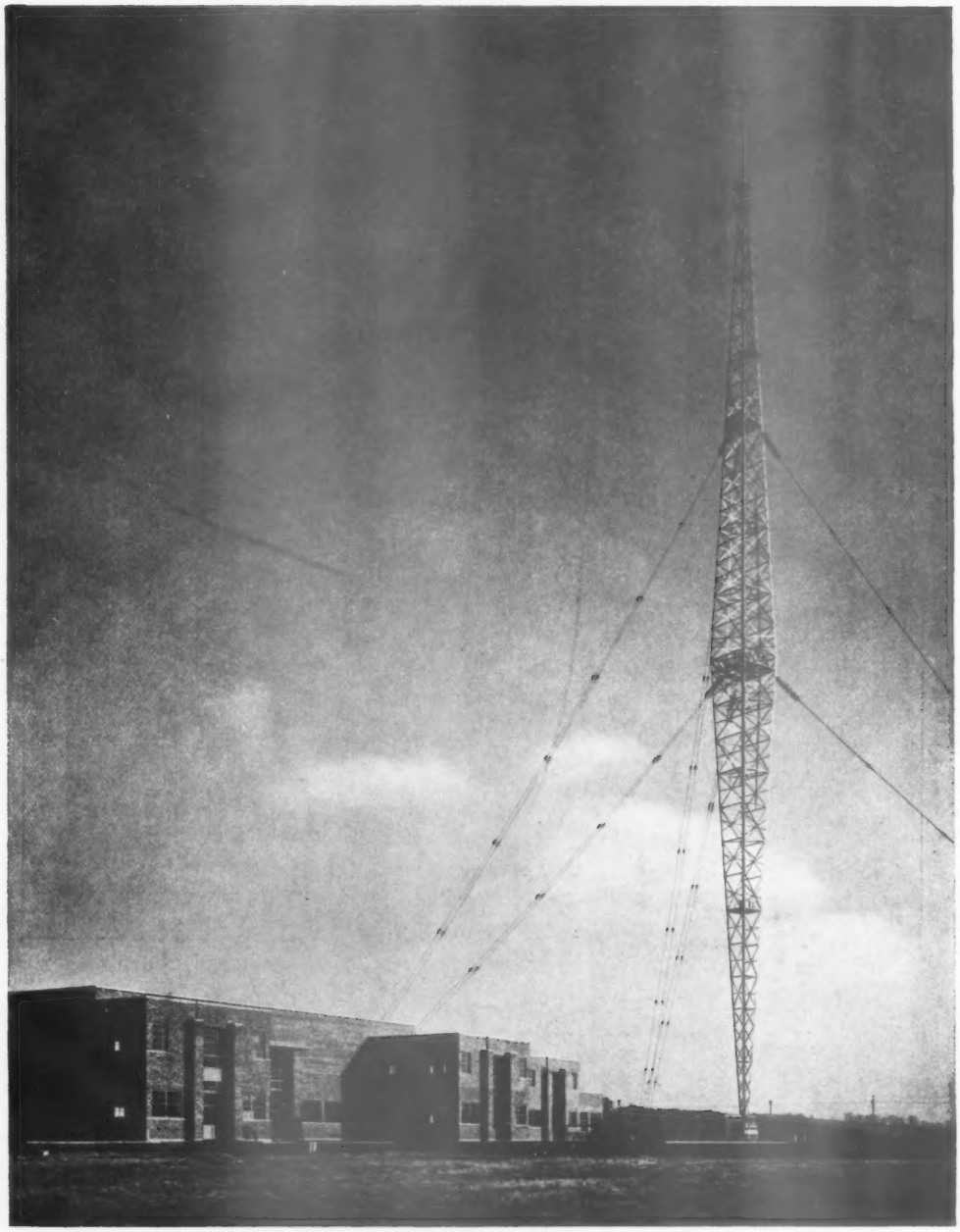
NEARING COMPLETION

NURSES' HOME, BIRMINGHAM HOSPITAL CENTRE

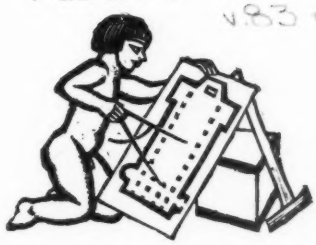
THE first part—the nurses' home—of the new hospital centre at Selly Oak, Birmingham, is now nearing completion. A general view is shown above.

The whole scheme, when complete, is estimated to cost £1,250,000. The architects are Messrs. Lanchester and Lodge, whose design was placed first in a limited competition held in 1930.



ON THE AIR

The Northern Ireland Transmitting Station, near Belfast, which was opened recently by the Duke of Abercorn. The aerial system is of interest in its using a mast-type radiator, consisting of an insulated mast 475 feet high. Three sets of stays, spaced at 120 deg., are used, attached to the mast at half its height, and again at two-thirds of its height. A 75-ft. steel tube top mast, raised and lowered by a winch at the half-height platform, is used to adjust the electrical constants of the mast to the appropriate wavelength. The architects for the building are Messrs. Wimperis, Simpson and Guthrie.



TWO SCHOOL COMPETITIONS

TWO schemes for new schools promoted by local education authorities are at present advertised for open architectural competition. The significance of this event and the opportunity it offers to architects should not be missed.

The Education Bill now before Parliament will almost certainly result in the raising of the school-leaving age. And in addition to the increased accommodation needed in consequence, school building programmes which were drastically reduced in 1931 are only now beginning to be carried out in any number. In short, during the next few years a large number of new schools will be built, but the questions yet remain of what kind of schools they are going to be and who is going to design them.

The local authorities of Bedfordshire and Folkestone have decided that this renaissance in the building of State schools—so long the Cinderellas of educational institutions—should be properly heralded, that all architects should be given the opportunity of contributing to it if they desire to do so. These two authorities deserve well of architects, and an enlightened initiative too rare amongst education authorities deserves special reward. But will they get the reward they deserve?

The present position in matters concerning school buildings in Britain does not allow of architectural complacence. That these authorities are holding open competitions creates an opportunity, but if it is to be finely taken a responsibility far greater than in the case of other competitions rests upon the two assessors, Professor Newton and Mr. Verner O. Rees. In town hall competitions a high general standard is ensured by the progress and elimination of method achieved in fifty previous competitions; in schools it is not so.

The plans of the majority of day schools erected in the last twenty years are outstanding for the number of features in them that are acknowledged to be bad practice—acknowledged to be bad by the architects and committees concerned—but tolerated because the need for cheapness has seemed to allow of no other form. A few examples will suffice. By 1914 the Board of Education had decided that the best aspect for a classroom was south-east; but in how many schools do all the classrooms face south-east? Authorities on education have for years condemned the quadrangle surrounded by two-floored buildings; but how many two-floored schools are devoid of quadrangles? For years it has been realized that the worst place for an assembly hall is in the middle of such a quadrangle whence noise from it can penetrate to all surrounding classrooms; but still the quadrangle is one of the commonest places for an assembly hall.

What are the reasons for these things?

The first reason is the desire for economical buildings. Local education authorities have many calls upon inadequate funds. Always and everywhere the financial outlay involved has tended to be the determining factor in new educational ventures. Committees may struggle to retain their enthusiasm under such circumstances, but their continuance must in the end lead to an unhealthy watchfulness over every penny and to the discouragement of new ventures. The cost of past enterprise is known; let us repeat that enterprise again—such is bound to become a common motto.

In school buildings this attitude has brought about some of its worst consequences. Next to the circle, the square on plan must nearly always win if absolute cubic cheapness remains the only test. And in the face of the Board's recommendations, changed ideas of education and even of common sense, the quadrangle plan with central hall continues. Only here and there has it been realized that inconvenience is a factor which ought to be weighed against a primary cheapness.

A striving for economy is, however, by no means the whole of the explanation of retrograde school planning. Even with the money available there is little doubt that a far better general standard of planning could be achieved, but financial stringency has made committees timid. To suggestions of new plan forms aud a wider use of newer materials they reply too often that other committees are not using them; a risk of extra cost may be involved; they will wait until other authorities have built such schools. So a bad system has continued until the vast majority of British schools have become the half-amused despair of most of Europe. Even in the cases where a little extra money has been available, it has rarely been used for those improvements in plan which are really needed; it has been used instead for expensive facing bricks, stone columns, and general embellishment which form the inessentials of all buildings.

Such is the position in the architecture of State education to-day. The two competitions now open provide a chance to break a bad tradition, a chance to show that economy can be reconciled with thoughtful planning for the education of children and that fussy decoration in imitation materials forms no part of good architecture. It is to be hoped that competitors will realize that school planning is desperately in need of original thought, not of imitation, and that the study of vast numbers of past school plans will show them all the faults of repetition.

The assessors in these two competitions have a responsibility of a very special kind. In the world of education many men have seen and deplored the general run of school buildings since the war, and their hopefulness for the outcome of the Luton and Folkestone competitions is a stimulating tribute to the men who will judge the results. The opportunity can now prove that faults of the past have been due to the system and not to the men. This JOURNAL hopes that there will be a record entry for both competitions.

The Architects' Journal
Westminster, S.W.1
Telephones: Whitehall
9212-7
Telegrams
Buildable
Parl
London

NOTES & TOPICS

SIR JOHN BURNET

IT must surely be rather an unusual thing for a man so well established in one place, as Sir John Burnet was in Glasgow, to move and re-establish himself in another place so far distant as London; few people would like to take the risk.

*

Now, after some 30 years or so in London, he is returning to Scotland accompanied by many well-deserved tributes and the best wishes of the profession.

*

It is an interesting indication of how rapidly our outlook changes to recall the criticism levelled at his Kodak building in Kingsway, which was about the first attempt in this country to design a steel-framed building to look like steel frame and not imitation solid stone or brick.

BEDFORD

The newspaper competition for the choice of a new town hall site at Bedford is over, and the prizes awarded. The site hemmed in between the Shire Hall and the brewery, favoured by the Town Council, received little public support.

*

The real alternatives appear to me to be a really fine vertical development on the St. Loye's Street island, the ground area being given over almost entirely to car park and entrances below the building proper, or a spread about two-storey development on the school site, which is some six times the area of the alternative sites considered.

THE PUBLIC HEALTH BILL

The proposed Public Health Bill recently presented to Parliament by the Minister of Health, is very much the concern of architects.

*

The Bill deals with questions of building construction and makes an attempt to bring regulations into line with developments in building processes and technique.

*

The Building Industries National Council is making a study of the Bill and its preliminary statement on the provisions are encouraging.

*

Every architect will welcome a consolidation of building bye-laws throughout the country *and* the fact that their revision every ten years is recommended. Other points which appeal are that reasons for the rejection of plans are to be given and that the legal position regarding disputes between local authority and building owner is stated.

*

B.I.N.C.'s final statement about the Bill ought to be worth reading; meanwhile, architects will agree with the Council that "the law governing building ... much of which was imposed well over half a century ago, be brought more into consonance with modern building practice requirements and technique."

LONDON'S GREEN BELT

According to reports some 18,300 acres of land have been provisionally reserved or acquired since April 1, 1935.

*

The estimated contribution of the L.C.C. towards the preservation of this land as open space works out at the surprisingly low figure of about £39 per acre. Its total contribution of £2,000,000 is evidently going to be made to last as long as possible.

THE PARTS CALLED HOLLAND

I spent last week-end in Lincolnshire, revisiting after many years those parts which are officially known as Holland—a considerable area west of the Wash. I have never seen elsewhere in England such well-kept roads, such neat and colourful footpaths (bright red brick), nor such carefully trimmed dykes and hedges—nor, for that matter, such simple and unassuming buildings.

BOSTON

Across this vast area of flat, well-cultivated land I reached Boston, its market place teeming with Saturday evening activity. And again I had an opportunity of observing what a commendable flair these people have for tidiness—for the ankle-deep market refuse which survived the removal of those Saturday-night stalls had completely disappeared by dawn, when the entire market place stretched its spotless paving at the foot of the famous Stump.

*

Tidiness underground, too, for during the past year Boston has been entirely re-sewered and its drainage related to the greater scheme which keeps the best part of the country in first-rate agricultural condition.

*

And then I visited the shores of the Wash. It was high tide, yet the sea was some half a mile or more away from the "bank"—and between the sea and the "bank" a strip of marshland seemed to stretch for miles. It was the only untidy sight I saw—there is a great opportunity for those Hollanders to exercise their skill in cleaning up this marshland, and to reclaim from the Wash an enormous area of valuable land.

LINCOLN

At Lincoln I only had time to visit the Cathedral

A general view of the octagonal gallery at the Building Centre, London, showing part of the exhibition entitled "Architects in the Making."

(though I noticed that the comic brush-driven trams have disappeared).

*

The renovation of the fabric, which has been going on for years, has now reached the east end. The work has been most thoroughly done and has most skilfully avoided that "restored" appearance which ruins, say, the Carcassonne ruins.

OFFICIAL POSTS

As Mr. Ansell pointed out at the R.I.B.A. the other night, the general tendency is for local authorities and large commercial undertakings to set up departments of their own to do work which was once done by private practitioners.

*

This tendency, which is by no means confined to the architectural profession, is naturally a rather depressing one for architects in private practice; but whether it is good or bad for architecture seems to depend greatly upon whether official architectural posts are made sufficiently attractive for the best qualified men to try to get them. Architects being but human beings want both cash and credit in adequate quantities for the work they do.

HAWKSMOOR

Nicholas Hawksmoor died two hundred years ago, and it seems a pity that his second centenary has passed without more than a few newspaper notices.

*

Though Hawksmoor never had the major public commission which keeps Wren's memory alive in everyday minds, he none the less had a big influence on the development of English architecture.

*

He had a thorough grasp of the importance of town planning, and wrote many letters and reports deploring the unhappy unplanned state of London rebuilding after the great fire—he describes the city as "a chaos of dirty rotten sheds . . . with lakes of mud and rills of stinking mire running through them."

*

Several authorities besides Professor Goodhart-Rendel have recently expressed the view that Hawksmoor was a greater architect than most people believe, and that his memory will outlast that of his more prolific fellows.

OVERCROWDING

So the L.C.C. overcrowding survey has been completed some two months before the scheduled date, and it reveals the depressing fact that something approaching one-tenth of the population of London is living in conditions even lower than the very low standard defined by the Housing Act of 1935.

LOCATION OF INDUSTRY

Mr. Pike, the Secretary of the Garden Cities and Town-Planning Association, in a letter to *The Times* commenting on the debate in Parliament on the location of industry, draws attention to the point that industries are, in fact, already leaving the central areas of large towns.

*

It has always appeared to me that this has escaped the attention it deserves, as in nearly all discussions on large-scale planning the difficulty of moving industry is cited as one of the chief obstacles to progress.

REFUSE DISPOSAL

A note I saw the other day stated that the Ministry of Health had been pointing out to a number of local authorities that they were spending a great deal of money on burning their refuse, and that they could save about half the cost by tipping on dumps instead.

*

I confess I do not know much about refuse disposal, but dumping it has always seemed to me to be a disgusting and primitive way of dealing with it. It also seems to be so wasteful. There must be thousands of tons of useful fuel collected as refuse which could be turned to good purpose in some way or other.

*

If my recollection is correct, there are several housing schemes on the Continent in which the house refuse is used to heat the communal hot-water supply, but I have never heard of anything of the sort being tried in this country; but there is, of course, Dagenham, where Ford's works are partly run on London's refuse.

ROOKING OR PILFERING?

There seems to be no limit to the amount and kinds of petty pilfering to which our buildings are subjected. Some weeks ago, on a Sunday morning, I saw a covey of suburban husbands cutting and lifting turf from sites on their estate not yet built upon.

*

Small boys frequently take (and are sometimes convicted for taking) such portable accessories as bricks and tiles, slates and laths, nails and fixing clips, drainpipes for conversion into umbrella stands and strap lead for conversion into cash.

*

And now a writer to *The Times* tells us of upwards of 500 3 in. nails taken out of the lead tape markings of some tennis courts—no, not by small boys, but by rooks, who have made the zinc nails into nests.

*

I know an architect who lives near the Zoo who once had some work damaged by an escaped monkey, and I once heard of a Scottish steel fixer who swore after lunch every afternoon that large pink spiders were pulling out the rivets he had fixed before lunch. But that is another story.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

PARLIAMENT SQUARE

Today the Prime Minister and Mr. Chamberlain are to receive a deputation from members of the House of Commons who have taken a special interest in the future of the Parliament Square site.

THE ADELPHI

The negotiations for the sale of the Adelphi site to Charing Cross Hospital having failed on financial grounds, the original plan to erect a flat and office building is to be proceeded with. Messrs. Colcutt and Hamp have designed a 13-storey building, estimated to cost £500,000. It will rise to 100 ft. above Adelphi Terrace. Demolition of the present buildings is to begin almost immediately.

EXHIBITION: ARCHITECTS IN THE MAKING

An exhibition organized by the Liverpool School of Architecture was opened by Professor Walter Gropius at the Building Centre, London, on March 30. Lord Derby presided. The object of the exhibition is to give some indication of the character, scope and aims of architectural education as it is conducted in a university school today. Extracts from the address by Professor Gropius are given below:—

"This exhibition of the Liverpool School of Architecture, called 'Architects in the Making,' is concerned with a most important part of our human activity with building. Its special purpose is to show the public how to educate the new generation of architects whose later activities will decide the future appearance of the buildings and the towns of this country.

"There are, I should think, many indications that architecture is setting out to play again a leading comprehensive part in the life of the generation to come. Therefore, this new generation of architects badly needs to be fitted in time for its great task.

"It is the task of the architects of our generation to regain the lead in the arts which became lost to them during the change-over to the machine in our own era. They must once more develop the attributes of leadership by virtue of which there can be unity in the work as a whole, in spite of the multiplicity of collaborators.

"The object of the architect today is to become a comprehensive organizer who, starting out from the social conceptions of life, which are valid for the entire community, has to gather under one head all the scientific, technical, economic and artistic problems of building, and, in conjunction with numerous artists, specialists and workers, to weld them systematically into a homogeneous whole.

"I think architecture and design in a general sense are consequently matters of paramount concern to the nation at large. There is a widespread heresy that art is just useless luxury. This is one of our fatal legacies from a generation which arbitrarily elevated some of its branches above the rest as the 'Fine Arts,' and in so doing robbed all arts of basic identity and common life. Art is not one of those things that may be imparted. Whether a design be the outcome of skill or creative impulse depends on individual propensity. But if art cannot be taught or learned, a thorough knowledge of its principles and sureness of hand can be. Both are as necessary to the artist of genius as to the ordinary artisan.

"The most essential factor in artistic education is the unity of its entire structure in all stages of development. It can only grow concentrically like the annular rings of a tree, embracing the whole from the beginning, and at the same time gradually deepening and extending it. The dividing up of the training into individual sections carried out separately as regards time and place, instead of simultaneously, must destroy its unity.

"Art training must be creative, it should fuse art with technique and reintegrate the artist into the daily work of the nation. This sort of creative art training is also the very basis for the architect's education. For the human being in its natural readiness to grasp life as a whole must be put at the beginning of the training, not the 'trade.' The old idea of school has to be overcome and to be replaced by a working community. The powers and talents which are inherent in everybody are to be united in free group labour, and this community itself is 'not to learn for the school but for life,' and of itself is to develop into a section of mature organic life. This system will develop and ripen intelligence, feeling and ideas with the general object of evolving the 'complete being,' who, from his biological centre, can approach all things of life with instinctive certainty and no longer be taken unawares by the rush and convulsion of our mechanical age. This education aims at an undivided whole, leading at the same time to the training of manual skill and also of the spatial powers of perception, directed to rendering the individual independent in his power of expression.

"In mentioning that training of manual skill, I should like to emphasize that in my opinion, not only draughtsmanship has to be a part of training, but even more practical working with materials, tools and machines in workshops. This would bring every pupil of architecture into closer contact with the means of production and the manufacturing processes of today. As supplementary to the training of the hand, I regard the knowledge of spatial and optical facts to be the most essential thing which the school of architecture can give its pupils. Because it is only the sounds and grammar of the language of design in art—its science as it were—which can be learned. The most that the school can do is to remove obstacles and to shorten methods in order to intensify the growth of innate capabilities and bring them to fruition. Instead of receiving arbitrary subjective ideas of design, the student gets that objective tuition in the basic laws of space, form and colour, and the primary condition of the elements of each, which enables him to acquire the necessary mental equipment to give tangible shape to his own creative instincts. The careful cultivation of the theory of shape, the further investigation of the natural truths would mean true tradition and not the imitation of old forms of styles. The study of the old forms only possesses significance

THE ARCHITECTS' DIARY

Thursday, April 2

IDEAL HOME EXHIBITION. *At Olympia. Until April 18.* 10 *a.m. to* 10 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS, 10 *Upper Belgrave Street, S.W.1.* "*Reinforced Concrete for Colliery Surface Plant.*" *By G. P. Bridges.* 6.30 *p.m.*

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE, 29 *Lincoln's Inn Fields, W.C.2.* "*The Making of a Connoisseur—Thrills in Stained Glass on Pilgrimages of Pleasure.*" *By H. M. Rogers.* 7 *p.m.*

SOCIETY OF ANTIQUARIES, *Burlington House, Piccadilly, W.1.* "*The Palæolithic Sequence at Ivel, Bucks.*" *By A. D. Lacaille.* 8.30 *p.m.*

CHADWICK LECTURE. *At 66 Portland Place, W.1.* "*Modern Hospital Construction.*" *By L. G. Pearson.* 8.15 *p.m.*

INSTITUTION OF ELECTRICAL ENGINEERS, *Savoy Place, W.C.2.* "*Tariffs for Domestic and Business Premises.*" *By B. Handley: and* "*The Prices for Electric Supply.*" *By Professor Miles Walker.* 6 *p.m.*

Friday, April 3

INCORPORATED INSTITUTE OF BRITISH DECORATORS, *Painters' Hall, E.C.4. Annual General Meeting.*

INSTITUTION OF STRUCTURAL ENGINEERS, *Western Counties Branch. At the Merchant Venturers' Technical College, Bristol.* "*Recent Investigations into the Behaviour of Reinforced Concrete.*" *By W. H. Glanville.* 7.15 *p.m.*

Saturday, April 4

INSTITUTION OF STRUCTURAL ENGINEERS, *South-Western Counties Branch. At Torquay. Annual General Meeting.*

Monday, April 6

R.I.B.A., 66 *Portland Place, W.1. Presentation of the Royal Gold Medal to Charles Holden.* 8.30 *p.m.*

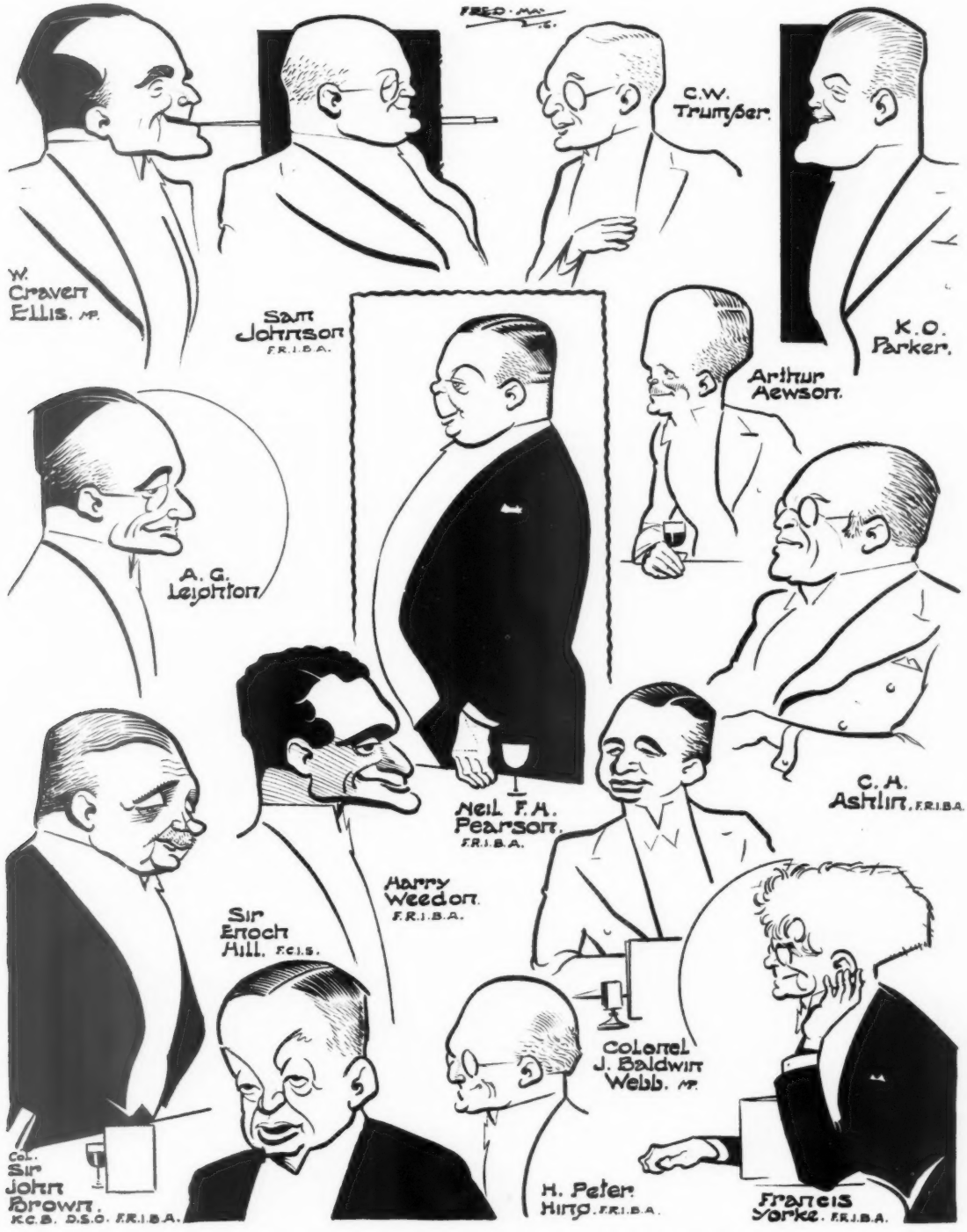
SOCIETY OF CHEMICAL INDUSTRY. *At Burlington House, Piccadilly, W.1.* "*Rayon Manufacture, with Particular Reference to Recent Technical Development.*" *By A. B. Shearer.* 8 *p.m.*

Tuesday, April 7

INSTITUTION OF CIVIL ENGINEERS, *Great George Street, S.W.1.* "*Corrosion of Iron and Steel.*" *By Sir Robert Hadfield.* 6 *p.m.*

Wednesday, April 8

INSTITUTION OF STRUCTURAL ENGINEERS, *Lancashire and Cheshire Branch. At the College of Technology, Manchester. Film and Commentary:* "*Welding and Erection of Steelwork for Three-Storey Buildings.*" 7 *p.m.*



Some of the members and guests present at the annual dinner of the Building Trades Exchange and Club, held recently at Birmingham. The sketches are by Fred May.

in order to show with their aid the *way* in which our forefathers mastered the laws of nature."

