

# THE ARCHITECTS'



## JOURNAL

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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.

WEDNESDAY, MAY 4, 1927.

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"Dunure," at Purley, the home of J. B. Wright, Esq., O.B.E., is a charming house designed by Messrs. Percy C. Boddy, F.R.I.B.A., and John A. Dempster, A.R.I.B.A. The house was built by Mr. Stafford H. Palmer, of West Croydon. The rendered surfaces are in "Atlas White" Portland cement stucco, the textural effect having been obtained by the use of a wire brush. The general trend of work in renderings of white Portland cement concrete—concrete that possesses the full tensile strength and lasting properties of all orthodox true Portland cement concrete—is toward brushed surfaces or surfaces treated with a carpet-covered float. Plasterers are learning that the neat cement skin which in the early days of concrete renderings was allowed to cover the aggregate, is productive of cracking and crazing. Architects are

daily saving time and trouble by specifying proper textural finishes. My "Atlas White Stucco Specifications" are of great assistance in this connection. As many copies as may be required may be had

from me. Write to Regent House, Regent Street, London, W.1. Plasterers or contractors are just as welcome to them as are architects and surveyors. Anyone interested in white concrete may have a copy for the asking. We issue illustrated handbooks dealing with half-a-dozen uses of white Portland cement concrete. "Atlas White for Mortar" is a notable one. Before specifying the pointing and setting of brick or stone, write for a copy. It costs nothing. It points the way to beautiful effects and its illustrations of brickwork pointed in different colours are unique.

*Frederic Coleman*





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

THE STUDIO FIREPLACE AT  
NO. 41 KENSINGTON SQUARE

[ BY DARCY BRADDELL AND HUMPHREY DEANE ]

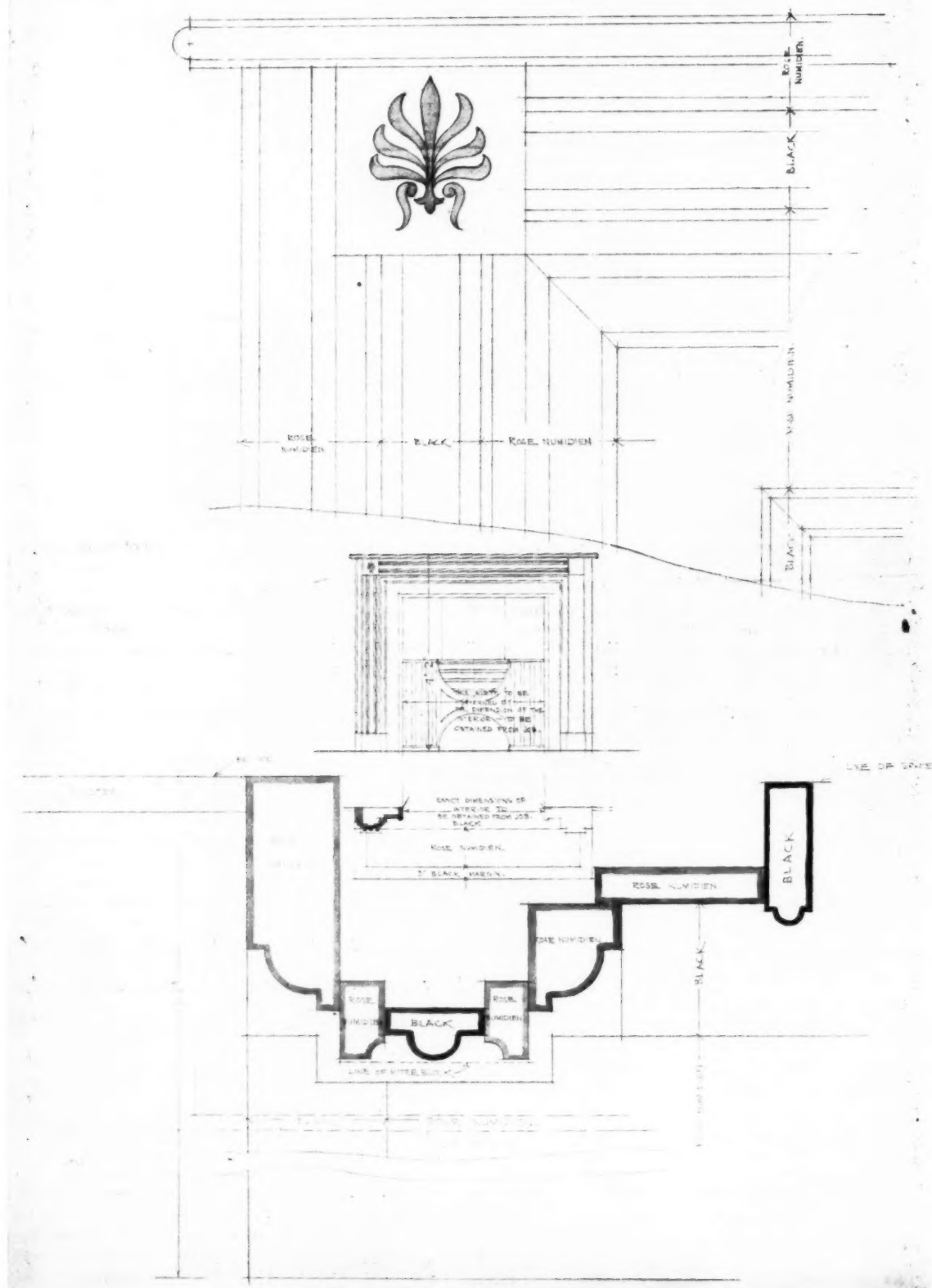
THE WEEK'S DETAIL

[ BY DARCY BRADDELL AND HUMPHREY DEANE ]

The accompanying photograph and working drawing illustrate a marble chimneypiece in the Studio of Mr. T. E. Lowinsky at No. 41 Kensington Square. The house which dates from the Eighteenth Century has recently been altered and added to. Among many other things done a new Studio was made by adding considerably to an existing room. The result is now a very long and narrow apartment divided into three units by elliptical arches. The walls are painted a dead white as being the best background for Mr. Lowinsky's own work. A plaster cornice and frieze ornamented in the fashion of the very late Eighteenth Century is the only decoration used on the walls. The chimneypiece makes a striking piece of colour for it is carried out in pink marble lined with black, Rose Numidie and Belgian Black being the two marbles used. The colour of the chimneypiece is picked up in the curtains and chair coverings. The hob grate is an old one discovered in the basement of the house.

41, KENSINGTON SQUARE  
1" & 8" DETAILS OF STUDIO FIREPLACE.

DETAIL No 11.  
DARCY BRACKELL, DESIGNER.  
HARVEY DEANE, ARCHT.  
18 OLD QUEBEC ST. N.Y.  
J.C.G.



A photograph of this detail is given on the preceding page





Wednesday, May 4, 1927

## BIRMINGHAM

"I CAME through a pretty street as ever I entered into Birmingham town. This street is called Dirtey. In it dwell Smiths and Cutlers." So wrote Leland in 1538. This is the first known record of Birmingham trades, although the place itself is recorded in Domesday, and is known to have taken its name from the family of de Bermingham.

Despite such ancient references, however, the city is, in fact, a modern one; a typical product of industrialism, or perhaps scarcely typical, for it is superior to most of the Black Country towns, although lamentably below the ideal city. But what really distinguishes Birmingham from most, if not all, other cities is its highly-developed civic consciousness and pride, and the loyalty with which it has been served by several generations of citizens. To make a comparison between Athens and Birmingham may seem fantastic, and in a sense it is; besmirched, hideous, and scarred, what can it have in common with our conception of Athens as a city serene, radiant, and lovely? It has this in common, that the citizens of both were characterized, not only by a love for, and pride of, their towns, but also by a willingness to give and to serve. Londoners, too, are proud of their city, but they are, for the most part, held together by no mutual devotion, and still less by a willingness for service. Any one who has been intimately associated with both towns must be aware of this difference.

And the civic consciousness has been lately given very definite outward reality in the shape of the Birmingham Civic Society; the most complete and active example of such an organization in the country, and one which already has to its credit a fine record of achievements, but much must be done and many years must elapse before Birmingham can become a city of beauty.

Of all its public buildings the most satisfactory is still the old Town Hall, designed by Hanson in 1850, which has been recently reopened after having been closed for eighteen months for internal alterations. These alterations have been the subject of much discussion, and it will be remembered that both the design for the work, and the way in which the contract for it was let, have been very severely criticized, and Birmingham architects not unnaturally feel themselves aggrieved at the Council's procedure. The result of the eighteen months' labour, and an expenditure originally estimated at £36,000, but since admittedly exceeded by an unstated amount, are now open to the public, and the criticisms are reiterated with greater emphasis.

Birmingham was one of the earliest towns to be indus-

trialized, indeed, its importance as a centre of manufacture had already begun at the close of the seventeenth century. Curiously enough, of its first two trades, that of the smith and the cutler, the latter has removed to Sheffield. One effect of this early industrialization was the growth, at the beginning of last century, of the parish of Edgbaston, which is now completely joined with the city itself. Here, evidently, forgathered those whose activity in the town yielded to them moderate affluence, for we find street after street of the most delightful houses of the later Georgian days. This suburb seems to have been strangely overlooked by the enthusiastic compilers of books; certainly it is one of the finest that can be found of houses of this period; houses that exhibit all the merits of refined urbanity, varying in size from the small terrace house to the large secluded mansion, and displaying versatility and a wealth of delightful detail. Like all other homogeneous architectural schemes, it owes its formality and uniformity to the wise control and exactions of a ground landlord.

Birmingham is essentially a sedate town, sedate almost to the point of gloominess. Already, during the seventeenth-century civil war, it was a stronghold of Puritanism, and it has ever since maintained a large element of Nonconformity. It is this, doubtless, which makes for its collective conscientiousness, no less than for its dullness. Birmingham is proud of its "art treasures," many of them the gifts of rich citizens, of its pre-Raphaelites and its David Coxes, and of its glass and ceramics, all suitably housed in municipal buildings, but it would hesitate to acknowledge the propriety, still less the desirability, of introducing beauty into daily life, it is a town in which morality rather than æsthetics flourishes; in which the moral virtues are cultivated with great vigour, but it has yet to learn that these things are not only not mutually exclusive, but in a sense complementary. The desire for beauty and the desire for goodness are fundamental to mankind, and the suppression of one is neither desirable nor is it ultimately possible.

Connected with Birmingham is a galaxy of famous names, mostly of inventors and men of science. The city justly claims James Watt, and the Soho factory, where the marriage of his genius to the courage of Mathew Boulton perfected the steam engine, is still cherished. The very type in which these words are printed was designed by John Baskerville, of Birmingham, one of the most famous English printers. Joseph Priestley, Sir William Herschel, and Erasmus Darwin were citizens of Birmingham; so, too, was the Gothic Revivalist, Thomas Rickman.

## NEWS AND TOPICS

## THE ROYAL ACADEMY—MODERN BRITISH ARCHITECTURE—RE-AFFORESTATION—THE NEW ARTS THEATRE

PRIVATE View day at the Academy always leaves an impression of people rather than pictures. Pictures are secondary also to paint, when the galleries are filled with a large and talkative throng. By "paint" is meant the larger and more clamorous works which by size and colour catch the eye, but which on closer acquaintance contain less interest and less merit than their quieter neighbours. These quieter neighbours cannot be properly appreciated, however, under such distracting conditions. Large and assertive pictures this year are conspicuously absent. It is a comparatively quiet year, but with some excellent works. The architect cannot see so many pictures without thought of the walls they will eventually cover. It must be, therefore, with some pleasure that he finds such a tendency as he does towards really decorative landscapes and fine architectural subjects. Mr. Sidney Lee, A.R.A., in his six exhibits covering both these subjects is quite outstanding, particularly in his "Theatre of Marcellus" in Gallery 11, which achieves great scale and dignity. He exhibits also "The Custom House, Venice," and a "French Cathedral Square," both by moonlight, and some beautiful decorative and highly-finished landscapes. Another wonderfully successful painter of architectural subjects is Mr. Richard Jack, R.A., his two interiors of Buckingham Palace in Galleries 2 and 3 are masterpieces, and make one thoroughly dissatisfied with the drawings in the architectural room. A surprising number of pictures with a modernist tendency have been hung in Galleries 10 and 11, and no doubt much comment will be aroused by this year's display of latitude on the part of the Royal Academicians. The watercolour room maintains its high standard of previous years, though supported by very few actual Academicians. The octagonal hall and the lecture room contain a good and interesting exhibition of sculpture.

\* \* \*

Inigo Jones most admired those buildings which were "solid, well-proportioned, masculine, and unaffected," and these are the outstanding virtues of the best work at the present Exhibition of Modern British Architecture at the R.I.B.A. One is struck by the fact that the good traditions of Classic architecture have remained with us since the sixteenth century, whereas, if we may judge by the present exhibition, the English Gothic tradition is almost extinct. There are a few examples of really fine Gothic design exhibited, but they are "all forlorn." We have "St. Andrew's Church, Ilford," by Sir Herbert Baker, A.R.A., with its fine chancel; the delightfully decorated "Church of St. Paul, Ashby," by Major H. C. Corlette; "The Memorial Gateway of Clifton College," by Adams, Holden and Pearson; and two notable pieces of carving in the memorial organ screen of "St. Michael's, Camberley," by E. E. B. Claypole; and the font-cover of "St. Mary's, Hadleigh," by Charles Spooner. It is significant that one-third of the churches exhibited are Churches of Christ Scientist, and that these are all in the Classic manner. "The Chapel for New Kensington Borough Cemetery," by Knapp-Fisher, Powell and Russell, admirably combines Classic with Gothic.

There are some excellent schools and buildings connected therewith. "The Secondary School for Girls, Gravesend, Kent," by W. H. Robinson, is simple and monumental after the manner of Wren. "Aldenharn School War Memorial Library," by Michael Waterhouse, is in the same class, and the "Cricket Pavilion, Mill Hill School," by R. S. Balgarnie Wyld, is a gem of Georgian weatherboarding. There is also a "University of Al Il Beit, Baghdad," by J. M. Wilson, the graceful colonnade of which is well suited to the country. City office buildings are not the forte of this exhibition. The quite outstanding large buildings are "The Offices and Warehouse of Courtaulds, Ltd., London," by L. Sylvester Sullivan, and "The Publishing Offices of the *Illustrated London News*," by William and Edward Hunt. The offices of "The Soho Foundry, Birmingham," by H. T. Buckland and William Haywood, are very good. Of a rather different kind is "The Friends' House, Euston Road," by Hubert Liddbetter, which very admirably preserves the eighteenth-century character of Euston Square. We might also note here the excellent stucco post office at Horncastle, by H. T. Rees. There is an entire absence of factory buildings proper, which would seem to indicate that they are not being given the attention they deserve in this country, or else that they are not being built. In the nearest category are garages, radio stations, and telephone exchanges. "The Cosham Telephone Exchange," by P. N. Dyke, of H.M. Office of Works, and the beautifully massed "Maida Vale Telephone Exchange," by E. Cropper and P. M. Stratton, also of H.M. Office of Works, are notable. "Macy's Garage, Balderton Street," by Wimperis, Simpson and Guthrie, is good, and the generator and transformer block of "H.M. Radio Station, Rugby," by F. A. Llewellyn, has admirable mass and fenestration. There is a conspicuous absence of bridges, railway stations, wharves, and similar structures in the design of which one expects British architects to be alert. The domestic section is supreme, and of the work there I must write next week.

\* \* \*

I am not at all sorry that so much fuss is being made about placing the bust of John Hunter high above a gateway at St. George's Hospital. It is surely a portent of some significance that several ladies of title have shown sufficient interest in Art to write to the papers about this little phase of it. They all express, too, the highest admiration for Alfred Gilbert's fine bust, and some of them are strongly of opinion that it could not be more appropriately placed. A gentleman correspondent, however, while fully sharing the ladies' unbounded admiration for Alfred Gilbert's masterly bust, evolves the equivoque that high art should not soar too high for comfortable enjoyment, which is quite a seasonable little epigram against "skying." Some correspondents favour a suggestion that the bust should be put under shelter. They clamour for Protection; but while I agree that any work of Alfred Gilbert's ought not to be abandoned to all sorts of outdoor risks, I feel also that neither should it be treated as a mere item in a miscellaneous collection, whether at the Tate or in a museum. Otherwise I might be tempted to suggest its transference to the Hunterian Museum in the Royal College of Surgeons, Lincoln's Inn Fields. But I admit the superior claims of St. George's Hospital, where both John Hunter and his eminent brother William worked so skilfully, and where John so suddenly died.

The very necessary and valuable work of re-afforestation of England has been advocated for several years, both as a thing good in itself and as an employment likely to prove an excellent alternative to "the dole." Unfortunately, the progress of the good cause has been impeded and sympathy alienated by the felling of old timber from several acres of land in the New Forest, and, in spite of protests, more trees are to go. Englishmen take a sentimental interest in old and gnarled trees, and do not generally appreciate new young growth or wax enthusiastic over its potential value as the timber supply of the future. It should be possible to take a leaf out of the German's book and grow forests which are both a joy to behold and also a source of revenue. But to do so demands real knowledge of arboriculture, and the recognition of a sound artistic tradition in the arrangement of trees of different habits of growth and colour of foliage. We have such a tradition at Kew, where discretion in the spacing of the specimen trees is well exhibited, but when our forestry experts attempt to plant on a larger commercial scale they seem to forget all about the artistic possibilities of trees, and land us in for the monotony of nursery stock spread over acres of land which were once occupied by interesting old timber. They should get it into their thick heads that beauty is the best worth of money, and that a thing worth doing is worth doing well.

\* \* \*

The Spring Exhibition at the Chenil Galleries again demonstrates the success of the admirable lighting of these buildings. The pictures are not crowded, the sculpture is well distributed, and the general impression is thoroughly cheerful and effective. In the entrance you are confronted by a huge "Madonna and Child," cut from the trunk of a tree and one of its branches, a veritable example of fitting the subject to the material. The work, by the Russian sculptor Abrasha Lozoff, is treated with colour. Another piece of applied sculpture is by Henry Poole, A.R.A., a most pleasing and compact sketch in plaster for a fountain in stone and bronze. There are two of James Pryde's sombre but decorative interiors, and another good decorative canvas in Davis Richler's "Azalea and Rhododendron." For real accomplishment in oil-painting and in Nature observation I commend Alfonso Toft's little "Hayrick" study with its rich and glowing evening light. There are but few architectural works, but John Crealock's dark "Westminster Abbey" deserves notice. There are over 300 items in this interesting show, and the thought occurred to me that it would be a very good thing if the Chelsea Borough Council would take over these admirable galleries and hold quarterly exhibitions, as well as establish a permanent collection of works by Chelsea artists, past and present. There is no other place in the British Empire which has so intense and peculiar a claim as an artistic centre.

\* \* \*

An addition to the facilities for exhibiting pictures, drawings, engravings, and sculpture in London is to be welcomed. When it comes so pleasantly as the "Imperial Gallery of Art" at the Imperial Institute its welcome should be a warmer one. I do not know when I have seen a brighter show, or one so well arranged. There are just under 200 works exhibited, and the uncrowded art of feeling is most welcome and invites to a leisurely contemplation of each individual work. The artists are resident in Great Britain and the Dominions, and each

exhibits a single piece. They are of the modern, but not ultra-modern school, and include members of the Academy and other societies, and I was glad to see that quite a number of red sale seals were affixed even in the early days of opening. The sculpture is particularly attractive, so much so that several red seals are displayed thereon. The pictures are sound, and the drawings and prints include some decent architectural subjects. What I should like to see at this gallery, either as the next effort of the advisory committee or the next after that, is an exhibition of ostensibly architectural drawings, not plans which would hardly be suitable in such a place, but drawings of fine architecture as such, especially Dominion and Colonial, and a living selection of designs from new buildings which would give an idea of what Great Britain is worth in this respect, supplemented by examples of the purely architectural carved or modelled sculpture.

\* \* \*

The new Arts Theatre Club, which opened its doors on April 20, is in the way of being an innovation, for it is not merely the first time that a club has possessed its own theatre, but that theatre, unlike most others in London, is not subject to the rules and regulations of the Lord Chamberlain. It has been designed by Mr. P. Morley Horder, and Messrs. Minter, Ltd., have constructed it at the back of Nos. 6 and 7 Great Newport Street, which houses have been converted into the club premises. In some of the rooms the old oak panelling has been preserved, and this reminds me that in No. 7 once resided that extraordinary person, Dr. Wolcot, who, under the pseudonym of "Peter Pindar," used to tilt at all sorts of persons and things when George III was king. It was from this very house that, in or about the year 1787, he wrote a famous and, incidentally, a very insolent letter to Northcote the painter. All sorts of interesting people have, too, resided in this street which takes its name from Newport House, the London mansion of Montjoy Blount, who was created Earl of Newport by Charles I. Later, Romney had a studio here, and the artistic *aura* of the street is emphasized by the one-time presence in it of Ozias Humphry, and the fact that Wedgwood once had his ceramic warehouse here.

