THE ARCHITECTS' JOURNAL

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BRITANNIA RULES THE WAVES!

Now that the mighty Thames has burst its bounds and has dealt disastrously with the lives and property of England's citizens it might appear that, for the moment at all events, the waves have become somewhat too unruly to be controlled by Britannia's trident.

Land drainage was neglected during the period of the war, and the serious nature of the present floods may be attributed quite as correctly to the inadequacy of human enterprise as to the accidents of heavy snowfall and sudden thaw.

In these technical matters, the penalty of neglect is twofold. It is not only a question of obstruction of waterways by silt accumulated during a score of years, but also of a decline in the common sense and watermanlike instinct on the part of the authorities who have permitted the neglect.

That the man who ignores a danger and puts it out of his mind is liable to be found wanting in the moment of emergency was demonstrated with tragic clearness on the night of the fatal flood in London, for though it has now come to light that a flood was to be anticipated with the crest of the high spring tide, those who were in a position to realize the state of the waters in advance made no attempt to erect temporary barricades along the weak parts of the river wall, nor even uttered a warning to the sleepers in basements below river level when the abnormal height of water was recorded at points nearer the river's mouth. A habit of procrastination of several years' standing held them spellbound; or, if they spoke at all, it was to mutter prayers to Chance that their inertia might not bear its proper fruit.

To Englishmen, who value above all things the virtue of coolheadedness in time of trouble, the night of the flood will be remembered as a night of deep disgrace, of which we who enjoy the privilege of a technical training must bear our share. We have stooped shortsightedly over our drawing-boards so long that our weather wisdom is well-nigh lost. Architectural education goes on from year to year, and becomes more detailed and arduous, but the present tragedy, and the misery of those who live in partially submerged houses, show that it has not yet got to grips with fundamentals.

Abnormal rains and silted watercourses may account for the distress in old, low-lying towns and villages, but the repeated floodings of new suburbs and housing schemes clearly indicate the lack of foresight with which the land was selected and developed for building. An existing by-law which requires the level of the ground floor of a new house to be stated in connection with the level of the sewer, if any, and in relation to the road in front, undoubtedly has reference to the dangers of flooding and the possibilities of drainage, but the clear implication of the law has been forgotten or neglected, and the law itself has been allowed to lapse in several districts newly opened up for building.

It has become a habit to rail at the tyranny of by-laws, and to evade them wherever possible; but while there are many cases in which exceptions may wisely be made under the Town Planning Act and on particular sites, and in special circumstances, it would be a good thing if architects would make a rule of only seeking to obtain exemption from by-laws after they have fully mastered their meaning, and know with certainty that the dangers which the by-laws were designed to meet will not apply to the case in hand. There is a tendency to regard such a question as the drainage of the site as an "extra" unworthy of the architect's serious attention, and many of the estimates for subsidy houses which found their way into the newspapers were for houses without drainage and fencing—as if these trivial matters would come right of themselves as afterthought .

Nothing short of definite rational control of the drainage of this thickly populated land will serve to prevent worse disasters in future, for the consequences of neglect are cumulative, and the obstruction of channels a natural phenomenon.

If rivers are to be retained as rivers and are not to be permitted to silt up into fens, they must be given sufficient systematic treatment at all points that stand in need of it, from watershed to mouth, and those who have followed the elaborate dredging operations that are undertaken in other much more sparsely populated parts of the Empire, and notably in New South Wales, Australia, find themselves astonished at the haphazard methods of Englishmen in the home country. It is, indeed, far more than we deserve that our boast of "Britannia Rules the Waves" still held true on the night of unpreparedness and dismay. The private citizen has once more come to the rescue when the authorities have failed, and Miss Madge Frankeiss, obviously acting with full authority from Britannia, has, by her splendid pluck in rescuing her friends at the risk of her own life in the deeply flooded basement, ruled the waves on her account.

NEWS AND TOPICS

THE NEW UNIVERSITY'S SKYLINE—THOMAS HARDY—AN OLD PRICE LIST—SHAKESPEARE SHADES

ALREADY an interesting discussion has taken place with regard to the possible design of the university buildings to be erected on the Bloomsbury site. At a meeting of the University Union Society, Professor A. E. Richardson pleaded for an external as well as for an internal "shape." On the issue of architectural features he expressed his dislike for domes as useless and wasteful. On the other hand, Sir William Beveridge has suggested that the new buildings should contribute a "skyline." This surely demands more than a mere façade. It is to be hoped that the authorities of the university will recognize that, with modern building resources, features of architectural beauty can be designed that are not wasteful, and at the same time will add to the architectural treasures of London.

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In the New Year several questions have arisen that demand the immediate attention of the Council for the Preservation of Rural England. A fortnight ago I instanced the case of Stanmore, where a beauty spot was threatened with disfigurement by shops. This example may, indeed, lead to a revision of the town planning regulations issued by the Minister of Health. Similarly at Osterley, the semi-rural district lying between Ealing and Hounslow, local residents who bought their property relying on the local town planning map to protect amenities, now find that a business centre is to be erected. The truth is, of course, that town planning, until the scheme has been finally passed, provides little or no protection to property owners. Schemes may linger on for ten or twenty years, and while they are in their preliminary and interim stages local authorities have absolute power to alter them without even advertising the proposed changes, or meeting local residents. The Minister of Health can only advise them to work without undue secrecy.

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Many who have seen recently the Palace of Westminster from Whitehall and Trafalgar Square must hope that before long the top of the central tower will be replaced. The delay is due to the indecision of Lord Peel, the First Commissioner of Works, in choosing the stone to be used for carrying out the scheme of necessary repairs to the Houses of Parliament. Until this is done it is, of course, impossible to commence operations on the central tower. When Sir Frank Baines was Director of Works, his department selected Stancliffe stone as probably the most suitable. Others, of course, urge that Portland stone should be used, although this would be conspicuously different from the existing stone. However that may be, the proposal of Stancliffe stone has been referred to the Fine Arts Commissioners to see if they have any objection from the æsthetic point of view. Dr. Stradling, and experts of the Building Research Station of the Department of Scientific and Industrial Research, are also being consulted as to whether they consider that the proposed stone would mingle with the existing stone without unfortunate results. The whole matter has been so delayed that it is little wonder that various rumours are now in circulation, and we hope that Lord Peel will act so that as soon as possible the Fine Arts Commission and the Building Research Board should provide him with full reports that may be made public.

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A question of considerable interest to architects has just been raised in Sheffield. The Education Committee, on which there is a Socialist majority, gave permission to the city architect to erect a new Council School by direct labour, at a cost of £32,000. It has, however, been admitted that there were twenty-one tenders received, and that two of these were lower than that submitted by the Council Direct Labour Department. One tender received from a reputable firm of Sheffield contractors was admitted to be in order, and was for £30,889. With the local aspects of this controversy we have, of course, no immediate concern. But this decision is of national importance. For if local authorities, in cases where there is a Socialist majority, a municipal architect, and a direct labour department, adopt such a policy as that of Sheffield, building contractors may well fear that their tenders are simply being used as a check on the Council's estimate. Consequently they will refrain from tendering, and this will result in an increase of building costs. There should be fair competition. Otherwise the whole basis of the building industry, on which the architectural profession depends, is likely to be undermined by Socialistic experiments conducted at the expense of the ratepayers.

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It is fitting that a testimonial fund has been opened by the Mayor of Fulham for presentation to Miss Marjorie Franckeiss in recognition of her heroism on the night of the flood, and though courage cannot be measured in terms of cash, I hope that a good round sum will be collected. London has been badly let down for want of moral courage and presence of mind on the part of those who watch the tides and who could not find voice to pass along a warning in time for people in underground rooms to be saved, even if no other measures of relief or protection could be afforded. In contrast to the apathy of the men, Miss Franckeiss showed herself packed full of moral and physical pluck, both to do what needed doing and to resist the temptation to think of "safety first" when friends with a rope dangled it like a bait before her. Above all, like the superman of Kipling's "If," she kept her head when so many people between Southend and London must obviously have lost theirs. She has provided a radiant spot of light in a particularly dark and discreditable affair, and has given a lead to all those who are in any way concerned in the question of land drainage. If there is any testimonial more fitting than another to offer to this young heroine, it would be a well-co-ordinated scheme for the prevention of floods in future, and as this is a subject which bristles with mutually antagonistic interests, jealousies, and prejudices, where goodwill can mean so much towards a satisfactory settlement, all parties might find a common ideal in the self-sacrifice displayed by Miss Franckeiss, who has saved our national reputation for collected courage and presence of mind just when it seemed gone past redemption.

The Carron Company was established, I believe, in 1759, and the Carron Company send me a reproduction of a very old price list—a price list issued by the company over a hundred and fifty years ago. The rapid development of artillery in the eighteenth century must have diverted the energies of many smiths into the manufacture of ordnance, and the last column of the Carron list is devoted to it. But how little things change in the building trade! Under the heading "Joiners', Coopers', and Carpenters' Works," is there a tool there named not used today and not called by the same name?—though coopering, to be sure, is now a dying trade, and very little work is done with the adze. I spent an hour over this price list, my curiosity sending me to turn up old books.

GOODS

Manufactured and Sold by Carron Company, at their Works at Carron, North-Britain.

Ironmongery.

POTS and PANS

Utenfils for Dying and Aquafortis Works.

SAND BOILERS

Machinery and Mill Work.

WHEELS and Pinions

Sugar-Works.

SUGAR PANS in Sand

Engine and Salt-Works.

GINN WHEELS

Husbandry.

FIELD ROLLERS

Ship Work.

SHIP-HEARTHS

GOODS for Exportation.

FRENCH POTS

BREWERS and Soopery Works.

SQUARE VATS

Joiners, Coopers, and Carpenters Works.

JOINERS ADZES

Smith Work.

ANVILLS

Glafs-houfe Work.

UTENSILS for Forges.

FORGE HAMMERS

ORDNANCE, viz.

CHORNS proved

Carronade Swivels proved

Carronades Viewed and proved, viz.

Carriages and Stands complete for Carronades, &c.

Carriages and Stands for Carronades completely fitted up with Trucks, Axles, and Brotherlog Bolts, &c.

Extra Iron Work on Carronades, &c.

Guns of Light New Construction Viewed and proved, viz.

Guns of Government Pattern proved, viz.

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The main facts of the life story of Thomas Hardy have now been told again and again. His first choice of a profession was architecture, which he studied in Dorchester and later in London, where he won prizes. Years later he designed his own house, "Max Gate," but in youth his greatest interest lay in making drawings of the old churches about England in those days when restoration was much in vogue. And during those years, perhaps, while he spent many a long and lonely hour, under all lights and weathers, in empty churches and remote churchyards, he acquired something of that sense of the briefness of life and the mortality of human flesh which pervades his work in poetry and in prose.

* * *

But while he was a student and an architect he was working hard, alone or with a friend or two, at the literature, classical and modern, which his schooling had denied him. He must, as his works reveal, have studied other things as well: astronomy, music, even theology, among them. And he resolved that, though architecture might be his profession, poetry was his true work. But then, as now, poetry was no profitable field for a young man without means; and no doubt forces that he himself could not recognize were pushing him into the right way.

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Hardy's novels and poems were a rendering of the most familiar things in the English landscape—of church and alehouse, of the handicraft of ditcher and thatcher. And the village is, after all, a better mirror of human life than the town; at all events, we see clearer by it and much farther into the bygone time. On the remote day when I first read a book of his (whether it was *Far from the Madding Crowd* or *The Return of the Native* I do not now know) there was the thrill of an interest unexhausted by the events or even the poetry of the story, and rare in English fiction. It was stirred by the conveyance of an idea; or rather by a new sense of woven destiny and a perspective that related human passion and outer nature with a power unfelt since Wordsworth's, although in a different key.

* * *

Shade of Benson (Prince Edward): "Did Master Unsworth build that place, my lord?"

R. Atkinson (Buckingham): "He did, my gracious lord, begin that place; which since, succeeding ages have re-edified. . . ."

Shade of Shakespeare (Richard of York): "What! will you go unto the tower, my lord? . . . I shall not sleep in quiet at the tower."

The Architect (Gloucester): "Why, what should you fear?"

Shade of Shakespeare: "Marry, my author Bacon's angry ghost; my grandam told me I'd be murder'd there."

See "King Richard III," act III, scene I.

ASTRAGAL

ARRANGEMENTS

WEDNESDAY, JANUARY 18

At Royal Society of Arts. 8.0 p.m. "Methods of Radiant Heating." Paper by Arthur Henry Barker.

MONDAY, JANUARY 23

At the Royal Institute of British Architects. R.I.B.A. General Meeting. President's Address to Students.

MONDAY, JANUARY 30

The Architectural Association. 7 p.m. "Architectural Books." By Robert Atkinson.

THE SHAKESPEARE MEMORIAL THEATRE

[BY OUR COMPETITION CRITIC]

"THE promoters desire a building simple, beautiful, convenient . . . in any style which will harmonize with the spirit of the building and the architecture of the town of Stratford." In these words the assessors indicated to the competitors the nature of the undertaking upon which they were embarked. In a spirit of liberality they demanded the best; not any particular best, but the most individual best that any one could offer, and this without any hampering qualifications of style or construction.

What was implicit in the term convenient will be unfolded later, but before these practical considerations are set down, it would be well to understand the peculiar nature of the site which made it necessary to stress the importance of the relationship between the proposed theatre and its surroundings in the town of Stratford.

The site is quite simply a river meadow, unbuilt upon because of seasonal floods. It is only removed by the height of a gentle grassy bank from the face of the river, and, lying between river and town, belongs rightly to neither. On the land side it is bordered by a string of little cottages in brick and whitewash and red-tiled roofs, and these, the outposts of the town, merge imperceptibly into the ruddy background of the roofs of Stratford, which appear from here as an undulating landscape of warm tones. About all these little buildings, and in the church towers that break up from the surface of the roofs, there breathes an air of tranquil antiquity and sturdy local character not entirely to be disregarded in the design of the theatre, but to be treated with the respect proper to age. The old theatre is an example of the horrid fate that awaits the sentimental designer, and, perhaps, a disregard of this essential character of the local architecture would be a fault if carried out in this winning design.

Apart from the question of texture and colouring, the conditions imposed by the flatness of the site and the slow swing of the river, which is broad at this point, are of governing importance. The meadows are, after all, more of the river than of the land, and most certainly to disregard the river, making no attempt to incorporate it with the gardens or with the building, is to lose half the value of the site.

The actual requirements of the theatre indicate a building of a type never before contemplated in this country. Accommodation is required for an audience of 1,000 disposed over a ground floor and two galleries, with a few boxes and a royal box and ante-room. This is the small audience of an "intimate" theatre, but the stage, to be at least 50 ft. in depth and as wide as possible, is the fully developed stage of a theatre capable of performing Shakespeare in any fashion that future generations may approve. To do this it must be adaptable to the uses of a Greek, an Elizabethan, or a normal picture stage. The retention of what was left of the old auditorium, remodelled as a conference hall was made a condition of the programme, and it was suggested that the new theatre be planned so that the two stages lay back to back and could be amalgamated to increase the depth of either, adding thereby a real element of distance or vista to the scene. Dressing-rooms, green room, rehearsal rooms, large wardrobe and stores—all on a generous scale—complete the accommodation behind the proscenium; and for the rest, the public foyers, corridors, and staircases are to be liberal, to be promenades more than corridors, and to be governed by happy social standards and not police regulations. In addition, offices are needed for the management and directors.

Suggestions were invited for the tentative layout of the grounds, treating the canal basin as an ornamental pool, with perhaps a bridge approach.

These, briefly enumerated, are the conditions out of which have arisen the six designs selected to compete for first place, from among which Miss Scott's design emerges deservedly victorious.

The assessors, in their report to the governors, "consider that design No. 3 in its general conception, in its acceptance of the site difficulties and their solution, and in its architectural character, shows great ability and power of composition. It has a largeness and simplicity of handling which no other design possesses. Its general silhouette and modelling to fit the lines of the river are picturesque and the character of the design shows consideration for the traditions of the locality; if any criticism is offered, it would be that brick for the external facings would be warmer and more harmonious with the general aspect of the town, and would at the same time be more economical.

"The general layout of the site is admirable. The new Bancroft Gardens are made to lead up to the buildings very successfully, and parking spaces for cars are provided as suggested in the conditions. Good river terraces, steps, and approaches are also incorporated: the treatment of the river being one of the great features of this scheme. The central approach across the gardens might be omitted, as it appears to cut the ground up rather needlessly, and the carriage approach to the main entrance is not ample enough and needs fuller consideration.

