surprising to find a great civic body resorting to such undignified procedure.

Church of Christ, Scientist, Southport

(*Continued from page* 917.)

interior, however, is one of neatness and efficiency, and there can be no doubt that the Sunday school hall is admirably adapted for its purpose.

The elevation may also be described as a "business-like" solution of the problem presented. The architect has obtained his effects by bringing out the qualities of the bricks, which material he manipulates with skill. The windows are of pleasing proportion, and it is of interest to observe how the hall is made to appear smaller than it actually is by the device of introducing two storeys of windows to light a single chamber.

This treatment, by which the apparent scale of the Sunday school is reduced, was probably adopted with the object of keeping this apartment in proper subordination to the church adjacent to it.

Competition News

Whitby U.D.C. Layout Competition

The following notice has been issued by the Royal Institute of British Architects: "The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members are advised to take no part in the competition."

League of Nations Competition

The authors of the design illustrated on p. 884 of our issue of December 9 were Messrs. S. Woods Hill and C. H. Hignett, A. & F.R.I.B.A., architects, and not as inadvertantly stated.

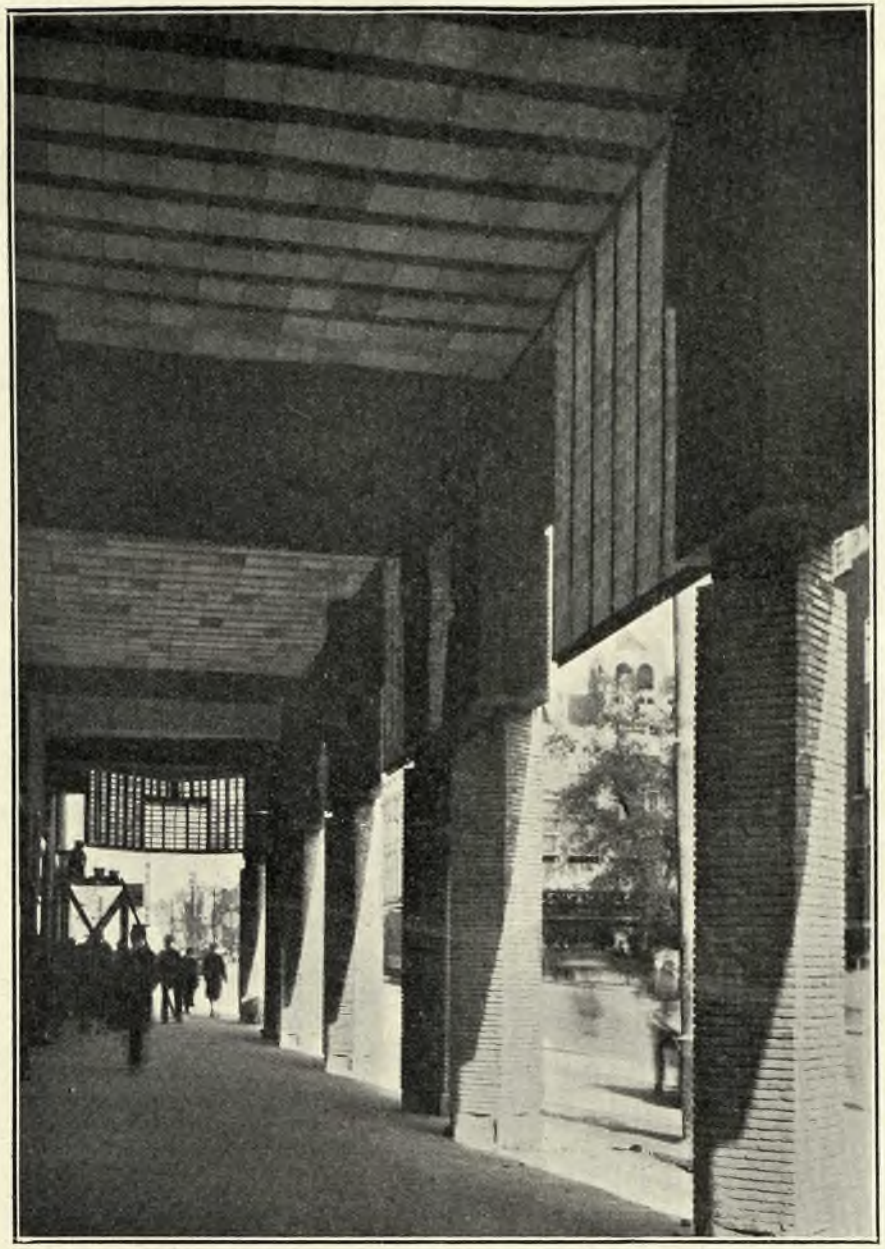


Fig. 3.—WITHIN THE COVERED WAY, SHOWING THE STEEL AND TILE ROOF AND THE HANGING VALANCES OF GLASS.

Fig. 4.—A BLOCK OF SHOPS AND APARTMENTS IN AMSTERDAM, WITH THE PROVISION OF A STREET ARCADE.

POINTS FROM PAPERS

Royal Tombs at Westminster Abbey

(Concluded from last week)

Being excerpts from a paper by Mr. A. Lawrence E. Tanner, M.A., F.S.A., read at a meeting of the Surveyors' Institution on December 5.

Between Edward III and the altar screen is the large tomb of Richard II and Ann of Bohemia. She died in 1394, and the tomb, which was designed by Henry Yevele, was made shortly afterwards under the King's personal direction. The gilt-bronzed effigies made by Nicholas and Godfrey de Wodestreet may therefore be taken as authentic likenesses. The King is depicted in his coronation robes, on which may be seen the letters A and R, the Broom Pods, the Rising Sun, White Hart, and other badges of his House. He has a small forked beard, but the whole expression of the face is curiously weak and far less pleasing than that in the portrait of him as a younger man—the earliest known portrait of an English king—which hangs by the high altar. The Queen had been the one restraining influence in his life, and after her death he became practically uncontrollable. When Dean Stanley opened the tomb in 1871 he found the bones had been greatly disturbed, but he could find no mark of a blow on the skull, and there seems, therefore, no reason to doubt the story that the unfortunate king was really starved to death at Pontefract. The King's jawbone was missing, and the story of its recovery is a remarkable one. In the 18th century the stonework of the tomb was much broken. In 1766 a Westminster boy, Gerrard Andrews, afterwards Dean of Canterbury, saw another Westminster boy "poke his hand into the tomb . . . and fish out the lower jaw-bone of the King." According to a family tradition he thrashed the boy but kept the bone himself, and it descended in the family from father to son. On a card attached to the bone was written in Gerrard Andrews' handwriting "The jawbone of King Richard the Second taken out of his coffin by a Westminster scholar, 1766." In 1906 the then representative of the family restored the jawbone to the Dean, and by permission of King Edward a hole was made in the tomb into which the bone was inserted, together with a written statement of the facts.

Henry V from the first years of his reign took the deepest interest in the Abbey, which he enriched with many gifts. At the east end of the Confessor's Chapel he himself planned a chantry chapel, which by an ingenious design was made to extend as a kind of bridge over the ambulatory beyond. In order to obtain room for it, it was necessary to encroach on the tombs of both Queen Eleanor and Queen Philippa, but this fact was not one which disturbed the mediæval mind. Henry died in France in 1422, and his funeral was one of the most magnificent which has ever taken place in the Abbey. The body was interred in the spot which he had himself chosen. Ten years later the greatest master mason of the time, Thirske, began the chantry chapel. All that remains of the effigy on Henry's tomb is now a headless wooden trunk. In 1545-6 the plates of silver gilt which covered it and the solid silver head were stolen; and although the thieves were caught, the damage was never repaired.

But the chantry is but little injured. It is reached by a double stair from the Confessor's Chapel, and was formerly used both as a chapel and as a relic chamber. On a beam above can be seen the shield, saddle and helmet which were carried at Henry's funeral. The sides of the chantry are covered with sculptured figures of saints. On each side are depicted the scene at the coronation of the King, and there is also a representation of Henry himself in full armour on horseback. These are probably the most authentic portraits of Henry in existence. Above the altar are full-sized figures of St. George and St. Denis, representing Henry's claim to the throne of France, which was acknowledged at the Treaty of Troyes.

Underneath the altar is buried Katherine de Valois, Henry's queen. She had been buried in the old Lady Chapel, but on its demolition her body was wrapped in a sheet of lead and placed by the side of her husband's tomb. There it was exposed to public view, and was seen by Pepys, who "by particular favour" was allowed to have "the upper part of her body in my hands, and I did kiss her mouth, reflecting upon it that I did kiss a queen, and that this was my birthday, thirty-six years old, that I did first kiss a queen." After having been temporarily buried elsewhere in the Abbey, she was finally buried in the chantry by Dean Stanley in 1878.

The chapel which Henry VII planned in Henry VI's honour, and to which he purposed to transfer his remains, was eventually turned into a place of sepulchre for Henry VII himself. The wide nave of that chapel shows that it was Henry's original intention to place in the centre of it two great tombs, one for Henry and one for himself. The chapel was built from 1503 to 1519, but before it was complete it was to receive the remains of the King's mother, Margaret Countess of Richmond (*d.* 1511). The Abbey has few more beautiful tombs. It is by Pietro Torrigiani, and he has contrived to put into the bronze effigy all the serene dignity of a great and gracious personality. Within the last few years the iron rail which surrounded her tomb was discovered and restored to the Abbey by the National Arts Collection Fund.

The tomb of Henry VII and Elizabeth of York, from the same hand, is no less remarkable as a work of art, but its great bronze screen prevents it from being properly seen by the ordinary visitor. It is a wonderful Renaissance tomb, worthy in every way to rank with similar tombs in Italy. It formerly had an altar at its east end, and was finished by Torrigiani in 1518. The contract for the tomb is still preserved amongst the Abbey Muniments. In the same vault Dean Stanley found the coffin of King James I; the reason for its interment in this place remains a mystery. At the west end, under an altar made up of fragments of the original altar, rests Edward VI. The altar was destroyed in 1643, and, as Stanley points out, it is a strange paradox that "the only royal memorial destroyed by the Puritans should have been that of the only Puritan Prince who ever sat on the English throne." Queen Elizabeth and Mary Queen of Scots are both buried in the side aisles of Henry VII's Chapel. These monuments were erected by James I, who made the one stipulation that the monument to his own mother should be rather more magnificent than that to the queen who had signed her death warrant. Dean Stanley has recorded how in his search for the body of James I he opened the tomb of Elizabeth, and found "in that contracted sepulchre, admitting of none other but those two, the stately coffin of Elizabeth resting on the coffin of Mary (Tudor)."

