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Additions by Sir Reginald Blomfield to Lady Margaret Hall will be illustrated in the next issue. The accompanying critical article will be by Mr. C. Campbell Crowther.

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CHRISTIAN BARMAN, *Editor*

The Editor will be glad to receive MS. articles, and also illustrations of current architecture in this country and abroad, with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

RENDERINGS OF ARCHITECTURE

Selected and annotated by Dr. Tancred Borenius.

xxxi : Vittorio Maria Bigari (1692-1776).
Belshazzar's Feast.

A Bolognese family of theatrical designers and decorators alongside of the Bibbienas and, if not comparable with these for importance, yet by no means devoid of interest were the Bigaris. General attention was first attracted by their work at the Loan Exhibition of seventeenth- and eighteenth-century art, held at Florence in 1922 ; and they can now be well studied in the gallery at Bologna. The most notable artist of the family is the painter of this picture, Vittorio, who worked both in his native city, Bologna, and in many other places in Italy, though he did not have the great international career of a Giuseppe Bibbiena. That he was strongly influenced by the Bibbienas there cannot be the slightest doubt, looking at an example such as this ; but there was a vein of more playful Rococo feeling running through his art, and, as Mr. Osbert Sitwell has well said, he "always arrests the attention by his imagination, great skill, and by a curious, almost pastel-like colour scheme."—[Bologna Gallery.]

THE ARCHITECTS' JOURNAL

Wednesday, August 18th, 1926

IRELAND

If we are to analyse intelligently the present position and probable future of Irish architecture we must first examine the soil in which it is beginning to take root and trace the outstanding characteristics of the people.

The outlook of the average Irishman is fundamentally different from that of the Englishman. The distinction is, perhaps, best illustrated by comparing the two dramatists who portray most intimately the life and thought of the poorest town-dwellers—the late Harold Chapin in England, and Sean O'Casey in Ireland. Chapin's little play, "The Dumb and the Blind," epitomizes the whole philosophy of the normal London bargee's life. It shows him cabined in an obscurity of materialism, unresponsive to all abstract ideas, and only very rarely aware that there can exist an indefinable doubt about the all-sufficing reality of his barge and his wife's wash-tub. O'Casey, in "Juno and the Paycock," shows a Dublin tenement where the whole atmosphere is abstract. Conditions are certainly disturbing, whereas those in Chapin's drama are monotonous and tranquil, but none the less the two plays illustrate vividly the distinction between the practical and the abstract frame of mind. In England the vital problem is the price of coal and bread; in Ireland it is whether or no one should take a certain oath. The Englishman is prosaic and practical; he willingly believes anything that science chooses to tell him, and the objective world is his only concern. The Irishman, on the other hand, will be frankly incredulous if you tell him that the stars are all suns, but will not be at all astonished if you mention that you saw a fairy eating a biscuit.

One would therefore look for a completely different architectural expression on the two sides of the Irish Sea, but, if we except the earliest work, we shall find much less divergence in type than one would expect. For totally different reasons both England and Ireland have lost their genuine building traditions. In England the flood of industrialism submerged the architectural impulse, while in Ireland a diminished population was politically absorbed in the desire for self-government and the overpowering obsession of the land. A dwindling population has not abolished the problem of overcrowding, but in Irish towns it concerns central degenerated areas rather than the familiar colonies of bad new dwellings common in England. The new work in Ireland, erected during the last fifty years, consists only in a small degree of shops and business premises indistinguishable from like work in England, and of small rings of middle-class houses round the principal towns. It is to the churches and institutions that we must turn for quantity of output and for the main influence in the modern architectural acceptances of the country. Church and institutional architecture afforded an outlet for the pent-up zeal of the people. Seventy-five per cent. of the population are Roman Catholics, but all the existing pre-Reformation church buildings followed the English law and passed from their service. A highly devotional people found expression and relief in pouring their savings into funds for church construction, and no one can review the extent of this construction without amazement at the sacrifice that an impoverished peasantry can make for the religious ideal. Neither was the Protestant Church backward in its building activity, for the churches that had survived the many troublous times were totally inadequate to the requirements. That the resultant work in both denominations should have remained at a low artistic level is a tragedy. Local feeling is practically limited to the use of well-cut and well-laid stone. The determination to identify devotional association with one type of church building hampered the development of new work that might at first appear secular, and the result has been the perpetuation of a dead Gothic mask. Suspicion of "Pagan" influences, believed to have been imported into Dublin from Paris, further discouraged the employment of local artists and added to the orders for work of an assured orthodox mintage. Occasionally a definite local interpretation is found, but on the whole the buildings are heavy, unconvincing, and devoid of national architectural significance. The craft details are imported and poor, and have combined to create a popular acceptance, which includes a universal use of grained varnish. But, for all its shortcomings in execution, the impulse that created this vast extent of work remains—perhaps the most outstanding witness to the force of higher, or abstract, values that the nineteenth century has to offer the world.

The existing acceptance is unhealthy, because it is abnormal; it is anti-national and is impoverishing development. In support of the claim that Ireland offers fertile soil for real culture we may quote Fergusson, writing some sixty years ago in his *History of Architecture :* "At a very early period the Irish showed themselves not only capable of inventing a style for themselves, but perfectly competent to carry it to a successful issue, had an opportunity ever been afforded them. But this has not yet happened. . . . Art is a plant too tender to flourish in a garden of hatred, and it has consequently been long banished from Irish soil, though, under gentler influences, it is probable that it might be more easily revived and more successfully cultivated there than in any other part of the British Isles."

NEWS AND TOPICS

THE Royal Fine Arts Commission has just issued its report. It is a meagre affair of six pages which contain very little information, and judged from it alone, the Commission would scarcely seem to justify the seventeen hundred and odd pounds which its existence has so far cost the country. It seems, however, that many matters have been referred to the Commission confidentially, and these are not dealt with. For my own part I think that this is a mistake, and that all the activities of the Commission should be published. I take it that the Commission bears somewhat the same relation to the country as the Birmingham Advisory Art Committee does to the City of Birmingham. Yet how different are the two reports. The latter contains a full list of submissions and much information concerning its year's activity, while the former is, with a few exceptions, entirely vague. The Commission has a long road to travel before it establishes itself as an important and authoritative body in the nation's life; one whose advice is eagerly sought, and whose opinion is respected; before it exerts a real influence over the aspect of towns and countryside. That the Commission should achieve so little is, for the most part, due to circumstances that it cannot control. It is like the architect or the doctor setting up in practice, he can put his name on the door, but he must then patiently wait for someone to knock at it.

* * *

The most interesting matter in the report is contained in the Commission's views on the "growing difficulty of harmonizing the new with the old, and preserving the old while doing justice to the new." Two important specific cases arose in the course of the year in connection with proposed extensions to Ewan Christian's National Portrait Gallery, and Waterhouse's Natural History Museum. In both cases the Commission advise that no restrictions should be imposed upon the architect with regard to any obligation to carry on the existing style. "Provided that the new wings are sufficiently disengaged, the architect should be free to make additions according to his own ideas and in conformity with the latest requirements of museum design." I think the Commission is right in its finding, but it requires all the ingenuity of a skilful architect to bring the thing off successfully. None but a genius could have done what Wren did to Westminster Abbey Towers.

* * *

The problem of how to design street architecture suitable to an industrial town does not appear to have as yet been satisfactorily solved. In Manchester an architectural critic has recently been complaining that many of the new façades now being erected in that city are exceedingly depressing. Manchester, according to this architect, is "arranging its face" in a much too plain and unprepossessing manner, and he declares that although these massive new buildings look pleasant enough when they are fresh and clean, their lack of artistic design will be painfully evident in thirty or forty years. "Nowadays," he says, "we are getting a sequence of flat and uninteresting buildings which are not much better than Early Victorian factories. They go straight up from the ground, and frequently they have no ornamentation at all until they are 50 ft. or 60 ft. high, and then, of course, the design is so high up that no one can see it." He maintains that we are overdoing this monolithic stark-naked type of architecture, which is particularly unsuited to a town like Manchester, where the buildings are soon covered with grime and soot. In contrast to these modern buildings he singles out for commendation the Free Trade Hall, the Art Gallery, and the Royal Exchange in Manchester, which he declares to be "broken up in an artistic design so that they are able to retain their attractiveness through the years." He recognizes, however, that Manchester is also suffering from the over ornamentation of some of its prominent buildings, and he is not suggesting that the new façades should be crowded with unnecessary detail.

* * *

It is not quite clear what this architectural reformer has in mind, nor does he suggest the most obvious remedy for the conditions which he deplores. Manchester is a rich city, and very large sums are expended upon the new buildings which align the streets. Expensive materials, the best stone, the best wood, and costly metal work, are employed in their construction, and yet the complaint is made that in a few years the façades will be covered with grime. Obviously the remedy is paint, and there is one material suitable for facing buildings which also is a perfect background for paint. That material is stucco. The initial cost of a stucco-fronted building is so much less than one of Portland stone that the interest on the difference between the capital expenditure involved in these two methods of wall construction will more than cover the occasional expense of painting the walls. In advocating the liberal use of stucco in Manchester, I am not guilty of suggesting an architectural innovation foreign to the tradition of the place, for in walking through the streets of that city one may still come upon examples of modest Regency façades which, although over a hundred years old, still look pleasant and fresh and are a most welcome relief from their sooty neighbours. The owners of the buildings just referred to are not princes of industry and commerce, but for the most part have quite small establishments, and if they can afford to enliven with a coat of paint that part of the street frontage for which they are responsible, so much more ought it to be possible for their more prosperous and important commercial confrères to adorn their façades in that manner. Perhaps when the present craze for Portland stone shall have run its course the glories of stucco will be revived. No section of the community will stand to gain so much from such a development than would the inhabitants of our great, but grimy, industrial cities.

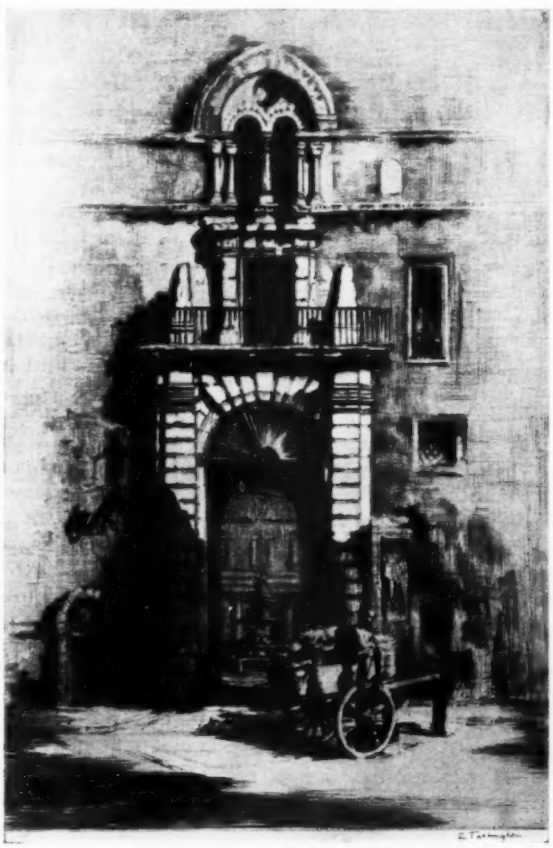
* * *

The Royal Institute of British Architects has made a strong complaint to the Greenock Corporation against public officials being allowed to engage in private practice against the interest of local architects and surveyors. In a letter which was submitted at a meeting of the Law and Finance Committee it was pointed out that complaints had been received from time to time from members of the Institute in respect of whole-time officials undertaking private work. The letter went on to state that it was unfair to architects in the districts who, as ratepayers, were contributing to the salaries of these officials and that, moreover, the officials had an unfair advantage in being able to present and get their plans passed by their own authority. The request was made that the Council should notify their

officials that where such practice existed it should be discontinued forthwith, and that in all future whole-time appointments terms of undertaking should prohibit all officials from engaging in the private practice of architecture. After discussion the letter was referred to a sub-committee of the Corporation for inquiry and report.

* * *

It has always been a mystery to me why the architecture of China has not had more influence upon our Western styles, and I was particularly pleased to read in the *Christian Science Monitor* that an American architect, Mr. Henry Killam Murphy, is determined to do all he can to bring Chinese architecture to the notice of his own countrymen, and, what is just as important, to encourage the Chinese themselves to value it, to continue to erect buildings in accordance with their own native traditions, and to resist the tendency to accept without question European styles. Mr. Murphy ranks Chinese architecture with the two classic and world-dominating styles, the Greek and the Gothic. It may be remembered that in the middle of the eighteenth century there developed a marked interest in Chinese architecture on the part of some of the adherents of the classical school; Sir William Chambers, after his Oriental travels, not only wrote an important book upon Chinese garden design and brought home with him many careful drawings of Chinese temples and pagodas, but he was actually permitted in the Royal Gardens at Kew to erect several structures in the Chinese style.



The Palazza dei Tribunali, Palermo. [*From an etching by E. Tushingham, A.R.E.*]

Mr. Murphy is convinced that this manner of building can properly be utilized in the most solidly constructed buildings. In his nearly-completed Yenching University Group at Haitiem, near Peking, he has erected a university campus surrounded by a large group of buildings in authentic Chinese style, curving roofs, key pillars showing on the outside of the façades, interior courts and rich decoration, all executed in concrete. Mr. Murphy's enthusiasm for Chinese architecture is not merely an emotional affair, but is derived from a careful analysis of the essential qualities of the style. He singles out five distinguishing features, which are especially worthy of our admiration. First, he refers to the orderliness of arrangement evinced in the formal grouping of the principal buildings around great courts with marked attention to an axis throughout and a nice feeling for balance, although not necessarily for symmetry; second, its frankness of construction, great columns either free standing or partially engaged in the walls actually doing the work of supporting the structure; third, the massive masonry base which makes for actual as well as apparent solidity; fourth, the curving, turned-up roofs with their splendid sweep unbroken by dormer windows; fifth, the gorgeous colouring which glows from columns, lintels, and beams, from richly-bracketed cornices, and from the broad expanse of stuccoed walls. Moreover, he points out that buildings erected in China by foreigners should be in the best Chinese tradition, because otherwise they are regarded as something alien and imposed upon them by force from without. It is notorious that at the present time there is existing in China a strong feeling of antipathy towards foreigners and, it must be remarked, against Englishmen in particular. This prejudice has an injurious effect, not only upon political relations, but upon trade also. It is not always recognized that architects can perform important services in such circumstances, and it may well be worth while for us to take a very serious interest in the architecture of China and to insist that buildings erected by us in that country shall show a regard for native traditions so well worthy of our consideration.

* * *

A German author, with a gift for the macabre, in a personal letter to me writes this (I translate and give the whole letter):

"My dear Herr Astragal,—You leave me wondering whether you got my letter and the copy of 'Bauten Der Arbeit,' and I am always impatient, so I write again. I am sending a copy of this week's paper—not because there is any special building illustrated, but because you may be interested by the notes on page 3. The notes I write weekly, and I am trying to do something new for architecture—I want to make it as interesting as the novelists make hypnotism, drugs, aviation, and so on. Why should one not do so? Do you, I wonder, know the tales of the great American writer, Edgar Allan Poe? There is a tale by him called 'The Fall of the House of Usher,' in which the house is given a *soul*. Why should not houses and all buildings be given souls? I will strike the imagination of the people by making architecture terrible, or pathetic, passionate, appealing, or grotesque, because it is so in reality, and it is more part of our lives than is ever guessed." The notes referred to are remarkable. I shall attempt to translate some on another occasion.

ASTRAGAL

A MAKER OF FOUNTAINS

[BY KINETON PARKES]

THE United States is the happy possessor of several fine fountains, and of architects and sculptors who are the makers of such. Among the latter is Alexander Stirling Calder, whose most recent work in this direction is "The Fountain of the Rivers" at Philadelphia, where the sculptor was born in 1870. It is in the centre of the Logan Circle, that fine open space of the city, and is said to be the largest work of the kind in the country. It is a very striking work, of which the architectural part is due to Wilson Eyre and McIlvaine. It has three colossal figures in graceful reclining postures, symbolizing the three great rivers, the Delaware, the Schuylkill, and the Wissahickon. The first is an Indian with a large fish, the other two are females with swans. From the mouths of these the water issues, and the sprays form a pleasant design with the high ascending central discharge and the subsidiary ones around it, which should only be judged when the waters are playing. Stirling Calder is a decorative artist, and in this work his motives for its adornment are the fish and the swans, the heads, scales, and feathers of which yield ornamental details and their bodies give weight, bulk, and support to the nude human figures. These are treated in long, slightly reclined lines, largely in the classical manner, with a nice naturalistic touch. Their long contours are artfully posed in order to get the proper angles of the varying lights and shadows, which are necessary in fountain work. Their actual modelling is somewhat simplified into sharp, incisive planes.

The classical note is intensified to an almost modern Italianate fashion in the impressive artificial "Island" in the shallow waters of the estate of Mr. James Deering, Viscaya, Miami, Florida. The architects, Paul Chalfin and Burrell Hoffman, have built up a stately Venetian barge of limestone, the ends of which have two sumptuous, colossal figures of nude women supported by the head of a huge sea monster. Above is a group of two other females, only less opulently modelled, and the bulwarks, represented by a balustrade, support four other figures.

Above, "The Fountain of the Rivers," Philadelphia. By A. Stirling Calder. The Wissahickon detail.

A simpler work is "The Fountain of the League of Nations," carved in Tennessee marble for the garden of Mr. Julius R. Tinkhans, at Montclair, New Jersey. This very attractive piece has more naturalistic if less architectural character. It is a simple but impressive statement of the three services supporting a circular basin, symbolizing the fountain of wisdom. The three uniformed men are compactly designed and convey the idea of graceful strength.

The sculptor's most delightful as well as best-known work is "The Depew Memorial Fountain" at Indianapolis, the architect of which was Henry Bacon. A great basin with some small animals spouting sprays surrounds the centrepiece. Of this, three circular risers with lipped runners of bronze support a circular grooved column which bears a small basin, itself containing a short sculptured base for the crowning figure, a partly draped dancing girl with cymbals, a beautifully poised piece. The topmost riser of the base is embellished with naturalistic fishes, and around this and supported on the middle step is a circular group (in bronze like the surmounting figure) of eight girls and youths slightly draped, in the ecstasy of the dance, not the wild ecstasy of the Bacchic festival, but the simple and intense pleasure of rhythmic bodily movement. The eight are joined by their hands to form a jolly living circle, and they are all

rendered in perfect plastic fashion, as is the case with most of Stirling Calder's work.