"Internally, the scheme gives substantially the requirements asked for, the stage being admirably arranged and the sighting and planning of the auditorium satisfactory. The assessors do not need to specify the details of the scheme, as the drawings will be able to express themselves, but they would point out one or two features where improvements could be effected. The duplication of foyers and refreshment rooms is needlessly extravagant. The boxes as shown are too large, and their approaches too spacious. Some of the staircases do not comply with theatre regulations, in the fact that they have no external lighting. The gallery pay-box and approach might be better if planned farther away from the main entrance."

This winning design is better than all others because Miss Scott has assimilated more completely than her competitors the numerous conditions imposed by the requirements of the theatre and by the nature of the site. The adaptation of the fan-shaped auditorium to the fan-shaped site is a piece of intuition that, once seized upon, and being found right and fitting, has strengthened, co-ordinated, and given life to the orderly and logical marshalling of the lesser parts of the building. This logical, this nearly sober expression of function gains on the imagination as one examines the model in detail. There are the parts plainly to be seen; the stage block, uncompromisingly rectangular, the auditorium, with its spreading lines governing the direction and feature of the whole, foyers, staircases,

dressing-rooms, and entrances. It is all very simple, and let me say it now, all very complicated when it comes to the point of making it so ! What is simple in the design is attributable to no easy simplicity, but springs rather from a constant subjection of every detail to the governance of one idea, without which the building could not hope to preserve its peculiar unity of design, or achieve the air of being one work of art despite its extreme irregularity of modelling. From oblique viewpoints it is likely that the orientation of the design will be lost in complicated lamination of forms about the sides of the stage tower, producing an effect of nearly grim medievalism, which, translated into stone, would be too machine-like for the pleasant landscape, but in brick—exactly fitting. This tower must have been a very trying problem for most competitors. It is heavier, squarer, and taller than any other part of the building, and produces the impression that the smaller parts are built against it, or circle round it, as the outer works of some Edwardian castle surround the central keep. If it could be given some definite direction, this tendency might be averted.

The garden layout is so intimately linked up with the building, and this again with the line of the river, that one can leave to the assessors any small criticism of detail, feeling confident that the main lines are safely laid down.

The planning of the theatre itself is simple. From the fan-shaped auditorium and parallel wings spring all the virtues of economy and simplicity. Having no awkward voids to fill with stairs, or bulging auditorium to squeeze into a box-like container, a simpler disposition of parts has allowed a liberality in the apportioning of space, which I hope may not suffer diminution in process of study. Compared with similar theatres in Germany there is none too much public space.

In all ways it is a plan that is worth studying, first as a theatre pure and simple, and secondly, with even greater emphasis, as an excellent example of thoughtful site planning.

All the others lack the heart-warming qualities of the winning design. By comparison with them Miss Scott's simplicity is provedly subtle, and her intuition and logical application of thought nearly uncanny. Mr. D. F. Martin-Smith has caught at a style, but missed form. His building is rectangular, the width of the stage tower for the greater part of its length, but wider towards the north end by a foyer and elegant staircase block overlooking the river. The auditorium is contained within a rectangular box, barely expressed in elevation, and for the rest a great deal of space is sacrificed to a promenade extending round three sides of the auditorium. Dressing-rooms, etc., are placed over the conference hall, where they must be mainly top lit, which, in such beautiful surroundings, is sad for the players. Here, again, the great stage tower even more starkly dominates the design. From the riverside it is seen to be connected in one unbroken surface of brick with the auditorium walls, suggesting, thereby, that the foyer was divorced from the main block, an addition of a later and more romantic period. The total effect once more is medieval and suggestive of mixed military and civil architecture, because it is so hard to believe that the long and graceful windows of the riverside foyer are in any way integral with the solid walls against which the small building appears to be built.

There is in this design little invitation to the river to join in the adornment of the building. Steep embankments keep it severely at a distance, and only one little circle of steps thrusts out a tiny arm towards it. In other ways the planning of the gardens to form a setting and approach is barely outlined.

The design of Messrs. Percy Tubbs, Son and Duncan, and S. Rowland Pierce, associated competitors, is a robust piece of work, but out of scale and harmony with its surroundings. It is a theatre for the city and it has not the character of a memorial. It marks no advance in the art of theatre planning, because it repeats on an ideal site what, through long association with bad sites and worse finance, theatre designers have come to regard as the right and conventional thing to do. Its elevations assume a seeming vertical character, engineered entirely by the aid of long vertical windows, which are cut in the tall face of the nine-sided auditorium. They do not attempt entirely to disguise the floor levels, which are carried through as bands of recessed brickwork. Despite these, the mass of the building overwhelms any suggestion of lightness, for it is the corners of a polygonal figure that register its character as heavy or light, and not what you choose to do in the centre of the panel.

The building is definitely cut off from intercourse with river or garden by a rusticated base, multiangular and strongly battened. This is continued on the garden side, and is finally lost in the bank that slopes from the river to the approach roads.

Of two of the American final designs I have only a single photograph to go by—the first, by Mr. Robert O. Derrick, being an elevation, and the second, by Messrs. Mohr and Moscowitz, a perspective.

Both of these competitors have indulged themselves with a deal of sentimental yearning. Pictures of merry, feudal England have passed before their eyes, and the shade of honest Will Shakespeare, the bard of old Stratford-on-sweet-old-world-Avon, has directed their hand towards a volume of English homes. The result, in the first, appears as a sort of *potpourri* of mixed sweetnesses, Compton Wynyates predominating. It lacks but a stag in the foreground and a touch of snow on the roofs to be pure Hollywood. The second draws from a later period for inspiration and achieves a monastery-like edifice, built on a riverside and standing in its own well-timbered grounds. It is a gentleman's residence and never a theatre !

With Mr. Albert J. Rousseau we return to a serious consideration of theatre design; and it must be said for this design that, though its character is patently wide of the requirements, it is, nevertheless, a more than competent piece of theatre planning and explores some useful possibilities of the site. The plan is in the grand manner, very spacious, with good staircases, imposing foyers, and well-shaped auditoriums. It is, as nearly as can be, symmetrical, and a monumental symmetry has been aimed at with a good deal of success. At sight it would look more like a great tabernacle, or one of those temples of mysterious rites, than a theatre, but this would be less marked in Michigan than Stratford.

We may be thankful that the winning design breaks the cast-iron mould of theatre tradition. It would have been a blow to the real progress of architectural design had a stylistic building been allowed to fill the site. The last ill-fated structure should have been a warning to all sentimental competitors that any resuscitation of dead forms for the purposes of a live theatre is pure waste of time. Actually, I fancy that the winning design will be more in keeping with the town of Stratford, for being less consciously than most a memorial to Shakespeare.

D

A QUADRANGULAR SCHEME

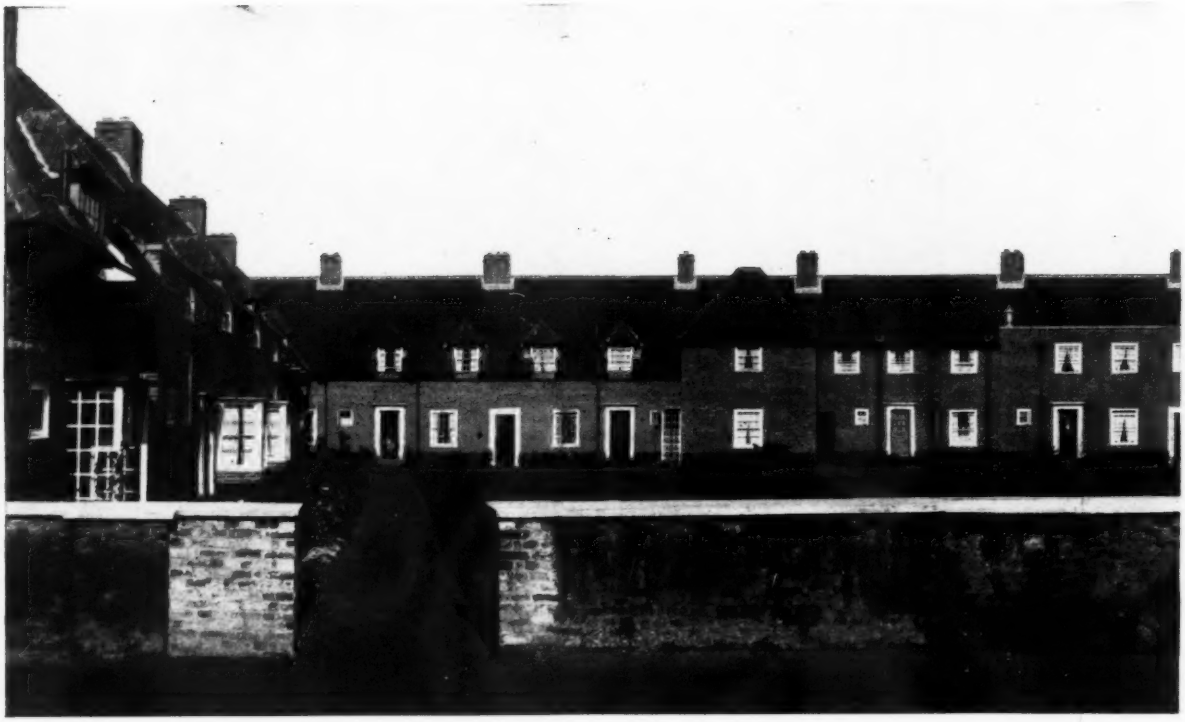
[BY E. MAXWELL FRY]

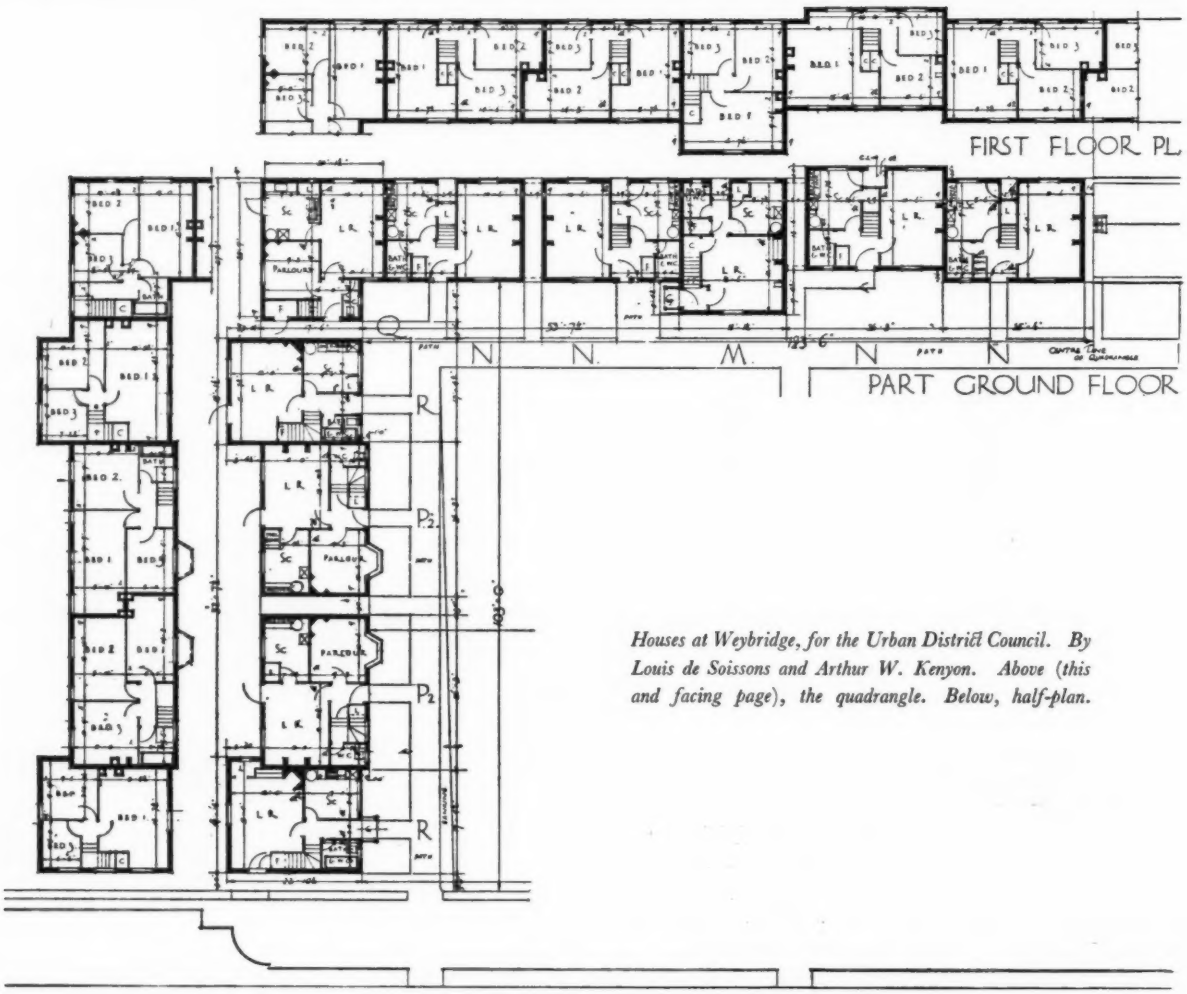
TEN years ago, when we started, under new legislation, to make up the deficiencies of house building, the architect was in clover. Under the eye of a kindly Government he created as hard as he could go a series of beautiful schemes that left their mark and set a standard. The work was well done, the Ministry was wisely munificent, and the standard was higher than it has ever been since. The architect was in clover then, but now he ruminates outside in the lane, for the Government regretted its munificence; for less money and still less it demanded more and still more little houses, which houses, under pressure of such demands, grew squarer and leaner and less to the liking of the waiting applicants. Moreover, those who built and others beside began to understand, or to think they understood, how the thing was done. A few rudimentary points sank home as it became recognized that the sordid old rows of artisans' dwellings were to be replaced by villages spread out at twelve houses to the acre and only a few in a block. Thought the onlookers, this is fairly easy. We could plan cottages as good as these and better, and the elevations are a deal too simple to trouble us. And so with these few facts to play with, and being men of action, they started in, and the speculator, the developer, and the local surveyor began to build.

Once started they had no occasion to look back. Actually they looked neither forward nor backward and not an inch further than the ends of their noses. They built like furies, built to sell on the spot, built down to their public, built cheaply, on the whole badly, but most unfortunately built to build again. So prolific was the multiplication of their abominations that, now that the first million houses are up, we can see how the schemes that inaugurated the era of building are swamped in the flood of bad and at best mediocre work. The truth is, then, that the ordinary, unthinking speculative builder and the workaday surveyor are doing easily work that gave architects furiously to think. The builder usually erects sinful parodies of other men's work; and the surveyor, lumbering along in the groove made for him by official precedent, usually puts up mean little blocks of cottages, conceived out of a series of irreducible minima, and scattered like dominoes, facing a hundred different ways. They cannot help it. The world is full of people who are not artists; who cannot envisage the aspect of buildings as yet unbuilt; who cannot criticize, or observe, or accumulate one jot more than the very practical or the financially worth while. The pity is that they should have it in their power to do so much, knowing so little how best to do it, and a further pity that I should have to work the fever of them from my mind before I can think quietly of this lonely little village formation at Weybridge, which Messrs. Louis de Soissons and Arthur

Housing scheme at Weybridge, for the Urban District Council. By Louis de Soissons and Arthur W. Kenyon. A boundary wall, with cottages.

Housing scheme at Weybridge, for the Urban District Council. By Louis de Soissons and Arthur W. Kenyon. Above, view looking from the open space across the road to the old garden boundary wall, which was cut down and used as a setting to the quadrangle. Below, cottages on the approach road to the quadrangle.





Houses at Weybridge, for the Urban District Council. By Louis de Soissons and Arthur W. Kenyon. Above (this and facing page), the quadrangle. Below, half-plan.

Houses at Weybridge, for the Urban District Council. By Louis de Soissons and Arthur W. Kenyon. The quadrangle. This illustration will be found to complete that shown on the facing page.

Kenyon have caused to blossom like a flower out of its season.