ASTRAGAL

## ARRANGEMENTS

THURSDAY, MAY 12

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

MONDAY, MAY 16

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

MONDAY, MAY 23

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

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



## ARCHITECTURE AT THE ROYAL ACADEMY

[BY A. E. R.]

THE exhibits in the Architectural Room this year have, each and several, that stamp of propriety which belongs to the atmosphere of Burlington House. The British Board of Censors have certainly shown care in their selection, and the survivals of the rejected and those works which have been crowded out number a hundred and seventy-seven. The show is more than an average one, and while it does not rise to the heights which would please the hotheads, it is catholic in its sympathies, and, as one would expect, free from eccentricity. A vintage year under present conditions could scarcely be hoped for, and it is not surprising

to find a continuance of the compromise between the architectural styles which has been in action for the past quarter of a century. The Hanging Committee is to be congratulated. It is possible for the visitor to walk round and judge the buildings in groups, a particularly happy section being church architecture.

Among the academicians, Sir Aston Webb shows one drawing, Sir Reginald Blomfield three, Sir John Burnet two, Sir Giles Gilbert Scott two, and Sir Edwin Lutyens one model. The Associates have shown similar activity. Sir Herbert Baker has one drawing, Mr. Curtis Green five,



Lord Wandsworth Agricultural College, Long Sutton, Hants. By E. Guy Dawber, A.R.A.



*The Midland Bank, Cheapside. By Sir Edwin Lutyens, R.A.*

Sir Robert Lorimer one, Mr. Walter Tapper three, and Mr. Guy Dawber three. Professor Prior does not exhibit. The drawings, the majority of which are the work of Messrs. Walcot, Cyril Farey, Pilkington, Hector Corfiato, Clist, and others, represent the precise character of modern draughtsmanship. Further statistics, from what must be regarded as the gleanings of 1926-27, throw light upon the nature of building enterprise of the time. Commercial architecture is in the ascendant. Ten of the exhibits and one model are related to banking. The Universities of Oxford, Cambridge, London, Leeds, and Dublin are represented by ambitious schemes, and there seems to be a similar building impetus in minor educational circles. For example, at least seventeen schools contemplate additions in some form or another. The designs for houses, cottages, and bungalows number thirty, there are six designs for flats, three seaside pavilions, two cinemas, three hotels, and one village centre. Hospitals, homes, and almshouses total ten, business premises fifteen, and bridges two. Among buildings of the institute class there are three of the first rank. As a foil to commerce the enterprise of the Church is revealed by designs for nine churches of varying size, and twenty designs for stained glass and other details. One regrets the fact that the Academy does not make a rule limiting the architectural exhibits to drawings made by the exhibitor. The public would pay more regard to an architectural drawing prepared by the architect responsible for the erection of a building, and this is understood by some academicians at least.

An outstanding feature of the exhibition is the scale of

the plaster models and the drawings on the pedestals. The largest model is that showing the new head office of the Midland Bank in Cheapside, by Sir Edwin Lutyens, R.A. The façade is novel in grouping; it shows little regard for orthodox arrangement, but is conceived on sculptural lines, having definite lateral silhouettes. This building-up at the extremities is echoed through the intermediate piers. The architect has been thinking in terms of the three arts, and has endowed the new bank with an official character far removed from pillowed opulence. The model for the new offices of the London Electric Railways is to half the scale. The design in this case represents the up-to-date tendencies of modern practice governed by the planning conditions. Messrs. Adams and Holden have certainly produced a remarkable building, and one which overcomes the difficulties of an irregular site. The building as a conception is convincing, although exception must be taken to some of the minor parts, which further study will eliminate. It is not every firm of architects who could enjoy the privilege of having a perspective prepared by Muirhead Bone.

The head office of Lloyds Bank, Lombard Street, by Sir John Burnet and Partners, associated with Messrs. Campbell Jones, Son and Smithers, is shown by two perspectives. The external elevation is a little surprising, coming from the architects who evolved Adelaide House. In this case the back elevation of the British Museum has been promoted above a Renaissance basement story. Mr. Tait has shown the effect in a bold *conté* sketch. The interior is of the fine Roman type, with flat ceiling, marble floors and counters.



As an essay in the classic manner it shows the limit to which this form of design can be taken.

No. 1,297, a proposed new front for the Army and Navy Co-operative Society, Victoria Street, S.W., by Sir Aston Webb, P.R.A., and Maurice E. Webb, is an example of big building, such as should distinguish the shopping thoroughfares of a metropolis. The handling of the new façade above the existing colonnaded shop frontage reveals the manner of Vignola. The design shows the difficulty of reconciling a sound decorative order, at the level of the pavement, with the larger scale above. This design has the makings of something even more distinguished; the dwarf parapets at the angles might be suppressed, while the circular windows and festoons to each pavilion seem foreign to the general arrangement of void to solid.

Among such a number of aspiring designs, all of which show truthful intention combined with good taste, it is difficult to do more than review works of outstanding character. The chapel for Stowe School, by Sir Robert Lorimer, is shown in elevation, plan, and section from the architect's own pencil; it is of interest to contrast this design with that prepared by Mr. Clough Williams-Ellis. Messrs. Adshead and Ramsey exhibit Worthing Pavilion, which, rendered by Professor Adshead, recalls an example of old French silver. The great scale of the new Masonic Memorial Building is shown in the drawing submitted by Messrs. H. V. Ashley and Winton Newman. This is a building with a strong bias to heavy masonic ceremonial. There are echoes of the Port of London Building in the low but massive tower at the angle and in the arrangement of the columns in antes between the pylons.

The fine drawing by Mr. Walcot, illustrating Messrs. Louis de Soissons' and G. G. Wornum's design for the same building, as well as Mr. Lawrence Dale's premiated design, shows the close nature of the competition result. From this point the designs belong to the miscellaneous category mentioned at the beginning of this review.

Messrs. J. S. Gibson and Gordon show a commercial palace, Henrietta Street, W., which has a composition similar to the new Devonshire House. The portico linking the wings appears small in scale. Mr. Walter Tapper, departing from his old regard for Gothic in the design of the Church of St. Mary and St. Thomas, Gorton, Manchester, enters upon a free rendering of brickwork, both pleasant and economical. Mr. H. S. Goodhart-Rendel shows "Cottages at Ranksborough, 1267," a design paying respect to local methods. Mr. Oliver Hill has a villa in the Basques, which has all the self-consciousness of a Spanish design prepared in a London office.

Mr. Arnold Thornely's Northern Ireland Parliament House appears to claim relationship with the remodelled front of Buckingham Palace. Mr. W. G. Newton shows the Glasshouse Street elevation of the New County Fire Office, a modest, retiring composition which will be accepted as a relief from the irritation of many façades. The design for the Sovereign's Throne, in the Chapel of St. Michael and St. George, St. Paul's Cathedral, although the work of Mr. Mervyn Macartney, would be claimed by Sir Christopher Wren if the great architect were to revisit St. Paul's. Sir Reginald Blomfield, R.A., shows the proposed widening of Waterloo Bridge, about which much controversy has waged, and a design for the Chantry Bridge, Rotherham. The architecture of flats is well shown by Kennings Estate, on the Duchy of Cornwall property at Kennington, which has been designed by Mr. G. Top-

ham Forrest. This group of flats shows a reasonable treatment in brick suited to the character of this district. The Small Flats, Larkhall Estate, Clapham, by Messrs. L. de Soissons and G. G. Wornum, have the novelty of external approach, but further study would improve the idea.

Piccadilly Circus is shown in a perspective by Mr. Raffles Davison. Here is to be seen the combining of two phases of recent architecture, namely, the work of the late Mr. Norman Shaw and the free classic favoured by Sir Reginald Blomfield, R.A. University College, Dublin, by Professor Butler, is represented in a fine perspective made twelve years ago by the late Alick Horsnell. Mr. Curtis Green, A.R.A., has six exhibits, one being in the black-and-white room. His chief works this year include the fine set of drawings for Martins Bank, Liverpool, and the design for Stratton, Piccadilly, a building having the scale of the new London which is happening day by day. In close proximity will be found the Foord Almshouses, Rochester, Mr. Guy Dawber, A.R.A., which might be called an "idyll of the early seventeenth century." The office premises this year are not conspicuous for originality. Mr. Fairhurst's New Offices, Manchester, belongs to the Selfridge order. Mr. Hamp's St. Katherine Coleman House wavers between a sentimental regard for traditional brickwork and a desire to compete with the Dutch. A rather curious loose effect is the result. The new buildings at University College for the Department of Anthropology follow the main lines of the existing groupings. They are old-fashioned, and have a correct Soanean flavour.

It is a relief to turn to the west wall of the architectural room to study the churches. Sir Giles Gilbert Scott, R.A., shows the proposed Catholic Church, Ashford, in a good drawing made by his pupil, Mr. Micklethwaite, and then, to show his own mastery as a draughtsman, he exhibits an interior which recalls the manner of Clarkson Stansfield. On this wall one notices with interest the vitality of modern church design. Messrs. Nicholas and Dixon Spain, R. M. Butler and Walter Tapper, A.R.A., maintaining the tradition for works of an ecclesiastical nature.

It is refreshing amidst the most ambitious schemes to encounter such a delightful design as the Missionary Guest Houses, Selly Oak, for which Professor Beresford Pite is architect. Mr. E. P. Warren, dealing with the New School of Pathology, Cambridge, has had recourse to the plain building statement of the Wren tradition, which exactly suits the local character. When one attempts general impressions of the architectural section at the Royal Academy the fact is borne home that selecting works from among the hundreds submitted is a thankless task. If the Academy is slated by the "Outsiders" for showing preference to the "Insiders," the lot of an architect bold enough to criticize can well be imagined. The whole exhibition, so far as architecture goes, is sound; there are no bad works; on the contrary, there are signs of health and vitality. Architecture moves at a more sedate pace than is the case with the sister arts. Building today on the great scale is practically at a standstill, hence the limitation of architectural enterprise to works of lesser importance. The architectural section at the Royal Academy as at present constituted can never represent the scope of modern building in the Empire. In this it is limited and archaic, and belongs to the period of its inception. The Academy sometimes hearkens to barking dogs, and it will do well to heed the growls of the outsiders and enlarge that section of the House Beautiful which interests architects and the public.

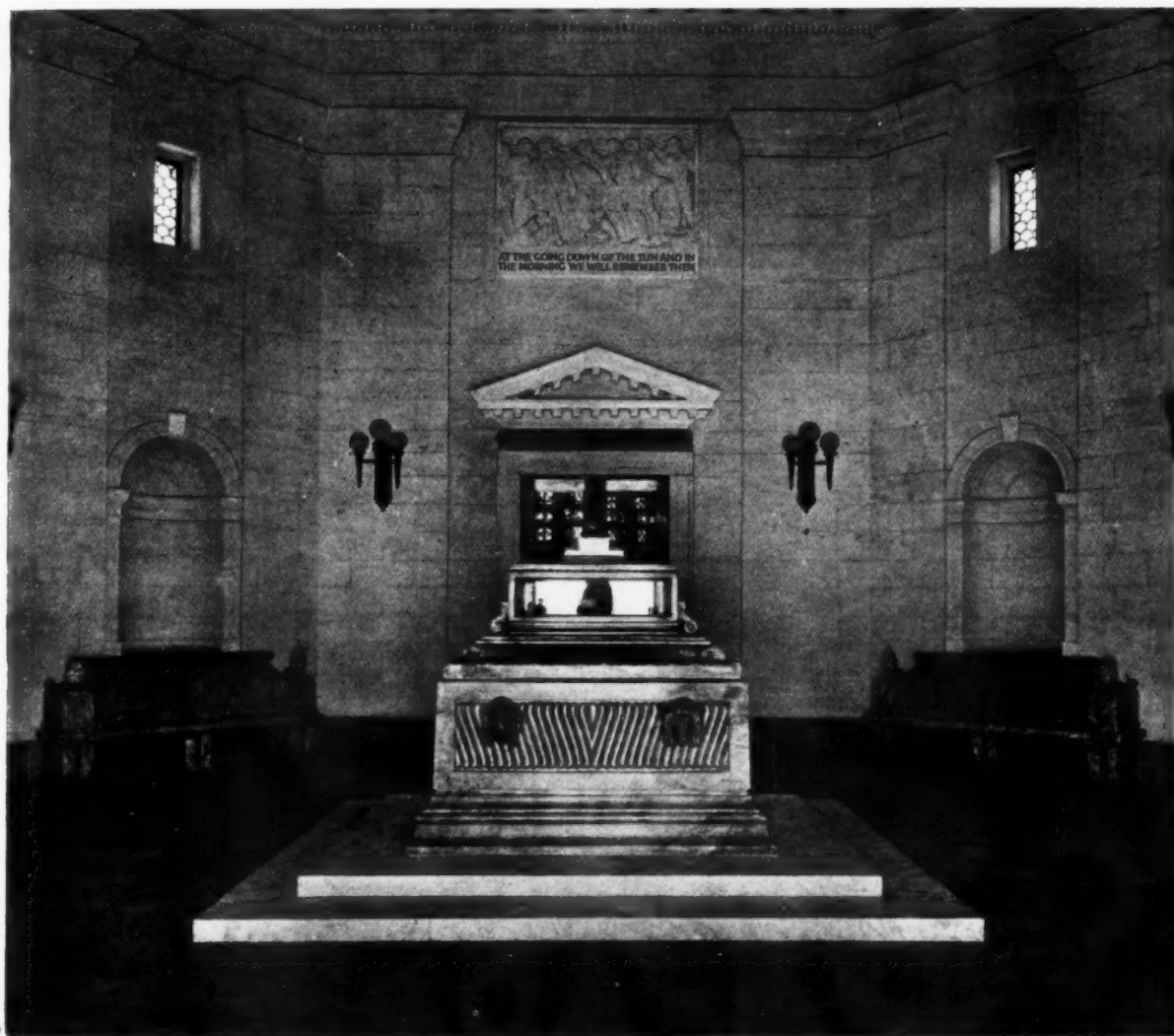
## RECENT WORK IN BIRMINGHAM

[ BY FREDERIC E. TOWNDROW ]

IT is usual for the Cockney to divide the world into two parts: London and the rest of the world; and invidious as it would be in me to compare Birmingham with any other city I have known, I am at least tempted to say that Birmingham has a special character of its own. I think it was Thomas Hardy who said that every village in England has its own atmosphere and its own code of morals, and difficult as it is to discover this in the average industrial town in England, one may say of Birmingham that its architectural character is evident not so much by the *ensemble* of its buildings as they exist, as by the attitude of its people towards those buildings and their architectural

interest in the future. Has not Birmingham, from among all the cities of England, organized a competition for the planning of a new civic centre? Has it not an active Civic Society, and has it not—richest and rarest among the cities of the Empire—a municipal orchestra?

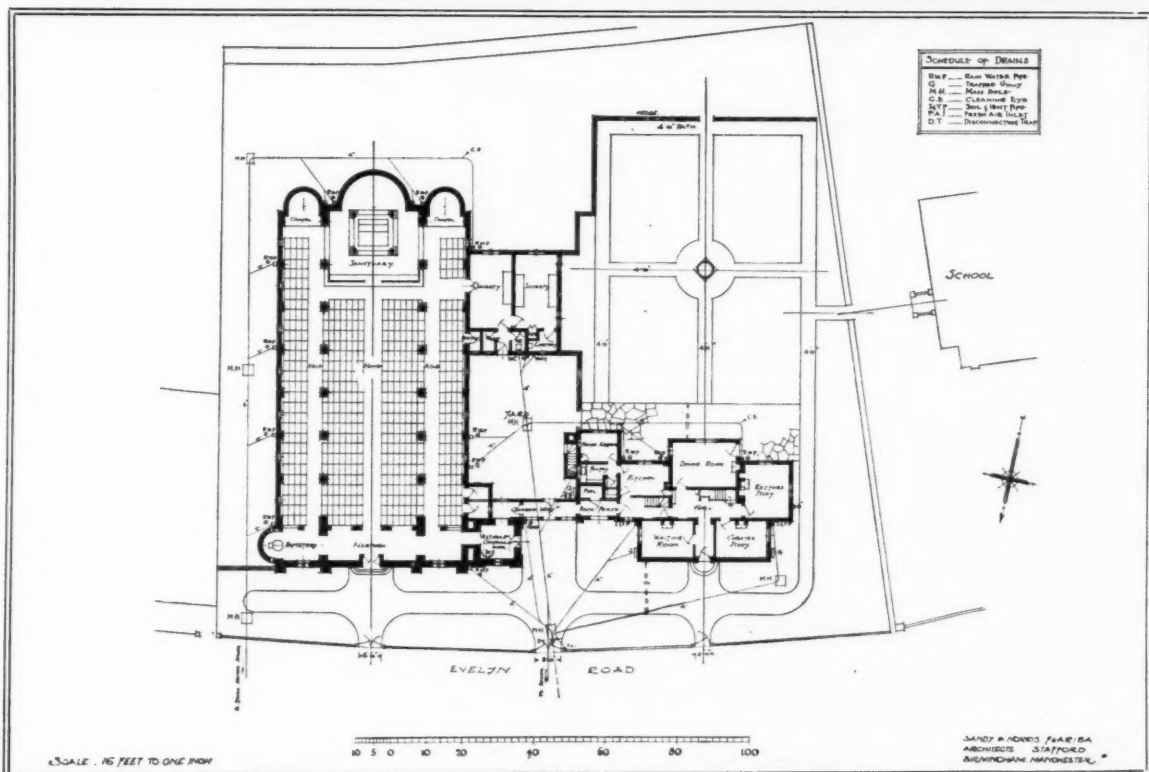
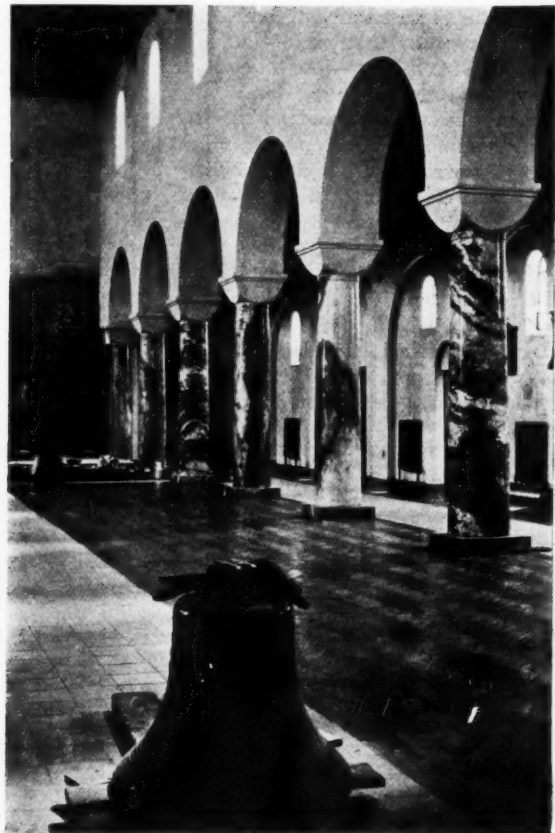
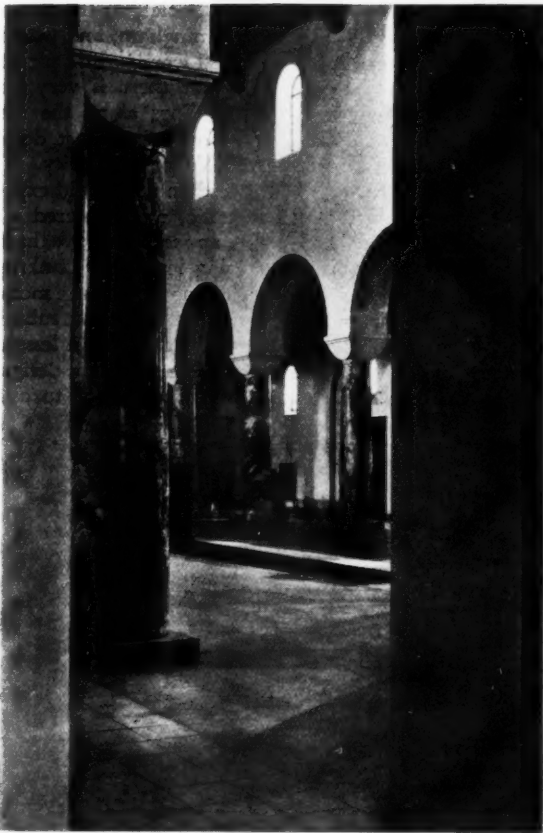
The provincial cities of England are, as a whole, just dreadful. Birmingham is a little different, for parts of it are so bad that no parochial pride could exist which would wish to retain them; parts of it are so good as to uphold the dignity of a great city and furnish a standard of good taste for its citizens. It is a city of strange contrasts. The apparent centre of the city is on one side of it. One walks



*The Birmingham Hall of Memory. By  
S. N. Cooke and W. N. Twist. The shrine.*



*Church of the English Martyrs,  
Sparkhill, Birmingham. By E.  
Bower Norris (Sandy and  
Norris). Above, a general view.  
Below, the entrance doorway.*



*Church of the English Martyrs, Sparkhill, Birmingham. By E. Bower Norris (Sandy and Norris). Above, two views in the interior. Below, the plan.*



past the handsome municipal buildings, and the magnificent old town hall, straight—without any warning or introduction of any sort—into a devastated area of wharfs, railway sidings, mean streets, and warehouses. Compared with a provincial and industrial city like Lyons, it is just a hopeless muddle, but compared with many other English provincial towns there is hope. This interest in the future architectural character of Birmingham is due in no small measure to Mr. William Haywood and the members of the Birmingham Civic Society, backed by a strong nucleus of enlightened citizens, like the Chamberlains, who are alive to the importance of town-planning. In 1918 Mr. Haywood published his book, *The Development of Birmingham*. This book, which I have before me, shows, with plans, elevations, perspectives, and descriptive matter, in a most carefully-reasoned and persuasive way, what a fine city

here with the activities of the Civic Society as the band of architects who work together in Birmingham, and who are so ably founding a tradition for good work in that place.