HOUSING LEGISLATION

Since 1925, when housing legislation in this country was last consolidated, so much has been added to it that a fresh effort at consolidation has become necessary. The Ministry of Health has therefore just introduced into the House of Lords a Housing Bill, one of four consolidating measures introduced in the course of one week.

The Bill will make no change at all in the existing law but will bring all its provisions between one pair of covers and facilitate greatly the task of interpreting and administering it.

In addition to its major provisions, the Housing Act 1935 contained a number of minor amendments of the law which were included solely to facilitate subsequent consolidation. The Bill now introduced will contain the whole Housing Law in fewer than 200 clauses and 12 schedules.

Public Health Law is dealt with in another Bill about to be introduced, of which a draft was made by a special committee which has been long at work on provisions for consolidating the law relating not only to Public Health, but also to Local Government.

HOUSING AMENITIES

We are informed by the Secretary of State for Scotland that the number of loca

authorities who are responding to his plea for skilled architectural treatment of housing schemes is growing steadily. Helensburgh Town Council is the latest to employ as its architects for a housing scheme a firm of architects specially qualified for the work. The site of the proposed houses, Alma Place and Gowanbank, is in a prominent position and its development is of particular importance to the amenity of the town.

TOWN AND COUNTRY PLANNING

The Minister of Health has appointed Miss E. A. Sharp to be Secretary of the Advisory Committee on Town and Country Planning in place of Mr. E. S. Hill.

EXHIBITION OF CHILDREN'S ART

In connection with the Southport Conference of the N.U.T. at Easter there is to be staged in the Albany Gallery in Lords Street an exhibition of art works executed by school children between the ages of five and fifteen. The collection will include selected examples from all parts of the Empire, Germany, Hungary, Russia, Switzerland, Holland, Japan, U.S.A., Finland, Palestine and some of the small islands of the Atlantic and Pacific.

The exhibition opens on April 11, and after its run at Southport will be transferred to Liverpool.

ORDNANCE SURVEY

The Departmental Committee on the Ordnance Survey, which was appointed by the Minister of Agriculture and Fisheries in May last, has just issued an Interim Report dealing with the revision of Ordnance maps for the purpose of town and country planning schemes, and with the conditions upon which ordnance should be permitted. The Report is obtainable, price 3d., from H. M. Stationery Office.

ANNOUNCEMENTS

Mr. Sydney Dawe, F.R.I.B.A., Architect and Surveyor, has taken into partnership Messrs. Richard J. and Peter G. J. Carter, AA.R.I.B.A. The new style of the firm will be Messrs. Dawe and Carter and the practice will be carried on at 83 High Street, Watford.

Mr. J. Norman Harper, Architect and Surveyor, has removed his offices to Central House, 75 New Street, Birmingham.

Mr. Stanley G. Soper, A.R.I.B.A., Architect and Surveyor, has removed his offices to No. 22 Surrey Street, Strand, W.C.2. Telephone No.: Temple Bar 5888.

ST. GEORGE'S HOSPITAL

We regret that the name of the architect for the new St. George's Hospital was incorrectly given in our last issue. The architect is Mr. Charles E. Elcock, F.R.I.B.A., of Messrs. Elcock and Sutcliffe, FF.R.I.B.A.

DESPATCH DEPARTMENT, CHELSEA

In our description of the new Despatch Department for John Lewis and Sons, at Chelsea, illustrated in our issue for March 12, we stated that Professor C. H. Reilly and Mr. William Crabtree were the consulting architects. This is incorrect. Messrs. Slater and Moberly, the architects for the building, were responsible for the whole of the work on the architectural side. We have also learned since publication that Messrs. B. L. Hurst and Peirce were the steel engineers for the building and that Messrs. E. Lancaster Burne and Glover were the electrical engineers.

COMPETITION NEWS

COMPETITION RESULT

Mr. T. Jestyn Williams, Deputy County Architect, Breconshire County Council, has been awarded, by the Brecon Town Council, the first prize in a competition for the lay-out of the Promenade. With the consent of the County Council, Mr. Williams has been appointed to prepare plans.

HOSPITAL AT LLANDUDNO

Mr. R. Norman MacKellar, A.R.I.B.A., has been appointed assessor of the competition for a new hospital at Llandudno. The building will accommodate 150 beds, though the first part of the scheme to be built will not exceed 65 to 70 beds. Conditions are shortly to be issued.

RESIDENTIAL HOUSES

To encourage the design of low-cost residential houses to be built under the Dominion Housing Act a competition is announced by the Dominion Minister of Finance, open to all architects in Canada, with 15 cash prizes ranging from $500 to $50.

FLATS IN BIRMINGHAM

The Public Works and Town Planning Committee of the Birmingham Corporation invites architects of British nationality practising in the British Isles to submit designs in competition for working-class flats to be erected, in concrete, on the Emily Street and Vaughton Street area. The assessor is Mr. Louis de Soissons, F.R.I.B.A., and the following premiums are offered: £400, £250, £150 and £100.

Conditions of the competition are obtainable from Mr. Herbert J. Manzoni, City Engineer and Surveyor, Council House, Birmingham, 2 (deposit £2 2s.). Applications should be made not later than April 11, 1936. The latest date for submission of designs is July 11, 1936.

R. I. B. A.

RECEPTION

It has been decided by the Council to hold a Reception on Wednesday, May 20, 1936, from 9 p.m. to 12 p.m.

Members and guests will be received by the President and Mrs. Percy Thomas in the Henry Florence Hall from 9 p.m. to 10 p.m., and light refreshments and music will be provided.

The price of the tickets will be 5s., with an additional charge of 5s. if it is desired to bring a guest. Those who intend to be present are particularly requested to submit their applications, together with their cheque as soon as possible and *in any case not later than Thursday, April 30.*

THE KING'S PATRONAGE AND GOLD MEDAL

The King, having been approached with regard to His Majesty's Patronage of the Institute, the following reply has been received:—

Privy Purse Office,
Buckingham Palace, S.W.
March 24, 1936.

DEAR SIR,—I am commanded by The King to inform you that His Majesty has been graciously pleased to grant his Patronage to the Royal Institute of British Architects.

Yours truly,
WIGRAM,
Keeper of the Privy Purse.

The President,
Royal Institute of British Architects.

An intimation had previously been received that His Majesty would be pleased to continue to give annually the Royal Gold Medal for Architecture.

MAINTENANCE SCHOLARSHIPS

The R.I.B.A. offers for award in July, 1936, the following maintenance scholarships in architecture tenable from October 1, 1936:—

A: An R.I.B.A. Maintenance Scholarship of a maximum value of £100 per annum. B: Two Houston Maintenance Scholarships of a maximum value of £100 per annum each. C: A Houston Maintenance Scholarship of a maximum value of £75 per annum.

The Houston Maintenance Scholarships are for the purpose of providing educational and maintenance allowances for the sons of architects and artists who may be, or at the time of their death were, in impecunious circumstances, whether such architects or artists are alive or dead.

The scholarships will be tenable in the first instance for one year and renewable for two further periods of one year each. They are intended to enable promising students whose parents or guardians have not the necessary means to attend approved courses at the schools of architecture recognized for exemption from the R.I.B.A. examinations. Students who are already taking such a course are also eligible to apply for a scholarship. The scholarships are available for students residing in England and Wales.

The value of the scholarships, up to the limits stated, will depend on the financial circumstances of the parents or guardians of the candidates. The parents or guardians will be required to furnish particulars, on the proper form, of their financial position.

Particulars and forms of application may be obtained, free, on application to the Secretary to the Board of Architectural Education, R.I.B.A., 66 Portland Place, London, W.1. The closing date for the

receipt of applications, duly completed, is May 18.

COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the R.I.B.A. :

The Centenary Celebrations of the University of London : The President was appointed to represent the Institute at the Centenary Celebrations of the University of London which are to be held from June 29 to July 3. It was also decided to present the University with an Address.

Celebration of the Fiftieth Anniversary of the Institute of Japanese Architects : Dr. Riki Sano (Hon. Corresponding Member) was appointed to represent the Institute at the celebration of the fiftieth anniversary of the Institute of Japanese Architects which is to be held on April 9.

The University of Liverpool : Mr. E. Bertram Kirby, O.B.E. (F.), was reappointed to represent the Institute on the Court of the University of Liverpool for the period of three years ending December 31, 1938.

League of Nations Health Organization : Mr. T. S. Barnes (A.), representing the Town Planning and Housing Committee, and Mr. P. J. Waldram (L.), representing the Science Standing Committee, were appointed to represent the Institute at an informal meeting called by the Dean of the London School of Hygiene and Tropical Medicine, to consider what steps, if any, should be taken and what assistance this country could give to the Health Organization of the League of Nations in the proposed international survey of certain public health aspects of housing.

Lightning Conductors : Mr. Walter M. Goodesmith (A.) was appointed to represent the R.I.B.A. on a Committee which is being set up by the British Standards Institution to consider the drafting of a standard specification for the installation of lightning conductors.

British Standard Specification for Dimensions of Clay Facing and Backing Bricks : On the recommendation of the Science Standing Committee it was decided to publish in the Kalendar particulars of the new British Standard Specification for Dimensions of Clay Facing and Backing Bricks in place of the "R.I.B.A. Sizes for Standard Bricks."

Architectural Competitions : Revision of the Model Form of Conditions : On the recommendation of the Competitions Committee slight modifications to the Model Form of Conditions were approved.

Reinstatement : The following ex-members were reinstated :—As Associates : Messrs. H. T. Bill and H. L. North.

Resignations : The following resignations were accepted with regret :—Messrs. H. L. North (F.), R. W. Ferguson (A.), A. C. Hope (A.) and R. H. Baxter (L.).

Transfer to the Retired Members' Class : The following members were transferred to the Retired Members' Class :—As Retired Fellow : Mr. E. T. Boardman. As Retired Associates : Messrs. W. B. Hopkins and J. H. Shearer. As Retired Licentiate : Mr. M. B. Bennett.

Election of Students : The following Probationers were elected as Students of the R.I.B.A. :—W. R. Annan, A. Arschavir, K. Beale, H. C. Boddington, H. J. Eglin, W. N. George, C. J. Harris, N. H. Hoskings, G. H. Ineson, D. T. Jenkins, N. W. Johnson, C. F. Kimm, (Mrs.) E. Knott, F. G. Milsom, R. Newton, A. R. Peadon, N. K. Pirnell, (Miss) D. M. Room, J. C. Stones and F. P. Trehearne.

VICTORY SCHOLARSHIP AND THE TITE PRIZE

In the United Kingdom 131 students took part in the Preliminary Competition for the Victory Scholarship and 224 students took part in the Preliminary Competition for the Tite Prize. The following have been selected to take part in the Final Competitions :

THE VICTORY SCHOLARSHIP.—Messrs. Hubert Bennett (School of Architecture, University of Manchester) ; Norman E. Block (Bartlett School of Architecture, University of London) ; A. Brian Bunch (Birmingham School of Architecture) ; Kenneth Burton (Armstrong College School of Architecture (University of Durham), Newcastle-on-Tyne) ; H. H. Castle (Leeds School of Architecture) ; P. A. Warre Cornish (School of Architecture, The Architectural Association, London) ; John Brown Johnston (School of Architecture, Robert Gordon's Colleges, Aberdeen) ; John Needham (Leeds School of Architecture) ; R. Fraser Reekie (Leeds School of Architecture) ; W. Schomberg Scott (School of Architecture, Edinburgh College of Art) ; and P. F. Shepheard (Liverpool School of Architecture).

THE TITE PRIZE.—Messrs. J. A. Ashworth (Liverpool School of Architecture) ; Frank Booth (Leeds School of Architecture) ; Oswald S. Brakspear (R.W.A. School of Architecture, Bristol) ; P. A. D. Cook (School of Architecture, The Polytechnic, Regent Street, London) ; Nelson Foley (School of Architecture, The Polytechnic, Regent Street, London) ; J. M. Fox (School of Architecture, Edinburgh College of Art) ; J. L. Gauldie (School of Architecture, Edinburgh College of Art) ; Ronald Harrison (Glasgow School of Architecture) ; Frederick Hill (Birmingham School of Architecture) ; Charles H. Hyde (Birmingham School of Architecture) ; Eric Brierley Jones (Birmingham School of Architecture) ; Geoffrey S. Kelly (Birmingham School of Architecture) ; William A. B. Robertson (School of Architecture, Edinburgh College of Art) ; Miss Mary D. Sharpe (Leeds School of Architecture) ; G. M. Thomas (Leeds School of Architecture) ; N. P. Thomas (Welsh School of Architecture, The Technical College, Cardiff) ; Frank White (Leeds School of Architecture) ; and Miss Mary D. Sharpe (Leeds School of Architecture).

THE BANISTER FLETCHER MEDAL FOR AN ESSAY

The Council of the Institute has accepted the offer of Sir Banister Fletcher, PP.R.I.B.A., to give a Silver Medal and twenty-five guineas annually for the best essay on a subject to be chosen each year from the following syllabus for the Specialized papers on the History of Architecture of the Intermediate Examination :—

(*a*) Greek and Roman.
(*b*) Byzantine and Romanesque.
(*c*) French and English Gothic.
(*d*) Italian, French and English Renaissance.

The competition is open to Probationers and Students of the R.I.B.A. who have not passed or received exemption from the R.I.B.A. Final Examination. Probationers and Students cannot enter for the competition after a period of twelve months from the date on which they passed or received exemption from the R.I.B.A. Intermediate Examination.

Full particulars of this year's competition are announced in the Prizes and Studentships Pamphlet which has just been issued.

OBITUARY

GEORGE HUBBARD

We regret to record the death of Mr. George Hubbard, F.R.I.B.A., F.S.A., which took place at his home in West Park, Eltham, last month. He was seventy-seven years of age.

Mr. Hubbard was responsible for the design of a large number of buildings throughout the country, including the Art School and Stuart House, for the Board of Extra Mural Studies, Cambridge ; Dame Alice Owen's School, Islington ; factories in Southwark, Hemel Hempstead, Southall ; and a large number of houses and war memorials.

He was twice vice-president of the R.I.B.A. and was for twenty-two years surveyor to the Ironmongers' Company.

Mr. Martin A. Buckmaster, HON. A.R.I.B.A., writes :—

"The death of George Hubbard leaves a blank in the architectural world not easily filled, for his work for Cambridge University, apart from his other buildings, will remain for a long time specimens of his good taste.

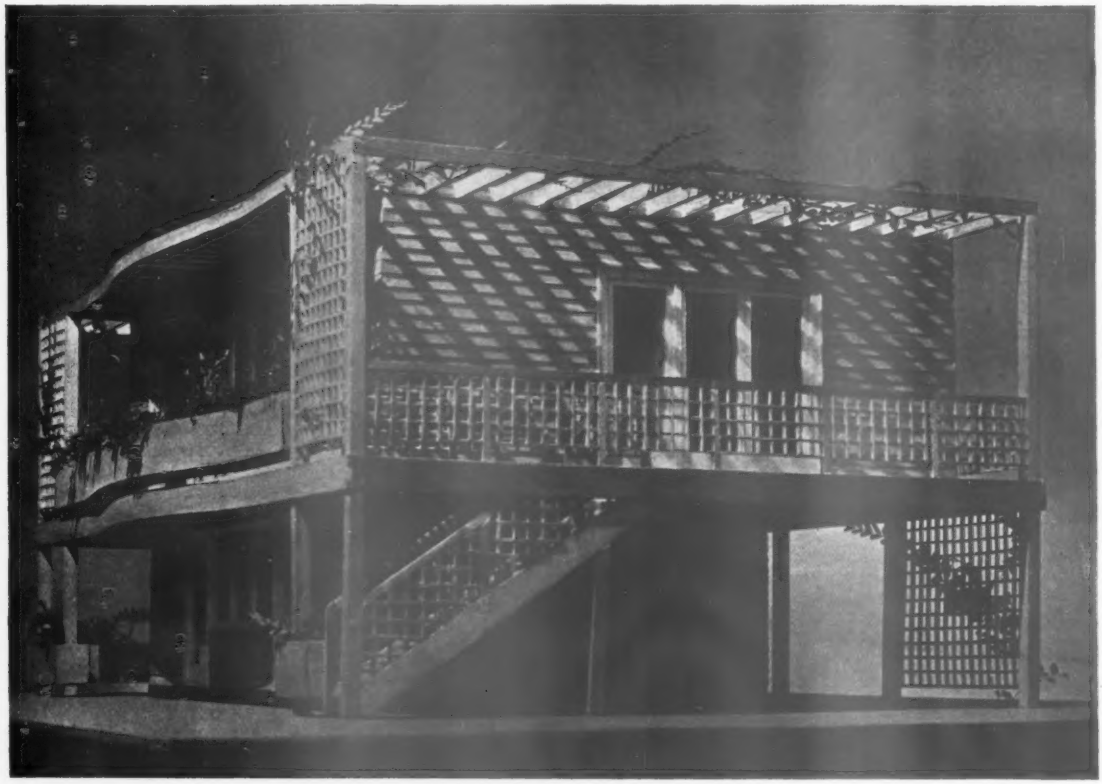
"George Hubbard was more than an architect, he was a courtly gentleman and a fine connoisseur, and his art knowledge helped him in his unique experience of saving the fine Grinling Gibbons screen from total destruction after it had been torn out of Winchester College Chapel to make room for Butterfield's additions. This, briefly is the story :—

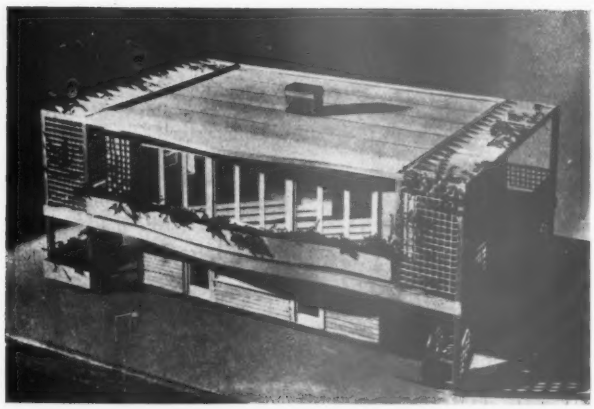
"About seventy years ago an act of vandalism was committed by the governors and masters of one of our great public schools. A fine Grinling Gibbons screen was torn out of the school chapel to make room for inferior additions.

"The whole of this beautiful carving was sold to a bishop for £50 and stored in a barn for thirty years. The bishop eventually sold it to a peer for £500. The peer sold it to an antique dealer for £1,700. George Hubbard bought it from the antique dealer for £2,100 and spent £1,200 for repairs to the damage done to the carving when the screen was carelessly removed from the school chapel.

"The repaired work was offered to the Ironmongers' Company for their Hall, but was refused as unsuitable. In 1905 a very well-known London collector offered £15,000 for the carving, but this offer was refused. At the end of that year a baronet gave £31,500 for this supremely beautiful work of Gibbons, which, thanks to George Hubbard, has now found a permanent home two and a half miles from the school which discarded it in ignorance."

TIMBER HOUSES AT THE





MODEL OF WEEK-END COTTAGE; AND A £350 HOUSE

DESIGNED BY WILLIAM TATTON BROWN

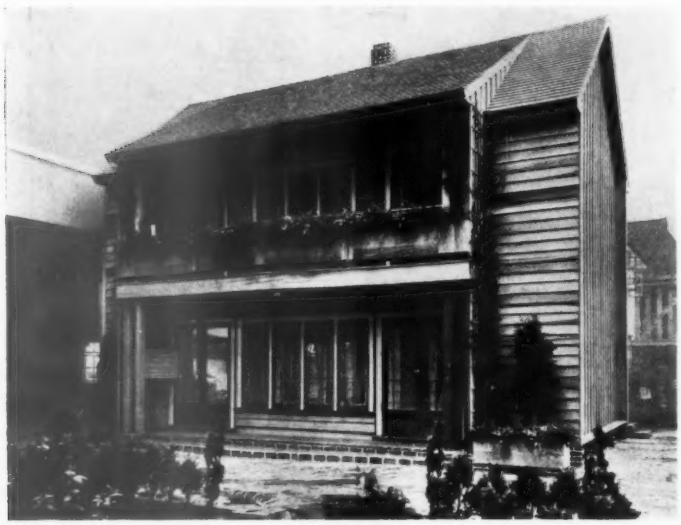
On this page are reproduced two photographs of the model of the winning design (Class 2) in the recent T.D.A. competition for timber houses. The three pages following are devoted to the £350 house now on view at Olympia. Some opinions of the competition design here illustrated are printed below:

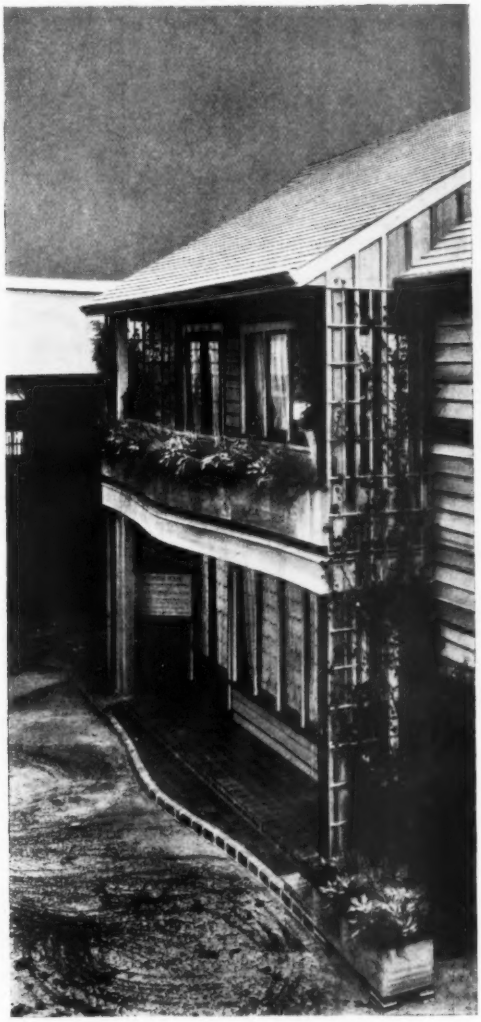
"The results of the competition, particularly the winning design, provide a good answer to all those who wrongly, and with one-sided prejudice, believe that a modern building can be erected only in steel and concrete. Some of the designs are exquisite, not only in the matter of their modern appearance, but for their habitableness, their good construction and their economy."—Professor Gropius.

"In our humble opinion, timber does not lend itself to the modern box-like style of architecture. . . . Without wishing to hurt any feelings, we suggest that nobody is particularly anxious to live in a building, although it may be only a week-end bungalow, which somewhat resembles an enlarged chicken-house."—"Timber News and Saw Mills Chronicle."

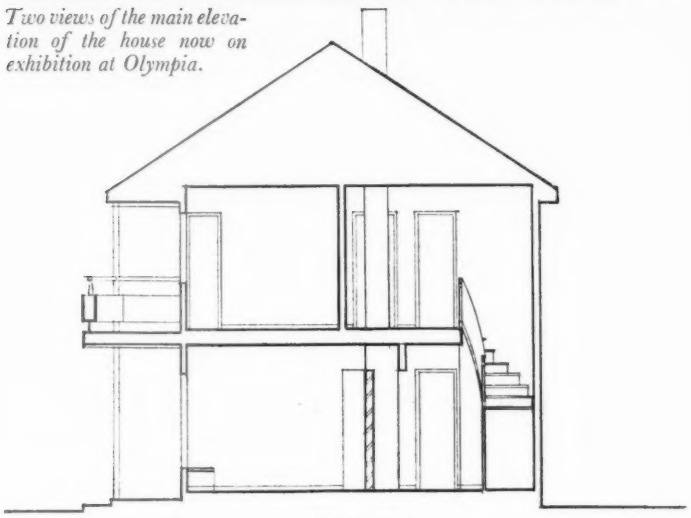
"We think that there will be a solid unanimity of thankfulness among timber men that consideration of space available at the Ideal Home Exhibition precluded the erection of any of the prize designs."—"Timber and Plywood" (February 29).

IDEAL HOME EXHIBITION, OLYMPIA





Two views of the main elevation of the house now on exhibition at Olympia.



