# ARCHITEC I



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contents

every issue does not necessarily contain all these contents, but they are the regular features which continually recur.

#### and COMMENT

ews stragal's Notes and Topics etters cieties and Institutions

#### ECHNICAL SECTION.

formation Sheets formation Centre urrent Technique uestions and Answers rices he Industry

HYSICAL PLANNING SUPPLEMENT

URRENT BUILDINGS OUSING STATISTICS

chitectural Appointments anted and

[VOL. 111 2875] PRESS ARCHITECTURAL 11 and 13, Queen Anne's Gate, Westminster, 'Phone: Whitehall 0611

**SPAB** 

**TCPA** 

TDA TGC

TPI TTF WDC

WEDA

ZDA

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glossary of abbreviations of Government Departments and Soof all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ic one week, Ie to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

mentioned	the word LONDON is implicit in the address.
IEE IES IGE IHVE	Institution of Electrical Engineers. Savoy Place, W.C.2. Temple Bar 7676 Illuminating Engineering Society. 32, Victoria Street, S.W.1. Abbey 5215 Institution of Gas Engineers. 1, Grosvenor Place, S.W.1. Sloane 8606 Institution of Heating and Ventilating Engineers. 75, Eaton Place, S.W.1.
IIBD	Sloane 3158 Incorporated Institute of British Decorators. Drayton House, Gordon Street, W. C.1. Firston, 2450.
ILA I of Arb.	W.C.1. Euston 2450 Institute of Landscape Architects. 12, Gower Street, W.C.1. Museum 1783 Institute of Arbitrators, 35/37, Hastings House, 10, Norfolk Street,  Strengt W.C.2. Tomple Rev 4071
IOB IR	Institute of Builders. 48, Bedford Square, W.C.1. Temple Bar 4071 Museum 7197 Institute of Refrigeration. Empire House, St. Martin's-le-Grand, E.C.1.
IRA ISE IWA LIDC	Institute of Registered Architects. 47, Victoria Street, S.W.1. Abbey 6172 Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Sloane 7128-29 Inland Waterways Association. 11, Gower Street, W.C.1. Museum 9200 Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1. Whitehall 7264
LMBA MARS	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3891 MARS Group (English Branch of CIAM). 34, Gordon Square, W.C.1.
MOA MOE MOH MOLNS MOS MOT MOTCP	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1. Ministry of Education. Curzon Street House, Curzon Street, W.1. Ministry of Health. Whitehall, S.W.1. Ministry of Labour and National Service. St. James's Square, S.W.1. Ministry of Supply. Shell Mex House, Victoria Embankment, W.C. Gerrard 6933 Ministry of Transport. Berkeley Square House, Berkeley Square, W.1. Abbey 7711 Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.
MOW NAMMC	Ministry of Works. Lambeth Bridge House, S.E.1. Natural Asphalte Mine-Owners and Manufacturers Council.  Whitehall 8411 Reliance 7611
NAS NBR NCBMP NFBTE	94, Petty France, S.W.1. Abbey 1010 National Association of Shopfitters. 9, Victoria Street, S.W.1. Abbey 5277/8 National Buildings Record. 37, Onslow Gardens, S.W.7. Kensington 8161 National Council of Building Material Producers. 2, Caxton Street, S.W.1. Abbey 5111 National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham 4041
NFBTO	National Federation of Building Trades Operatives, Federal House, Cedars Road, Clapham, S.W.4. Macaulay 4451
NFHS NHBRC	National Federation of Housing Societies. 13, Suffolk St., S.W.I. Whitehall 2881/2/3 National House Builders Registration Council. 82, New Cavendish Street, W.I. Langham 4041
NPL NSAS	National Physical Laboratory. Head Office, Teddington. Molesey 1380 National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1. Abbey 1359
NT	National Trust for Places of Historic Interest or Natural Beauty.  42 Oueen Appe's Gate, S.W.1. Whitehall, 0211/2
PEP RCA RIAS	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245 Reinforced Concrete Association. 94, Petty France, S.W.1. Whitehall 9936 Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh. 20396
RIBA RICS RFAC RS RSA RSI RIB SBPM SCR	Royal Institute of British Architects. 66, Portland Place, W.1. Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1.Whitehall 5322 Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1. Royal Society. Burlington House, Piccadilly, W.1. Royal Society of Arts. 6, John Adam Street, W.C.2. Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1. Society of British Paint Manufacturers. 20, Piccadilly, London, W.1. Regent 6347 Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8. Western 1571
SE SFMA	Society of Engineers. 17, Victoria Street, Westminster, S.W.1. Abbey 7244 School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3.  Mansion House 3921
SIA SIA	Structural Insulation Association. 14, Moorgate, London, E.C.2. Central 4444 Society of Industrial Artists. Room 243, Empire House, St. Martin's-le-Grand, E.C.1. Metropolitan 8344
SNHTPC	Scottish National Housing & Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Ruthlergen.

Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.

Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.

The Gas Council. 1, Grosvenor Place, S.W.1.

Town Planning Institute. 18, Ashley Place, S.W.1.

Timber Trades Federation. 81, Cannon Street, E.C.4.

War Damage Commission. Devonshire House, Mayfair Place, Piccadilly, W.1.

Mayfair 8866

Welfare Equipment Development Association. 61, St. Paul's Churchyard, E.C.4.

Zinc Development Association. Lincoln House, Turl Street, Oxford. Oxford 47988

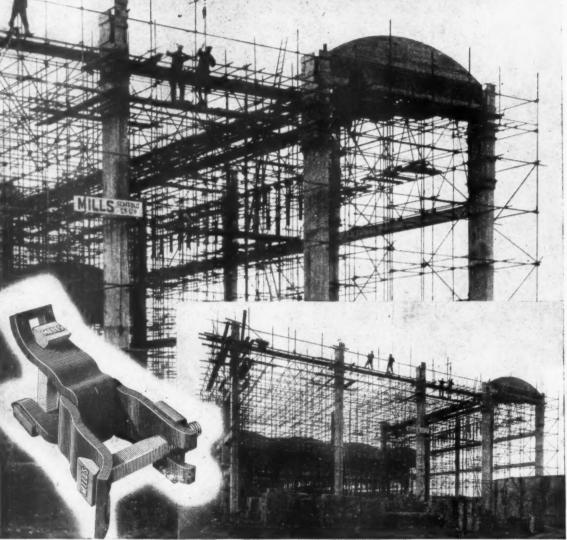
Timber Development Association. 75, Cannon Street, E.C.4. The Gas Council. 1, Grosvenor Place, S.W.1.

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#### POTTERY THROUGH THE AGES 'NO. 22



Specially drawn by Gordon Nicoll, R.I.

#### FROM ANCIENT CRAFT TO MODERN INDUSTRY

We have brought our outline of the story of pottery to the dawn of the 19th century. Although many famous names, many significant developments, have had to be omitted for lack of space, we have sought to show something of the far-reaching and fascinating historical background of this ancient craft. To-day it has become a vast modern industry—serving not only domestic needs but the technical requirements of architect and builder, chemical engineer, electrical engineer, metallurgist, research chemist and a host of different industries.

The changes in pottery-making during the past 150 years (and especially during the past 25 years) are probably greater than those in the preceding 5,000 years. They include many developments due to modern technical and scientific research; the use of new raw materials and mixings for bodies and glazes; accurate

methods of checking and controlling materials; the ever-increasing use of machinery and mechanical devices for the more arduous and repetitive tasks; the application of infra-red and other new methods of drying; the gradual superseding of the old coal-fired type of kiln (such as shown in our illustration of a 19th century pottery) by gas and electrically fired continuous kilns.

In these and other developments too numerous to mention here, the House of Doulton has played a prominent part —in many of them, indeed, a pioneer part. The first Doulton pottery works, founded in Lambeth in 1815, linked up directly with several centuries of ceramic activity by the London Thames-side, and —through the Delft and Stoneware potters—with a yet more ancient heritage of pottery craftsmanship and tradition reaching back to early Babylon.

The Royal Doulton Potteries to-day embrace seven different works devoted to various aspects of ceramic manufacture. In all of these, the constant aim and ideal is to introduce modern technical developments wherever these can help not merely to increase and speed production, but also to maintain and improve quality. At the same time, it is ever borne in mind that the all-important factors in the production of quality wares are still the hand of the craftsman and the eye of the artist and designer.

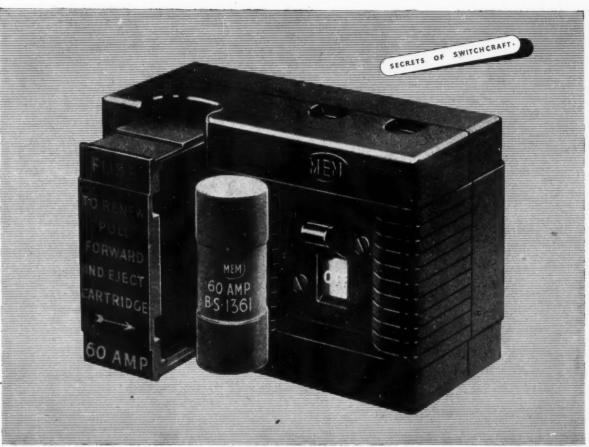
Quality is and will continue to be the key to the supremacy of English pottery in the world-markets. Great traditions have been handed down to us; it must and will be our endeavour to see that these are handed on, unimpaired and enhanced, to the generations of potters yet to come.