If it is true now that "The Fountain of the Rivers" at Philadelphia is the largest in America, it was not so in 1915, for in that year there existed at the Panama-Pacific International Exposition the largest fountain in the world, and this was due to a great extent to Stirling Calder and his large sense of spacious sculpture, a natural gift, but one stimulated by his masters in Paris, Chapu and Falguière. This extravagant and ornate conception was carried out by Stirling Calder as director of the sculptural adornment of the Exposition, in conjunction with Karl Bitter, the sculptor, and the architect, George W. Kelham. But it was more than one man could accomplish in a year, and so F. S. R. Roth, the accomplished animal sculptor, and Leo Lentelli, born at Bologna, and instructor in sculpture at the California School of Fine Arts, were joined to Calder in the immense work. It was made in concrete and is now dumped in San Francisco Bay!

"The Fountain of Energy" towered heavenwards in the gardens of the Exposition. It was a nightmare zoological museum of strange concrete forms, spouting water from their habitat, the lake, out of which arose the great centrepiece designed by Calder. On a simple base was reared a structure something like an enormous gourd, supported by huge crouching figures and decorated by others from which proceeded many spouts of water, reaching to the periphery of the pool beneath. Above this was the dynamic male figure of Energy bestriding a horse, and his arms outstretched and bearing on his shoulders two nude figures with trumpets, announcing the terrific attributes of human energy to the world. It was a prodigious conception, incidentally embodying the Four Oceans, but one which, considering all things, could not hope for permanency.

Stirling Calder is a man of many activities and wonderful application. He has made much more sculpture of an architectural character than that mentioned here, and much ideal sculpture and portraiture. He is at the height of his powers, and lives and works in New York.

The Depew Memorial Fountain. By A. Stirling Calder.

SUCCESS

[BY H. J. BIRNSTINGL]

I HAVE never been to the United States, and I must confess that I have absolutely no desire to go there. I cannot but feel a grudge against a country from which have emanated cocktails, sky-signs, jazz bands; a country which disregards the decent frugalities of living, and which speaks American. Recently my prejudice has been strengthened, immensely strengthened, by two publications — by a book called *The Secret of High Wages*, by Bertram Austin and W. Francis Lloyd, and by some extracts from an article in the *New York Times* by Karel Capek. Messrs. Austin and Lloyd start with certain fundamental assumptions, and therefrom write a book full of common sense; fortunately there is still little justification for assuming that the American scale of values prevails the world over; if it did, indeed, it would be the duty of every one of us to pray for the speedy extinction of this planet. For what it comes to is just this: that the purpose of our life here on earth is the manufacturing of commodities and still more commodities, which must, of course, be sold by artificially stimulated sales, that our ambition must be to secure the greatest profits ever amassed, so that we may one day rush along the coast of the Mediterranean at a greater speed, in a more expensive car, and with a bigger cigar in our mouth than anyone else. For therein is the measurement of success.

However, since England decided to become industrialized a century and a-half ago, she will doubtless be wise to learn something from that country which has now so completely beaten her at her own game. But since, too, England has built great cathedrals, has bred great poets, has produced great painters, has propounded philosophic systems, she should not abandon all her splendid treasures, or deny all her breeding and culture for the god success. What she requires at the moment is a little more efficiency and a little more prosperity, but heaven help her if she ever achieve a state of efficiency or prosperity which, according to Messrs. Austin and Lloyd, appear to exist in America to-day. For although the authors assert that in America " Tens of millions of people have attained there standards of comfort and of culture far higher than those of any other country of the world to-day, and immensely in excess of anything hitherto known in the world's history," I cannot but feel sceptical as to the value to themselves of this comfort, and to the world at large of this culture. A high standard of culture is surely one which enables the nation enjoying it to bequeath to the world something of lasting benefit, to make their mark, to leave their deposit, as it were, by producing great works of art, by propounding philosophic systems, by alleviating human suffering. Real culture is not acquired by hustling round Europe, nor are its manifestations a desire for speed and size, and it is difficult to think that posterity, in looking back, will agree that the highest state of culture hitherto known in the world was to be found in the United States of America during the third decade of the twentieth century.

No; culture is not synonymous with material prosperity, with a capacity to pay high wages. The American, it would seem, succeeds in paying higher wages because he pays by results, because he eliminates waste, because he continually endeavours to lower prices and increase output, because he is never afraid to scrap plant and methods the moment they are ceasing to yield the maximum efficiency—the moment they begin to be obsolescent—because, although he competes with his rivals, he yet exchanges ideas with them; and because he aims at standardization.

None of these things is done in England with the same intensity. Payment by result is by no means an accepted principle, very little attempt is made by employers to eliminate waste; a theory of high prices and restricted output rather than low prices and a quick turnover is favoured by many manufacturers, enterprise and courage are lacking in plant scrapping, and standardization is only moderately attempted. In all these things there is room for improvement. The workman desires high wages, yet by refusing payment by result he is often unable to secure them. Increase in output would lower the price of commodities more rapidly than the increase of wages would raise it, and cheaper commodities mean increased purchasing power. The manufacturer pursues the ridiculous policy of restricted output and high prices, thus keeping up his overhead expenses and tying up his capital. He furthermore handicaps himself with obsolete plant and wasteful methods. Let us improve these matters then, but let us, too, preserve our standards, for having inherited a scale of values which includes leisure, culture, beauty, repose, it behoves us not to jettison it lest by so doing we lose our soul.

Should we lament that it is rare to enter a business office in London and be greeted by some such aggressive slogan as " get on or get out," that it is possible to find in the United Kingdom more than eighty types of clocks (see Messrs. Austin and Lloyd's " striking instances " of what has been done in the way of standardization), that it is possible to refer to the London Telephone Directory without risking injury to the eyesight (see Messrs. Austin and Lloyd's example of waste elimination in the City of New York), that we have streets instead of canyons in our towns, that we have a sense of scale and proportion ?

The disease of megalomania is, perhaps, one of the most distressing and pitiful ailments of America, and my dislike of it was stimulated by some quotations from a recent article in the *New York Times* by Dr. Karel Capek. " People from America," he says, " bring to us a strange and fantastic belief that only the biggest is big enough. If an hotel is to be built it must be the biggest hotel in the world. If something is to be worth seeing it must be the biggest of its kind. The Creator of this world, it seems, was not infected with this passion for bigness, for He did not create this earth as the biggest of the celestial bodies.

" The Creator of Europe made her small; moreover, He divided her into smaller parts, so that our hearts might rejoice not in bigness but in diversity. America corrupts us with her predilection for huge dimensions. Europe will lose herself as soon as she makes this fanaticism of dimensions her own. Her measure is not quantity but quality. She is a beautiful Venus, not a Statue of Liberty ! "

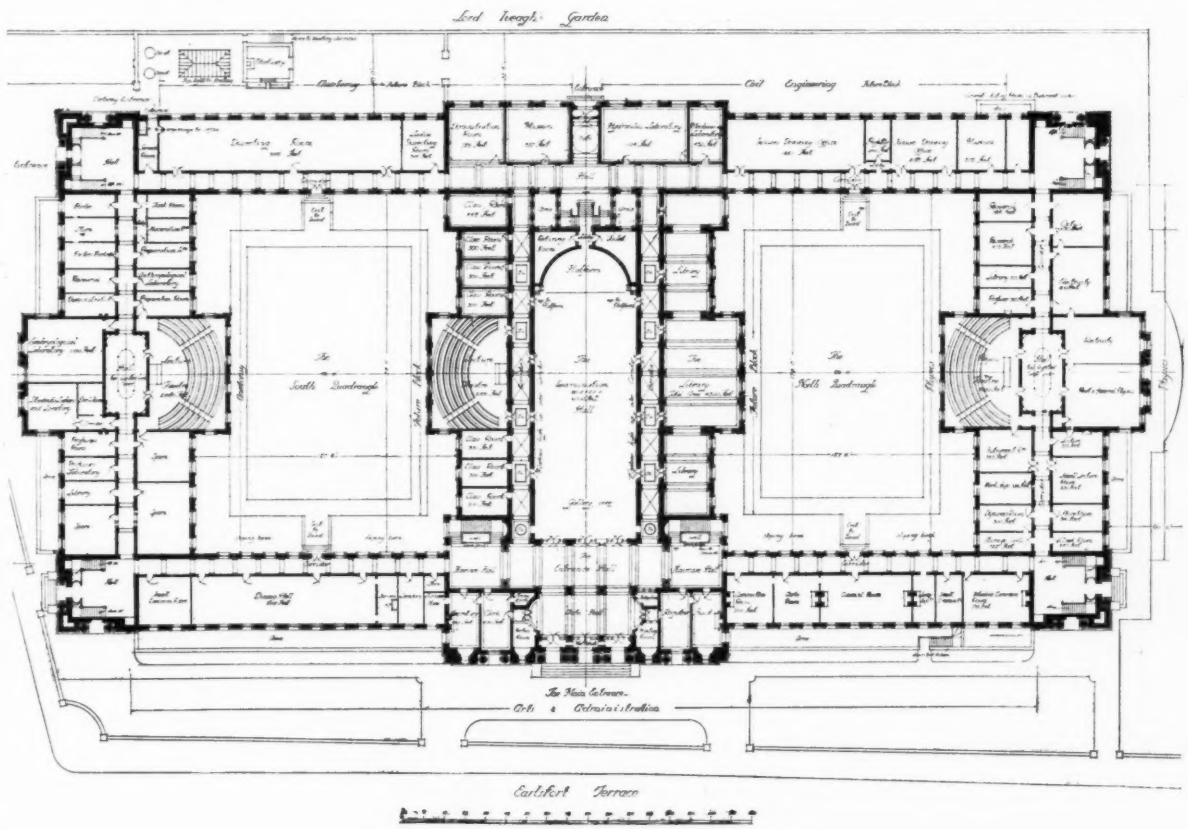
This may be doubtful theology, but it is unexceptionably good sense. And so I hope that, despite Messrs. Austin and Lloyd's book, we retain a little of our inefficiency and that we achieve but a modicum of prosperity, for we, too, have our measure of success, and it is a measure which takes account not only of what we make, but also of what we do and what we are.

CURRENT
ARCHITECTURE
SECTION

NEW ARCHITECTURE IN IRELAND

[BY MANNING ROBERTSON]

THE architecture of a country, assuming that it is real architecture and not surface convention, must owe so much to tradition that in examining the modern trend in any country it is necessary to bear in mind the type of building that has evolved through the centuries. New architecture can only mean the evolution of old, although it may be



University College, Dublin. By Professor R. M. Butler.
Above, the main front. Below, the ground-floor plan.

based more on principles than on details, or even construction. It is this distinction that differentiates a live renaissance from a dead revival. Irish tradition is so strongly impregnated with the spirit of the soil that it might form the basis of extremely interesting experiments.

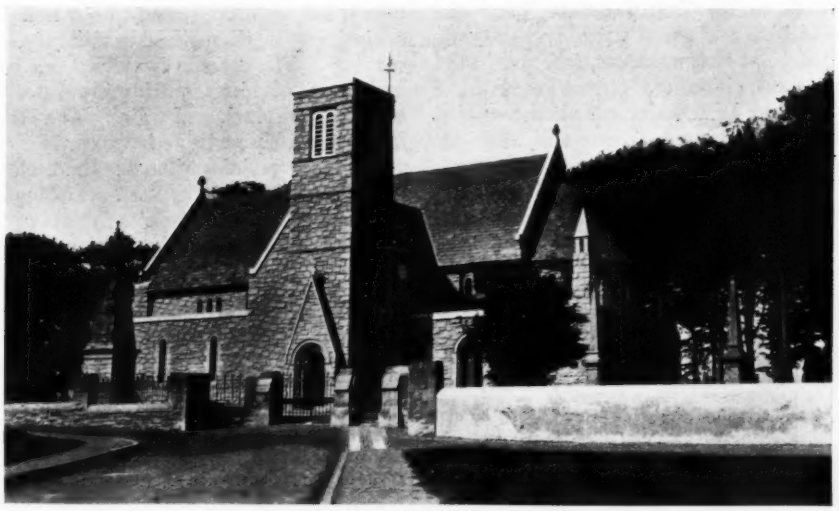
We find, first, the old Irish style, developing from the earliest Celtic churches, small, built without mortar, with sloping door and window jambs, the openings being spanned by lintels. We see a progressive increase in size, and the appearance of Romanesque characteristics, including the round arch and the zig-zag moulding with the typical Celtic interlacing pattern. Side by side with these churches, and dating from about the tenth century, we find the round towers, whose original purpose is not even now finally established. Perhaps the outstanding impression left by this early work, and the lesson to be learned, is the handling of the curved wall and the sinuous curve of detail.

Window for a house in Dublin. By Harry Clarke.

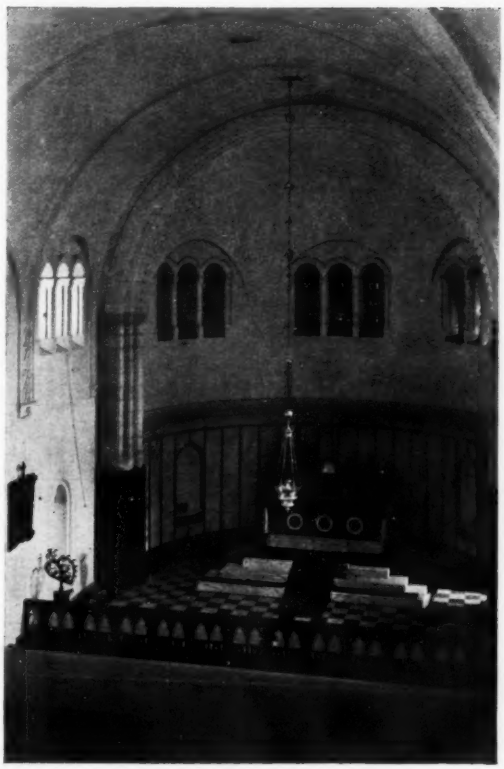
Next in the direct line of tradition we have the rectangular plan of the old castle keep, sometimes showing traces of Spanish influence, grey, stern, and forbidding, but with its own resigned dignity, a form of building that gives the keynote to the Irish farm and cottage. Finally, we have the Italian Renaissance tradition, brought into the country, as in England, by Italian workmen, and culminating in Gandon's Four Courts and Custom House in Dublin. The town houses of Dublin are monuments of Georgian severity, enlivened by granite cornices, mouldings, and delicately traced fanlights and door and ceiling detail. Coming next to the period of the semi-detached house, from 1860 on, we see the Georgian tradition lingering in Ireland long after Victorian coarseness and "engineers' art" had implanted their heavy hands on England. Among the outstanding benefits of this "lag" in Irish architecture is the purity, the refinement, of the small railway station, built before Ireland had seen England go off the rails of architecture. But Ireland's greatest architectural blessing has been that she escaped industrialism. The buildir fervour that scorched England hardly singed Ireland ur the late 'nineties, when the villa came on the scene a more recently, when the pavilion and golf club-house tr to appear like chalets and succeeded in looking like cuckoo-clocks. During the same period our street architecture clothed itself in the stereotyped elaboration of Oxford Street.

It is difficult to summarize the true position of nationalism in architecture, and if the national characteristic is of a speculative and abstract nature it may be asked how, apart from the religious impulse, this can affect architecture. The connection becomes apparent when we consider that the whole art of architecture, apart from the science of building, is itself abstract. The architectural value of a building is unmeasurable while its engineering efficiency can be scaled and tabulated scientifically. The decorative value of pattern cannot be studied in terms of graphs or formulæ, and it was in pattern perception that the Irish of the early Middle Ages excelled, and in this they stamped their racial character. The structural simplicity of modern buildings invites the collaboration of the craftsman to provide or enrich those details which the architect requires to emphasize his abstract appeal and enforce its unity; those details are not postscripts, they are integral—foreseen and suggested even if added later, and unless the collaboration is complete unity will be lost or confused. It is through this collaboration that nationalism in architecture is revealed. Local craft work nurtured in common tradition proclaims its own origin through the idiom of the hand, expressed where feasible through local material.

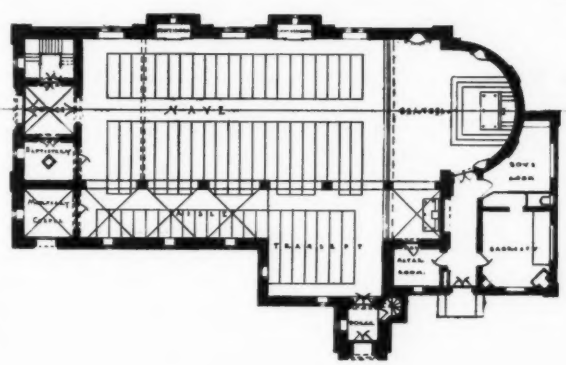
Ireland's difficulty is not that she cannot supply adequate craft character, but that the true craftsman has neither public nor corporate influence. Ireland's outstanding present-day achievement lies in her stained glass, and yet most of her best examples go to Singapore, Scotland,



New Zealand, England, Newfoundland—anywhere except Ireland. Could a local craft impulse be organized and a public recognition stimulated, the result would not only imprint itself on new work, but it would profoundly modify the old. The familiar grim rectangle and the rough-cast are not ugly in themselves, and they are peculiarly susceptible to capable treatment; colour in accessories, well-proportioned casements, and the use of faïence or portable details, figures, urns, and pottery could all contribute a mitigating influence under sympathetic direction. If the barest æsthetic beginnings were introduced into education we could look for a spontaneous reflection in town, farm, and village, and we could gradually inculcate an appreciation of architecture in which traditional Irish characteristics would play their proper part in a modern expression.



The principal building that shows a break away from conventional and stereotyped elaboration is University College, Dublin, begun in 1914, and not yet completed. In this design Professor R. M. Butler, the university Professor of Architecture, has drawn his inspiration from the solid dignity of the late eighteenth-century Renaissance work in Ireland, and he has infused a strong Greek feeling into the detail. The stone carving was designed and executed by Albert Power. In its present incomplete condition the building is nearly all façade, and although it stands well back in the wide Earslfort Terrace it is impossible to view it as a whole from a sufficient distance. Its academic cast suits it admirably as being the largest of the three colleges that go to make up the national university, the other two being in Cork and Galway. Its repose is immensely satisfying after the fuss and ostentation of certain other modern buildings to be found in Merrion Street, and it need not fear comparison with Trinity College.