One is impressed by the fact that there is very little vulgarity in the design of the buildings along the main streets. The old work and the work of the last decade hold their own with a certain grave Victorian dignity. The shopfronts are more ample in scale than one would expect; they are not shoddy, thinly metallic, nor plastered with advertisements. No shopkeeper appears to have had a fire just lately, nor an ever-expiring lease, nor bankrupt, salvage, or war surplus stock for sale, nor any of the money-catching misfortunes of some London streets. The suburbs, by which I mean the better residential areas are a lesson to London. Most of the houses, even if they are not designed by architects, do at least make some attempt to avoid



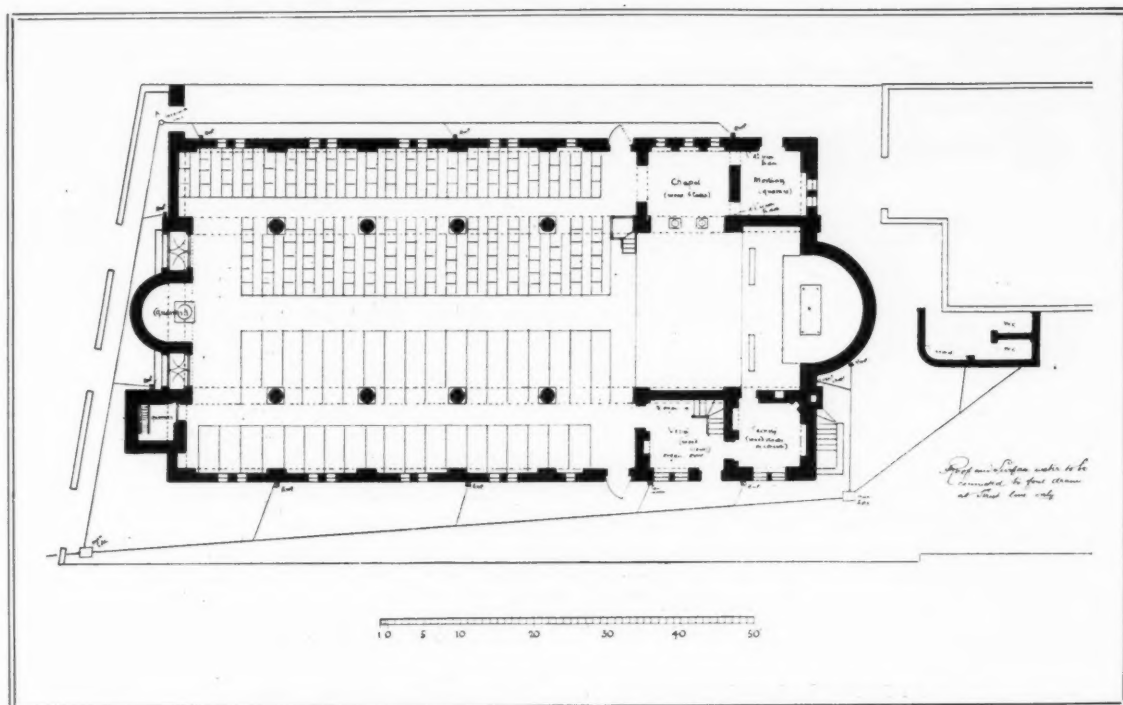
*St. Basil's Church, Birmingham. By A. S. Dixon. The altar.*

Birmingham could be. In the words of Mr. Neville Chamberlain: "I am sure that future generations will have cause to be grateful to Mr. Haywood for the lofty and inspiring conception he has set before us." It is satisfactory to think that in a country where orderly and noble conceptions in architecture are generally smothered soon after birth (a country that threw away the grand dual opportunity of the Great Fire and Wren's plan), that something at least of Mr. Haywood's labours are bearing fruit.

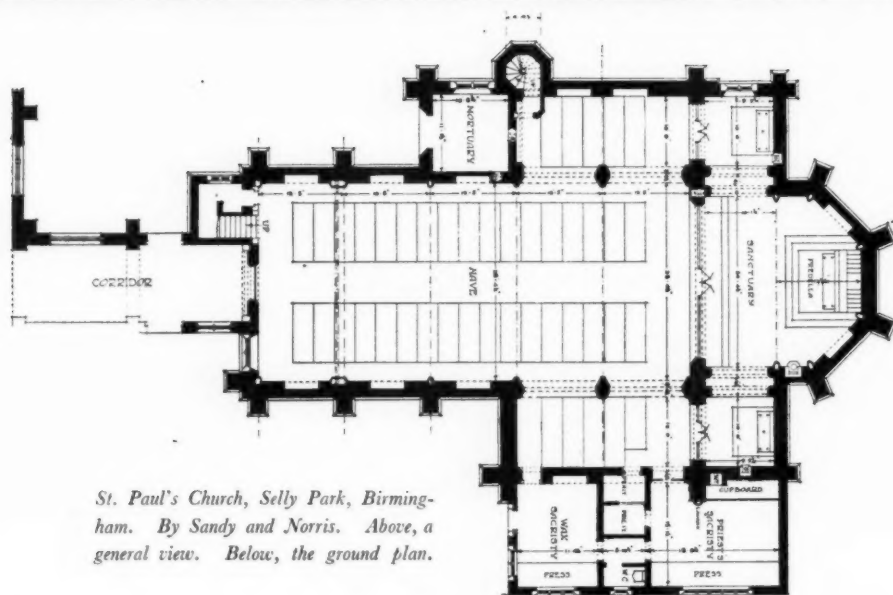
There is little doubt as to the importance of the Birmingham Civic Society, not only for Birmingham, but for the rest of England. For instance, near the centre of the town they are reconditioning the old Elizabethan mansion of Aston Hall, and laying out its park with something of its pristine elegance. But we are not so much concerned

with the jerry building. The Bournville area is, of course, an example of a carefully designed industrial suburb, but close to it, near Selly Oak, there is a settlement in which all the houses without exception are well designed. Much of this work has been carried out by Mr. Alexander Harvey. Unfortunately, there is no illustration of the smaller type of house, but the example of a house by Mr. Owen Parsons is typical of the larger houses. This is particularly interesting as an example of asymmetrical grouping, all the elements are necessary to the design, and although the whole arrangement looks so happily unpremeditated, it has obviously been carefully thought out so that if one were to take away or add even the smallest element it would destroy the balance. I can remember another house by Mr. Parsons which further evidences his ability in the design of irregular compositions.

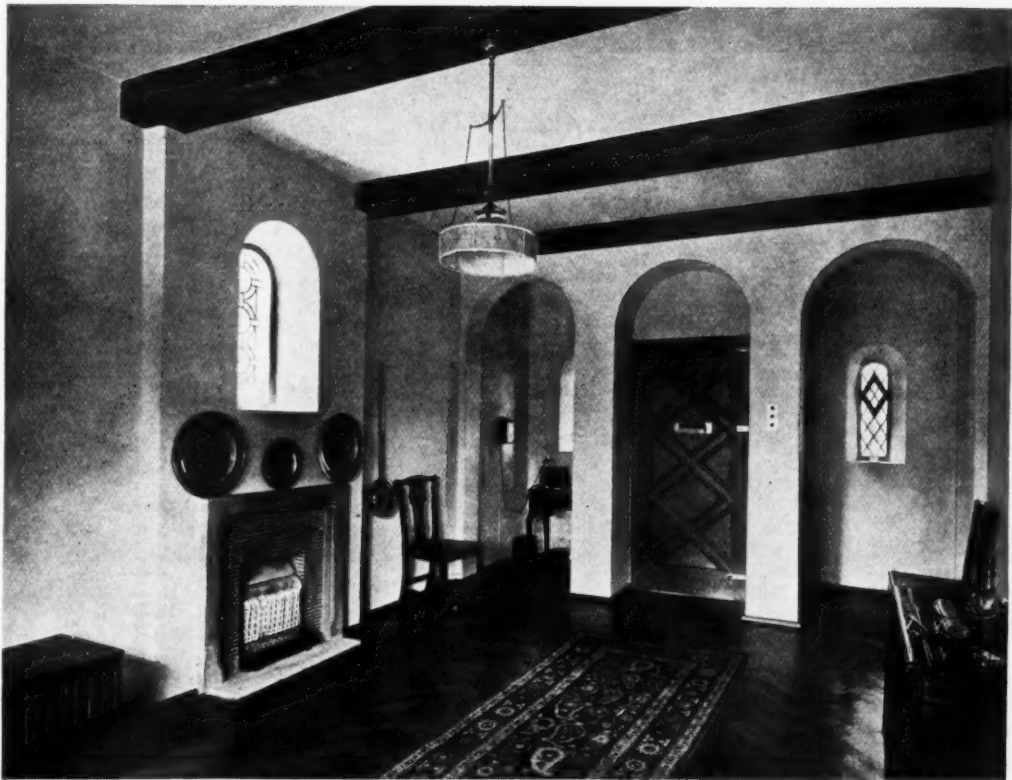




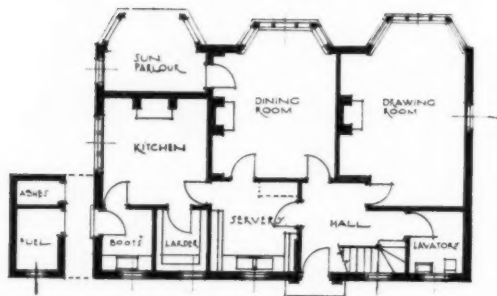
St. Basil's Church, Deritend, Birmingham. By A. S. Dixon. Above, a general view. Below, the plan.



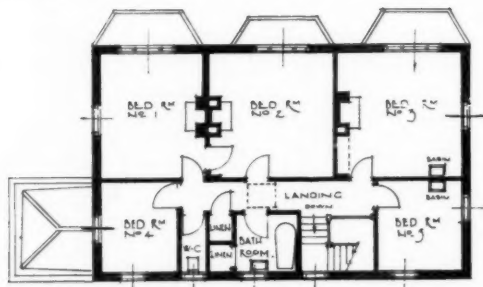
*St. Paul's Church, Selly Park, Birmingham. By Sandy and Norris. Above, a general view. Below, the ground plan.*



*House at Little Aston Park, Streetly. By Holland W. Hobbiss. Above, the garden side. Below, the entrance hall.*



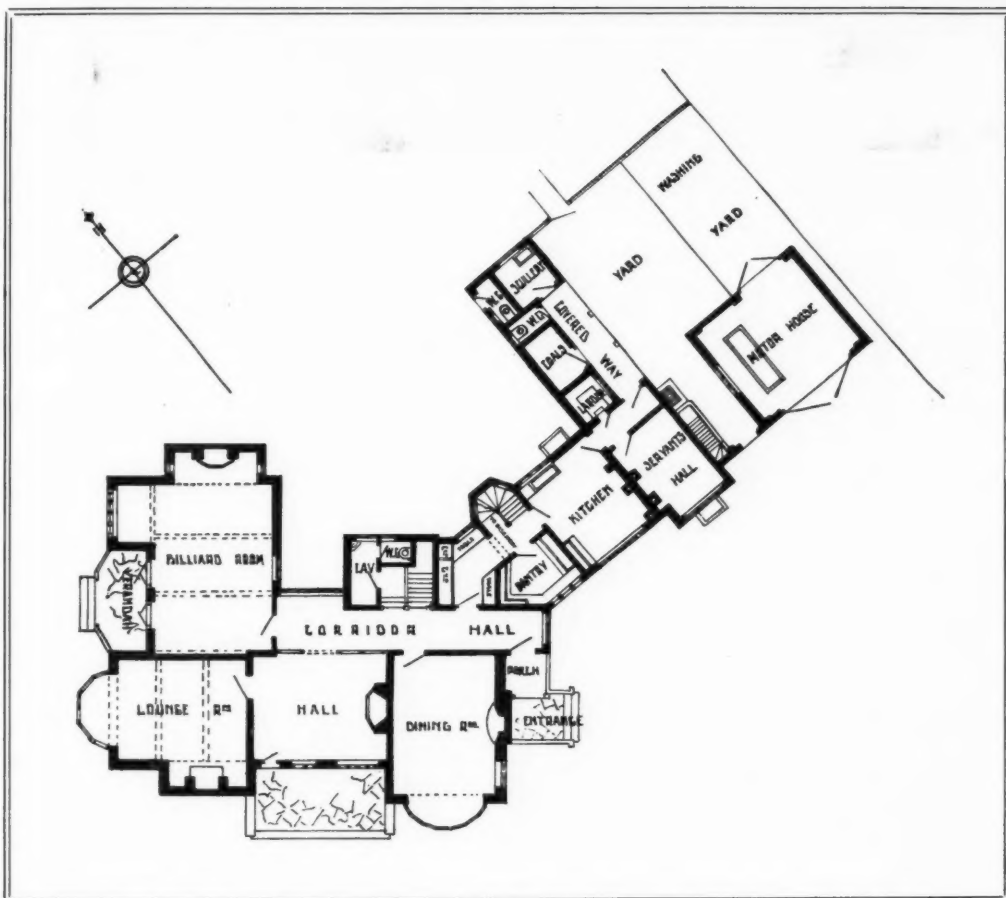
GROUND FLOOR PLAN



FIRST FLOOR PLAN

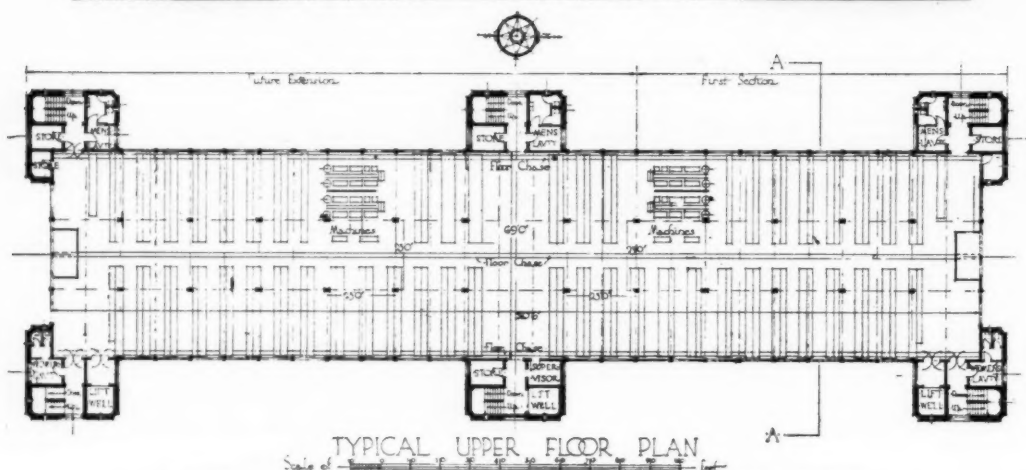
*House in St. Mary's Road,  
Harborne, Birmingham. By  
Buckland and Haywood. Above,  
the entrance front. Below,  
the ground- and first-floor plans.*

SCALE OF 1" = 3' 0" 10' 20' 30' 40' 50'



House in Colmore Crescent, Moseley. By Owen P. Parsons.  
Above, the south-east elevation. Below, the ground-floor plan.





TYPICAL UPPER FLOOR PLAN  
 Scale of 1" = 10' 0"  
 Post Office Stores Factory, Birmingham. By F. Llewellyn (H.M. Office of Works).



*Above, Soho Foundry, Birmingham. By Buckland and Haywood. Below, Harborne Bus Depot, Birmingham. By Crouch, Butler, and Savage.*



*Extension to warehouse premises, Birmingham. By Batemans. Above, a general view. Below, the plan.*

## SOANE'S BANK OF ENGLAND

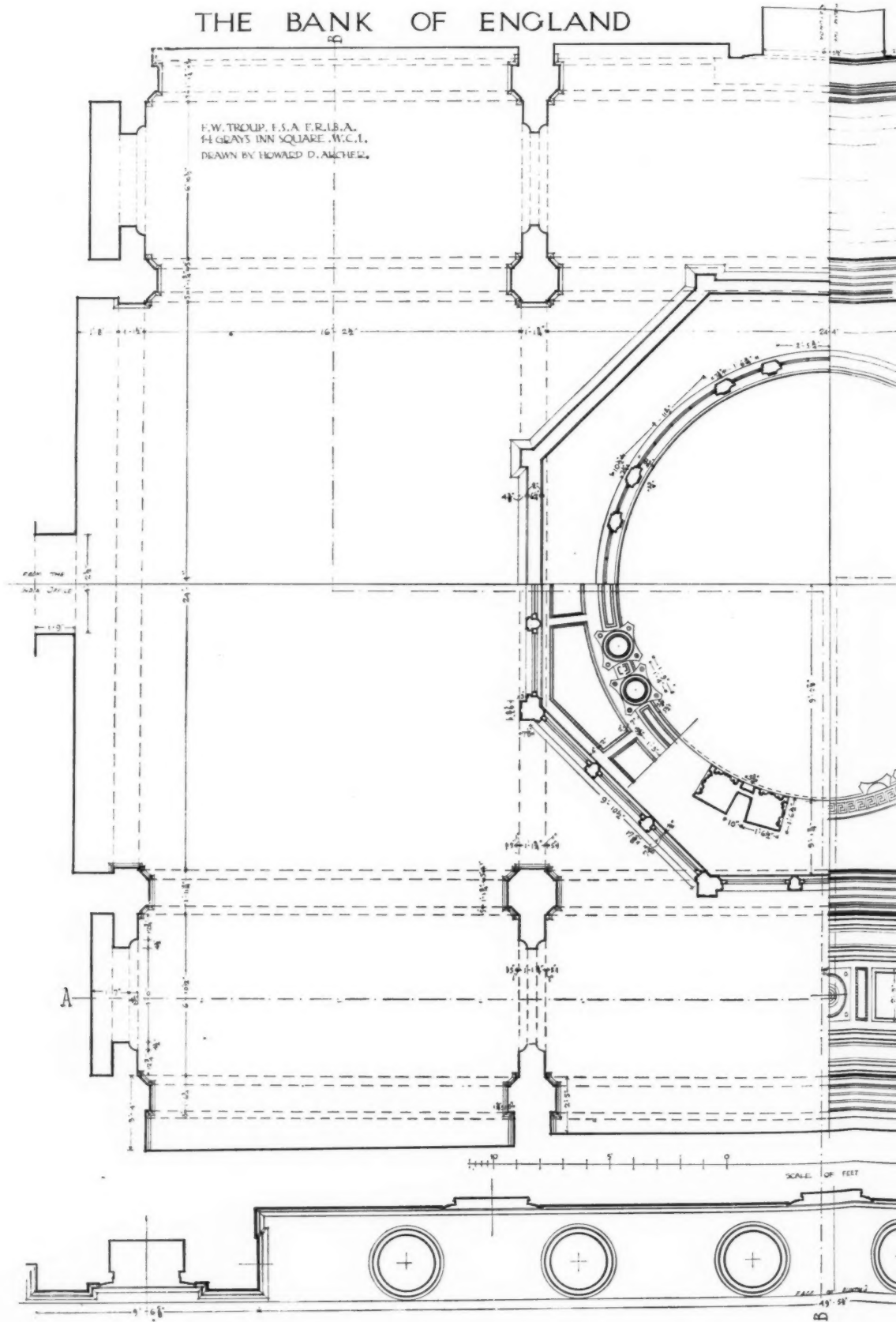
### vii : THE OLD DIVIDEND OFFICE

#### a : *The Plan*

*The last two of Taylor's Transfer Offices to come under Soane's scheme of reconstruction were demolished in 1818. These halls lay to the south and south-east of the Rotunda, and became known later, in their new form, as the Old Dividend and Colonial Offices. Soane's rebuilding of them followed the type he had evolved in the Bank Stock Office : four central stone piers supported a truncated dome which was surrounded by attendant vaults. It will be noticed on the plan of the Old Dividend Office that the north and south axis, which coincides with that of the Rotunda, also meets the centre of the colonnade in Threadneedle Street, the only instance of a Soane Hall bearing relation to a feature in the blank outer wall.—[H. ROOKSBY STEELE.]*