It lies on the lowest slope of ground that falls towards the flat valley of the Thames. The higher ground is well wooded, while towards the river the aspect is open and rather bare. The plan shows how the roads run in the direction of the contours, with an open space in the centre, created to form an approach to the most important feature of the scheme and to be a pleasant centre of communal life in the summer time. The feature of which this forms the background is a composition of cottages planned to surround on three sides an open quadrangle, which, on the fourth side, is bounded by a low wall not high enough to interrupt the view from the village green, yet definitely emphasizing the note of aloofness which here, as in the college quadrangle, the cloister, and the almshouse garden, charms us with a suggestion of peacefulness and rustic security gathered away from the world.

Actually, the cottages are built within the walls of an old garden that stood on the site of the still older grounds of a Tudor palace built by Henry VIII. The high old walls must have seemed to the architects too good to lose; on plan perhaps they were suggestive of manipulation, and ideas began to rise. Their successful incorporation into so small a scheme is a masterpiece of ingenuity and a splendid reward for the thinking involved. It might be reasonable to suppose that it was the unbroken line of the walls on plan and elevation that suggested and made possible the unbroken line of the cottage roofs and the peculiar " oneness " of the group which is, I think, nearly unique among housing schemes. It has actually been done before, and done on a larger scale by Messrs. Adshead and Ramsey in the Kennington estate, but the parallel is not exact, and there does not exist for a rural housing scheme the same sort of precedent. Most architects have felt the need at one time or another of combining the tiny units that go to make up a housing scheme into compositions susceptible of finer modelling. They have closed vistas down short roads so as to produce an effect of a continuous design; they have built walls between the little blocks to carry the rhythm over a wider grouping; they have evolved the cul-de-sac as much with this intent as from motives of economical development, and they have done everything except built continuously, and against the early principles of the art, as this quadrangle is built. In this it is a new departure, though we can summon to mind a dozen almshouse quadrangles that would be precedent for even longer blocks than these.

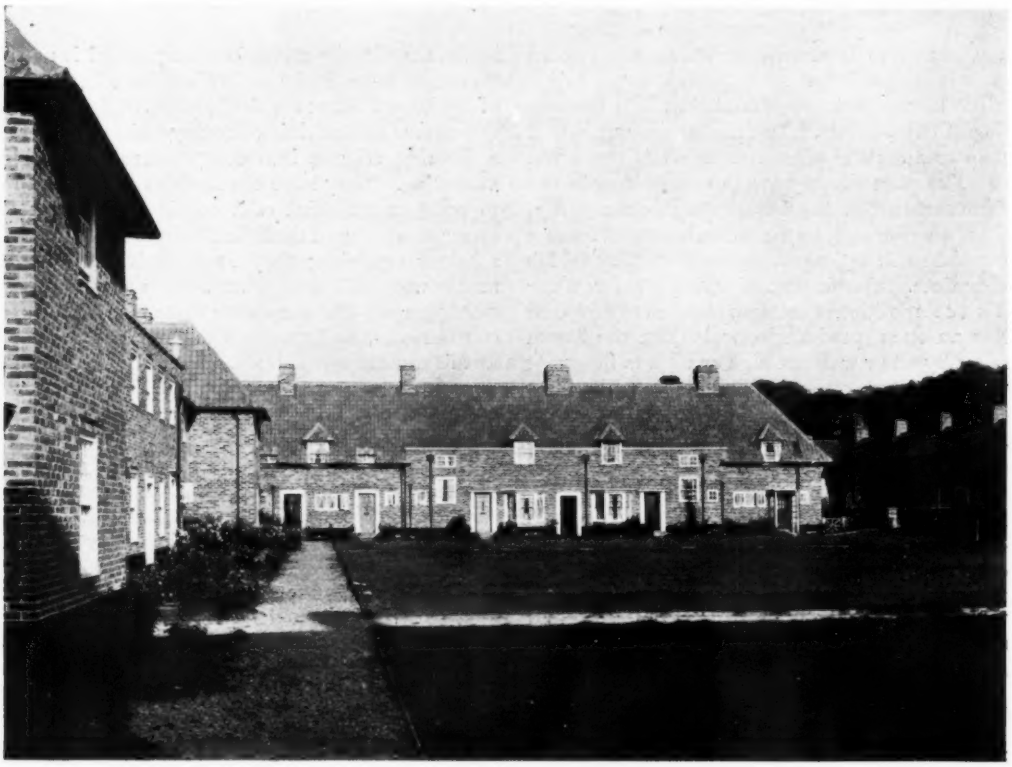
I feel sure that its character is of the almshouse rather than of the Georgian square, and I resent the intrusion of stone coping and urns in the central motifs. They are out of harmony with the low eaves line and dormer windows, and in face of the bold line of unbroken ridge nearly minor impertinences that could never hope by superiority of wall area to master such dominant factors as roofs and hips. This urban note is stressed nowhere else in the scheme, where the cottages are uncompromisingly rural with their upper story and dormer gables weatherboarded. Against the bare branches of the November trees these little blocks seemed more fittingly designed than any I have seen. They will grow old beautifully and be a joy always.

Walking about the village, and surprising its charms, it became evident that very many of them were the result of a very careful sense of the existing landmarks, of trees,

walls, and ground configuration, not from this alone, but from the sympathetic choice of the materials employed; and from a study of the needs of the inhabitants, who are to live here in their successive generations for long years to come, has been evolved the happy feeling of well-being which characterizes this little community.

It is just this sort of understanding that the jerrybuilder and in great measure many local surveyors lack.

As you leave the site you can make the comparison. There, cheek by jowl, with all that is lovely in cottage building, you will see cottages in course of erection exhibiting all the faults of vulgarity, cheap snobbery, blind disregard of site, locality, custom. They are the outcome of ignorance; and how the feverish activity which brings them about is to be turned into other channels or disciplined by some universal canons of taste, I don't know. A hundred daily papers applaud their daily depredations on the rapidly disappearing features of English rural landscape.

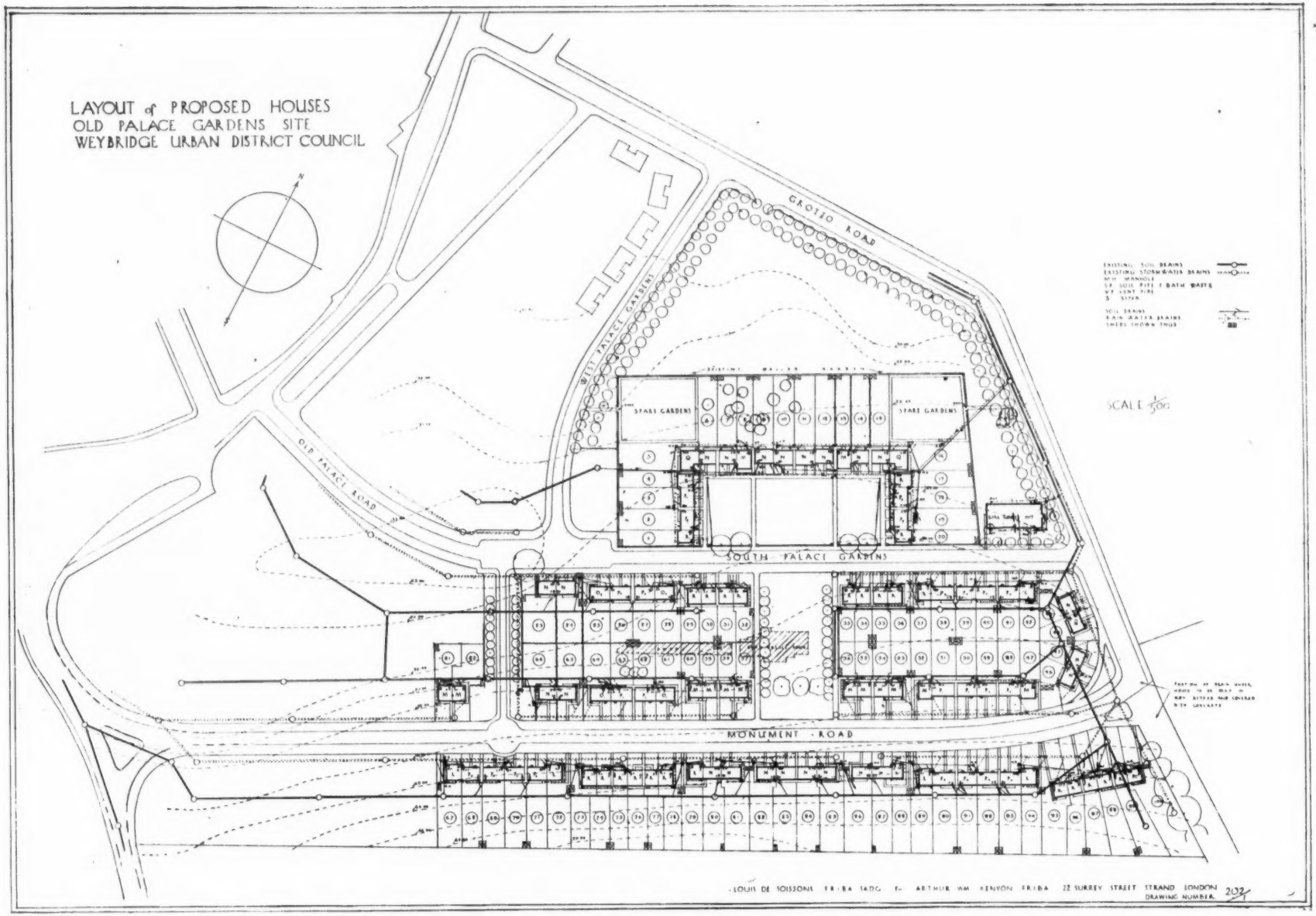


Housing scheme at Weybridge, for the Urban District Council. By Louis de Soissons and Arthur W. Kenyon. Above, one of the short arms of the quadrangle. Below, looking down the long side of the quadrangle, showing the lawns and cottages on the other side of the road.

Housing scheme at Weybridge, for the Urban District Council. By Louis de Soissons and Arthur W. Kenyon. Above, detail of the long side of quadrangle. Below, detail of angle of quadrangle.

Housing scheme at Weybridge, for the Urban District Council. By Louis de Soissons and Arthur W. Kenyon. Above, back elevation of the long side of the quadrangle, showing fenestration for the scheme. Wooden sash and casement windows and metal casement windows were freely mixed so as to obtain a variety of effects. Below, front elevation of a block of four cottages.

Housing scheme at Weybridge, for the Urban District Council. By Louis de Soissons and Arthur W. Kenyon. Above, the back elevation of a group of cottages. Below, view showing the utilization of a row of existing trees.



Housing scheme at Weybridge, for the Urban District Council. By Louis de Soissons and Arthur W. Kenyon. Layout plan.

Housing scheme at Weybridge, for the Urban District Council. By Louis de Soissons and Arthur W. Keyon. Layout plan.

WORKING UP A BILL OF QUANTITIES: I

[BY ARTHUR J. WILLIS]

The subject of working up a bill of quantities is only briefly dealt with in the usual text books, which naturally concentrate on the more important part of the quantity surveyor's work, viz. the taking-off. Lack of care or bad organization, however, in the working up of a bill may easily result in confusion or waste of much valuable time. Experience is no doubt the best instructor, and will always remain so, but it is often attained at the expense of mistakes, wasted time, and unnecessary trouble which could be avoided by a little forethought and study of the subject. These articles are intended to offer the reader who understands the elementary principles such hints on points as have arisen in practice as might be found useful, and to put forward suggestions as to certain matters of detail which appear to be dealt with in different ways.

WORKING up a bill of quantities is the collection and classification of the dimensions as measured from the drawings in such a form that each item can be conveniently priced and an estimate for the whole work calculated. It divides itself into two main sections—abstracting and billing. It is difficult to lay down absolute rules on this subject as every surveyor has his own particular methods, each with its own advantages. There are, however, accepted general principles, and it is the intelligent application of these principles to the particular case which makes the worker-up something more than an abstracting and billing machine.

In nothing is the maxim that every rule has its exception more true than in the quantity surveyor's work, and a breach of many rules is justified under certain conditions. One is always taught that, when dealing with items of a similar nature, cubes precede supers and supers precede runs. Yet the first measured item in many bills is a superficial item of excavation over the site preceding cube excavation. This is apparently due to custom, the stripping of the surface soil being in the nature of preparatory work. Rule or custom must not be lightly set aside in such a way that the standardized principles of a bill of quantities are endangered. There must always be a certain amount of standardization, so that a surveyor's bill can be easily intelligible to the architect or builder who has no knowledge of the individual surveyor's particular methods.

The worker-up must always bear in mind the primary object of a bill of quantities, namely, to define the labour and material required in the execution of building work, in such a way that the builder's estimator can clearly understand what work is required, and can arrive at an accurate estimate of the cost of each item as quickly and easily as possible. It is evident therefore that accuracy of the figures and completeness and clearness of the descriptions are essential. As far as the worker-up is concerned the first is a question of mathematical accuracy which can only be ensured by careful checking of each calculation, the second can only be attained by the use of clear language backed by common sense and a thorough understanding of building construction.

THE DIMENSIONS

Preliminary Examination. It is very rarely that an abstractor is handed the complete dimensions when he starts his abstract. The surveyor is generally so pressed for time that he must have the work of abstracting begun before the dimensions are completed. If there are several takers-off working together there may be several workers-up to deal with their dimensions. It will be seen therefore that the abstractor may have only part of the dimensions from which to prepare his abstract, and he may only be concerned with part of the abstract. Before making a start, the abstractor should form a general idea of the nature of the building and of the chief items he is likely to meet, as this will help him considerably in setting out his sheets. To enable him to do this he should have access to the drawings and look through the dimensions given him. He should then consult the taker-off as to such work as has not yet been measured. A sense of the proportion of the various trades which he will thus get will help to prevent overcrowding of the abstract. He will not prepare for a large quantity of, say, fir in floors and roofs, and afterwards find that the building has concrete floors and flats with practically no carpenter's work at all.

Numbering Dimension Sheets. The next step is to see that the dimension sheets are systematically numbered. Some surveyors prefer to number each page, others each column, so the custom of the office will be followed. If the whole of the dimensions are available the numbering is simple. Complications, however, arise when only part of the dimensions are completed, and that part not what is usually regarded as the first part. In such a case there are several alternatives:

a: The sheets may be numbered through consecutively in the order in which they are received.

b: The sheets may be divided into sections according to the part of the building they represent, e.g. foundations, floors, roofs, etc.

c: Each taker-off's sheets may be numbered consecutively and marked with a distinguishing letter.

a is not to be recommended unless the sheets are in an order suitable for binding up or can be easily indexed.

b is often convenient, as a taker-off can generally hand out his sheets in batches to correspond with the sections of the building, and the sections can be rearranged when binding up. The only disadvantage is that in referencing a distinguishing letter must be prefixed each time to indicate which section the item refers to, and an explanatory schedule of such letters must be made on the first page of the abstract.

c again needs a distinguishing letter and explanatory note.

Index to Dimensions. In any case it is essential when the dimensions are complete that an index should be prepared so that any portion of the work can be easily referred to. It will be found convenient if the dimensions with index are bound up in a limp cover before the surveyor has need to refer to them for the adjustment of variations. They are much easier to refer to when in the form of a book, than when tied with tape or string.

Squaring the Dimensions. The squaring of the dimensions will probably have been done by a junior, but the abstractor should make the casts himself, or at any rate check them. It adds considerably to the clearness of the figures if all casts in the dimensions are kept clear of the squaring column (and preferably made in a different coloured ink to the squaring), e.g.:

3 0		
2 6	7 6	
4 0		
6 0	24 0	
5 0		
2 3	11 3	
		42 9

If the cast is kept in the squaring column and the dimensions are at all cramped, confusion is likely to arise.

Checking Calculations. To ensure the elimination of any mathematical error, all extensions and casts on the dimensions must be carefully checked. Everyone makes mistakes, but the chance of a mistake being checked by a second person and not discovered is small, if the checker does his work properly and not mechanically.

THE ABSTRACT

Spacing. The first thing to do in setting out the abstract or that part of the abstract in hand is to decide on the space to be allowed for each trade. This can only be gauged by experience

or reference to old abstracts of previous work of a similar nature. An abstract of a bank building which has a lot of detail in plaster work and joinery will be very different from that of, say, a factory which is nearly all brickwork and concrete. To allow too much space is always a fault on the right side. To try to save paper is a false economy, because a crowded sheet of abstract is very likely to lead to errors. Something that is jumbled up with another item may get missed, or casts and reducing may get muddled. The time saved by the biller in billing from a well-arranged abstract will pay for the extra paper many times over. If part of the abstract is getting cramped it should be re-written, and an additional sheet inserted if necessary. The sooner this is done the better, but it should not be done after any part of the sheet to be cancelled is checked, unless the checking is again very carefully done on the new sheet.