The tomb to Elizabeth, with the exception of the one designed to hold the bones of Edward V and his brother, which were found in the Tower in 1674, was the last memorial to a sovereign erected at Westminster.

Architecture of To-day

Address, by Mr. Howard Robertson, F.R.I.B.A., S.A.D.G., given before the Leeds and West Yorkshire Architectural Society on December 7.

Architecture to-day is slowly emerging from a state where the function of building for a purpose has been

obscured by sentiment and false values. The aim of building is not to show the cultural outlook of the designer, but to solve a problem efficiently and agreeably. The wants and requirements of an age which makes incessant demands on human energy have not been met in architecture with any degree of understanding.

In this country too often the designer of buildings is acting as a brake on progress. He thinks in terms of the past, a display of culture and a smattering of historical knowledge are his baggage, he is averse to supplying ways and means for meeting requirements which his client often formulates, but which he is unable to translate into terms of practicability without his architect's support. For this reason the architect in this country takes a secondary place. Instead of becoming, as in America, the planner who can place his knowledge of design at the service of manufacturers for the organisation of their industry, of municipalities for the solution of their civic problems, of hotel keepers for the better service of their guests, the architect remains the executant of the layman's ideas; his creative ability too often is limited to the solution of given requirements; to the nature of the problem he contributes little. In the United States the architect holds the unique position of adviser to the community. In this country he is merely the interpreter of the client.

In every country in Europe, and even in England, it has been discovered that architecture has for many years ceased to be a living art. And to-day the reaction has set in, and we find ourselves on the verge of an epoch of emancipation. It is an epoch in which we find ready to our service a vast accumulation of knowledge and data; books, pictures, industry, and scientific skill are all available. We may to-day stand on our own legs, and feel that, with the immense progress of science to assist us, we can cease to solve our problems of designing buildings in the old-fashioned way which suited the simple needs of our forefathers.

Architecture evolves, that much is true, but the evolution takes place under the creative impulse. The new architecture which is being evolved to-day is crude and disturbing, but we must remember that it is only a phase in a long-term forward movement. It is sometimes said that these movements die, that the " Art Nouveau " is dead, that the " Arts and Crafts " is dead. This is not true; the spirit and the effect of these movements live to-day in a modified form. To-day the plastic quality of Art Nouveau is revived in cubism, the Arts and Crafts movement is translated into the slogan of the D.I.A., " fitness for purpose." No veritable movement dies, it is merely translated into other terms.

That is what has happened abroad, where in Holland the Dutch Renaissance has its own modern renaissance in the finely modelled brick fronts of the new housing and commercial buildings. The small-paned windows have yielded to plate glass, the crow-step gables are replaced by the cubist forms which are natural to steel and concrete, the narrow vertical fronts of the individual houses are replaced by the long horizontal façades of the mass dwelling.

In France the cramped and stuffy rooms, with their draped windows, their bad boiseries, their pretentious echoing of the glories of Mansart or Gabriel, are giving way to a saner conception of the home for a 20th-century being, heated, spacious, light and airy, and economical of upkeep. The solution is yet to find, but there is satisfaction in knowing that at least the architect is aware of the problem, and that he is groping towards a solution.

Sweden is tackling the problem with skill and grace, while the designer in Denmark is first a gentleman and then an architect. In Germany they are fertile in invention, bold and skilful. They are not afraid to make mistakes; they realise that prettiness is a very minor virtue. In England we have not realised that ugliness and grandeur are very often close cousins. Our sham half timber, our period trimmings, our wreaths and swags and urns and cupids and crockets still obsess us. And, worst of all, we are parsimonious in art, though we realise in other matters that the dearest is generally the best.

Fortunately the public interest is growing; but while architects do not sign their buildings, and seem to be either ashamed to acknowledge their work, or that they live by their work, they can never expect to hold the public interest. Publicity for works of art is not degrading; on the contrary, it tends to suppress the bad artist who revels in anonymity, it provides the human interest. And without the human interest no art will long command attention or retain vitality.

Acoustic Design of Churches

Being extracts from an address given in Chicago recently by Dr. F. R. Watson, of the University of Illinois, at a meeting of the Church Bureaux of Architecture and the Committee on Church Building of the Homes Missions Council.

Nearly everyone at some time has had the discomfort of not understanding a speaker. And under this circumstance, one promptly inquires why wires were not stretched or a sounding board used to remedy the trouble. But these devices, according to modern science, are practically of no use, in spite of the fact that they are generally regarded as the means of correction.

What is desired for ideal acoustics is that the sound reaching an auditor in any part of a room shall be of suitable loudness and distinctness for comfortable hearing, with an elimination or control of echoes, reverberation, " dead spots " and other faults. To a great extent, it is possible to secure such ideal conditions; and it is the purpose of this paper to explain some of the fundamental actions of sound and to show how auditoria may be adjusted so as to have good acoustic properties.

In the open air, the utterances of a speaker progress with practically no distortion, and perfect acoustics are obtained. But only a few people standing on the level ground around the speaker can hear him, because a large part of the sound proceeds upward and is lost, and the sound proceeding sideways is rapidly absorbed by the auditors' clothing. An auditorium improves this condition. A raised platform for the speaker allows all the auditors to see him and hear him. By means of a balcony the auditors at the outside edge can be brought nearer. The enclosing surfaces serve to reflect the sound going upward and thus increase the loudness for auditors in all parts of the room. While the auditorium thus produces some advantages, it also creates defects. For instance, the reflected sound, which is the chief difference between open air acoustics and auditorium acoustics, may produce serious trouble; so that a study of its action is the most important consideration in obtaining good acoustics in a room.

The most serious defect of reflection is the prolongation of sound in a room, called *reverberation.* When sound arrives at a wall or ceiling, it is reflected, absorbed and transmitted in varying amounts depending on the nature of the reflecting surface. A hard plaster wall, for instance, reflects 95 per cent. or more of the incident sound, and, therefore, absorbs but little; whereas a layer of hairfelt, one-inch thick, may absorb 55 per cent. with a correspondingly smaller reflection. If a room is bounded by plaster, glass and wooden surfaces, very little absorption takes place

and the sound may be reflected 200 to 300 times before it becomes inaudible. This means that the utterances of a speaker will overlap and produce confusion for listeners. What is desired is to have each utterance rise to a suitable intensity and produce its effect on the listener and then die out so as to leave the field free for the succeeding utterance.

The use of materials, highly sound-absorptive, provide a positive means for controlling reverberation and, therefore, an all-important question arises as to the amount of sound-absorbing material that should be installed for good effect, and this has been answered by obtaining the opinions of auditors regarding auditoriums already possessing good acoustics. It is found for best effect that a standard sound should die out in two seconds or less depending on the size of the auditorium. Calculations can then be made to determine how much material will be needed for the auditorium to secure the required time of reverberation.

Optimum Time of Reverberation and Optimum Absorption.

Volume of Room.	Optimum Time.	Optimum Absorption Units.
3,300 cu. ft.	1.0 seconds.	165 units.
12,900 „	1.1 „	585 „
33,000 „	1.2 „	1,380 „
63,000 „	1.3 „	2,400 „
117,500 „	1.4 „	4,200 „
186,000 „	1.5 „	6,200 „
276,000 „	1.6 „	8,600 „
407,000 „	1.7 „	12,000 „
550,000 „	1.8 „	15,300 „
750,000 „	1.9 „	19,700 „
1,000,000 „	2.0 „	24,800 „

The shape of an auditorium is also a matter of consideration. Generally speaking, a rectangular shape is preferred. Curved walls produce eccentric actions on sounds and may set up bad echoes. Balconies are usually advantageous acoustically, since they tend to break up sound in the otherwise large space. Gothic ceilings are beneficial to acoustics, because they reduce possibility of echoes, and because sound-absorbing material is more effective on such surfaces than on a flat ceiling.

The important requirements for good acoustics in a room may be enumerated as follows:—

1. The reverberation, or prolongation of sound, should be controlled by installing an amount of sound-absorbing material in proportion to the volume of the room.
2. The sound in a room should have sufficient loudness; a condition that is brought about by reflection from the various surfaces of the room which reinforces the direct sound. If the speaker or musical instrument produces only a weak sound, no arrangement of the room will increase the loudness, except by the use of an electric loud speaker.
3. Speaking should be distinct. For this purpose, it is desirable to arrange the reflecting surfaces near the speaker, and to apply absorbing material to selected walls.

Air Treatment as applied to Ventilation

At a recent sessional meeting of the Institution of Heating and Ventilating Engineers, Mr. W. H. Dupen read a paper on "The Comparative Value of Air Treatment as applied to Ventilation."

He said the medical profession had contributed several treatises on the various phases arising from atmospheric pollution and vitiated air, and had educated public opinion, with resultant legislation dealing with causes affecting the public health. In addition, however, to the need for avoiding and remedying polluted atmospheric conditions, especially in congested town areas, it was also necessary to consider the effects of climatic changes on our health, and the desirability of mitigating same as far as may be possible. Apart from extremes of heat and cold to which our bodies to a certain extent make adjustment, there also arises the question of variations in temperature and humidity which appear to affect our digestive track, while the sultry atmosphere present before thunderstorms is a well-known experience, also the purified and freshened atmosphere which follows has a marked effect upon our energy and nervous system. Damp atmosphere, so called from its property of having absorbed water-vapour, and fogs arising from a surplus of water-vapour, all produce more or less ill-effects upon our health, and it becomes necessary for heating and ventilating engineers to meet these fluctuating conditions in the course of their business to procure for their clients some relief from the inconvenience and even ill-effects Nature sometimes inflicts upon them. The lecturer then dealt with the various methods of air treatment or conditioning now in general use, including cleaning, comprising dust and fume removal equipment; washing, including cooling either with or without the aid of refrigerating machinery; humidification and dehumidification; warming and ozonisation for dealing with bacteria and offensive odours.

Valuations under the New Rating Act

Being an abstract of a recent lecture at the College of Estate Management by Mr. C. Gerald Eve, F.S.I., who dealt with some points of practice in valuing under the Rating and Valuation Act, 1925.