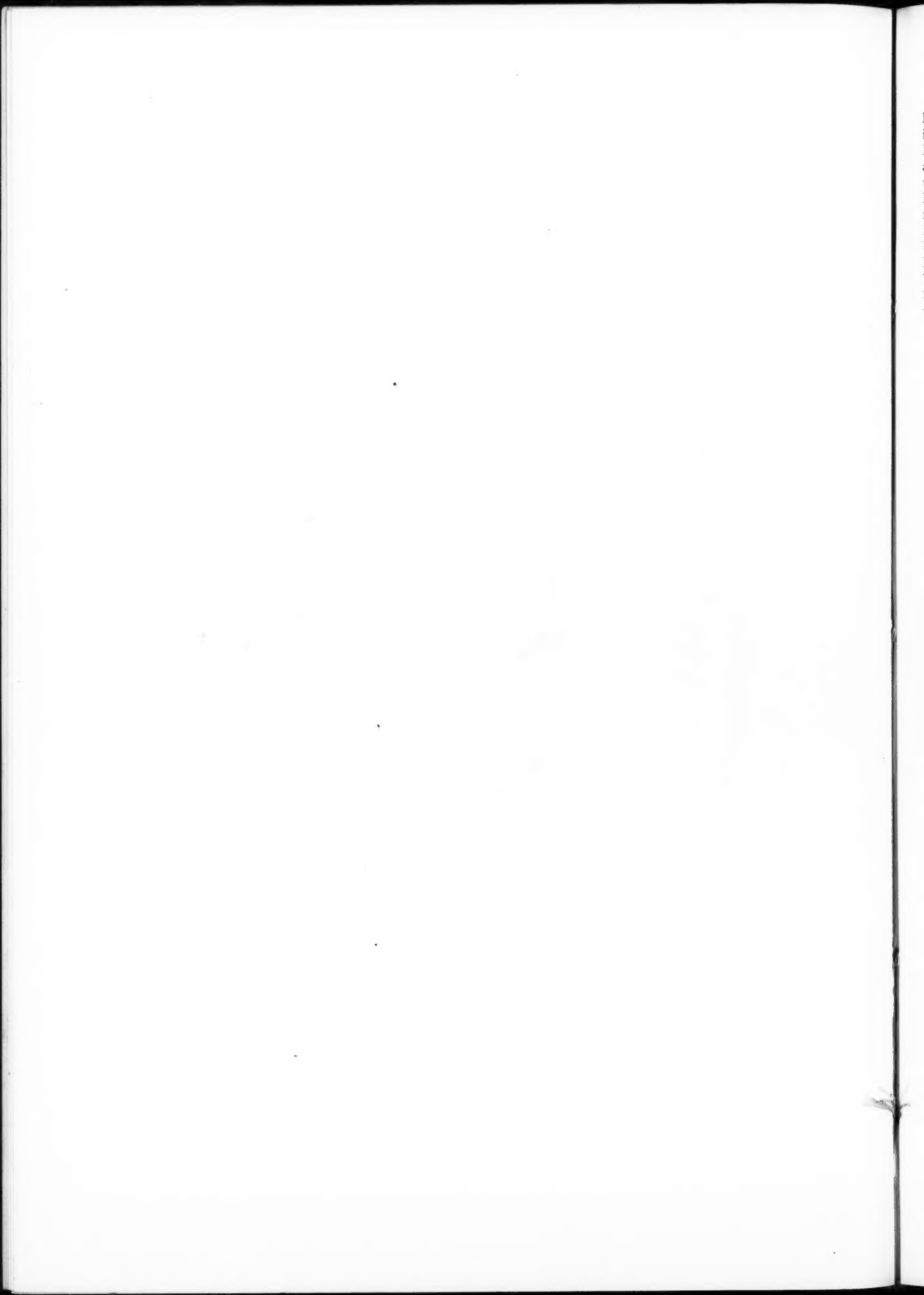
# THE BANK OF ENGLAND

F.W. TROUP, F.S.A. F.R.I.B.A.  
14 GRAYS INN SQUARE, W.C.1.  
DRAWN BY HOWARD D. ARCHER.









There is a surprising number of new churches in the Birmingham area, and all of them are interesting. There is the Church of St. Germain, by Edwin F. Reynolds, at Edgbaston, which would well repay special study for its free and modern treatment of the Romanesque-Byzantine theme; there is the new church at Bournville, by Mr. Alexander Harvey, in the same manner, which to my mind is not so fine outside as it is inside; there is St. Basil's Church, Deritend, by Mr. A. S. Dixon; and there are two churches by Messrs. Sandy and Norris:—The Church of the English Martyrs, Sparkhill, and St. Paul's Church, Selly Park. The last three are illustrated in this issue. St. Paul's, Selly Park, should be noted for its fine plan. It is extremely well-proportioned, giving the correct weight to the elements

Among the new industrial work in Birmingham may be mentioned Messrs. Buckland and Haywood's additions to Messrs. Kynoch's buildings, and the first part of the rebuilding of the Soho Foundry for Messrs. Avery, which is here illustrated. This is one-half of the block which will face the road. The treatment of the brickwork around the windows is interesting. The panels of brickwork containing the windows between the stanchions are reduced in thickness (which is a sensible thing to do where no stanchion cover is required), and the panels come up to the greater thickness of the piers in the form of a splayed band; a logical decorative note even though there is a straight joint running all round.

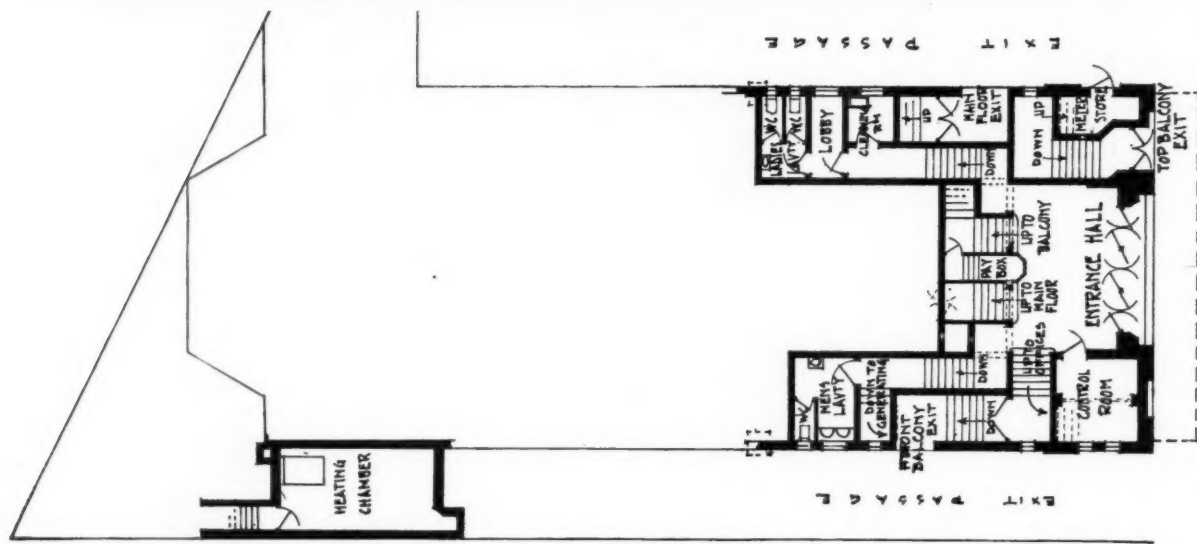
The Harborne Bus Depot, by Messrs. Crouch, Butler,



*Office block for the Villiers Engineering Co., Ltd. By W. T. Orton.*

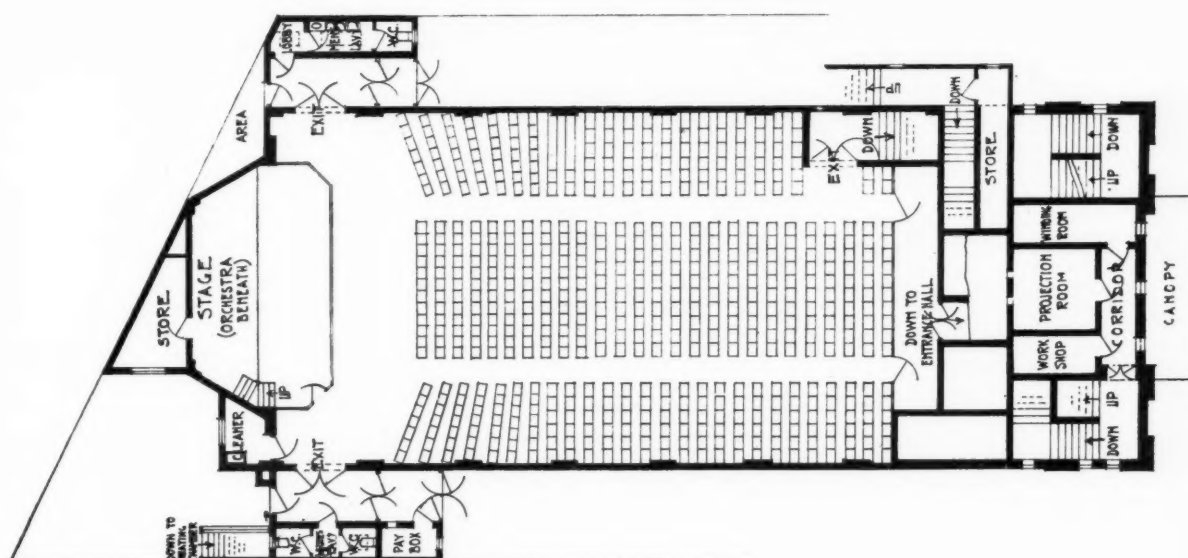
of the external composition. It will be noticed that there are no aisles; there is, as it were, a crossing at the chancel end which gives a reasonable amount of space for the two chapels. The Church of the English Martyrs, Sparkhill, by Mr. E. Bower Norris, stands in a pleasant suburb of Birmingham, and is in the Byzantine manner. It looks extremely well from the road, especially when seen in relation with the presbytery beside it, which building, by the way, is, I think, as interesting as the church. The interior of the church is lofty and finely spaced. St. Basil's Church, Deritend, by Mr. A. S. Dixon, is in the same manner, but I must confess that I do not like two apsidal shapes of different sizes facing each other at opposite ends of the church.

and Savage is, curiously, a similar arrangement, but treated somewhat differently to the Soho Foundry. Some people might think that arched windows need a great deal of justifying in modern buildings of this class, but in this case there may have been some special need for them, or perhaps there is no steel at the floor levels. After carefully counting the windows several times on each side of the main opening one notices—and not till then—that the break, and that row of white stones placed one above the other at one end of the façade, marks off the point from the centre which is equal to the length of the other half of the building. The new Birmingham Masonic building (in course of erection) by the same architects shows, if anything, an advance in modern



Palladium Cinema, Hockley, Birmingham. By L. L. Dussault.  
Above, the exterior. Below, the ground-floor plan.





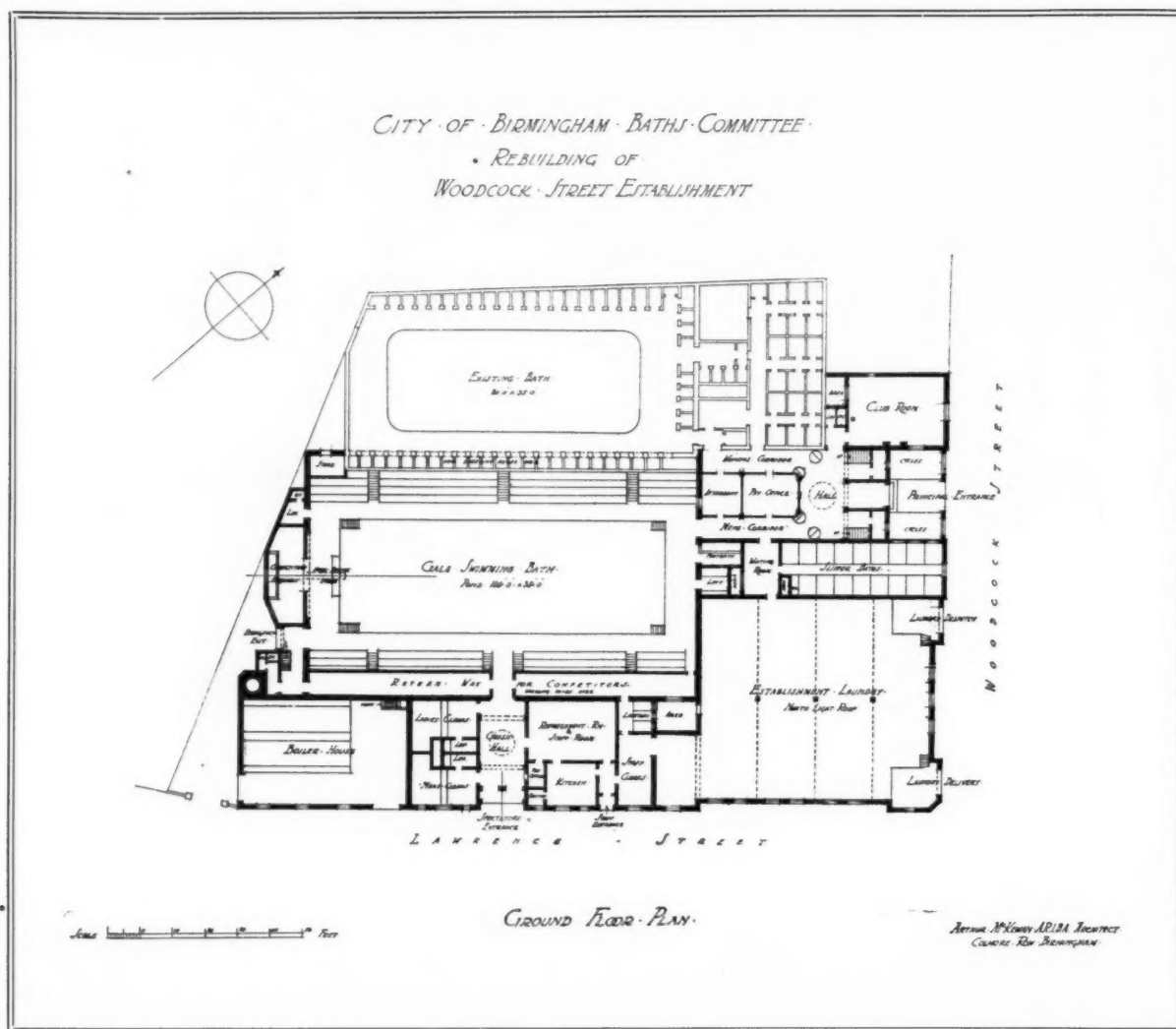
*Palladium Cinema, Hockley, Birmingham. By L. L. Dussault.  
Above, the entrance vestibule. Below, the main-floor plan.*

design, and will be an important addition to the buildings of Birmingham.

The Post Office Stores Factory is by Mr. F. Llewellyn, who is not a Birmingham architect, but is of the Office of Works, London. The illustration shows only a corner of the scheme, but, as will be seen by the plan, the finished building will have an unusually impressive frontage. It is a fearless treatment in steel and brick panel which does not lack in decorative quality. The office block for the Villiers Engineering Co., by Mr. W. T.

yet does not lack repose. This may be because the fenestration has been changed on the right-hand side of the front; there is in consequence a greater proportion of solid to void.

The Woodcock Street Baths has offered Mr. Arthur McKewan an excellent opportunity for his skill in the arrangement of a large number of differing features on a long façade. The municipal bath is one of the most difficult problems in external design. There are so many different elements, many of them about



Woodcock Street Baths. By Arthur McKewan. The ground-floor plan.

Orton, is so unusually like an office block for an engineering company that it deserves special notice. There is a fine mechanical air about it. I use the word advisedly as one would speak of the delicacy and precision of a fine mechanical instrument.

There is distinction about the work of Messrs. Buckland and Haywood, whether it is a factory, a private house, a school, or an office block. The house in St. Mary's Road (illustrated) shows a remarkably compact plan, and an external treatment which has its entrance off the centre,

the same size, which have to come into the plan, and which insist, because of top-lighting, in showing externally.

In and around Birmingham are several new public-houses which are models of this, the finest kind of social service. There is at the moment little or no work of the larger and civic kind being carried out in the centre of Birmingham, but I hope that this article will give some indication of the general and uniformly high standard of the work recently completed.

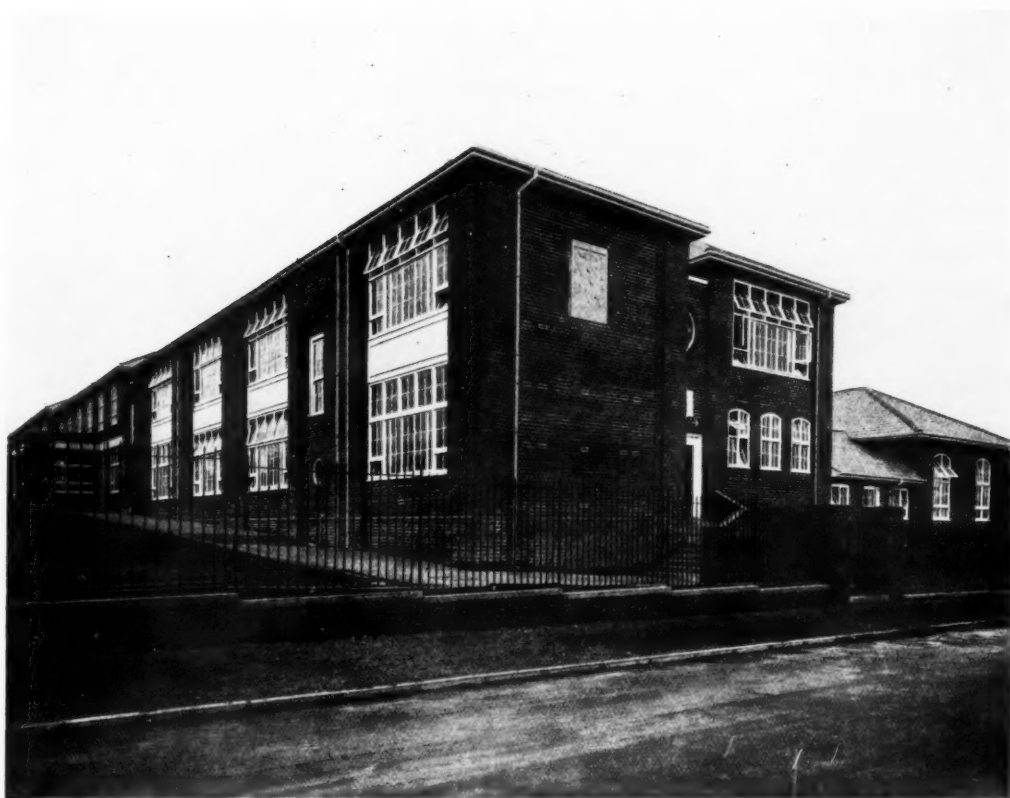


*Woodcock Street Baths, Birmingham. By Arthur McKewan.*



*Rotton Park Schools, Birmingham. By Buckland and Haywood.  
Above, a general view of the exterior. Below, the hall.*





*New Council Schools, Bordesley Green, Birmingham. By Holland  
W. Hobbiss. Above, a general view. Below, the main entrance.*



*Above, new Council Schools, Bordesley Green, Birmingham. By Holland W. Hobbiss. The playground showing the open corridor.  
Below, club premises, Small Heath, Birmingham. By Harold S. Scott.*

## COMMON DEFECTS IN COTTAGE PLANNING

[ BY WILLIAM BEESTON ]

THE planning of a cottage seems to the lay mind one of the simplest tasks with which the architect can be confronted. The term Cottage is not intended here to include the type commonly designed for housing schemes and built in pairs or in blocks of four or more. In these the blind party-walls combine with the requirements of aspect to bar any considerable variety of arrangement. It is with the small, detached, and more particularly servantless cottages, to be built within a definitely restricted limit of cost, that these notes propose to deal. Such cottages commonly include on the ground floor a living-room, sitting-room, scullery-kitchen, and the usual offices; the upper floor having three bedrooms, a bathroom, and w.c. In such houses a fairly wide choice of arrangement exists, and as a result of individual and competitive efforts in their planning the fact has emerged that the task is one calling for much ingenuity, and in which even the higher ranks of the profession may not unfruitfully engage.