In discussing Irish ecclesiastical architecture we saw that the bulk of nineteenth-century churches reached only a mediocre standard of design. There have always, however, been exceptions where the Irish traditions of massed grouping and curved wall pushed their way through the imported convention, and of late years there have appeared many churches of architectural merit. The new church at Lusk shows a typically Irish group executed, walls and quoins alike, in rough granite. The recurring sequences of three little windows, continued right round the main building, provide a pleasant rhythmic quality, and those in the chancel filled with random

Church at Lusk, Co. Dublin. By John J. Robinson. Above, a general view. Centre, the apse. Below, the plan.

stained glass, the work of Mr. Harry Clarke, glint like jewels. The roof is in blue and green slates, and the only jarring note, due to force of circumstances, is found in the wood fittings which were either old ones re-used or, if new, had to follow modern Irish ecclesiastical custom, i.e. they are of untouched pitch pine or, worse still, they are varnished and grained.

The church at Newport, Co. Mayo, shows much the same Irish characteristics. Standing as it does on the dominating hill, with the two stone bridges at its base, it forms a group of real distinction and beauty. It may be objected that the doorway is clearly derived from Clonfert, and it may not at first sight appear consistent to denounce a Gothic or Renaissance mask and yet to accept a Celtic doorway. To this objection there are two answers: first, that where a traditional doorway is of a type that blends with modern expression one is at perfect liberty to use it, indeed, it has a special value of its own on account of its traditional significance. Secondly, the expedient must be judged on its merits, and few will deny that here it is successful.

The Killanny church shows the same broad characteristics. Typically Irish, at the same time it reveals how traditional forms—the batter and the curved wall — can be fused into a modern expression, the ecclesiastical counterpart to the type of architecture that is being evolved in the best contemporary secular work.

Opus Sectile, Grangegorman Church. By Miss Rhind.

These three churches are only examples selected from a large number that demonstrate a renewal of inspiration, and indicate that in Ireland at least there is a prospect of incorporating a live and deeply-felt religious impulse into new church work.

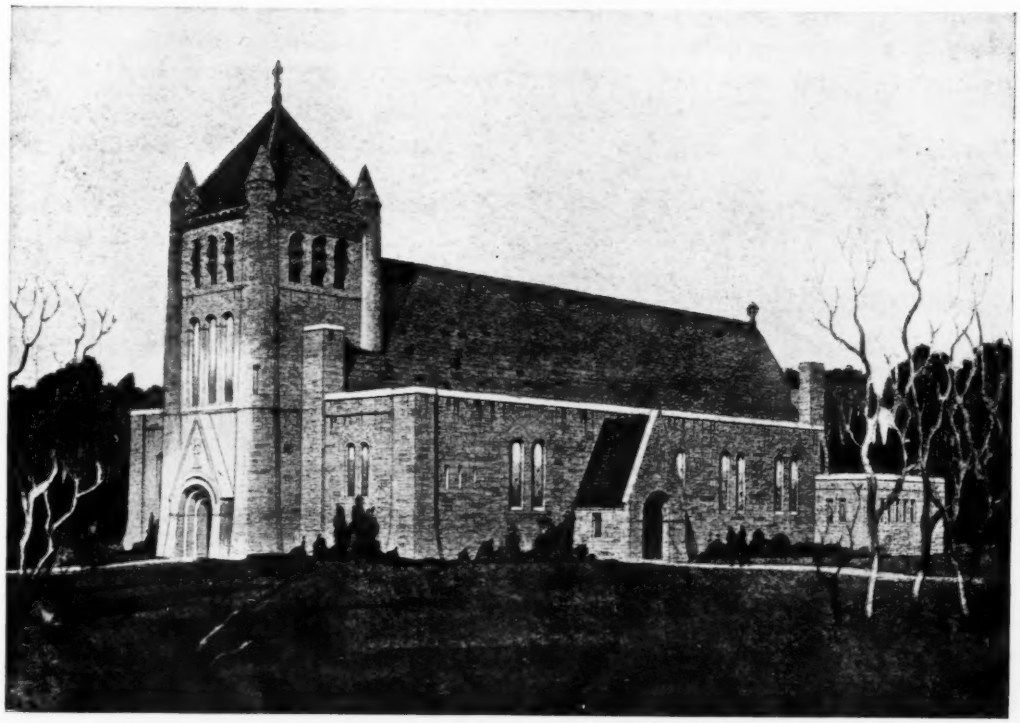
We find a remarkable interior in the Members' Hall of the Royal Dublin Society, a body that in the variety of its activities and its energy is probably unique, and best known to the world as the promoter of the Dublin Horse Show. Originally this building was a huge shed with a steel roof, and it has been converted into a hall of singular dignity, acoustically excellent, used as a library and for lectures and concerts. The scheme is carried out in black and white, and the proscenium opening illustrates the value of cream colour set in black and white. The Royal Dublin Society is unfortunately no more immune from the craze for brown varnish and graining than are the ecclesiastical authorities of Ireland, and instead of carrying on logically and beautifully the architects' scheme of black and white, the doors have been painted with a substance that recalls marmalade, and the floor has just been overlaid with golden syrup.

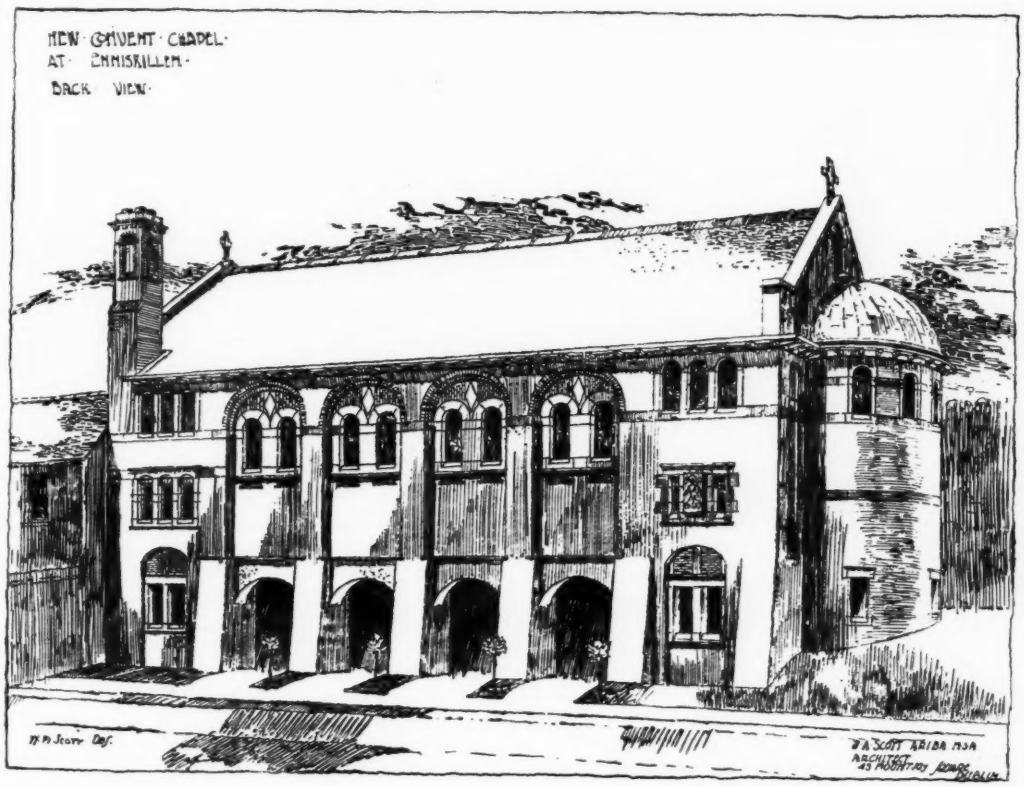
The illustrations from Cork show Messrs. Egan's new premises where interlacing Celtic patterns form part of the surface decoration.

In modern large-scale housing there are some excellent examples, such as the schemes at Marino, Killester, and Blackrock, but there is naturally less that is definitely local to be traced in work where modern requirements are similar everywhere, and where economy is paramount and the materials much the same.

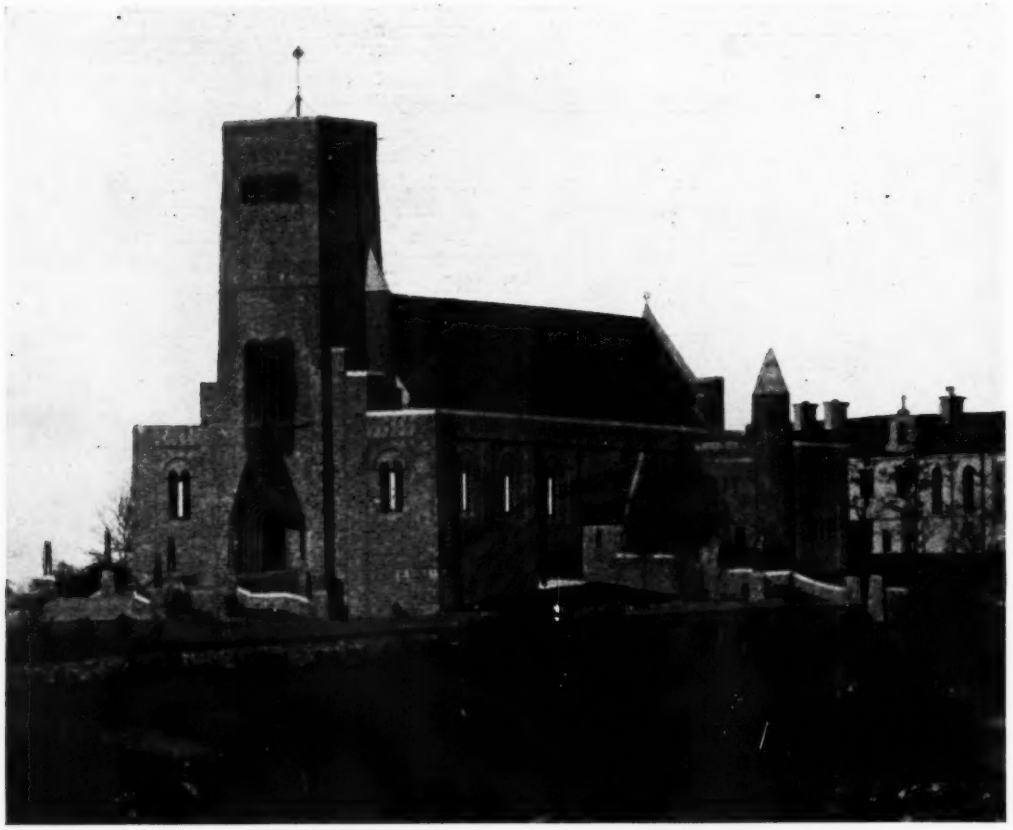
If vitality and the touch of nationalism in Ireland's architecture are only beginning to work to the surface, there exists more assurance in some of the crafts most intimately allied to building. The opus sectile, mosaic, and stained glass coming from Miss Purser's guild, the stained glass and decorative wall treatment of Mr. Harry Clarke, and of Mr. William MacBride and his craftworkers, reach a high level, sometimes touching genius.

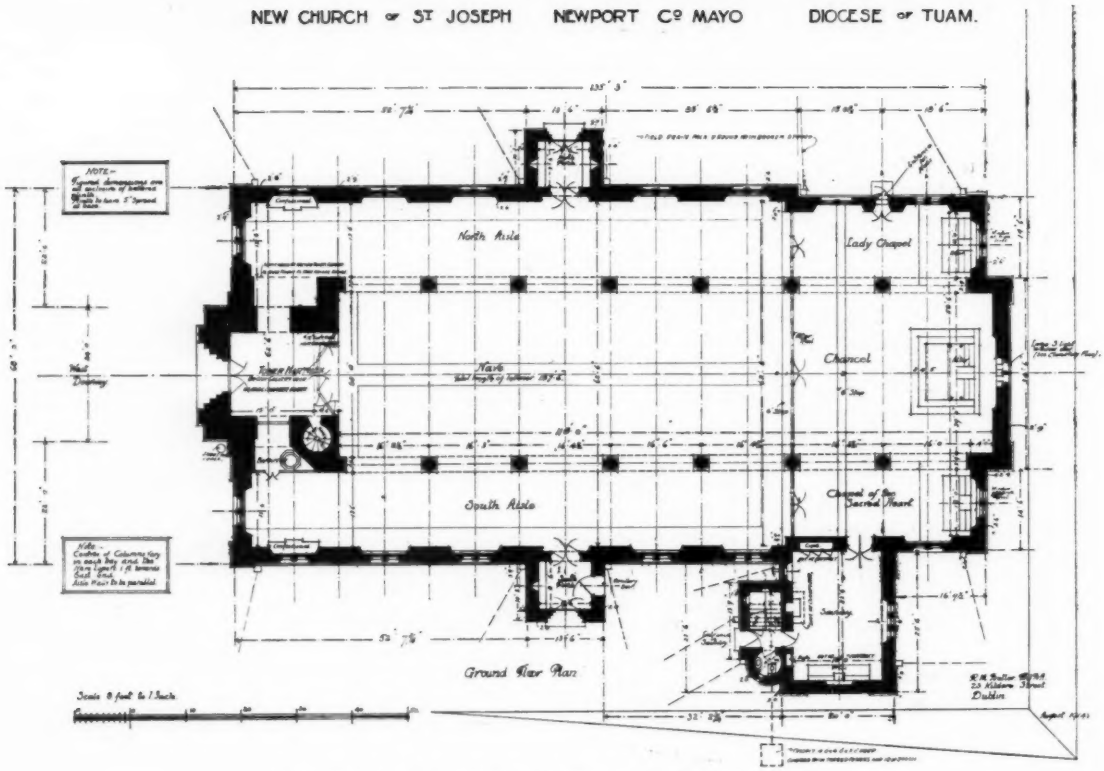
The illustration showing St. George and the Dragon is carried out in opus sectile by Miss Rhind, of Miss Purser's guild, and fixed in an outside wall of Grangegorman Church. St. George in white with violet-crimson wings and a golden halo, on a blue background of sky, contends with a brown monster—surely a close connection of Dürer's Devil—furnished with leather-black wings, the whole being enclosed in an orange surround. It was made a condition



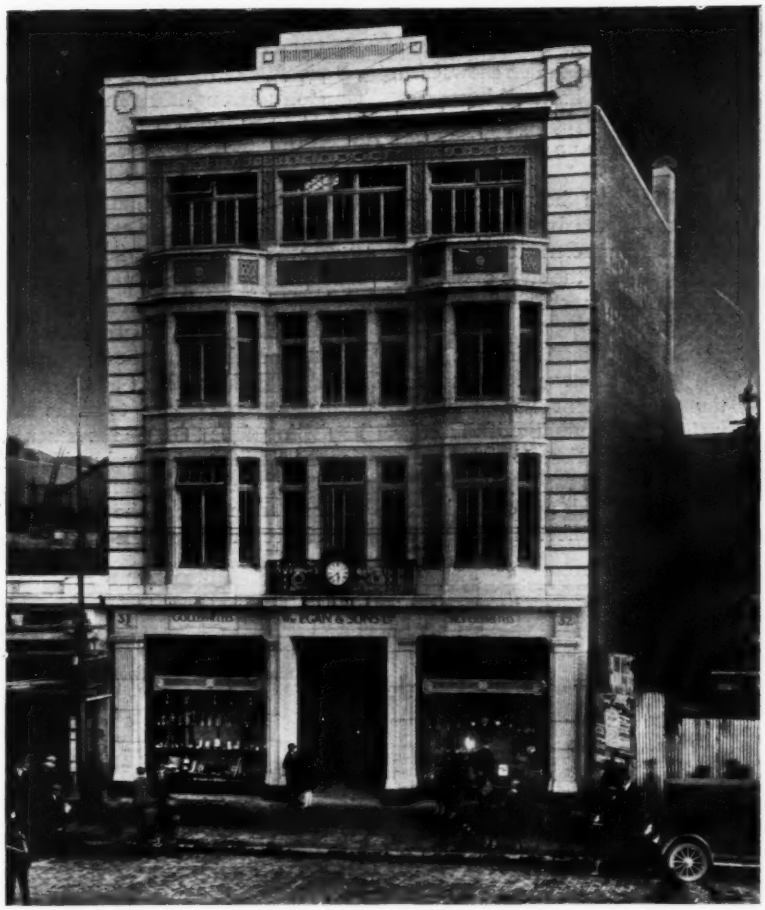


Above, church at Killanny. By Professor R. M. Butler.
Below, convent chapel at Enniskillen. By W. A. Scott.

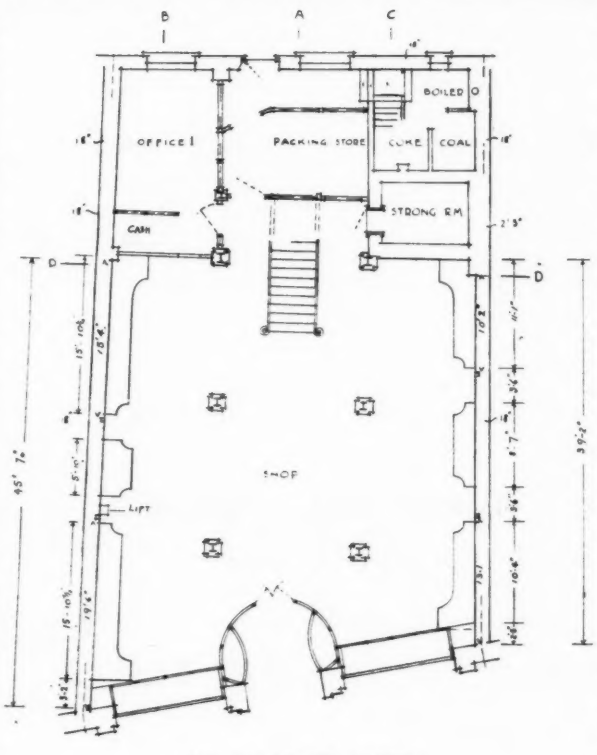




The Church of St. Joseph, Newport. By Professor R. M. Butler. Above, a general view. Below, the ground-floor plan.



of the order that the panel should be virtually a copy of the Guido Reni picture in Rome, but in spite of this handicap the treatment is fresh, unconventional, and arresting. The example of stained glass is by Mr. Harry Clarke, and is especially interesting in that it illustrates an essentially secular treatment in a private house. The influence of Beardsley is at once apparent. The pattern, the skilful grouping of the figures, the extraordinary delicacy of finish, and the meticulous attention to detail, always subservient to the dramatic focus, give the impression of complete mastery over material and design. Of all the major crafts stained glass is certainly the most difficult to interpret photographically, since the part played by colour is perhaps more dominant than even the design. In this instance the general effect is blue with strong touches of red and orange, the feathery scrolls at the top being black. The lights are about 6 ft. high, and the scene is taken from Keats' "The Eve of St. Agnes." The duality is not unpleasing, as it gives the curious effect of an open book. There is certainly nothing distinctively Irish about this work, but it demonstrates the high standard of craft technique that must contribute its quota to the architecture of the future.