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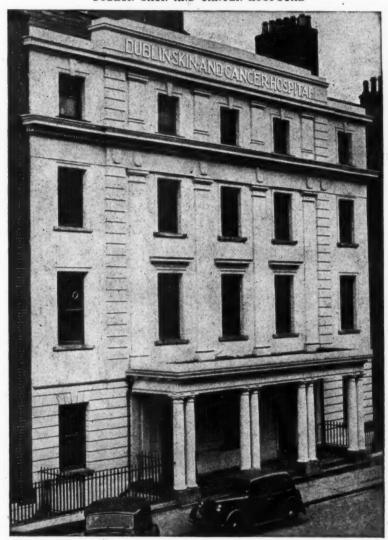




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This advertisement is the second in a series of factual announcements

#### FACT NO. 5 BEETLE MAKES THE SPARKS FLY

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Beetle Adhesive is the modern medium used today in the age-old craft of sticking wood to wood. Although

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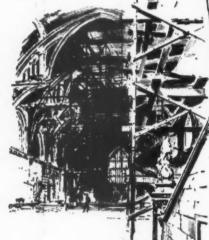


constantly subjected to strain and damp conditions. All teams in the National League use spliced sticks, resistant Beetle Adhesive. The makers, J. W. Wood & Co. Ltd. claim improved performance



Ice hockey sticks are bonded with durable waterfor these sticks.

## FACT NO. 7



#### BEETLE MAKES HISTORY

Beetle Adhesives have been used for constructional work in repairing war-damaged Westminster Hall.



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London Office: BRETTENHAM HOUSE, LANCASTER PLACE, STRAND, W.C.2

# CRITTALL WINDOWS

MAGNIFICATION × 630

STEEL BASE .

ALLOY LAYERS

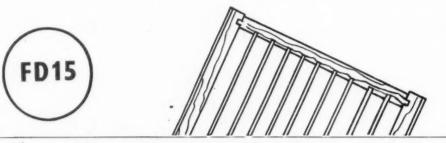
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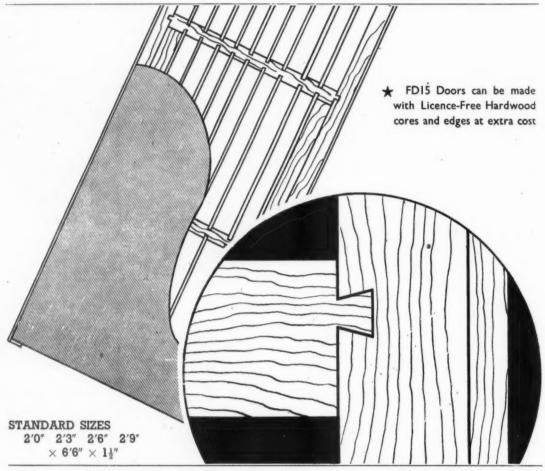
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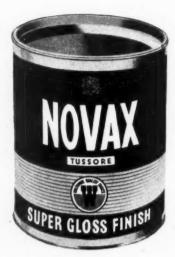
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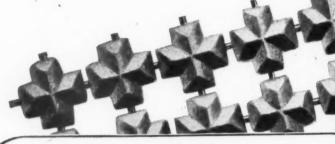
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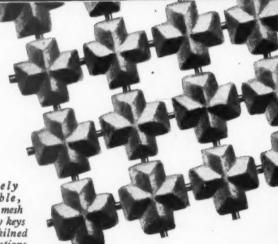
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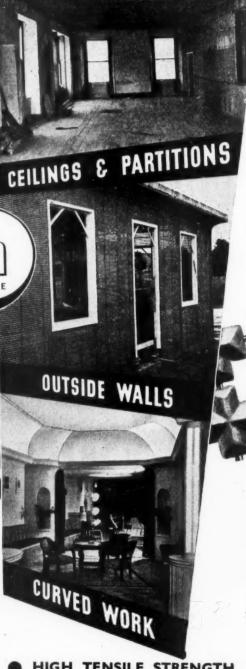
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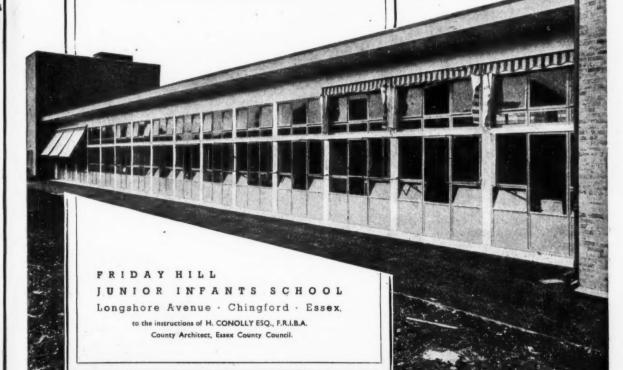
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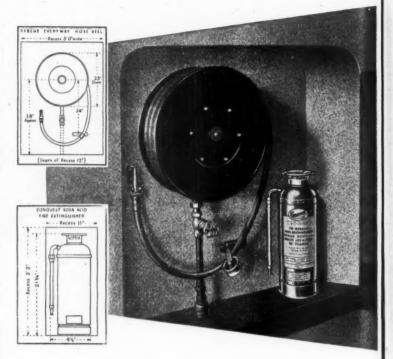
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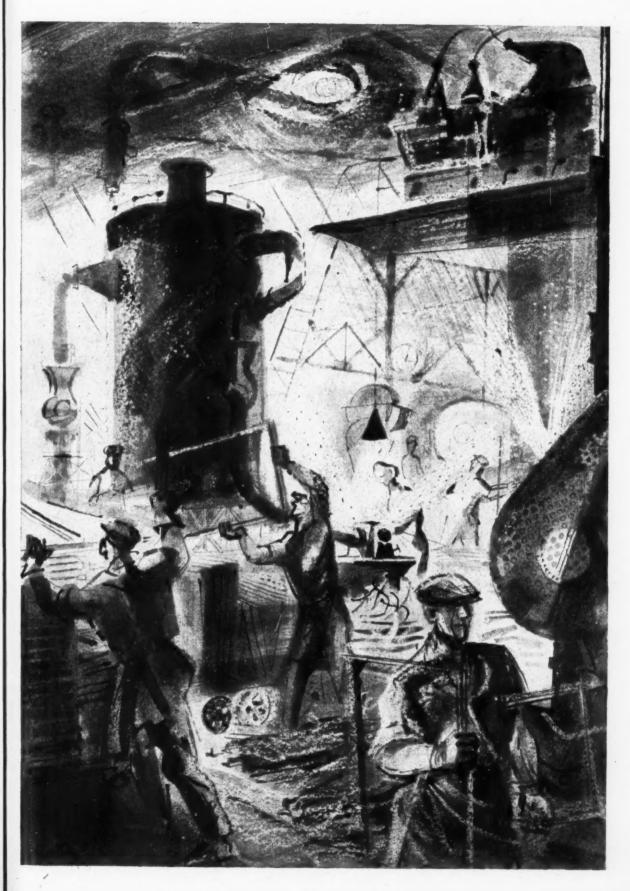
Managers and Foremen, Craftsmen and