It will be well to recognize at the outset that the small householder has a full claim to all the amenities and decencies of life. It is also essential that the designer should start with a very clear notion of the floor-space available within the limits of the amount he is permitted to spend, and should decide at once how much can be allotted to rooms and how much to entrances, staircase, offices, and stores of various kinds.

Commodious rooms are indispensable, but should not be secured by any sacrifice of comfortable entrances, a fairly wide staircase, stores of reasonable size, and the general conveniences of a workable and comfortable home.

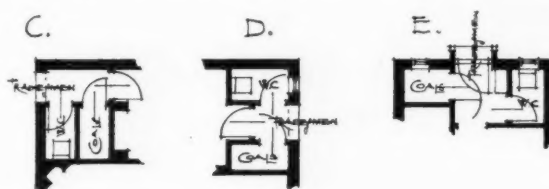
The living-room, as the one more commonly in use by the family, should have first call upon all available sunlight. The aspect of the site will, of course, have a good deal to say in this matter; but, assuming it to be south, the west side of the house appears to be the better one, whether the main axis of the living-room runs north and south, or east and west.

The main entrance must contain suitable provision for the disposal of hats and coats and a position for an umbrella stand. The two plans below show at A a restricted and inconvenient arrangement in which no such provision exists, and in which the swing of the door would reach the bottom stair and make the entrance very difficult to negotiate.

The stairs in A also very undesirably face the entrance, a defect which is avoided in B, where also the door could be hung on either hand with equal convenience. Freedom of movement is secured in B without undue expenditure of space. The handling

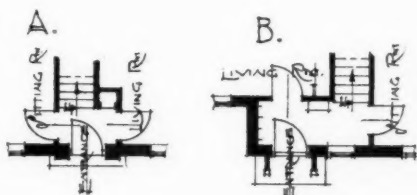
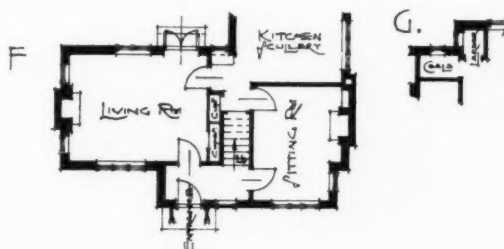
of living-rooms. The space under the stairs best meets the case, and can usually be made to do so quite conveniently.

The arrangement of the secondary entrance calls for considerable care. If its porch encloses the coalhouse door it should be remembered that this opens outwards and should do so with the least possible inconvenience. Diagrams C, D, and E show different types of secondary entrances; C and D are bad. In both



cases they enclose the lower w.c. in which an occupant could be penned indefinitely by an arriving tradesman. In E this error is avoided.

Much of the housewife's time will necessarily be spent in the scullery-kitchen, and from this each ground-floor room should be accessible without passing through the other. In this type of house considerable space, which could be better employed, is sometimes allotted to a rather roomy hall. An entrance similar to that shown in diagram B answers all purposes, access to it being gained from the scullery-kitchen through the living-room or the sitting-room, seldom both in use at the same time, and in which, in any case, the minimum of disturbance occurs in a plan similar to that shown at F.



of furniture should be carefully considered, and, with the increasing use of casement windows in place of removable sashes, the provision of fairly roomy entrances has become imperative. The claims of the baby must not be overlooked in this connection, and easy access for the perambulator must be provided, as well as a suitable stand for it when not in use. The latter should not be obtained at the expense of either of the

The staircase is an important feature too seldom considered from the children's point of view. Difficulties arise when an ill-considered staircase comes to be worked out in practice. Treads of barely more than 8 in., with an almost equal rise, are highly dangerous for children. A return flight involves a fairly large hall, or, at any rate, a first-floor landing of somewhat wasteful size. Winders are not liked by the housewife because of the difficulty of adjusting stair-carpet, and, on the whole, the straight flight seems least objectionable, one of fourteen or fifteen steps usually sufficing where rooms are of low pitch. A top step immediately at the wall-line of the landing is dangerous and should always be avoided. The nosing is better placed not less than 6 in. from the angle of the staircase wall. Space over the stairs can be usefully employed for hanging-cupboards in the bedrooms, but the cupboards must be carefully planned in relation to head-room on the stairs. The fact that, say, nine treads can be shown between the beginning of the descent and the wall of the cupboard is no guarantee of a sufficiency of head-room, as the rearing of a section will easily demonstrate. The floors of

such cupboards can, if necessary, be raised a few inches, but should preferably be on the same level as the room.

Room doorways which, on one side, are only the width of an architrave from the outer wall should be avoided, and, in fact, will only occur where the passage leading to them is unduly restricted. Compare diagrams A and B, in the former of which the doors would get in collision with even a slightly-inclined picture placed on the wall near them, and where the angle formed by the doorway and the outer wall is of no use for any purpose. In a small dwelling apparently unimportant details of this kind are a distinct detraction from the sum of general convenience.

The size of offices must necessarily be kept down to the serviceable minimum, and in this connection a width of 2 ft. 8 in. must be assumed to be the lowest for a w.c. The door may be 2 ft. or 2 ft. 2 in., and is better not placed centrally when it opens inwards. In fixing the length of a w.c. it should be remembered that the projection of the seat is never less than 1 ft. 6 in., and is more usually 1 ft. 8 in.

A coal store should not be less than 2 ft. 6 in. wide for even a small reserve of fuel, and this should also be regarded as a minimum width for a larder, together with a length of 5 ft. The juxtaposition of larder and coal store is objectionable, as the latter is at all times a cause of dust, and greatly so on the occasions of the coalman's visits. Sketch G (page 627) shows a defective arrangement easily avoided.

A good kitchen cupboard is indispensable; also one in which a small reserve of stores can be kept separately under lock and key. It should also be borne in mind that a multiplicity of articles are in constant use: hand brushes of various kinds, polishes, disinfectants, washing requisites, and many other things which call for a home in a handy position; this may be the lower part of a kitchen cupboard. A place for a broom-rack is also needed in every house.

The dresser cannot be dispensed with, and should have drawers for dusters and various cloths in daily use. The more recent type of dresser, in which the upper portion has glazed doors, and forms a dust-proof china cupboard, has much to recommend it.

A scullery-kitchen in which no place is found for a serviceable table is of but little use, and the housewife should not be compelled to stand in her own light when using the table.

On the upper floor the bedrooms in most cases fall naturally into place over the ground-floor rooms, and there is not much option as to the positions of doorways. The sites of beds must be carefully considered, and the case of the invalid should not be forgotten, the ideal bedroom for such being one in which the window is on the right or left hand of the bed, and not facing its foot, and in which the fireplace is in sight from the bed. This hint came from an invalid of long standing, and has since influenced the lay-out of many bedrooms.

The bathroom should be so placed that its wastes descend over the scullery drain, a good aim being so to arrange the drain connections that they could all be covered by a tablecloth, including the inspection chamber. An isolated upstairs w.c., involving a rambling drainage system, should be carefully shunned. The linen cupboard is better placed outside the bathroom.

These notes would not be complete without a reference to the too common placing of the entrance door fully exposed to the south-west, and sometimes in an interior angle formed by south and west walls without any provision to break off the force of the weather. A wet gale in such circumstances will cause rain to be driven under the door many feet into the entrance hall or passage.

It may safely be said in conclusion that perfection has not so far been reached in the planning of this type of dwelling. The problem can be approached in various ways, and it is hoped that the foregoing notes may prove in some degree helpful. It is fully realized that a proportion of the notes may come under the imputation of being palpable truisms, but in the light of some recent attempts at the problem their repetition will hardly be regarded as superfluous.

## LITERATURE

### THE EVAPORATION OF WATER FROM STONE

SINCE from its title, *The Evaporation of Water and Salt Solutions from Surfaces of Stone, Brick, and Mortar*, this treatise might appear to be somewhat too minutely academic to interest the practical architect, it may be fitting to begin with the conclusions drawn from the inquiry by the authors: "Care should be taken in pointing old buildings consisting of sandstones containing calcite to use a sand free from salt. Portland cement is quite unsuitable for such purposes, as it makes a dense mortar with a very low rate of evaporation. Whether it is wise to use hydraulic instead of fat lime requires further investigation. The practice of the Office of Works of washing the surface of the mortar, and not leaving it with the skin formed by the trowel, is probably wise, as this skin probably diminishes the rate of evaporation. At the same time, all repointed buildings should be carefully watched to see that fresh decay is not being set up."

"Before repointing a building, after the joints have been cleaned out, a suitable preservative should be sprayed on the surface of the brick or stone. The essential matter is that both the mortar and the stone should not be treated with a preservative, as this reduces the rate of evaporation for both surfaces."

Whether it will be practicable, under the conditions of actual construction, to observe this last injunction would seem somewhat doubtful.

Treatment with a preservative solution is costly, and is generally resorted to for the purpose of excluding driving rain from the wall as well as for keeping its superficial particles in place, and the leaving of the mortar joints untreated would defeat the waterproofing action which both the architect and the householder naturally regard as the principal object they have in view in incurring the expense of applying a preservative.

The suggestion that washing the exterior surfaces of buildings is the way to preserve them is open to a similar objection. A cornice is provided to cast rainwater clear of the wall surface in its shadow, and except in rain storms accompanied by high winds it actually performs this function. To apply a hose to the very part it is desired to keep dry is not a satisfactory treatment, even if it should prove successful in persuading crystals to form on the exterior of the wall instead of just below the surface. The authors may have in mind ruinous ancient monuments where there are no wall papers to be stripped from the walls by damp; but if so, it would have added to the practical value of their investigation if they had stated that this was the case.

The experiments in the crystallizing of salts and the penetration of porous substances by water containing salts in solution are interesting, but it may be doubted whether the results of these experiments justify the conclusions that have been founded upon them.

A strong cement mortar between friable stones or bricks soon stands out in raised ridges from their surfaces; but before it can be positively declared that the cement actually assists in the disintegration of the adjoining material because of its "very low rate of evaporation," it will be necessary to make some full-size experimental tests in the open under something like normal conditions of exposure. Sample pieces of walling might be made with old and friable bricks set in mortars of different degrees of permeability, and the resultant loss of surface particles measured at regular intervals of time. Since it is necessary to think of water exclusion as well as avoidance of decay, it should also be possible to test the effect of waterproofing solutions on parts of the samples, when the "low rate of evaporation" in the cement mortar might be matched by a lowered rate in the waterproofed brick. Unless some such large-scale experiments are made, the practical applicability of the authors' minute laboratory researches will not be determined for certain.

If a connecting link can be established between the known disintegration of old brickwork and masonry surfaces and the



salts deposited just below them, it should be possible to produce very rapid disintegration in sample patches of material by saturating them frequently, and as frequently causing the moisture to evaporate. Until this practical experiment is made, the microscopic inquiry should be considered only as a possibly useful initial step.

WILLIAM HARVEY

*The Evaporation of Water and Salt Solutions from Surfaces of Stone, Brick, and Mortar.* By Principal A. P. Laurie, D.Sc., and John Milne, B.Sc. Reprint from the Proceedings of the Royal Society of Edinburgh: Session 1926-1927. Edinburgh: Robert Grant and Son. London: Williams and Norgate, Ltd. Price 1s. 6d.

#### LANDSCAPE HOUSE BUILDING

*Das Haus in Der Landschaft* is an illustrated description of an architectural experiment by Fritz August Breuhaus. Dr. Wilhelm-Kästner contributes an introduction that is more laudatory than profound concerning the idea that is the justification of the book's appearance.

The idea of making a house conform to the character of a locality is not new; and the study of the site and its surrounding features is an essential preliminary to the intelligent architect's planning; but Herr Fritz August Breuhaus has put a large and typically Teutonic magnifying glass over these time-honoured practices, and has erected a building on the shores of the Starnberger See that is designed to be an unmistakable part of the landscape.

Landscape house building is an inversion of the usual process whereby the architect imposes his will upon a site in the manner best suited to the possibilities of that site; for the landscape dominates the architect. Although at first the idea of placidly conforming to the nature of a tract of country may suggest possibilities of simple and natural beauty in building, actually the results are ponderously artificial. In this published example of landscape building, the contours of the site impose a kidney-shaped plan on the house. With galleries and a tower it is supposed to form a natural crest for a terraced hill that slopes up from the water, dotted with clumps of woodland. But it only succeeds in being a rambling and rather haphazard structure.

The individual features of the place are pleasing enough: the tower pierced at the base by a circular-headed doorway with a tiled architrave; the thatched roof that appears to pour down over the veranda, with semicircular dormers set at the end of tundish-like serrations in the thatch; the curved sweep of balcony with its simple balustrading—all these things point to discriminating workmanship in the matter of detail. The interior, too, is most attractive. The most reticent decoration gives the furniture the exact setting demanded by its rather emphatic character, for it follows the ultra-modern German and Austrian schools of design. There are slender chandeliers resembling inverted rockets, frozen in flight; there are chairs and cupboards and tables with a Chinese flavour; there are designs deliberately angular, and studies in caressing curves that promise comfort in chairs and seats; in short, the furnishing of the house and the treatment of the interior have commanded thought and taste on the part of aggressively modernist designers.

The photogravure plates and the three coloured reproductions of rather indifferent sketches suggest that every room in the house is attractive and possesses a wonderful view from the windows. The plan, despite its curved shape, is simple, having on the ground and first floors a central corridor as a backbone.

It must have been a costly experiment, and one may be forgiven for wondering whether it was worth making. The book forms an interesting record of modern German taste in the furnishing, decoration, and equipment of a house.

JOHN GLOAG

*Das Haus in Der Landschaft.* By Fritz August Breuhaus. Julius Hoffmann, Stuttgart.

#### HOW AMERICA BUILDS

This is an admirable short textbook on contemporary American practice in town planning, zoning, civic centres, station terminals, traffic regulation and co-ordination, harbour lay-outs, factory design, residential estate development, and the most recent skyscraper construction as applied to hotels, warehouses, and office-blocks. The author is an Austrian architect, who is a member of the American Institute of Architects, and has had the advantage of considerable practical experience of his profession in different States of the Union.

Herr Neutra wisely refuses to consider contemporary American architecture otherwise than in relation to the peculiar needs of American social and industrial life. At the outset he declares that his task is to chronicle and exemplify, leaving the task of criticism to others. With æsthetic and academic considerations he is not concerned except in noticing whether a given type of building honestly and effectively interprets its own function and the constructional functions of the materials employed. Thus, he reproaches the skyscraper not with its baldness, with which amateurs so often reproach it, nor even with its "impersonality" as architecture, but with the insincerity of an outward concealment of its vital steel skeleton, because the skyscraper as a building is only a thin masonry skin encasing a complex piece of machinery.

He compares the existing methods of skyscraper construction with those prevailing in a large shipbuilding yard; not a very happy comparison, for the Americans, with few exceptions, are as poor shipwrights as they are eminently capable civil engineers. For Herr Neutra, the architect is always "the architect-engineer," and he insists that in America a clear line of demarcation between the two rôles is becoming more and more impossible. Certainly one is sometimes tempted to believe that the author is an engineer rather than an architect, for this volume bristles with formidable engineering technicalities.

The description of the Palmer House in Chicago, his principal exemplar of the skyscraper during the different phases of its construction according to "time schedule," is particularly clearly set forth and copiously illustrated, and should prove invaluable to the student. We learn that the architects of this stupendous hotel, with its twenty-three stories and 2,268 bedrooms and bathrooms, Messrs. Holabird and Roche, employ over 200 architects, draughtsmen, and engineers, and divide their organization, much as were it a great bank or commercial enterprise, into separate departments dealing with pure engineering, architectural details, specifications, contracts, the design and supply of machinery, electrical and sanitary fittings, accountancy and legal matters; the last being in charge of a prominent lawyer. It is staggering to read that the excavations for this enormous building, which houses the activities of a whole town and caters for the most diverse needs of an entire State, occupied only three weeks.

The author of this book has some particularly interesting remarks on what he calls "bad (i.e. non-functional) romanticism," an outstanding instance of which he finds is provided by the "Cathedral of Learning." In this monolith tower of the University of Pittsburgh, which is unsuited to its purpose, "12,000 students nightly turn on their study lamps." Another example of community life is the Methodist Church building of Dr. Reisner in New York City. In this gargantuan temple, its originator proudly boasts, a resident Methodist maiden may meet, under suitable auspices of Methodist propriety, her future Methodist husband, be betrothed and married to him, assume immediate possession of their conjugal dormitory and parlour, bear him Methodist children, feed, clothe, and, at need, bury them—all without the necessity of leaving its roof. Presumably the honeymoon would consist of a tour of inspection of the shops, gymnasias, swimming baths, cinemas, sewing-classes, choral guilds, and other uplifting institutions which this City of David provides in such overwhelming profusion.

It has to be confessed that the detailed account of so much standardized and dehumanized efficiency makes singularly depressing, if always informative reading. The pleasantest parts

of the book are those devoted to Frank Lloyd Wright's work in concrete, cement-block, and "Käbe" one-story seaside houses, such as those illustrated at La Jolla; and to the adobe buildings of the University of New Mexico, which harmonize with the desert landscape as happily as they adapt the traditional form of the Indian mud-settlements to practical modern uses. P. M. S.

*Wie Baut Amerika?* By Richard J. Neutra. Stuttgart: the Julius Hoffmann Verlag.

#### THE BOOK FOR THE ESTIMATOR

It is to be hoped that the time approaches when the element of speculation associated with estimating during recent years will be eliminated. Wages have not changed during the past two years, and had it not been for the stoppage in the coal-mining industry it is probable that materials would have been virtually stabilized. Prices that are for ever fluctuating weigh heavy on the heart of the estimator. Even with the help of such an old friend as *Laxton's and Lockwood's Builders' Price Book*, which has now celebrated its one hundred and tenth birthday, his mind is moved with a certain amount of doubt and fear, unless he is estimating for good work of any ordinary nature. All the prices given are for work of this description, and those of a very small or difficult, or of a very plain, massive, or bulky nature, must necessarily cause an addition to, or a deduction from, the prices as the case may be. This element of discretion it is impossible under present conditions to eliminate. Praiseworthy efforts are continually being made to add to the value of the book by the introduction of new features or the amplification of old, and by the extensive and drastic revision of each issue. Among the more notable improvements in the present issue is the further extension of that well-known feature "The List of Proprietary Articles and Trade Names." The book fully maintains the long-standing reputation which has gained for it the position of being the acknowledged standard to which in disputed cases in the various Law Courts reference is made. It seems to be all perfect, finished to the price of the meanest building material. E. R.

*Laxton's and Lockwood's Builders' Price Book, 1927.* Edited and revised throughout by P. T. Walters, F.S.I., with a chapter of legal notes and memoranda by T. J. Kelly, of the Inner Temple, Barrister-at-Law. Kelly's Directories, Ltd. Price 7s. 6d. net.

#### CORRESPONDENCE

##### THE REGISTRATION BILL

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—I have read with intensive interest the remarks of Mr. Beresford Pite (F.) in his eloquent letter in the Journal of the R.I.B.A. in re Registration Bill. As Indian brother architect I facilitate his valuable expression of cogent and nice view, same being worthy of native English gentleman. But, I ask, should Mr. Barnes be allowed to implicate that first named is beating dead donkey? Not so at all. It is Mr. Barnes who is beating dead donkey with wrong end of stick.

Mr. Pite objects Registration Bill on ground that "Art has always shown herself shy of intensive incubation." That is noble phraseology. And what does it mean? Simply that great artistic architect is not generally incubated man. He is rough diamond. Being shy of aforesaid process he does not go to schools and take diplomas. He has soul above building construction and strength of materials and graphic statistics, and what not, and so on. I have honour to ask, with Mr. Pite, does it matter? Why should rough diamond be cut and polished? Why should genius be subjected to untold hours and years of irksome and impatient study, reading books and drawing lines and other forms, when he might be roving in free fields and pastures green, or communicating with Nature in re inspirations and such-like.