Mr. Eve said that the points to be urged in making an objection to an assessment might be set out as follows: That the values—gross, net, and rating—were excessive and incorrect, that they were unfair by comparison with other properties of the same class and of other classes, that the deductions from gross and from net were insufficient, that the values had not been ascertained by an independent valuation, that too much machinery and plant had been rated, and, finally, that the assessment was otherwise incorrect. It was the duty of the surveyor on behalf of his client to see that his counsel at sessions was left with a wide field from which to select. In making comparisons he should not suggest that the other property was rated too low, but that it was correctly rated, whereas his own property was rated too high.

With regard to woodlands, the lecturer claimed that these came under the Second Schedule of the Act, Part 1, paragraph 7, as "land (other than agriculture land) without buildings," on which the amount of deduction was equal to 5 per cent. of the gross value. The gross value was that which was known as "prairie value," and from this 5 per cent. was to be deducted.

As for sporting rights, it was clear that if the landlord reserved the shooting and did not let, the rateable value of the land was increased by the value of the sporting. Obviously the valuation of the buildings could not be increased, because nobody sported over the buildings, yet it had been laid down that until the courts decided otherwise the sporting should be put on the buildings. This was wrong, in his opinion.

With regard to machinery and plant, he pointed out that the Third Schedule of the Act went by the board; reference must be made to what was irreverently termed the "washing bill" in the shape of the detailed list issued under authority as Statutory Rules and Orders. 1927, No. 480.

BUILDING NEWS IN PARLIAMENT

Westminster, Wednesday, December 14.

Although certain repairs to the fabric of the Houses of Parliament have been in regular progress for a considerable time, a beginning has not yet been made with those major works which involve the replacement of defective stonework. Several months ago, it was announced by the Office of Works that Stancliffe stone had been selected for this purpose as being the most suitable and the most durable; but the choice, it appears, will lie in the end with the Fine Arts Commission. They have had the question under consideration for a considerable time, but they have not yet communicated their decision to the Government.

The position was explained to the House of Commons this week by Sir Vivian Henderson, the new Under-Secretary to the Home Office, who answers for the Office of Works. That Department selected Stancliffe stone as being the most suitable and the most likely to offer effective resistance to the corrosive atmosphere of Westminster; but the question was referred to the Fine Arts Commission to ascertain whether they had any objection to offer to its use along with the stone now in the building. If the Commission eventually raise objections, the spokesman of the Government indicated that these would have to be accepted and another kind of stone found. But, further than that, the Government had thought it necessary to refer the question to the Department of Scientific and Industrial Research, "to find out whether they considered that the mating of the two stones would have any unfortunate effects," and, when their reply as well as that of the Fine Arts Commission has been received, "it will be possible for the Office of Works to make further progress."

The suggestion was made by Mr. Hardie, a Labour member, that the experiment might be tried of repairing the stonework of the Houses with synthetic material, if for no other reason than to discover whether it might offer more resistance to the London atmosphere than stone taken from a quarry. Sir Vivian Henderson promised that he would have the suggestion considered. Sir William Davison urged that the work of repairing the Central Tower, which is now without a top, should be proceeded with at once and apart from the larger scheme of repairs; but this question was disallowed by the Speaker under that rule of the House which requires that supplementary questions directed to Ministers must be kept strictly within the scope of the original question. This matter, however, can, and no doubt will, be raised again in a separate question. It is not altogether improbable that the leisurely manner in which the work of repairing the Houses of Parliament is being approached reflects that severe economy which the Treasury are enjoining upon all Departments during a specially stringent financial year.

Visitors to St. Stephen's Hall at Westminster may be puzzled by the space which is now left vacant through the removal, from among the other large and striking mural paintings adorning this part of the Houses of Parliament, of the picture representing the ceremonial consummation of the union between England and Scotland. It has not been taken away, however, in deference to the protests that were made by a Scottish Labour member last session who professed to find in it something humiliating to his native land. The picture has been removed simply to enable the artist to complete certain parts of it which were left unfinished. In due time it is to be restored to its place among the wonderful and striking group of paintings which lend a greater dignity to a stately hall.

It has been the fate of Mr. Neville Chamberlain, the Minister of Health, to stir the animosity of certain sections of the Labour Opposition in the Commons, who lose no opportunity of criticising him. During the last few days, they have not allowed him to forget the statement he made in the summer that reduction of the housing subsidy would, in his opinion, lead to increased and cheaper building. They ask whether any proof is yet forthcoming of the truth of his forecast, seeing that the subsidy reduction occurred in October. Mr. Chamberlain, who is rather more than a match for any of his critics, contents himself for the present with the reply that there is no evidence yet as to how many houses will be built next year. The saving to the Treasury on the subsidy reduction will, of course, depend upon the number of houses erected.

Notes in Brief

The Prince of Wales has expressed his sympathy with the objects of the Oxford Preservation Trust and made a contribution to the funds.

* * *

The Whitby Corporation is proposing to construct a bathing-pool on the beach below the Hotel Metropole, and has decided to apply to the Ministry of Health for a loan of £25,000 to carry out the work.

* * *

Some oak panelling, and a brass inscription plate, which have been placed in the sanctuary of the Church of St. James-the-Less, Bethnal Green, as a memorial to the late J. E. Watts-Ditchfield, for many years vicar of the parish and afterwards the first Bishop of Chelmsford, were dedicated by the Bishop of Chelmsford on Friday last.

* * *

The two pairs of gates and the seven lamps to the forecourt screen at Grosvenor House, the former town mansion of the Dukes of Westminster, recently demolished, have been purchased by the Phyllis Court Club, Henley, and are to be erected there, with a stone screen, as the Club's War Memorial.

* * *

The British Museum has purchased a marble relief panel, dating from the latter part of the second century A.D., and representing Æneas at Latium being led to the lair of the white sow, indicating the site upon which he would found a city. The Museum has also acquired the celebrated Tudor Mazer, made about the first quarter of the 16th century, and formerly belonging to Epworth Church, Lincolnshire.

* * *

The new Presbyterian Church of St. Andrew, Aldershot, which forms a war memorial to soldiers of that Creed who fell in the War, was dedicated on Saturday last, when Princess Mary Viscountess Lascelles unveiled a memorial tablet in the building. The new church, of which the architect is Sir Robert Lorimer, A.R.A., stands on the site of a former corrugated iron structure.

* * *

The memorial to the late Sir Ross Smith, one of the first Australian aviators to fly from England to Australia, was unveiled at Adelaide, on Saturday last, by the Lieut.-Governor of South Australia, Sir George Murray. The statue—a full-length in bronze—with its granite pedestal, stands 26 feet high, and large symbolical figures of Flight and Intrepidity flank the pedestal. The sculptor was Mr. F. B. Hitch, A.R.B.S., of London.

London Building Notes

BARKING.—The T.C. have decided to proceed with their Parson's Row improvement scheme and to build 26 houses on the cleared area. Plans by Mr. C. J. Dawson, F.R.I.B.A., Clock House Chambers, Barking.

BEAK STREET.—Nos. 39-47 are to be reconstructed. Plans by Messrs. Holcombe & Betts, 21 Portman Street, W.1. The contractors are Messrs. Townsend (Builders), 24 Dean Street, W.1.

BISHOPSGATE. — A block of offices, Portland stone faced, is to be built in St. Helen's Place, for the Leathersellers' Company. The builders are Messrs. Dove Bros., Ltd., Cloudesley Place, Islington. The architect is Mr. Henry A. Saul, F.R.I.B.A., 10 Gray's Inn Square, W.C.1.

CAMBERWELL. — Plans have been prepared by Sir Aston Webb & Son, FF.R.I.B.A., Queen Anne's Gate, Westminster, for a chapel at the Camberwell Cemetery.

CHEAPSIDE.—A stone-fronted office building is to be built at the corner of Cheapside and Gutter Lane. Plans by Messrs. Taperall & Haase, 5 Stratford Place.

CRICKLEWOOD.—A lay-out for 300 houses in Clitterhouse Lane has been prepared by Mr. A. O. Knight, surveyor, The Burroughs, N.W.4.

EAST HAM.—Mr. R. C. Turner Gordon, L.R.I.B.A., Bank Buildings, Romford Road, Forest Gate, is the architect for buildings comprising 90 lock-up garages in Hampton Road.

EAST HAM.—The Corporation recommend the tender of Messrs. Martin & Pearce, £12,799, for 12 double tenement houses at Flanders Road.

EDMONTON.—A housing scheme of over 40 residences is to be carried out in Montague Road and Bounces Road. The builder is Mr. A. W. Jones, Friern Barnet. The architects are Messrs. Howis & Belcham, 77 Chancery Lane.

FINSBURY. — The Seckford Estate propose to let on building lease the site at the corner of St. John's Street and Aylesbury Street, E.C.1. The architects are Messrs. W. H. Woodroffe & Son, 5 Bedford Row, W.C.1.

GRAY'S INN ROAD.—Sir John Burnet & Partners, architects, 1 Montague Place, are to prepare plans for the new Dental, Tonsil, and Adenoid Clinic at the Royal Free Hospital.

HORNSEY.—The E.C. are considering the erection of an open-air school in conjunction with an adjacent authority. The E.C. architect is Mr. J. Carter Pegg, F.R.I.B.A., Parliament Street, Westminster.

LUDGATE HILL.—Extensive alterations and improvements are to be made at No. 71. The contract has been placed with Messrs. E. Pollard & Co., Ltd., St. John's Street, E.C.1.

NEASDEN.—The Service Petroleum Co., Ltd., are to build a large petrol service depot. Plans by Messrs. Heron, Rogers & Pettitt, consulting engineers, Queen Victoria Street, E.C.4.

POLICE STATION, SNOW HILL, E.C.
SYDNEY PERKS, F.R.I.B.A., Architect.

This building represents a new development in the design of police-stations and seems to indicate that the authorities responsible for the erection of this class of building desire to repudiate the convention that the headquarters of the police should be marked by a façade brutal and forbidding in appearance. Here the entrance to the station itself is marked by two doorways surmounted by pediments of refined detail while the storeys above, presumably containing offices and club rooms for members of the Force, have an attractively designed central bay window. The cornice with decorative brackets forms a suitable crowning feature to the façade.