PLAN OF GROUND FLOOR

The modern Irish architectural movement owes much to the fine pioneer work of the late Professor W. A. Scott, whose church at

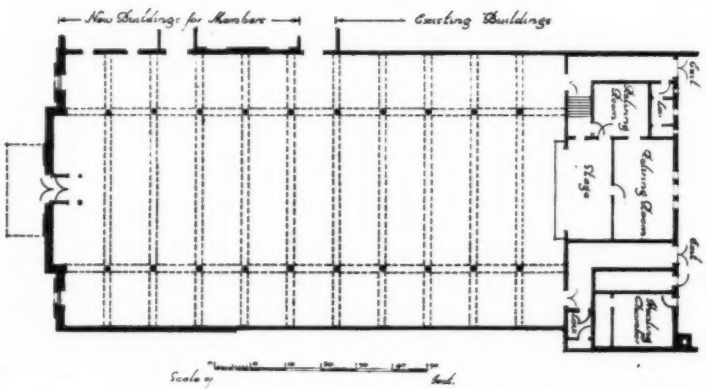
Premises for Messrs. William Egan and Sons, Ltd. By O'Flynn and O'Connor. Above, the main front. Below, the ground-floor plan.

Spidall, Co. Galway, built in 1904, was the first serious attempt to translate Irish-Romanesque into a modern expression. The Convent Chapel at Enniskillen shows him, perhaps, at his happiest, with his plain battered buttresses, segmental arches, and unerring sense of rhythm and grouping; and the memorial at Maynooth is no less remarkable for its traditional reticence.

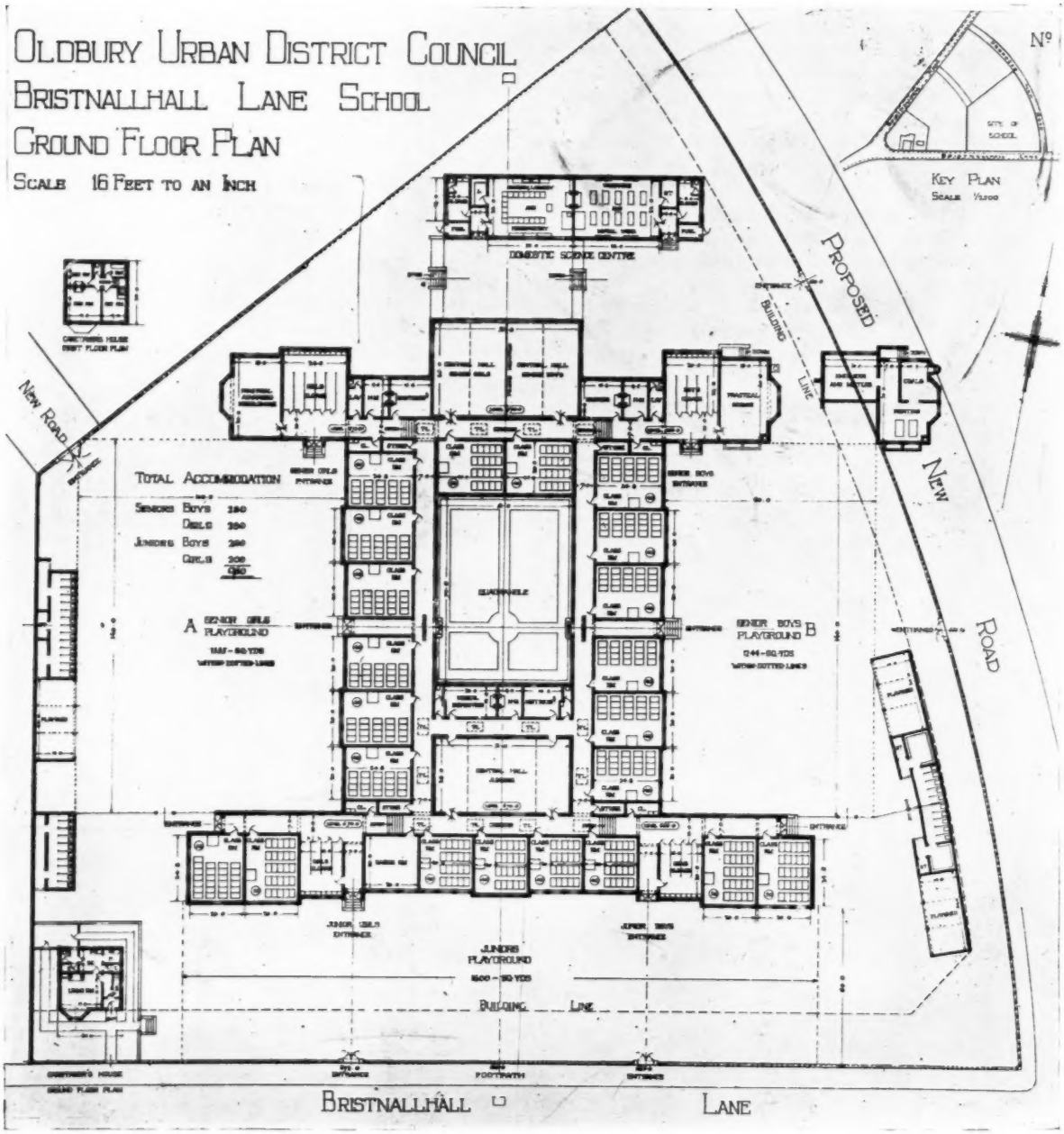
The illustrations in this article have been selected not for the size, cost, or importance of the buildings, but to show examples that seem to possess characteristics of reviving vitality in traditional Irish work and in the style of modern building, whose influence is becoming more and more felt throughout Europe.

A word must be said in conclusion concerning the great Dublin buildings that were partly destroyed during the troublous times. Here the Government has displayed energy and vision in entrusting the rebuilding of the Four Courts, Custom House, and General Post Office to the Board of Works. Rebuilding progresses rapidly, and these buildings will soon be as they were, with the exception of the Custom House cupola, which is, unfortunately, to be omitted for the present, and of slight rearrangements to the plan and some necessary modifications to the lighting. As an example of the latter, it is astonishing to note that under Gandon's arrangement in the Custom House the passages faced south and the rooms north, and this is now being reversed.

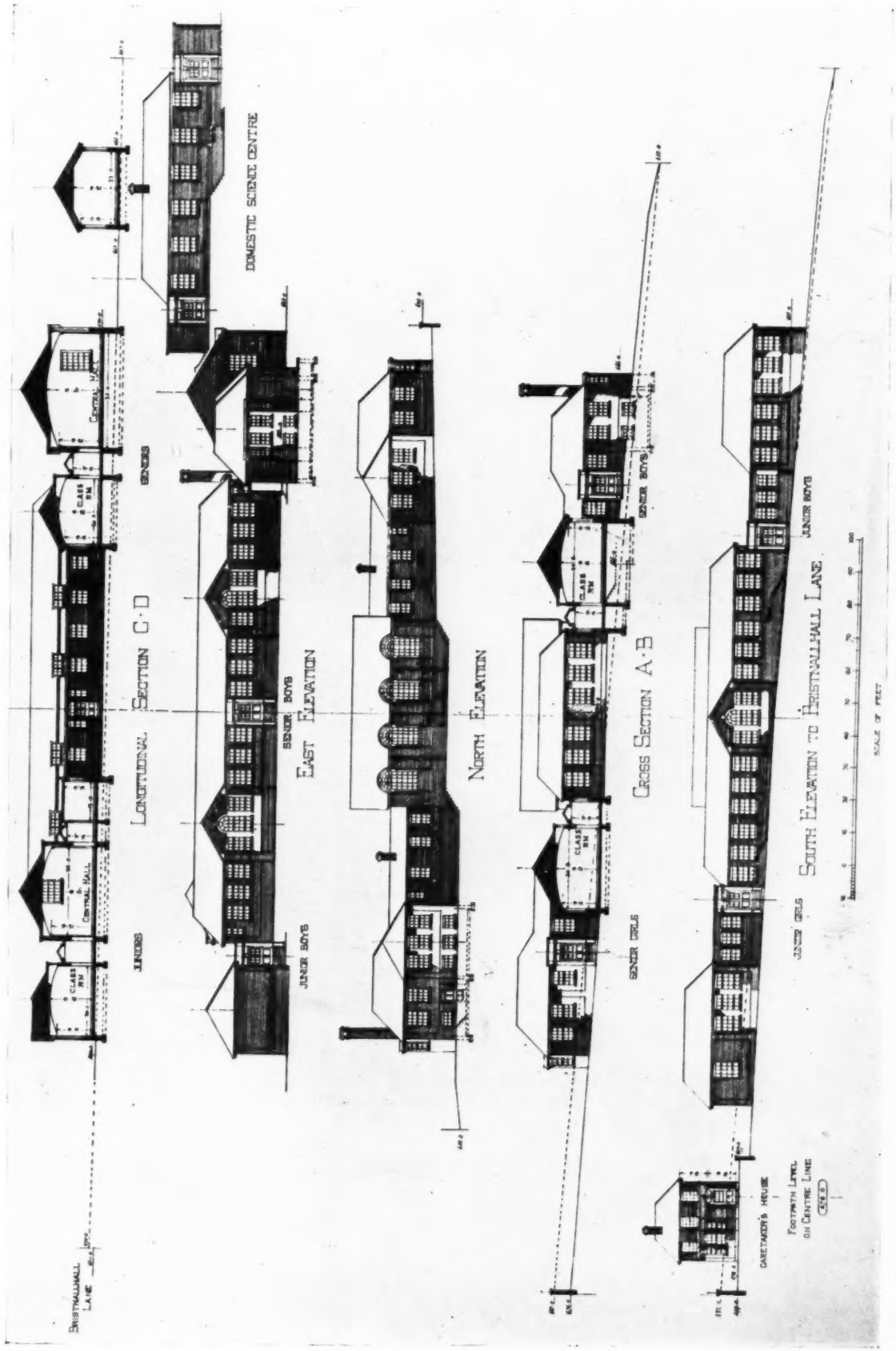
The proposal to demolish the Nelson Pillar has caused an outcry in the Press, and one hopes (if it is really found necessary to remove it at all) that the advice of the Royal Institute of the Architects of Ireland will be followed and that nothing will be done until an alternative site has been decided upon. In regard to more comprehensive schemes affecting architecture: preliminary surveys have been prepared for Dublin and Cork on which town plans are to be based, and the amount of voluntary labour and subscriptions that have helped to make these surveys possible are inspiriting signs that the movement towards civic organization is being taken seriously. Ireland's eyes are now turned outwards, and she is anxious to absorb all of value that she can from across the sea, learning from those whose experience and enterprise makes them the best guides.



The Royal Dublin Society, Members' Hall. By O'Callaghan and Webb. Above, the interior. Below, the plan.



Oldbury Elementary School Competition. The winning design. By Messrs. Hobbs and Davis.



Oldbury Elementary School Competition. The winning design. By Messrs. Hobbs and Davis.

TRIBULATIONS OF EARLY PRACTICE

[BY KARSHISH]

vii: ARCHITECT *versus* CLIENT

THE relations in which our architect is to stand with his client is an important matter. The president of the R.I.B.A., in a recent address to students, told how in early practice he suffered from the refractory incidence of clients. Wishing to design according to his own ideas, the conflicting ambitions of his clients galled him. Mr. Guy Dawber, however, got over this difficulty. When we consider the large number who have employed him to design their homes and view the strong individuality of his designs, it is hard to believe that he was ever baffled in his desires by any unyielding prejudices of those who employed him. We shall be wrong, however, if we suppose his to be the case of a man who bent his clients to his will and imposed upon them the conceptions which warmed his own imagination rather than those that coloured theirs. This is assuredly not the case. When it is noticed that Mr. Dawber has been able to make his personality recognized in a multitude of delightful houses distinguished by a variety as wide as the diversity of the needs and tastes of those for whom they were built, no architect need hesitate to identify himself with the ambitions of those who employ him, and make their aspirations his own. The duty of the architect in this matter is perfectly clear and is closely welded to expediency. It is at one with the aims of his art and the good health of his profession. That duty is to complete, clothe, and give architectural expression to the requirements, ambitions, and prejudices of those who employ him. The limitations and restrictions which hedge an architect are conditions necessary to the design of a building; without such restrictive conditions the faculty of design cannot exercise itself. An architect who, wishing to write a book on the building of a house, had first to design the house the building of which he was to describe, found, in the absence of restricted requirements, that he was incapable of designing any house at all: there was no reason why any idea should not give way to the next; there were no alternatives to weigh, no grounds for choice, selection, or exercise of judgment. The needs and prejudices of a client are, indeed, as much a part of the problem of design, and are related as closely to its success, as are aspect, restrictions of cost, and the configuration of the site. It is the reward of whole-hearted service in sympathy with the ideas of those who employ him that brings an architect the authority by which he is able to mould the desires of his clients and fire their ambition. Some architects reach a position where they relegate their unhappy clients to the position of persons dipping into a lucky tub; the owner pays, and takes his chance of what he will get. If he reminds his architect, "But you must remember I have got to live in the house," and receives the reply: "But I have my reputation to maintain as a designer of houses," history will only be repeating itself, for such protest and such a retort have actually been made. It is lucky, however, that the man who can take such a position appears only once or twice in a generation, for this kind of thing is bad for architecture and destructive of the good repute of architects.

The immediate concern of our adventurer, then, will be to make the ambitions of his employer to the fullest extent his own; but it is obvious that strict limits must be set to the client's discretion. An architect who admits the right of his employer to expect that his house will in all particulars meet his needs and satisfy his tastes, must yet secure the prerogatives vested in himself. Our architect, early in his career, will be likely to find these rival interests in direct conflict, and himself in awkward predicaments, for it is in these early days that such dilemmas are most formidable: he has not, at that time, the experience which makes it natural for him to assert himself, and an upset with a client at the outset of his career would be a serious disaster. Such a calamity, in fact, must on no account be allowed to happen. It is necessary therefore for our architect, at the outset of his career, to hold firmly in his mind principles of give and take which are logical, just, and consistent with the best interests of all parties. To hold a firm purpose gives a man power which colours his personality; if our architect thus orders his mind, his client will get a sense of the discretion he has assumed that will discourage encroachments; or, if encroachments occur, they will usually yield to the hint conveyed by a little coolness or stiffness of manner. What, then, are the principles of division of authority our architect ought to set up? What are the interferences he may expect?

It will serve a salutary purpose, by making him depress his tail, if our architect remembers that when he speaks of his employer as his "client," he hypnotizes himself. His employer has no such idea of the matter; he does not in the least regard his architect as his "patron," which is the converse of "client." He considers, on the contrary, and with very good reason, that *he* is the patron; and he regards his architect as the client. Shopkeepers sometimes call their customers their "clients," but are ready enough to regard them as their patrons when seeking their custom, and the architect's case is not very different. The fact remains, however, that the architect's client is an employer who has nominated him as his agent; and in recognizing this our architect will be ready to concede that his client is entitled, broadly speaking, to have everything he wants and nothing he does not want. If he wants bay windows, dormers, sliding sashes, casements, plate-glass or leaded lights, brick, stone, Gothic, Palladian, Elizabethan or Georgian he is as fully entitled to them as he is to the observatory on his roof or the dovecot on his terrace upon which he has set his heart. What he is *not* entitled to is Elizabethan plus plate-glass; Palladian combined with half-timbered gables; Georgian mixed with leaded lights: that is to say, the employer must be fitted with a design which embodies, so far as conflicting conditions allow, all his desires; but he is not at liberty to indicate what methods his architect shall employ in translating those wishes into terms of architecture, nor to impose a critical judgment on any technical matters, whether of construction, workmanship or design; nor to presume for a moment to order architectural features as though he were buying from a fancy goods counter.

It will be plain that here is fruitful ground for conflict; in fact, it may be said that the normal condition attending the building of a house is one of delicate ground, always, for both parties; and it is a delightful and wonderful circumstance that the thousand obstructions and pitfalls and mazes of possible misunderstanding should so yield to mutual good feeling, toleration, and respect that a wholly successful issue is commonly reached. Our architect will not readily understand that the anxieties of the owner are usually far more burdensome than those borne by himself. The architect at least knows where he is, while the client is more or less at sea, for he can only with difficulty, and then incompletely, recognize the relation between means—drawings, foundations, rafters, walls, and so forth—to results. The employer concedes much more than his architect, for his concessions have to be made in blind faith; and our architect should bear this in mind. He may also remember that it is said that an owner rarely employs the same architect twice. This quite infrequently arises from the employer being dissatisfied with the work his architect has done; it is usually due to the strain of the undercurrent of contest which he shrinks from again encountering. An owner was once showing me over his house, which he regarded with great satisfaction. "I fell out with my architect; I could not stand the fellow," said he; then he added, "I think that I was not altogether fair to him, however." This case is typical. Everything is right, and everything is wrong; annoyances on both sides; anger, perhaps, and resentment and disappointment, and a sense of failure and discouragement, and reduced opportunity for the architect, which he might readily have escaped by patience and a closer sympathy with the ambitions of his employer. The employer, in fact, is as much entitled to patience and sympathy from his architect as he is to the more definite services he pays for. The recognition of this obligation by the architect and the gratitude and friendliness with which the

employer responds, does much to remove the cause for interferences with the architect's prerogatives; nevertheless, those interferences do occur and have to be met. We shall later on see the form they usually take and how they may be defeated; but as an extreme case of what may happen—for it has happened—we may imagine that after the walls of a house have been carried up to the first floor window sills, the client realizes with horror and consternation that casement windows are being fitted instead of the sliding sashes on which he has set his heart and in the absence of which he cannot contemplate living in any house at all; and that when the joists of the first floor are in position he perceives that the rooms are going to be much lower than he supposed, and he cannot reconcile himself to living in them. The owner's position is here unassailable; he has set his heart on sliding sashes, and on rooms of a reasonable height, and he is entitled to have them. The architect's position is also unassailable; his design has been approved, it has been made in conformity with the architectural traditions associated with casement windows; the whole conception of the design relies upon the strong horizontal lines which only low ceilings make possible. Apart from grounds for quarrel turning on responsibility for the misunderstanding, the case affords all the conditions of serious conflict. The owner wants casement windows replaced by sliding sashes, and the joists raised 2 ft., and no more fuss about it; the architect, however, resists taking responsibility for an architectural abortion in place of a self-respecting house. The instances cited are exceptional, and no purpose would be served in following out possible solutions which would depend upon a variety of considerations and which may dissolve in laughter or end in the Law Courts, or with bankruptcy, or even suicide. As a matter of history, the difficulty of the windows was settled by a simple modification of the building; that of the ceiling joists (which was associated with another house) by the architect resigning, and dissociating himself from the wrecking of his design. The point for immediate attention is how such disasters are to be prevented.