Are there not many deserving draftsmen willing and ready to do the needful for him for fair daily wage? Why should he spend God's valuable time poring over dry and unpleasant facts respecting stones and bricks and lime and drainages? Are there not practical men who will never be geniuses to attend to all of that—and far better, too?

If a house is designed by a real architectural genius is it not great and priceless work of art? Is it any matter if at later date it may require shoring up? Ten thousand times, No!

Effect of Registration Bill will be to send geniuses to school. They will learn to plan and build and what not. Bread will be taken out of mouths of deserving draftsmen and practical men. But worse will follow. What are called good buildings will become so common as a drug in market. Public will not notice them, and so public taste will not be improved. Moreover, too, they will stand for ever and not fall down. Soon there will be no more work even for geniuses. Last state will be worse than first.

Let us keep diamonds uncut and unpolished, and architectural geniuses in free and untrammelled state of Nature.

A. NOLDASS (failed A.R.I.B.A.)

#### THE NATURE OF ELASTICITY

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—With reference to Mr. Barman's last remarks on page 455, the difference is that with a bending plank there is a certain moment of resistance that increases up to the maximum, upon which fracture takes place, but with the supported material subject to a hammer blow there is no limit to the increase of resistance.

HENRY ADAMS

#### COMPETITION CALENDAR

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

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

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

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

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

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

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

## COMPOSITION FLOORINGS

The Magnesian Flooring Materials Association, an entirely technical and non-trading association, has issued an informative illustrated booklet on composition floorings. It contains many useful facts in relation to jointless flooring and magnesian composition. In 1867 E. Sorel first showed how hard, rock-like material could be formed by mixing calcined magnesia with a solution of magnesium chloride, and for the past thirty years jointless flooring, based essentially on this discovery, has been in use in many parts of the world. It has thus been subjected to thorough practical tests in its various applications to structures under a wide range of conditions. The Association states: "Where magnesian composition floors have been laid in a proper manner, consistent with the scientific principles which have now been worked out, they have evidenced remarkable advantages in use: for a flooring of any desired hardness, resiliency, and finish is rapidly laid with the greatest certainty, the required properties being assured merely by varying the proportions of the ingredients used. Magnesian composition flooring has high-wearing resistance; being seamless, dustless, and impermeable, it is particularly hygienic; it is non-inflammable and fire-resistant; the cost is low; while the ease with which any desired surface and colour can be obtained combines with the possibility of introducing decorative designs to give the flooring a special artistic appeal. The material is strong and light." "In view of the undoubted and growing importance of this structural material, it is felt that those responsible for the specification and laying of flooring should have readily available particulars of the conditions and precautions under which magnesian composition may be most successfully applied." With this end in view, the Magnesian Flooring Materials Association has published the present authoritative book of reference. Britannic House, Finsbury Circus, by Sir Edwin L. Lutyens, R.A., has been installed with 14,000 sq. yards of jointless flooring.

The Magnesian Flooring Materials Association is organized to give every facility to those interested in flooring, to put them into communication with reputable flooring contractors, or to assist them with technical advice on any matter relating to magnesian composition. The Association will issue, from time to time, reliable technical data and other matter conducive to the best results with the material. All interested are invited to communicate with the secretary, Magnesian Flooring Materials Association, 106 Fenchurch Street, London, E.C.3.

## TRADE NOTES

The new British factory at Slough of the Ruud Manufacturing Co., Ltd., will be opened on May 12. In it will be manufactured the firm's instantaneous automatic gas water-heater, automatic storage system, and multicoil heater. These three specialities are widely used in America and Canada, and are likely to achieve considerable popularity in this country. The instantaneous water-heater provides day or night an unlimited supply of hot water, the main gas burner which quickly brings cold water to the degree of heat required being only in operation whilst the water tap is turned on. The storage system provides a bulk supply of hot water. It heats the water and stores it at the temperature required, until it is run off by the taps. Through the action of the all-metal thermostatic moment valve the tank is replenished with hot water immediately after some has been withdrawn. The lowering of temperature caused by the entry of cold water after the hot has been drawn off puts into action the gas heater, which continues to operate until a full supply of water is heated and automatically passed to the storage tank. In the multi-coil heating and storage system there is a combination of the advantages of the instantaneous gas water-heater and the storage system.

*The Lifts that Serve the Empire* is the title of a new catalogue just issued by Messrs. Pickerings, Ltd., whose experience in the industry began with hand-operated lifts something over seventy years ago. This experience continued through the days of belt-driven lifts and hydraulic lifts, and finds its final expression to-day

in electric lifts of the highest standard. During this period of years the firm have supplied lifts, not only in England, but for France, Spain, Portugal, Italy, Russia, South Africa, New Zealand, Australia, China, India, and Brazil, thus demonstrating their ability to design installations to suit all conditions of working. All the lifts are manufactured to jig, and as far as possible to stock order numbers, thus making possible a high quality of workmanship at a most reasonable price. The complete range comprises every type of lift in present use, passenger, goods, and service lifts, both electric and hand-operated, capable of raising, according to their purpose, loads varying from a few pounds up to forty tons. The catalogue is distinctive and artistic in its production, and is full of useful information.

Some of the latest developments in the interior lighting of cinemas were demonstrated before an audience composed mainly of members of the Kinematograph Exhibitors' Association, when a display was given in the Holophane laboratories and showrooms by Mr. R. G. Williams. Mention was made of the colour combinations achieved by the use of lamps in coloured translucent envelopes, mounted within prismatic Holophane glassware. The effect of these Holophane prismatic colour-units is specially pleasing when the bowls are mounted within cup-shaped recesses in the ceiling. Possibly the devices appertaining to the film-display were even more striking. Amongst these were the "Duo-Phantom" batten, bearing a series of lamps in reflectors each equipped with a screen of distinctive colour. This can be mounted at the base of the stage, and used to illuminate the curtain with light which, by means of dimmers, passes through a wide range of changes in colour. By suitably designing the colours of the pattern of the curtain, varied changes in its appearance may be produced. Similarly, the appearance of persons standing on the stage can be radically altered according to their get-up, and striking changes in costume can be produced. Another application of this colour-equipment is for the illumination of a pictorial curtain as an interlude to the showing of films. The scene selected on this occasion was that of a desert, and the apparent change from dawn to full noonday sunlight, and then to sunset and moonlight, was very striking. Another use of the apparatus is for providing coloured illumination of the screen whilst the film is in progress.

The existence of a tank, reservoir, or other receptacle storing a large body of water or liquid of any kind, the level of which may be continually varying, necessitates some means for checking the alteration of level. In a new catalogue of water level indicators and alarms for reservoirs, etc., just issued by Messrs. Gent & Co., Ltd., will be found illustrations, descriptions, and prices of apparatus embodying all the improvements in design and construction which a long and varied experience can suggest. For indicating and recording at a distance (electrically) the inch-by-inch (or other dimension) rise and fall of liquid-level in a tank, etc., the "Borough" instruments are recommended by the firm to meet all requirements. They are claimed to be thoroughly well made and accurate in registering, and to be relied upon in all positions faithfully to report the level, or consumption of, the contents of the tank. Simple alarm apparatus to give warning when a critical level is reached, high or low, and sewage and weir gauges—mechanically operated, and for indicating or recording on a chart, are also illustrated. A glance at the list of some of the representative users of the water-level and sewage recording apparatus and alarms should immediately convince the reader of their reliability. In the majority of cases the apparatus has been in operation many years.

## ANNOUNCEMENTS

Mr. Arnold Silcock has moved to 97 Jermyn Street, W.

Mr. James D. Morton, P.A.S.I., quantity surveyor, has removed from 3 Cable Street to Wellington Buildings, The Strand, Liverpool. Tel.: Bank 745.

The office of Miss Joyce E. Townsend, A.R.I.B.A., A.A. DIPLOMA, 9 Gray's Inn Square, Gray's Inn, W.C.1, will be closed for the next five months, owing to her absence in America. Postal communications addressed to her office will be forwarded.



## RECENT WORK IN BIRMINGHAM

Following are the names of the architects, general contractors, and some of the sub-contractors for the buildings illustrated on pages 607 to 626.

Church of the English Martyrs, Evelyn Road, Sparkhill, Birmingham, for Rev. Michael O'Hagan. By E. Bower Norris, F.R.I.B.A. General contractors, James Moffat and Sons, Birmingham; clerk of works, S. Linfoot; contract price, £15,000. Sub-contractors: British Reinforced Concrete Engineering Co., Ltd., reinforced concrete; B. P. Blockley, Hadley 2½ in. rustic bricks; Anselm Odling, stone columns; W. H. Fraley and Sons, Ltd., marble; Empire Stone Co., Ltd., artificial stone, church doorway; E. C. and J. Keay, roof trusses; H. Hope and Sons, Ltd., patent glazing and casements; Parker, Winder and Achurch, Ltd., door furniture; J. H. Walker, Ltd., window furniture; Bromsgrove Guild, Ltd., folding gates; C. Trumper and Sons, plaster.

St. Basil's Church, Birmingham. By A. S. Dixon. General contractors, W. G. Whittall and Son.

House in St. Mary's Road, Harborne, for Dr. Huxley. By Buckland and Haywood. General contractors, G. and H. Marshall, Smethwick near Birmingham, who were also responsible for the concrete blocks and reinforced concrete; general foreman, J. Webster, Smethwick; contract price, £2,793; price per foot cube, 1s. 8d.; price per foot square, £2, area of ground covered (two-story building). Sub-contractors: Val de Travers Asphalte Paving Co., asphalt; Blockleys Ltd., bricks.

Post Office Stores Factory, Birmingham, for H.M. Postmaster-General. By F. A. Llewellyn, O.B.E. (H.M. Office of Works). General contractors, J. Gerrard and Sons, Ltd., Manchester; clerk of works, Mr. Banfield; total cost of building works, £37,056. Sub-contractors: Val de Travers Asphalte Paving Co., asphalt; Johnson's Reinforced Engineering Co., "bricktor"; Braithwaite & Co., structural steel; Vulcanite Ltd., roofing felt; National Brick Co., partitions; Heywood & Co., patent glazing; R. W. Brooke & Co., Ltd., wood-block flooring; R. Gay & Co., Ltd., paint; G. Johnson, Bros., special electric light fittings; W. R. Leggott, Ltd., and H.M.O.W. Stores, door furniture; Rea Metal Casements, Ltd., and Crittall Manufacturing Co., steel casements and lanterns; Bostwick Gate Co., folding gates; Carter & Co., Ltd, Poole, wall tiling; Adamsez Ltd., drinking fountains; G. Prince, plasterwork.

Harborne Motor Bus Depot, Serpentine Road, Harborne, Birmingham, for Birmingham Corporation Tramways. By Crouch, Butler and Savage, F.R.I.B.A. General contractors, T. Elvins and Sons; clerk of works, A. Fletcher; contract price, £30,470. Sub-contractors: Val de Travers Asphalte Paving Co., asphalt; Siegwart Fireproof Floor Co., Ltd., reinforced concrete; Empire Stone Co., reconstructed Portland stone; E. C. and J. Keay, Ltd., structural steel; Henry Hope and Sons, Ltd., patent glazing; Ironite Co., Ltd., car shed floor finishing with ironite; Brightside Foundry and Engineering Co., Ltd., central heating; Doulton & Co., Ltd., sanitary fittings; Lockerbie and Wilkinson, door and window furniture; Esavian Door Co., folding gates; Marley Bros., railings.

Offices and Gateway Entrance, Soho Foundry, Smethwick, near Birmingham, for Messrs. W. and T. Avery, Ltd. By Buckland and Haywood. General contractor, Thomas Rowbotham, who was also responsible for partitions, glass, plaster, decorative plaster, and plumbing; general foreman, C. Wykes; contract price, £16,820; price per foot cube, 1s. 1d.; £2 11s. 10d. per sup. foot of ground covered (three stories, basement, ground, and first floors). Sub-contractors: Val de Travers Asphalte Paving Co., Ltd., asphalt; general contractor and British Reinforced Concrete Co., reinforced concrete; Blockleys Ltd., bricks; C. Trumper and Sons, artificial stone; Rubery, Owen & Co., Ltd., structural steel; Ames and Finnis, tiles; Henry Hope and Sons, Ltd., patent glazing, central heating, and casements; Marbello Ltd., patent flooring; Walker and Worsey, Ltd., door

and window furniture; Marley Bros. Ltd., metalwork and cloakroom fittings. Atlas White cement was used for the exterior.

Packing and Making-up Room Extension, etc., at Charford Mills, Alum Rock Road, Saltley, Birmingham, for Southall Bros. and Barclay, Ltd. By Batemans. General contractors, B. Whitehouse and Sons, Birmingham; clerk of works, W. H. Read. Sub-contractors: Walker Bros., structural steel; Siegwart Fireproof Floor Co., Ltd., fireproof construction; Stuart's Granolithic Co., Ltd., patent flooring; Adamsez Ltd., sanitary fittings; Francis & Co., Ltd., rolling shutters; Smith, Major and Stevens, Ltd., lifts.

Office Block at Wolverhampton for the Villiers Engineering Co., Ltd. By W. T. Orton. General contractors, Henry Willcock & Co., Wolverhampton. Sub-contractors: Val de Travers Asphalte Paving Co., asphalt; Chas. Wade & Co., Ltd., structural steel.

The New Palladium, Soho Hill, Hockley, Birmingham, for Mr. C. O. Brettell. By L. L. Dussault, F.R.I.B.A. General contractors, W. J. Whittall and Son, Birmingham, who were responsible, among other work, for the reinforced concrete, in which B.R.C. fabric was used, and the joinery; general foreman, H. Line; contract price, £19,600, including furnishings, carpets, and draperies; price per foot cube, 1s. 2d.; price per foot square, 3s. 2d. Sub-contractors: Wade & Co., Ltd., structural steel; W. L. White, Son & Co., central heating and ventilation; "Ideal" boilers; Fenning & Co., marble; W. W. Turner & Co., textiles and furniture; Sanderson's, French panels, wallpapers.

Woodcock Street Baths, Birmingham. By Arthur McKewan, A.R.I.B.A. General contractor, E. Crowder, Handsworth, Birmingham; clerk of works, H. Fortnum; cost of building work, £35,300. Sub-contractors: Henry Hope and Sons, Ltd., steel windows and dome lights; Mellows & Co., patent glazing; Birmingham Guild, Ltd., gates and railings; Trussed Concrete Steel Co., reinforced concrete work; Horseley Bridge Engineering Co., steel work; Ward and Croft and St. George's Guild, vitreous tiling; Marbello, Ltd., mosaic paving; J. Gibbons, Ltd., door furniture; Val de Travers Asphalte Paving Co., asphalt.

George Dixon Secondary School at Rotten Park Road, Birmingham, for the Birmingham Education Committee. By Buckland and Haywood. General contractors, Thomas Lowe and Son, Burton-on-Trent; clerk of works, H. R. Applebee; general foreman, J. Port; contract price, £29,210. Sub-contractors: Parker, Winder and Achurch, grates; Ellis and Ward, electric wiring and light fixtures.

## NEW INVENTIONS

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

## LATEST PATENT APPLICATIONS

- 8982. Amdyco Corporation. Fire-extinguishing composition. April 1.
- 8775. Barrymore Concrete Mixer Corporation. Concrete mixer. March 30.
- 8595. Brown, W. Reinforced composition building slabs, &c. March 29.
- 8556. Evans, J. H. Building structures. March 29.
- 8709. Griffiths, J. P. Shutters for windows. March 30.

## SPECIFICATIONS PUBLISHED

- 240186. Murphy, E. N. Method and means for sound-proofing wall constructions.
- 267995. Shannon, D. M. Shelters at tram and bus stops.
- 268018. Mody, N. G. Hoists.
- 268083. Theobalds, R. O'H. P. Blowers for domestic fire-places and stoves.
- 268096. Edmunds, W. P. Fittings for sash pulleys.

## ABSTRACT PUBLISHED

- 265869. Broda, J., Torun, Poland. Roofs.



## READERS' QUERIES

## A CAMERA FOR ARCHITECTURAL WORK

*I. M. writes: "I wish to buy a camera capable of taking clear and accurate pictures of architectural subjects, including details. It must also be adaptable for general work, and be reasonably convenient for carrying on tour. What make of camera do you recommend, and what lens and fittings should be included? Cost is naturally a limiting factor, especially in the selection of a lens, but advice on this matter would be welcome."*

From the point of view of architectural photography your correspondent would find that the most suitable camera would be the Vito, which is made by Houghton's, Ltd., of High Holborn. A camera stand is essential, and the camera should have a swing back, high rising front, and, even more important, a wide angle movement for use with a wide angle lens. Two lenses are necessary; one normal, and the other wide angle. For the former I should suggest an Aldis  $5\frac{1}{2}$  in. focus F/6 aperture lens which could be obtained, if necessary, in a combined mount with a shutter giving various instantaneous speeds. For wide angle work I know of no better lens than the Cooke Primoplane, which should be of 3 in. focal length with the aperture F/6.3. (These suggestions both relate to normal work on a  $4\frac{1}{2} \times 3\frac{1}{2}$  in. plate.) As price is of some importance I would suggest that your correspondent goes to a reliable photographic dealer where a secondhand set, such as I have outlined, could be bought complete for something rather under £10. This price would include camera, lenses, dark-slides, tripod, and case.—S. W. N.

## TREATING PITCH PINE BENCHES

*V. P. writes: "How can I remove rot and worm from some pitch pine benches. It is desired to get them all darker—in fact to stain them down to a light brown and without much shine on them. I propose to sandpaper them thoroughly and then apply a stain. With the pronounced colour of pitch pine I fear this will be scarcely successful. Is the use of sandpaper sufficient, and what is the best liquid to apply?"*

Where the wood is unpolished the old-fashioned remedy against wood-worm is as good as any, and the infected parts should be steeped in boiling water. Heating the wood to a suitably high temperature in a dry state is also effectual. If neither of these methods can be adopted, the injection of a worm killer may be tried. Thorough and repeated wax polishings of the whole of the surfaces of the wood prevent the return of the parent beetle to lay eggs in the cracks of the wood. Repeated coatings of wax or other stain or pigment are required because the insect can eat through them from the interior of the wood, and in thus forming its flight hole it opens a way for the return of any egg-laying female unless the hole is stopped up

with another coat in the meantime. Any method of forming a slight roughness on the surface of the pitch pine will aid the stain to adhere. If treatment with coarse sandpaper is not vigorous enough to give pleasant and effective results, sand-blasting might be employed. Where wood-worm has once made an attack on the wood it is best to stain the surfaces and stop up the holes unless repeated dowsings with boiling water can be given. In this case the wood can be left clean and scrubbed as necessary to keep it so.

## A SWEEP VALLEY IN WESTMORLAND SLATES

*F. J. writes: "Is it possible to construct a watertight swept valley in Westmorland slates, without lead or other unseen waterproof material? Please also give me information with regard to the radius of the sweep, and the junction of a low ridge with the continuing slope of a higher roof."*

If a watertight valley is to be made without lead or other unseen waterproof material below the slates it is necessary to make an accurately fitting surface in the valley with slates of average width when trimmed for their positions, so that the widest slates should be picked out and cut down to a wedge shape to form the sweep. The actual radius of sweep will depend upon the size of the slates used. Five slates are cut to form the sweep in the lowest course, and the approximate radius will be equal to that of the inscribed circle within an octagon whose edge is equal to the width of the slate. Above the eaves course the radius of sweep becomes slightly greater for about four courses, seven or eight slates being cut to form the sweep. Above this level the radius remains constant unless the slates are laid in diminishing courses, when it should be possible to reduce the radius in proportion to the size of the slates. The backings for the slates are sometimes

The junction of a low ridge with the continuing slope of the higher roof is managed by allowing the ridge to rise in a curve towards the main roof so that it covers the uppermost course of the swept valley. Just how much the ridge must be raised depends upon the radius of the sweep at this highest part of the valley. Every effort must be made to reduce the radius to the least possible size to keep the rise of the ridge within bounds. Messrs. Jaggard and Drury's *Architectural Building Construction* has a short reference to swept valleys, but experiment on the actual roof is probably the best way to learn how to make a sound valley. The problem can be worked out geometrically however, and the architect might supply full size details to the slater.