PLUMSTEAD.—It is proposed to develop the Thornhills Estate. Plans for a lay-out have been prepared by Mr. Ernest H. Wright, architect, 1 Powis Street, Woolwich, S.E.18.

POULTRY.—The corner premises in Poultry and Jewry Street are to be altered as a branch Boots Cash Chemists. Structural work and new shop fronts are to be carried out by the firm's building department, under Mr. Percy J. Bartlett, A.R.I.B.A.

PURLEY.—Messrs. F. D. Winn & Co., Ltd., 4 Hanlin Place, Westminster, S.W.1, are carrying out alterations and improvements to the Purley Telephone Exchange. Plans by H.M. Office of Works, Storey's Gate, Westminster, S.W.1, under the chief architect, Sir R. J. Allison, F.R.I.B.A.

ROMFORD.—Plans have been prepared by Mr. J. W. Hammond, 40 High Street, for a new public-house, in place of the "Bull," in Market Place.

ST. PANCRAS.—The Salvation Army are to build a new warehouse in Judd Street. The builder is Mr. F. J. Coxhead, 45 Bulmer Road, Wanstead. The architect is Mr. Oswald Archer, 101 Queen Victoria Street.

TWICKENHAM.—New premises are to be built in place of the "Kings Head" public-house, King Street. Plans by Mr. G. G. Macfarlane, architect to Messrs. Watney, Combe, Reid & Co., Ltd., Westminster.

WALWORTH. — The Wesleyan Methodist Church in Camberwell Road is to be rebuilt on a larger scale, and an institute erected. The architect is Mr. Edward B. Maufe, F.R.I.B.A., 3 Raymond Buildings, Gray's Inn.

WEST HAM.—Plans have been prepared by Messrs. Leathart & Granger, AA.R.I.B.A., 7 John Street, Adelphi, for the reconstruction and enlargement of the Queen's Cinema, Romford Road.

WESTMINSTER. — Foundations are being constructed for the Ninth Church of Christ, Scientist, at the corner of Tufton Street and Marsham Street. The contractors are Messrs. Holloway Bros. (London), Ltd., Bridge Wharf, Grosvenor Road, Westminster. The architect is Sir Herbert Baker, A.R.A., F.R.I.B.A., 14 Barton Street, Westminster.

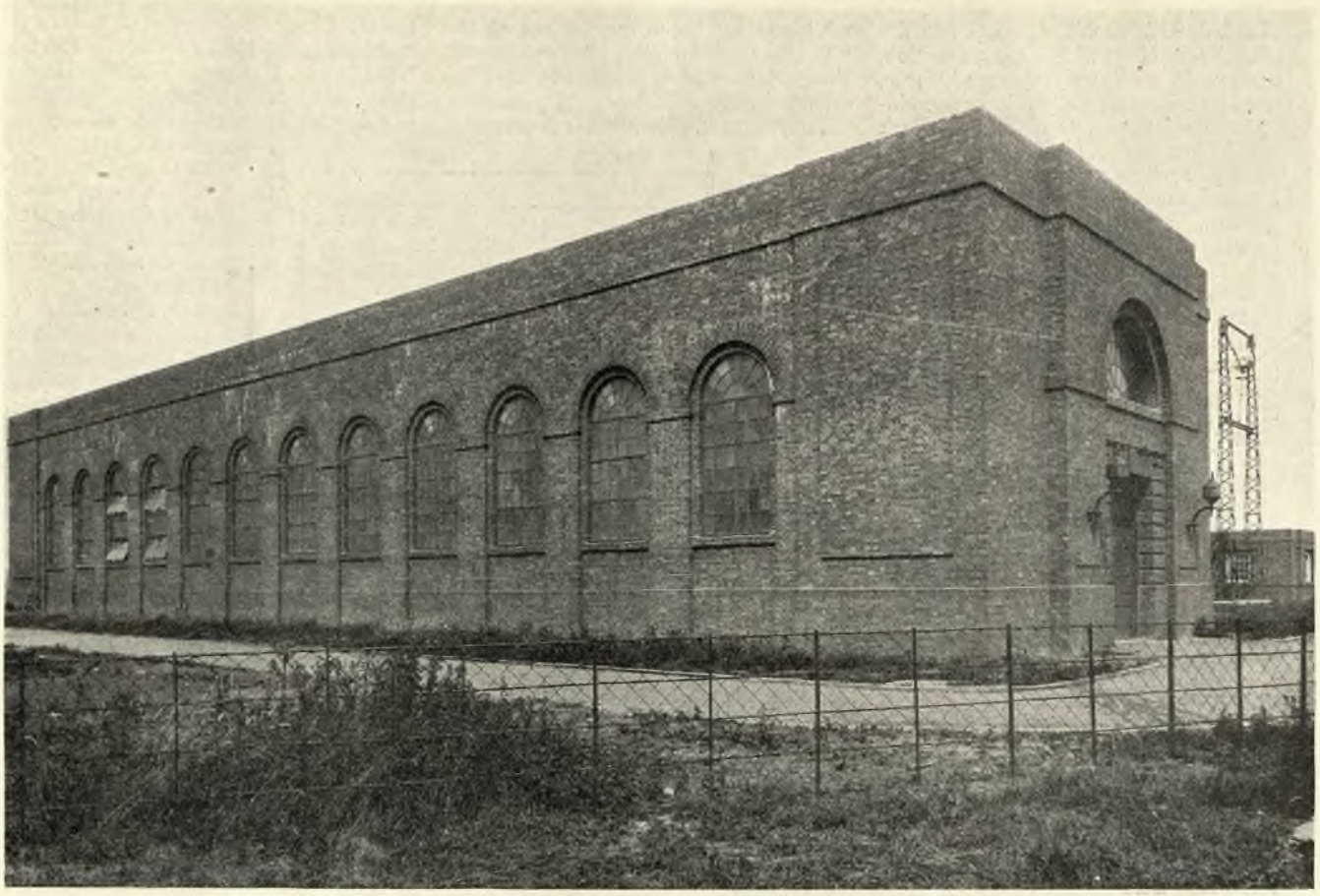
WHITTON PARK. — Mr. H. Langford Moyle, architect, London Road, Twickenham, has prepared plans for two shops and houses on the east side of Runnymede Road.

WIMBLEDON. — An estate at Copse Hill is to be developed in accordance with plans by Mr. Alexander M. L. McKay, Ravenswood, Staines; and the borough engineer is to prepare a scheme for the completion of the Wimbledon Park Estate.

WIMBLEDON.—Plans have been prepared by Messrs. Elcock & Sutcliffe for a greyhound race-track at Plough Lane, Wimbledon.

WOOLWICH.—A large estate in Avery Hill Road, Woolwich, S.E., is to be extensively developed for residential purposes by Mr. W. Childs, Bexley Road, Eltham. It is proposed eventually to build several hundred houses.

LUTON.—For new wards at the Bute Hospital. The architects are Messrs. Brown & Parrott, LL.R.I.B.A., 9 George Street. Contractors, The Luton Building Co., Church Street.



H.M. RADIO STATION, HILLMORTON, RUGBY: ENGINE ROOM AND GENERATING STATION.
F. A. LLEWELLYN, Architect (H.M. Office of Works, London).

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.

ASHBY-DE-LA-ZOUCH.—A new factory is to be erected for Messrs. John Ferguson, Ltd. No architect has yet been appointed.

AYR.—Plans have been prepared by Mr. William Reid for a clinic in King Street.

BIRMINGHAM.—A large cinema is proposed at Westley Road, Acocks Green. Plans are to be prepared by Mr. G. Bradley, Temple Row.

BIRMINGHAM. — The Watch Committee are to convert premises in Speedwell Lane, Edgbaston, into a police station at a cost of £3,000, and extend the Loxells Road police station at a cost of about £4,500. Plans by the city engineers' department, under Mr. H. H. Humphries.

BIRMINGHAM.—The Corporation are to convert premises in Alcrester Road, Moseley, into a branch municipal bank. Plans by the city engineer and surveyor, Mr. H. H. Humphries, Council House.

BOLTON.—For improvements and additions to the "Lever Arms" Hotel, Nelson Square. The architect is Mr. T. Hudson, 15 Nelson Square.

BOLTON.—The Bolton E.C. are proposing to erect a new elementary school at Castle Hill, Tonge Moor. The architect has not yet been appointed.

BOLTON.—Plans have been prepared by Mr. John Baxendale, Fola Street, for a new R.C. school to accommodate 250 children.

BOURNEMOUTH.—New schools are to be built in Malvern Road. Plans by Messrs. W. T. Mountain, Hawker & Partners, architects, St. Peter's Chambers.

BURNLEY.—The plans have been prepared by the borough engineer, Mr. A. Race, Town Hall, for a new council elementary school at Rosehill, estimated to cost £10,000.

BURY.—Plans have been prepared by the diocesan architect, Mr. R. Martin, Deansgate, Manchester, for a Church of St. James at Woolford, estimated to cost £7,000.

COVENTRY.—Plans for the rebuilding of the Opera House have been prepared by Messrs. Percy L. Brown & Son, architects, of Newcastle-on-Tyne.

CROMPTON.—Plans have been prepared by the district surveyor, Council Offices, Shaw, near Oldham, for a further 50 houses at Smallbrook and Summer Street.

DERBY.—Extensions to the nurses' home of the Derby Royal Infirmary are being considered. Plans by Messrs. Young & Hall, FF.R.I.B.A., 17 Southampton Street, Bloomsbury, London, W.C.

DEWSBURY.—Messrs. Kirk, Sons & Ridgway, F.R.I.B.A., Market Place, are the architects for new premises in Church Street for the Dewsbury and West Riding Permanent Building Society.

EXETER.—Plans have been prepared by Mr. C. H. Goater, Wiltshire Limes Chambers, Silver Street, Trowbridge, for a bungalow at Birchley Barton.

FILEY.—Thirty-six houses are to be built near the Scarborough Road. Plans by the surveyor.

GLASGOW.—Plans are being prepared by Mr. W. Mercer, 119 Paisley Road, for a dairy for the Scottish Co-operative Wholesale Society, Ltd.

GOOLE.—The Urban Council have instructed the surveyor to prepare a scheme for 50 houses of the non-parlour type.