Our architect, then, in realizing that such positions may, and do, arise, should make up his mind not only that they *ought* not to happen, but that whenever they do happen and for whatever cause it is the architect's fault. Such disaster is the result of the architect's not making clear to his employer what is comprised in the proposed building. If I were addressing myself to the employers of architects I might certainly tell them that confusions of this kind would not arise if they, as employers, insisted on understanding all points before building operations were put in hand; nevertheless, the responsibility must always rest with the architect and should be accepted by him. It is his duty to secure that the person who employs him shall not suffer from lack of that knowledge and experience which he pays his architect to supply. Our architect must realize that it is not enough for him to display elevations showing casement windows, and sections in which the heights of the rooms are figured; nor is it enough for him to speak of "casements," nor to mention the height of the rooms in feet and inches. He must demonstrate clearly what he means by "casements," and similarly demonstrate by reference to actual rooms what those height figures do, in fact, represent; and so with all parts and details of the building. Thus our architect may secure himself and know that he is on firm ground from the outset. With experience he will learn how far he may, as circumstances justify, relax his precautions; but he can scarcely, in his beginnings, be too precise and exacting in establishing a perfect understanding on all points with his employer.

[*To be continued*]

EASEMENTS OF LIGHT

[BY JOHN SWARBRICK]

iii: GOOD, ADEQUATE, AND INADEQUATE LIGHT

In the paper already referred to, read before the Royal Institute of British Architects, Mr. Waldram stated that in all ancient light disputes for several years he had adopted certain standards. The light at interior positions having a daylight sill ratio of 0·4 per cent., or less, he termed inadequate. Positions between 0·4 per cent. and 1 per cent. sill ratio, i.e. receiving from 1 to 2½ foot-candles in moderately dull weather, he regarded as adequately lit; whilst all positions with about 1 per cent. sill ratio, which are comparable with all parts of a modern elementary classroom, he termed well lit.

Predetermination of Conditions not in Existence.—It is a comparatively simple task to measure the daylight ratio of any given point in a room, although it is certainly a somewhat tedious one to measure a sufficient number of points to enable the limits of good, adequate, and inadequate light to be plotted by isoluminous contour lines. But measurement of the light in an interior, under any given conditions of obstruction, is not a very useful guide to what will happen to the light measured under other conditions, nor does it provide any information as to the lighting of interiors not yet built. This must be ascertained by some form of

Figure thirteen (a) left, original conditions; and right, figure thirteen (b), proposed conditions. Two photographs of the interior of a room in a model. Scale: ¼ in. to 1 foot. [*Reproduced by courtesy of Mr. P. J. Waldram.*]

predetermination, and it is fortunate that a very complete system of predetermination has been evolved, which gives results applicable to any assumed degree of sky brightness and which is far more accurate and reliable than any photometric measurements can possibly be, unless the sky be of an exceptionally even grey and remain so without variation whilst the measurements are taken. The system consists of making simple geometrical projections from selected interior positions of the window or windows and of whatever can be seen through them, whether it be sky or obstructing buildings, ascertaining the light to be derived from what can be seen through the windows and adding the small and relatively unimportant contribution made by diffused light reflection from walls, ceilings, etc.

The positions selected are generally chosen for convenience at even distances along section lines at right angles to the plane of the glass. The computed values of light can be plotted in isoluminous contours, like the varying levels of a hillside. From such sections it is a comparatively simple matter to draw contours on daylight plans, showing the limits of good, adequate, and inadequate light in moderately dull weather. The task is considerably facilitated by tracing on the plan the limits of those parts of the room from which no sky is visible over any building obstructing the view from the windows. This would appear to be quite a simple operation, well within the capacity of most draughtsmen, but it is by no means so easy as it seems. It is also dangerous to draw hasty conclusions only from the size of the area deprived of sky by any obstruction. Some light from quite a tiny corner of sky can often sweep over quite a large proportion of a room, thus rendering the "no sky area" very small, and apparently innocuous. The area which will be deprived of *sufficient* sky light may, of course, be much larger.

If two plans be duly contoured to show the limits of floor area which at table-height will be inadequately, adequately, or well lit, and, if possible, the "no sky area," one plan showing the original and the other the proposed conditions in any ancient light dispute, it will be obvious that such plans will enable any judge or arbitrator to grasp the material facts of a dispute far more speedily and far more accurately than by any amount of professional opinion, however weighty. Such plans are rendered even more eloquent if a very thin wash be applied to the adequately lit area, a darker wash to the inadequately lit area and a still darker wash to the "no sky area," the area of good light being left white.

Use of Models in Ancient Light Cases.—The use in ancient light cases of models which can be adjusted at will to show the original and the proposed conditions is often considered to be generally prejudicial to a defendant, a fact for which experienced judges generally make allowance. This is probably due to the eye being easily obsessed by the disproportion existing between the relatively large bulk of the proposed obstruction and the relatively minute area of the windows affected. It is far less easy to appreciate that the invisible room area lit by those windows must necessarily, owing to the scale of the model, also be very small, and may possibly be adequately lit by sky visible from over and beside the proposed obstruction. The presence of visible sky would be in no way emphasized by the model.

It is, however, possible to obtain evidence of a far more reliable nature by photographing the interior of accurately constructed models under two conditions of obstruction.

Some years ago Mr. Waldram and Professor Clinton proved by an exhaustive series of tests at University College the truth of a proposition made upon theoretical grounds by Professor Rudzicka, of Chicago, viz. that the daylight inside a model is precisely the same as the daylight inside a room which that model accurately represents, provided that all material obstructions to sky visible from the window be also represented accurately in the model.

It is therefore possible with a camera having a suitable lens to take photographs through holes in the side wall of any given room in a model exposed on a flat roof. It is necessary, of course, to take precautions to ensure that photographs under the original and under the proposed conditions are also produced under similar conditions of exposure, development, etc. Figure thirteen shows a typical pair of photographs of the interior of a model room constructed to a scale of $\frac{1}{4}$ in. to 1 ft.

The photographs were taken on a flat, unobstructed roof, the model being correctly orientated. One side of the model room had been prepared to receive the camera lens in a light-tight aperture, and the original and proposed obstructions could be placed upon the model at will.

The plates were exposed for precisely the same length of time (six minutes), although observations taken minute by minute showed that the intensity of the daylight was increasing during the exposure of the plate under the proposed conditions of obstruction.

The difference between the two photographs shows, there-

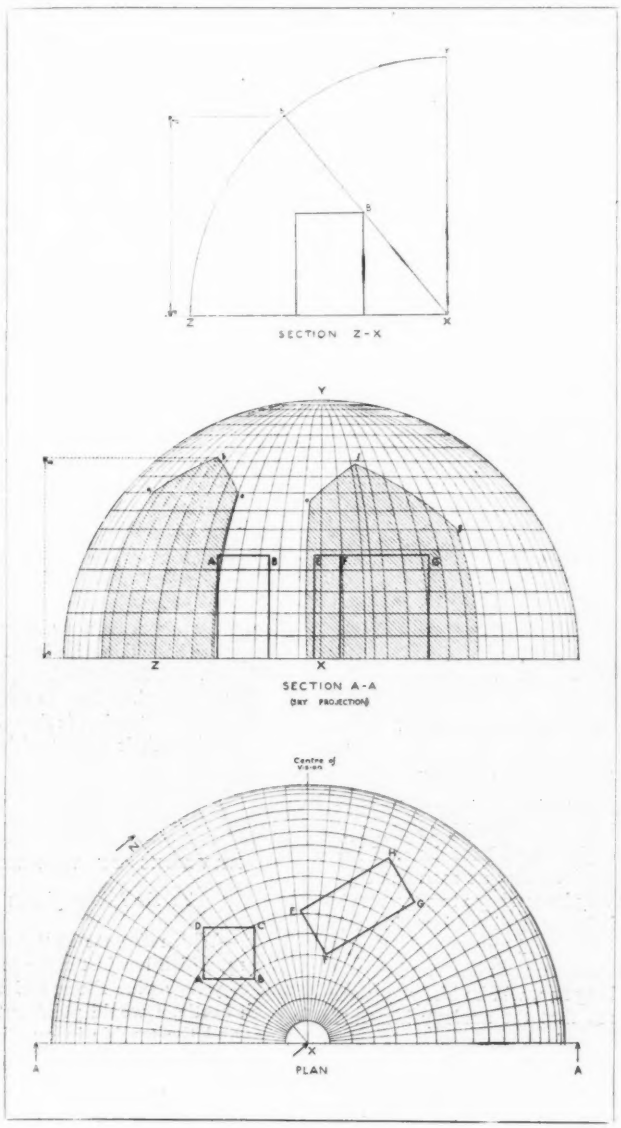


Figure fourteen. Diagrams showing a method of preparing flat sky projections. [*Lent by Mr. Swarbrick.*]

fore, rather less variation than would actually be caused by the alteration of the obstruction.

There is a tendency to give photographs of this character, like those of all interiors, too little exposure; making the room appear unduly dark under both conditions. The example shown is selected to indicate this fault, although it indicates clearly the nature of the change. This could, of course, easily be corrected by taking a second pair of photographs with a longer exposure.

Method of Preparing Flat Sky Projections.—Sky projections are made by producing the points of obstructions so as to ascertain relatively on an imaginary quarter-sphere the exact extent of the area of the sky that could be concealed by them, from the view of an observer. The observer is usually regarded as viewing the sky from the level of the window sill or table, or at a height of about 3 ft. above floor level. The imaginary quarter-sphere naturally represents the portion of the sky that would be seen, when the view is entirely free from obstructions. In theory, the imaginary quarter-sphere may be placed anywhere, so as to enclose the whole of the objects under consideration. The actual projection consists in representing the sky lines point by point, on a spherical surface, dealing with one point at a time. In order to locate a point only two angular dimensions are necessary, viz. the angle from the eye to the point above the horizon and the angle in plan between the centre of vision and the point in question. In order to indicate the manner in which very simple sky projections might be made, two rectangular prisms, A, B, C, D and E, F, G, H, have been shown in figure fourteen, in both plan and section, within an imaginary quarter-sphere, in which the observer's eye would be at X. The zenith is indicated by the letter Y. In section AA, which constitutes the sky projection, the extent of the area of sky that would be concealed by the two obstructions has been indicated by hatching. In order to follow how this was produced, let us take the point B. The actual position of this point is shown in section ZX. In this section it will be seen that from the eye of an observer at X the point B would appear directly in front of *b* on the surface of the quarter-sphere, and that *b* is at a height of *mn* above the horizon. It will also be noticed that a vertical plane passing through B would intersect the quarter-sphere at XZY. By showing the line of this intersection on section AA, we find that the height *mn* above the horizon would cut it at the point *b*, which has so been located. By such means, the most elaborate sky-lines may be plotted on the sky projections point by point. Other ways of obtaining the same result may be devised, but this method at least indicates how the extent of a sky obstruction may be represented.

[*To be continued*]

CORRESPONDENCE

TRIBULATIONS OF EARLY PRACTICE

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—I have read "Ponderivo's" letter in your issue of August 11 with interest, but I do not think I would wish to stress the tracing of circumstance more strongly than I have done. I have said—surely with no lack of emphasis?—that no man can shape his own career, and that the only way he can hope to overcome his powerlessness to fix his destiny is by equipping himself to seize every opportunity which presents itself and by energetically pegging away. "It is the man who throws a stick often and strongly into the walnut tree who, in the long run, will be likely to gather the most nuts." It seemed to me that the analogy illustrated somewhat happily the powerlessness of man to command reward and the spirit in which reward may best be sought.

I do not think that "Ponderivo" and myself differ in our appreciation of the facts of life; but we certainly differ in our attitude to those facts. The degree of a man's success or failure is entirely a state of his consciousness; it cannot be understood or assessed by others. Not to understand this is to live in the dark. One man makes £400 a year, another £40,000; which is the better off? A boy catches a half-pound perch, a millionaire a forty-pound salmon; which is the more successful fisherman? Someone writes a play that runs for three years, or a novel that sells 250,000 copies; his friend, a play that runs for three weeks, or a book that sells 2,500 copies; which is the more successful playwright or author? Will anyone confidently answer those questions merely by the measure of actual material reward (there are other material rewards than cash), or will anyone venture for a moment to answer them in the full measure of their bearing upon the lives and happiness of men? The thing is elementary in the extreme. One architect has six fat jobs and another none; one monkey six fat bananas and another none; which is the more fortunate? He of the six? Perhaps! But how if he has a sore rump and a belly ache and is caged, while the other is healthy and free? Who knows, at any time, whether his own supposed good or bad fortune is not, in fact, the opposite? Surely it is not necessary to say more on the subject?

This more, however, I will say, for it bears directly on points raised by "Ponderivo." When we know anyone whose success has been marked we understand very well why he is successful; or if someone who has made a failure, we know perfectly well why. We meet men whom we feel would have made a success of *anything*, others who were doomed to failure. This is, in my observation, characteristically true, but it is irreconcilable with the conception that men are, to any great extent, the victims of circumstance. We also find that men who are successful are competent, *in their own way*, to do the work they get to do. A man who is incapable of creditable performance will have time on his hands; we do not find such men having repeated opportunities given them. This fact proves, what would seem obvious, that successful men are not merely those who have had opportunities, but those who have been able to handle opportunities; and that failures owe their state not only to lack of opportunity but to inability to seize the chances that offered. Apart from the fact that a man will always make opportunities for the work he is equipped to succeed in, life's lucky tub holds plenty of chances for everyone, although all cannot draw the same prizes. The conditions of life are as old as life itself, and we measure success or failure against those conditions. Not to be able to adapt oneself to any of the innumerable groups of circumstances which invest us, or to make use of any of the opportunities which come within our reach, is to fail where another would not fail; architecture is no different from any other calling in this respect, and to object to the hardship of life is as unreasonable as to complain that fire burns or that water drowns. Anyone who finds the conditions of architectural practice too hard for him had better make up his mind to equip himself to grapple those hard conditions, or find another vocation! There are plenty who have done the latter in the past and who will do so in the future, and they have been, and always will be, unanimous in holding that their failure to establish themselves in practice was *not due to any shortcomings in themselves*, but entirely to circumstances which limited their opportunities and overlooked their merits.

KARSHISH

RAVAGES OF THE DEATH-WATCH BEETLE

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—With reference to "Readers' Enquiry" in your issue of July 14, which has just come to my notice, in which he states a roof of yellow pine shows serious signs of attack by the death-watch beetle, I would point out that this insect does not attack pine, and the trouble in question, if extensive, cannot possibly be caused by same, as up to now it is not known to have attacked this wood except in a few instances where adjacent to infected oak.

B. CARPENTER

R.I.B.A. EXAMINATIONS

FINAL AND INTERMEDIATE RESULTS

The final and special examinations, qualifying for candidature as Associate R.I.B.A., were held in London from July 7 to 15. Of the seventy-seven candidates examined (six Part I only, three Part II only), fifty-one passed (four Part I only, two Part II only), and the remaining twenty-six were relegated. The successful candidates were :

L. M. Apps (special), J. A. Arthur, J. H. Bourne, N. F. Cachemaille-Day (Part II only), P. G. J. Carter, Kendrick Edwards (special), I. U. Englefield (Part I only), E. G. Felgate, P. A. Fitton (special, Part I only), P. J. M. J. Foubister (special), F. S. M. Green, H. B. L. Horner, V. L. Johnson (special, Part I only), F. E. B. MacManus, E. T. E. Nash (Part II only), V. L. Nash, W. B. Oldacre, A. J. Price, Gordon Pringle (special), E. A. Remnant (special, Part I only), D. H. P. Roberts, D. C. Saunders, H. H. Smith, B. L. Sutcliffe, E. B. Tyler, W. J. Thrasher, C. N. Wallnutt (special), L. W. T. White, E. D. Wilson, W. C. Barrett (special), J. Barrington-Baker, Frank Bent, R. J. Carter, H. W. Chester, J. A. Cosh, E. F. Goldsmith, W. A. S. Lloyd, A. G. MacDonald, Robert Parker (special), S. C. Punchard, J. C. Richard, A. G. Roberts (special), T. I. Roberts (special), G. W. Salt, C. J. Scott (special), H. J. A. Seely (special), W. Sidnell, L. L. T. Sloot (special), R. C. Theobald, W. S. Trent, and Hubert Wright (special).

The examination in professional practice for students of schools of architecture recognized for exemption from the R.I.B.A. final examination was held in London on July 13. Of the thirty-seven candidates examined, thirty-three passed. The successful candidates are :

R. G. Booth, F. B. R. Brown, H. A. Peters, M. A. Halim, Leonard Monroe, W. O. Oakley, F. H. Smith, John Watson, John Grey, J. W. Ritchie, W. T. P. Bryce, R. R. Alexander, W. G. H. B. Bruce, H. K. Calder, J. H. Davidson, Leo. Durnin, F. A. G. Inglis, James Morrison, A. V. Robertson, D. H. Beaty-Pownall, F. J. Buckland, Norah Dunphy, R. C. Erith, B. S. H. Fisher, W. R. F. Fisher, S. H. Lloyd, Eric Rugg, T. W. Snailum, D. E. Soper, M. Tha Tun, G. E. Warburton, A. H. Ley, and D. T. Wallis.

The special examination in design for former members and candidates of the Society of Architects, to qualify for the Associateship, was held in London from July 7 to 15. Of the nine candidates examined, eight passed. The successful candidates are :

H. Avery, B. Cavanagh, W. H. N. Darby, S. T. Evershed, J. E. Firth, R. G. Forbes, B. W. Stuttle, and L. E. Wade.

INTERMEDIATE

The intermediate examination, qualifying for election as student R.I.B.A., was held in London from June 11 to 17, and in Manchester from June 11 to 16. Of the ninety-four candidates examined, fifty-six passed and thirty-eight were relegated. The successful candidates were as follow, the names being given in order of merit as placed by the examiners:

J. E. Sunter, Bernard Claydon, M. E. Hawtin, C. E. Culpin, C. J. Parker, A. E. Steevens, T. Carr, C. C. Jackson, C. G. Mant, A. N. Goddard, H. A. Townsend, H. Durrell, P. V. Worthington, A. L. Sharpe, T. H. Eley, A. Hewitt, F. Mellor, H. B. Marshall, J. J. Smith, S. T. Brown, R. A. Young, S. P. Sartain, A. J. Fowles, B. A. Phillips, Siriol Williams, R. D. Manning, F. R. Steele, Joseph Ingoldsby, R. H. Rothwell, A. W. R. Kendrick, Kenneth Barker, W. Lamb, A. T. Longland, E. A. H. MacDonald, Allan MacKenzie, J. S. Marsh, F. G. Wheatley, M. K. Ablett, G. B. H. Bidwell, A. P. Brenchley, E. W. Chapman, R. H. Cowley, D. R. Duncan, E. A. Ferriby, H. V. Foley, R. H. Harrison, E. W. Hayson, S. A. Hurden, J. H. Jones, Sidney Kershaw, F. N. Pearce, Noel Pyman, J. J. Reynolds, E. H. Shelley, A. L. Tamkin, and W. E. Wolff.