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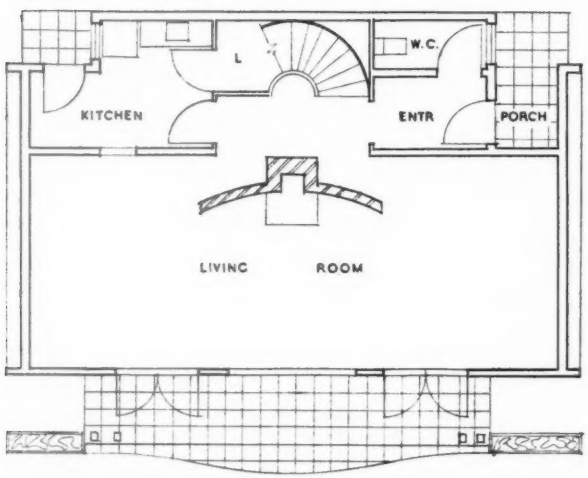
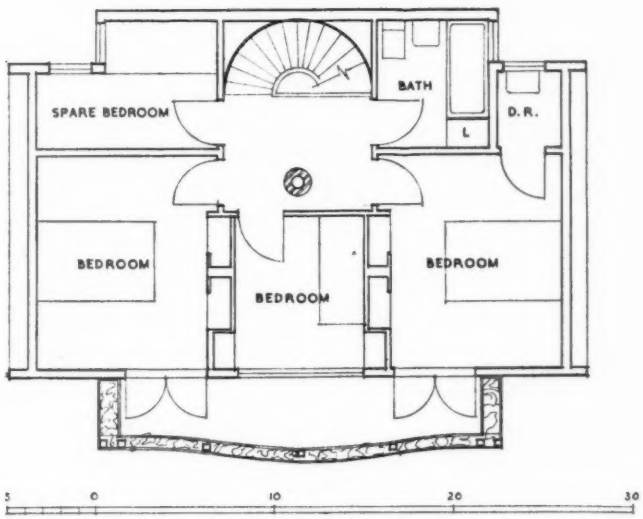
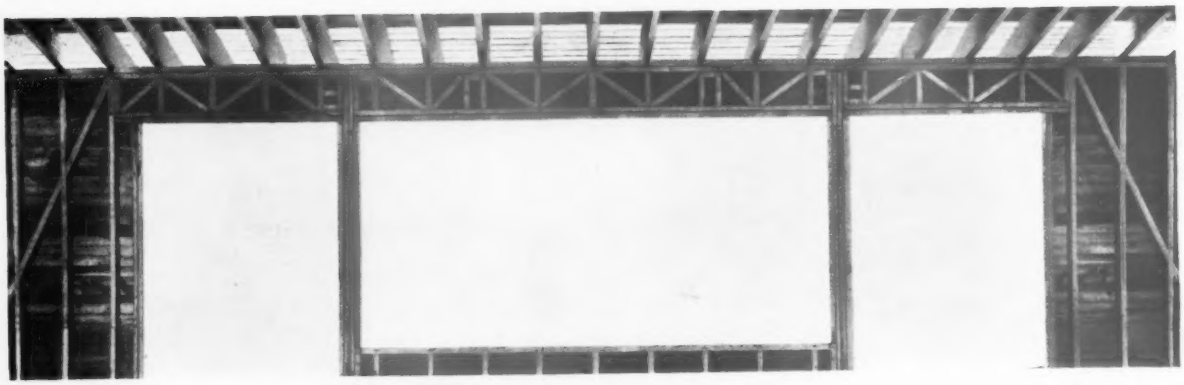


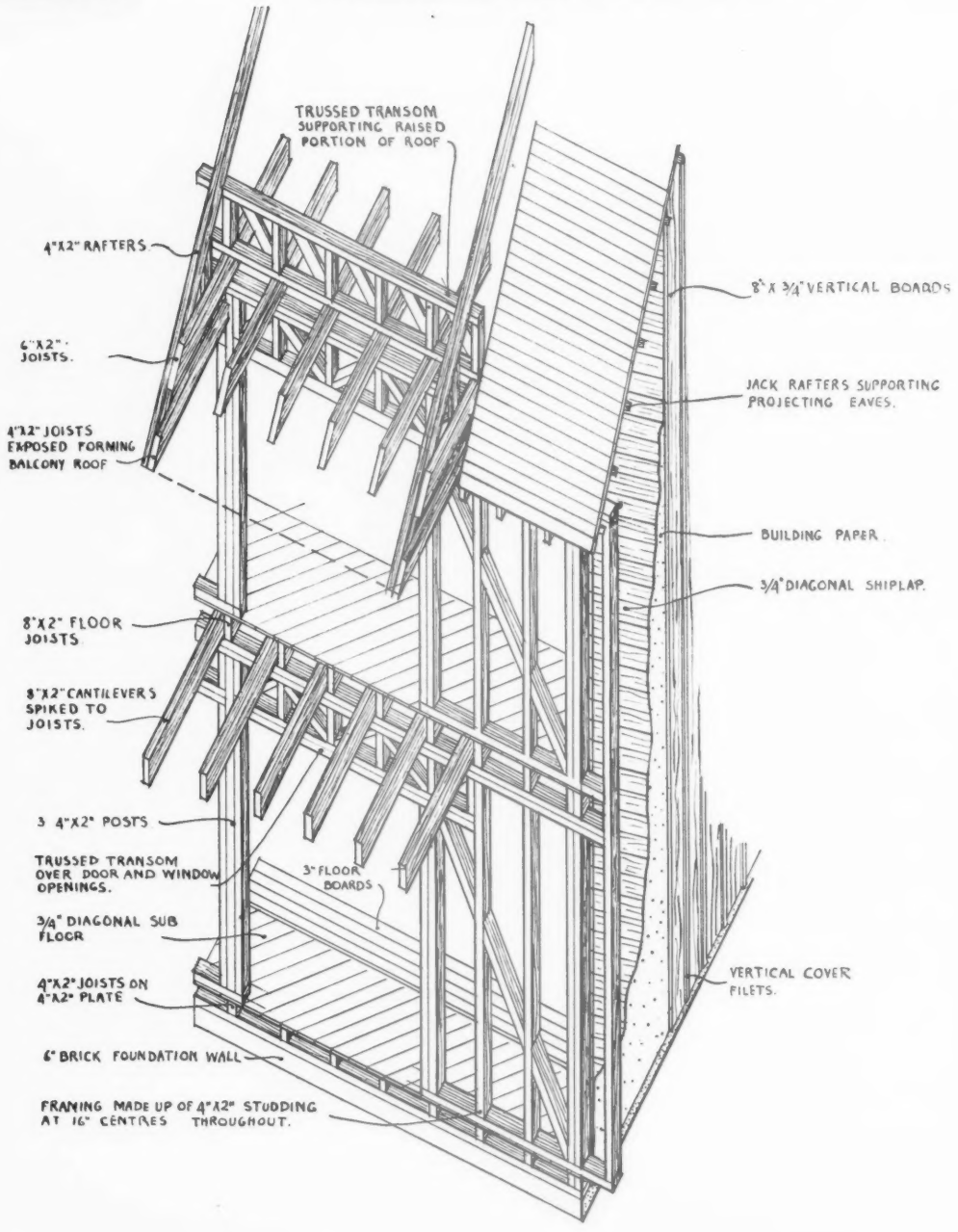
GROUND FLOOR PLAN



FIRST FLOOR PLAN

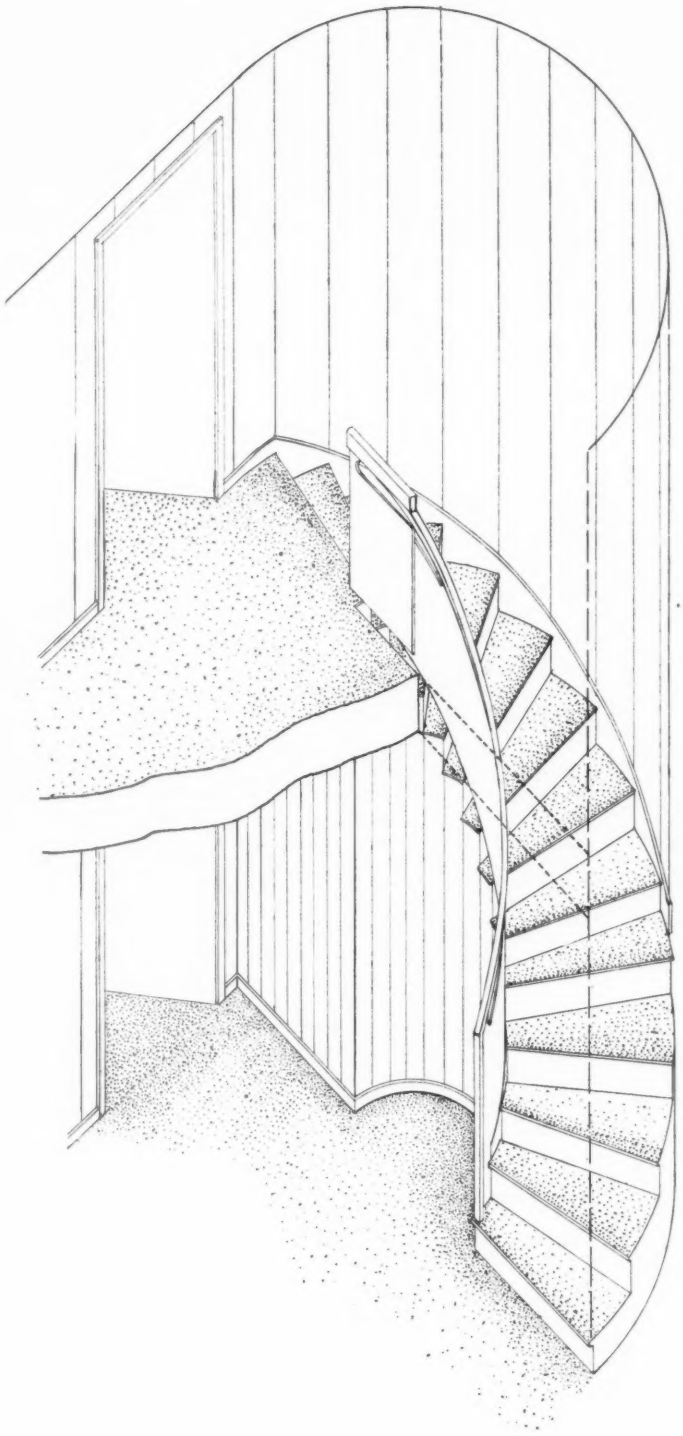
TIMBER HOUSES AT THE

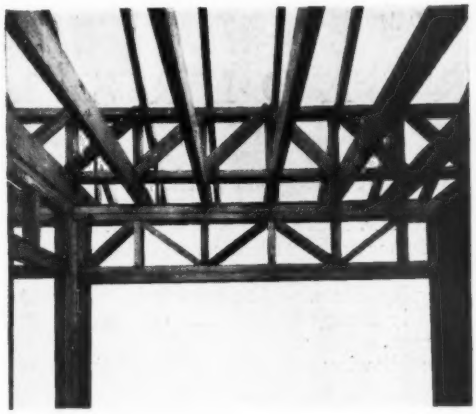


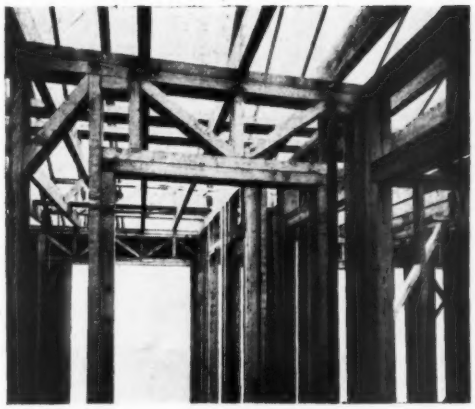


A photograph showing the floor construction; and a detail of a corner of the house.

IDEAL HOME EXHIBITION, OLYMPIA







DESIGNED BY

WILLIAM TATTON BROWN

The house is interesting constructionally, as the method is that of "frame building," which is usual in America and Canada, as opposed to "balloon construction," which is more usual in this country. (Practical experience in this type of building was provided by George Edwards, who has had 30 years' experience in Canada.) The framework is made up entirely by 4 in. by 2 in. joists (doubled or trebled when necessary) in standard lengths at 16-in. centres. This makes it possible to standardize the lengths of boarding employed. The diagonal boarding on the walls and floors ties the whole together and makes a much stronger job than the old-fashioned "balloon construction." The trussed transoms used to span door and window openings are also interesting.

The illustrations are: left, a drawing of the staircase; top, two views of the roof joists.

LETTERS FROM READERS

Appreciating the Architect

SIR,—Mr. Bickers, in a recent letter, wonders why the "architect" (and presumably his value and use) is not more generally known and appreciated, particularly among business and commercial men.

The following true anecdote may help to enlighten him :

A successful business man contemplated reconstructing his shop and discussed the matter in a preliminary way with an "architect"; but a certain shopfitting firm, hearing of the possibility, got in touch with the business man and by offer of free "architect's services" and the usual highly coloured drawings were successful in securing the order. The shopfitters' "architect" supplied plans and specification of a kind for the structural work and tenders were obtained from local builders, and one (a federated firm be it noted) was accepted. The work was completed and all was well until the bills came in. The business man was then heard in loud lament, and the theme of his lament was that, "as usual," the cost had been double the "architect's" estimate.

The moral seems to be that there are "architects" and "architects," and while the doubtless excellent shopfitting draughtsman, in company with the highly efficient sanitary inspector and the admirable road surveyor, together with the ubiquitous gentlemen who let houses and auction furniture, can call themselves "architects," the only remedy is to do as the writer does, and describe oneself as

CHARTERED ARCHITECT
London

Harpenden Public Hall Competition

SIR,—As a non-competitor may I refer to this competition? One of the conditions was that the new building must harmonize with the Council offices —a mellow Georgian brick and tile building. I submit that by no stretch of the imagination can the winning design be said to do this. So once again the first prize goes to the man who ignores the conditions.

There has been such a spate of such cases lately and the number tends to increase so steadily that I venture to suggest that it is more than time that the architectural profession took measures to put its house in order. The public are not merely beginning to take notice but are going further; for I have heard many unfavourable comments from people other than architects. The question is asked: is there any other profession or indeed is there any sport in this country in which the prizes regularly go to the man who breaks the rules?

It is no use blaming the competitors, least of all the successful ones, once it has been established, as it has been, that the rules may be broken with impunity.

If laws are persistently broken it is either because they are bad laws and cannot be enforced or because those responsible fail to enforce them. Either state of affairs is bad and demoralizing.

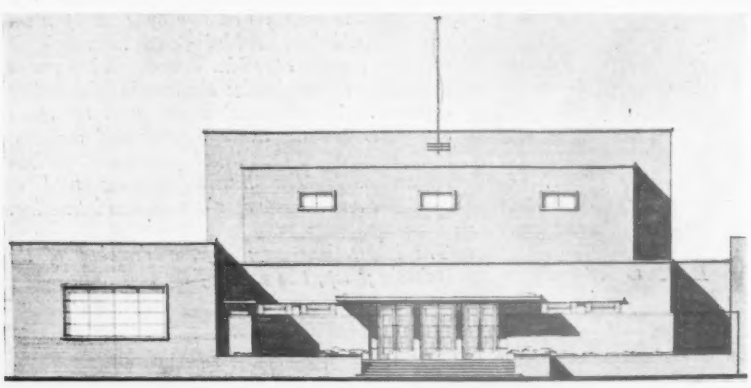
I submit that for the credit of the profession the institutes, when appointing assessors, should impress upon them that they must first very carefully scrutinize the rules and conditions to ensure that an infraction of one or other of them may not be necessary if the best possible design is to be obtained. Having done that they should abide by the conditions and reject all schemes which do not comply.

That the promoters insist on a condition is no excuse. The assessor should either stand down or enforce the condition. Any other attitude must inevitably forfeit the respect which the profession should do its utmost to foster.

C. A. MACKENZIE SKUES
London

CHARTERED ARCHITECT

C. A. MACKENZIE SKUES, F.S.I.



Left, the Southdown Road (principal) elevation of the winning design in the Harpenden Competition. Above, two photographs of the adjoining Harpenden Hall, with which the new building was desired to harmonize. See letter above.

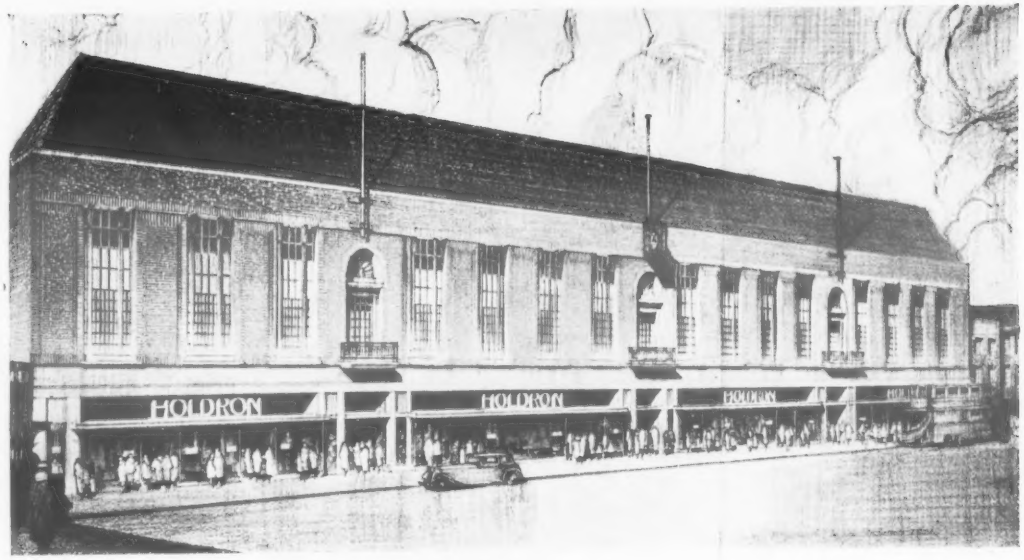
STORE AT PECKHAM, S.E.

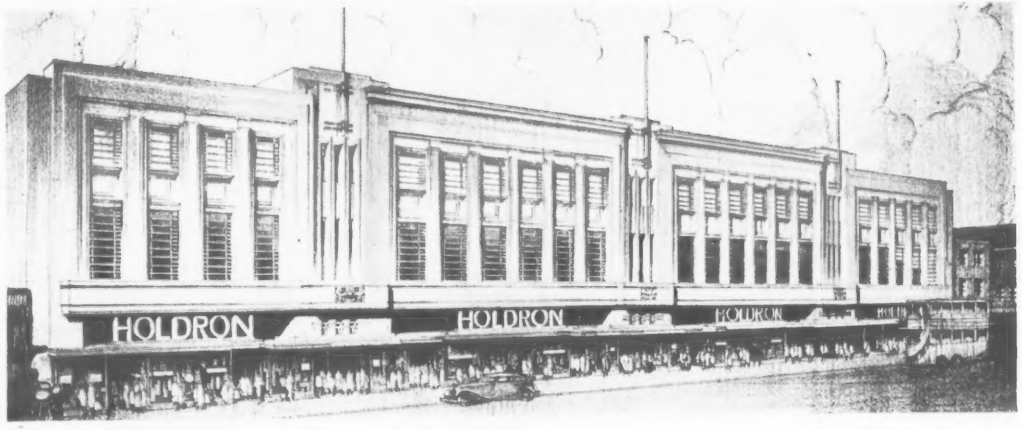
DESIGNED BY T. P. BENNETT AND SON

GENERAL PROBLEM.—*To rebuild part of an existing store to provide accommodation for showrooms on the ground and first floors, and the "counting house" on the second floor.*

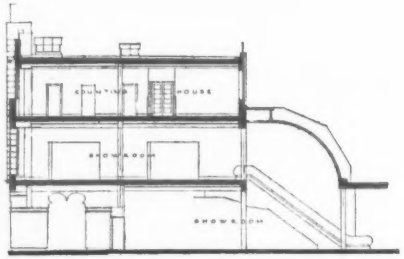
ELEVATIONAL TREATMENT.—*Four designs were prepared by the architects for the elevational treatment, and upon these the public were invited to vote. Part of the design which received the most votes has been built. The elevation is faced with terra cotta. The illustrations show: above, a photograph of the building as at present built; below, a perspective of the complete scheme. This design received most votes from the public. The three other designs upon which the public voted are reproduced overleaf.*

STORE AT PECKHAM: DESIGNED BY T. P. BENNETT AND SON



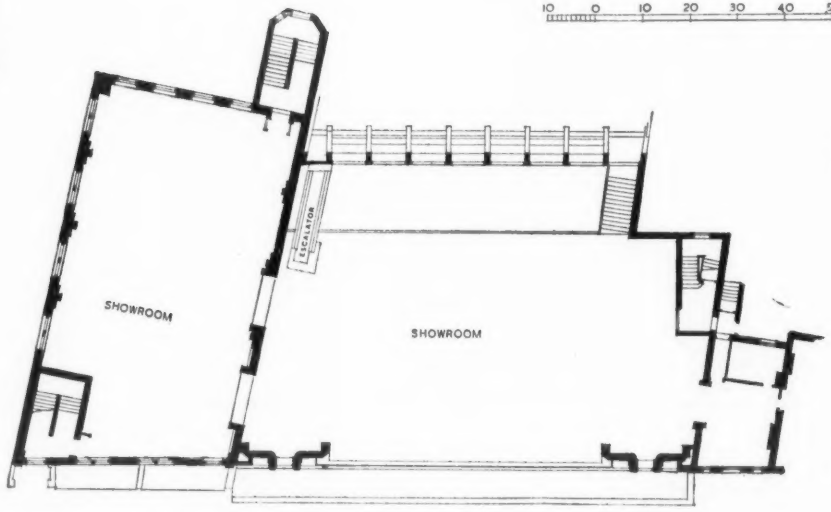


Three of the four designs for the elevational treatment upon which the public voted. The winning design, part of which has been built, is reproduced on page 519.



SECTION

GROUND FLOOR PLAN



FIRST FLOOR PLAN

CONSTRUCTION.—*The building is steel-framed, with brick walls and concrete floors and roofs.*

SERVICES.—*Heating is by a combined system of radiators and built-in unit heaters. To secure the greatest flexibility in the electric lighting of the building, a grid system of floor plugs is installed. The first floor showrooms are served from the ground floor by an escalator. The position of the staircases was governed by the general circulation of the public in the existing store.*

The photograph shows the concealed lighting on the ceiling of the shopping arcade and in the showcases.

STORE AT PECKHAM, S.E.

DESIGNED BY

T. P. BENNETT

AND SON

INTERNAL FINISHES.—*Walls, ceilings and coved cornices are plastered and distempered, and the floors are covered with linoleum laid on screed. The balustrade to the first floor and to the staircase consists of wired glass panels fixed in metal frames, along the bottom edge of which runs a lighting box. The segmental glass-concrete roof is glazed with 8 in. diameter lenses. The escalator is enclosed in flush walnut panelling.*

The photographs show: above, the glass-concrete roof; left, a view of the balustrade.

For list of general and sub-contractors see page 536.

Reception Rooms

THE MAYOR'S PRIVATE ROOMS

THE duties of a mayor compel him to spend a great deal of time at the town hall, and the parlour is set aside as a rest room for him.

The mayor's and mayoress's parlours should both be designed as domestic rooms; office-like rooms should not be provided to fill this requirement. A private lavatory and cloakroom should be attached to both the mayor's and mayoress's parlours.

The mayor's secretary's room should be within easy reach of the mayor's parlour. The size of this accommodation varies with the importance of the town. In some cities the secretary has quite a large office with two typists, but in the majority of cases, one medium-sized room is sufficient.

A waiting room big enough to hold about twenty people should be planned near the mayor's parlour and secretary's office.

In big cities the mayor is provided with a small luncheon room in which he can have meals privately or entertain parties. This room and the parlour need not be planned together, but their positions in relation to the other ceremonial rooms should be well considered, particularly with regard to local conditions. In the majority of cases, where the assembly hall is used for entertaining, the parlours may be placed off the entrance hall on the ground floor. But where the council suites and business offices are together, the parlours are usually on the first floor adjoining the council suite.

The Main Staircase

All circulation leading from the main entrance to the reception rooms may be designed in the grand manner, and a measure of glamour can be put into these "ceremonial" approaches without fear of vulgarity. The rather plain approaches which are being built into town halls at present do not seem to prepare the mind for the sentiment of ceremony, and even a brightly coloured crowd in a plain room cannot arouse the imagination sufficiently.

The best width for a grand staircase in a town hall varies between six and twelve feet, but staircases over ten feet wide are apt to cause people to "lose their bearings" when ascending.

The Banqueting or Refreshment Room

This room should be accessible both from the mayor's ceremonial rooms and the assembly hall. Large banquets are sometimes held in the assembly hall itself, and on these occasions it is useful to be able to turn the refreshment room into a servery.

The majority of town halls have kitchen and office accommodation capable of at least *serving* a large banquet, and the serving and cooking is usually undertaken by one of the big caterers or by an hotel in the town. Care should be taken to see that food and cutlery, etc., can be taken easily and quickly in and out of the kitchen, but many municipalities have their own ceremonial plate and cutlery.

The Albert Pick Barth Companies, of Chicago and New York, in their book on *Hotel Planning and Outfitting*, give the following data:

Dining Rooms

Seating Capacity.	Area in Sq. Ft.	Area per Seat.
184	2,142	11·5
600	9,522	15·87
350	5,490	15·7
Average obtained from the complete table		13·4

In this country areas per person range from 10 to 20 sq. ft.—the latter being a liberal allowance for formal banquets. Full kitchen and service areas together may be taken as amounting to 75 per cent. of the dining room area, service space alone (including hotplates, stores, larders, etc.) should not be much less than half the dining room area.

THE TOWN CLERK'S AND TREASURER'S DEPARTMENTS

The Principal Departments

The main departments of a civic centre are the Town Clerk's, the Borough Treasurer's, the Education Department, the Surveyor's or Engineer's Department, the Medical Officer of Health's Department, and the Public Assistance Committee's Department.

The work and administration of these departments largely dictate the setting out of the municipal office block. It is, therefore, proposed to consider briefly the work and detailed planning of each department.

The Town Clerk

This is really the most important department in the municipal office block. The town clerk is officially the legal adviser to the corporation and may generally be regarded as the co-ordinator of all the departments.

The town clerk usually acts also as clerk to the committees of the various departments, and he is, of course, consulted on legal matters by every department.

The town clerk sometimes controls the public assistance administration, but this organization may be regarded as a separate department, and in modern practice it is controlled by a separate committee.

The usual position for the town clerk's department is on the first floor, adjoining the council

suite, and if the town hall is small, his office should adjoin the mayor's parlour.

This department is laid out on the lines of a normal office, and there are no rooms of special size or planning in it.

Accommodation is generally required for the following officials: the town clerk, his secretary, the deputy town clerk, assessment clerks, committee clerks, solicitors, conveyancing clerks, typists and general clerks. There are sometimes additional rooms for articled pupils, the preparation of voters' lists, etc.

The town clerk usually has a private lavatory attached to his office, and a waiting room for deputations should be provided near his room.

There should be ample room for filing actually in the department, and fireproof strong rooms for the storage of archives in the basement. This storage space must be large and easy to extend, since the town's records may go back several hundred years.

A study of the lay-out at Swansea will give a good idea of how this department should be arranged.

The Borough Treasurer's Department

The borough treasurer controls all the financial undertakings of the town. Today these undertakings include the rates, local taxation, licences, etc., as well as the various trading undertakings, such as the trams, ferries, buses, gas and electricity supplies.