GUILDFORD. — For an elementary school, estimated to cost £11,000. Plans have been prepared by Mr. G. P. Stainsby, A.R.I.B.A., High Street, Stockton-on-Tees.

HALLIWELL (BOLTON).—A local syndicate has a scheme on hand for a new picture house. Plans by Mr. W. Thornley, L.R.I.B.A., 46 Wallgate, Wigan.

HASTINGS.—Plans passed by Corporation:—Additions Royal East Sussex Hospital, Cambridge Road, and a workshop and petrol station, London Road, for Mr. P. H. Oxley, architect; two houses, All Saints Street, for Mr.

H. M. Jeffery, architect; shop, Sturdee Place, for Messrs. H. Ward & Son, architects; additions, Quarry House, Quarry Hill, for Mr. S. Towse, architect; two houses, St. Helens Park Road, for Mr. J. S. D. Hicks, architect; shop, Norman Road, for Mr. L. Towner, architect; two houses, Canute Road, for Mr. J. Hunt, architect.

LEEDS.—Mr. H. Pemberton has prepared plans for the conversion of a billiard room at Low Road, Hunslet, into a dance hall.

LEEDS.—The city engineer, Mr. W. T. Lancashire, has prepared alternative plans for the layout of the Henconner Lane Housing Estate, and plans for the alteration and extension of the fire brigade premises.

LLANDILO.—Plans are to be prepared by Mr. T. G. Price, architect, Market Street, for a laundry and casual wards at the institution.

LUTON. — The R.D.C. are to build 12 houses at Kensworth. Plans by Mr. H. Pickering, 73 West Parade, Dunstable.

MANCHESTER.—Further extensions are to be made to the premises of Messrs. Lewis's, Ltd., in Moseley Street. Plans are being prepared by Messrs. J. W. Beaumont & Sons, FF.R.I.B.A., 24 Brazenose Street.

MANCHESTER.—Messrs. James & Edwards, Ltd., 52 College Road, Whalley Range, propose to extend their factory. Plans by Messrs. Cruickshank & Seward, A.R.I.B.A., 18 Booth Street.

MANCHESTER. — The Corporation Markets Committee have asked the superintendent to prepare a scheme for the improvement of the abattoir and wholesale meat market.

MEXBOROUGH.—Mr. P. A. Hinchliffe, F.R.I.B.A., 14 Regent Street, Barnsley, is the architect for a large restaurant and shop premises in Bank Street.

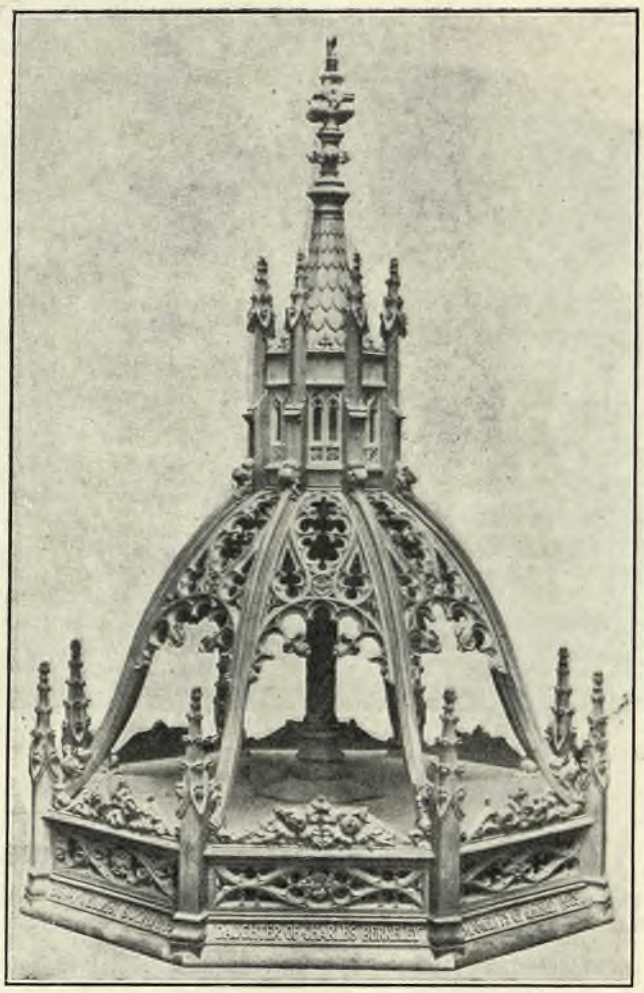
MUSSELBURGH. — Plans have been passed for a building to cost £10,000, embracing a sports pavilion, two entertainment halls, a billiard room, caretaker's house, etc. The architect is Mr. W. F. Dawson, A.R.I.B.A., 129 Albion Street, Leeds.

NETHER STOWEY.—Messrs. Stone & Francis, architects, Fore Street, Taunton, have prepared plans for a village hall.

NORTHAMPTON.—The Corporation are to erect 28 houses in Baring Road. Plans by the borough engineer, Guildhall.

NORTH SHIELDS.—Alterations and additions are to be carried out at the "White Hart" Hotel, Bedford Street. Plans by Messrs. Haswell & Son, architects, Tyne Street.

PORTSMOUTH.—A block of offices is to be erected in Commercial Road. Plans by Mr. W. E. Trent, New Gallery House, Regent Street, W.



THE FONT COVER IN ALL SAINTS' CHURCH, HUNTINGDON.
C. WONTNER-SMITH, F.R.I.B.A., Architect.

This Font Cover is intended to harmonise with a church in the "Decorated" style of Gothic. The design is ingenious inasmuch as it translates into wood ornamental *motifs* originally belonging to the medium of stone. The little lantern with its ring of pinnacles seems to present in replica part of an actual stone building, the miniature windows completing the illusion. But it is questionable whether such a treatment is logically justifiable, although it is fully in accordance with the tradition of mediæval architecture in its later stages. The work, however, is exquisitely finished and shows a high standard of modern craftsmanship.

RADFORD.—Messrs. T. R. J. Meakin & Sons, Warwick Row, are the architects for a new Church Institute.

RHYL.—New baths estimated to cost £21,000 are proposed. Plans by the council's surveyor, Mr. A. A. Goodall, M.I.M.C.E.

ROCHDALE.—Plans by the borough surveyor, Mr. S. H. Morgan, Town Hall, have been provisionally approved by the E.C. for the extension of the Open-air School.

ROCHDALE.—The Rochdale Board of Guardians are proposing to make sanitary improvements at their Institution at Birch Hill, Littleborough, near Rochdale. The architect is Mr. H. H. Clough, Newgate Chambers.

ROCHDALE.—Mr. Robert Martin, L.R.I.B.A., Diocesan Church House, Deansgate, Manchester, is preparing plans for a church and rectory in Bury Road.

ROCHDALE.—The "Castle Inn" is to be reconstructed. Plans by Mr. H. H. Clough, L.R.I.B.A., Newgate Chambers.

SCARBOROUGH.—A reconstruction scheme is proposed at Christ Church. The consulting architects are Messrs. Moore, Temple Moore, FF.R.I.B.A., 3 Raymonds Buildings, Gray's Inn Road, London.

STONE. — Plans have been prepared by Messrs. G. Baines & Son, Westminster, S.W.1., for a new church and school in Harefield Road.

WORKSOP.—The R.D.C. have approved plans submitted by Messrs. Barber, Walker & Co., proprietors of the Harworth Colliery, for the erection of a cinema at Harworth, near Worksop. The drawings have been prepared by Mr. P. N. Brundell, the architect at Harworth Colliery.

School Building News

BIRMINGHAM. — The E.C. are to adapt premises in Northfield Road, King's Norton, for purposes of a secondary school at a cost of £9,500, and are to reconstruct the elementary school in Tilton Street. They have obtained a site on the Tyseley Farm Estate for an elementary school.

BRADFORD.—The E.C. are obtaining sites on the Eccleshill Housing Estate and in Hanworth Street for two elementary schools. They are seeking a site for further accommodation for the College of Arts and Crafts, and are considering the possibility of adapting premises in Great Horton Road for technical college purposes.

BRIGHTON.—The E.C. have obtained a site in Hodsgrove Road for an elementary school.

CATHERINGTON. — The Hampshire E.C. are to erect an elementary school for 360 children. Plans by Mr. A. L. Roberts, county architect.

GLASGOW.—The E.C. have obtained three sites, at High Carntyne, Balornock, and Balmore, for the erection of elementary schools. Plans by the Committee's architect.

LEEDS.—The Corporation Housing Committee are asking the E.C. to erect an elementary school on the York Road Housing Estate. Plans by the Committee's architect.

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.*

BIGGLESWADE.—December 20.—For 60 houses—20 in each of the parishes of Potton, Arlesey, and Stotfold. Particulars, the clerk to the council, Mr. H. Chaundler, 2 London Road. The architect is Mr. F. C. Levitt, Market Square, Biggleswade. Deposit £2 2s.

CHERTSEY.—December 24.—For 50 cottages, in pairs, on the Pyrcroft Road Housing Estate. Particulars, Mr. Ernest J. Castle, clerk, Council Offices. Deposit £1 1s.

DUNKINFIELD.—December 19.—For two, or any multiple of two, semi-detached four-room houses on the Dewsnap Lane housing site for the B.C. Particulars, the borough surveyor, Town Hall. Deposit £2 2s.

EAST HAM.—For 12 double tenement houses in Flanders Road and Park Avenue for the T.C., the tender of Messrs. Martin & Pearce, £12,798 13s. 6d., has been accepted.

HANWORTH (MIDDLESEX).—December 19.—For 18 houses, for the Staines R.D.C. Particulars, Mr. D. C. Fidler, surveyor, London Road, Ashford. Deposit £2 2s.

LEAMINGTON.—December 19.—For (*a*) 50 non-parlour cottages and (*b*) 12 parlour cottages. Particulars, Mr. J. J. Kennan, M.I.M.&C.E., borough engineer, Town Hall. Deposit £2 2s.

LUDLOW. — January 14. — For alterations and additions to the C. of E. Schools. Particulars, Mr. J. H. Lockhart, 22 Broad Street. Deposit £1 1s.

MANCHESTER.—December 30.—For a steward's house at the Bagaley Sanatorium. Particulars, the city architect, Town Hall, Rochdale. Deposit £1 1s.