R.I.B.A. COUNCIL MEETING

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

Exhibitions of Architecture. Arrangements have been made for an exhibition of Dominion and Colonial Architecture in October-November, 1926, and an exhibition of Indian and Burmese Architecture in 1927. Annual exhibitions of current architecture will be held in the R.I.B.A. Galleries beginning with the summer of 1927.

Architects and Operatives. The Council approved the establishment of a Joint Consultation Board, composed of representatives of the R.I.B.A. and the National Federation of Building Trade Operatives, for the purpose of considering such questions as education, apprenticeship systems, means for stimulating the revival of craftsmanship, and awakening the interest of workmen in the design of buildings upon which they are engaged, " wet time," and cognate matters (apart from the question of wage rates), discussion of which between architects and operatives would tend to promote a better understanding of the problems of the building industry and of the difficulties which confront both parties.

British School at Rome. A Henry Jarvis Travelling Studentship of £250 for one year tenable at the British School at Rome was awarded to Mr. B. R. Ward.

Registration. The Council adopted the Registration Bill as drafted by the Registration Committee, ordered it to be submitted to the councils of the allied societies and to the general body of members for their approval, and authorized the Registration Committee to consult with other interested professional bodies with a view to securing their co-operation and support previously to presenting the Bill to Parliament.

Members' Names on Notice Boards. The Council approved the recommendations of the Practice Standing Committee on this subject, and ordered them to be embodied in the " Suggestions Governing the Professional Conduct and Practice of Architects."

The " Standard Method of Measurement." On the advice of the Architects' and Builders' Joint Consultation Board it was decided to publish in the R.I.B.A. Journal a note recommending members generally to adopt the " Standard Method of Measurement."

The British Engineering Standards Association. Mr. E. H. Evans (F.) has been appointed to represent the R.I.B.A. on the Special Committee on Cranes and Derricks for use on Buildings.

Mr. P. J. Waldram (L.) has been appointed to represent the R.I.B.A. on the sub-Committee on Standardization of Colours.

The British Waterworks Association. Mr. H. D. Searles-Wood (F.) and Lt.-Col. P. A. Hopkins (L.) have been appointed to represent the R.I.B.A. on the Standing Committee on Water Regulations.

Membership. The following were elected to the Fellowship by the Council : Mr. F. L. H. Fleming (Johannesburg); Mr. G. H. Godsell (Sydney); General Sir J. Talbot Hobbs (Perth, W.A.); Mr. J. S. Murdoch (Melbourne); Mr. G. L. Wilson (Shanghai); Mr. John A. Pearson (Toronto).

Resignation. The following resignation was accepted : P. Morley Horder (F.).

Reinstatement. Mr. F. H. Bromhead was reinstated as an Associate.

Studentship. The following probationers were elected students of the R.I.B.A. : Beale, Edward Hayley, Architectural Association; Beaty-Pownall, David Herman, Architectural Association; Buckland, Francis John, Architectural Association; Butler, Ronald McConnell, Birmingham School of Architecture; Drury, Henry Myles Reilly, Architectural Association; Erith, Raymond Charles, Architectural Association; Fisher, Barbara Sybil Holt, Architectural Association; Fisher, Walter Robert Fitzgibbon, Architectural Association; Garratt, Ella Mary, Birmingham School of Architecture; Grey, John, Architectural Association; Rigg, Mary

Freda, Architectural Association; Tha Tun, Maung, Architectural Association; Vetchinsky, Alec, Architectural Association; Warburton, Geoffrey Egerton, Architectural Association.

Licentiateship. The following were elected as Licentiates under section III (f) of the Supplemental Charter of 1925: Mr. W. Arnold Mitchell, Mr. G. Austen Taylor.

SOCIETIES AND INSTITUTIONS

The Exeter Architectural Society

A trip was made under the auspices of the Exeter Diocesan Architectural and Archæological Society to a number of interesting places in north-west Devon. The members and friends were conveyed on their tour by charabancs, the first stop being at Couth Zeal, where the ancient chapel and the fine old hostelry, the Oxenham Arms, formerly the mansion of the Burgoynes, and dating from the sixteenth century, were inspected: Southtawton, where the church and double-storied sixteenth-century church-house were visited; North Wyke, Southtawton, where the visitors were shown over the ancient mansion with its gatehouse and chapel; and Week Barton, Northtawton, where the party had an opportunity of seeing the fine panelling and decorated ceilings. Miss Lega Weekes, of Exeter, who is an authority upon everything connected with Southtawton, spoke upon and pointed out the leading features and associations at each halting-place.

The South Wales Institute of Architects

An exhibition of architectural work arranged by the South Wales Institute of Architects (Central Branch) jointly with the Department of Architecture and Civic Design at the Cardiff Technical College, was held in the college. It included the final designs for the Masonic Peace Memorial, submitted by the local architects who were selected to take part in the final competition: Mr. Percy Thomas, F.R.I.B.A. (Messrs. Ivor Jones and Percy Thomas), and Messrs. Willmott and Smith. A collection of working drawings, which, as the result of efforts made by Mr. W. S. Purchon, M.A., A.R.I.B.A., head of the Department of Architecture and Civic Design, have been presented to the department, were also on view. These drawings were presented by prominent American and British architects. Gift specimens of students' work from the School of Architecture of the Columbia University, New York, were on exhibition, together with examples of a fine loan collection of students' work from the School of Architecture of the University of Liverpool. The drawings submitted in the preliminary Rome competition by Mr. J. B. Wride, Rome Finalist, 1926, who is a student in the Cardiff School of Architecture, were also on view.

The Northern Architectural Association

The annual excursion of the Northern Architectural Association was held at Teesdale. Newcastle, Tees-side, and Cumberland branches were represented, and motor-cars brought the parties to Barnard Castle, where they visited the Bowes Museum. The afternoon was spent visiting places of interest in the district and in a motor trip to High Force, the members returning to Middleton-in-Teesdale, where the annual business meeting was held under the presidency of Lieut.-Colonel G. Reavell, of Alnwick. The president was re-elected, as also were the vice-presidents, Messrs. J. A. E. Lofthouse (Middlesbrough), J. K. Martindale (Carlisle), and A. K. Tasker (Newcastle); the treasurer, Mr. J. T. Cackett (Newcastle), the hon. librarian, Mr. F. N. Weightman (Newcastle), the secretary, Mr. G. H. Gray (North Shields), and the assistant secretary, Mr. J. F. H. Checkley (North Shields).

ANNOUNCEMENTS

Mr. James Taylor Thomson, architect, has removed his office from 4 Jane Street, Blythswood Square, to 212 Bath Street, Glasgow. Telephone: Douglas 3126.

A bride and bridegroom who are in business partnership in Liverpool and Flint, as architects, have been married at Huyton Parish Church. The bride was Miss Frances Thelma Silcock, A.R.I.B.A., only daughter of Mr. and Mrs. N. Silcock, The Cross, Huyton, and the bridegroom was Mr. Wilfred Blythell Edwards, Bachelor of Architecture, A.R.I.B.A., younger son of Councillor and Mrs. Edwards, Victoria House, Flint. The bridegroom is senior lecturer in architecture at the Manchester University. A reception was held at the Council Offices, Huyton. Among the guests were Professor Reilly, of Liverpool, and Professor Dickie, of Manchester.

Award of £100 Prize Essay

The £100 offered to Students studying architectural and building subjects, for the best essay on "My Impressions of the Building Exhibition, 1926," has been awarded to Mr. Henry Grenville M. Waters ("Loitering Lad"), of Waungoch House, Beaufort, Breconshire.

Consolation prizes of architectural books have been awarded to the following: Frederick Towndrow ("Gogol"), 30 Great Russell Street, W.C.1; F. L. Jackman ("Leontes"), 68 Lavington Road, Ealing, W.; Arthur S. Bungay ("Terra-cotta"), 4 Woodcote Villas, W. Norwood, S.E.27; D. D. Agostini ("Ago"), 6 Perry Road, Bristol.

The adjudicators were: Mr. E. Guy Dawber, P.R.I.B.A.; Mr. H. S. Goodhart-Rendel, F.R.I.B.A.; Mr. J. C. Squire.

Schemes of the Worshipful Company of Goldsmiths for Improvement of Design in Silverwork

The results of the first competition in connection with the Ascot Cup, the King's Gold Vase, and the Hunt Cup (particulars of which were sent out in March last) have been satisfactory, and a small number of competitors have been selected by the judges and requested to submit final drawings before the end of October. All designs and models sent by competitors will shortly be returned.

About 300 drawings, photographs, etc., were received from over ninety firms and craftsmen from different centres throughout the country, showing that the movement has been widely known. The Press has also assisted greatly by giving considerable publicity to the subject of design in silverwork.

There is evidence that a wider demand for more interesting designs and individual craftsmanship in silverwork can gradually be created, and, to encourage this demand, further competitions for other specific trophies, as well as for smaller silverwork, at values ranging from £1 to £30, are contemplated next winter. Particulars of these will be sent out in due course.

The First Woman Bachelor of Architecture.

To Miss Norah Dunphy, of Llandudno, belongs the unique honour of being the first woman in the British Empire to obtain the degree of Bachelor of Architecture, and to Liverpool University is due the credit of having enabled her to deserve and win this high distinction. Miss Norah Dunphy is the daughter of Mr. and Mrs. Richard Dunphy, of Donnybrook, Llandudno, Wales, and is now 22 years of age. She was educated at the John Bright School, Llandudno, and afterwards studied for five years at the Liverpool University School of Architecture, under Prof. C. H. Reilly, and also under Prof. Abercrombie, obtaining a first-class certificate in Civic Design.

Miss Dunphy is continuing her studies in Civic Design, in which she hopes to take her diploma. By obtaining her degree, Miss Dunphy is exempted from sitting for the final examination of the Royal Institute of British Architects, for which twelve months' office experience is requisite. This, however, she has already had in the offices of Mr. Arthur Hewitt, of Llandudno, and Messrs. Douglas, Menshell and Muspratt, of Chester. Those who know this talented young woman architect will prophesy, and those who appreciate woman's influence in the most practical of the arts will wish, a most successful professional career to Norah Dunphy.

LITERATURE

MASTERS OF MODERN ART

CRITICIZING a critic is such a purely tactical affair that strategic opportunities are scarce. Revolving upon a determination not to admit the other man's connotations, it usually leaves both surprised that the wood has so many trees in it. But in his book, *The Masters of Modern Art*, Mr. Walter Pach has exposed his flank more than verbally. His connotations are unexceptionable; it is by his definitions that he challenges reply.

To give the devil his due, Mr. Pach makes excellent reading; rarely, if ever, has the evolution of modern French painting and sculpture been handled so succinctly or illustrated so relevantly in the space of a hundred odd pages. Indeed, the selection of examples is a triumph of discretion; there is no suggestion of the hackneyed among them, unless it be Seurat's "Circus," which, in view of the painter's infinitesimal output, leaves one little alternative. Nor has Mr. Pach much cause to apologize for making the frontispiece the work of his own needle.

But why "*The* Masters"? Is the artistic greatness of France such that the records of a hundred and thirty years admit no space for others? Frankly, the definiteness of the article chokes us. One seems to have heard of a Constable, of a Turner, who did much spade-work for Barbizon and the Impressionists respectively. Yet one seeks them in vain in the pages of Mr. Pach. For him modern French art sprang parthenogenetic from the purest classicism.

And again, why "Art"? Here Mr. Pach is more explicit. He laments the decline of applied arts. "This loss," he says, "is not altogether compensated for by the superb workmanship and the design of such things as the automobile and the aeroplane; nor is the steel and concrete construction of our big buildings on a plane with architecture as it was practised in the past. . . . It is on our painting and sculpture that we must depend for an expression of our time." This is rather depressing. If modern standards of production differ radically from those of ancient handicrafts, it is surely time to adjust our conception of craftsmanship to fit the conditions imposed by machinery. The first of these is the co-operative nature of all production, and it is surely pedantic to deny the motor-car its due because it could have had no place in a more individualistic civilization. Indeed, it is precisely in such efforts that one does judge of the expression of an age. We go, not to the gargoyles of Amiens, but to the architectonic symphony of the whole for an understanding of the finest that the Gothic period knew. Perhaps New York had disgruntled Mr. Pach, but we refuse to believe that the Woolworth Building is not at least as significant as the subjectivities of Braque.

Possibly art needs re-definition. Something of the sort is indicated in the return of the Cubists to the cult of objective forms. In any case, where would Mr. Pach fit a photographer like Rudomine in his scheme?

The Masters of Modern Art. By Walter Pach. London: The Medici Society.

MODERN GLASSPAINTERS

Number four of the *Journal* of the British Society of Master Glass-Painters would have delighted the late Maurice Drake, who was the first hon. secretary and one of the founders of the Society. Alas! that so fine a man as he—artist, novelist, historian of glass-painting, genial good fellow—should have been cut off in the midsummer of manhood. Maurice Drake's connoisseurship in the art and craft of printing, no less than in glass-painting, was clearly revealed in his beautifully produced volume on the latter art, and I am sure that this fourth number of the *Journal* of his Society would have gladdened his heart. Tone and temper, as well as text and illustrations, make the number a fine one, wholly worthy of the array of notable names inscribed on its title-page—where, I suggest, they should not be. Any page facing a coloured frontispiece, as this one does, should be *immune* from announcements. I am glad, however, to see included in the list of vice-presidents the names Blomfield, Simpson, Aston Webb—what a constellation! Further evidence of the interest of architects in the gentle art and craft of glass-painting is not needed. If it were, one could adduce Professor W. R. Lethaby's short and crisp article on "Early Thirteenth-century Glass at Salisbury Cathedral." Professor Lethaby expresses the rather daring thought that "in a sense the cathedral was built to contain these special theological windows." Well he has said it, but it seems rather provocative in spite of its saving-clause. A point in a most interesting sketch of the career of the artist-craftsman Christopher Whall, by Mr. Charles Jay Connick, shows how Whall tried "to release his craft from the timid banalities that had long repressed it," and how he "put a flaming new colour medium into the hands of the youngsters of his day." Among several other highly interesting articles, is a succinct and scholarly history of the York school of painting, by Mr. John A. Knowles, F.S.A., who cites Mr. E. S. Prior's finding that the York school follows a "florid and opulent" style, in contrast with London's "rather lean elegance" and the "mechanical construction" exemplified in the cathedrals of Bristol, Wells, and Gloucester. Articles, editorial notes, reviews, correspondence, and a useful list of recent publications on glass-painting, make up a number that reveals high competence in the hon. editor, the aforesaid Mr. Knowles. The place of publication is 6 Queen Square, and the price is 10s. 6d.

J. F. McR.

AN ANCIENT MONUMENTS YEAR-BOOK

Evidently the recently formed Ancient Monuments Society, which has its headquarters in Manchester, is a strong stripling. Its *Year Book* for 1926, which has just come to hand, suggests vigorous youth with the prospect of a hale old age. The book contains 128 pages, which include eight full-page illustrations, mainly of old buildings that have been considered worth the fostering care of the Society. An introduction contributed by the Earl of Crawford and Balcarres, president of the Society, is remarkable as an unusually candid confession of faith, and as a naive expression of repentance for his own former venial sins of omission, and of remorse for the contempt of archæology shown by his ancestors, more especially by the apathetic Earl who made no serious effort to preserve the handsome façade by Inigo Jones at Old Haigh Hall; but one cannot think that, in posing as a converted sinner robed in the sheet of repentance, the noble president is quite just to his many admirable activities. By his beneficent interest in architecture and archæology, he long ago made ample atonement for the sins of his ancestors, and for the thoughtless apathy that betrayed his callow youth. As F.S.A. and F.R.I.B.A. are included among the long queue of initials following his name, we assume that he has received plenary absolution both for the misdeeds of his ancestors and for his own little peccadilloes. Why, then, should he rake up a remote past everybody but himself has forgotten? In wishing the Ancient Monuments Society the fullest measure of success, may we add the pious wish that the North Countree over which the Society has pledged itself to keep watch and ward will respond gratefully. On this head, however, we must confess to some slight misgivings. We hardly think it wise to multiply societies having nearly identical objects. Yet one can only hope that propaganda extended over this larger area may tap a new source of subscriptions and we understand that wealthy manufacturers abound in the North, which seems to supply a good reason for North and South to pool resources. The editor of the Society's *Year Book* is Mr. John Swarbrick, F.R.I.B.A., who is also hon. reporting architect to the Society. The book is to be obtained, price 2s. 6d., at 62 Deansgate Arcade, Manchester.

LIGHTNING GRAPHS

As the author says in the introduction, there are in many technical calculations a few constantly recurring equations which cannot be solved by an unbroken series of operations on a standard slide-rule. The aim of this series of graphs is to offer a means of instantly solving some of these equations with an accuracy

sufficient for ordinary practical purposes, say, within one-half of 1 per cent.

The so-called graphs are what are generally known as alinement diagrams, and sometimes as nomograms, which in recent years have proved of great assistance to engineers. They are based upon logarithmic scales, and may be constructed for many different purposes, avoiding all calculation. To give a single illustration of their use: the diagram may have three parallel lines with subdivisions; one of these lines may be marked diameter in inches, another head in feet, and the third gallons per minute. Then a straight-edge being placed against the given diameter of pipe and given head it will cut the third line at gallons per minute that the pipe will discharge. Instead of a single third line there may be half a dozen giving the result by different formulæ, which can thus be practically compared. In this way, from two given values a third unknown one may be found; or alternatively, working from only one known quantity the straight edge will show how the other two values may vary. Like the slide-rule the diagrams are very useful if constantly referred to, but like that they may require a rather serious effort of memory if seldom used. A description of the purpose and mode of using should accompany every alinement diagram. Taking the first graph sheet given by the author for $a^2=b^2+c^2$, let $b=3$ and $c=4$. Then, laying a straight edge from 3 on line b to 4 on line c we obtain 5 on line a. From the second graph sheet, let $b=7$ and $c=7$, then, using the straight-edge $a=9$, but mathematically $\sqrt{7^2+7^2}=\sqrt{98}=9{\cdot}8994$, so that in this case we do not seem to come within "the half of 1 per cent." There are other sheets of graphs given for higher equations involving a little more difficulty in solving, and a brief description is given for the use of each. We suggest that in the next edition the author should give some actual examples worked out from the graph sheets, as this would not only show their use better, but would be a check upon the accuracy of the sheets. Anyone unacquainted with this form of graphical solution of equations would find it desirable to study the subject from a little introductory work.