Headings. Every sheet of abstract should be properly headed with the name of the job and the trade. The first sheet should also bear the date, and a list of any abbreviations used in referencing.

References. *Every dimension on the abstract should be referenced to the dimension sheets.* The little extra time spent by the worker-up in doing this is invaluable to the surveyor adjusting variations. It is equally invaluable in these days of economy in preparing the reduction bill which so often follows tenders in excess of the anticipated outlay. It is absolutely imperative if the specification has to be written afterwards by someone who has not taken off the whole himself. A great help in keeping reference figures away from the dimension figures is to have the paper ruled with a special narrow column on the right-hand side of each wide column. The two sets of figures will be further separated by the tick of the checker, which should come between them, and if this is in red ink there should be no confusion in casting up.

4230.4 √ 320
265.3 √ 345
132.1 √ 356

Order. The subject of order in the abstract will be dealt with in the next article, as it is closely connected with order in the bill.

Arrangement. In setting out the abstract, a neat arrangement is important, but the expenditure of a lot of time in ruling lines is not warranted, as the art of drawing neat freehand straight lines of the short lengths required is not difficult to attain. Carefully written and placed figures are much more important. It may be an elementary principle to emphasize, but it is important that the digits should be properly set out under each other, as otherwise it is not difficult for the hundreds to be mixed with the thousands in casting up, and, though it is not likely that such a mistake would be passed in checking, if the figures are carelessly placed it is possible. In fact, every precaution must be taken to eliminate mathematical error.

Descriptions. The abstractor must bear in mind that his object is to select from the dimension sheets items which are similar, collect them together, and set out the whole of the dimensions so that the biller has the total quantities in a suitable order for putting into bill form. He has only to copy and not make any alteration in descriptions. Contractions should be used as far as possible, consistent with clearness. Where particularly long descriptions occur in the dimensions he need not write out the whole of the description, but may simply give its reference, so that the biller can look it up and write his bill direct from it. This should not be done more often than necessary as constant reference to the dimensions when billing involves waste of time.

Work Billed Direct. It often happens that certain sections of the work can be billed direct from the dimensions, e.g. cupboard fittings measured in detail which are to be kept together in the bill under one heading. In this case the abstractor should always write on the abstract in its proper place, " Cupboard fittings B.D. fol. 121-125." The biller will come across this, turn up the dimensions, and see that they are billed. If no mention is made on the abstract of items to be billed direct, they might easily be missed.

Taker-off's Notes. Particular care must be taken with notes made by the taker-off on the dimensions. They are usually one of three kinds:

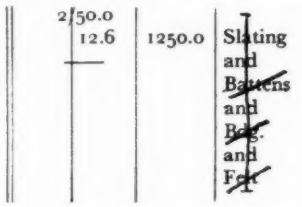
1: Explanatory.

2: Memoranda or queries for attention before the taking-off is complete.

3: Instructions to the worker-up.

The first class, side notes, may be neglected as they are merely to show the method the taker-off has employed, or to show where the item has been taken; they are made to simplify the work of the man who has to write the specification or adjust variations. Memoranda and queries which the taker-off wants to go back to are generally written well across the column to break the abstractor's vertical line, and care must be taken not to run them through in order to make it easier for the taker-off to find them. Instructions to the worker-up, e.g. " Alter all limewhite on fair face to twice distemper," must be copied on to the abstract to which they refer and referenced in the ordinary way.

Procedure. It is usually best for the dimensions to be abstracted in the order in which they are taken off. As the taker-off is the only person whose work is not checked in detail, an intelligent worker-up is often able to point out some slip or omission. By following in the order of taking off such error is more easily detected. The worker-up should not be afraid to question anything which appears to be an error, though in most cases there may be some explanation, an oversight is thus occasionally discovered which makes the inquiry well worth while. If the abstract is divided amongst several workers-up, each will probably be responsible for certain trades and will have to pick out those trades in going through the dimensions. It helps to make clear which items have been abstracted and which have not if the vertical line is drawn through the descriptions and not the dimension column. If there are several descriptions for one item each can be clearly cut through in turn. Moreover, there is no risk of obscuring figures with the vertical line. Some surveyors adopt a method by which, when several items are grouped under one dimension, each is cut through with a diagonal line as dealt with, and the vertical line is not drawn through till the last has been abstracted. This system is specially useful when the descriptions are at all cramped, as it makes it less likely that one will be missed, e.g.:

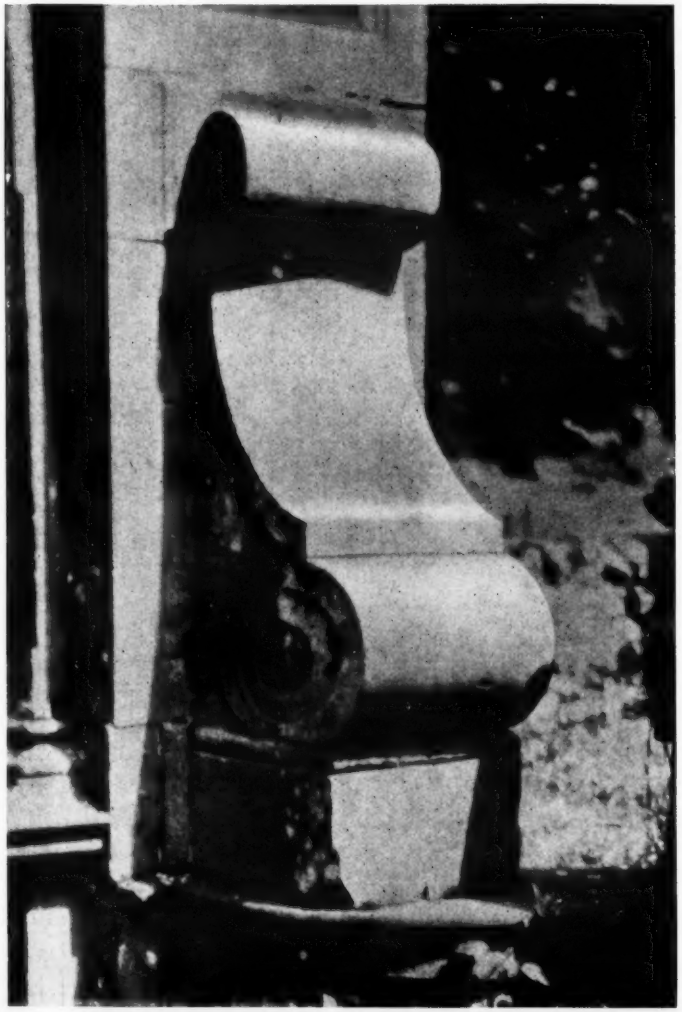


In the above example the carpenter's items were first abstracted, and when the slating item was dealt with a vertical line was drawn through the whole four.

Checking. Each item abstracted from the dimensions must be independently checked. The checker will see that both figures and description on the abstract are correct, and if this work is carefully done no mathematical or copying error should occur. All corrections he may make should be counter-checked either by the original abstractor or a third person. The checking of the abstract should be completed before the bill is written, and not left to be done while the bills are being lithographed or during the interval before tenders are sent in.

Reducing. All cubes, supers, and runs on the abstract, unless otherwise stated, will be in feet. These must be reduced to the customary unit for billing. No rules can be laid down as the unit employed is a matter of custom, but it may be noted that it is usual for all items which are in small quantities or narrow widths to be left in feet. The abstract, being checked, cast, and the totals reduced where necessary, should now be ready for the biller.

[*To be continued*]



ENGLISH PRECEDENT

1 *The illustrations of a stone console at Gleneagles House, Perthshire, dated 1749, are of a vigorous and virile piece of work. While the scroll at the upper extremity is a normal twist, the larger one below is of the "depressed" or "folded" type favoured by John Webb, who used it freely both in stone and in wood at Thorpe Hall, Peterborough, c. 1656. Inigo Jones employed it also as terminals of the ramped pediment copings at Raynham Hall, Norfolk, c. 1635, and Wren made use of it, as on the gate piers at the "Greenhouse," Kensington Palace, c. 1690.*—[NATHANIEL LLOYD.]

LONDON SQUARES

R.I.B.A. AND PRESERVATION

INTERESTING information on behalf of the R.I.B.A. was given before the Royal Commission on London Squares at their meeting on Tuesday, January 10. Lord Londonderry presided.

Mr. Maurice Webb, the vice-president of the R.I.B.A., said that the Institute, after careful consideration of the requirements of the metropolis with regard to open spaces, was of the opinion that the existing squares and open spaces should be preserved. In submitting this recommendation the Royal Institute had considered the following important factors which should govern future policy—those concerning amenity, public health and traffic.

First, as to amenity, London, as the capital of the Empire, was competing as a centre of cultural activities with other cities, notably Paris, Rome, Vienna, and New York. The last-named city was rapidly losing its amenities owing to acute congestion, and this should be borne in mind when suggestions were made for the increase of building density in London. In London, which yearly attracted many thousands of visitors from foreign countries, the dominions and the provinces, it was the garden squares which contributed largely to the individuality of the capital and gave to it a pronounced architectural dignity. If those squares were not preserved the Institute believed that London would become increasingly provincial in character and architecturally inferior to many other cities of a metropolitan standing.

The squares as planned by the original owners in the eighteenth and early nineteenth centuries had an æsthetic value, not only to the residents overlooking such open spaces but also to the whole of the population of London. Londoners as a whole should continue to enjoy the gardens even although they might not have the right of entry. London was justly proud of the fine façades to the squares which were originally designed in most cases as complete architectural compositions. At present some of those façades were being rebuilt; for instance, Russell Square, Red Lion Square, Bloomsbury Square and Finsbury Circus. A comparison of Russell Square (one of the earliest to have its façades disturbed) with Bloomsbury Square (one of the latest) seemed to indicate that in the former case there was a tendency to rebuild regardless of architectural unity, and that in the latter case this unfortunate tendency was being overcome. There was now reason to hope that with the increasing public interest in architecture the merit of great compositions would be better appreciated. Surviving examples of fine architectural façades which framed open spaces such as Bedford Square, Mecklenburgh Square, Portland Crescent and Fitzroy Square, were a rich and valuable heritage to London, but such splendid architectural interest as they provided could only be appreciated when seen across the open space they were designed to frame. If the open spaces were built on, most of the effect of these façades would be lost. From the æsthetic point of view it would be a great advantage if in certain cases the railings which obscured the view of the grass and flowers could be removed, but it was realized that there were many squares in which for various reasons this would not be desirable. It was hoped that the Commission would give some attention to this question.

As to public health, although the resident population of the central area tended to decline, it had, by the growth of encircling suburbs, been divorced from the country and large open spaces within walking distance. The public parks were situated at some distance from many of the most congested areas, which today had only the advantage of a limited number of small squares and enclosures. If those were built on, the residents of congested districts would feel the loss of them not only as "lungs" but in many cases as potential playgrounds and promenades. Although certain residential areas of central London were being absorbed by commercial interests, so that high office buildings had in many cases taken the place of family houses, the result had been that the day working population of the central area had increased, so that the need for garden squares for the health of city workers was even more important today than it was a century ago. As a proof of the public appreciation of a garden by the workers in a commercial zone we would refer to Lincoln's Inn Fields and several of the City churchyards. Such gardens, even if they remained in private ownership, were of inestimable value as a means of admitting direct sunlight, which during an English winter rarely penetrated to a street built up to the legal limit. It was also possible that at some future time it might be necessary for the L.C.C. and the metropolitan boroughs to provide more children's playgrounds. Some of the squares, where residents' rights of entry had expired, might well be adapted for this purpose. Red Lion Square was an example of one much used by the children of the neighbourhood. The value of trees to health in a crowded city should also be emphasized. London had very few boulevards, and as our streets were mostly unsuitable for tree planting, the garden enclosures and squares provided the only sites where foliage could be seen to advantage.

Dealing with traffic requirements, the witness said that whenever reconstruction of old buildings took place in the central area, the height was almost invariably increased to the limit allowed by the building laws. The density of population per acre was thereby increased, and consequently the volume of street traffic was increased in proportion. The residential districts were also rapidly being rebuilt on more intensive lines, further adding to the volume of traffic. Every open space now provided valuable relief as a dissipation point for traffic, but it was apparent that if more buildings were erected on the garden squares and enclosures, traffic difficulties in the main thoroughfares must necessarily become more acute. The Royal Institute considered that it was more economical and logical to preserve the open spaces that now existed than to adopt the extensive scheme of street widenings which would be necessary if buildings were erected on the squares.

The Royal Institute of British Architects considered that the existing legislation in this country for controlling the further development of built-up areas was seriously in need of amendment, when compared with the general advance that had been made during the present century in legislative control over land "likely to be used for building purposes." In recent years New York City had obtained powers to limit the height of new buildings without compensation, and the results had been welcomed, not only by the general public, but also by building owners. That being so, they considered that the best and most equitable means of preserving London squares would be by including the necessary powers in early legislation for controlling the development of built-up areas. Were such legislation provided, having regard to the accepted principle contained in the Town Planning Act, 1925, clause II (2), where limitation was placed on density and character, *without* compensation, it would appear equally reasonable and equitable, in areas already built up, to provide that all open spaces to which the public had had access over a fixed period of years, *or*, which had been used in common by the tenants of adjoining property, should, in the interest of public health and amenity, be retained as permanent open spaces.

Mr. E. R. Abbott, giving evidence on behalf of the Town Planning Institute, said that it would be possible for the London County Council, as the town-planning authority, to safeguard the majority of the London squares and their surroundings by means of a scheme or schemes under section I (2) of the Town Planning Act, 1925. It was probable that in many cases the voluntary co-operation of the present owners would be forthcoming, and, even if that were not so, it appeared that in respect to squares, the buildings round which are at present in residential occupation, no compensation would be payable in view of section II (2). Other squares were protected by Act of Parliament, and therefore the question of compensation did not arise in respect to them. In other cases leases existed with many years to run, which would so discount any possible future building value that, even if any compensation could be claimed, it could only be a small amount. There were a number of squares where the surrounding buildings, or many of them, were used for commercial purposes, and the

first thing to determine was the best use to which each square, whatever the present character of the surrounding property, ought to be put, with due regard to private rights. There were several types of squares, but the principal distinction was between those partly or wholly surrounded by streets and those that formed interior gardens. With regard to the latter, it was essential to keep the space open, and in the interest of health, whether the surrounding buildings were used for residential, commercial, or industrial purposes, and it seemed clear that the principle of section II (2) of the Town Planning Act, 1925, applied. It was important that the present character of the squares as green oases should be continued and, so long as they were surrounded by residential property, their private character might well be maintained. The use of the surrounding property should be determined as part of a general town-planning scheme for London, and it should be possible and equitable to safeguard most of the squares without cost to the public. The Commission adjourned.

CORRESPONDENCE

BADMINTON COURTS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—In Mr. Tasker's letter respecting my article on badminton courts, he seems to suggest that top lighting of an enclosed court may be confusing to the player dealing with high "lobs." I do not think any discomfort or difficulty will be experienced from this cause providing suitable non-glare glass is used for the purpose. The fine tennis courts recently constructed for the Rackets Club of Chicago have a roof wholly composed of glass, and I have not come across a case where suitable top lighting has caused any difficulty in following the high trajectory of the balls when players are "lobbing." Another point in favour of top lighting is that the building may be kept rather lower than where lateral lighting is employed. The ideal of an inside court should be to reproduce outside conditions of lighting, and by roof glazing this is most nearly approached. Having thoroughly discussed the question of lighting this type of building in my notes on squash courts written previously to the badminton notes, I did not consider it necessary to reiterate the subject in the latter.

EDWARD R. BILL

LAW REPORTS

DILAPIDATIONS: CONSTRUCTION OF CLAUSE REASONABLE WEAR AND TEAR EXCEPTED

Haskell and another v. *Marlow and others. King's Bench Divisional Court. Before Justices Salter and Talbot*

This appeal from a decision of Mr. G. A. Scott, one of the High Court official referees, sitting at Salisbury, raised an interesting point of construction of a clause bequeathing to a widow the use of a house for her life, she to keep the premises in good repair and condition, "reasonable wear and tear excepted."