MANCHESTER.—December 22.—For stables, messroom, and store at Platt Fields. Particulars, the city architect, Town Hall. Deposit £1 1s.

NAIRN.—December 21.—All trades for 10 semi-detached villas (five blocks), and four semi-detached bungalows (two blocks), and three single bungalows off Seabank Road. Particulars, Mr. J. H. G. Peter, borough surveyor, Queen Street.

NEWQUAY.—December 19.—For 40, or less, houses for the U.D.C. Particulars, Mr. C. W. Walters, deputy surveyor, Beach Road. Deposit £5.

PRESTON.—December 19.—For a Divisional Police Station, Water Lane. Particulars, the borough engineer and surveyor, Town Hall. Deposit £2.

ROCHDALE.—December 20.—For 20 houses on the Victoria Place area for the B.C. Particulars, the borough surveyor, Town Hall. Deposit £2 2s.

WIMBLEDON. — December 21. — For five terrace houses in Birkbeck Road for the B.C. Particulars, the borough engineer, Town Hall.

Building Tenders

BARNSLEY.—For a new hotel in Huddersfield Road for Messrs. John Smith's Tadcaster Brewery Co., Ltd. Plans have been prepared by the brewery's architects' department, High Street, Tadcaster. The contractors are Messrs. William Birch & Sons, Ltd., Span Lane, York; steelwork, Messrs. N. Barr, Ltd., Wellington Road, Leeds; asphalt, The Northern Asphalt and Roofing Works, Co., Ltd., Standard House, Cardigan Road, Headingley, Leeds; slaters, Messrs. J. Hardgrave & Son, Skeltergate, York.

BEXHILL-ON-SEA.—For additions to the Collington Road School, to plans prepared by Mr. Marshall Wood, F.R.I.B.A., Endwell Road. The contractor is Mr. T. L. McCormick, 40 St. Leonards Road.

BLACK NOTLEY.—Messrs. Welwyn Builders, Ltd., are the contractors, £80,000, for the sanatorium. Plans by Mr. Jno. Stuart, F.R.I.B.A., county architect, Springfield Old Court, Chelmsford.

BOLTON.—For the Palais de Danse at the corner of Bridge Street and St. George's Road. The contractors are Messrs. R. J. Tyson's, builders and contractors, Wellington Mills. The architect is Mr. Albert Winstanley, F.R.I.B.A., Great Ducie Street, Manchester.

BRIGG.—For the erection of an elementary school. Architects, Messrs. Scorer & Gamble, Bank Street Chambers, Lincoln. Main contractors, Messrs. Swift Bros., & Haslam, Ltd., 18 South Parade, Doncaster, £13,587.

BURSLEM.—New premises are to be erected for the Burslem and District Co-operative Society, Ltd., Hanley Road. Plans have been prepared by Messrs. Watkin & Maddox, L. & A.R.I.B.A., National Provincial Bank Chambers. The builder is Mr. J. Cooke, May Bank, Newcastle-under-Lyme.

CHELMSFORD. — For the new secondary high school. Architect, Mr. J. Stuart, F.R.I.B.A., Springfield, Old Court. Contractor, Mr. F. R. Hippersers, Broad Street, £49,919.

CHESTERFIELD.—For 20 A2 type houses at the junction of Racecourse Road and Dunston Road, Whittington Moor. The contract of Messrs. Drabble Bros., 58 High Street, Mosborough, has been accepted. The architects are Messrs. Jackson & Fryer, Stephenson Place.

COVENTRY. — The tender of Mr. F. G. Robinson, 42 Raleigh Road, Stoke, £6,960, has been accepted for a motor omnibus garage for the Corporation.

DEAL.—For a band shelter, to plans prepared by the borough surveyor, Mr. T. C. Golder, M.I.M.C.E. The following contracts have been placed:—Steelwork, Messrs. Walter Macfarlane & Co., Saracen Foundry, Glasgow, £5,571; foundations, offices, and flooring, Messrs. G. H. Denne & Son, Queen Street, Deal, £1,563.

DERBY.—For new premises in Sinfin Lane. The architect is Mr. A. W. Farnsworth, Post Office Chambers. The contractors are Messrs. Gee Walker & Slater, Ltd.

DEVONPORT.—For a new chapel for the U.D.C., to plans prepared by Mr. F. Johns, surveyor to the council, East Cornwall House. The contractor is Mr. G. Gleeman, 41 Clarence Road, £1,500.

DEWSBURY. — For an open-air school at Moorlands. The following contracts have been placed:—Builders, Messrs. Briggs & Roberts, Dark Lane, Batley, £1,560; carpenters, Messrs. Baileys & Sons, Watergate; plumbers and glaziers, Messrs. W. Scott & Son, Leeds Road; slaterers, Messrs. Pickles Bros., Sharp Street. Plans by Mr. H. Dearden, A.R.I.B.A., Town Hall.

DUMFERMLINE.—For alterations to the Bandrum House, to plans by Mr. C. Douglas, F.F.S., East Port Street. Main contractors, Messrs. J. Baxter & Sons, Woodmill Road; plasterers, Messrs. J. Paris & Son, 50 Inglis Street; slaters, Messrs. J. Robertson & Sons, 15 Campbell Street; glazier, Mr. A. Low, Bruce Street.

EASTBOURNE.—Messrs. W. J. Simms, Son & Cooke, Ltd., Weekday Cross, Nottingham, are the contractors for 48 houses on the Martello site.

FRAMFIELD.—The tender of the Ringmer Building Works has been accepted for a bungalow for Captain A. V. Baxendale.

GILLINGHAM.—For a memorial hall in Gillingham Avenue. The architect is Mr. E. J. Hammond, Balmoral Road. Contractors, Messrs. Norman Smith & Sons, Brunswick Street, East Maidstone, Kent, £2,246.

GLASGOW. — The Corporation Housing Committee recommend the tender of Messrs. John M'Donald (Contractors), Ltd., for 426 houses of different types at Knightswood.

GLASGOW.—The Corporation recommend the tender of Messrs. Melville, Dundas, & Whitson, £3,936 15s., for adapting old buildings for various purposes at the Govan destructor works.

HASTINGS.—The Corporation recommend the tender of Messrs. Haylhurst & Wright, Ltd., £17,783, for new buildings, 9-10 Verulam Place.

LITTLEBOROUGH.—The trustees of the Greenhill Primitive Methodist Church have accepted the tender of Messrs. Dryland & Preston, Ltd., for a new Sunday school. The architect is Mr. Shepherd, Littleborough.

LUTON.—The R.D.C. have accepted the tender of Messrs. A. & E. Fensom, Leagrave, for six pairs of houses at £700 per pair.

SITTINGBOURNE. — For the Grammar School. The contractor is Mr. G. Browning, St. George's Place, Canterbury. Plans by Mr. W. H. Robinson, county architect, Sessions House, Maidstone.

WINCHFIELD.—For additions and alterations to the Infirmary and Nurses' Home and new mortuary. The contractors are Messrs. Musselwhite & Sons, 7 Cross Street, Basingstoke, £8,374. Plans by Mr. O. A. J. Goddard, Finchampstead, Wokingham.

(*Continued on page* 937)

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	**53/3**	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 London 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.

	Prices.			Unit.	Conditions.
GLAZED—	4in.	6in.	9in.		
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.	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 £12 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 8	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	⅜in.	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	Per foot cube in dry boards 1in. thick and upwards.
Ditto	Japanese	
Ditto	American	
Ditto	English	
Mahogany,	Honduras	
Ditto	Cuban	
Teak	Eng.	
Ditto	Moulmein	

PLYWOOD—	⅜in.			½in.			¾in.			¼in.		
Thicknesses / Qualities	AA d.	A d.	B d.	AA d.	A d.	B d.	AA d.	A d.	B d.	AA d.	A d.	B 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	—63⅓%	—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	1/6½	1/9½	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	4/10½
Shoes (each)	10½*d.*	1/0½	1/2	1/6½	1/8½	3/1½
Bends (each)	1/0½	1/2	1/5½	1/8½	2/0½	3/9
Heads (each)	1/5½	1/7½	1/11	2/4½	2/7½	4/8
Offsets, 4½ in. projection each	1/3	1/6½	1/8	1/11½	2/6	4/3½
Ditto 9 in. ditto. each	1/7½	1/10	2/2	2/8½	3/2½	5/1
Single junction each	1/6	1/9½	2/2	2/6	3/0½	4/10½
Cast-iron half-round gutters, per yard	—	—	1/0½	1/2	1/3	1/6½
Ditto 2 ft., 3 ft., and 4 ft. lengths per yard	—	—	1/2½	1/3½	1/4½	1/8½
Angles and nozzles each	—	—	10*d.*	11*d.*	1/0½	1/3
Stop ends do.	—	—	3*d.*	3*d.*	3*d.*	5*d.*
O.G. gutter per yard	—	—	1/5	1/5	1/6½	1/11½
Ditto 2 ft., 3 ft., and 4 ft. lengths per yard	—	—	1/6½	1/6½	1/8	2/1½
Angles and nozzles each	—	—	**1/0½**	**1/0½**	**1/2**	**1/6½**
Stop ends do.	—	—	**3*d.***	**3*d.***	**5*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	..	31/–		31/6		34/6
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 ¼ in.	⅜ 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—	1¼	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 ..	3¾*d.*	5*d.*	5½*d.*	8¾*d.*	3¾*d.*	5½*d.*	7*d.*	10½*d*
Ground ..	4½*d.*	6½*d.*	7½*d.*	10½*d.*	5½*d.*	7½*d.*	9½*d.*	1/1
Fluted ..	7¾*d.*	10½*d.*	1/1½	1/5	8½*d.*	1/–	—	—
Enamelled ..	6*d.*	7½*d.*	9½*d.*	1/1	7*d.*	9*d.*	—	—

Figured rolled glass, including Muranese, Arctic, Flemish	Cut to sizes, per foot super. ⅛ in.	¼ in.	⅜ in.	White 7½*d.* ½ 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	—	—	9½*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.