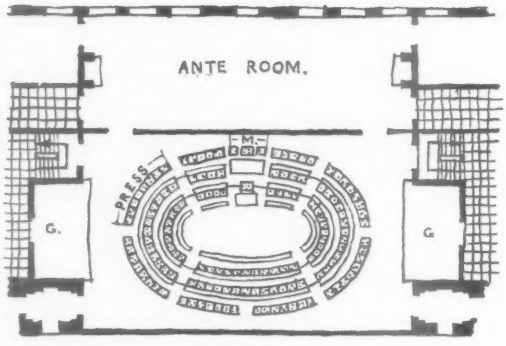
The department is usually the largest in the municipal offices and it is visited by a great number of people, the majority of whom come to the department either to pay rates or to obtain licences. There is always an abnormal number of people visiting the department to obtain motor or other licences at the usual times of renewal; this crowd is apt to interrupt the general work of the rates office, and where possible a separate room for licences should be planned off the rates office to relieve congestion. This has been done with great success at Swansea.

The Rates Office

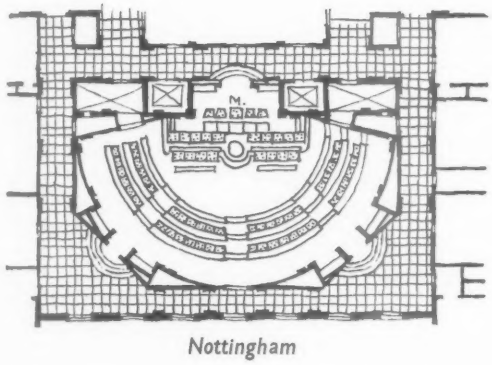
The rates office should be placed where the public can easily find it, so that there will be no danger of people becoming lost in the search for it and wandering about the building.

The rates office is generally planned like a banking-hall, with the public space divided from the administrative space by a counter. Sometimes the clerks working at the counter are screened off from the general office, but usually the room is left undivided.

Owing to the large size of this room it is frequently necessary to use top as well as side light. The old arrangement of placing the rates office under the council chamber at ground floor level sometimes makes this top lighting impossible. Should it be found that such an arrangement is not capable of giving sufficient light to the rates office or is limiting the span of the room, the arrangement should be changed without hesitation; it is most important that this room should be adequate in size and properly



Leeds



Nottingham

lighted. Where there is any doubt about the sufficiency of daylight in part of the room, that part may be used as public space. It is better, if possible, to allow the clerks on the desks to work with their backs to the light. The clerks should be close to the counter clerks with whom they have to work.

The public circulation space should not be less than 10 ft. wide (8 ft. 6 in. in a very small scheme, but certainly nothing less). Counters are generally about 3 ft. wide and 3 ft. 4 ins. high, and are equipped with grilles between the clerks and the public, cash drawers and cupboards between the clerks' places. At least 5 ft. should be allowed between the counter and the nearest desk. A clerk's desk and equipment requires about 6 ft. run of counter.

The rates office is generally of normal office height.

A strong room should be placed between the general rates office and the accountancy staff, so that each has access to it, and on big schemes there should be a further strong room for the storage of books and papers in the basement, which would be connected by a book lift to the departments.

Local Taxation Office

It is essential to have a long run of counter in this room, and provided it is connected to the rates' office, so that the same accountancy staff can control both offices, a long rectangular shape provides the best arrangement. There must be room behind the counter for tables and chairs. During the rush periods, the

TOWN HALLS

clerks at the counter merely receive the licences and hand them to the clerks at the tables to be filled in.

In designing both the rates and the licence office every effort must be made to avoid congestion, and entrances and exits must be very clearly defined.

Strong Rooms

The strong rooms should be constructed with walls at least 1 ft. 6 ins. thick if in brickwork, or 12 ins. if in reinforced concrete. Reinforced concrete floors and ceilings are generally considered the best construction and the rooms should be properly ventilated. The doors of strong rooms should open outwards for the first door and inwards for the grille. Great care should be taken to see that no handles project into the door openings, and these should be at least 3 ft. in the clear to allow for the passage of book trolleys.

The rest of the department does not require the provision of any special rooms, and it can be planned as a normal department.

Though comparatively few people call to see the treasurer it is important to provide his private office with a waiting room. The position of the treasurer's room varies with various methods of administration. In some towns the deputy treasurer is next to him, and in other towns he sits in solitary state and controls the whole department. Generally, the deputy treasurer should be placed reasonably near both the rates office and the general office, which he will control.

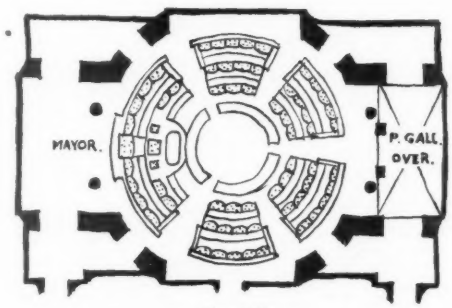
The accountancy staff, however, work in the general office or in a room adjoining, and the valuation section, in a big scheme, is generally also accommodated next to the rates office. In a small scheme this section works in the general clerks' office.

The public assistance office attached to the borough treasurer's department controls the money which is paid out for relief. This office need not be very closely connected to the rates or accountancy offices.

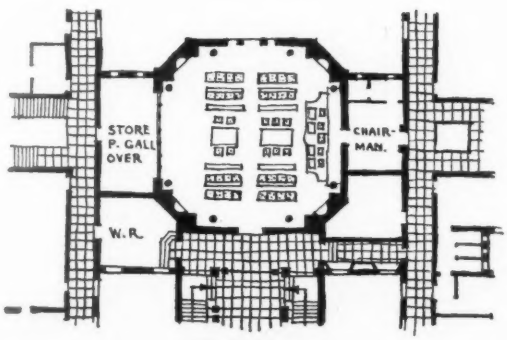
The audit room can be placed in almost any position in the department.

Where book-keeping machines are used in the general office, every effort should be made to reduce resultant noises.

The borough treasurer's department is usually placed on the ground floor, either having its own entrance or being placed opposite to the main entrance. Accommodation varies from a suite with the treasurer, chief clerk, main office, and store room to a big department such as Swansea possesses, including rooms for auditors, housing, machines, loans and separate rooms for licences.



Cardiff



Beckenham

THE HEALTH DEPARTMENT

The Duties of the M.O.H.

Conditions and practice vary so much in different localities that it is very difficult to lay down definite rules for the general arrangement of the medical officer's department; it is therefore worth reviewing the conditions at present existing in a town of 157,000 inhabitants with an area of about 9.5 square miles, in order that the activities and control of the medical officer of a fair-sized and growing town may be outlined.

The department covers such a wide field that it is only possible here to indicate the general lay-out, with some emphasis on the administration offices and welfare clinics. The medical officer under consideration controls four clinics for pre-natal and child welfare work, a clinic and laboratory for tuberculosis, a clinic for venereal diseases, the municipal hospital, the municipal fever hospital, a sanatorium and isolation hospital. His staff includes six assistant medical officers, four dental surgeons, a veterinary officer, a bacteriologist, six chemists, 16 inspectors, 19 nurses, and all the office staff and nursing staff for the hospitals and sanatorium. The administrative offices in this case are outside the municipal offices.

The present medical officer has arranged child welfare pre-natal clinics in the north, south, east and west parts of the town and has his office over the north clinic. The clinic for tuberculosis, of which there is only one, is placed in the centre of the town; the bacteriologist has accommodation in the fever hospital, and the V.D. clinic is in the general hospital.

This arrangement is excellent from the patients' point of view, because the splitting up of the clinics into various districts is very much more convenient. Every effort possible is made to induce patients to come to the clinics.

The grouping of all the clinics in a central position is good for administration and economy,

and such an arrangement might work well in a small town, but where there are large distances from the outskirts of a town to the clinic, it might be very harmful for a patient to have to travel some miles, and very few could afford a tenpenny bus fare twice a week to visit a clinic.

The municipal buildings of this particular town were built some thirty years ago, and at present the majority of the M.O.'s department is housed in converted premises, and not in specially planned accommodation. In fifteen years the M.O.'s department has increased from one assistant doctor, two sanitary inspectors and a vet. to its present size. The need of building this and other departments so that they can expand cannot be too strongly emphasized.

The accommodation in a tuberculosis clinic usually consists of a waiting-room for about twenty people (provision should be made if possible for the storage of a few perambulators) with an office adjoining in which the records and files are kept, a nurses' room, a room for patients to undress in, and doctors' examining room with lavatory attached. The municipal laboratory is sometimes placed over the T.B. clinic. This laboratory in a medium-sized town might have two top lighted rooms, one about 40 ft. by 20 ft., and the other about 20 ft. by 20 ft. with a separate room about 15 ft. by 15 ft. for sterilizing apparatus. (This apparatus should never be kept in a room where people are working or with animals, as it gives off harmful fumes.) Attached to this laboratory there should be an animal room for keeping guinea-pigs and rabbits; this is usually on the roof where it can be well ventilated. Adequate provision should be made for the disposal of refuse from the animal rooms.

There is usually need for only one T.B. clinic in each town. The best position for it is in the centre of the town. The building should be isolated from child welfare and pre-natal clinics, as it is undesirable for infected people to mix with babies and young children.

The V.D. clinic should also be isolated, and as much privacy should be given to the entrances as possible. Good positions for this clinic would be adjoining the municipal hospital, or adjoining a public lavatory.

Pre-natal and child welfare clinics usually consist of an entrance vestibule, with inquiry room and garage for perambulators, leading to a large waiting-room about 40 ft. by 30 ft. (this room is sometimes used for moving-picture shows on various health matters). Surrounding the large waiting-room are consultation and recovery rooms for doctors and dentists (20 ft. by 10 ft. is an average size), ophthalmic room (15 ft. by 20 ft.) with a dark room (28 ft. by 10 ft.), health visitors' room, record room, minor treatment room and lavatories and undressing rooms.

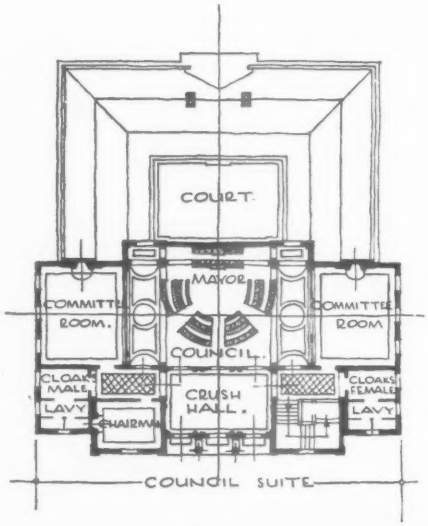
In Mr. D. H. McMorran's scheme, which won the York competition, the T.B. and welfare clinics are not combined, so that infected persons do not come in contact with welfare patents.

The administrative offices are arranged in the usual departmental way, with rooms for the medical officer (with waiting-room and secretaries' room attached), a common room for the doctors, chief clerk's office, main office, a large office for the various inspectors (with a small private room for the chief inspector); a small well-lighted and ventilated laboratory; a common room for the health nurses; a common room for the dentists, and the usual storage, filing and committee rooms.

The veterinary officer usually has his rooms adjoining the abattoir.

The medical officer need not necessarily be near the municipal offices. He may interview the town clerk or treasurer about once a month, but otherwise any communication can easily be done by telephone.

If the clinics are all grouped together with the administration offices a polygonal-shaped plan suggests itself, with the administration in the centre and the clinics and laboratory placed on the angles of the figure and right away from the offices, so that they can be extended if necessary. The position of these departments in the municipal scheme should be one that allows the public to enter directly into the clinics from the street; the best arrangement would seem to be to have the administration office on the first floor above a clinic. The entrance to the clinics should be in a fairly inconspicuous spot, and it should be remembered that on certain days of the week perhaps a hundred people would visit the clinic together, including mothers, children and perambulators.



Purley
FIRST FLOOR PLAN

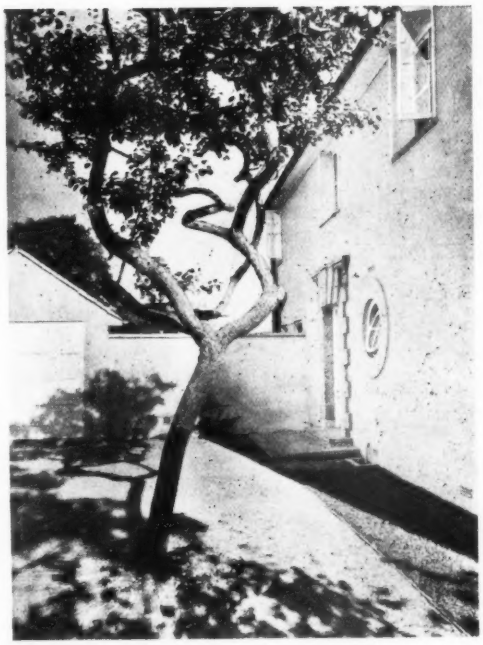
HOUSE AT SEAL CHART, NEAR SEVENOAKS

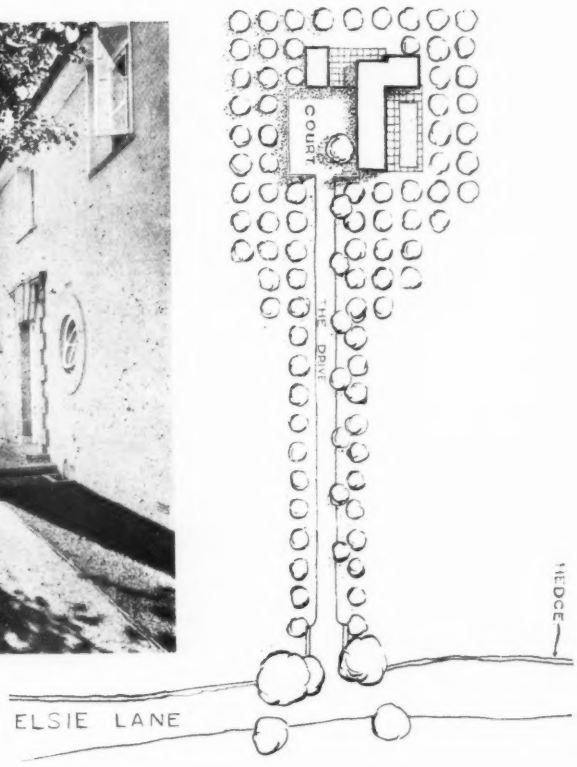
DESIGNED BY KENNETH PEACOCK

SITE.—*A nut plantation, about ninety years old, and just under six acres in extent. It is about 600 ft. above sea level and slopes down towards the north. The house is erected in approximately the centre of the site, fine views being obtained over the tree tops from the windows of the bedrooms.*

ELEVATIONAL TREATMENT.—*The walls are 11 ins. cavity, built in stocks, rendered externally with a slightly roughened finish and distempered a light beige pink. The roof is covered with grey-green slates, laid in random widths; the ridges are of lead; the rain water gutters and down pipes are painted a battleship grey to match the colour of the roof. The main entrance door is painted white, with black studs, and the remainder of the woodwork is white.*

The photographs show: above, the south front; right, the main entrance on the north front.

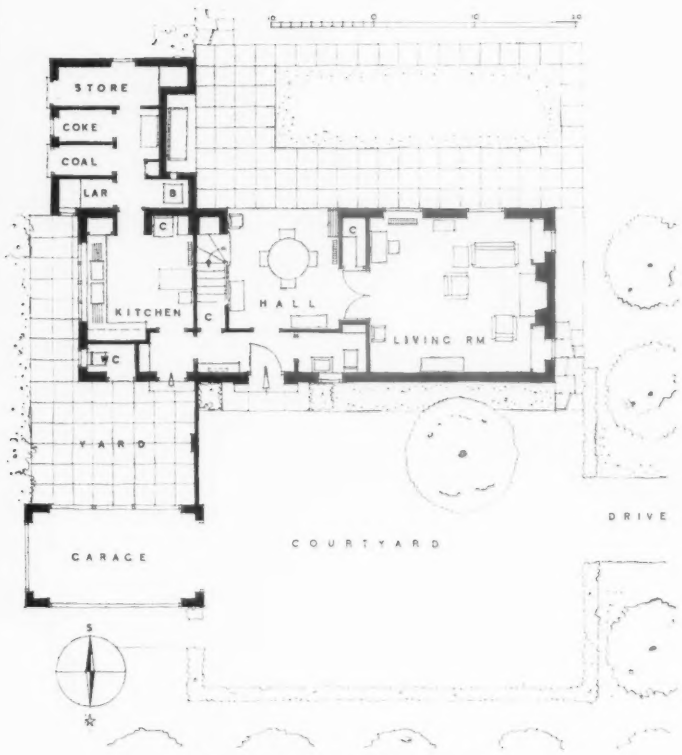




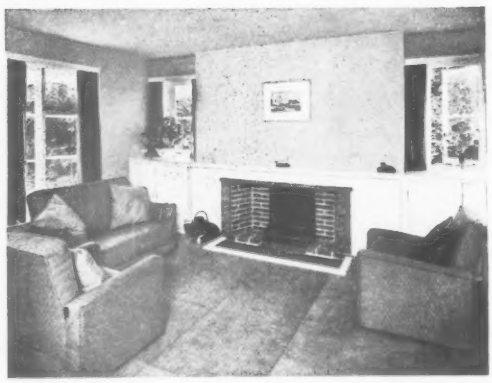
HOUSE AT SEAL CHART, NEAR SEVENOAKS

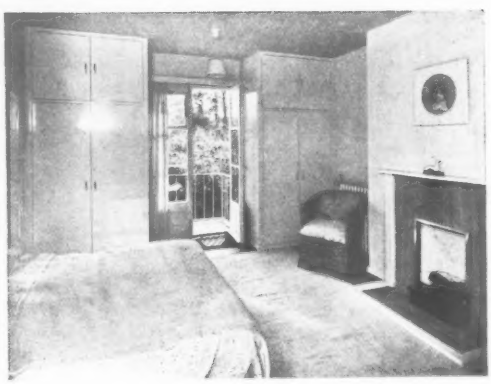
FIRST FLOOR PLAN

DESIGNED BY KENNETH PEACOCK



GROUND FLOOR PLAN





INTERNAL FINISHES.—*Partitions are 4½ ins. stock bricks, or 3 ins. breeze, finished in smooth plaster, except in the hall, which has a slightly roughened finish. Walls, ceilings and joinery are beige pink, except in the living room, hall, and kitchen. In the living room and hall the joinery is glossy white; and in the kitchen the walls, ceiling and the tiled floor are pale primrose. In the living room the fireplace is carried out in 2 ins. dark purple-grey bricks, pilasters and hood are in Westmorland barred stone of a green colour. In the hall, the open staircase has 1 in. circular balusters and an unpolished teak handrail. On the terrace side of the hall the wall is fitted with sliding windows which can be pushed back to the adioining walls. The principal bedroom has a small balcony with french doors, folding inwards, and a fireplace in Westmorland stone, with wood surround. The kitchen has an electric cooker, two sinks, draining board and built-in plate rack. All the rooms have fitted cupboards, and there are two linen cupboards; and, under the staircase, a coat cupboard.*

SERVICES.—*Central heating is installed, the boiler supplying both the radiators and the hot water for domestic use. No pipes are visible. The boiler is fitted in a special recess, and has rods above it for drying purposes.*

The photographs show: top, looking from the terrace into the hall; centre, the living room; bottom, the principal bedroom.

For list of general and sub-contractors see page 536.

WORKING DETAILS : 419

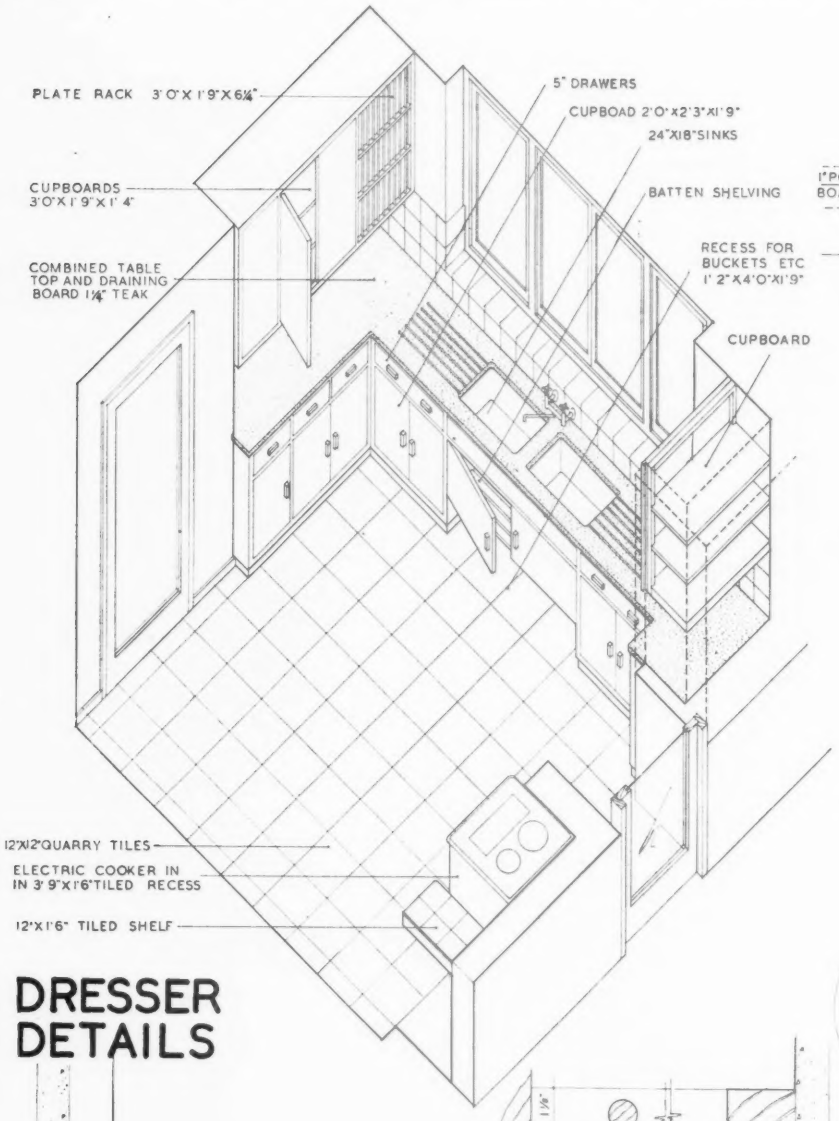
KITCHEN • HOUSE AT SEAL CHART, NEAR SEVENOAKS • KENNETH PEACOCK

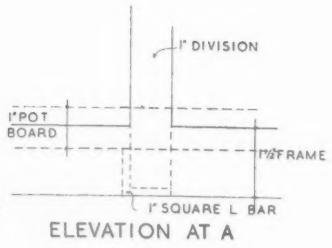
This kitchen is fully fitted with all necessary cupboards and plate racks, a pair of sinks with a double teak draining board, and a water supply from a swivelling mixer nozzle. The floor is of 12 in. by 12 in. quarry tiles. An axonometric and details are shown overleaf.