Mr. Raynor Goddard, K.C., said the appellants were the defendants, and they were the executors of the late Mrs. Leach, the widow of Wm. Leach, of Castle Street, Salisbury, and they appealed against the judgment of Mr. Scott in favour of the plaintiffs, in an action brought by plaintiffs on a dilapidation claim. Mr. Leach died in 1884, and by his will he demised his dwelling-house, garden, etc., in Castle Street, Salisbury, to his widow for life, stipulating that she should keep them in good repair and condition, "reasonable wear and tear excepted." This case turned on those words "reasonable wear and tear excepted." On Mrs. Leach's death the house was to form part of the residuary estate. The widow lived in the house forty-two years after the death of her husband, dying in February 1926, and then the house no doubt was in a dilapidated condition. A schedule of dilapidations was served on her executors for £303, of which £246 was for interior work and £57 for exterior work. During the course of the action plaintiffs obtained leave to serve a further schedule of dilapidations mostly outside. This amounted to a further £430, making a total claim of £730. Finally, a business-like arrangement was come to, to the effect that if plaintiffs' contentions succeeded they were to have judgment for £550 and costs, and if defendants' contentions succeeded plaintiffs were to have judgment for £97 only with costs. The contention of plaintiffs was that the obligation of the widow was to do such repairs as a reasonably careful householder would do to prevent the operation of decay, while defendants' contention was that her obligation was only to make good such damage as might be called voluntary waste and they said £97 would cover that. The official referee held that the governing words of the demise must prevail and that Mrs. Leach was bound to keep the house "in good repair and condition," and did not think he could reduce the liability because of the words "reasonable wear and tear excepted." One surveyor called by plaintiffs stated that in preparing his schedule he had paid no attention to the words "reasonable wear and tear," and the other surveyor agreed that all the dilapidations could fairly be described as "permissive waste." The difference in substance between the two schedules was that the surveyors for plaintiffs had included everything which was permissive waste. Mr. Scott had accepted the submissions of the plaintiffs, and entered judgment accordingly. Counsel said his contention was that a tenant for life was never liable for permissive waste. His submission was that the words of the will made her unimpeachable for waste, except voluntary waste, and that under the circumstances the official referee was wrong in the decision he arrived at on the clause of the will.

Mr. Owen Thompson, K.C., argued the case for the respondents, the plaintiffs in the action. He reminded the Court that if the appellants' contentions were to prevail, the remainder man would not get a house in a reasonably good state of repair, as was intended by the clause in the will. He urged the Court to construe the clause in the will in the same way as such a clause would be construed in a lease or tenancy agreement, with which the Court was familiar.

The Court dismissed the appeal, with costs, holding that the judgment of Mr. Scott was right, and ordered £550 paid into Court to be paid out to the plaintiffs.

Mr. Justice Salter, in the course of his judgment, after dealing with the facts of the case, said, here the contention had been made that the words "fair" and "reasonable" qualified both the destructive agencies that did the damage as well as the dilapidations they brought about. Such words, it had also been argued, could be used to qualify human user, but they could not be used to qualify the forces of nature. It would be unreasonable to speak of a "fair rain" or an "unreasonable frost." In this opinion they related both to the destructive agency and also the dilapidations that were caused, including the dilapidations for which exemption was claimed. In order to bring the dilapidations within the protection of such an exemption against the one they were considering two things must be shown: (1) that the dilapidations were caused by the normal human user or by the normal action of the elements, and (2) that they were reasonable in amount, having regard to the terms of the contract to repair. In this case there was an omission to repair over forty-two years, for the widow, for all that time, had simply failed to take steps to counteract the natural destructive qualities or the elements. Upon those facts he had some difficulty in holding that these dilapidations were not caused by reasonable wear and tear, but he was quite clear in his mind that the dilapidations were not reasonable and fair wear and tear because they were altogether unreasonable as to amount and clearly inconsistent with the intentions of the testator under his bequest.

Mr. Justice Talbot agreed.

ANNOUNCEMENTS

Mr. F. Latham has joined the staff of the Lands Improvement Company as their permanent surveyor at 58 Victoria Street, Westminster, S.W.1, at which address he would be glad to receive catalogues and trade lists, etc.

Messrs. Merz and McLellan, consulting engineers, have removed their Newcastle office to Carliol House, Newcastle-upon-Tyne. Their London office remains at 32 Victoria Street, Westminster, S.W.1.

SOCIETIES AND INSTITUTIONS

R.I.B.A. Prizes and Scholarships

The annual award of the prizes and studentships of the R.I.B.A. was announced at the last general meeting. The names of the successful competitors are as follow:

The Tite Prize and £50 for Design (for the study of Italian architecture). The subject set for this year was "A Crematorium." The prize was awarded to Mr. Patrick McNeil, A.R.I.B.A., "Oakbank," Dollar, Clackmannanshire.

The Soane Medallion and £150 for Design. The subject set for this year was "A Covered Market." The medallion was awarded to Mr. Leonard W. T. White, A.R.I.B.A., 18 Alyth Gardens, Golders Green, N.W.11. Certificates of Hon. Mention were awarded to Mr. Geo. A. Goldstraw, 76 Cholmondeley Road, Pendleton, Salford, Manchester; Mr. James Barrington Wylde, A.R.I.B.A., 1 Grove Place, Birchgrove, Whitchurch, Cardiff; and Mr. J. T. Lloyd, 9 South Side, Stamford Brook, W.6.

The Grissell Gold Medal and £50 (for the encouragement of the study of construction). The subject set for this year was "Shop Premises for a Departmental Stores." The prize was awarded to Mr. Alfred G. Geeson, A.R.I.B.A., Lincoln Chambers, Lincoln Street, Nottingham, and School of Architecture, Leicester College of Arts.

The Royal Institute Silver Medal for Measured Drawings and £75. Awarded to Mr. F. W. C. Adkins, "Delamere," Elmwood Avenue, Harrow, Middx., and Polytechnic School of Architecture.

The Royal Institute Silver Medal and £50 for an Essay. Awarded to Mr. Vernon Constable, A.R.I.B.A., Old Town House, Dundee, late of the Glasgow and West of Scotland Technical College.

The R.I.B.A. (Alfred Bossom) Travelling Studentship, Gold Medal, and £250. A gold medal and £250 for the study of commercial architecture in America. Awarded to Mr. Patrick Cutbush, A.R.I.B.A., 107 Jermyn Street, S.W.1, of the Architectural Association School of Architecture. Silver medals awarded to Mr. Patrick Cutbush, A.R.I.B.A. (as above); Mr. John R. Moore, A.R.I.B.A., 13 Acland Road, Willesden Green, N.W.2; Mr. R. Nelson Guy, A.R.I.B.A., "Dalkeith," 128 Crescent Road, South Woodford, Essex; and Mr. Charles Thomas Bloodworth, B.ARCH. Liverpool, A.R.I.B.A., 138 Derby Lane, Stoneycroft, Liverpool.

The Ashpitel Prize, 1927. This is a prize of books, value £10, awarded to the candidate who has most highly distinguished himself among the candidates in the final examinations of the year. Awarded to Mr. J. G. Laskie, A.R.I.B.A., "Roselynn," Bearsden, near Glasgow.

The R.I.B.A. Silver Medal for Schools of Architecture recognized for exemption from the Final Examination. This is awarded for the best set of drawings submitted at the annual exhibition of designs by students of schools of architecture recognized for exemption from the R.I.B.A. final examination. Awarded to Mr. W. R. Brinton, Architectural Association School of Architecture.

The R.I.B.A. Bronze Medal and £5 in Books for Schools of Architecture recognized for exemption from the Intermediate Examination. This is awarded for the best set of drawings submitted by students of schools of architecture recognized for exemption from the intermediate examination Awarded to Mr. Allan Johnson, Leeds School of Architecture.

The competition drawings will be on exhibition in the R.I.B.A. Galleries, 9 Conduit Street, W.1, until January 23, 1928, between the hours of 10 a.m. and 8 p.m., Saturdays 10 a.m. and 5 p.m. (Sundays excluded).

R.I.B.A. Intermediate Examination

Special attention is drawn to the fact that the eight sheets of testimonies of study required of candidates for admission to the R.I.B.A. Intermediate Examination may now be submitted on six dates during each year. The following dates have been fixed for 1928: February 29, April 11, June 29, August 31, October 9, December 31.

R.I.B.A. and A.A. Joint Visits

In future the R.I.B.A. and the Architectural Association will arrange joint visits to buildings. The visits will be under the direction of a joint committee of the two bodies, with Mr. Yerbury, secretary of the A.A., as secretary. It is proposed to arrange a certain number of visits, both for the spring and summer, some of which will probably be for week-ends. Any members either of the R.I.B.A. or the A.A. having suggestions to make of suitable buildings to be visited should send their suggestions to Mr. Yerbury, 34-36 Bedford Square, W.C.1.

Probationership of the R.I.B.A.

The R.I.B.A. have issued the following notice:

A: List of subjects required. Attention is drawn to the fact that the Council of the R.I.B.A. have decided that physics and chemistry shall be included in the list of subjects as one of the alternative subjects. The following are the subjects now required: English composition; elementary mathematics (arithmetic, algebra, geometry); mechanics or physics, or higher mathematics or chemistry, or physics and chemistry; history or geography; one language other than English.

B: Drawings required. The Council have decided that after December 31, 1928, candidates must produce drawings showing that they possess an elementary knowledge of drawing from the solid, in addition to freehand drawing.

R.I.B.A. Intermediate Examination

The Intermediate Examination qualifying for election as student R.I.B.A. was held in London from November 11 to 17, and in Manchester from November 11 to 16. Of the ninety-one candidates examined, thirty-one passed and sixty were relegated. The successful candidates are as follow, the names being given in order of merit as placed by the examiners:

Boon, G. M.
Hartley, J. S.
Walden, R. P.
Vine, C. M.
Parsons, D. W.
Pettit, H. E.
Price, G. L.
Broughton, F. H.
Andrew, L. A. D.
Birkett, A. L.
Bradley, F.
Cartlidge, W. G.
Clark, A. R.
Fairhurst, R. F.
Fisher, R. C.
Frizzell, F. G.
Gleave, J. L.
Golding, A.
Green, H. A.
Kelly, H. L.
Mileson, H.
Parsons, L. H.
Pickering, C. E.
Powell, A. E.
Proffitt, N. W.
Riley, H.
Smithson, G. H.
Targett, C. H.
Underhill, A.
Walmsley, W. G.
Willis, N. J. S.

The Association of Architects, Surveyors, and Technical Assistants

Mr. John Mitchell, who has been secretary to the A.A.S.T.A. for nearly six years, has resigned. His resignation will be a matter of regret, and is solely due to his acceptance of an editorial appointment of importance. His activities in connection with the A.A.S.T.A. were marked by energy and determination, and he will retain the good wishes of all those who had dealings with him. The Council of the A.A.S.T.A. has appointed Mr. O. H. Cooke, M.A., B.C.L. (Oxon), barrister-at-law, as secretary to the Association, and he has already taken up his duties.

COMPETITION CALENDAR

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

January 31. Municipal Offices, Shops, etc., in Narrow Street, Peterborough, for the City Council. Assessor: Sir R. Blomfield, R.A. Premiums: 500 guineas, 250 guineas, and 150 guineas. Particulars from Mr. W. H. A. Court, A.M.I.C.E., City Engineer and Surveyor. Deposit £1 1s.

March 10. Senior School at Kirkdale, Southport. Assessor, Professor S. D. Adshead. Premiums of £100, £75, and £50. Particulars from Director of Education, Municipal Buildings, Southport. Deposit 10s. 6d.

COMPETITION NEWS

Wimbledon Town Hall Result

Mr. Henry V. Ashley, the assessor in the Wimbledon Town Hall and Municipal Buildings, has made his awards as follows:

First (£200), design 64, Messrs. Bradshaw Gass and Hope, of Bolton.

Second (£150), design 53, Messrs. D. H. McMorran and A. Bailey, of Harrow-on-the-Hill.

Third (£75), design 96, Messrs. S. Cook and E. D. Lyons, in the office of Mr. Theo Schaerer, of Westminster.

One hundred and fourteen designs were submitted. The winning design is illustrated this week in our competition supplement.

TRADE NOTES

Among the most interesting claims made for the new plywood wall-board, now being marketed under the name "Walderply," is that it can safely be fixed with butt joints. Ceilings in new property, it is claimed, have been constructed of "Walderply," butt jointed and papered over, and old ceilings have been treated by fixing the wall-board over the existing plaster again with the boards butt-jointed and papered for final decoration. All the results, it is claimed, have been entirely satisfactory. The name of the material is derived from wall; alder, from which the board is made; and ply, to indicate the boards three-ply construction. Laboratory tests subjecting the boards to extremes of temperature show that the amount of movement likely to take place in normal conditions is practically nil. The following particulars of these tests, issued by the managing agents for the United Kingdom, Messrs. Pharaoh, Gane & Co., Ltd., are interesting. "In order to begin the tests with the boards at a definite state of humidity, they were stored in saturated air and measured at intervals until there was no further increase of length, and were then stored in air at 50 per cent. humidity, and then dried. The contraction consequent on drying was then measured. An atmosphere of 50 per cent. humidity is considered to represent the most extreme condition of dryness likely to be experienced in this country, and such conditions would probably not prevail for long periods. Therefore, it can reasonably be claimed that the board had been subjected to alternate extremes of atmospheric moisture and dryness. The measurements taken were at right angles to, and also along the grain of, the external ply, the mean contraction of four specimens being obtained. The tests showed that the amount of contraction across the grain of the outer ply, at the end of five days, was '19 per cent. linear, whilst along the grain the contraction was '20 linear, over the same period. At the expiration of twenty-four days no movement whatever was recordable." Alder, of course, has a reputation for strength and durability, especially when fixed in damp conditions. In this connection it will be recalled that the Rialto bridge in Venice is erected on alder piles. Being an all-wood product, "Walderply" can be stained. It is claimed that one coat of stain suffices to give a most pleasing finish to this board. When used for panelled walls this should be distinctly attractive, particularly as stain is calculated to bring out the delicate grain characteristic of alder.

This year the annual staff reunion of Messrs. Francis Polden & Co., Ltd., electrical contractors, took the form of a dinner, dance and whist drive at the Manchester Hotel, E.C. Mr. Francis C. Polden, C.C., and Mrs. Polden received the guests, prior to which a bouquet was presented to Mrs. Polden. The music during the dinner and dance was by Messrs. Leggett's band, Mr. A. C. Hill acting as M.C., and under the guidance of Mr. W. T. Buswell an excellent whist drive was held. The songs during the evening were given by Miss A. F. Dougless and Mr. E. J. Lamport. Mr. Polden, in proposing the toast of the Staff, expressed his pleasure at the loyal way duty had been done, and in reply, Miss Smith, for the indoor staff, gave assurance that that support would be continued and the candid relationship existing between the staffs further extended. Mr. W. Berry, replying on behalf of the men, said it was a pleasure to work for a company that stood not only for good workmanship, but one that endeavoured to foster good fellowship. The toast of the Chairman and Company was ably given by Mr. P. J. Wood, and the Ladies and Visitors by Mr. F. C. Colbourn.

A QUADRANGULAR SCHEME

Messrs. David Weston & Co., Ltd., of London, were the general contractors for the houses at Weybridge, illustrated on pages 132 to 140, the materials being supplied by the following firms: Langley, London, Ltd., tiles; Sussex Brick and Estates, Ltd., and Shelley Brickfields, bricks; Montague L. Meyer, Ltd., timber; Ferro-Concrete Roof Plate Co., Ltd., ornamental stonework and reinforced concrete slabs and lintels; Falkirk Iron Co., The National Radiator Co., Ltd., Rownson, Drew and Clydesdale, and the Carron Company, interior stoves and mantel registers; Welwyn Stores, Ltd., W.C.S; Cement Marketing Co., Ltd., cement.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office, by our own patent expert. All inquiries concerning inventions, patents, and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.1. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

35319. Barker, A. H. Heating, &c., devices for buildings. December 30.
35325. Dann, T. J. Sliding-sash windows. December 30.
35133. Foord, F. F. Metal window, &c., frames. December 28.
35279. MacDonald, J. Tiles and sheets. December 30.
35326. Rosenvinge, H. E. Means for closing, &c., windows. December 30.

SPECIFICATIONS PUBLISHED

282522. Parkes, S. R. Door furniture or operating-mechanism for door latches.
282533. Kynnersley, T. J. Concrete building-blocks.
282564. Graveley, H. V. N. Fastenings for casement windows and the like.
282613. Tarjan, A. Door and window hinges.
281294. Rauwald, F. Sheet-metal piling.