The Lightning Graphs. Series I (General). By I. S. Dalgleish, A.M.I.C.E. London: Crosby Lockwood and Son, 1926. Price 5s. net.

NEW INVENTIONS

[The following particulars of new inventions are specially prepared 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, London, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

17377.—Boyd, J.—Monuments, etc. July 12.
17892.—Schuster, K. M.—Roofing tiles. July 16.
17879.—Turner, P. W.—Protective compositions or paints. July 16.
17439.—Haines, G. de N.—Tile walls, etc. July 12.
17820.—Flintkote Co.—Roofing material. July 16.
18478.—Cole, C.—Brick-making machine. July 24.
18276.—Deakin, I.—Roofing tiles, and means for manufacturing same. July 22.
18336.—King, W.—Building material. July 22.
18374.—Roberts, E. W.—Partition walls. July 22.
18375.—Roberts, E. W.—Erection of floors, etc. July 22.
18976.—Brock, R., and Howard, F.—Building-blocks. July 30.
19071.—Mullins, G. W., and Squiers, G.—Surfaces of roofs, &c. July 31.
18731.—Rose, E. W.—Formation of concrete buildings. July 27.
18658.—Wales, R. T.—Ceiling moulds. July 26.
18618.—White, G. N.—Production of coloured effects in building materials. July 26.

SPECIFICATIONS PUBLISHED

254808.—Slade, W., and Johnson, C.—Blocks or slabs for use in building construction.
254813.—Erdmann, K.—Building elements.
255227.—Lindhardt, J. K., and Lindhardt, H. H.—Tiled roofs.
255230.—Evans, H.—Apparatus for use in the construction of concrete buildings.
238575.—Dodman, Jun., A. C.—Wall coverings.
239224.—Sperle, E.—Filler-blocks for floors and the like.
255286.—Bowerman, C., and Somerset Trading Co., Ltd.—Roofing or similar tiles.
255575.—White, L.—Method of and means for constructing concrete buildings.
253627.—Lyne, R. J., and Midgley, C. A.—Means for building concrete and the like structures.
241218.—Lohle, C.—Reinforced block-work floors.

ABSTRACTS PUBLISHED

252250.—Highes H. Wilson, 8 Spring Grove Road, Richmond, Surrey.—Building materials.
252434.—Fast, C. R., 23 Bangatan, Helsingfors, Finland.—Building blocks.
252784.—Leyland, A., Buxton Road, Taddington, near Buxton, Derbyshire.—Building-compositions.

COMPETITION CALENDAR

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

September 30. Cenotaph for Liverpool. Assessor, Professor C. H. Reilly, O.B.E., M.A., F.R.I.B.A. Premiums, first, £200; second, £150, provided he is an ex-Service man; third, £100; fourth, £50. The author of the selected design will be paid a commission of 500 guineas, which will include the premium of £200 above-mentioned, and, in addition to preparing all the necessary working drawings and superintending the erection of the work, he will be required to superintend the erection of a full-size wood and plaster model of his design on the site. Particulars from the Town Clerk.

October 30. New Offices for Scottish Legal Life Assurance Society, Bothwell Street, Glasgow. Assessor, Mr. John Keppie, A.R.S.A., F.R.I.B.A. Particulars from Mr. William Watson, Secretary, 84 Wilson Street, Glasgow, before August 21. Deposit £1 1s.

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

No date. Conference Hall, for League of Nations, Geneva. 100,000 Swiss francs to be divided among architects submitting best plans. Sir John Burnet, R.A., British representative on jury of assessors.

No date. Manchester Town Hall Extension. Assessors, Mr. T. R. Milburn, F.R.I.B.A., Mr. Robert Atkinson, F.R.I.B.A., and Mr. Ralph Knott, F.R.I.B.A.

No date. Incorporated Architects in Scotland: (1) Rowand Anderson Medal and £100; City Art Gallery and Museum; (2) Rutland Prize (£50) for Study of Materials and Construction; (3) Prize (£10 to £15) for 3rd year Students in Scotland; (4) Maintenance Scholarship, £50 per annum for 3 years. Particulars from Secretary of the Incorporation, 15 Rutland Square, Edinburgh.

January 3, 1927. Academy, Perth. Open to Architects practising in Scotland. Assessor, Mr. James D. Cairns. Premiums: £100 and £50. Particulars from Mr. R. Martin Bates, Education Offices, Perth. Deposit £1 1s.

LAW REPORTS

CONTRACT TO ERECT BUILDINGS

Foster v. *Bluston and others. King's Bench Division. Before Mr. Justice Fraser*

Judgment was delivered in this action, which his lordship had tried at the assizes at Manchester, the action being brought by Mr. R. Foster, of Blackpool, against Mr. A. Bluston, builder, of Grantham, and his two sons, for damages for breach of contract to take a plot of land at Blackpool and erect buildings upon it of the value of £3,000.

His lordship, in the course of his judgment, said the point taken by the defendants was that the contract was conditional on the approval of the plans by the Blackpool Corporation, but he saw no evidence of it. In the beginning the negotiations were for a fifteen years' lease at £250 a year, but on Mr. Alfred Bluston's request an option was included to purchase the land for £5,500 in the first three years. His lordship was satisfied there was a binding agreement for lease, under which possession was given, and the defendant's solicitor had full authority when he signed. The plans were not approved by the Corporation and the defendants said they did not execute the lease. The father said the undertaking was for his sons, and he merely guaranteed the rent and the building, and was not to become surety unless the lease was completed and the buildings were erected. The proposed buildings were to have cost more than £3,000. He found that Mr. Alfred Bluston was running the scheme, and the option loomed large in his mind during the negotiations, and he had failed to prove that he was only to be surety. His failure to erect the buildings made him liable, and judgment must be entered against all three defendants for £1,298 damages for failing to erect the buildings, with £250, a year's rent, and £24 for occupation of the land, with costs.

A stay was granted on condition that defendants paid over the whole amount to solicitors.

RESTRICTIVE COVENANT:

Frampton v. *Gillison and others. Court of Appeal. Before the Master of the Rolls and Lords Justices Warrington and Scrutton*

This was an appeal by the plaintiff from a judgment of Mr. Justice Lawrence dismissing his action, which raised an interesting point on a restrictive covenant.

Mr. Beyfas, for the appellant, said the facts of the case were as follows. The plaintiff was the owner of land at Bromley, Kent, which it was proposed to develop for shops and business premises. He sold a house, 9 Ashgrove Parade, to the defendant, and, admittedly for the purpose of regulating the competition of shops on his land, the following condition, initialed by both parties, was inserted in the contract :—

"Trading to be restricted to chemistry and druggists' business and dentist or doctor."

The defendant sought and obtained the position of sub-postmaster-general in the district, in other words, the keeping of a local post office. The plaintiff issued a writ and moved (the motion being in effect the substance of the action) for an injunction to restrain the defendant from so acting in alleged breach of the condition.

Mr. Justice P. O. Lawrence held that the keeping of a post office was not "trading," but something in the nature of a monopoly at a fixed remuneration, and he dismissed the action. Counsel's contention was that a post office was a trade, as it included the business of a common carrier and/or banker.

Without calling upon Mr. Owen Thompson, K.C., for the respondents, the Court dismissed the appeal.

The Master of the Rolls said it was clear that the intention of the vendor, the plaintiff, was not to have competing businesses on the property, and he (the Master of the Rolls) agreed with Mr. Justice Lawrence that all the circumstances must be looked at before interpreting the condition. Now, looking at matters in that way, the judge below seemed right in saying that the duties of the defendant as sub-postmaster were outside the provisions of the covenant. He was a servant of the Postmaster-General. He had well-defined duties; and some of them, such as the issue of War Savings Certificates, added very largely to the simpler business of the sale of stamps, etc. But, whatever his duties might be, it seemed to him (the Master of the Rolls) a stretching of words to say that the defendant was "trading."

A sub-postmaster was a subordinate of the Postmaster-General on definite terms. His remuneration was fixed, and it did not depend on his trading abilities. He could not charge more for his services than a fixed amount, or obtain more by excess of zeal or industry.

The Court must consider the covenant in its true sense, in the light of the reason for which it was exacted, and, bearing in mind that the duties of a sub-postmaster were carefully circumscribed, it seemed a misnomer to say that he was "trading." Therefore the covenant was not operative, however widely it might be construed, and it did not embrace the duties which the defendant had undertaken.

The Lords Justices concurred.

It was agreed to treat this hearing as the trial of the action, and judgment was entered for the defendants, with costs.

STREET WIDENING ACQUISITION

Courtaulds, Ltd. v. *City of London Corporation. King's Bench Division. Before the Lord Chief Justice and Justices Avory and Salter*

This matter came before the Court on a special case following an arbitration on a claim by Messrs. Courtaulds, Ltd., against the City of London Corporation, in respect of land acquired in St. Martin's-le-Grand, formerly the site of the G.P.O., under the Acquisition of Land, Assessment of Compensation Act, 1919.

Sir L. Macassie, K.C., for Messrs. Courtaulds, said the old site of the General Post Office was purchased by Mr. James White, who, in turn, sold a portion to Courtaulds, Ltd. Notice was served under the Act by the Corporation on the owners that a strip of land would be acquired compulsorily for the purpose of widening the street. Mr. White's claim for compensation had been adjudicated upon, and then Messrs. Courtaulds' claim was dealt with, and this special case had to deal with the findings and powers of the arbitrator. Messrs. Courtaulds put in a claim for the value of the land taken, and also for damage they had suffered by severance and the loss brought about by the acquisition. It was proved that because of the acquisition Courtaulds had to incur greater expense in the erection and construction of light and air wells, and the amount of the expense was not disputed, but the point was whether Courtaulds could obtain compensation for the damage done by severance and the loss in the productive accommodation of the offices and building erected on the smaller site, even though the cost of erecting a smaller building was less. Sir Lynden agreed with the Lord Chief Justice that 15 ft. had been sliced off a depth of 171 ft., and £12,000 was claimed for that.

The Lord Chief Justice: Notwithstanding you are receiving compensation for the part that is taken away, you say you must also be paid additional damage for severance, even though the costs of your building have been less?

Sir Lynden: We are entitled to compensation for the loss sustained, because we have not the added advantage of the 15 ft. that have been acquired, and the loss of constructive value. Counsel contended that the fact that a notice to treat for acquisition had been served by the authority on the owner did not preclude the owner from claiming and the arbitrator from awarding fair damages for the injury to the land that is left, because of the portion that was taken.

Mr. A. Neilson, K.C., for the Corporation, submitted that Messrs. Courtaulds had no interest in the land so far as loss of constructive value was concerned after the date of the receipt of the notice to treat. In fact, Courtaulds, Ltd., when they bought the land, bought it severed, and no claim could possibly succeed in those circumstances.

The Lord Chief Justice, in delivering judgment, said the question was whether the applicants could recover damages for the setback of the frontage of the buildings and the reduced constructive value of those buildings. It was an interesting fact that although the Municipal Paving Act had been in existence for 109 years, never before had this particular point been raised or even suggested. The contention could not now be sustained, and the answer to the arbitrator's question whether such compensation could be awarded was in the negative.

Justices Salter and Avory concurred.

THE WEEK'S BUILDING NEWS

Homes for the Poor at Bexley

A number of memorial homes for the aged poor are to be built at Bexley.

Land for Molesey Housing

The Molesey Council are negotiating for more land for housing purposes.

A Chingford Sewerage Scheme

A sewerage scheme is to be carried out at Chingford at a cost of £41,000.

A Bridge Approved at Hull

The proposal to construct a bridge at Hull, at a cost of £275,000, has received Parliamentary approval.

An L.C.C. Tramway Building

The L.C.C. are building a tram-ticket printing works in Lupus Street, Pimlico, at a cost of £51,800.

A Loan for Bermondsey

The Bermondsey Council has applied for sanction to borrow £12,505 for housing purposes.

Further Housing at Newtownards

The Newtownards Urban District Council has unanimously decided to proceed with a further housing scheme of nineteen houses.

A Health Centre at Stonebridge

The Willesden Council has decided to provide a health centre at Stonebridge costing £20,000.

Plans Passed at Ilford

The Ilford Council has passed plans for the erection of seventy more houses and a new church for Becontree.

Church Army Houses in Southwark

The Church Army proposes to build a number of houses in Weston Street, Southwark.

More Houses for Richmond

The Richmond Town Council has decided to build sixty-three houses in Manor Road, at a cost of £35,021.

Housing at Salisbury

The Salisbury Corporation has received sanction to borrow £12,959 for building thirty-two houses in Devizes Road.

Housing at Elland

The Elland Urban District Council has decided to build twenty-eight houses in Jepson Lane under the 1924 Housing Act.

Houses for Gorebridge

The Lasswade District Committee of the Midlothian County Council proposes to build fifty-two houses at Gorebridge.

Housing at Earlsfield

The Grantham Town Council proposes to borrow £16,250 for the erection of working-class houses at Earlsfield estate.

Housing at Nelson

The Nelson Town Council has approved plans of eighteen houses, and, subject to certain conditions, plans of forty-seven others.

Big Building Plans at Frimley

The Frimley Urban District Council proposes to build 200 additional houses, and has decided to apply for loans amounting to over £100,000 for building purposes.

A Water Scheme at Ayr

The Ayr Town Council has agreed to adopt the Loch Recawr scheme for an augmented supply of water to the burgh at a cost estimated at £219,000.

A Montreal Storage Plant

A cold storage plant and terminal warehouse, ten stories high, and with a floor area of 600,000 square feet is to be built in Montreal, at a cost of £1,000,000.

A Guildford Housing Scheme

The Guildford Rural District Council propose to acquire powers for the purchase of land from the governors of Trinity Hospital for a housing scheme.

Further Housing at Derby

At Derby negotiations are proceeding for the acquisition of land at Allenton and on the Osmaston estate for further housing schemes.

Housing Plans at Hendon

Plans and estimates are to be prepared for further houses at Child's Hill and Kingsbury Road for the consideration of the Hendon Urban District Council.

Housing Proposal at St. Austell

The Housing Committee of the St. Austell Urban District Council has recommended that the proposal to erect 160 houses at Polkyth within a period of four years be adopted.

A Road-widening Scheme

An important road-widening scheme is to be undertaken at the junction of the Mortlake and Kew roads, and the district valuer has been asked to negotiate for the purchase of the necessary properties.

Housing at Pershore

The Pershore Rural District Council is negotiating for a housing site at Birlingham, and has decided to build thirty-six houses in the parishes of Pershore St. Andrews and Holy Cross.

Housing Proposals at Hull

The Wellington Urban District Council proposes shortly to carry out a building programme to meet the housing requirements in the town. About sixty houses are needed, and the question of a site adjoining Orleton Lane is under discussion.

Housing at Godalming

The Godalming Town Council has approved the plans and lay-out of forty-six proposed cottages. The Ministry of Health also has sanctioned the erection of twenty houses in Station Road, Farncombe, and two at Unstead.

A Loan for Reading

On the recommendation of the Finance Committee the Reading Council has resolved to apply to the Minister of Health for sanction to the borrowing of £40,000 for the purpose of advances under section 92 of the Housing Act, 1925.

Concrete Houses at Eastbourne

The Eastbourne Corporation has received sanction from the Ministry of Health to borrow £56,126 for building concrete houses at the Crumbles and in Hampden Park and for the necessary road and sewer works.

Endowment for an Australian College

£100,000 for the erection and maintenance of a Clergy Training College at the University of Perth has been secured to the Anglican Church in Western Australia under the will of the late Sir Winthrop Hackett.

Plans Passed at Friern Barnet, North London

Plans have been approved of two houses in Friern Watch Avenue; three houses in Buckingham Avenue; two semi-detached houses in Great North Road, Whetstone; houses in Torrington Park; and six houses in Friern Lane.

Improvement Schemes at Winchester

The Housing Committee of the Winchester Town Council is considering a proposed improvement at the corner of Battery Hill at the junction with Romsey Road, and the proposed development of building land belonging to the Council between Stanmore Lane and Battery Hill, for the erection of private houses.

Bloomsbury and London University

According to the *Westminster Gazette* there is every probability that London University will, after all, secure the new site at Bloomsbury for which it has long been agitating. It is hoped that a financial difficulty that has hitherto prevented a settlement may be removed. Although the Government's offer of the site lapsed at the beginning of last April, negotiations have now been reopened on entirely different lines, and it is hoped that the problem which has faced the University, of finding the necessary money for building on the site, will be satisfactorily settled.

THE WEEK'S BUILDING NEWS—*continued.*

Flats for Chiswick

Five blocks of municipal flats are to be built at Belmont Road, Chiswick.

Housing at Seaford

The Seaford Urban District Council proposes to erect a further seventeen houses on the north side of Alfriston Road.

A P.L.A. Warehouse

The Port of London Authority proposes to build a tobacco warehouse at the Victoria Docks at a cost of £60,000.

A Woolwich Loan

The Woolwich Council has received permission to borrow £50,000, to be used in loans to people wishing to buy houses.

Plans passed at Carnarvon

The Carnarvon Town Council has approved the plans of twenty-two houses at Bethel Road and two bungalows.

More Houses at Stourport

The Stourport Urban District Council has decided that application be made to the Ministry of Health for sanction to borrow £10,350 for the erection of twenty-two houses.

A Housing Site for Oakham

The Oakham Urban District Council proposes to purchase two fields on the Cold Overton Road for the purpose of a housing site.

Housing at Barrow

The Barrow Rural District Council is considering the question of building a further twenty-eight houses on the Sileby Road at Barrow. The Council will shortly proceed with the erection of twelve houses at Mountsorrel and ten at Anstey.

Ground for Housing at Airdrie

The Town Council of Airdrie has decided to apply for the extension of the boundaries of the burgh. The proposal is to include within the burgh boundaries, ground at Cairnhill, acquired and proposed to be acquired for housing purposes.

Plans passed at Blackpool

The Blackpool Town Council has passed the following plans: ten houses, Chislehurst Avenue; fifty-two houses, Buckley Crescent; six houses, Buckley Crescent; twenty-one houses, Beardshaw and Boardman Avenues; church, Whitegate Drive.