FILING REFERENCE:

WORKING DETAILS: 420

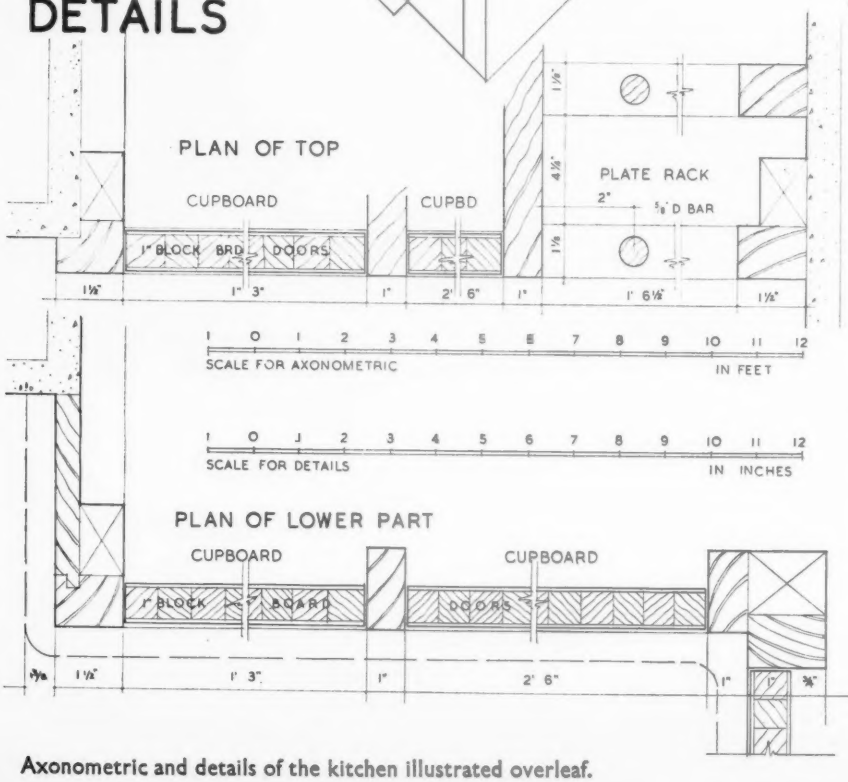
KITCHEN • HOUSE AT SEAL CHART, NEAR SEVENOAKS • KENNETH PEACOCK

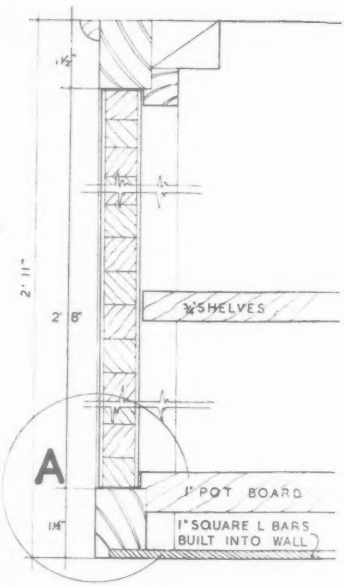


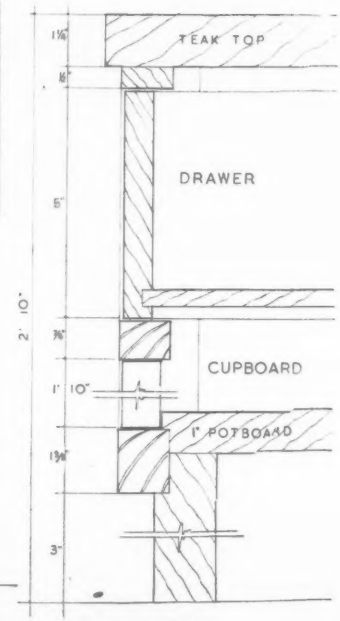


ELEVATION AT A

DRESSER DETAILS





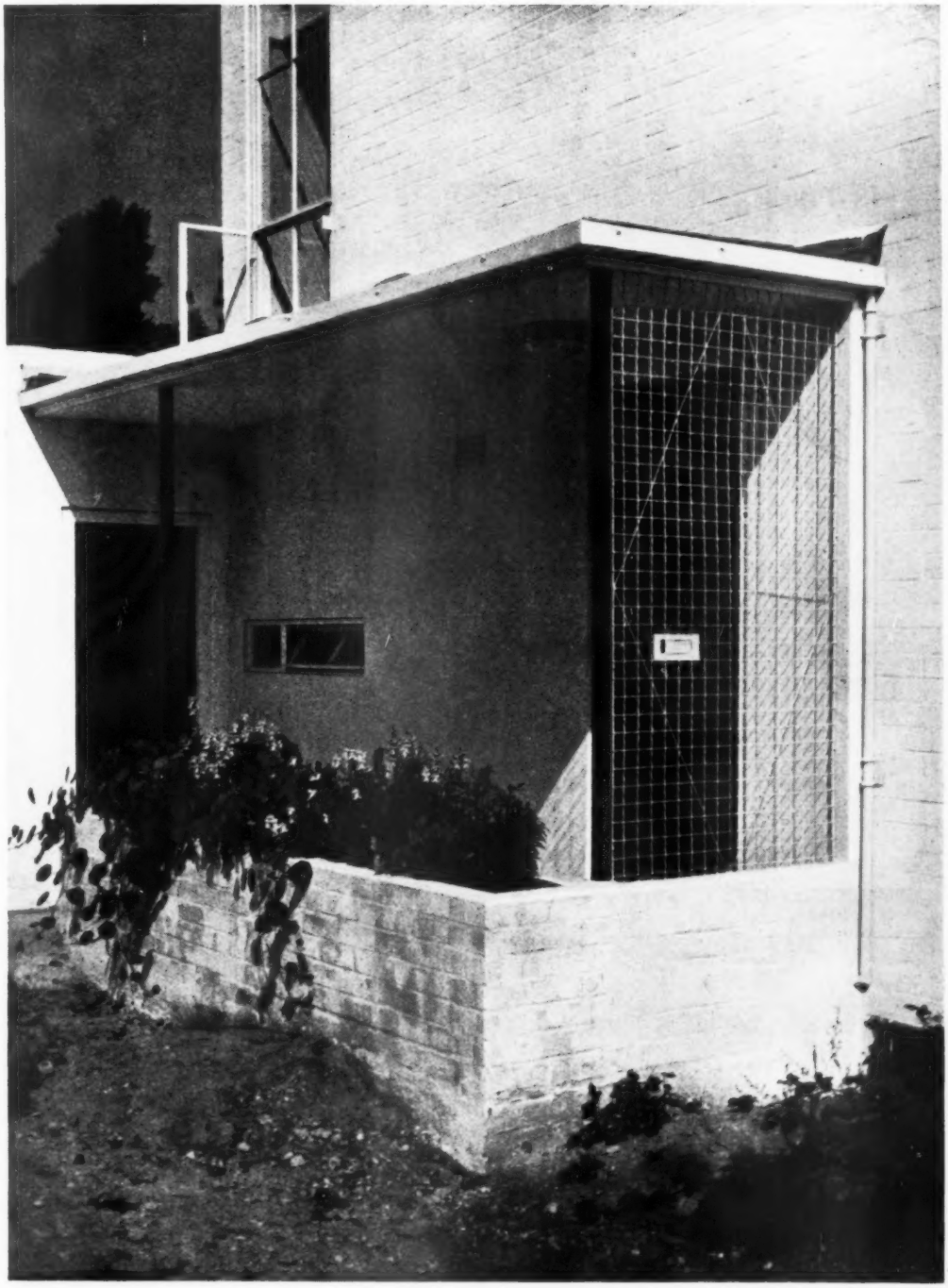


SECTIONS

Axonometric and details of the kitchen illustrated overleaf.

WORKING DETAILS : 421

PORCH • HOUSE AT WIMBLEDON • E. MAXWELL FRY

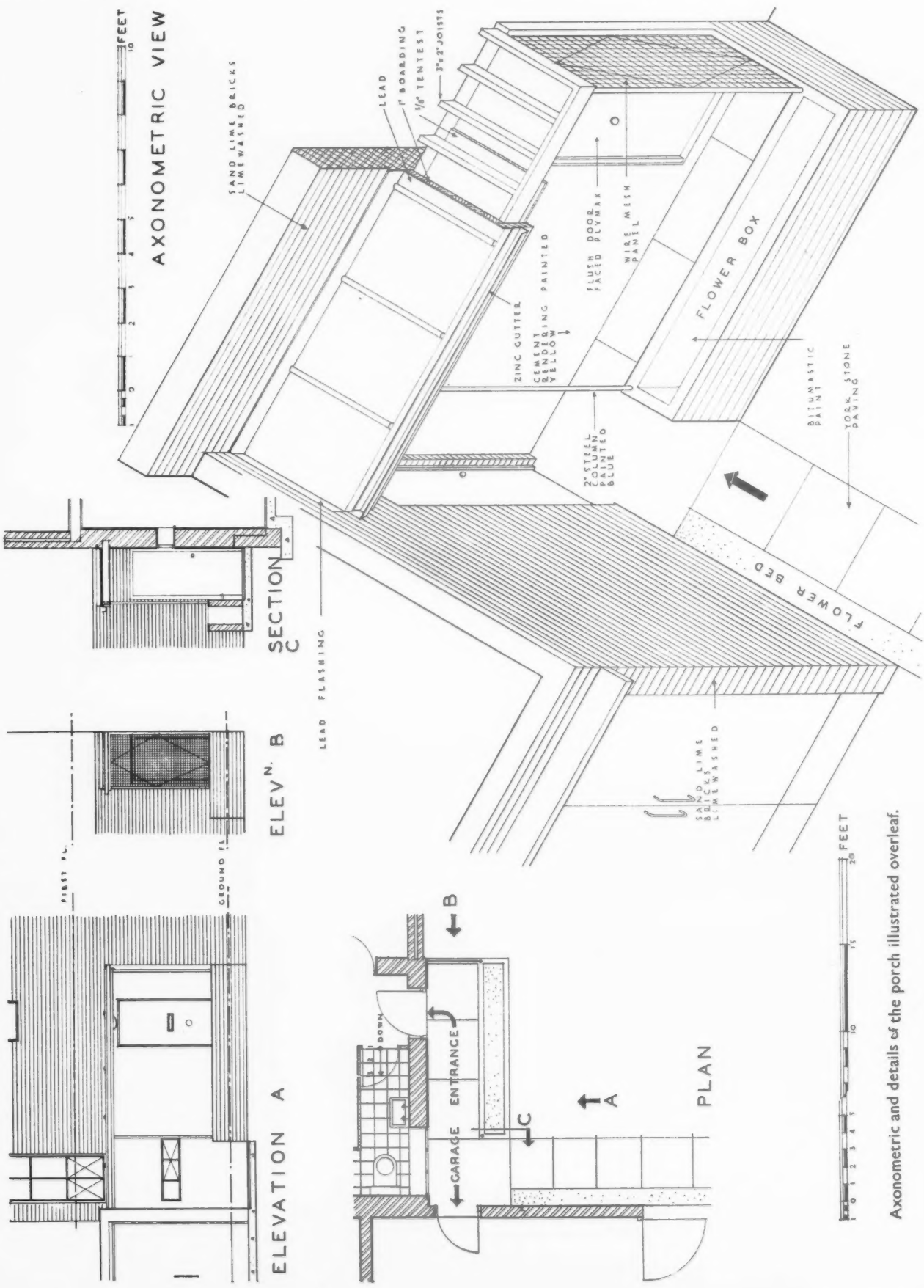


The porch illustrated above serves as a covered way between the garage and the front door of the house; the roof is joist and board, lead-covered, the soffit being filled in with $\frac{3}{8}$ in. wallboard. An axonometric and details are shown overleaf.

FILING REFERENCE:

WORKING DETAILS : 422

PORCH • HOUSE AT WIMBLEDON • E. MAXWELL FRY



Axonometric and details of the porch illustrated overleaf.

Formal lily pond at Winkfield Lodge, Windsor Forest. From "Gardens and Gardening."

LITERATURE

GARDENS

[*BY G. A. JELLICOE*]

Gardens and Gardening. London: Studio. Price 10s. 6d. net.

THE first impression that a modern book on gardens gives in contrast to one of a few years ago is of sunlight. It is safe to say that there is scarcely a single photograph in *Gardens and Gardening* which does not show high technical skill, both in the grouping of natural objects and in the capture of sunlight. The production of the book as a whole, both as regards the presentation of the illustrations and the arrangement of the text, is of a high standard, and it is perhaps a pity that the gardens illustrated do not quite come up to this standard.

Delphiniums in a herbaceous border. From "Gardens and Gardening."

Mr. F. A. Mercer, in the Editor's foreword, is quite clearly concerned as to what is meant by modernism in garden design. He feels that this art lags behind others, and that few gardens are today designed that are suitable to present-day architecture. Of all the gardens shown there is possibly only one that may be said to interpret the spirit of the present age, a garden in Vienna by Willi Vietsch. This shows that relation between the free shapes of Nature and the severe and formidable lines of modern architecture which represents the tendencies of today.

The book is divided into a series of sections, of which the first half is devoted to gardens from all countries. The second half deals with four special articles. These are: Dahlias, American herbaceous plants, Japanese miniature trees, and summer flowers. All four articles are of a high standard. In the dahlia section, by Mr. D. B. Crane, one realizes the astonishing beauty as well as variety of form that these flowers can attain. Indeed, were there no other design attempted in the book, the decorative dahlias shown, especially on pages 80 and 81, together with the water-lilies from America on pages 12 and 13, should be a sufficient

inspiration for a modern outlook in everyday garden design.

It is pleasant to look through the pages of this book, and if one feels a little disappointed to find, let us say, an English garden on top of a New York roof, this should not deter one from considering all the shrewd remarks that are interspersed throughout. Here is a book that every garden lover should try to read.

PLASTIC ART

The New Architectural Sculpture. By Walter R. Agard. Oxford University Press. Price 10s. 6d.

"THE alliance (between sculpture and architecture) has never been made easily," observes Professor Agard, of Wisconsin University, U.S.A., ". . . but it has occurred . . and it seems possible that we are about to witness another such flowering of the two arts."

Wherefore, he selects examples—avoiding the classical, the Renaissance and the Gothic—of European and American origin during the last twenty years. Forty-two are excellently illustrated in photogravure plates, and upon them he passes enlightened comment in chapters devoted to : Europe ; England ; America ; Skyscrapers ; Homes ; Churches ; and Memorials. By way of preface goes some theorizing on the marriageable qualities and probable issue of the wayward partners.

SOCIETIES AND INSTITUTIONS

ARCHITECTS' REGISTRATION COUNCIL

As announced in last week's issue, Mr. Sydney Tatchell has been elected chairman and Mr. W. H. Ansell vice-chairman of the Architects' Registration Council. The personnel of the various committees of the Council for the year ending March, 1937, are as follows :—

Admission Committee : Messrs. E. J. Elford, M.INST.C.E., Dr. G. E. K. Blythe, R. B. Mann, F.S.I., Major R. F. Maitland, O.B.E., M.I.STRUCT.E., P. J. Spencer, M.A., Kenneth M. Cross, M.A., F.R.I.B.A., J. Douglas Scott, A.R.I.B.A., Thos. E. Scott, F.R.I.B.A., Geoffrey C. Wilson, F.R.I.B.A., Major G. B. J. Athoe, F.I.A.A., M.INST.R.A., Vincent Burr, F.I.A.A., M.INST.R.A., J. L'Estrange Mackie, A.I.A.A., M.INST.R.A., A. E. Mander, L.R.I.B.A., M.INST.R.A., H. Langford Moyle, F.F.A.S., W. Naseby Adams, A.R.I.B.A., Joseph Addison, M.C., F.R.I.B.A., E. G. Allen, F.R.I.B.A., T. S. Barnes, A.R.I.B.A., D. H. Beaty-Pownall, A.R.I.B.A., Henry Braddock, A.R.I.B.A., L. A. F. Ireland, M.C., L.R.I.B.A., G. E. S. Streatfeild, O.B.E., D.S.O., F.R.I.B.A., and Raymond Walker.

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Discipline Committee : Messrs. James Eggar, C.B.E., Mr. A. N. C. Shelley, M.A., B.C.L., Barrister-at-Law, Mr. H. Nevil Smart, C.M.G., O.B.E., D. Latham Bateson, J. A. Arnott, F.R.I.B.A., Joseph Hill, F.R.I.B.A., J. Douglas Scott, A.R.I.B.A., and A. Randall Wells.

Board of Architectural Education : Sir H. J. Hetherington, M.A., LL.D., and Messrs. H. S. Goodhart Rendel, F.R.I.B.A., Montague Wheeler, M.A., F.R.I.B.A., A. H. Moberly, F.R.I.B.A., T. Harold Hughes, F.R.I.B.A. A.R.C.A., J. S. B. Stopford, F.R.S., M.B.E., M.D., John Bell, M.A., George Smith, M.A., Frank Roscoe, M.A., L. B. Budden, M.A., F.R.I.B.A., A. E. Richardson, F.S.A., F.R.I.B.A., R. A. Cordingley, M.A., F.R.I.B.A., Robt. Atkinson, F.R.I.B.A., T. Harold Hughes, F.R.I.B.A., F.S.I., A.R.C.A., Jas. Macgregor, M.A., A.R.I.B.A., James B. Nicol, F.R.I.B.A., J. C. Procter, M.C., F.R.I.B.A., W. S. Purchon, M.A., A.R.I.B.A., C. Drysdale, F.R.I.B.A., W. B. Edwards, M.A., B.ARCH., A.R.I.B.A., F. W. C. Gregory, G. Gordon Hake, Stephen Welsh, M.A., F.R.I.B.A., F. E. Drury, M.SC., F. J. Harlow, M.B.E., B.SC., C. Mavor, B.SC., R. L. Roberts, M.A., H. W. Mole, A.R.I.B.A., M.I.STRUCT.E., H. Bannister, A.R.I.B.A., A.R.C.A., P. J. Spencer, M.A., T. Barron, J.P., R. Coppock, M. L. Jacks, M.A., F. S. Orme, M.A., V. Leslie Marsh, J. A. Milne, C.B.E., Jas. A. Arnott, F.S.A. (SCOT.), F.R.I.B.A., Kendrick Edwards, M.INST.C.E., F.R.I.B.A., M. Charlton Bradshaw, C.B.E., M.ARCH., F.R.I.B.A., E. Guy Dawber, A.R.A., F.S.A., F.R.I.B.A., Harold H. Holden, A.R.C.A., Councillor T. Hackett, J.P., E. M. Rich, Major Leslie Roseveare, O.B.E., M.INST.C.E., The Hon. H. A. Pakington, F.R.I.B.A., W. H. Ansell, M.C., F.R.I.B.A., T. A. Darcy Braddell, F.R.I.B.A., H. M. Fletcher, M.A., F.R.I.B.A., H. Austen Hall, F.R.I.B.A., J. Stockdale Harrison, F.R.I.B.A., C. H. Holden, F.R.I.B.A., A. B. Knapp-Fisher, F.R.I.B.A., H. V. Lanchester, F.R.I.B.A., H. Lidbetter, F.R.I.B.A., Edward Maufe, M.A., F.R.I.B.A., Oswald P. Milne, F.R.I.B.A., F. Winton Newman, F.R.I.B.A., Basil Oliver, F.R.I.B.A., The Hon. N. A. Pakington, F.R.I.B.A., W. G. Percy, F.F.A.S., C. H. Reilly, O.B.E., M.A., F.R.I.B.A., J. Alan Slater, M.A., F.R.I.B.A., J. E. Swindlehurst, M.A., F.I.A.S., Michael Tapper, M.A., A.R.I.B.A., Sydney Tatchell, F.R.I.B.A., W. Harding Thompson, M.C., F.R.I.B.A., Maurice E. Webb, D.S.O., M.C., M.A., F.R.I.B.A., A. Randall Wells and Miss M. E. Lewis

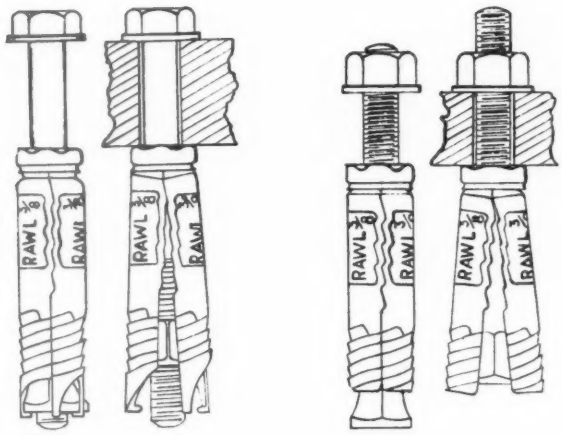
The following is the Constitution of the Council for the year ending March, 1937, appointed by R.I.B.A.—Messrs. W. H. Ansell, H. V. Ashley, F.R.I.B.A., Percival C. Blow, A.R.I.B.A., T. A. Darcy Braddell, F.R.I.B.A., John Dower, M.A., F.R.I.B.A., H. M. Fletcher, M.A., F.R.I.B.A., C. Lovett Gill, F.R.I.B.A., A. G. Henderson, F.R.I.B.A., A. B. Knapp-Fisher, F.R.I.B.A., Hubert Lidbetter, F.R.I.B.A., A. H. Moberly, M.A., F.R.I.B.A., J. Alan Slater, M.A., F.R.I.B.A., Sydney Tatchell, F.R.I.B.A., E. Berry Webber, A.R.I.B.A. I.A.A.S.—Sir Robert I. Tasker, M.P., J.P., D.L., F.I.A.A., M.INST.R.A., Major G. B. J. Athoe, F.I.A.A., M.INST.R.A., and Mr. J. L'Estrange Mackie, A.I.A.A., M.INST.R.A. Faculty of Architects and Surveyors.—Messrs. H. Langford Moyle, F.F.A.S., and G. E. Mitchell, A.M.I.M. AND CY.E., A.R.SAN.I., A.F.A.S. Architectural Association.—Messrs. R. T. D. Acland, M.P., E. W. Armstrong, F.R.I.B.A., L. H. Bucknell, F.R.I.B.A., and Joseph Hill, F.R.I.B.A. A.A.S.T.A.—Mr. A. Hassell. Councils of Provincial Associations. — Major T. C. Howitt, D.S.O., F.R.I.B.A., Lt. Col. E. H. Fawckner, F.R.I.B.A., and R. S. Reid, F.R.I.B.A. "Unattached" Architects.—Messrs. H. Baily, G. L. Head, D. W. Beck, W. O. Hudson, G. W. Jackson A. E. V. Newnham and S. T. Puzey. Royal Society of Ulster Architects.—Mr. Kendrick Edwards, F.R.I.B.A. By President Board of Education.—Mr. Robt. Stanford Wood. Minister of Health.—Mr. E. H. Rhodes, C.B.E. Commissioners of Works.—J. G. West, O.B.E., F.R.I.B.A. Department of Health for Scotland.—Mr. John Wilson F.R.S.E., F.R.I.B.A. Governor of Nothern Ireland.—Mr. Adrian Robinson. Chartered Surveyors' Institution.—Mr. J. Gordon Elsworthy, F.S.I. Institution of Structural Engineers.—Mr. R. H. H. Stanger, F.C.S., A.M.INST.C.E., M.I.STRUCT.E. Institution of Municipal and County Engineers.—Mr. Norman Scorgie, J.P., M.INST.C.E. Society of Engineers.—Mr. N. Hoskins, M.S.E., F.I.S.E. Institute of Builders.—P. J. Spencer, M.A. National Federation of Building Trades Employers.—Mr. G. H. Parker, F.I.O.B. National Federation of Building Trade Operatives.—Mr. R. Coppock.

YORKSHIRE ARCHITECTS AT DINNER

Mr. Percy E. Thomas, P.R.I.B.A., speaking at the annual dinner of the York and East Yorkshire Architectural Society, said the work of the architect was not to make pretty pictures, but essentially to plan, and he said we ought not to find large housing estates being developed out of public funds by the sanitary inspector. Town planning schemes should be prepared by an architect, a man trained in the art of planning, and not by a man whose mind ran in a mathematical groove. By good planning and a knowledge of up-to-date materials it was possible for the architect to save industry not only capital outlay, but repair and maintenance charges, a fact which was only rarely appreciated.

REGENT POLYTECHNIC

An exhibition of pencil and water-colour sketches was held recently by the Architectural Society of the Regent Polytechnic, W.1. A criticism of the work exhibited was given by Mr. J. D. M. Harvey, A.R.I.B.A.



TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

Light Transmission

A NEW D.S.I.R. report* gives the light transmission factors of forty-nine different types of glass, obscured and otherwise, under three different conditions of illumination—direct light, diffused light, and light incident at angles between 45 degrees and 90 degrees.

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The figures obtained should be remarkably useful, though it should be borne in mind that no attention has been paid to the way in which the transmitted light is distributed by prismatic glasses, which are designed to redirect light entering through the window so as to improve the illumination in badly lit parts of the room.

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An additional feature of the report are the photographs illustrating the concealing power of the various glasses. A checkerboard pattern of 3 in. black and white squares was set up 15 in. behind the glass and the whole photographed, the results giving a very reasonable idea of the varying power of the glasses to prevent objects being clearly seen through them.

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An appendix to the report gives the results of experiments carried out at a Government office in Whitehall to determine the loss of transmission due to the accumulation of dirt. The figures show that :—

1. Windows at ground floor level dirty twice as fast in winter as in summer.
2. The rate of dirtying is appreciably greater for ground floor windows than for windows on upper floors.
3. The loss of transmission during a period of six weeks was always less than 10 per cent. of the transmission of the glass when clean.
4. After six weeks the rate of transmission loss gradually decreases reaching a figure of 40 per cent. after about eighteen months.

* *The Transmission of Light Through Window Glasses.* Illumination Research Technical Paper No. 18. Published by His Majesty's Stationery Office. Price 9d.

Cavity Walls

A recent query to the Building Research Station asked for a further definition of a "properly constructed cavity wall," with particular reference to the detailing at the jambs of openings.

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B.R.S.'s reply is interesting and should, I think, be quoted in full.

"The construction of cavity walls, and more particularly the design at openings, involves many factors of a practical nature which vary widely from one case to another. It is, therefore, not easy to make definite recommendations on the points raised, and the most that can be done is to indicate the main principles which should be followed if it is desired to utilize to the full the peculiar advantages of this form of construction.

"The question refers to penetration of moisture, and from this point of view the primary purpose of the cavity is to break the capillary contact between outer and inner faces of the wall. Wherever the cavity is bridged there is danger of this advantage being lost. Thus the accumulation of mortar droppings on wall ties and the use of ties of unsuitable design are frequent causes of penetration through cavity walls.

"It is found, however, that while these facts, and the precautions which they necessitate, are generally appreciated the practice of building solid jambs to openings is fairly common.

"It is obvious that this is at the best a compromise, and some of the reasons put forward for its adoption are :—

"(*a*) The necessity for stability and support throughout the thickness of the wall when heavy lintols are to be carried.

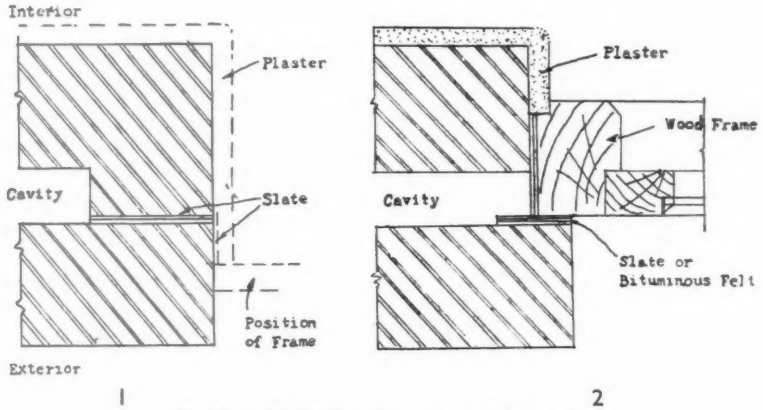
"(*b*) Protection of the backs of wooden frames from the effects of contact with moist air in the cavity.

"(*c*) Provision of a solid backing for jamb linings when window or door frames are fixed clear of the cavity.

"It is appreciated that in some cases special precautions may be necessary to satisfy these requirements, but it is to be recommended that when this is done equal care should be taken to avoid lowering the weather resistance of the wall at any point. The methods employed would of course depend upon the thickness of the wall and on the type and position of frame used. The following notes and sketches are, however, offered as simple illustrations of the principles which should be adopted wherever possible.

"It is doubtful whether (*a*) and (*b*) mentioned above are considerations of great importance. Adequate stability at jambs can usually be obtained by the use of a sufficient number of wall ties, but if solid jambs are required to provide even bearing for lintols they may be built as suggested in sketch (1), (on this page) incorporating a vertical damp-proof course of slate. Similarly it is unlikely that the risk of dryrot in wood frames would be markedly increased by exposure to damp air in the cavity, though if desired a protective covering of slate or bituminous felt may be placed over the end of the cavity in the manner suggested in sketch (2).

"When the presence of an open cavity would cause difficulty in the fixing of jamb linings detail (1) may be adopted. Alternatively a vertical damp-proof course of slate fixed over the end of the cavity would form a suitable backing for a plaster finish."



Cavity wall details. (*See note on this page.*)

Fixing Devices

Rawlbolts, introduced for the first time at the beginning of last year, provided a simple and effective means for the bolt fixing of machinery, shafting pulleys, and heavy fittings of all kinds.