ABSTRACT PUBLISHED

280416. Rawlings, J. J., and Rawlplug Co., Ltd., Gloucester House, Cromwell Road, South Kensington, London. Twist drills.

CORRIGENDA

On page 109 of our issue for January 11, "George Allan and Upward" should read "George Allen and Unwin"; on pages 48-50, "R. A. Duncan" should read "R. A. Duncan, of Messrs. Percy Tubbs, Son and Duncan."

THE WEEK'S BUILDING NEWS

Plans passed by the EASTBOURNE Corporation: Three houses, Cavalry Crescent, for Mr. A. J. Fellows, architect; club, for British Legion, Pevensey Road, for Mr. W. R. Hamblyn, architect; two shops and houses, Woodgate Road, for Mr. F. C. Benz, architect; two houses, Victoria Drive, for Mr. C. Ford, architect; four houses, Dillingburgh Road, for Mr. A. J. Fellows; three shops and houses, Upperton Road, for Mr. A. Ford, architect; additions, Windsor Tavern, Langney Road, for Messrs. Page and Overton.

*

Plans passed by the NORTHAMPTON Corporation: Greyhound race track, Cotton End, for Northampton Greyhound Racing Association; four houses, Fair Cotton, for Messrs. J. G. Pullen and Sons; warehouse, Pine Street Works, for Impress Leather Company; two houses, Glasgow Street, for Mr. N. T. Brown; five shops and houses, Weedon Road, for Messrs. A. P. Hawtin and Sons, Ltd.; shoe factory, Wycliffe Road, for Turnshoe Manufacturing Company.

*

The BOLTON Education Committee is considering the provision of additional school accommodation on the Crompton Fold estate.

*

Plans passed by the BOLTON Corporation: Two houses, Ashbourne Avenue, for Mr. J. E. Paiton; bank, Deansgate, for Lloyds Bank, Ltd.; twelve houses, Kingwood Avenue, for Mr. A. S. Woods; additions, St. Helen's Road, for Hulton and Rumworth Conservative Club; streets off Greenmount Lane, for Lady Beaumont.

*

Plans passed by the MERTHYR Corporation: Additions and alterations, 50 Parrott Street, Treharris, for Midland Bank, Ltd.; pavilion and ten garages, Lower High Street, for Mr. E. Snow; extensions, workshops, Lower High Street, for Mr. E. Thomas; house, Walters Terrace, for Mr. Lewis James.

*

The MERTHYR Corporation is to discuss with the joint authority a proposal for the reconstruction of the joint asylum, it being reported that Merthyr's share of the cost will be £120,000.

*

The Board of Education has sanctioned the proposals of the YORK Education Committee for converting premises in Shipton Street into a science laboratory and adapting old junior school blocks as a handicraft centre.

*

Plans passed by the DOVER Corporation: House, Lewisham Road, for Mr. A. Woolridge; additions, schoolroom, London Road, for Primitive Methodist Trustees; twelve houses, Old Park Road, for Mr. H. F. Caspall.

The DOVER Corporation has adopted a revised scheme prepared by Mr. J. F. Duthoit for the reconstruction of the isolation hospital.

*

Plans passed by the YORK Corporation: Additions, "Masons' Arms," Fishergate, and Barrack Tavern, Fulford Road, for Tadcaster Tower Brewery Co., Ltd.; four houses, Bootham Crescent, for Messrs. H. Colman and Sons; four houses, Huntington Road, for Messrs. Culliford and Tindall; two houses, Jamieson Terrace, for Messrs. Hill and Wrightson; temporary ward, York County Hospital, for governors.

*

The SOUTH ESSEX Waterworks Company is to confer with local authorities in regard to proposals for waterworks extensions.

*

The NORTHAMPTON Corporation is seeking sanction from the Ministry of Health for the erection of tenements on the Abington site.

*

The Church Army Housing, Ltd., is acquiring a site in Hankey Place, SOUTHWARK, for the erection of tenements.

*

The SOUTHWARK Borough Market Trustees have in view a scheme for the improvement of the market.

*

Plans passed by the SOUTHWARK B.C.: Bridge across Rushworth Street, for Kia-Ora's premises, for Mr. G. T. M. Morris; building site of 39-41 Newington Butts, for Messrs. Whinney Sons and Austin Hall.

*

Messrs. F. Chappell and Sons are to convert 109 Rushey Green, CATFORD, into offices and showrooms.

*

The STOKE-ON-TRENT Corporation has decided to proceed with the acquisition of Stallington Hall, and instructed the architect to prepare plans for its conversion into a mental hospital for submission to the Board of Control.

*

Plans passed by the HANLEY Corporation: Kitchen and conveniences, United Methodist Church, Lonsdale Street, for trustees; five cottages, Longton Road, Ash Green, for Mr. A. C. H. Wenger.

*

The HULL Education Committee has called for the preparation of plans for the erection of an elementary school for 1,630 children at East Hull.

*

The STOKE-ON-TRENT Corporation has approved plans submitted by Messrs. Scrivener and Son for the lay-out of the Trent Vale housing site for the Sutton Trustees.

Plans passed by STOKE-ON-TRENT Corporation: Additions, London Road, for Messrs. Biltons, Ltd.; extensions, Clarendon Inn, Stafford Street, for Messrs. Mitchells and Butlers; eight houses, Waterloo Road, Hartshill, for Mr. J. G. Holloway.

*

Plans passed by the BURSLEM Corporation: Laboratory, Reginald Road, for British Aluminium Co.; additions, Berry Hill Potteries, for Messrs. John Slater (Stole), Ltd.; Church Institute, Sneyd Street, for Rev. Canon Hadwen; tunnel ovens and chimney-stack, High Street Works, for Messrs. A. J. Wade, Ltd.; alterations and additions, Red Lion Hotel, Swan Square, for Messrs. J. Worthington & Co.; extensions, potteries, Nile Street, for Messrs. Doultons, Ltd.

*

Plans passed by the TUNSTALL Corporation: Two houses, High Lane, for Mr. W. Poole; two houses, Bluestone Avenue, for Mr. E. A. Bird; shop, North Parade, for Mr. W. Huff; alterations, Crystal Palace Inn, Mount Street, for Messrs. C. Bunting, Ltd.

*

Plans have been prepared by the Chatterley Whitfield Collieries, Ltd., for the lay-out of streets off Biddulph Road, CHELL.

*

The Ministry of Health Inspector has visited Longton in connection with the proposals of the STOKE-ON-TRENT Corporation to clear the John Street unhealthy area.

*

Plans passed by the HULL Corporation: Four houses, Savery Street, for Mr. H. Barnett; three houses, Desmond Avenue, for Mr. E. Mowforth; six houses, Garden Village, for Mr. G. H. Needler; eighteen houses, Garden Village, for Garden Village, Ltd.

*

The Ministry of Health has sanctioned the proposal of the WIMBLEDON Corporation for the erection of a new swimming-bath, at a cost of £25,000, in Latimer Road.

*

Plans passed by the WIMBLEDON Corporation: Greyhound race track, Plough Lane, for Messrs. Elcock and Sutcliffe; three houses, Woodhayes Road, for Mr. S. Derwent; alterations, White Hart, North Road, for Mr. C. R. Riches; additions, Paxtons Mill, East Road, for Messrs. A. and F. J. Leather, Ltd.

*

The WIMBLEDON Corporation is to consider the erection of tenements on a triangular site in Durnsford Road.

*

The WIMBLEDON Corporation has decided to erect twenty-four houses on the Durnsford estate.

RATES OF WAGES

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

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

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

* In these areas the rates of wages for certain trades (usually Painters and Plasterers) vary slightly from those given.

The rates for each trade in any given area will be sent on request.

PRICES CURRENT

EXCAVATOR AND CONCRETOR

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

*

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

*

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube	0	3	0
Exceeding 6 ft., but under 12 ft., add 30 per cent.			
In stiff clay, add 30 per cent.			
In underpinning, add 100 per cent.			
In rock, including blasting, add 225 per cent.			
If basketed out, add 80 per cent. to 150 per cent.			
Headings, including timbering, add 400 per cent.			
RETURN, fill, and ram, ordinary earth, per yd.	£0	1	6
SPREAD and level, including wheeling, per yd.	0	1	6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0	10	6
TRIMMING earth to slopes, per yd. sup.	0	0	6
HACKING up old grano. or similar paving, per yd. sup.	0	1	3
PLANKING to excavations, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.			
If left in, add to above prices, per ft. cube	0	2	0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	2	3	0
DO. 6-2-1, per yd. cube	1	18	0
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS-LIME CONCRETE, per yd. cube	£1	16	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintels, etc., per ft. cube	0	1	6
CEMENT concrete 4–2–1 in lintels packed around reinforcement, per ft. cube	0	3	9
FINE concrete benching to bottom of manholes, per ft. cube	0	2	6
FINISHING surface of concrete spade face, per yd. sup.	0	0	9

DRAINER

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

*

Stoneware pipes, tested quality, 4 in., per ft.	£0	0	10
DO. *6 in., per ft.*	0	1	3
DO. *9 in., per ft.*	0	2	3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	5	6
DO. *6 in., per yd.*	0	8	6
Portland cement and sand, see "Excavator" above.			
Lead for caulking, per cwt.	£2	5	6
Gaskin, per lb.	0	0	4½

*

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

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.

Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

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

*

London stocks, per M.	£4	15	0
Flettons, per M.	2	18	0
Staffordshire blue, per M.	9	10	0
Firebricks, 2½ in., per M.	11	3	0
Glazed salt, white, and ivory stretchers, per M.	24	10	0
DO. *headers, per M.*	24	0	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	2	17	0
Mixed lime mortar, per yd.	1	6	0
Damp course, in rolls of 4½ in., per roll	0	2	6
DO. *9 in. per roll*	0	4	9
DO. *14 in. per roll*	0	7	6
DO. *18 in. per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons or equal, per rod	£33	0	0
DO. in cement do., per rod	36	0	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
DO. in backing to masonry, add 12½ per cent. per rod.			
DO. in raising on old walls, etc., add 12½ per cent. per rod.			
DO. in underpinning, add 20 per cent. per rod.			
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0	1	0
BEDDING plates in cement mortar, per ft. run	0	0	3
BEDDING window or door frames, per ft. run	0	0	3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0	0	2
CUTTING do. in old walls in cement, per ft. run	0	0	4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0	0	7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0	3	6
DO. 14 ft. by 9 in. do., per ft. run	0	6	0
FLAUNCHING chimney pots, each	0	2	0
CUTTING and pinning ends of timbers, etc., in cement	0	1	0
FACINGS fair, per ft. sup. extra	0	0	3
DO. picked stocks, per ft. sup. extra	0	0	7
DO. red rubbers gauged and set in putty, per ft. sup. extra	0	4	9
DO. in salt white or ivory glazed, per ft. sup. extra	0	5	6
TUCK pointing, per ft. sup. extra	0	0	10
WEATHER pointing, do. do.	0	0	3
TILE creasing with cement fillet each side per ft. run	0	0	6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup	0	6	0
DO. 2 in., per yd. sup.	0	7	0
If coloured with red oxide, per yd. sup.	0	1	0
If finished with carborundum, per yd. sup.	0	0	6
If in small quantities in finishing to steps, etc., per ft. sup.	0	1	4
Jointing new grano, paving to old, per ft. run	0	0	4
Extra for dishing grano, or cement paving around gullies, each	0	1	6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in..	0	6	6
BREEZE fixing bricks, extra for each	0	0	3

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

MASON

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

*

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

*

HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft. add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do., per ft. run	0	1	4
HALF SAWING, per ft. sup.	£0	1	0
Add to the foregoing prices, if in York stone, 35 per cent.			
DO. Mansfield, 12½ per cent.			
Deduct for Bath, 33⅓ per cent.			
DO. for Chilmark, 5 per cent.			
SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	9	0
YORK SILLS, W. & T., ft. cub. fixed	1	13	0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0	1	6
DO. 2½ in. thick, per ft. sup.	0	1	9

SLATER AND TILER

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

N.B.—Tiling is often executed as piecework.

*

Slates, 1st quality, per 1,200:			
Portmadoc Ladies	£14	0	0
Countess	27	0	0
Duchess	32	0	0

Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3

Green Randoms per ton	8	3	9
Grey-green do., per ton	7	3	9
Green peggies, 12 in. to 8 in. long, per ton	6	3	9
In 4-ton truck loads, delivered Nine Elms station.			
Clips, lead, per lb.	£0	0	6
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	1	10
Cement and sand, see "Excavator," etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

*

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	Med. Green
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 0
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0

Green randoms	6	7	0
Grey-green do.	5	9	0
Green peggies, 12 in. to 8 in. long	4	17	0
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	5	6	0
DO., machine-made do., per square	4	17	0
Vertical Tiling, including pointing, add 18s. 0d. per square.			
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

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

*

Timber, average prices at Docks, London Standard			
Scandinavian, etc. (equal to 2nds):			
7 × 3, per std.	£20	0	0
11 × 4, per std.	30	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	5	0
DO. *T. and G., 1 in., per sq.*	1	5	0
Planed boards, 1 in. × 11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	1	6
Mahogany, Honduras, per ft. sup. of 1 in.	0	1	4
DO. *Cuba, per ft. sup. of 1 in.*	0	2	6
DO., *African, per ft. sup.*	0	1	3
Teak, per ft. sup. of 1 in.	0	1	6
DO., *ft. cube*	0	15	0

*

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	5	6
DO. framed in floors, roofs, etc., per ft. cube	0	6	6
DO. framed in trusses, etc., including ironwork, per ft. cube	0	7	6
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO. 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	2	10	0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0	0	4½
DO. 9 in. wide and over per ft. sup.	0	1	2

continued overleaf

CARPENTER AND JOINER: *continued.*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1½ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1½ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides, per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded per ft. cube	£0	15	0
Add for extra labours, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	6
If ramped, per ft. run	0	5	0
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1½ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	6
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

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

*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	19	0	0
DO., *galvd., per ton*	20	0	0
Corrugated sheets, galvd., per ton	20	0	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0

*

MILD STEEL in trusses, etc., erected, per ton	25	10	0
DO., in small sections as reinforcement, per ton	16	10	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	20	0	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

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

*

Lead, milled sheet, per cwt.	£1	13	6
DO. *drawn pipes, per cwt.*	1	14	0
DO. *soil pipe, per cwt.*	1	17	0
DO. *scrap, per cwt.*	1	5	6
Copper, sheet, per lb.	0	1	9
Solder, plumber's, per lb.	0	1	3
DO. *fine, per lb.*	0	1	9
Cast-iron pipes, etc. :			
L.C.C. soil, 3 *in., per yd.*	0	4	0
DO. 4 *in. per yd.*	0	4	9½
R.W.P., 2½ in., per yd.	0	2	7
DO. 3 *in., per yd.*	0	3	2
DO. 4 *in., per yd.*	0	3	6½
Gutter, 4 *in. H.R., per yd.*	0	1	6½
DO. 4 *in. O.G., per yd.*	0	1	10½

*

MILLED LEAD and labour in gutters, flashings, etc.	3	2	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	0
DO. ⅝ in., per ft.	0	2	3
DO. 1 in., per ft.	0	3	0
DO. 1¼ in., per ft.	0	4	0
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	0
DO. 3 in., per ft.	0	7	0
DO. 4 in., per ft.	0	9	9
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅝ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ⅝ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run.	0	1	7
DO. 3 in., per ft. run	0	2	0
DO. 4 in., per ft. run	0	2	10
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	2	0
DO. O.G., 4 in., per ft.	0	2	3
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	4	6
DO. 3 in., per ft.	0	3	6
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

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

*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	1	15	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	9
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Thistle plaster, per ton	3	9	0
Lath nails, per lb.	0	0	4

*

LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	3
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ⅛ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	7
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	9
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	3
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 8½*d. per hour.*

*

Glass : 4ths in crates :			
Clear, 21 *oz.*	£0	0	4½
DO. 26 *oz.*	0	0	5
Cathedral white, per ft.	0	0	7
Polished plate, British ¼ *in., up to* 2 *ft. sup. per ft.*	0	1	6
DO. 4 *ft. sup.* ,,	0	2	9
DO. 6 *ft. sup.* ,,	0	3	0
DO. 20 *ft. sup.* ,,	0	3	7
DO. 45 *ft. sup.* ,,	0	3	9
DO. 65 *ft. sup.* ,,	0	3	11
DO. 100 *ft. sup.* ,,	0	4	4
Rough plate, $\frac{3}{16}$ *in., per ft.*	0	0	6½
DO. ¼ *in. per ft.*	0	0	6¾
Linseed oil putty, per cwt.	0	15	0

*

GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO. 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	1
DO. 26 oz., per ft.	0	1	4
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span, 1s. 6d. to 2s. per ft.			
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft. sup. and up	£0	3	0
Glazing only, polished plate, 6½d. to 8d. per ft. according to size.			