Trade Notes

The advent of the contractor into the ranks of firms issuing booklets is something new, but under the title of "A Centenary of Building," Messrs. William Nicholson & Son (Leeds), Ltd., of Prospect Saw Mills, Sheaf Street, Leeds, and 3 Warwick Lane, London, E.C., have issued a very handsome catalogue of some of the principal buildings erected by them during their long establishment. The present head of the firm, Mr. William Nicholson, Senr., is the grandson of the original founder, who started the business in 1822, so that the list is a very long one. The brochure is illustrated by numerous views of buildings, testifying to the extent and variety of the firm's work. We note, with pleasure, that Messrs. Nicholson called themselves "Master Builders," and back up the claim by specialising in fine woodwork, the joiners' shop, alas, being all too seldom one of the principal features of the modern contractor's yard. One of the firm's latest contracts in this direction is for the hardwood panelling and fittings at the new headquarters of the Midland Bank, London, to the designs of Sir Edwin Lutyens, R.A., and Messrs. Gotch & Saunders, the Associated architects.

A well-produced brochure has come to hand describing the Minster Metal Windows, manufactured by the Minster Ironwork Co., Ltd., of Lincoln. These windows are of all types for all classes of buildings from the cottage to the mansion, and from the factory to the shop-front. There are many standardised patterns of cottage windows, as well as of sashes for general purposes; and composite windows can be made up with suitable standardised units to provide for special purposes. Various types of windows are illustrated by clear photographic views, the methods of fixing are explained by sections, and full lists of the standard sizes and patterns are included. There are also photographic views of typical buildings in which these windows have been installed, and the catalogue, it will be seen, is fully explanatory.

The "Hurry" Water Heater Co., of 39 Broad Street, Birmingham, specialise in various forms of apparatus for heating water by gas or oil for domestic purposes. There is the "Hurry" Geyser, the "Hurry" Cylinder, the "Hurry" Wash Boiler, and the "Hurry" Furnace and the super "Hurry" Gas-heated Furnace. The last three are intended for domestic laundry work, but they can be fitted for the dual purpose of a copper and also supplying hot water to the bath. Similarly the geysers can be arranged to supply hot water to bath and lavatory basin, and the cylinder to bath, basin and sink. A hot bath for 1d., using gas at 3s. per 1,000 cubic feet, is a motto of the firm. Among these various fitments, one can be found suitable to the requirements of any dwelling, and particularly to houses where the housewife has to carry out all the work of the establishment.

We have received from Messrs. J. H. Tucker & Co., Ltd., King's Road, Tyseley, Birmingham, particulars of important price reductions in their "B. 100" range of the Tucker Tumbler Switches for electrical lighting. Also a leaflet of the further additions to the range of the Tucker Ironclad Cut-outs.

Building Tenders

(*Continued from page* 935)

HOWDON-ON-TYNE.—The Tyne Improvement Commissioners are to erect new offices, etc., at their docks, estimated to cost £6,000. The contractor is Mr. B. Peel, Tynemouth Station, Tynemouth. Plans by Messrs. Marshall & Tweedy, 54 Grey Street, Newcastle-on-Tyne.

LIVERPOOL.—The E.C. have accepted the tender of Messrs. Robert Jones & Co., for an art room at the Holt Secondary School.

MALVERN.—For a concert hall, foyer, pump room, and colonnade, and for the conversion of the existing assembly rooms into an opera house and theatre, the U.D.C. have accepted the contract of Messrs. Brazier, Ltd., Bromsgrove, £16,650. Plans by Mr. A. Vernon Rowe, architect, 38 Foregate Street, Worcester.

MANCHESTER.—The Corporation Tramways Committee have accepted the tender of Messrs. Lambourne & Co., Ltd., for steelwork for the motor 'bus garage in Queen's Road.

MANCHESTER.—The Corporation Tramways Committee have accepted the tender of Messrs. Tinker & Young, Ltd., for extensions at the Hyde Road car depôt.

ROYTON.—For a central school. The architect is Mr. S. Wilkinson, F.R.I.B.A., 16 Ribblesdale Place, Preston. Contractors: Messrs. James Hartly, Cobden Street, Chadderton. General Contractors: Joiner, Messrs. E. Whittaker, Ltd., Oldham; plumber, Messrs. H. Tattersall, Ltd., Rochdale; mason, Messrs. A. Mackay, Oldham; slater, Messrs. E. Turner & Son, Failsworth; plasterer, Mr. J. Glynn, Oldham; painter, Mr. E. Edge, Ashton-under-Lyne.

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	¼%
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	½th 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 1¼ 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 .. .. .. Concrete in foundations	28/6	35/6	2/6
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
¼-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	16/6	22/6
	Stairs		
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 ¼-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/–	5/10	8/9

At per square	⅞ 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	⅝ in.	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	Very small	Small	Normal	Large
Deal cased frames, 1-in. linings, 1¼-in. pulley styles, 2-in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/–	5/–	3/6	3/–

	1½ in.—2 Panel	4 Panel	2 in.—4 Panel	6 Panel
Doors, per foot super				
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.	
1½-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.*

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JOINER—*Continued.*

	Per Foot Cube: Very Small	Small	Large
Mahogany French-polished handrail	87/-	69/-	53/-
Add if ramped	120/-	100/-	80/-
Add if wreathed	240/-	200/-	160/-
Deal balusters, housed each end, each		1½ in. 1/3	1¾ in. 1/5
Deal newels, per foot run	3 by 3 1/2	3½ by 3½ 1/6	4 by 4 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

Fillets, rails and frames. Per foot run	Section Area: 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	2½*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.*

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

SMITH AND FOUNDER.

	Per Cwt: Up to 1st Floor	Above 1st Floor
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.	Per Foot Run: 2 in.	3 in.	4 in.
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.

	Per Cwt: Soakers	Flats	Flashings and Gutter
Milled lead and laying	42/6	51/6	54/6

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

Per Foot Run	½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	3½ in.	4 in.
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.*

Iron (L.C.C.) pipes.	Per Foot Run: 2 in.	4 in.
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.

Per Foot Run: Gas ½ in.	¾ in.	Steam Tubing ½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
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	Per Foot Run: Rounded Arris	Angle	Quirk	Flush or Staff Bead
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 of 1 foot of moulding	Equal to ⅓rd of a foot of moulding
Do. do. Portland	0/3		
Do. do. fibrous	0/3		

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

GLAZING.

	Per Foot Super: Up to 10 ft.	From 25 to 50 ft.	From 50 to 100 ft.
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. Rolled	Cast Glass: ⅛ in.	¼ in. Cast	Wired Glass	Metal bar Patent Glazing
0/8½	0/7½	0/11½	0/9	0/10	0/10½	1/1½	2/-

PAINTER AND DECORATOR.

	Per Yard Super: Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
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

Add per Yard Super for the following: If on Moulded Work 100%	If on Enriched Work 300%	If in Party Colours on: Small Panels 0/3	Medium Panels 0/2	Large Panels 0/1	If on Narrow Widths 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	0/0⅜	0/0½	0/0⅝	0/0¾
On large pipes or do. do.	0/1	0/1	0/2	0/3	0/3½	0/0¾	0/0¼	0/1¼	0/1½

Add to the above prices for the following per yard super:—
On Moulded Work 20 per cent. On Enriched Work 150 per cent. In Party Colours 2*d.* Stippled 6*d.*

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

PAPERHANGER.

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

BUILDING WAGE GRADES

Grade Classification	A	A1	A2	A3	B	B1	B2	B3	C	C1
Standard Rates.....	1/8	1/7½	1/7	1/6½	1/6	1/5½	1/5	1/4½	1/4	1/3½
Labourers' Rates	1/3½	1/2¾	1/2½	1/2	1/1¾	1/1½	1/1	1/0½	1/0¼	-/11¾

The following are the gradings of towns in England and Wales. The rates quoted apply to all craftsmen with the exception of those marked with an asterisk, which denotes that there is a differentiation in the rate paid to painters, details of which are given separately at foot. The London rates are :—Within a 12 mile radius from Charing Cross—all craftsmen (excluding painters), 1s. 9½d. ; painters, 1s 8½d. ; labourers, 1s. 4½d. From 12 to 15 mile radius, all craftsmen (excluding painters), 1s. 9d. ; painters, 1s. 8d. ; labourers, 1s. 4d.

THIS IS AN ABRIDGED LIST; THE GRADINGS OF OTHER TOWNS MAY BE HAD ON APPLICATION TO THE EDITORIAL OFFICE OF THIS PAPER.

Aberdare .....A
Abingdon B1
Accrington .....A
Aldershot B3
Alton C1
Altrincham .....A
Andover B3
Anglesey B2
Arundel B3
Ascot .....B
Ashford (Kent).....B3
Ashstead A3
Ashton-under-Lyne..A
Ashton in-Makerfield..A
Aylesbury B3

Bagshot.....B3
Banbury B3
Bangor B2
Barnsley .....A
Barnstaple B1
Barrow-in-Furness..A
Barry.....A
Basingstoke B3
Bath .....B
Beaconsfield .....B
Beccles B3
Bedford .....B
Berkhamsted B3
Berwick.....A2
Bettws-y-Coed B1
Bexhill B2
Bideford B1
Birmingham .....A
Bishops Auckland ..A
Bishops Stortford ..B3
Blackburn.....A
Blackheath .....A
Blackpool .....A
Bognor B3
Bolton .....A
Bordon C1
Boston A3
Bournemouth.....B
Boxford.....C1
Bradford .....A
*Bradford-on-Avon B3
Braintree B1
Brecon.....B
Brentwood A3
Bridnorth B2
Bridgwater B2
Brighton .....B
Bristol .....A
Broadstairs B3
Bromsgrove A2
Buckingham B3
*Budleigh Salterton B2
Burgess Hill B3
Burnley .....A
Burslem .....A
Burstow B3
Burton-on-Trent ...A
Bury .....A
Bury St. Edmunds..B3
Buxton A1
Byfleet B1

Calder Valley .....A
Cambridge .....B
Canterbury B3
Cardiff .....A
Carlisle .....A
Carmarthen .....B
Carnarvon.....B2
Caterham A3
Chalfonts .....B
Chatham B1
*Cheddar B3
Chelmsford B1
Cheltenham .....B
Chepstow A2
Chertsey A3
Chester .....A
Chichester B3
*Chippenham B3
Chipping Norton ...B3
*Cirencester B2
Cleethorpes .....A
Clacton B1
Coalville .....A
Cobham.....A3
Cockermouth B2
Colchester B1
Colne Valley .....A
Colwyn Bay B1
Conway B1
Coventry .....A
Cranbrook.....C1
Crawley B3
Crewe A3
Cromer B3
Crowborough B2