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The expanding malleable iron shell has

now been slightly redesigned and given a claw end which prevents the nut falling out of the sleeve and also stops it turning. The headpiece to these notes shows the two types of fitting available, each in the closed and the expanded position.

A New Wallboard

The Celotex people have just produced a new $\frac{1}{16}$ in. Utility Wallboard, smooth on one side and with the normal textured finish on the other, the smooth surface being supplied either in natural burlap or ivory white finish, the latter acting as a primer which will readily take either oil or water-colour.

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The widths available are 3 ft., 3 ft. 6 ins., and 4 ft. Lengths, 8 ft. to 14 ft. Price is low.

Refrigerator Costs

About a week ago I was looking at a series of H.M.V. refrigerators and thinking that, although they were obviously very pleasant things to have, the price was rather high, a fault which I think nearly every refrigerator suffers from.

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I was tactless enough to say so, and was instantly leapt upon by Mr. Pougher, the contracts manager, who maintained firmly that I was talking nonsense.

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And in support of his arguments he quoted a scheme of 200 three-bedroom houses which Messrs. Grice and Poulton are doing near Leicester, and which are going to let at 10s. a week, including a 3 cubic foot H.M.V. refrigerator as part of the standard equipment.

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Looked at from this point of view a refrigerator sounds a pretty reasonable piece of equipment. Apologies, therefore, to H.M.V.'s and to all other refrigerator manufacturers for some of the base suspicions I have held about them in the past.

LAW REPORT

ARCHITECTS' CLAIM FOR FEES

Robert Atkinson & Co. v. *Sir Lindsay Parkinson & Co., Ltd.—King's Bench Division. Before Mr. Justice Goddard.*

THIS was an action by Messrs. Robert Atkinson & Co., architects, of 13, Manchester Square, London, against Sir Lindsay Parkinson & Co., Ltd., builders and contractors, of Shaftesbury Avenue, W.C., and Talbot Saw Mills, Blackpool, claiming the sum of £4,500 from the defendants. Alternatively plaintiffs claimed £2,363 for work done in connection with the building of a proposed luxury hotel at Blackpool.

Lord Reading, K.C., and Mr. Stenham appeared for the plaintiffs, and Mr. Beyfus, K.C., and Mr. Manningham Buller for the defendants.

Lord Reading, in opening the plaintiffs' case, said the idea of the defendants was to build an hotel with 300 bedrooms, with a bathroom to each, and the variation in the amount claimed by the plaintiffs depended upon the scale upon which the Court decided the charges should be made. According to the case for the plaintiffs the scheme was initiated by the defendants, but finally abandoned through no fault of the plaintiffs. Mr. Atkinson himself worked on the matter for about eight months, incurring the cost of extra assistants, and in addition had to turn away other work. There was no suggestion that the design and plans prepared by Mr. Atkinson were unsatisfactory or inadequate.

The defence was that the employment of the plaintiffs was limited to a special part, in respect of which it was alleged it was orally agreed between plaintiffs and defendants that they should be paid for that work the sum of 100 guineas only and that that sum had been tendered the plaintiffs and rejected and therefore nothing further was due to them. There was an alternative plea by the defendants that the charges made by the plaintiffs were not fair or reasonable.

Proceeding, counsel said the issue in the case was a simple one and was, What was the contract of employment? It was agreed that there was a contract of employment and the question for decision was, what was the contract of employment and were the plaintiffs precluded from claiming anything beyond the sum of 100 guineas for the work they did? If it was decided that they were not so precluded, then the question was to ascertain the sum plaintiffs were entitled to for the work they had done. The defendants alleged that the plaintiffs had agreed to do all the work necessary in the preparation of plans sufficient to be placed before the Licensing Justices of Blackpool on the chance of getting a licence for the proposed hotel and that the plaintiffs had entered into the venture as a speculation or as co-adventurers.

The plaintiffs in connection with the matter had prepared something like 300 plans, and so heavy was the work which went on from June, 1934, down to the middle of 1935, that Mr. Atkinson had to engage another qualified architect to assist him, and also to employ other assistants. In addition to that, in order to cope with the great amount of work which this matter entailed, the plaintiffs had to turn away a considerable amount of other work offered to them.

The arrangement was, continued counsel, that Mr. Atkinson, who did the principal part of the work, should be paid 100 guineas for the designs and plans necessary to be placed before the Licensing Justices, and in addition to their scale commission on the contract price of the building. After the design and plans for the licence were made the licence was obtained and plaintiffs were told to get on with the necessary drawings and plans, which they did.

Mr. Atkinson, said counsel, was a very eminent member of his profession, being a fellow of the Royal Institute of British Architects and a member of the council of the Institute.

Mr. Robert Atkinson gave evidence in support of his case, and said he was now in partnership with Mr. A. F. B. Anderson. The expenses and out of pockets incurred by his firm in the matter amounted to something like £1,000.

Cross-examined, Mr. Atkinson said he was told that the defendants' scheme was to float a public company to provide the means for erecting the hotel.

Mr. Beyfus, in reply to his lordship, said that the work which Mr. Atkinson was employed to do was to prepare plans sufficient to satisfy the Licensing Justices for the fee of £105. In the case two issues were raised. The first was what was the contract of employment and the second was what remuneration were the plaintiffs entitled to. The defendants' case was that in the circumstances the plaintiffs were entitled to nothing beyond the £105, but in the event of its being decided that they were entitled to some extra remuneration that would have to be assessed on the basis of the original contract which was entered into.

Evidence was called in support of the allegation that Mr. Atkinson did the work on a speculative basis.

Mr. Harold Stanley Frost, defendants' chief estimator and surveyor, estimated the cost of the excavations and the "carcass" of the proposed hotel at £94,500. The estimated cost of the proposed building was £231,049.

His lordship, after hearing counsel, gave judgment. He said he could not accept Mr. Atkinson's statement as to what the agreement was. In his opinion the arrangement, on the evidence, was that Messrs. Atkinson were to join in what was a speculative transaction. All the plaintiffs were entitled to was £105 and nothing beyond that. As that amount had been paid into court there would be judgment for the defendants, with costs.

THE BUILDINGS ILLUSTRATED

HOLDRONS, LTD., RYE LANE, PECKHAM (pages 519 to 522). The general contractors were G. P. Parker and Sons, Ltd. The principal subcontractors and suppliers included :—

St. Mary's Wharf Cartage Co., Ltd., demolition; Engert and Rolfe, Ltd., asphalt; Leeds Fireclay Co., Ltd., terra-cotta; Dawnays, Ltd., structural steel; Trussed Concrete Steel Co., Ltd., Truscon floors, part pre-cast, part in situ; Pugh Bros., Ltd., glass, cross-reeded glazing to showcase windows; Jas. Slater & Co., Ltd., central heating; Troughton and Young, Ltd., electric wiring and electric light fixtures; Restlight, Ltd., electric light fixtures; Pontifex and Emanuel, Ltd., sanitary fittings; St. Helens Cable and Rubber Co., Ltd., stairtreads; Taylor, Pearse & Co., Ltd., door furniture; Crittall Manufacturing Co., Ltd., casements and window furniture; Dreadnought Fireproof Doors, Ltd., rolling shutters and fireproof doors; Stanley Jones & Co., Ltd., sunblinds, shopfittings; Artistic Blind Co., sliding arms for sunblinds; Potter Rax Gate Co., Ltd., metalwork; J. and E. Hall, Ltd., escalator; Electrolumination, Ltd., neon signs; Lenscrete, Ltd., roof glazing.

HOUSE AT SEAL CHART, SEVENOAKS (pages 527-528). General contractors, Frederick Woodhams and Sons. Sub-contractors: Setchell and Sons, Ltd., grey-green slates; Langley London, Ltd., roofing felt; Thorn and Hoddle Ltd., central heating; W. N. Froy and Sons, Ltd., stoves; John Bolding and Sons, Ltd., sanitary fittings; N. F. Ramsay & Co., Ltd., door and window furniture; Educational Supply Association Ltd., Esavian sliding door gear.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILES RADIUS)

BATTERSEA. *Flats, etc.* Plans passed by the B.C.: Five-storey block of flats, Nightingale Lane, for Welling Estate, Ltd.; extensions, St. John's Road and Severus Road, for Messrs. F. W. Woolworth & Co., Ltd.

BERMONDSEY. *Tenements, etc.* Plans passed by the B.C. Four tenements, Bestwood Street, for Messrs. A. Franey and Son, Ltd., on behalf of Ram Estate Trustees; factory, Rotherhithe New Road, for Messrs. Wm. Harbrow, Ltd.

BRENTWOOD. *Halls.* A scheme is in course of preparation for the proposed erection of a parish hall in Eastfield Road, in association with St. Thomas's Church. A similar scheme is being prepared for St. George's Church. The estimated cost for each hall is £3,000.

DALSTON. *Secondary School.* The L.C.C. is to erect new premises for the Dalston secondary school at a cost of £55,910.

EGHAM. *Housing.* The U.D.C. has now definitely decided to erect 32 houses on a site at West End, Englefield Green, for persons affected under the clearance scheme.

HACKNEY. *Central School.* The L.C.C. is to provide a new central school for 400 in Hackney.

HACKNEY. *Flats.* The B.C. has approved plans by Messrs. Josephs for the erection of 304 flats on the Nisbet Street area, at a cost of £249,185; and 26 flats in Rossington Street, at a cost of £14,832.

HARMONDSWORTH. *Laboratory, etc.* The Yiewsley-Drayton U.D.C. has approved plans for a laboratory and film factory proposed to be erected at Bath Road for Messrs. Technicolor, Ltd.

HARROW. *Cinema.* Plans are in course of preparation by Mr. J. O. Bond for a cinema proposed to be erected in Station Road.

HARROW. *School.* Owing to the development of the L.C.C. housing estate at Kenmore Park, the Middlesex Education Committee has decided to erect a school for 1,000 children. Mr. W. T. Curtis, F.R.I.B.A., is the County Architect.

HOXTON. *Treatment Centre.* The L.C.C. is to erect a treatment centre in Windsor Place, Hoxton.

LEATHERHEAD. *Shops.* The Town Planning Committee has consented to plans for the erection of eight shops, with maisonettes over proposed to be erected in the High Street by Mr. J. A. Coleman of Ewell.

LEWISHAM. *Houses, etc.* Plans passed by the B.C. Three houses, Devonshire Road, for Messrs. Brett and Son; two houses, Elm Lane, for Mr. G. H. Walker; extensions, 138-140 Rushey Green, for Messrs. J. Lyons & Co., Ltd.; shops and flats, corner Bromley Road and Randlesdown Road, for Mr. E. Cavanagh; houses, Hazelbank Park Estate, Catford, for Messrs. Wates (Streatham), Ltd.; flats, 107 Lewisham Road, for Messrs. Dyer, Son and Creasey.

LIMEHOUSE. *Reconstruction.* The L.C.C. has approved plans for the reconstruction of Thomas Street central and infants' schools, Limehouse, at a cost of £20,000.

NORTHOLT. *Cinema, etc.* Mr. W. J. King, 5 Great James Street, W.C.1, is the architect for the proposed erection of a cinema, lock-up garages and shops at the junction of Western Avenue and Hanger Lane, by Messrs. Haymills, Ltd. Lay-out plans have been submitted.

PUTNEY. *Flats.* Plans submitted by Messrs. G. Newton and Hill for the proposed erection of five blocks of flats at Felsham Road have been approved.

STEPNEY. *Flats.* The B.C. is to erect blocks of flats on the Limehouse Fields area, at a cost of £25,585.

STOCKLEY. *Factory.* The Yiewsley-Drayton U.D.C. has approved plans for the erection of a factory at Stockley for the Hume Pipe and Concrete Construction Co.

STREATHAM. *Flats.* Messrs. Lincoln, Darby & Co., Ltd., are to erect two blocks of flats at Mitcham Lane.

SUNBURY. *Weir.* The Thames Conservancy Board has given authority for tenders to be obtained for the construction of a new weir in place of the present one. The new weir will have foundations of concrete encased in sheet piling, and is estimated to cost £8,000.

TOOTING. *Extensions.* The Anglo-American Laundry at Burmester Road is to be extended to plans submitted by Mr. M. K. Humphries.

TWICKENHAM. *Houses.* Thirty-four houses are to be erected in Grasmere Avenue by Messrs. W. Taylor and Sons, plans for which have been approved.

TWICKENHAM. *Flats.* The T.C. has approved plans by Mr. G. L. Russell for the proposed erection of 44 flats at Heathfield North and Egerton Road.

TWICKENHAM. *Factory.* Messrs. John Griffiths and Sons (Twickenham), Ltd., are to have a factory erected in Sandycombe Road. The premises are to be 160 ft. long by 25 ft. wide.

TWICKENHAM. *Houses.* The T.C. has approved a scheme for the erection of 316 houses on a 26-acre site on the south-west side of Meadway between Crane Park and Chertsey Road by Messrs. Wates (Malden), Ltd., subject to the consent of the Middlesex C.C.

TWICKENHAM. *Bungalows.* Mr. E. A. Beaumont has submitted to the T.C. a scheme for the proposed development of the Dene Estate by the erection of 201 bungalows, with the necessary roads and sewers.

WANDSWORTH. *Additions.* Plans have been prepared by Mr. F. J. Leather for the erection of additions to the Constitutional Club at St. Ann's Hill.

WIMBLEDON. *Flats.* The Wimbledon Public Utility Society has secured a site of 2¼ acres on the borders of Wimbledon, Merton and Mitcham, and has under consideration several schemes for flats, which have been prepared by the society's architect, Mr. A. Victor Farrier, A.R.I.B.A., 7 Thornton Hill, Wimbledon, S.W.19.

WOOD GREEN. *Development.* Mr. C. E. Owen Eard is to develop land for industrial purposes in White Hart Lane, Wood Green.

WOOD GREEN. *Church Hall.* Mr. F. F. Ford is to erect a church hall for St. Gabriels, Durnsford Road, Wood Green.

EASTERN COUNTIES

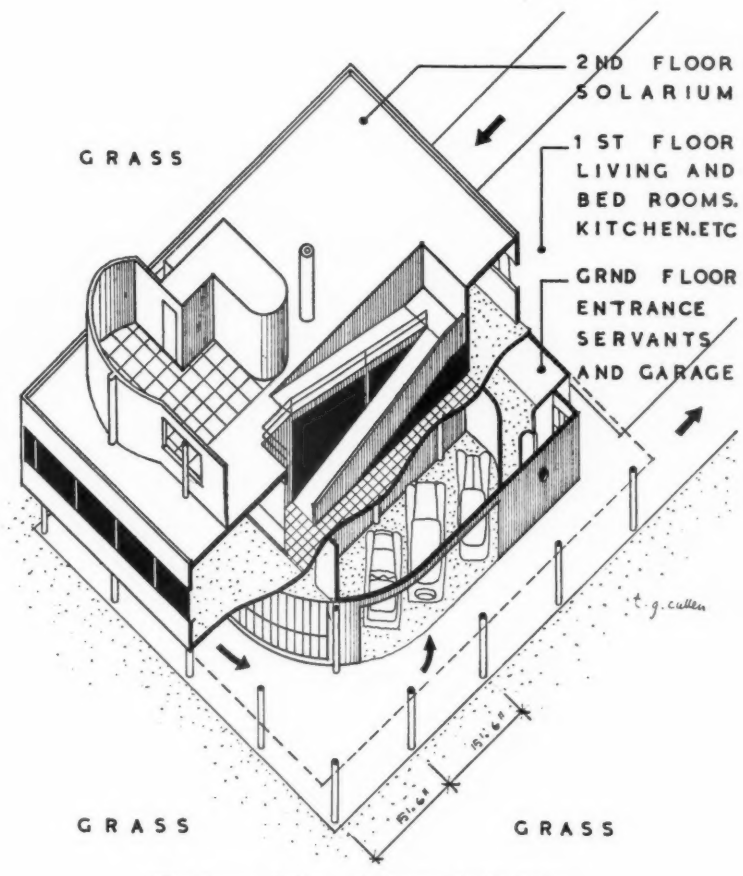
CHELMSFORD. *School.* A new school for the Governors of the St. Monica's School is to be erected to plans by Mr. A. E. Wiseman, Chelmsford.

SOUTHEND. *Foreshore Improvement* The T.C. is to seek sanction from the Ministry of Health to borrow £220,388 for extensive improvements to be made to the foreshore between Chalkwell Esplanade and Beel Wharf Length.

SOUTHERN COUNTIES

BEXHILL. *Development, etc.* Plans passed by the Corporation: Development, Glynne Estate, for Mile Oaks Estates, Ltd.; flats, De la Warr Parade, for Mr. R. A. Kearney; shops and offices, Cooden Sea Road, for Messrs. Masters and Sons; six houses, Newlands Avenue, etc., for Mr. J. E. Maynard; 17 houses, St. James Crescent, for Messrs. Dollery

(*Continued on page xxxiv*)



Villa Savoye, Poissy. Designer: Le Corbusier.

RATES OF WAGES

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

			I s. d.	II s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5½	1 1½
A	Aberdeen ..	Scotland	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6	1 1½
A_2	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington ..	N.W. Counties	1 6½	1 2
A_2	Addlestone ..	S. Counties	1 5	1 0½
A	Adlington ..	N.W. Counties	1 6½	1 2
A	Airdrie ..	Scotland	•1 6½	1 2
C	Aldeburgh ..	E. Counties	1 2½	11
A	Altrincham ..	N.W. Counties	1 6½	1 2
B_2	Appleby ..	N.W. Counties	1 3	11½
A	Ashton-under-Lyne	N.W. Counties	1 6½	1 2
B_1	Aylesbury ..	S. Counties	1 4	1 0
B_1	BANBURY ..	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4	1 0
A_2	Barnard Castle	N.E. Coast	1 5	1 0½
A	Barnsley ..	Yorkshire	1 6½	1 2
B	Barnstaple ..	S.W. Counties	1 4½	1 0½
A	Barrow ..	N.W. Counties	1 6½	1 2
A	Barry ..	S. Wales & M.	1 6½	1 2
B_1	Basingstoke ..	S.W. Counties	1 4	1 0
A_2	Bath	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 6½	1 2
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on Tweed	N.E. Coast	1 5½	1 1½
A_2	Bewdley ..	Mid. Counties	1 5½	1 1½
B_2	Bicester ..	S. Counties	1 3	11½
	Birkenhead ..	N.W. Counties	•1 7½	1 2½
A	Birmingham ..	Mid. Counties	1 6½	1 2
A_1	Bishop Auckland	N.E. Coast	1 6	1 1½
A	Blackburn ..	N.W. Counties	1 6½	1 2
A	Blackpool ..	N.W. Counties	1 6½	1 2
A	Blyth	N.E. Coast	1 6½	1 2
B_1	Bognor ..	S. Counties	1 4	1 0
A	Bolton ..	N.W. Counties	1 6½	1 2
A_2	Boston ..	Mid. Counties	1 5	1 0½
A_2	Bournemouth ..	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 3½	11½
A	Bradford ..	Yorkshire	1 6½	1 2
A_1	Brentwood ..	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 6½	1 2
B	Bridgwater ..	S.W. Counties	1 4½	1 0½
A_1	Bridlington ..	Yorkshire	1 6	1 1½
A	Brighouse ..	Yorkshire	1 6½	1 2
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 6½	1 2
B	Brixham ..	S.W. Counties	1 3½	11½
A	Bromsgrove ..	Mid. Counties	1 5½	1 1½
B	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 6½	1 2
A	Bursiem ..	Mid. Counties	1 6½	1 2
A	Burton-on-Trent ..	Mid. Counties	1 6½	1 2
A	Bury	N.W. Counties	1 6½	1 2
A	Buxton ..	N.W. Counties	1 6	1 1½
A_1	CAMBRIDGE	E. Counties	1 6	1 1½
B_1	Canterbury ..	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 6½	1 2
A	Carlisle ..	N.W. Counties	1 6½	1 2
B	Carmarthen ..	S. Wales & M.	1 4½	1 0½
B	Carnarvon ..	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 6½	1 2
A	Castleford ..	Yorkshire	1 6½	1 2
A_2	Chatham ..	S. Counties	1 5	1 0½
A	Chelmsford ..	E. Counties	1 5	1 0½
A	Cheltenham ..	S.W. Counties	1 5	1 0½
A	Chester ..	N.W. Counties	1 6½	1 2
A	Chesterfield ..	Mid. Counties	1 6½	1 2
B_1	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 6½	1 2
B_1	Cirencester ..	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 6½	1 2
A	Clydebank ..	Scotland	1 6½	1 2
A	Coalville ..	Mid. Counties	1 6½	1 2
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne	N.W. Counties	1 6	1 1½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1½
A_1	Consett ..	N.E. Coast	1 6	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1½
A	Coventry ..	Mid. Counties	1 6½	1 2
A_2	Crewe ..	N.W. Counties	1 5½	1 1½
A	Cumberland	N.W. Counties	1 5	1 0½
A	DARLINGTON	N.E. Coast	1 6½	1 2
A	Darwen ..	N.W. Counties	1 6½	1 2
B_1	Deal ..	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5	1 0½
A	Derby ..	Mid. Counties	1 6½	1 2
A	Dewsbury ..	Yorkshire	1 6½	1 2
B	Didcot ..	S. Counties	1 4½	1 0½
A	Doncaster ..	Yorkshire	1 6½	1 2
B_1	Dorchester ..	S.W. Counties	1 4	1 0
A	Driffield ..	Yorkshire	1 5	1 0½
A_2	Droitwich ..	Mid. Counties	1 5½	1 1½
A	Dudley ..	Mid. Counties	1 6½	1 2
A_2	Dumfries ..	Scotland	1 6	1 1½
A	Dundee ..	Scotland	1 6½	1 2
A	Durham ..	N.E. Coast	1 6½	1 2
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale ..	S. Wales & M.	1 6	1 1½
A	Edinburgh ..	Scotland	1 6½	1 2
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6	1 1½
A_2	Exeter	S.W. Counties	•1 5½	1 1½
B	Exmouth ..	S.W. Counties	1 4½	1 0½
A_2	FELIXSTOWE	E. Counties	1 5	1 0½
A	Filey	Yorkshire	1 5	1 0½
A	Fleetwood ..	N.W. Counties	1 6½	1 2
B_1	Folkestone ..	S. Counties	1 4	1 0
A	Frodsham ..	N.W. Counties	1 6½	1 2
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 6½	1 2
B	Gillingham ..	S. Counties	1 4½	1 0½
A	Glasgow ..	Scotland	1 7	1 2½
A_2	Gloucester ..	S.W. Counties	1 5½	1 1½
A_2	Goole	Yorkshire	1 5½	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1½
A_2	Grantham ..	Mid. Counties	1 5	1 0½
A_1	Gravesend ..	S. Counties	1 6	1 1½
A	Greenock ..	Scotland	•1 6½	1 2
A	Grimsby ..	Yorkshire	1 6½	1 2
B	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX ..	Yorkshire	1 6½	1 2
A	Hanley ..	Mid. Counties	1 6½	1 2
A	Harrogate ..	Yorkshire	1 6½	1 2
A	Hartlepools ..	N.E. Coast	1 6½	1 2
B	Harwich ..	E. Counties	1 4½	1 0½
B_1	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1½
B	Hereford ..	S.W. Counties	1 4½	1 0½
A_2	Hertford ..	E. Counties	1 5½	1 1½
A	Heysham ..	N.W. Counties	1 6½	1 2
A	Howden ..	N.E. Coast	1 6½	1 2
A	Huddersfield ..	Yorkshire	1 6½	1 2
A	Hull	Yorkshire	1 6½	1 2
A	ILKLEY ..	Yorkshire	1 6½	1 2
A	Immingham ..	Mid. Counties	1 6½	1 2
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight ..	S. Counties	1 4½	1 0½
A	JARROW ..	N.E. Coast	1 6½	1 2
A	KEIGHLEY ..	Yorkshire	1 6½	1 2
A_2	Kendal ..	N.W. Counties	1 5	1 0½
A_2	Keswick ..	N.W. Counties	1 5	1 0½
A_1	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 5½	1 1½
B_1	King's Lynn ..	E. Counties	1 4	1 0
A	LANCASTER ..	N.W. Counties	1 6½	1 2
A_1	Leamington ..	Mid. Counties	1 6	1 1½
A	Leeds	Yorkshire	1 6½	1 2
A	Leek	Mid. Counties	1 6½	1 2
A	Leicester ..	Mid. Counties	1 6½	1 2
A	Leigh	N.W. Counties	1 6½	1 2
B	Lewes	S. Counties	1 3	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1½
A	Lincoln ..	Mid. Counties	1 6½	1 2
	Liverpool ..	N.W. Counties	•1 8	1 3
A_2	Llandudno ..	N.W. Counties	1 5½	1 1½
A	Llanelly ..	S. Wales & M.	1 6½	1 2
	London (12-miles radius)		1 8	1 3
	Do. (12-15 miles radius)		1 7½	1 2½
A	Long Eaton ..	Mid. Counties	1 6½	1 2
A	Loughborough	Mid. Counties	1 6½	1 2
A_1	Luton	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 6½	1 2
A_1	MACCLESFIELD	N.W. Counties	1 6	1 1½
A_2	Maidstone ..	S. Counties	1 5	1 0½
A_2	Malvern ..	Mid. Counties	1 5	1 0½
A	Manchester ..	N.W. Counties	1 6½	1 2
A	Mansfield ..	Mid. Counties	1 6½	1 2
B_1	Margate ..	S. Counties	1 4	1 0
A	Matlock ..	Mid. Counties	1 5	1 0½
A_1	Merthyr ..	S. Wales & M.	1 6	1 1½
A	Middlesbrough	N. E. Coast	1 6½	1 2
A_2	Middlewich ..	N.W. Counties	1 5½	1 1½
B_2	Minehead ..	S.W. Counties	1 3½	11½
B_2	Monmouth .. & S. and E. Glamorganshire	S. Wales & M.	1 3½	11½
A	Morecambe ..	N.W. Counties	1 6½	1 2
A_2	NANTWICH ..	N.W. Counties	1 5½	1 1½
A	Neath	S. Wales & M.	1 6½	1 2
A	Nelson ..	N.W. Counties	1 6½	1 2
A	Newcastle ..	N.E. Coast	1 6½	1 2
A	Newport ..	S. Wales & M.	1 6½	1 2
A	Normanton ..	Yorkshire	1 6½	1 2
A	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs ..	Mid. Counties	1 6½	1 2
A	North Shields	N.E. Coast	1 6½	1 2
A_1	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham ..	Mid. Counties	1 6½	1 2
A	Nuneaton ..	Mid. Counties	1 6½	1 2
A	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 6½	1 2
A_2	Oswestry ..	N.W. Counties	1 5	1 0½
A_1	Oxford ..	S. Counties	1 6	1 1½
A	PAISLEY ..	Scotland	•1 6½	1 2
B_2	Pembroke ..	S. Wales & M.	1 3	11½
A	Perth	Scotland	•1 6½	1 2
A_1	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	•1 6½	1 2
A	Pontefract ..	Yorkshire	1 6½	1 2
A_1	Pontypridd ..	S. Wales & M.	1 6	1 1½
A_2	Portsmouth ..	S. Counties	1 5½	1 1½
A	Preston ..	N.W. Counties	1 6½	1 2
A	QUEENSFERRY	N.W. Counties	1 6½	1 2
A_2	READING ..	S. Counties	1 5½	1 1½
B	Reigate ..	S. Counties	1 4½	1 0½
A	Retford ..	Mid. Counties	1 5	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 6	1 1½
A	Ripon	York-hire	1 5	1 0½
A	Rochdale ..	N.W. Counties	1 6½	1 2
B	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2
A_2	Rugeley ..	Mid. Counties	1 5½	1 1½
A	Runcorn ..	N.W. Counties	1 6½	1 2
A_1	ST. ALBANS ..	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 6½	1 2
B_2	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough ..	Yorkshire	1 6	1 1½
A	Scunthorpe ..	Mid. Counties	1 6½	1 2
A	Sheffield ..	Yorkshire	1 6½	1 2
A	Shipley ..	Yorkshire	1 6½	1 2
A_2	Shrewsbury ..	Mid. Counties	1 5½	1 1½
A_2	Skipton ..	Yorkshire	1 5½	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1½
A_1	Solihull ..	Mid. Counties	1 6	1 1½
A_2	Southampton ..	S. Counties	1 5½	1 1½
A_1	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 6½	1 2
A	S. Shields ..	N.E. Coast	1 6½	1 2
A_1	Stafford ..	Mid. Counties	1 6	1 1½
A	Stirling ..	Scotland	1 7	1 2½
A	Stockport ..	N.W. Counties	1 6½	1 2
A	Stockton-on-Tees	N.E. Coast	1 6½	1 2
A	Stoke-on-Trent	Mid. Counties	1 6½	1 2
B	Stroud	S.W. Counties	1 4½	1 0½
A	Sunderland ..	N.E. Coast	1 6½	1 2
A	Swansea ..	S. Wales & M.	1 6½	1 2
A	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH ..	N.W. Counties	1 6	1 1½
B	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist...	N.E. Counties	1 6½	1 2
A_2	Teignmouth ..	S.W. Coast	1 5½	1 1½
A	Todmorden ..	Yorkshire	1 6½	1 2
A_1	Torquay	S.W. Counties	1 6	1 1½
B_2	Truro	S.W. Counties	1 3½	11½
A_2	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 6½	1 2
A	Tyne District	N.E. Coast	1 6½	1 2
A	WAKEFIELD	Yorkshire	1 6½	1 2
A	Walsall ..	Mid. Counties	1 6½	1 2
A	Warrington ..	N.W. Counties	1 6½	1 2
A_1	Warwick ..	Mid. Counties	1 6	1 1½
A_1	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 6½	1 2
A_2	Weston-s.-Mare	W. Counties	1 5½	1 1½
A_2	Whitby ..	Yorkshire	1 5½	1 1½
A	Widnes ..	N.W. Counties	1 6½	1 2
A	Wigan ..	N.W. Counties	1 6½	1 2
B	Winchester ..	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 0½
A	Wolverhampton	Mid. Counties	1 6½	1 2
A_2	Worcester ..	Mid. Counties	1 5½	1 1½
A_2	Worksop ..	Yorkshire	1 5	1 0½
A_1	Wrexham ..	N.W. Counties	1 6	1 1½
A	Wycombe ..	S. Counties	1 5	1 0½
B	YARMOUTH ..	E. Counties	1 4½	1 0½
B	Yeovil	S.W. Counties	1 4½	1 0½
A	York	Yorkshire	1 6½	1 2