PAINTER AND PAPERHANGER

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

*

Genuine white lead, per cwt.	£2	7	6
Linseed oil, raw, per gall.	0	3	6
DO., *boiled, per gall.*	0	3	8
Turpentine, per gall.	0	4	0
Liquid driers, per gall.	0	8	6
Knotting, per gall.	0	18	0
Distemper, washable, in ordinary colours, per cwt., and up	2	5	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	14	0
DO., *flat, per gall.*	1	2	0
DO., *paper, per gall.*	0	16	0
French polish, per gall.	0	17	6
Ready mixed paints, per gall. and up	0	15	0

*

LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	10
DO., subsequent coats, per yd. sup.	0	0	9
DO., enamel coat, per yd. sup.	0	1	2½
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	2
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

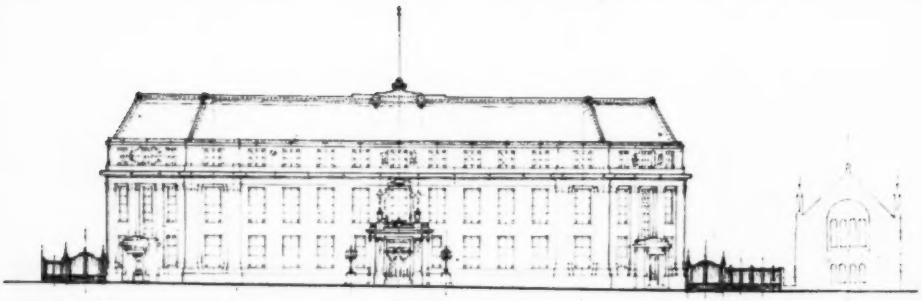
Fibre or wood pulp boardings, according to quality and quantity. The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds per ft. sup. . . . from 3d. to	0	0	6
Plaster board, per yd. sup. from	0	1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

Waterproofing compounds for cement.
Add about 75 per cent. to 100 per cent. to the cost of cement used.

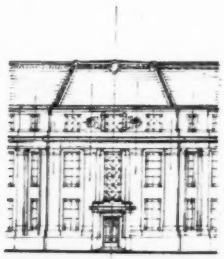
PLYWOOD, per ft. sup.

Thickness	$\frac{3}{16}$ in.			¼ in.			$\frac{3}{8}$ in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	5½	3	2	5	4	3	6½	5½	4½	8	7	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 0	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—