Darlington .....A
*Dartmouth A2
Daventry B3
Deal B3
Denbigh B1
Derby .....A
*Devizes B3
Dewsbury .....A
Didcot .....B
Doncaster .....A
*Dorchester B3
Dorking.....B1
Dover B3
Dovercourt B2
Droitwich A3
Dudley A1
Dunstable B3
Durham .....A

Eastbourne .....B
East Dereham C
East Glam and Mon Valley .....
East Grinstead.....B2
Eastwood .....A
Ebbw Vale .....A
Eccles .....A
Edenbridge B3
Egremont A3
Ely.....B3
Evesham B2
*Exeter A2
Exmouth B2

Fairford (Glos.) C
Falmouth B2
Fareham B2
Farnborough C1
Farnham B3
Faversham B3
Felixstowe .....B
Filey A3
Fleetwood .....A
Flint A3
Folkestone B3
Frinton and Walton B1
Frodsham .....A
Frome B3

Gainsborough A3
Gateshead .....A
Gerrards Cross ....B
Gillingham B1
Glastonbury and Street. B3
*Gloucester .....B

*Gloucester (West of the Severn) B2
Godalming B2
Goole A2
Gorleston B1
Gosport .....B
Grantham A3
Gravesend.....A1
Great Yarmouth ...B1
Grimsby .....A
Guildford B1
Guilsborough B2

Hadleigh C1
Hailsham B3
Halifax .....A
Halton Park B2
Hanley .....A
Harpenden B1
Harrogate .....A
Hartlepools.....A
Hartley Wintney ..C1
Harwich B2
Hastings B3
Hatfield.....B1
Havant C1
Hawkhurst C1
Hayling Island.....C1
Haywards Heath ..B3
Heathfield. B3
Hemel Hempstead..A3
Henley .....B
*Hereford .....B
Herne Bay B3
Hertford B1
Heywood .....A
Hitchin B1
*Hoiniton (Honiton) C
Holyhead B1
Horley (Kent) B3
Hornsea A3
Horsham B2
Horwich .....A
Huddersfield.....A
Hull .....A
Hunstanton B3
Huntingdon B2
Hythe (Kent) B3

Ilfracombe B2
Ilkeston.....A
Ilkley.....A
Immingham .....A
Ipswich .....B
Isle of Wight C
Ivy Bridge C

Jarrow.....A
Jesmond.....A

Keighley .....A
Kendal B2
Kenilworth .....A
Keswick B2
Kettering .....B
Kidderminster A2
Kings Lynn B2
Kirkby Stephen....B3
Knutsford A3

Lambourne B3
Lancaster .....A
Langley Park .....A
Langport C
Laverstock B3
Leamington A3
Leatherhead A3
Leeds .....A
Leek .....A
Leicester .....A
Leigh (Lancs) .... A
Leigh on-Sea B1
Leighton Buzzard ..B3
Letchworth.....B1
Leyland.....A
Lewes B3
Lichfield A3
Lincoln .....A
Lingfield B3
Liskeard B3
Liss C1
Littlehampton B2
Llandudno B1
Llanelly.....A

Loughborough .....A
Louth A3
Lowestoft B1
Luton .....B
Macclesfield A1
Maidenhead .....B
Maidstone B1
Malvern.....A3
Manchester .....A
Mansfield .....A
Margate.....B3
Market Harborough A3
*Marlborough.....B3
Matlock A3
Melton Constable...C1
Melton Mowbray ...A2
Merionethshire B2
Merthyr Tydfil ....A
Middlesbrough ....A
Middlewich A3
Midhurst B3
Milford Haven .....B
Milton-under-Wychwood B3
Minehead C
Monmouth B2
Morecambe A1
Morpeth .....A

Nantwich A3
Newark A3
Newburn-on-Tyne. A
Newbury B3
Newcastle-on-Tyne .A
Newcastle-under-Lyne .....A
New Forest.....B2
Newmarket.....B2
Newport (Mon) ....A
Newport Pagnell ...B3
Newquay B3
Normanton .....A
Northallerton B3
Northampton A2
Northfleet A1
North Shields .....A
Northwich A3
Norwich .....B
Nottingham .....A
Nuneaton .....A

Oakham B1
Oldbury .....A
Oldham .....A
Ongar .....B
Ormskirk .....A
Oswestry A3
Oundle B1
Oxford.....B

Paignton A2
Pangbourne B3
Penrith B2
Penzance B3
Peterborough A3
Petersfield C1
Petworth.....B3
*Plymouth .....A
Ponteract .....A
Pontypridd .....A
Poole .....B
Porthcawl .....A
Portsmouth .....B
Port Talbot .....A
Preston .....A
Prestwich .....A
Princetown B1
Pudsey .....A
Pulborough B3

Queensferry .....A

Ramsgate B3
Raunds B1
Rawtenstall .....A
Reading .....B
Redcar .....A
Redditch A2
Redhill B1
Redruth and Camborne B3
Reigate B1
Rhondda Valley ...A
Rhyl B1
Rhymney Valley...A
Ripon A3
Rochdale .....A
Rochester B1
Romney C1
*Ross-on-Wye .....B
Rotherham .....A
Ruabon A1
Rugby .....A
Rugeley A3
Runcorn .....A
Rushden B1

Saffron Walden ..C1
St. Albans A3
St. Anne's .....A
St. Helen's .....A
St. Ives (Cornwall)..B3
Salford .....A
Saltburn .....A
Sandgate B3
Scarborough A1
Seaford C1
Seaham Harbour ...A
Selby .....A
Sevenoaks B1
Sheerness B3
Sheffield .....A
Shepton Mallett....C
Sheringham B3
Shipley .....A
Shrewsbury A3
Sirhowy Valley ...A
Sittingbourne B3
Skegness A3
Skipton A2
Slough .....B
Soham C1
Southampton .....B
Southend on Sea .B1
Southport .....A
South Shields .....A
Southwell A3
Sowerby Bridge ...A
Spalding B2
Spen Valley .....A
Stafford A2
*Stalbridge C
Staines .....B
Stamford.....A3
Stockbridge C1
Stockport .....A
Stockton-on-Tees...A
Stoke on Trent ....A
Stoney Stratford ...B3
Stourport A2
Stowmarket B3
Stratford-on-Avon...A3
*Stroud B1
Sunderland .....A
Sutton Coldfield....A
*Swanage B2
Swansea Valley ....A
Swanwick .....A
Swansea .....A
*Swindon .....B

Tamworth.....A1
Taunton B1
*Tavistock (Town) .C
Teeside District ..B2
Tenterden B3
Thame B1
Thetford.....B3
Thirsk B3
Thornton .....A
Tonbridge B1
Torquay A2
*Totnes B2
Towcester B3
Tring B2
*Trowbridge B3
Tunbridge Wells ...B1

Uckfield B3
Uttoxeter B1

Wakefield .....A
Wallsend-on-Tyne..A
Walmer B3
Walsall A1
Wantage B3
Ware B1
Warrington.....A
Watton C1
Warwick A3
Wednesbury A1
Wellingborough ...B
Wells (Somerset) ...C
Welwyn.....B1
Welwyn Garden City....A3
Wendover B3
West Bromwich ....A
Westcliffe-on-Sea ..B1
Westgate.....B3
Westerham B2
West Hartlepool ...A
Weston super-Mare B
Weybridge A3
*Weymouth B2
Whitby A2
Whitechurch A3
Whitehaven A3
Whitstable B3
Widnes .....A
Wigan .....A
Wimborne.....B
Winchester B2
Windsor .....B
Wisbech B3
Witney B3
Woking B1
Wolverhampton ...A
Woodstock B3
Worcester A3
Worksop A3
Worthing B2
Wycombe .....B

Yeadon .....A
*Yeovil .....B
York .....A

*PAINTERS' WAGES

	s.	d.
Budleigh Salterton ..	1	4
Cheddar	1	3½
Chippenham ...	1	3½
Cirencester.....	1	4
Dartmouth	1	6½
Devizes	1	3½
Dorchester	1	3½
Exeter	1	6½
Gloucester	1	5
Gloucester (West of the Severn)	1	4
Hereford	1	5
Honiton	1	3
Marlborough ...	1	3½
Plymouth	1	7
Ross-on-Wye...	1	5
Stroud	1	5
Swanage.....	1	4
Swindon	1	5
Tavistock (Town)..	1	3½
Totnes	1	4½
Trowbridge	1	3½
Westbury.....	1	3½
Weymouth	1	4
Yeovil	1	4

SCOTTISH GRADINGS

Aberdeen .....A
Abernethy A2
Annan A2
Anstruther .....B
Arbroath A2
Ayr .....A
Ayton A2

Ballantrae.....A
Balmore .....A
Bankhead .....A
Banknock .....A
Bannockburn .....A
Barrhead.....A
Berwick.....A2
Blairadam.....A
Blair Athol A2
Blantyre .....A
Bothwell .....A
Brechin A2
Bridge of Allan ....A

Calder .....A
Caldwell .....A
Carnoustie A2
Carronbridge A2
Carstairs .....A
Castletown A2
Clydebank .....A
Coatbridge .....A
Coldstream A2
Craithes.....A2
Crieff A2
Culross .....A
Dalmuir .....A
Dalrymple .....A
Douglas .....A
Drumclog .....A
Dumbarton.....A
Dumfries A2
Dunblane and District .....A
Dundee .....A
Dunfermline .....A
Dunoon and District .....A

East Lothian .....A
Ecclefechan A2
Edinburgh and District .....A
Falkirk .....A
Forfar A2

Galashiels A2
Glamis A2
Glasgow and District .....A
Greenlaw A2
Greenock.....A

Hawick A2

Inverness .....B

Jamestown .....A
Jedburgh A2
Kelso A2
Killiecrankie.....A2
Kilmarnock .....A
Kilpatrick .....A
Kirkcaldy .....A
Kirkpatrick A2

Lanark .....A
Leith .....A
Lockerbie A2

Melrose A2
Midlothian .....A
Montrose A2
Muirkirk .....A

Newport .....A
Paisley .....A
Peebles A2
Perth and District..A
Peterhead and District....A1
Port Glasgow .....A

St Andrews.....A
Selkirk.....A2
Stirling .....A
Strathaven .....A

Troon .....A

West Lothian.....A