• In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given

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

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality and include delivery to site in Central London area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. 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. The whole of the information given is copyright.

WAGES

		s.	d.
Bricklayer	per hour	1	8
Carpenter	"	1	8
Joiner	"	1	8
Machinist	"	1	8
Mason (Banker)	"	1	8
" (Fixer)	"	1	9
Plumber	"	1	8
Painter	"	1	7
Paperhanger	"	1	7
Glazier	"	1	7
Slater	"	1	8
Scaffolder	"	1	4
Timberman	"	1	4
Navvy	"	1	3
General Labourer	"	1	3
Lorryman	"	1	5½
Crane Driver	"	1	7
Watchman	per week	2	10

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	"	1	16	6
Hydrated Lime	"	3	0	9
Portland Cement, in 4 ton lots (d/d site, including Paper Bags)	"	1	19	0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags)	"	2	5	0
White Portland Cement, in 1 ton lots	"	8	15	0
Thames Ballast	per Y.C.		6	6
¾" Crushed Ballast	"		7	0
Building Sand	"		7	6
Washed Sand	"		8	6
2" Broken Brick	"		8	0
¾" " "	"		10	3
Pan Breeze	"		6	6
Coke Breeze	"		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	d.	6" s.	d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	"	3	6	5	3
Rest Bends	"	4	3	6	3
Single Junctions	"	3	6	5	3
Double "	"	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¼" Channel bends	each	2	9	4	0
Channel junctions	"	4	6	6	6
Channel tapers	"	2	9	4	0
Yard gullies	"	6	9	8	9
Interceptors	"	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	"	9	0	15	0
Single junctions	"	8	9	18	0
Double junctions	"	13	6	30	0
Lead Wool	lb.		6		—
Gaskin	"		5		—

BRICKLAYER

		£	s.	d.
Fletton	per M.	2	15	0
Grooved do.	"	2	17	0
Phorpres bricks	"	2	15	0
" Cellular bricks	"	2	15	0
Stocks, 1st quality	"	4	11	0
" 2nd "	"	4	2	6
Blue Bricks, Pressed	"	8	17	6
" Wirecuts	"	7	17	6
" Brindles	"	7	0	0
" Bullnose	"	9	0	0
Red Sand-faced Facings	"	6	18	6
Red Rubbers for Arches	"	12	0	0
Multicoloured Facings	"	7	10	0
Luton Facings	"	7	10	0
Phorpres White Facings	"	3	17	3
" Rustic Facings	"	3	12	3
Midhurst White Facings	"	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	"	21	0	0
Headers	"	20	10	0
Bullnose	"	27	10	0
Double Stretchers	"	29	10	0
Double Headers	"	26	10	0
Glazed Second Quality, *Less*	"	1	0	0
" Buffs and Creams, *Add*	"	2	0	0
" Other Colours	"	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	7
2½" " " "	"		1	10
3" " " "	"		2	1
4" " "	"		2	6

MASON

The following d/d F.O.R. at Nine Elms:		s.	d.
Portland stone, Whitbed	F.C.	4	4½
" " Basebed	"	4	7½
Bath stone	"	2	10
York stone	"	6	6
" " Sawn templates	"	7	6
" " Paving, 2"	F.S.	1	8
" " " 3"	"	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24"×12" Duchesses	per M.	28	17	6
22"×12" Marchionesses	"	24	10	0
20"×10" Countesses	"	19	5	0
18"×10" Viscountesses	"	15	10	0
18"× 9" Ladies	"	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20"×10" medium grey	per 1,000 (actual)	21	11	6
" " green	"	24	7	4
Best machine roofing tiles	"	4	5	0
Best hand-made do.	"	4	17	6
Hips and valleys	each			9
" hand-made	"			9½
Nails, compo	lb.		1	4
" copper	"		1	6

CARPENTER AND JOINER

		s.	d.
Good carcassing timber	F.C.	2	2
Birch	as 1" F.S.		9
Deal, Joiner's	" "		5
" 2nds	" "		4
Mahogany, Honduras	" "	1	3
" Atrican	" "	1	1
" Cuban	" "	2	6
Oak, plain American	" "	1	0
" Figured "	" "	1	3
" plain Japanese	" "	1	2
" Figured "	" "	1	5
" Austrian wainscot	" "	1	6
" English	" "	1	11
Pine, Yellow	" "	1	0
" Oregon	" "		4
" British Columbian	" "		4
Teak, Moulmein	" "	1	3
" Burma	" "	1	2
Walnut, American	" "	2	3
" French	" "	2	3
Whitewood, American	" "	1	1
Deal floorings, ¾"	Sq.	18	6
" 1"	"	1	1	6
" 1¼"	"	1	2	0
" 1½"	"	1	5	0
" 2"	"	1	10	0
Deal matchings, ¾"	"		14	0
" 1"	"		15	6
" 1½"	"	1	4	0
Rough boarding, ¾"	"		16	0
" 1"	"		18	0
" 1½"	"	1	6	0

Plywood, per ft. sup.

Thickness	¼" A	B	BB	⅜" A	B	BB	½" A	B	BB	¾" A	B	BB
Qualities	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch 60×48	4	2½	2	5	3	2½	7	5	4	8	6	5
Cheap Alder	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine	–	2½	–	3	2½	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3½	–	5	4½	–	7	6½	–	8	7	–
Figured Oak	6½	5	–	7½	5½	–	10	8	0	1/-	9	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

	½"	¾"	1"	1¼"	2"
Tubes, 2'-14' long, per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"-23" long each	10	1/1	1/11	2/8	4/9
" 3"-11½" long "	7	9	1/3	1/8	3/–
Long screws, 12"-23½" long "	11	1/3	2/2	2/10	5/3
" " 3" M-½" long "	8	10	1/5	1/11	3/6
Bends "	8	11	1/7½	2/7½	5/2
Springs not socketed "	5	7	1/1½	1/11½	3/11
Socket unions "	2/–	3/–	5/6	6/9	10/–
Elbows, square "	10	1/1	1/6	2/2	4/3
Tees "	1/–	1/3	1/10	2/6	5/1
Crosses "	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples "	3	4	6	8	1/3
Diminished sockets "	4	6	9	1/–	2/–
Flanges "	9	1/–	1/4	1/9	2/9
Caps "	3½	5	8	1/–	2/–
Backnuts "	2	3	5	6	1/1
Iron main cocks "	1/6	2/3	4/2	5/4	11/6
" with brass plugs "	—	4/–	7/6	10/–	21/–

Discounts:

TUBES.	Per cent.		Per cent.
Gas	65	Galvanized gas	52½
Water	61½	" water	47½
Steam	57½	" steam	42½

FITTINGS.	Per cent.		Per cent.
Gas	57½	Galvanized gas	47½
Water	52½	" water	42½
Steam	47½	" steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	12	9
Mild steel reinforcing rods, ½"	"	10	6
" " ⅝"	"	10	3
" " ¾"	"	10	0
" " ⅞"	"	9	6
" " 1"	"	9	6
" " 1¼"	"	9	6
" " 1½"	"	9	6
" " 1¾"	"	9	6
" " 2"	"	9	6

		½" s.	d.	4" s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.	8		10	
Shoes	each	2	0	3	0
Anti-splash shoes	"	4	6	8	0
Boots	"	3	0	4	0
Bends	"	2	7	3	9
" with access door	"		—	6	8
Heads	"	4	0	5	0
Swan-necks up to 9" offsets	"	3	9	6	0
Plinth bends, 4½" to 6"	"	3	9	5	5
Half-round rain-water gutters of ordinary thickness metal	F.R.	5		6	
Stop ends	each	6		6	
Angles	"	1	7	1	11
Obtuse angles	"	2	0	2	6
Outlets	"	1	9	2	3

PLUMBER

		s.	d.
Lead, milled sheets	cwt.	24	6
" drawn pipes	"	24	6
" soil pipe	"	30	0
" scrap	"	16	0
Solder, plumbers'	lb.		9½
" fine do.	"	1	0
Copper, sheet	"		8½
" tubes	"		11

	3"	4"	6"
L.C.C. soil and waste pipes:	F.R.	F.R.	F.R.
Plain cast	1 0	1 2	2 6
Coated	" 1 1	1 3	2 8
Galvanized	" 2 0	2 6	4 6
Holderbats	each 3 10	4 0	4 9
Bends	" 3 9	5 3	10 3
Shoes	" 2 10	4 4	9 6
Heads	" 4 8	8 5	12 9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	5	0
Plaster, coarse	"	2	10	0
" fine	"	4	15	0
Hydrated lime	"	3	0	9
Sirapite	"	3	6	0
Keene's cement	"	5	0	0
Gothite Plaster	"	3	6	0
Pioneer Plaster	"	3	6	0
Thistle plaster	"	3	6	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
" rent	"		3	9
Lath nails	lb.			3

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft.	F.S.					2½
" " 26 oz.	"	"				3
Flemish, Arctic, Figures (white)*	"					7
Blazoned glasses	"				2	6
Reeded: Cross Reeded	"					11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite	"					6
Crown sheet glass (n/e 12 in. x. 10 in.)	"					2
Flashed opals (white and coloured‡	"	1	0	and	2	0
¼" rough cast: rolled plate	"					5½
¼" wired cast; wired rolled	"					9½
¼" Georgian wired cast	"					11
¼" Polished plate, n/e 1 ft.	"	†10	to	‡1	1	
" " 2	"	‡1	2	"	‡1	4
" " 4	"	‡2	3	"	‡2	6
" " 8	"	‡2	9	"	‡3	2
" " 20	"	‡3	1	"	‡3	9
" " 45	"	‡3	3	"	‡4	0
" " 100	"	‡4	0	"	‡4	10
Vita glass, sheet, n/e 1 ft.	"					1	0
" " " 2 ft.	"					1	3
" " " over 2 ft.	"					1	9
" " plate, n/e 1 ft.	"					1	6
" " " 2 ft.	"					3	0
" " " 5 ft.	"					4	0
" " " 7 ft.	"					5	0
" " " 15 ft.	"					6	0
" " " over 15 ft.	"					7	6
"Calorex" sheet 21 oz., and 32 oz.	"	2	6	and	3	6
" rough cast ¼" and ¾"	"		8½	"	1	0
Putty, linseed oil	lb.					3

* *Colours, 1d. F.S. extra.*

† *Ordinary glazing quality.* ‡ *Selected glazing quality.*

PAINTER

		£	s.	d.
White lead in 1 cwt. casks	cwt.	2	8	6
Linseed oil	gall.		2	3
Boiled oil	"		2	9
Turpentine	"		4	1½
Patent knotting	"		14	0
Distemper, washable	cwt.	2	6	0
" ordinary	"	2	0	0
Whitening	"		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	"		14	0
Outside varnish	"		16	0
White enamel	"	1	15	0
Ready mixed paint	"		13	6
Brunswick black	"		7	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£ s. d.
Digging over surface n/e 12" deep and cart away	Y.S.	2 9
" to reduce levels n/e 5' 0" deep and cart away	Y.C.	8 6
" to form basement n/e 5' 0" and cart away	"	9 0
" " 10' 0" deep and cart away	"	9 6
" " 15' 0" deep and cart away	"	10 0
If in stiff clay	add "	6
If in underpinning	" "	4 0
Planking and strutting to sides of excavation	F.S.	1 0
" " to pier holes	"	5
" " to trenches	"	5
" " extra, only if left in	"	3
Hardcore, filled in and rammed	Y.C.	10 0
Portland cement concrete in foundations (6-1)	"	1 6 0
" " (4-2-1)	"	1 12 6
" " underpinning	"	1 16 0
Finishing surface of concrete, space face	Y.S	7

DRAINLAYER

		4" s. d.	6" s. d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1 6	2 3
Extra, only for bends	Each	2 8	3 9
" junctions	"	3 9	4 6
Gullies and gratings	"	16 6	18 0
Cast iron drains, and laying and jointing	F.R.	4 9	6 9
Extra, only for bends	Each	10 6	15 6

BRICKLAYER

		£ s. d.
Brickwork, Flettons in lime mortar	Per Rod	26 10 0
" " in cement	"	27 12 6
" Stocks in cement	"	34 0 0
" Blues in cement	"	50 0 0
Extra only for circular on plan	"	2 0 0
" backing to masonry	"	1 10 0
" raising on old walls	"	2 0 0
" underpinning	"	5 10 0½
Fair Face and pointing internally	F.S.	1½
Extra over fletton brickwork for picked stock facings and pointing	"	8
" " " red brick facings and pointing	"	11
" " " blue brick facings and pointing	"	1 4
" " " glazed brick facings and pointing	"	3 6
Tuck pointing	"	7½
Weather pointing in cement	"	3
Slate dampcourse	"	10
Vertical dampcourse	"	1 1

ASPHALTER

		s. d.
½" Horizontal dampcourse	Y.S.	4 9
½" Vertical dampcourse	"	7 9
½" paving or flat	"	6 3
1" paving or flat	"	7 6
1" × 6" skirting	F.R.	1 0
Angle fillet	"	2½
Rounded angle	"	2½
Cesspools	Each	5 6

MASON

		£ s. d.
Portland stone, including all labours hoisting, fixing and cleaning down, complete	F.C.	17 9
Bath stone and do., all as last	"	13 6
Artificial stone and do	"	13 0
York stone templates, fixed complete	"	10 6
" thresholds	"	13 6
" sills	"	1 0 6

SLATER AND TILER

		£ s. d.
Slating, Bangor or equal to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3 10 0
Do., 18" × 9"	"	3 7 0
Do., 24" × 12"	"	3 17 0
Westmorland slating, laid with diminished courses	"	6 0 0
Tiling, best hand made sand-faced, laid to a 4" gauge, nailed every fourth course	"	3 0 0
Do., all as last, but of machine-made tiles	"	2 16 0
20" × 10" medium Old Delabole slating, laid to a 3" lap (grey)	"	2 16 0
" " " " " " (green)	"	4 15 0

CARPENTER AND JOINER

		£ s. d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2 2 6
Shuttering to sides and soffits of beams	F.S.	7
" to stanchions	"	7
" to staircases	"	1 6
Fir and fixing in wall plates, lintols, etc.	F.C.	3 9
Fir framed in floors	"	4 6
" " roofs	"	6 6
" " trusses	"	7 6
" " partitions	"	8 6
⅞" deal sawn boarding and fixing to joists	Sqr.	1 14 6
1" " " " "	"	1 17 6
1¼ " " " "	"	2 3 0
2" × 2" fir battening for Countess slating	"	9 6
Do., for 4" gauge tiling	"	12 0
Stout leather-edged tilting fillet	F.R.	4½
Patent inodorous felt, 1 ply	Y.S.	2 3
" " " 2 "	"	2 9
" " " 3 "	"	3 3
Stout herringbone strutting to 9" joists	F.R.	10½
1" deal gutter boards and bearers	F.S.	1 2
1¼" " " "	"	1 6
2" deal wrought rounded roll	F.R.	8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2 1 0
1¼" do.	"	2 10 0
1½" do.	"	2 17 0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.	1 6
1¼" do.	"	1 9

CARPENTER AND JOINER—*continued*

		s. d.
1¼" deal moulded sashes of average size	F.S.	1 9½
2" " " " "	"	1 11½
1¼" deal cased frames double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅝" parting beads, and with brass faced axle pulleys, etc., fixed complete		3 7
2" " " " "	"	3 10
Extra only for moulded horns	Each	6
1¼" deal four-panel square, both sides, door	F.S.	2 0
2" " " "	"	2 8
1¼" " but moulded both sides	"	2 4
2" " " "	"	3 0
4" × 3" deal, rebated and moulded frames	F.R.	1 0
4½" × 3½" " " "	"	1 4
1¼" deal tongued and moulded window board, on and including deal bearers	F.S.	1 9
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	"	2 6
1¼" deal moulded wall strings	"	2 1
1¼" " outer strings	"	2 4
Ends of treads and risers housed to string	Each	1 9
3" × 2" deal moulded handrail	F.R.	1 3
1" × 1" deal balusters and housing each end	Each	2 0
1½" × 1½" " "	"	2 9
3" × 3" deal wrought framed newels	F.R.	1 3
Extra only for newel caps	Each	6 0
Do., pendants	"	6 0

SMITH AND FOUNDER

		£ s. d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.	16 6
Riveted plate or compound girders, and hoisting and fixing in position	"	1 0 8
Do., stanchions with riveted caps and bases and do.	"	19 0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	"	17 6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.	11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1 10 0

PLUMBER

		£ s. d.
Milled lead and labour in flats	cwt.	1 18 6
Do. in flashings	"	2 2 0
Do. in covering to turrets	"	2 7 6
Do. in soakers	"	1 13 3
Labour to welted edge	F.R.	3½
Open copper nailing	"	3
Close " "	"	4

		½" s. d.	¾" s. d.	1" s. d.	1¼" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks	F.R.	10	1 0	1 3	2 0	2 10	—
Do. soil pipe and fixing with cast lead tacks	"	—	—	—	—	—	5 8
Extra, only to bends	Each	—	—	—	—	2 0	6 9
Do. to stop ends	"	6½	8	9	11	1 0	—
Boiler screws and unions	"	3 3	3 9	5 0	8 0	—	—
Lead traps	"	—	—	—	6 3	8 9	—
Screw down bib valves	"	6 9	9 8	11 0	—	—	—
Do. stop cocks	"	7 8	9 6	12 6	—	—	—

		£ s. d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1 0
Extra, only stop ends	Each	1 0
Do. angles	"	1 6
Do. outlets	"	2 9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1 2
Extra, only for shoes	Each	1 3
Do. for plain heads	"	5 6

PLASTERER AND TILING

		s d.
Expanded metal lathing, small mesh	Y.S.	2 0
Do. in n/w to beams, stanchions, etc.	"	2 9
Lathing with sawn laths to ceilings	"	1 3
½" screeding in Portland cement and sand or tiling, wood block floor, etc.	"	1 5
Do. vertical	"	1 7
Rough render on walls	"	1 2½
Render, float and set in lime and hair	"	1 9
Render and set in Sirapite	"	1 11
Render, backing in cement and sand, and set in Keene's cement	"	2 9
Extra, only if on lathing	"	4
Keene's cement, angle and arris	F.R.	6
Arris	"	1½
Rounded angle, small	"	3
Plain cornices in plaster, including dubbing out, per 1" girth	"	1½
1" granolithic pavings	Y.S.	3 6
1½" " "	"	4 6
6" × 6" white glazed wall tiling and fixing on prepared screed	"	17 6
9" × 3" " " " "	"	1 2 6
Extra, only for small quadrant angle	F.R.	8

GLAZIER

	s d.
21 oz. sheet glass and glazing with putty	F.S. 6½
26 oz. do. and do.	" 7½
Flemish, Arctic Figured (white) and glazing with putty	" 1 1
Cathedral glass and do.	" 1 2
Glazing only, British polished plate	" 7
Extra, only if in beds	" 2
Washleather	F.R. 4

PAINTER

		s. d.
Clearcolle and whiten ceilings	Y.S.	6
Do. and distemper walls	"	9
Do. with washable distemper	"	1 1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	"	3 3
Do. on woodwork	"	3 6
Do. on steelwork	"	3 0
Do. and brush grain and twice varnish	"	5 6
Stain and twice varnish woodwork	"	1 11
Stain and wax-polish woodwork	"	4 6
French polishing	F.S.	1 2
Stripping off old paper	Piece	2 0
Hanging ordinary paper	from "	2 9

Building News—(Continued from page 537)

and Roberts; six houses, Church Street, for Mr. E. Bunce.

BRIGHTON. *Offices and Flats.* Mr. A. W McCully is to erect a block of offices and flats on the Princes Place site, Brighton.

BRIGHTON. *Shops, Flats, etc.* Plans passed by the Corporation: Two shops and flats, Lewes Road, for Mrs. Martha Pazel; four houses, Braybon Avenue, for Mr. W. J. Head; showrooms, 53 Providence Place, for Messrs. Pococks; printing works extensions, Kensington Street, for Southern Publishing Co., Ltd.; two shops, Springfield Road, for Mr. G. T. Poole; 16 houses, Dale Crescent, for Messrs. Sweeney and Clarke; five houses, Surrenden Crescent, for Mr. Harry Nixon; six houses, Overhill Drive, for Mr. F. J. Wellman; four houses, Crescent Drive, for Mr. William Cook.

BRIGHTON. *Cinema.* Mr. Arthur D. M. Edwards has prepared a scheme for the erection of a cinema at the corner of Lewes Road and Hollingdean Road, Brighton.

BRIGHTON. *Cinema.* Messrs. Hughes, Hain & Co. have prepared a scheme for the erection of a cinema between the Patcham by-pass Road and the Old London Road, Brighton.

BRIGHTON. *Flats.* Withdean Court, Ltd., have prepared a scheme for the erection of 76 flats in London Road, Patcham, Brighton.

GOSPORT. *Houses.* The T.C. has approved a proposal to erect 200 houses on the Avery Lane Site. Plans by the Borough Engineer have been approved by the M.H.

HASTINGS. *Cinema.* The T.C. has agreed to the erection of a new cinema in Cambridge Road, by the Union Cinematograph Company, Ltd.

SOUTH-WESTERN COUNTIES

EXETER. *Swimming Baths.* The Exeter Corporation has asked the city engineer to secure a site for the erection of new swimming baths.

EXETER. *Police Quarters.* The Corporation is to prepare a scheme for the erection of new police quarters in the vicinity of the Guildhall, at an estimated cost of £60,000.

BUILDING CONTRACTS OPEN

Unless the contrary is expressly stated, all deposits required for bills of quantities, etc., are returned on receipt of bona-fide tenders. The words "Fair Wages Clause," inserted in certain paragraphs, signify that persons tendering must conform to a fair wages clause in the contract, which requires them to pay the rates of wages current in the district. Application for plans and particulars should be made to the address given at the end of each entry.—ED., A.J.

BRISTOL: FLATS

April 4.—Block of flats, comprising 60 tenements, at Upper Cheese Lane, St. Philips, for the T.C. Messrs. Gleeds, Quantity Surveyor, 40, Corn Street, Bristol. Deposit £2 2s.