## JOB-COSTING RECORDS

*R. G. writes: "We have been recording the cost of the various parts of the work on our jobs, and in the joinery shop, for some time past. These valuable figures are accumulating, so we are anxious to file these costs on the card index system. This arrangement would allow the records to be used as an aid to pricing bills of quantities. Unfortunately, it is a practical impossibility to make cost records to correspond, item for item, with the quantities. Moreover, in some cases our firm only erects the materials and in other cases we both manufacture and erect the materials, e.g. joinery and pre-cast concrete. Our difficulty lies in the problem of classification and sub-division of the various kinds of work. We would be thankful if you can suggest the means of obtaining a suitable classification."*

Having decided to dispense with the various textbooks published dealing with costs and constants of labour and materials in the building trade, and to compile a record more closely connected with a particular business, a few points should be considered when designing the form upon which such data is to be recorded. Costs of wages and materials, although today much more stable than hitherto, are still subject to possible future fluctuations. It is, therefore, essential that provision should be made to record the date at which the work is executed, and also the rates of wages for both skilled and unskilled labour involved therein. The cost of material used should also be shown in order that the price of the complete item at the particular time in question may always be referred to. The costs of labour particularly must of necessity be averaged throughout the workshop or job for work of similar character, as it would not be of much use to award the place of honour upon the card to a record of, say, "Jones," whose time upon that particular item might be either very favourable or decidedly the reverse. Costs are further greatly influenced by insurances and cartage, but as these items are usually dealt with in a similar manner to, or in conjunction with profit when pricing a bill of quantities, it is suggested they may be dispensed with in the analysis. F.

*The Editor welcomes readers' inquiries on all matters connected, directly or indirectly, with architectural practice. These inquiries are dealt with by a board of experts, to which additions are constantly being made as, and when, need arises. No charge is made to readers for this expert service. Diagrams must be clearly and legibly drawn out and lettered in black ink. Querists must enclose name and address. — Ed. A.J.*

made with coke breeze concrete laid freshly and modelled to fit each course. The concrete is secured by means of nails half driven into the roof boarding, or by means of expanded metal fastened to the boarding or rafters. Or the backing for the swept valley may be built up of wooden furring pieces and short lengths of batten, saw-ferfed and bent to fit the sweep.

## THE WEEK'S BUILDING NEWS

The Lancashire Education Committee is now to proceed with the provision of a secondary school at NELSON, plans having been prepared by Mr. Stephen Wilkinson, F.R.I.B.A.

The TYNEMOUTH Corporation has asked a committee to consider the provision of a small-pox hospital.

The TYNEMOUTH Education Committee is seeking sanction to borrow £11,500 for alterations to the Tynemouth Priory Council School buildings.

The TYNEMOUTH Corporation is to proceed with the erection of seventy-three houses at Ogle Terrace, Balkwell, six houses at Cartington Road; tenement buildings and stores at Bell Street; and fifteen blocks of maisonnettes at The Avenue, Balkwell.

Plans passed by the LEAMINGTON Corporation: Alterations, Hope Tavern, Court Street, for Messrs. Thornley & Co.; cloak-room accommodation, Warwick Place, for Leamington High School for Girls, Ltd.; alterations, 94-96 The Parade, for Messrs. P. H. Woodward & Co., Ltd.; showroom, Russell Street, for Midland Autocar Co.

The Ministry of Health states that the plans of the STOKE-ON-TRENT Corporation for the extensions to the nurses' quarters at the hospital are generally satisfactory, and asks for an estimate of the cost based on the tender it is proposed to accept.

The STOKE-ON-TRENT Corporation is purchasing land for the extension of the infectious diseases hospital.

The CHELMSFORD Corporation has asked the Machinery Sub-Committee to consider the question of laying water mains and sewers, and the disposal of sewerage in the Galleywood area.

Plans passed by the CHELMSFORD Corporation: Addition to bakery, Springfield Road, for Mr. W. O. Budd; warehouse, Victoria Road, for Messrs. Denham and Archer; bakery, 50 Duke Street, for Messrs. Shedd Bros.; order department in Barrack Square, for the Star Co-operative Society, Ltd.

The CHELMSFORD Corporation Housing Committee has prepared a scheme for the erection of fifty flats on the Boarded Barns estate.

Messrs. Stone and Drew are to erect a building at 49-52 HOUNSDITCH.

The LOWESTOFT Corporation has obtained the sanction of the Ministry of Health to the erection by direct labour of the remaining thirty-four houses on the Blackheath Road estate.

The Hampshire Education Committee is to proceed with the erection of a new public elementary school at ANDOVER to accommodate about 500 children.

The HOVE Corporation is to proceed with the erection of the first 100 houses on the Knoll estate, Old Shoreham Road, Hove.

Plans passed by the PORTSMOUTH Corporation: Five shops, Tangier Road, Copnor, for Mr. H. E. Pitt; five houses, Stubbington Avenue, for Mr. H. Townsend; ten houses, Randolph Road, for Mr. W. E. Ekers; seven houses, Winton Road, for Mr. H. Williams; twenty-eight houses, Merthyr Avenue, Cosham, for Messrs. Gammans and Coffin; four houses, Ripley Grove, for Mr. J. C. Juniper; fourteen houses, St. Swithuns Road, for Mr. L. W. Browne; twelve houses, Locarno Road, for Messrs. Brown and Fuller; alterations and additions, 109-115 Commercial Road, for Lloyds Bank, Ltd.; four houses, Kirby Road, for Mr. J. J. Canterbury; rebuilding 258 Fratton Road, for Mr. F. Timpson; factory off Target Road, Tipnor, for Hays Waterproof Glue Co., Ltd.; eight houses, Stubbington Avenue, for Messrs. E. and G. Dye; ten houses, Padwick Avenue, Cosham, for Messrs. C. W. Stigant and Sons.

The PORTSMOUTH Corporation has passed the following plans for the construction of new streets: Martin and Centre roads, for Mr. R. J. Winnicott; two off Havant Road, for Mr. J. May; off Copnor Road, for Mr. J. W. Light.

The Portsmouth United Breweries, Ltd., are to erect wine and spirit stores at the corner of King Street and Brunswick Street, PORTSMOUTH.

Lloyds Bank, Ltd., are to erect a bank in High Street, Cosham, near PORTSMOUTH.

The Bishop of Portsmouth, Dr. W. T. Cotter, is to erect a church in Havant Road, COSHAM.

The BARNSELY Education Committee is to proceed with the enlargement of the elementary school at Monk Bretton.

Schemes have been prepared by the BARNSELY Education Committee for three new elementary schools.

Plans passed by the GUILDFORD Corporation: Alterations and additions, 32 High Street, for Messrs. Stent, Clarke & Co.; house, Poltimore Road, for Mr. G. H. Leighton; house, Stocton Road, for Mr. J. Kemp; additions, Millmead House, for the Guildford R.D.C.; alterations and additions, 163a High Street, for Messrs. Lyon and Slibury; alterations to shops, 42 and 43 High Street, for International Tea Co., Ltd., London; extension, "White Horse," High Street, for Friary, Holroyd and Healy's Breweries, Ltd.; conversion into shops and flats, 15 Commercial Road, for the Y.M.C.A.

On behalf of Mr. F. P. Insley, Messrs. Wall, Callow and Callow are to construct a plunge bath at Normandale, Collington Avenue, BEXHILL.

Plans passed by the BEXHILL Corporation: Eight houses, Collington Lane, for Mr. J. H. Lye; four houses, Barnhorn Lane, for Messrs. Mathews & Co.; two houses, Eastwood Road, for Mr. Wallis; tennis pavilion, Dorset Road, for Mr. G. H. Grey.

The Minister of Health has approved the proposal of the BEXHILL Corporation to proceed with the erection of thirty-six houses on the Barnt House Farm estate.

The BEXHILL Corporation has arranged to provide a water supply to Wartling and Herstmonceux.

The SHEFFIELD Education Committee is to provide a new central school for 750 children.

The SHEFFIELD Education Committee is to provide two new elementary schools, one for 800 children at Wadsley, and another for 500 children at Hillsborough.

The SHEFFIELD Education Committee is to provide additional accommodation for 100 children at Woodhouse West school, and for another 400 children at Handsworth school.

The WAKEFIELD Education Committee notifies its intention to provide an elementary school at Lupset to accommodate 1,250 children.

Plans passed by the PAIGNTON U.D.C.: Laundry, Polham Road, for Torbay Laundry Co.; two houses, Langdon Road, for Mrs. R. Collins; additions and warehouse, Seaway Terrace, for Mr. S. H. Reeves; alterations, Gerston Place, for Messrs. Lethbridge & Mercier.

The GLASGOW Corporation is negotiating with the London, Midland and Scottish Railway Co. in connection with the construction of an opening bridge over the canal at Clobberhill on the line of the new Anniesland-Duntocher road.

At a meeting of the GLASGOW Housing Committee the director submitted a layout plan of ground at High Carntyne, and the committee agreed to approve generally thereof, and continued consideration of the position of the central open space and shopping centre.

The MANCHESTER Corporation Tramways Committee has asked the city architect to prepare plans for the provision of further bus garage accommodation at the Queen's Road depot.

The MANCHESTER Education Committee is to undertake improvements at Bradford Christchurch Municipal School and Duke Street Municipal School.

Plans passed by the BARKING Corporation: Workshop and garages, Ripple Road, for Messrs. H. and J. Alleston; stables and store, 169 Howard Road, for Mrs. L. Bone; chemical store, Abbey Road, for the Chemical Supply Co., Ltd.

Plans passed by the DOUGLAS (I. OF M.) Corporation: Alterations to premises in Strand Street, for Mr. Wademan; joiner's shop, Demesne Road, for Messrs. Creer Bros.; alterations, 63 Derby Square, for Mr. H. Green; semi-detached villas, Westminster Terrace, for Messrs. Gelling and Brown; alterations, 22 Hutchinson Square, for Mr. Maynard; alterations to premises, York Road, for Mr. Gillmore; alterations, 66 Buck's Road, for Messrs. Parkes Bros.; alterations, 59 Strand Street, for Mr. M. Cannell.

The CAPE TOWN Corporation Housing Committee has prepared the following housing schemes: Housing in brick scheme, £80,000; advances to individuals under Housing Act No. 35 of 1920, £40,000; housing for Europeans on similar lines as Athlone, £20,000; Athlone coloured scheme, £60,000.

The BEESTON Urban District Council has resolved to apply to the Ministry of Health for sanction to borrow £18,000 for the erection of forty-two houses.

Messrs. Jones, Clarke & Jenkins are to rebuild their premises in York Street, SWANSEA.

Mission Halls are to be built at Pwll Street, SWANSEA, for Messrs. Cooke & Bidder, and at MAYHILL for the Vicar and Churchwardens of St. Jude's.

The following plans have been submitted to the SWANSEA Corporation: Lay-out of new streets, Gendros, for Mr. E. Tucker; lay-out of Torrington Road, for the executors of the late Sir R. A. Morris; shops and hall, Portland Street and Park Street, for Mr. A. Ruck; six houses, Berwick Terrace, for Mr. P. White.

The Durham County Education Committee is to erect an elementary school for 240 scholars at FISHBURN.

The MITCHAM U.D.C. is to extend the maternity home in Devon hire Road, in accordance with plans prepared by Messrs. Chart, Son & Reading.

The SOUTHBEND Housing Committee has decided to erect 22 flats on the housing estate.

The BEDLINGTONSHIRE U.D.C. is to erect 50 houses at Cambois, Northumberland.

The FROME U.D.C. is to erect 48 houses at Keyford, Somerset.

Messrs. Wheatley & Houldsworth are to erect a new hotel for the Hull Brewery Co., Ltd., at the corner of Salt Ings Lane and Cottingham Road, HULL.

The DORCHESTER Corporation has passed plans for the erection of a new grammar school in Manor Road for the governors of the Dorchester Grammar School.

Mr. E. C. Allerton has prepared plans for laying-out land at Sands Lane, adjacent to Chestnut Avenue, LOWESTOFT, as a building estate.

Plans passed by the LOWESTOFT Corporation: Two shops, Bridge Road, for Mr. H. R. Everitt; new entrance, Danse-et-Café, London Road North, for Mr. H. G. Dawson; two houses, Chestnut Avenue, for Mr. P. Huckle; two houses, Chestnut Avenue, for Mr. C. Church.

Plans passed by the NEWBURY Corporation: Alterations and additions, 16 Cheap Street, Newbury, for Messrs. J. Brindley and Son; alterations and additions, 22 London Road, for Mr. A. Mitchell; alterations and additions, White Hart Hotel, Newbury, for the proprietors; alterations and additions, Accommodation Hall and adjoining property, for Mr. J. Tufnail.

Plans of a public library in Central HENDON, to cost £17,000, have been approved by the District Council.

The BOSTON Rural District Council is to raise loans of £815 for land, and £20,000 for the erection of houses.

The NEWBURY Corporation has decided upon the construction of a relief sewer from Cheap Street railway bridge to the pumping station, for £12,500; provision of a new engine and pump-room at the sewage pumping station, £500; and provision of an equalization tank at the sewage outfall works, for £3,000.

Plans passed by the CHORLEY Corporation: Extension to workshop, Duke Street, for Mr. A. Ratcliffe; additions, Working Men's Club, Brook Street, for trustees.

Plans passed by the BEDFORD Corporation: Milk store, Ford End Road, for Messrs. H. Young and Son; fourteen garages, Denmark Street, for Mr. E. H. C. Inskip; alterations, 68 St. Loyes' Street, for Mr. G. P. Allen; millwright's stores, Queen's Engineering Works, for Messrs. W. H. Allen, Sons & Co., Ltd.

Plans passed by the BRIGHTON Corporation: Rebuilding, 170 North Street, for Mr. T. Wilkinson; alterations, 102 and 103 Church Street, for Mr. A. T. Stevens; stores, Elder Row, for Messrs. Mitchell and Son; two houses, Harrington Road, for Messrs. E. Watts and Sons; alterations, 39 Marlborough Place, for Messrs. Reynolds & Co.; rebuilding, 187 Western Road, for Messrs. Brigiden & Co.; alterations, Abbotts Hotel, Regency Square, for Mr. C. E. Martin; alterations, 212 King's Road Arches, for Mr. D. Rolf; alterations, 47 Grand Parade, for Mr. J. Softley; alterations, 99 North Street, for Mr. H. L. Bishop; thirty-two houses, Barnett Road, for Hayward (Brighton), Ltd.; alterations, 121 Queen's Road, for Mr. P. G. Terry; alterations, Wesleyan Church, Dorset Gardens, for the Church Council; garage and petrol tanks, Lewes Road, for Messrs. Hayman and Milton; alterations, 182 Dyke Road, for Mr. S. B. Titcomb; rebuilding, alterations and new showrooms, Lewes Road, for Messrs. B. and W. Bennett, Ltd.; six houses, Dudley Road, for Mr. A. Dockerill; six houses, Hollingbury Rise, for Messrs. Wallis and Paris; alterations, 69 and 70 Middle Street, for Mr. J. A. Penfold; extension, 171 and 172 North Street, for Lloyds Bank, Ltd.; alterations, The Boatmans' Arms, Russell Street, for Kemp Town Brewery; factory, South Road, for Messrs. A. Darling and Sons, Ltd.

Road reconstruction costing £59,250 is proposed by the WANDSWORTH Borough Council during 1927-28.

Extensions are being carried out at NEWTON ABBOT Hospital at a cost of £15,000. The Prince of Wales will open a new wing on June 7.

The EPSOM Rural District Council has resolved to apply to the Ministry of Health for approval to the erection of 256 houses.



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<b>A ABERDARE</b> S. Wales & M. 1 1 1 1 1 1						<b>A E. Glamorganshire</b> S. Wales & M. 1 1 1 1 1 1											
<b>A Abercromby</b> S. Wales & M. 1 1 1 1 1 1						<b>B Exeter</b> S.W. Counties 1 1 1 1 1 1											
<b>A Accrington</b> S. Counties 1 1 1 1 1 1						<b>B Exmouth</b> S.W. Counties 1 1 1 1 1 1											
<b>A Adlestree</b> N.W. Counties 1 1 1 1 1 1						<b>B FELIXSTOWE</b> E. Counties 1 1 1 1 1 1											
<b>A Adlington</b> S. Counties 1 1 1 1 1 1						<b>A Filey</b> Yorks 1 1 1 1 1 1											
<b>A Aldridge</b> S.W. Counties 1 1 1 1 1 1						<b>A Folkstone</b> N.W. Counties 1 1 1 1 1 1											
<b>A Aldeburgh</b> E. Counties 1 1 1 1 1 1						<b>A Fordingham</b> N.W. Counties 1 1 1 1 1 1											
<b>A Alfrincham</b> N.W. Counties 1 1 1 1 1 1						<b>B Frome</b> S.W. Counties 1 1 1 1 1 1											
<b>A Appleby</b> N.W. Counties 1 1 1 1 1 1						<b>A GATESHEAD</b> N.E. Coast 1 1 1 1 1 1											
<b>A Ashton-under-Lyne</b> N.W. Counties 1 1 1 1 1 1						<b>A Gillingham</b> S. Counties 1 1 1 1 1 1											
<b>A Atherstone</b> Mid. Counties 1 1 1 1 1 1						<b>A Gloucester</b> S.W. Counties 1 1 1 1 1 1											
<b>A Aylesbury</b> S. Counties 1 1 1 1 1 1						<b>A Gooles</b> Yorks 1 1 1 1 1 1											
<b>B BANBURY</b> S. Counties 1 1 1 1 1 1						<b>A Gosport</b> S. Counties 1 1 1 1 1 1											
<b>A Bangor</b> N.W. Counties 1 1 1 1 1 1						<b>A Grantham</b> Mid. Counties 1 1 1 1 1 1											
<b>A Barnard Castle</b> N.E. Coast 1 1 1 1 1 1						<b>A Greenock</b> S. Counties 1 1 1 1 1 1											
<b>A Barnsley</b> Yorks 1 1 1 1 1 1						<b>A Grimsby</b> Scotland 1 1 1 1 1 1											
<b>A Barnstaple</b> S.W. Counties 1 1 1 1 1 1						<b>B Guildford</b> Yorks 1 1 1 1 1 1											
<b>A Barrow</b> N.W. Counties 1 1 1 1 1 1						<b>A HALIFAX</b> Yorks 1 1 1 1 1 1											
<b>A Barry</b> S. Wales & M. 1 1 1 1 1 1						<b>A Hanley</b> Mid. Counties 1 1 1 1 1 1											
<b>B Basingstoke</b> S.W. Counties 1 1 1 1 1 1						<b>A Harrogate</b> Yorks 1 1 1 1 1 1											
<b>B Bath</b> S.W. Counties 1 1 1 1 1 1						<b>A Hartlepool</b> E. Counties 1 1 1 1 1 1											
<b>B Batley</b> Yorks 1 1 1 1 1 1						<b>B Harwich</b> N.E. Coast 1 1 1 1 1 1											
<b>B Bedford</b> E. Counties 1 1 1 1 1 1						<b>B Hastings</b> S. Counties 1 1 1 1 1 1											
<b>B Bewick-on-Tweed</b> N.E. Coast 1 1 1 1 1 1																	

18 13½ A<sub>1</sub> Morecambe N.W. Counties 17½ 12½ B<sub>1</sub> Yarmouth E. Counties  
 In these areas the rates of wages for certain trades (usually Painters and Plasterers) vary slightly from those given.  
 The rates for each trade in any given area will be sent on request.



## PRICES CURRENT

## EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 4½d. per hour; LABOURER, 1s. 4½d. per hour; NAVY, 1s. 4½d. per hour; TIMBERMAN, 1s. 6d. per hour; SCAFFOLDER, 1s. 5½d. per hour; WATCHMAN, 1s. 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 15 6
Washed sand	0 15 6
Screened ballast or gravel, add 10 per cent. per yd.	
Clinker, breeze, etc., prices according to locality.	
Portland cement, per ton	£2 19 0
Lias lime, per ton	2 10 0
Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.	
Transport hire per day:	
Cart and horse	£1 3 0
Trailer	£0 15 0
3-ton motor lorry	3 15 0
Steam roller	4 5 0
Steam lorry, 5-ton 4	0 15 0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube, 0 3 0. Exceeding 6 ft., but under 12 ft., add 30 per cent.

In stiff clay, add 30 per cent. In underpinning, add 100 per cent. In rock, including blasting, add 225 per cent. If basketed out, add 80 per cent. to 150 per cent. Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd. £0 1 6. SPREAD and level, including wheeling, per yd. 0 1 6.

FILLING into carts and carting away to a shoot or deposit, per yd. cube, 0 10 6. TRIMMING earth to slopes, per yd. sup. 0 0 6. HACKING up old grano. or similar paving, per yd. sup. 0 1 3.