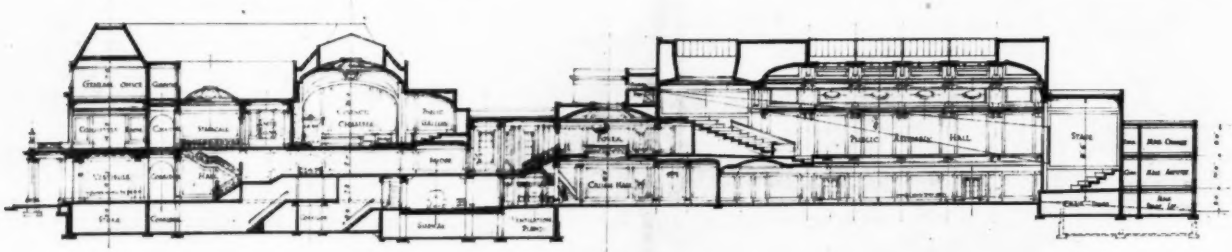
SCALE 16 FEET TO AN INCH



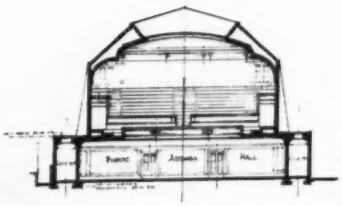
ELEVATION TO THE BROADWAY



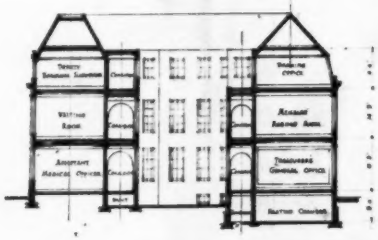
ELEVATION TO QUEEN'S ROAD



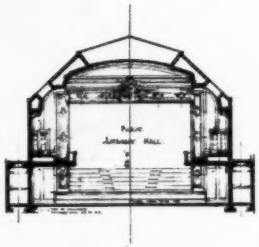
LONGITUDINAL SECTION ON LINE AA



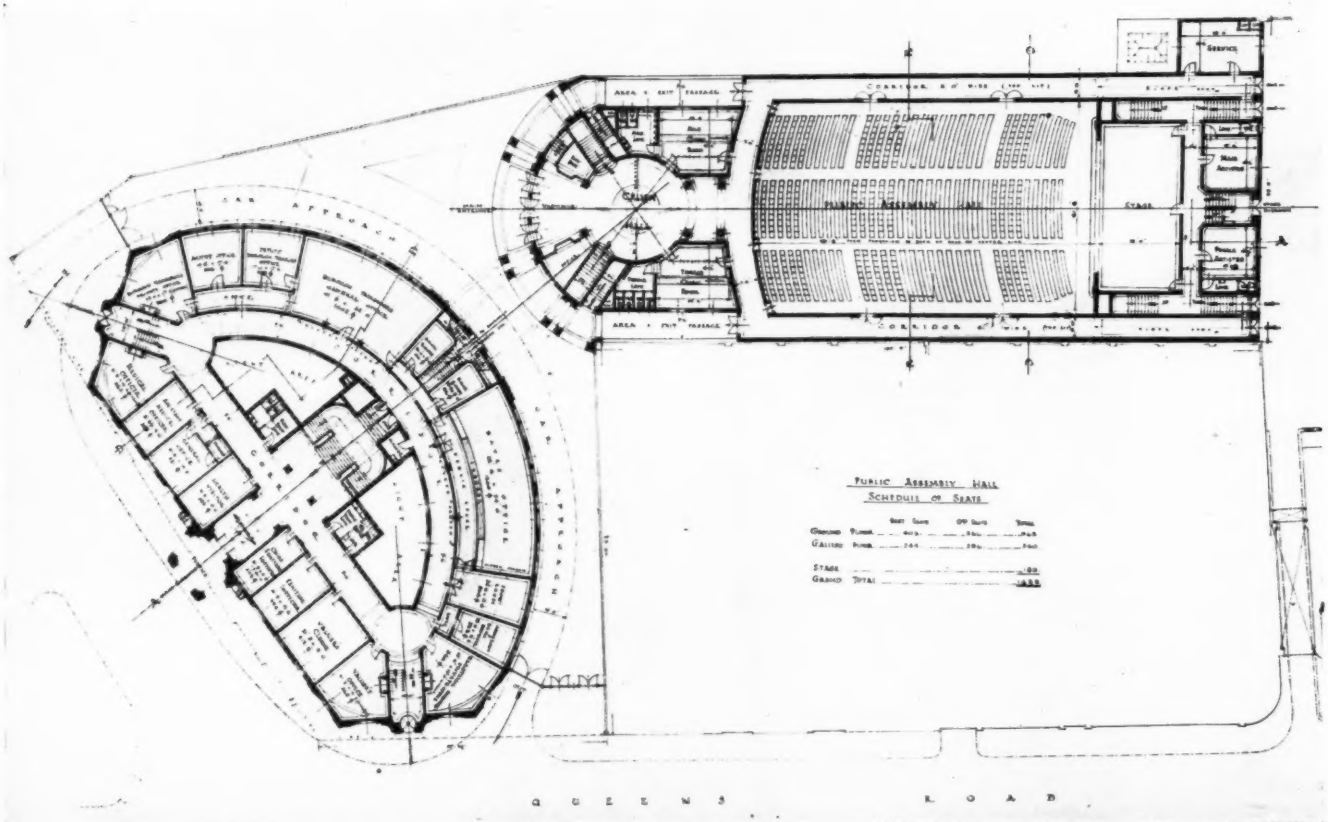
CROSS SECTION ON LINE BB



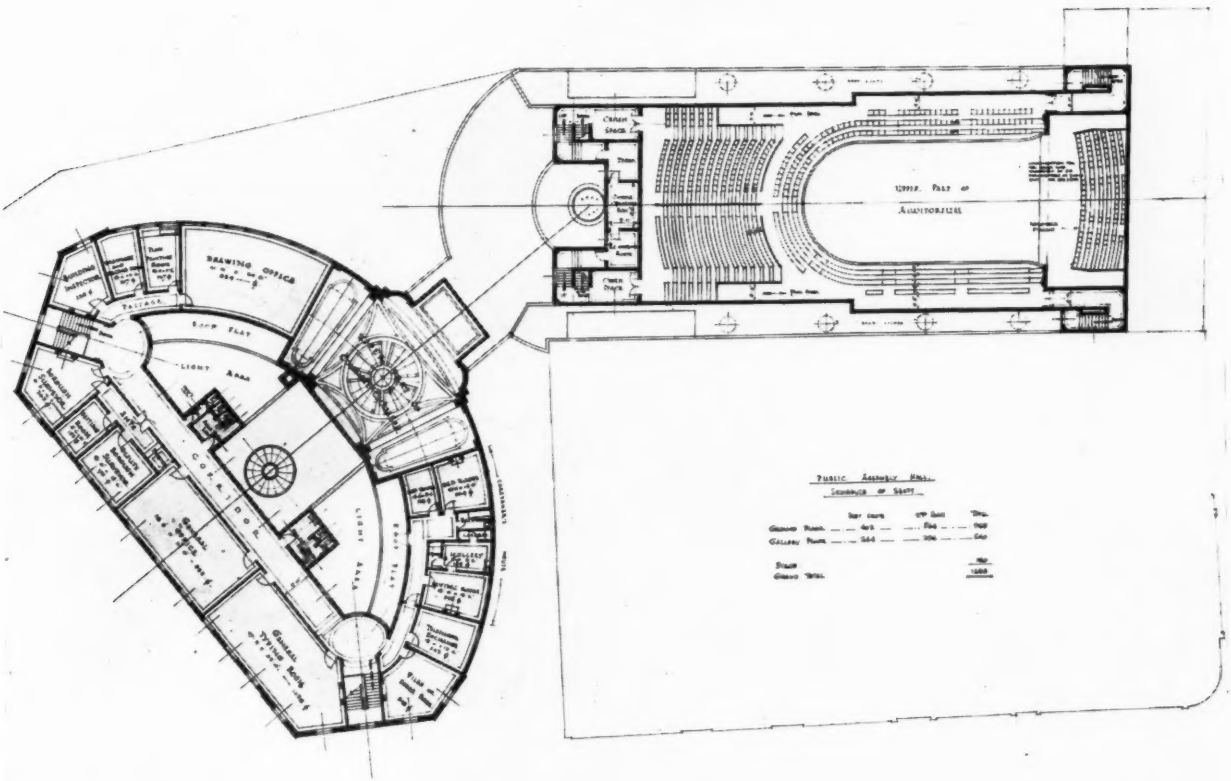
SECTION ON LINE DD



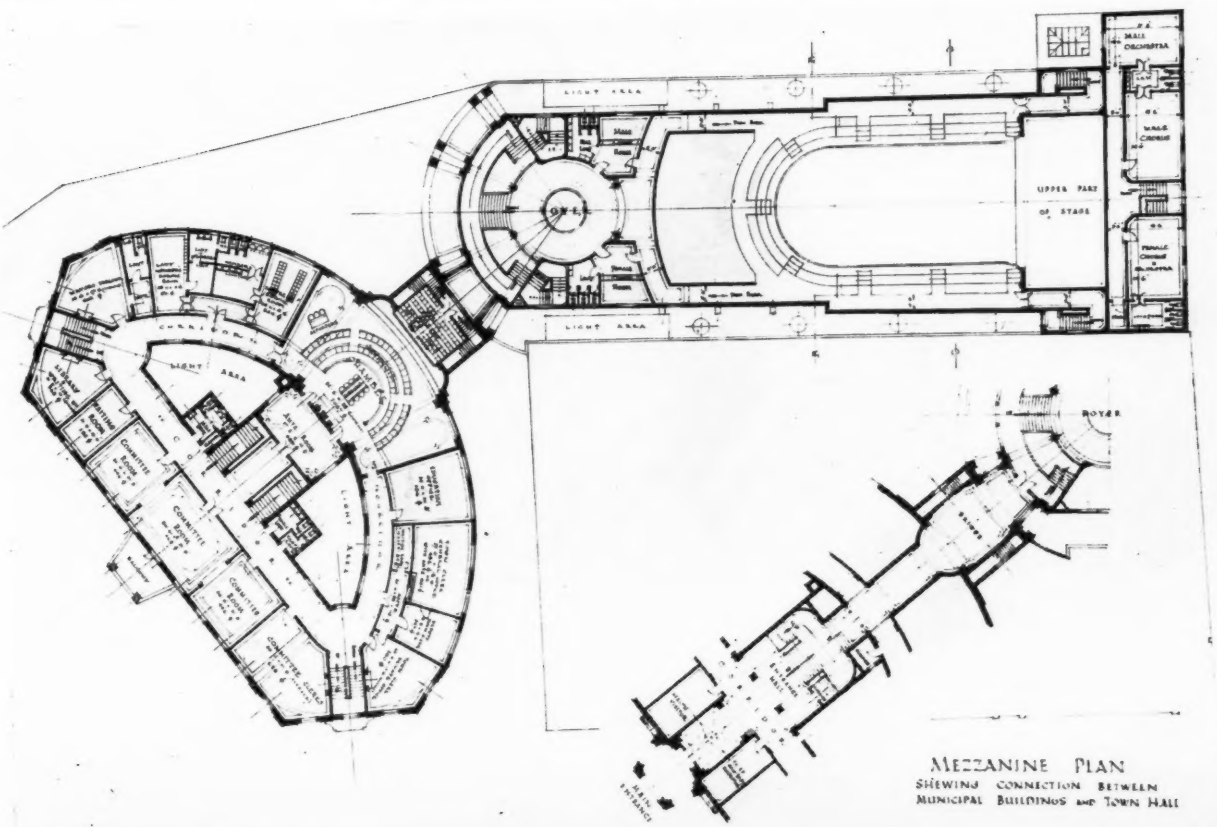
CROSS SECTION ON LINE CC



SCALE 16 FEET TO AN INCH

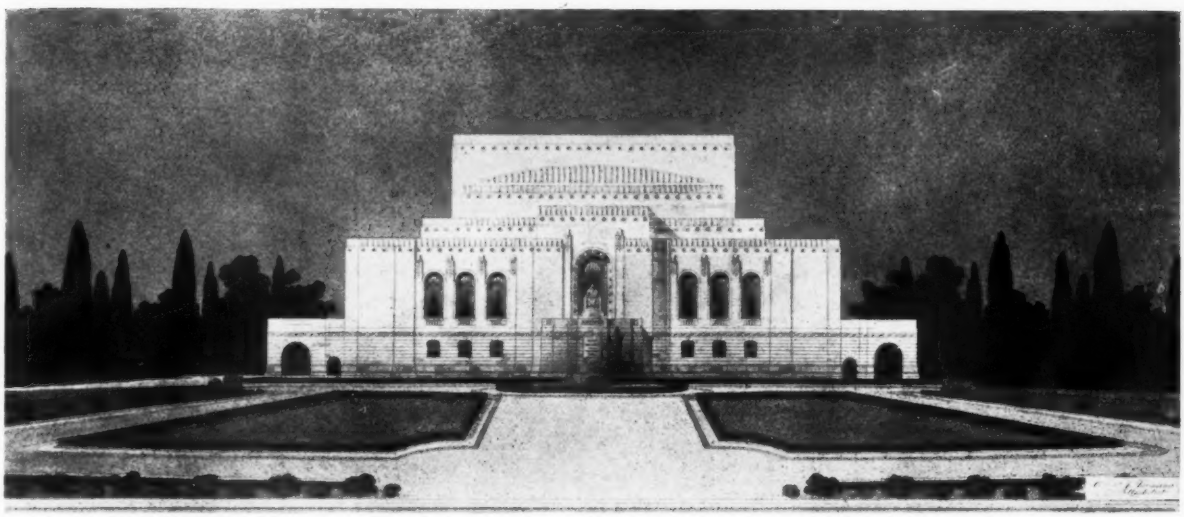


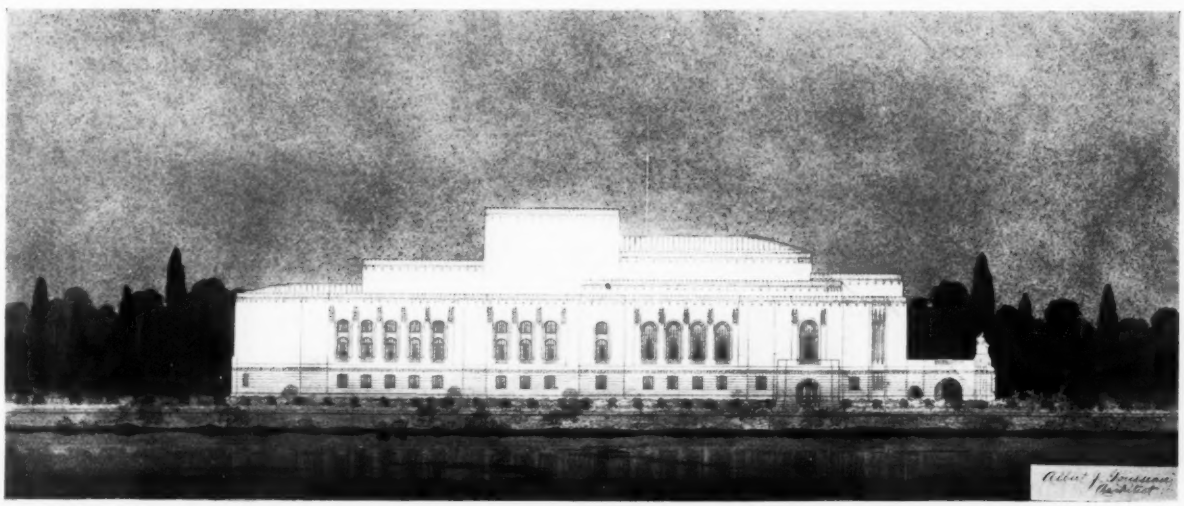
SECOND FLOOR PLAN

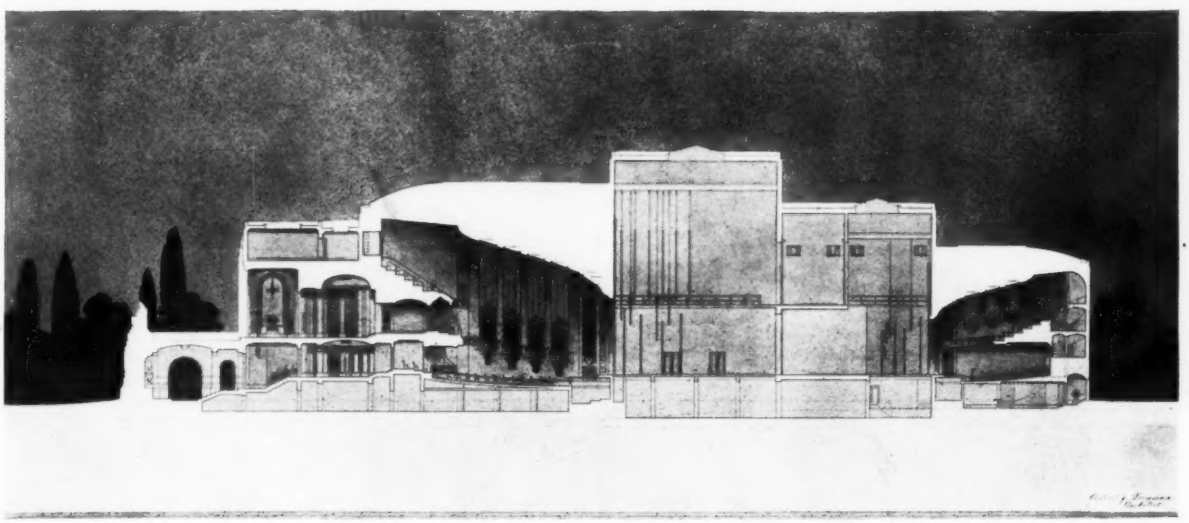


MEZZANINE PLAN
SHEWING CONNECTION BETWEEN MUNICIPAL BUILDINGS AND TOWN HALL

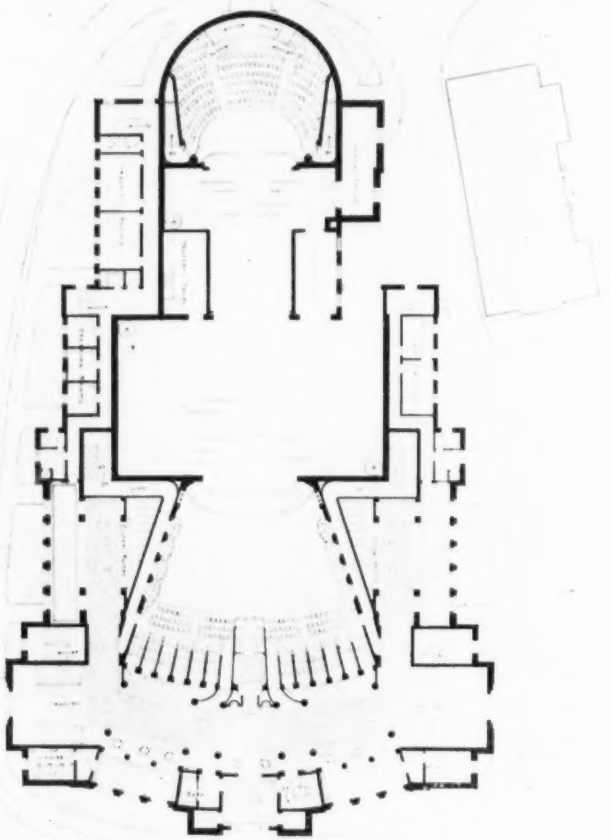
The Wimbledon Town Hall and Municipal Buildings Competition. The Winning Design by Bradshaw Gass & Hope.



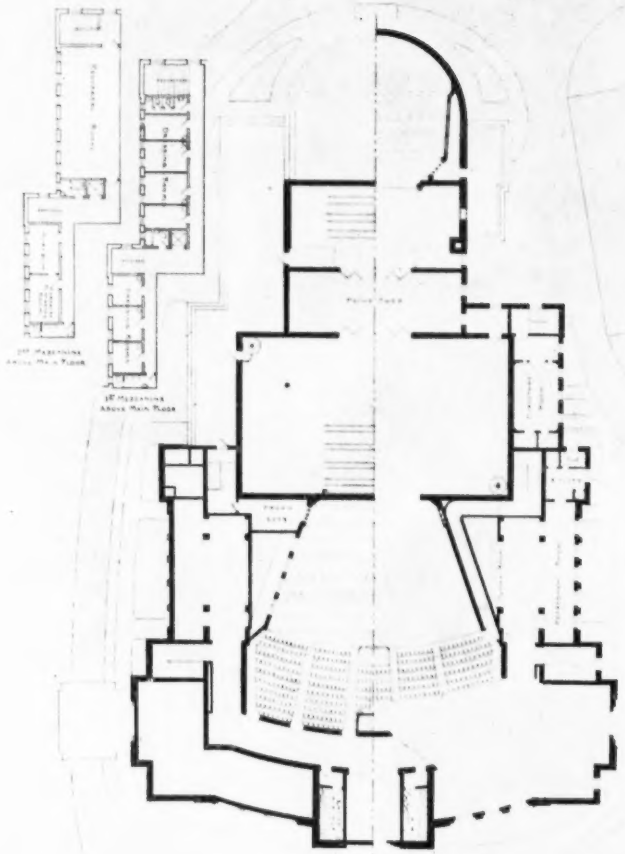




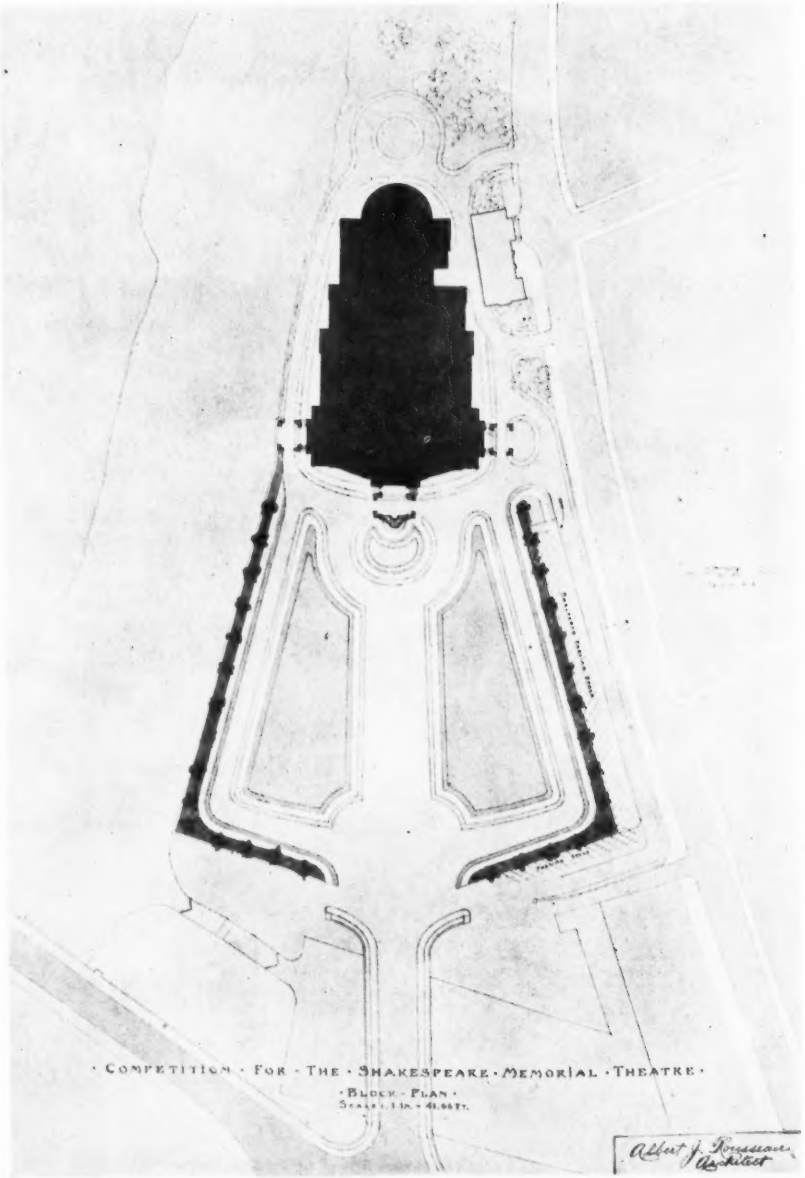
The Shakespeare Memorial Theatre Competition. The design by Albert J. Rousseau. Above, the front elevation. Centre, the riverside elevation. Below, longitudinal section. The winning design, by Miss Elisabeth Scott, and the designs by D. F. Martin-Smith, Percy Tubbs, Son and Duncan, and S. Rowland Pierce, were illustrated in our last issue.

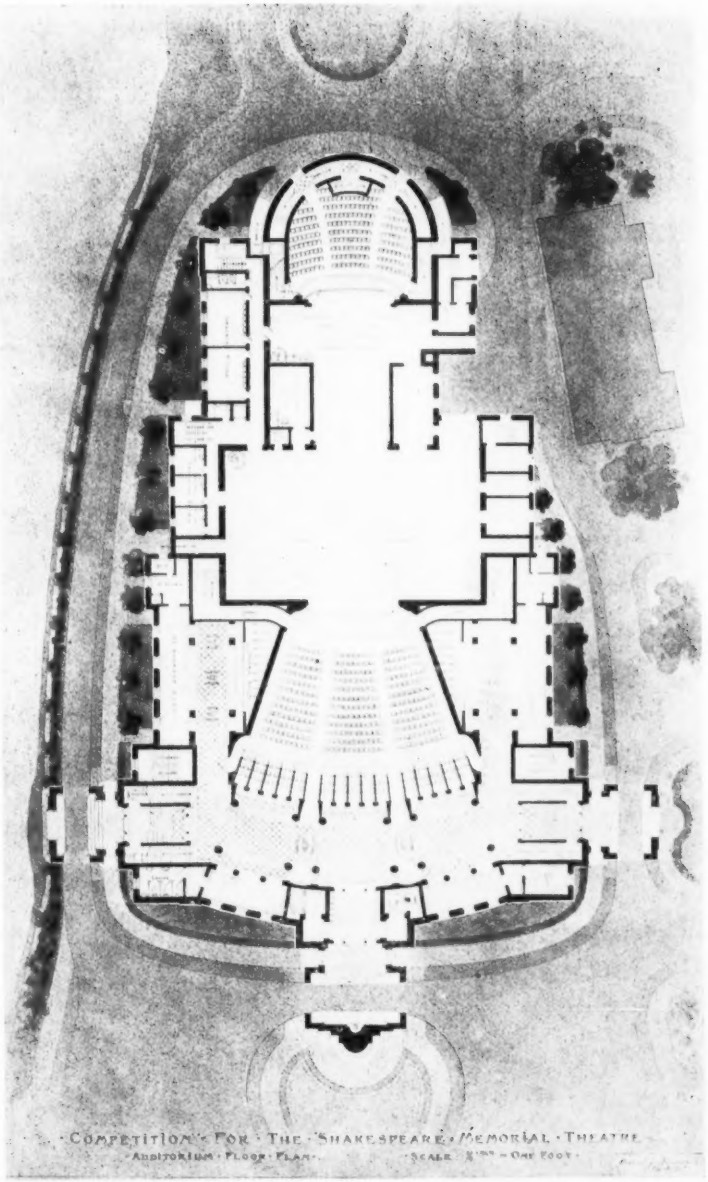


COMPETITION · FOR · THE · SHAKESPEARE · MEMORIAL · THEATRE
· MAIN FLOOR PLAN ·

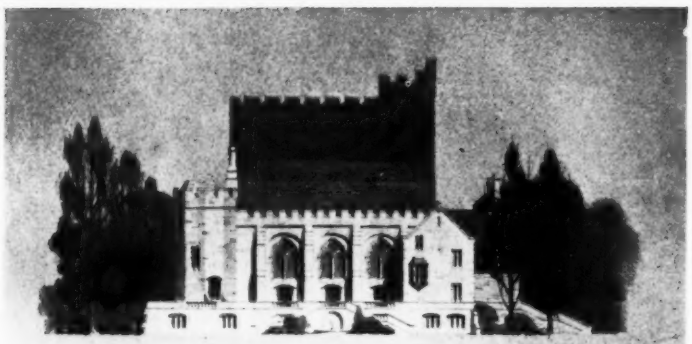


COMPETITION · FOR · THE · SHAKESPEARE · MEMORIAL · THEATRE
· PLAN OF UPPER PART OF GALLERY FLOOR · · PLAN OF LOWER PART OF GALLERY FLOOR ·

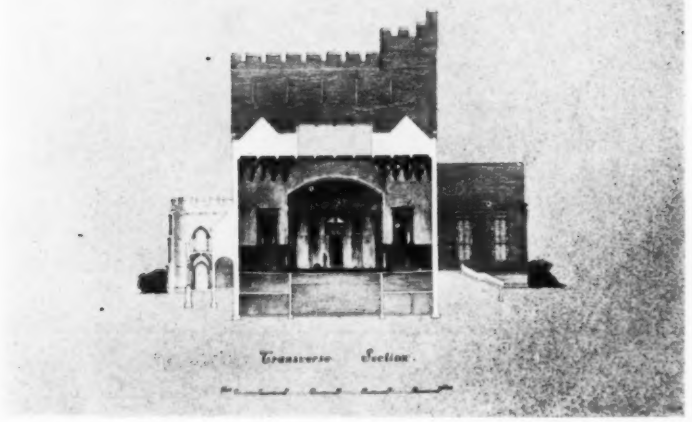




The Shakespeare Memorial Theatre Competition.
The design by Albert J. Rousseau. The plans.



North Elevation



Transverse Section

The Shakespeare Memorial Theatre Competition. Above, the design by Albert R. Mohr and Benjamin Moscowitz. Below, the design by Robert O. Derrick.