Plans approved at Darlington

The Darlington Town Council has passed the plans of twenty-seven houses to be built in various parts of the town, as well as new streets between Durham Road, Thompson Street East and Askrigg Street and four houses and shops in Longfield Road and Durham Road.

A Housing Scheme Extended

An extension of the Ripon Road housing scheme is projected, and it is proposed to make application to the Minister of Health for sanction to borrow upwards of £27,000 for the erection of forty-six "A" type of houses.

Loans for Felling

The Felling Urban District Council has decided to make application to the Ministry of Health for sanction to borrow £1,400 for the purchase of building sites at Pelaw, and £7,054 for the erection of fifteen houses on the Falla Park, Watermill Lane, and Windy Nook housing sites. The Council has also agreed that a further £6,000 be borrowed for housing purposes.

Extensions to Brighton and Hove

Important extensions are shortly expected to take place in Brighton and Hove. It is understood that Brighton wishes to incorporate within its boundaries the parish of Patcham, to the north, and the parish of Rottingdean, to the east, and a Bill in Parliament is to be promoted with this end in view. Hove is taking steps to acquire the parish of Preston Rural and that part of the parish of Patcham which will not be acquired by Brighton.

An Expensive Cambridge Site

Cambridge University has just completed an important purchase of property, nearly three acres in extent, in Lensfield Road, close to the museums and laboratories on the Downing College site, for £12,000. The fact that such a high price was paid exemplifies the ever-growing need for sites by the University, and it was thought that the opportunity of obtaining this block of land close to other University property should not be lost.

The Future Development of Oxford

A correspondent writing to the *Daily Telegraph* states that in the early autumn it is hoped that a deputation from the Oxford City Council will attend at the Ministry of Health in order to discuss proposals for the future development of the city. It is possible that a scheme to enable the University and city to gain control over the higher ground will be considered. Little use, he says, has yet been made of the three architects appointed a year ago as advisers on town planning, especially on the best method of dealing with the congested suburb of St. Ebbe's, and building the proposed new thoroughfare from Folly Bridge to the railway stations. There is a movement on foot to preserve the eighty acres of Headington Park, and to oppose the Council's plan to build working-class houses upon part of this ground, which should be preserved as an open space. Mr. Neville Chamberlain is taking a personal interest in the future development of Oxford, and has been in consultation with residents and others who are anxious that more thought should be given to the city's growth.

A Training Centre at Pembroke

At a recent meeting of the Pembroke Town Council it was stated that in order to compensate Pembroke in some measure for the closing of the Naval Dockyard, the Admiralty has practically decided to establish there a training establishment for certain classes of personnel. Six or seven hundred men will be brought into the town, and it is expected that about £200,000 may be spent on buildings. The work will probably begin after the next Navy estimates have been introduced.

A Marylebone Rebuilding Scheme

A large rebuilding scheme has been approved in outline by the Marylebone Borough Council. The project, which will cost several million pounds, was summarized in a supplementary report of the Housing Committee, wherein mention was made that in due course the report of the panel of architects—Mr. Walter Tapper, Messrs. Ashley and Newman, Mr. Vincent Harris, and Mr. J. Ernest Franck—will be issued to the Council in book form. Church Street Ward is the locality primarily affected by the scheme, which proposes to abolish congested and insanitary areas and a series of large open squares. This, with the extension and development of Marylebone Road, forms the basis of the whole scheme.

Exhibition of Industrial Designs

The Royal Society for the Encouragement of Arts, Manufactures, and Commerce are holding an exhibition, in connection with their competition of industrial designs, of a selection of the designs received, in the Upper East Gallery of the Imperial Institute, South Kensington, until August 31, every week-day from 10 a.m. to 5 p.m. The exhibition will be open free of charge. A bureau of information will be established at the Royal Society of Arts, John Street, Adelphi, in connection with the competition, at which will be kept the names and addresses of exhibitors who desire to obtain employment as designers. These lists will be at the service of manufacturers in search of designers.

Tube Construction at Kennington

An interesting piece of engineering work, in connection with the construction of the City and South London Railway, has recently been carried out at Kennington. The problem was to construct a siding between the running tunnels of the City and South London Railway without interfering with traffic operations on the line. Throughout the course of operations not the slightest hitch occurred. The work was carried out from two shafts sunk in Kennington Park Road, and Messrs. Charles Brand and Sons were the contractors for the work. The new siding will come into use when the Morden extension and the Kennington loop are inaugurated, and Kennington Station then becomes the great interchange traffic junction of the Underground on the Surrey side.

RATES OF WAGES

			I	II
			s. d.	s. d.
A	ABERDARE	S. Wales & M.	1 8	1 3½
A₁	Abergavenny	Do.	1 7½	1 2½
B	Abingdon ..	S. Counties	1 6	1 1½
A	Accrington	N.W.Counties	1 8	1 3½
A₃	Addlestone	S. Counties	1 6½	1 2
A	Adlington ..	N.W.Counties	1 8	1 3½
A	Airdrie ..	Scotland	*1 8	1 3½
C₁	Aldeburgh	E. Counties	1 4	1 0½
A	Altrincham	N.W.Counties	1 8	1 3½
B₃	Appleby ..	N.W. Counties	1 4½	1 0½
A	Ashton-under-Lyne	N.W Counties	1 8	1 3½
A₃	Atherstone	Mid. Counties	1 6½	1 2
B₃	Aylesbury ..	S. Counties	1 4½	1 0½
B	BATH ..	S.W.Counties	1 6	1 1½
B₃	Banbury ..	S. Counties	1 4½	1 0½
B₃	Bangor ..	N.W. Counties	1 5	1 1
A	BarnardCastle	N.E. Coast	1 8	1 3½
A	Barnsley ..	Yorkshire	1 8	1 3½
B₁	Barnstaple	S.W. Counties	1 5½	1 1½
A	Barrow ..	N.W.Counties	1 8	1 3½
A	Barry ..	S. Wales & M.	1 8	1 3½
B₃	Basingstoke	S.W. Counties	1 4½	1 0½
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
A₃	Bewdley ..	Mid. Counties	1 6½	1 2
B₃	Bicester ..	Mid. Counties	1 4½	1 0½
A	Birkenhead	N.W.Counties	†1 9	1 3½
A	Birmingham	Mid. Counties	1 8	1 3½
A	Bishop Auckland	N.E. Coast	1 8	1 3½
A	Blackburn	N.W.Counties	1 8	1 3½
A	Blackpool	N.W.Counties	1 8	1 3½
A	Blyth ..	N.E. Coast	1 8	1 3½
B₃	Bognor ..	S. Counties	1 4½	1 0½
A	Bolton ..	N.W.Counties	1 8	1 3½
A₂	Boston ..	Mid. Counties	1 6½	1 2
B₁	Bournemouth	S. Counties	1 6	1 1½
A	Bradford ..	Yorkshire	1 8	1 3½
A₃	Brentwood	E. Counties	1 6½	1 2
A	Bridgend ..	S. Wales & M.	1 8	1 3½
B₃	Bridgwater	S.W. Counties	1 5	1 1
A₁	Bridlington	Yorkshire	1 7½	1 2½
A	Brighouse ..	Yorkshire	1 8	1 3½
B₁	Brighton ..	S. Counties	1 6	1 1½
A	Bristol ..	S.W. Counties	1 8	1 3½
B₃	Brixham ..	S.W. Counties	1 4½	1 0½
A₃	Bromsgrove	Mid. Counties	1 6½	1 2
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
A₃	Buxton ..	N.W.Counties	1 6½	1 2
B	CAMBRIDGE	E. Counties	1 6	1 1½
B₃	Canterbury	S. Counties	1 4½	1 0½
A	Cardiff ..	S. Wales & M.	1 8	1 3½
A	Carlisle ..	N.W.Counties	1 8	1 3½
B	Carmarthen	S. Wales & M.	1 6	1 1½
B₃	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
B	Cheltenham	S.W. Counties	1 6	1 1½
A	Chester ..	N.W.Counties	1 8	1 3½
A	Chesterfield	Mid. Counties	‡1 8	1 3½
B₃	Chichester..	S. Counties	1 4½	1 0½
A	Chorley ..	N.W.Counties	1 8	1 3½
B₃	Cirencester	S. Counties	1 5	1 1
A	Clitheroe ..	N.W.Counties	1 8	1 3½
A	Clydebank	Scotland	1 8	1 3½
A	Coalville ..	Mid. Counties	1 8	1 3½
B₁	Colchester..	E. Counties	1 5½	1 1½
A	Colne ..	N.W.Counties	1 8	1 3½
B₁	Colwyn Bay	N.W.Counties	1 5½	1 1½
A	Consett ..	N.E. Coast	1 8	1 3½
B₁	Conway ..	N.W. Counties	1 5½	1 1½
A	Coventry ..	Mid. Counties	1 8	1 3½
A₃	Crewe ..	N.W.Counties	1 6½	1 2
A₃	Cumberland	.....	1 6½	1 2
A	DARLINGTON	N.E. Coast	1 8	1 3½
A	Darwen ..	N.W.Counties	1 8	1 3½
B₃	Deal ..	S. Counties	1 4½	1 0½
B₁	Denbigh ..	N.W.Counties	1 5½	1 1½
A	Derby ..	Mid. Counties	1 8	1 3½
A	Dewsbury ..	Yorkshire	1 8	1 3½
B	Didcot ..	S. Counties	1 6	1 1½
A	Doncaster ..	Yorkshire	1 8	1 3½
C₁	Dorchester	S.W.Counties	1 4	1 0½
A₃	Driffield ..	Yorks	1 6½	1 2
A₃	Droitwich..	Mid. Counties	1 6½	1 2
A₃	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 8	1 3½
A	Durham ..	N.E. Coast	1 8	1 3½
B₁	EASTBOURNE	S. Counties	1 6	1 1½
A	Ebbw Vale	S. Wales & M.	1 8	1 3½
A	Edinburgh	Scotland	1 8	1 3½
A	E Glamorganshire & Monmouthshire	S. Wales & M.	1 8	1 3½
B	Exeter ..	S.W. Counties	§1 7	1 2½
B₃	Exmouth ..	S.W. Counties	1 5	1 1
B	FELIXSTOWE	E. Counties	1 6	1 1½
A₃	Filey ..	Yorks	1 6½	1 2
A	Fleetwood ..	N.W.Counties	1 8	1 3½
B₃	Folkestone	S. Counties	1 4½	1 0½
A	Frodsham ..	N.W.Counties	1 8	1 3½
B₃	Frome ..	S.W.Counties	1 4½	1 0½
A	GATESHEAD	N.E. Coast	1 8	1 3½
B₁	Gillingham	S. Counties	1 5½	1 1½
B	Gloucester..	S.W.Counties	1 6	1 1½
A₂	Goole ..	Yorkshire	1 7	1 2½
B₁	Gosport ..	S. Counties	1 5½	1 1½
A₃	Grantham..	Mid. Counties	1 6½	1 2
A₃	Gravesend..	S. Counties	1 7	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
A₁	Hanley ..	Mid. Counties	1 7½	1 2½
A	Harrogate ..	Yorkshire	1 8	1 3½
A	Hartlepools	N.E. Coast	1 8	1 3½
B₂	Harwich ..	E. Counties	1 5	1 1
B₃	Hastings ..	S. Counties	1 4½	1 0½
B₁	Hatfield ..	S. Counties	1 5½	1 1½
B	Hereford ..	S.W.Counties	1 6	1 1½
B	Hertford ..	E. Counties	1 5½	1 1½
A₁	Heysham ..	N.W.Counties	1 7½	1 2½
A	Howden ..	N.E. Coast	1 8	1 3½
A	Huddersfield	Yorkshire	1 8	1 3½
A	Hull ..	Yorkshire	1 8	1 3½

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

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

* Plasterers, 1*s.* 9*d.*

† Carpenters and Painters, 1*s.* 8½*d.*

‡ Plumbers, 1*s.* 9*d.*

§ Painters, 1*s.* 6*d.*

‖ Carpenters and Plasterers, 1*s.* 8½*d.*

¶ Painters, 1*s.* 7*d.*

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

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0

Exceeding 6 ft., but under 12 ft., add 30 per cent.

In stiff clay, add 30 per cent.

In underpinning, add 100 per cent.

In rock, including blasting, add 225 per cent.

If basketed out, add 80 per cent. to 150 per cent.

Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	2	4
SPREAD and level, including wheeling, per yd.	0	2	4
PLANKING, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. depth 30 per cent.			
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 lintols, etc., per ft. cube	0	1	6

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 yd.	£0	1	3
DO. *6 in., per yd.*	0	2	8
DO. *9 in., per yd.*	0	3	6
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	6	9
DO. *6 in., per yd.*	0	9	2
Portland cement and sand, see "Excavator" above.			
Lead for caulking, per cwt.	£2	5	6
Gaskin, per lb.	0	0	5½
STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft.	0	4	3
DO. 6 in., per ft.	0	5	0
DO. 9 in., per ft.	0	7	9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	9	0
DO. 6 in., per ft.	0	11	0

Note.—These prices include digging 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.	21	10	0
DO. *headers, per M.*	21	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	12	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.			
FACINGS, FAIR, per ft. sup. extra	£0	0	2
DO. Red Rubbers, gauged and set in putty, per ft. extra	0	4	6
DO. salt, white or ivory glazed, per ft. sup. extra	0	5	6
TUCK POINTING, per ft. sup. extra	0	0	10
WEATHER POINTING, per ft. sup. extra	0	0	3
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
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

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	7
Basebed, per ft. cube	0	4	8
Bath stone, per ft. cube	0	3	9
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

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 M:			
Portmadoc Ladies	£14	0	0
Countess	27	0	0
Duchess	32	0	0
Clips, lead, per lb.	0	0	4
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. gauge, 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
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	5	6	0
DO., machine-made DO., per square	4	17	0
Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.			
FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

CARPENTER, *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.	£21	0	0
11×4, per std.	31	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1 in., per sq.	£1	5	0
DO. *T. and G., 1 in., per sq.*	1	5	0
Planed Boards, 1 in.×11 in., per std.	30	0	0
Wainscot oak, per ft. sup. of 1 in.	0	2	0
Mahogany, per ft. sup. of 1 in.	0	2	0
DO. *Cuba, per ft. sup. of 1 in.*	0	3	0
Teak, per ft. sup. of 1 in.	0	3	0
DO., *ft. cube*	0	15	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	5	9
DO. framed in floors, roofs, etc., per ft. cube	0	6	3
DO., framed in trusses, etc., including ironwork, per ft. cube	0	7	3
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.	3	10	0
SLATE BATTENING, per sq.	0	18	6

PRICES CURRENT; *continued.*

CARPENTER AND JOINER; *continued.*

DEAL GUTTER BOARD, 1 in., on firring, per sq.	£3	5	0
MOULDED CASEMENTS, 1¼ in., in 4 sqs., glazing beads and hung, per ft. sup.	0	3	0
DO., DO., 2 in., per ft. sup.	0	3	3
DEAL cased frames, oak sills, 2 in. d.h. sashes, brass-faced pulleys, etc., per ft. sup.	0	4	0
DOORS, 4 pan. sq. b.s., 2 in., per ft. sup.	0	3	6
DO., DO., DO., 1¼ in., per ft. sup.	0	3	0
DO., DO., moulded b.s., 2 in., per ft. sup.	0	3	9
DO., DO., DO., 1¼ in., per ft. sup.	0	3	3
If in oak multiply 3 times.			
If in mahogany multiply 3 times.			
If in teak multiply 3 times.			
WOOD BLOCK FLOORING, standard blocks, laid in mastic herringbone:			
Deal, 1 in., per yd. sup., average	0	10	0
DO., 1¼ in., per yd., sup., average	0	12	0
DO., DO., 1¼ in. maple blocks	0	15	0
STAIRCASE WORK, DEAL:			
1 in. riser, 1¼ in. tread, fixed, per ft. sup.	0	3	6
2 in. deal strings, fixed, per ft. sup.	0	3	9

PLUMBER

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

Lead, milled sheet, per cwt.	£2	3	0
DO. *drawn pipes, per cwt.*	2	4	6
DO. *soil pipe, per cwt.*	2	6	6
DO. *scrap, per cwt.*	1	9	6
Copper, sheet per lb.	0	1	0
Solder, plumber's, per lb.	0	1	2
DO. *fine, per lb.*	0	1	5
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in., per yd.	0	4	1
DO. *4 in. per yd.*	0	5	0
R.W.P., 2½ in., per yd.	0	2	0
DO. *3 in., per yd.*	0	2	5
DO. *4 in., per yd.*	0	3	3
Gutter, 4 in. H.R., per yd.	0	1	5
DO. *4 in. O.G., per yd.*	0	1	9
MILLED LEAD and labour in gutters, flashings, etc.	3	10	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	1
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	3
DO. 1¼ in., per ft.	0	4	6
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	0
DO. 3 in., per ft.	0	7	0
DO. 4 in., per ft.	0	9	9
CAST-IRON R.W. PIPE, at 24 lb. per length, jointed in red lead, 2½ in., per ft.	0	2	5
DO. 3 in., per ft.	0	2	10
DO. 4 in., per ft.	0	3	3
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	2	7
DO. O.G., 4 in., per ft.	0	2	10
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	7	0
DO 3 in., per ft.	0	6	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS only, with all joints	1	18	0
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

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

Chalk lime, per ton	£2	11	0
Hair, per cwt.	0	18	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	8
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	9
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Thistle plaster, per ton	£3	9	0
Lath nails per lb.	0	0	4
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	3
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	7
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	9
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	5
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, *1s. 8½d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	6
DO. 26 oz.	0	0	7½
Cathedral white, per ft.	0	0	6½
Polished plate, British ¼ in., up to 2 ft. sup.	0	2	0
DO. *3 ft. sup.*	0	2	6
DO. *7 ft. sup.*	0	3	6
DO. *25 ft. sup.*	0	4	0
DO. *100 ft. sup.*	0	4	6
Rough plate, ⅛ in.	0	0	6
DO. *¼ in., per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	16	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	6
Glazing only, polished plate, 6½d. to 8d. per ft. according to size.			

DECORATOR

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

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

SMITH

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

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

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.			
The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . from 3d. to	0	0	6
Plaster board, per yd. sup. . from	0	1	7
PLASTER BOARD, fixed as last, per yd. sup. . . . from	0	2	8
Asbestos sheeting, 5/32 in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, 5/32 in. punched per M. grey	17	0	0
DO., *red*	19	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			
3 m/m alder, per ft. sup.	0	0	2
4½ m/m amer. white, per ft. sup.	0	0	3½
¾ m/m figured ash, per ft. sup.	0	0	5
4½ m/m 3rd quality, composite birch, per ft. sup.	0	0	1½