PLANKING to excavations, per ft. sup., do. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent. If left in, add to above prices, per ft. cube, 0 2 0.

HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. 0 2 1. DO. 6 in. thick, per yd. sup. 0 2 10.

PUDDLING, per yd. cube, 1 10 0. CEMENT CONCRETE, 4-2-1, per yd. cube, 2 3 0. DO. in upper floors, add 15 per cent.

DO. in reinforced-concrete work, add 20 per cent. DO. in underpinning, add 60 per cent. LIAS-LIME CONCRETE, per yd. cube, £1 16 0.

BREEZE CONCRETE, per yd. cube, 1 7 0. DO. in lintels, etc., per ft. cube, 0 1 6. CEMENT concrete 4-2-1 in lintels packed around reinforcement, per ft. cube, 0 3 9.

FINE concrete benching to bottom of manholes, per ft. cube, 0 2 6. FINISHING surface of concrete spade face, per yd. sup., 0 0 9.

## DRAINER

LABOURER, 1s. 4½d. per hour; TIMBERMAN, 1s. 6d. per hour; BRICKLAYER, 1s. 9½d. per hour; PLUMBER, 1s. 9½d. per hour; WATCHMAN, 1s. 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 cut.	£2 5 6
Gaskin, per lb.	0 0 5½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3. DO. 6 in., per ft. 0 5 0. DO. 9 in., per ft. 0 7 9.

CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 8 0. DO. 6 in., per ft. 0 10 0.

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

## BRICKLAYER

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

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

BRICKWORK in stone lime mortar, Flettons or equal, per rod, £33 0 0. DO. in cement do., per rod, 36 0 0.

DO. in stocks, add 25 per cent. per rod. DO. in blues, add 100 per cent. per rod. DO. circular on plan, add 12½ per cent. per rod. DO. in backing to masonry, add 12½ per cent. per rod.

DO. in raising on old walls, etc., add 12½ per cent. per rod. DO. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1-3), per ft. sup. £0 1 0. BEDDING plates in cement mortar, per ft. run, 0 0 3.

BEDDING window or door frames, per ft. run, 0 0 3. LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run, 0 0 2.

CUTTING do. in old walls in cement, per ft. run, 0 0 4. CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup., 0 0 7.

TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run, 0 3 6. DO. 14 ft. by 9 in. do., per ft. run, 0 6 0.

FLAUNCHING chimney pots, each, etc., in cement, 0 2 0. CUTTING and pinning ends of timbers, etc., in cement, 0 1 0.

FACINGS fair, per ft. sup. extra, 0 0 3. DO. picked stocks, per ft. sup. extra, 0 0 7.

DO. red rubbers gauged and set in putty, per ft. sup. extra, 0 4 9. DO. in salt white or ivory glazed, per ft. sup. extra, 0 5 6.

TECK pointing, per ft. sup. extra, 0 0 13. WEATHER pointing, do. do., 0 0 3. TILE creasing with cement fillet each side per ft. run, 0 0 6.

GRANOLITHIC PAVING, 1 in., per yd. sup., 0 5 0. DO. 1½ in., per yd. sup., 0 6 0.

DO. 2 in., per yd. sup., 0 7 0. If coloured with red oxide, per yd. sup., 0 1 0.

If finished with carborundum, per yd. sup., 0 0 6. If in small quantities in finishing to steps, etc., per ft. sup., 0 1 4.

Jointing new grano. paving to old, per ft. run, 0 0 4. Extra for dishing grano. or cement packing around gullies, each, 0 1 6.

BITUMINOUS DAMP COURSE, ex rolls, per ft. sup., 0 0 7. ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup., 0 8 0.

DO. vertical, per yd. sup., 0 11 0. SLATE DAMP COURSE, per ft. sup., 0 0 10.

ASPHALT ROOFING (MASTIC) in two thicknesses, ½ in., per yd., 0 8 6. DO. SKIRTING, 6 in., 0 0 11.

BREEZE PARTITION BLOCKS, set in Cement, 1½ in. per yd. sup., 0 5 3. DO. DO. 3 in., 0 6 6.

BREEZE fixing bricks, extra for each, 0 0 3.

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

## MASON

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

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

HOISTING and setting stone, per ft. cube, £0 2 2.

DO. for every 10 ft. above 30 ft. add 15 per cent. PLAIN face Portland basis, per ft. sup., £0 2 8.

DO. circular, per ft. sup., 0 4 0. SUNK FACE, per ft. sup., 0 3 9.

DO. circular, per ft. sup., 0 4 10. JOINTS, arch, per ft. sup., 0 2 6.

DO. sunk, per ft. sup., 0 2 7. DO. DO. circular, per ft. sup., 0 4 6.

CIRCULAR-CIRCULAR work, per ft. sup., 1 2 0. PLAIN MOULDING, straight, per inch of girth, per ft. run, 0 1 1.

DO. circular, do., per ft. run, 0 1 4.

HALF SAWING, per ft. sup., £0 1 0. Add to the foregoing prices if in York stone 35 per cent.

DO. Mansfield, 12½ per cent. Deduct for Bath, 33½ per cent. DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup., £0 0 6. RUBBED round nosing to do., per ft. lin., 0 0 6.

YORK STEPS, rubbed T. & R., ft. cub. fixed, 1 9 0. YORK SILLS, W. & T., ft. cub. fixed, 1 13 0.

ARTIFICIAL stone paving, 2 in. thick, per ft. sup., 0 1 6. DO. 2½ in. thick, per ft. sup., 0 1 9.

## SLATER AND TILER

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

N.B.—Tiling is often executed as piecework. Slates, 1st quality, per 1,200:

Portmadoc Ladies	£14 0 0
Countess	27 0 0
Duchess	32 0 0
Old Delabole	Med. Grey
24 in. x 12 in.	£42 11 3
20 in. x 10 in.	31 4 3
16 in. x 10 in.	20 18 0
14 in. x 8 in.	12 1 0

Green Randoms, per ton, 8 3 9. Grey-green do., per ton, 7 3 9.

Green peggies, 12 in. to 8 in. long, per ton, 7 3 9. In 4-ton truck loads, delivered Nine Elms station, Clips, lead, per lb., £0 0 6.

Clips, copper, per lb., 0 2 0. Nails, compo, per cut., 1 6 0. Nails, copper, per lb., 0 1 10.

Cement and sand, see "Excavator," etc., above. Hand-made tiles, per M., £5 18 0.

Machine-made tiles, per M., 5 8 0. Westmorland slates, large, per ton, 9 0 0.

DO. Peggies, per ton, 7 5 0. SLATING, 3 in. lap, compo nails, Portmadoc or equal:

Ladies, per square, £4 0 0. Countess, per square, 4 5 0. Duchess, per square, 4 10 0.

WESTMORLAND, in diminishing courses, per square, 6 5 0. CORNISH DO., per square, 6 3 0.

Add, if vertical, per square approx., 0 13 0. Add, if with copper nails, per square approx., 0 2 6.

Double course at eaves, per ft. approx., 0 1 0. SLATING with old Delabole slates to a 3 in. lap with copper nails, at per square:

Med. Grey, 24 in. x 12 in., £5 0 0. 20 in. x 10 in., 5 5 0.

16 in. x 10 in., 4 15 0. 14 in. x 8 in., 4 10 0.

Green randoms, 6 7 0. Grey-green do., 5 9 0.

Green peggies, 12 in. to 8 in. long, 4 17 0. TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square, 5 6 0.

DO., machine-made do., per square, 4 17 0. Vertical Tiling, including pointing, add 18s. 0d. per square.

FIXING lead soakers, per dozen, £0 0 10. STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square, 0 10 0.

LABOUR only in laying slates, but including nails, per square, 1 0 0. See "Sundries for Asbestos Tiling."

## CARPENTER AND JOINER

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

Timber, average prices at Docks, London Standard Scandinavian, etc. (equal to 2nds):

7 x 3, per std., £20 0 0. 11 x 4, per std., 30 0 0.

Memel or Equal, Slightly less than foregoing. Flooring, P.E., 1 in., per sq., £1 5 0.

DO. T. and G., 1 in., per sq., 1 5 0. Planed boards, 1 in. x 11 in., per std., 30 0 0.

Wainscot oak, per ft. sup. of 1 in., 0 2 0. Mahogany, per ft. sup. of 1 in., 0 2 0.

DO. Cuba, per ft. sup. of 1 in., 0 3 0. Teak, per ft. sup. of 1 in., 0 3 0.

DO., ft. cube, 0 15 0. FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube, 0 5 6.

DO. framed in floors, roofs, etc., per ft. cube, 0 6 6. DO., framed in trusses, etc., including ironwork, per ft. cube, 0 7 6.

PITCH pine, add 3½ per cent. FIXING only boarding in floors, roofs, etc., per sq., 0 13 6.

SARKING FELT laid, 1-ply, per yd., 0 1 6. DO., 3-ply, per yd., 0 1 9.

CENTERING for concrete, etc., including horsing and striking, per sq., 2 10 0. TURNING pieces to flat or segmental soffits, 4 in. wide, per ft. run, 0 0 4½.

DO. 9 in. wide and over per ft. sup., 0 1 2. continued overleaf

CARPENTER AND JOINER: *continued*

SUTTERING to face of concrete, per square	£1 10 0
DO. in narrow widths to beams, etc., per ft. sup.	0 0 6
USE and waste of timbers, allow 25 per cent. of above prices.	
SLATE BATTENING, per sq.	£0 12 6
DEAL boarding to flats, 1 in. thick and skirting to falls, per square	2 10 0
STOUT feather-edged tilting fillet to eaves, per ft. run	0 0 6
FEATHER-edged springer to trimmer arches, per ft. run	0 0 4
STOUT herringbone strutting (joists measured in), per ft. run	0 0 6
SOUND boarding, $\frac{3}{4}$ in. thick and fillets nailed to sides of joists (joists measured over), per square	2 0 0
RUBEROID or similar quality roofing, one-ply, per yd. sup.	0 2 3
DO., two-ply, per yd. sup.	0 2 6
DO., three-ply, per yd. sup.	0 3 0
TONGUED and grooved flooring, $\frac{1}{2}$ in. thick, laid complete with splayed bedding, per square	2 5 0
DEAL skirting torus, moulded $\frac{1}{2}$ in. thick, including grounds and backings, per ft. sup.	0 1 0
TONGUED and mitred angles to do.	0 0 6
WOOD block flooring standard blocks laid herringbone in mastic :	
Deal 1 in. thick, per yd. sup.	0 10 0
Maple $\frac{1}{2}$ in. thick, per yd. sup.	0 12 0
Maple $\frac{1}{2}$ in. thick, per yd. sup.	0 15 0
DEAL moulded sashes, $\frac{1}{2}$ in. with moulded bars in small squares, per ft. sup.	0 2 6
DO. 2 in. do., per ft. sup.	0 2 9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0 4 6
MOULDED horns, extra each	0 0 3
DOORS, 4-panel square both sides, $\frac{1}{2}$ in. thick, per ft. sup.	0 2 6
DO. moulded both sides, per ft. sup.	0 2 9
DO. 2 in. thick, square both sides, per ft. sup.	0 2 9
DO. moulded both sides, per ft. sup.	0 3 0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0 3 6
If in oak, mahogany or teak, multiply 3 times.	
DEAL frames, 4 in. $\times$ 3 in., rebated and sashed, per ft. run	£0 15 0
Add for extra labours, per ft. run	0 0 1
STAIRCASE WORK :	
DEAL treads $\frac{1}{2}$ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0 2 6
DEAL wall strings, $\frac{1}{2}$ in. thick, moulded, per ft. run	0 2 6
If ramps, per ft. run	0 5 0
SHORT ramps, extra each	0 7 6
ENDS of treads and risers housed to strings, each	0 1 0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0 1 6
$\frac{1}{2}$ in. $\times$ 3 in. oak fully moulded handrail, per ft. run	0 5 6
$\frac{1}{2}$ in. square deal bar balusters, framed in, per ft. run	0 0 6
FITTINGS :	
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0 1 6
$\frac{1}{2}$ in. beaded cupboard fronts, moulded and square, per ft. sup.	0 2 9
TEAK sashed doors, 14 in. thick and bedding, per ft. sup.	0 4 6
IRONMONGERY :	
Fixing only (including providing screws) :	
To DEAL—	
Hinges to sashes, per pair	0 1 2
Do. to doors, per pair	0 1 7
Barrel bolts, 1 in. maine, each	0 1 0
Sash fasteners, each	0 1 0
Rim locks, each	0 1 9
Mortice locks, each	0 4

## 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.

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

## PLUMBER

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

Lead, milled sheet, per cwt.	£2 4 6
DO. drawn pipes, per cwt.	2 6 0
DO. soil pipe, per cwt.	2 8 0
DO. scrap, per cwt.	9 6 0
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
DO. 4 in., per yd.	0 5 0
R.W.P., 2½ in., per yd.	0 2 5
DO. 3 in., per yd.	0 2 5
DO. 4 in., per yd.	0 3 3
Gutter, 4 in. H.R., per yd.	0 1 5
DO. 4 in. O.G., per yd.	0 1 9
MILLED LEAD and labour in gutters, flashings, etc.	3 12 6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0 2 1
DO. ¾ in., per ft.	0 2 5
DO. 1 in., per ft.	0 3 0
DO. 1½ in., per yd.	4 6
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0 6 0
DO. 3 in., per ft.	0 7 0
DO. 4 in., per ft.	0 9 9
WIPEd soldered joint, ½ in., each	0 2 6
DO. ¾ in., each	0 3 2
DO. 1 in., each	0 3 8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0 11 0
DO. ¾ in., each	0 13 6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run.	0 1 6
DO. 3 in., per ft. run	0 1 11
DO. 4 in., per ft. run	0 2 9
CAST-IRON H.R. GUTTER, fixed, with all cast-iron, etc., 4 in., per ft.	0 2 0
DO. O.G., 4 in., per ft.	0 2 3
CAST-IRON SOIL PIPE, fixed with caulked joints and all cast-iron, etc., 4 in., per ft.	0 4 6
DO. 3 in., per ft.	0 3 6
Fixing only:	
W.C. PANS and all joints, p. or s., and including joints to water waste preventers, each	2 5 0
BATHS, with all joints	1 3 6
LAVATORY BASINS only, with all joints, on brackets, each	1 10

## PLASTERER

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

Chalk lime, per ton	£2 17 0
Hair, per cwt.	0 18 0
Sand and cement, see "Exercuator," etc., above.	
Lime putty, per cwt.	1 7 0
Hair mortar, per yd.	1 7 0
Fine stuff, per yd.	1 14 0
Sawn laths, per bd.	0 2 0
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, $\frac{1}{4}$ 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 lath- ing, any of foregoing, per yd.	0 0 5
EXTRA, if on ceilings, per yd.	0 0 5
ANGLES, rounded Keene's on Port- land, per ft. lin.	0 0 0
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0 0 3
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1 11 6
FIBROUS PLASTER SLABS, per yd.	0 1 10

## GLAZIER

GLAZIER, 1s. 8½d. *per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.		£0	0 4
Do. 26 oz.		0	0 5
Cathedral white, per ft.		0	0 7
Polished plate, British $\frac{1}{2}$ in., up to 2 ft. sup.	per ft.		1 6
Do. 4 ft. sup.			2 9
Do. 6 ft. sup.			3 0
Do. 20 ft. sup.			3 7
Do. 45 ft. sup.			3 11
Do. 65 ft. sup.			4 4
Do. 100 ft. sup.			4 4
Rough plate, $\frac{3}{8}$ in., per ft.		0	0 6
Do. $\frac{1}{2}$ in., per ft.		0	0 6
Linsed oil putty, per cwt.		0	17 6
★			
GLAZING in putty, clear sheet, 21 oz.		0	0 11
Do. 26 oz.		0	1 0

GLAZING in beads, 21 oz., per ft.	£0	1	1
do. 26 oz., per ft.	0	1	4
Small sizes slightly less (under 3 ft. sup.).			
Paint glazing in rough plate, normal span,			
1s. 6d. to 2s.			
LEAD LIGHTS, plain, med. sqs. 21 oz.,			
usual domestic sizes, fixed, per ft.			
sup. and up	£0	3	0
Glazing only, polished plate, 61d. to 8d. per ft.			
according to size.			

## PAINTER AND PAPERHANGER

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

<i>Genuine white lead, per cwt.</i>	£3 11 0
<i>Linseed oil, raw, per gall.</i>	0 3 7
<i>Do., boiled, per gall.</i>	0 3 10
<i>Turpentine, per gall.</i>	0 6 2
<i>Liquid driers, per gall.</i>	0 9 6
<i>Knocking, per gall.</i>	1 4 0
<i>Distemper, washable, in ordinary colours, per cwt., and up.</i>	2 0 0
<i>Double size, per firkin.</i>	0 3 6
<i>Pumice stone, per lb.</i>	0 0 4
<i>Single gold leaf (transferable), per book.</i>	0 1 11
<i>Varnish, copal, per gall. and up.</i>	0 18 0
<i>Do., flat, per gall.</i>	1 2 0
<i>Do., super, per gall.</i>	1 0 0
<i>French polish, per gall.</i>	0 19 0
<i>Ready mixed paints, per gall. and up</i>	0 10 6
<b>LIME WHITING, per yd. sup.</b>	0 0 3
<b>WASH, stop, and whiten, per yd. sup.</b>	0 0 6
<b>Do., and 2 coats distemper with proprietary distemper, per yd. sup.</b>	0 0 9
<b>KNOT, stop, and prime, per yd. sup.</b>	0 0 7
<b>PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.</b>	0 0 10
<b>Do., subsequent coats, per yd. sup.</b>	0 0 9
<b>Do., enamel coat, per yd. sup.</b>	0 1 2½
<b>BRUSH-GRAIN, and 2 coats varnish, per yd. sup.</b>	0 3 8
<b>FIGURED DO., do., per yd. sup.</b>	0 5 6
<b>FRENCH POLISHING, per ft. sup.</b>	0 1 2
<b>WAX POLISHING, per ft. sup.</b>	0 0 6
<b>STRIPPING old paper and preparing, per piece.</b>	0 1 7
<b>HANGING PAPER, ordinary, per piece.</b>	0 1 10
<b>Do., fine, per piece, and upwards.</b>	0 2 4
<b>VARNISHING PAPER, 1 coat, per piece.</b>	0 9 0
<b>CANVAS, strained and fixed, per yd. sup.</b>	0 3 0
<b>VARNISHING, hard oak, 1st coat, yd. sup.</b>	0 1 2
<b>Do., each subsequent coat, per yd. sup.</b>	0 0 1½

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 24
<b>FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds, per ft. sup. . . . .</b>		
	from 3d. to	0 0 6
<b>Plaster board, per yd. sup. . . . .</b>		
	from	0 1 7
<b>PLASTER BOARD, fixed as last, per yd. sup. . . . .</b>		
	from	0 2 8
<b>Asbestos sheeting, <math>\frac{3}{8}</math> in., grey flat, per yd. sup. . . . .</b>		
		0 2 3
<b>DO., corrugated, per yd. sup. . . . .</b>		
		0 3 3
<b>ASBESTOS SHEETING, fixed as last, flat, per yd. sup. . . . .</b>		
		0 4 0
<b>DO., corrugated, per yd. sup. . . . .</b>		
		0 5 0
<b>ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey . . . . .</b>		
		2 15 0
<b>DO., red . . . . .</b>		
		3 0 0
<b>Asbestos cement slates or tiles, <math>\frac{3}{8}</math> in. punched per M. grey . . . . .</b>		
		16 0 0
<b>DO., red . . . . .</b>		
		18 0 0
<b>ASBESTOS COMPOSITION FLOORING: Laid in two coats, average <math>\frac{1}{2}</math> in. thick, in plain colour, per yd. sup. . . . .</b>		
		0 7 0
<b>DO., <math>\frac{1}{4}</math> in. thick, suitable for domestic work, unpolished, per yd. . . . .</b>		
		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
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**BUILDING in metal casement frames,**  
per ft. sup. . . . . 0 0 7

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

**PLYWOOD, per ft. sup. :**

Thickness	$\frac{3}{16}$ in.	$\frac{1}{2}$ in.	$\frac{3}{8}$ in.	$\frac{3}{4}$ in.
Qualities ..	A. A. d.	B. A. A. d.	R. A. A. d.	B. A. A. d.
Birch ..	4 3	5 4	3 7	4 8
Alder ..	3 3	5 5	3 6	4 8
Gaboon				
Mahogany	4 3	5 4	3 7	4 8
Figured	8 7	10 8	11 3	—
1 side				1 6
Plain	6 4	7 7	9 1	1 0
1 side				—
Oregon	6 4	7 7	9 1	1 0
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