BOGNOR REGIS: POLICE STATION

April 6.—New police station and three pairs of cottages at Bognor Regis, for the West Sussex C.C. C. G. Stillman, County Architect, County Hall, Chichester. Deposit cheque £2 2s.

BOURNE: HOUSES

April 6.—44 houses and 10 bungalows, for the U.D.C. J. S. Fisher, Surveyor, Bourne. Deposit £2 2s.

BRIERLEY HILL: HOUSES

April 6.—Erection of 162 houses, with fences, drains and paths, on the following sites:—(a) 74 on the Dudley Fields Estate, Brockmoor; (b) 40 on the Upper Pensnett Estate, Pensnett; (c) 24 on the Tack Farm Estate, Wordsley; (d) 24 on the Enville Road Estate, Wall Heath. R. H. J. Comber, Surveyor, Albion Street, Brierley Hill. Deposit £2 2s.

LIMERICK: FACTORY

April 6.—Erection of new factory and office buildings including supply of all materials, transport and labour for Irish Wire Products, Ltd. at Limerick. Tenders may comprise all or any of the following:—(1) Steelwork for main factory and office buildings; (2) construction of factory and office buildings other than steelwork; (3) construction of the wire mill including Belfast roof; (4) asbestos roofing: (5) glazing. J. F. Crowley and Partners, Consulting Engineers, Westminster House, Great George Street, Westminster, S.W.1. Deposit £5 5s.

BRAINTREE: SCHOOL

April 7.—Erection of a Council Senior School at Braintree, for the Essex E.C. J. Stuart, County Architect, County Hall, Chelmsford. Deposit £2 2s.

HANWELL: SCHOOL

April 7.—Erection of North Hanwell Senior Boys', Junior Mixed and Infants' Schools, for the Ealing T.C. F. J. Forty, Borough Engineer, Town Hall, Ealing, W.5. Deposit £10 10s.

NORWICH: SUB-STATION

April 7.—Erection of a brick and tile sub-station building on a private roadway to the north of Cantley substation, for the T.C. The City Electrical Engineer, Deposit £1 1s.

RATHDOWN: COTTAGES

April 7.—Erection of 52 labourers' cottages in the Rathdown No. 1 rural district, for the Dublin Board of Public Health: Site 98-107 Kill-o'-the-Grange (Mooney), 10 cottages; site 98a-139a Kill-o'-the-Grange (Espinasse), 42 cottages. T. B. Byrne, Engineer, 6 Parnell Square, Dublin. Deposit £1 1s.

BARROW-IN-FURNESS: HOUSES

April 9.—Erection of 295 houses, including street works, demolition works, etc., for the T.C. The Borough Engineer's Office, Town Hall, Barrow-in-Furness. Deposit £2 2s.

BOGNOR REGIS: SCHOOL BUILDINGS

April 10.—New block of school buildings, also clinic and caretaker's house at Bognor Regis, for the West Sussex E.C. C. G. Stillman, County Architect, County Hall, Chichester. Deposit £5 5s.

MEATH: COLLEGE

April 16.—Erection of new college, St. Columban's, at Navan, Co. Meath, for the Very Rev. J. Blowick (Maynooth Mission to China). A. E. Smith, Quantity Surveyor, 19 Upper Merrion Street, Dublin. Deposit £20.

CARLISLE: TRANSFORMER STATION

April 17.—Erection of a transformer station at Upperby, for the T.C. The City Engineer, 18 Fisher Street, Carlisle.

HITCHIN: HOUSES

April 17.—For 14 houses at West Mill Road South and South Place, for the U.D.C. W. L. Whittle, S., Old Town Hall, Hitchin, Herts. Deposit £2 2s.

TENDERS ACCEPTED

60 flats on the Dinmont Estate, Bethnal Green, for the L.C.C.: Building and Public Works Construction Co., Ltd., of Swindon, Wilts. (Chief Architect, L.C.C.)

96 houses at Ford and 116 at Ryhope, for the Sunderland R.D.C.: H. Thompson, of 15 Echal Terrace, Castledown, Co. Durham.

Block of 200 flats in Bradfield Road, Sheffield, Yorks, for A. Kraoz: Joseph Foster and Sons, of Fulford Road, York. (Architect, Edgar Gardham.)

Junior mixed and infants' school in Vista Way, Kenton, Wembley, for the Middlesex Education Committee: Perrys (Ealing), Ltd., of 75 Uxbridge Road, Ealing, W.5. (Architect, W. T. Curtis.)

Block of flats in Crystal Palace Park Road, Sydenham, S.E.26: George Bollom and Sons, Ltd., of 1a Essex Road, W.3. (Architect, Frederick Gibberd.)

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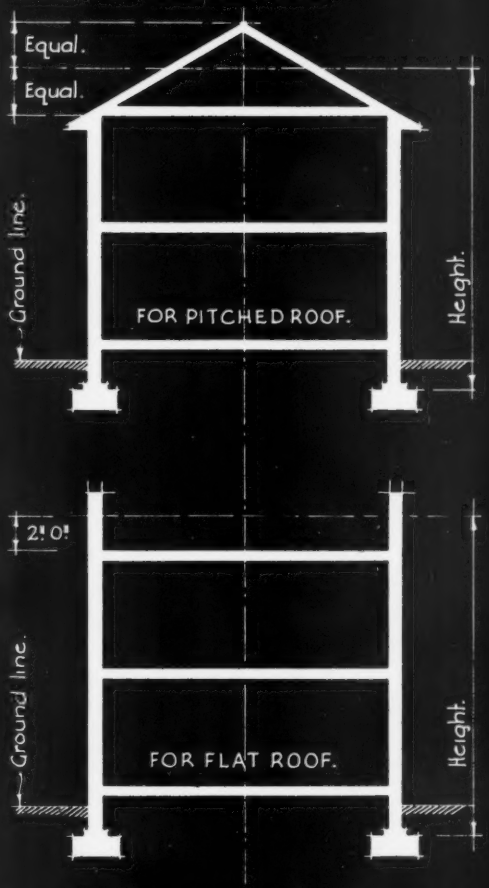
THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

March, 1936.

APPROXIMATE COST PER CUBIC FOOT FOR VARIOUS TYPES OF BUILDINGS: LONDON AREA.

FLATS.	Industrial.	-/11. to 1/4.
	Medium.	1/3. " 1/7.
	Luxury.	1/7. " 2/0.
HOUSES.	Under £3,000.	1/1 " 1/5.
	Over £3,000.	1/4. " 1/7.
	Luxury.	1/7. " 2/6.
HOSPITALS.	Ward Blocks.	1/3. " 1/9.
	Nurses' Homes.	1/4. " 1/8.
	Administration Blocks.	1/3. " 2/0.
CINEMAS (Super Cinemas)	500 - 1,000 seats.	£15-£20 per seat.
	1,000 - 2,500 seats.	£13-£18 " "
	2,500 - 3,000 seats.	£25-£30 " "
	Exceeding 3,000 seats, Variety stage, etc.	£30. per seat and upwards.
MUNICIPAL BUILDINGS.	Offices.	1/5. to 2/0.
	Assembly Halls.	1/3. " 1/9.
FACTORIES.		-/7 " 1/-.
PUBLIC HOUSES		1/4. " 1/9.

R.I.B.A. STANDARD METHOD OF CUBING BUILDINGS.



GENERAL NOTES ON CUBES.

FLATS.

Industrial flats, where good materials are used to withstand hard usage, are sometimes more expensive than Suburban flats.

HOUSES.

As better class external & internal finishes and equipment are usually required for the larger type of house the cost per foot cube tends to rise with increased size.

HOSPITALS.

Apart from finish the cost per foot cube of Ward Blocks varies with the size of ward & amount of corridor space. Administration Blocks vary considerably depending on the type of finish.

CINEMAS.

As the amount of Foyer, Lavatory, Corridor & Stair space remains fairly constant, medium sized cinemas are cheaper than small cinemas.

Large Cinemas are more expensive because they are more luxuriously appointed with Restaurants, etc.

Super Cinemas are still more luxuriously appointed and have a variety stage and orchestra space also.

MUNICIPAL BUILDINGS.

The cost tends to rise for the same reasons as those for houses.

LENGTH AND WIDTH MEASUREMENTS.

These are to be taken between the outer faces of the walls.

HEIGHT MEASUREMENTS.

In the case of a pitched roof these are to be taken from the top of the concrete foundation to a line midway between the point of intersection of the outer surfaces of the walls and roof, and the apex.

In the case of a flat roof from the top of the concrete foundation to a height of 2'.0" above the roof.

In the case of a mansard roof, its cubic content is to be calculated separately.

PROJECTIONS.

After measuring the main structure additional cube is to be made for the following projections.

Bays and oriels.
Turrets and flêches.
Terraces & external steps.
Porches.
Chimney stacks.
Lantern lights.
Dormers.

Issued by Clay Products Technical Bureau of Great Britain.

Figures by Davis and Belfield, PP.A.S.I.

INFORMATION SHEET: COST PER CUBIC FOOT OF VARIOUS TYPES OF BUILDING.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Olca A. Bayne

Supplement to THE ARCHITECTS' JOURNAL for April 2, 1936

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CUBE COSTS

The prices given on this Sheet apply to buildings of brick construction and brick facing.

The higher prices given would include for a reasonable amount of stone dressings or other such work, but any large amount of work of this sort should be calculated separately, and the cost added to the price per foot cube.

Issued by : Clay Products Technical Bureau of Great Britain

Address : 19 Hobart Place, Eaton Square, S.W.1

Telephone : Sloane 7805

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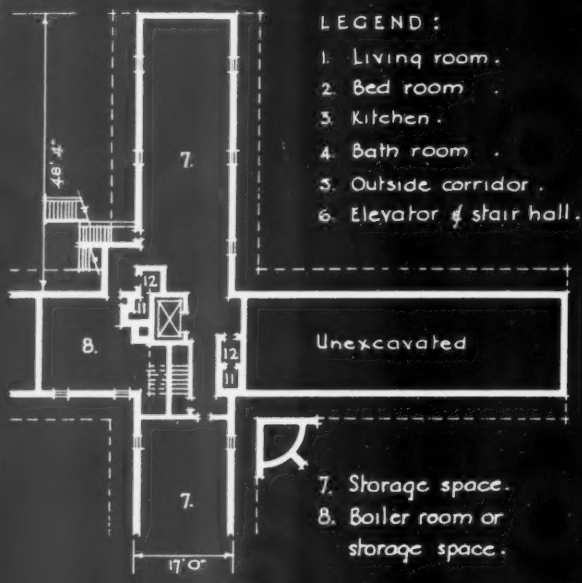
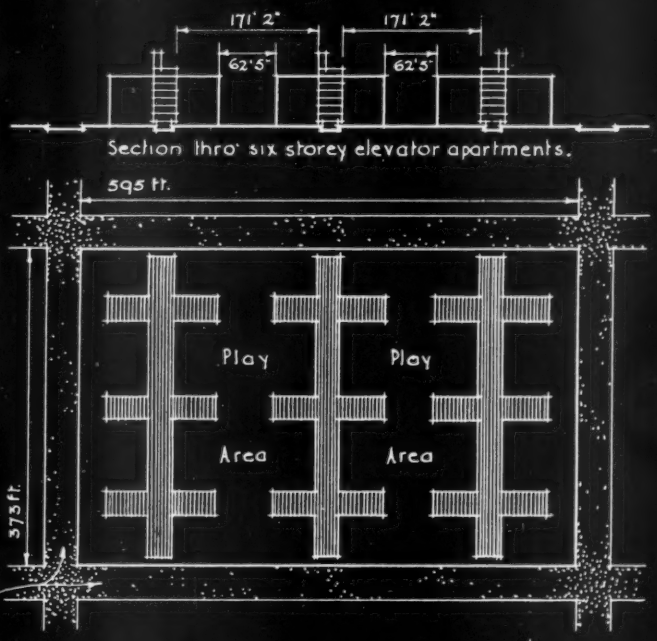
TYPE : SIX STOREY BLOCKS.



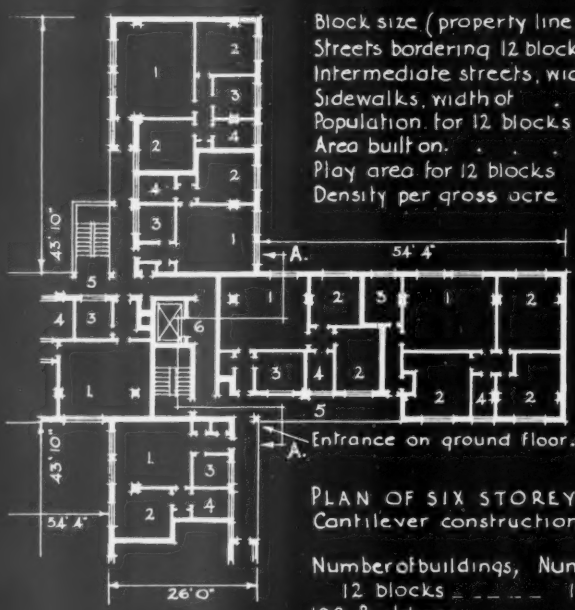
Basement floor plan.

BLOCK PLAN showing one block of 9 buildings. For site plan see sheet (2)



Section thro' six storey elevator apartments.

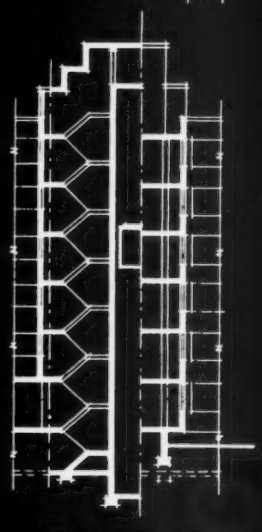
Block size (property line to property line)	373 x 595	ft.
Streets bordering 12 block area, width of	80	"
Intermediate streets, width of	60	"
Sidewalks, width of	10	"
Population for 12 blocks	20,736	People
Area built on	23·5	%
Play area for 12 blocks	86,400	sq. ft.
Density per gross acre	259	People



Typical Floor plan.

Legend continued.
11. Incinerator.
12. Incinerator room.

0 10 20 30 40 50
Scale for plans and section



SECTION A-A.

PLAN OF SIX STOREY ELEVATOR APARTMENTS.
Cantilever construction, partial basement ONE UNIT.

Number of buildings, 12 blocks	Number of units in 12 blocks	Number of rooms, per unit	Total no. of rooms in 12 blocks
108 Buildings 1 unit each	108	192	20,736
Grand total	108		20,736

Factual data of one complete unit : Six storey buildings.

Number of rooms per floor (including kitchen)	32
" " 3 room apartments per floor	2
" " 4 " " " "	4
" " 5 " " " "	2
Total number of " " "	8
" " " " " unit	48
Total " " rooms " unit	192

Information from The Housing Study Guild, New York. (6)

INFORMATION SHEET: ANALYSIS OF VARIOUS TYPES OF HOUSING SCHEME

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

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AMERICAN HOUSING

(vi)

This sheet gives the site lay-out, plans, sections and general data for the six-storey flat block with basement. See also Sheets 292, 297, 301, 305 and 329.

COSTS	Cost per 192-room unit	Cost per room including kitchen
Foundations and Basement :—	$	$
Excavation and disposal by steam shovel	523·50	
By hand	214·20	
Backfill	67·20	
Rough grading	62·40	
Concrete footings and basement walls, including forms and reinforcement	3,172·50	
Steel columns	468·00	
Floor screed	414·00	
Concrete waterproofing	112·70	
Total	5,034·50	26·20
Basement Finish :—	$	$
Stairs, forms and reinforcement	176·25	
6 in. hollow tile walls	203·00	
Column fireproofing and partitions	78·00	
Handrails to stairs	49·35	
Steel sashes and glazing	36·70	
4 fireproof doors and hardware	74·80	
Whitewashing and painting	85·80	
21 electrical outlets and fittings	98·70	
Slop sink	44·00	
Total	846·60	4·40
Structure and Enclosure :—	$	$
Steel columns	4,147·00	
Setting-out anchor bolts	33·30	
Grouting column bases	16·65	
Floor slabs, forms and reinforcement	14,163·30	
Roof slab, forms and reinforcement	2,362·20	
Hollow-tile walls	2,173·50	
Curtain walls with external stucco and internal plaster	7,476·50	
Steel sashes and glazing	4,993·90	
Insulation	800·25	
Total	36,166·60	188·40
Stairs, Halls, Corridors, Lift Shafts, etc. :—	$	$
Structural steel	325·00	
Floor slabs	1,966·00	
Roof slab	380·00	
Hollow-tile walls	2,692·05	
Steel stairs, balacony railings, etc.	5,884·00	
Main entrance steps	82·00	
Floor finish (cement)	206·50	
Roofing of corridors, penthouse, etc.	295·05	
Fireproof doors and furniture	1,000·40	
Painting	367·20	
73 electrical outlets	418·30	
Bellwork and mailboxes	542·25	
3 slop sinks	352·40	
Total	14,511·15	75·60
Roof :—	$	$
Copper flashings, etc.	346·20	
3-ply roofing	367·00	
Insulation and screeded fill	920·00	
Parapet, hollow tile, glazed inside, rendered outside	1,033·05	
Parapet, glazed tile coping	247·00	
Total	2,913·25	15·25
Finishes and Equipment :—	$	$
Column fireproofing (2 in. hollow tile and plaster)	1,126·00	
2 in. plaster partitions	3,589·00	
Plastering of internal walls	1,059·00	
48 fireproof entrance doors and furniture	1,125·60	
300 internal doors and furniture	3,133·80	
$\frac{7}{8}$ in. hardwood floors	4,065·00	
Skirtings and picture mouldings	502·00	
Tile floor for bathrooms	807·00	
Painting : walls, ceilings, doors, etc.	3,646·40	
132 metal wardrobes and equipment	1,830·00	
48 kitchen cabinets	2,160·00	
48 medicine cabinets	312·00	
294 window blinds	294·00	
48 gas cookers	1,200·00	
48 refrigerators	3,840·00	
Total	28,689·80	149·45
Lifts :—	$	$
Cost of lift	4,992·00	
7 metal lift doors and furniture	618·80	
Wiring	140·40	
Total	5,751·20	29·95
Incinerators :—		
Total cost	2,436·20	12·70
Plumbing :—	$	$
Cost per unit, not including gas lines	15,628·80	81·40
Heating :—See Sheet 297	$	$
Total cost	7,946·72	41·91
Gas and Electrical :—	$	$
Initial cost of gas carcasing	1,344·00	
Electric meter connections	180·48	
576 outlets and fittings	3,427·20	
Total	4,951·68	25·79
Total cost per room, including kitchen		$651·05

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LLOYD BITUMINOUS INSULATION BOARD :

STANDARD SIZES OF BOARD :
Thickness . Width . Length .
½" & 5/16" 4'0" 12'0" and 14'0" .

DESCRIPTION OF MATERIAL :

INSULATION : Bituminous board has the same properties of heat and sound insulation as the insulation board . The bitumen is mixed with the fibre before felting so the board retains its absorbent qualities. It is not laminated .

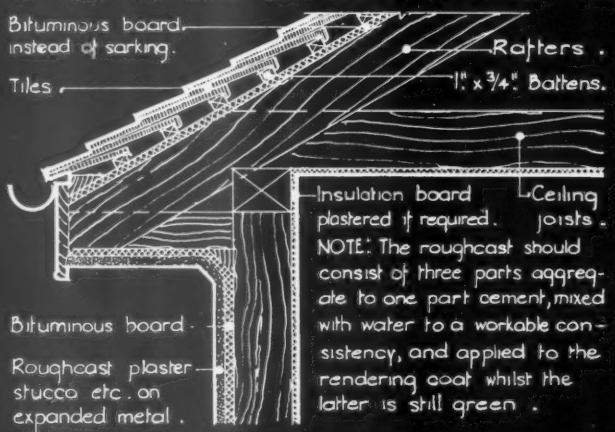
DAMP : The board is impervious to moisture & so is used in preference to insulation board for exterior work where damp may occur .

DRY ROT : It is entirely immune to dry rot so that it can be used internally as linings to floors and walls where unventilated air spaces occur.

CONDENSATION Owing to its absorbent and heat insulating qualities, condensation does not form on surfaces to walls, ceilings etc .

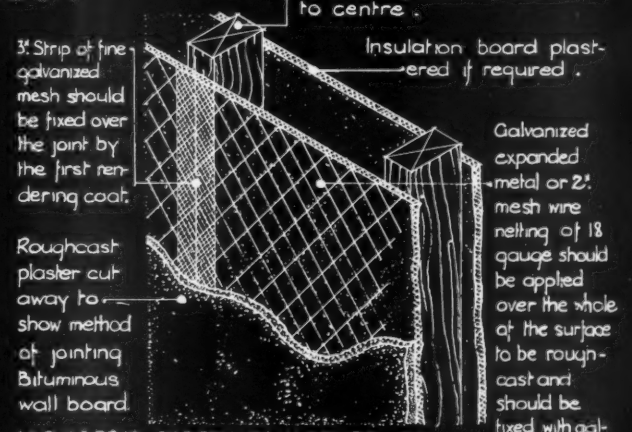
PAINT, DISTEMPER, PLASTER ETC. Application of paint, distemper or plaster will not be affected by the bitumen on the surface fibres of the board working through it, in the case of paint or distemper a sufficient undercoating is provided . The board being absorbent provides a good key for plaster. For roughcast, galvanized metal reinforcement is necessary .

EXTERIOR USE ON ROOFS AND WALLS :

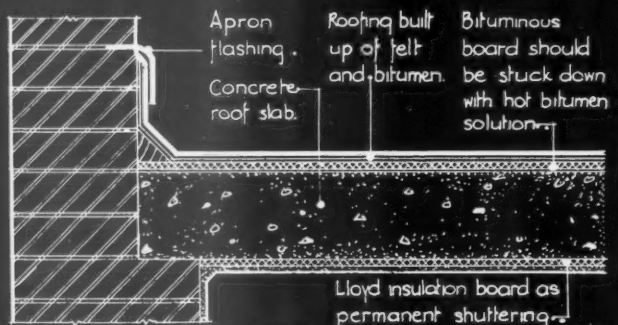


NOTE: The roughcast should consist of three parts aggregate to one part cement, mixed with water to a workable consistency, and applied to the rendering coat whilst the latter is still green .

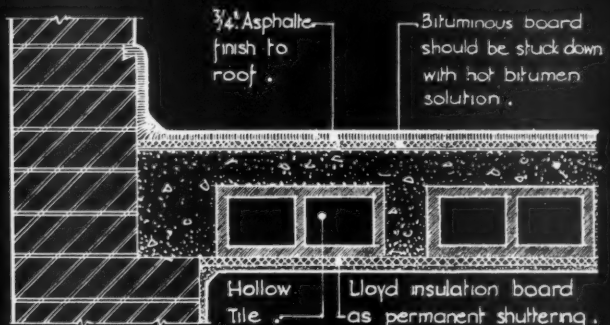
SECTION THROUGH EAVES SHOWING ROOF & WALL.



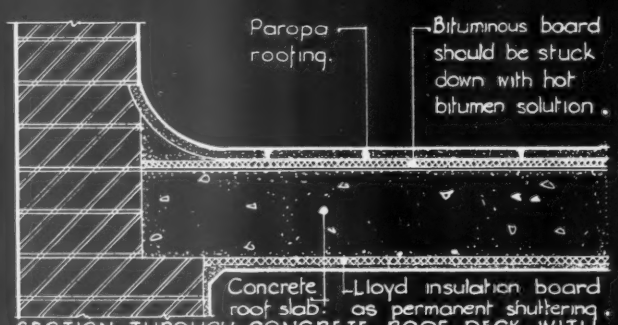
ISOMETRIC SKETCH OF METHOD OF JOINTING BOARDS TO BE ROUGHCAST ETC .



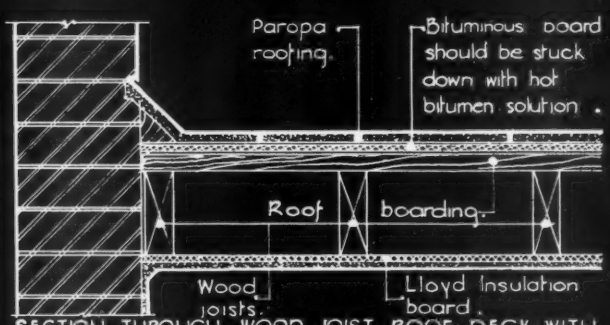
SECTION THROUGH CONCRETE ROOF DECK WITH BUILT UP FELT AND BITUMEN FINISH .



SECTION THROUGH HOLLOW TILE ROOF DECK .



SECTION THROUGH CONCRETE ROOF DECK WITH PAROPA ROOF TILE FINISH .



SECTION THROUGH WOOD JOIST ROOF DECK WITH PAROPA ROOF TILE FINISH .

Information from Edward Lloyd Wallboards Ltd .

INFORMATION SHEET : LLOYD BITUMINOUS INSULATION BOARD ③ EXTERIOR USE ON ROOFS & WALLS :
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 • Alan A. Bayne

Supplement to THE ARCHITECTS' JOURNAL for April 2, 1936

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INSULATION

Product : Lloyd Bituminous Insulation Board

This Sheet is the third of a series dealing with the characteristics and the uses of Lloyd Insulation boards and hardboards.

Lloyd Bituminous Insulation Board :

This board is manufactured from selected wood fibre, during the process of manufacture bitumen is precipitated upon the fibre, hermetically sealing each individual fibre prior to its being felted into a board.

Thus it will be seen that the bitumen is in the fibre itself, and does not fill the cells in the cellular structure of the board.

The board is therefore capable of absorbing far greater volumes than that of the bitumen present ; should the bitumen become volatile owing to excessive heat, it will be taken up within the board itself and there will be no tendency to bleed.

The application of distemper, paint or plaster to the board cannot be affected by the bitumen, provided that in the case of paper and distemper, a sufficient undercoat is applied to seal off the small amount of bitumen contained in the surface fibre.

Previous Sheets :

Previous sheets in this series were No. 302 and No. 316.

Manufacturers : Edward Lloyd Wallboards, Ltd.

Address : Shell-Mex House, Strand, W.C.2

Telephone : Temple Bar 9221