Craftswomen have all staked their reputations and
their livelihood on making them well.

Window-making is designing sections, cutting,
drilling, welding, assembling, fitting, inspecting;
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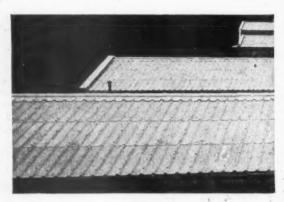
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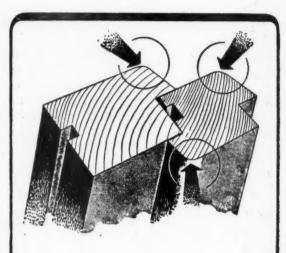
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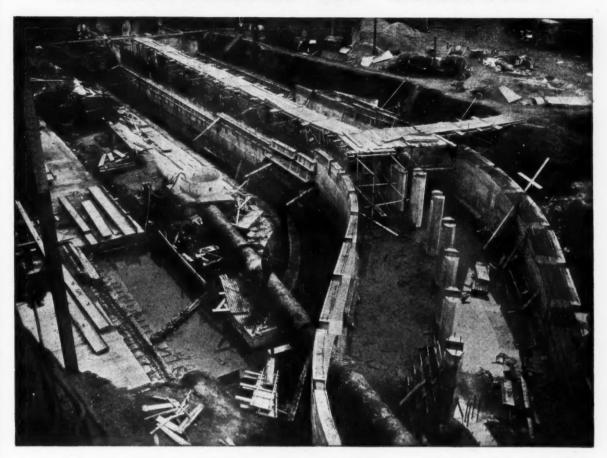




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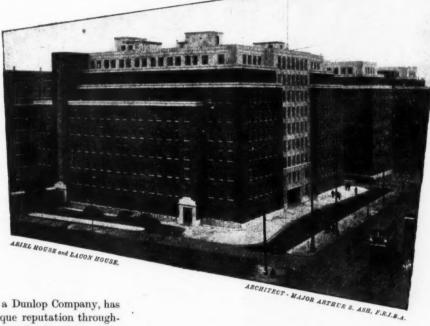
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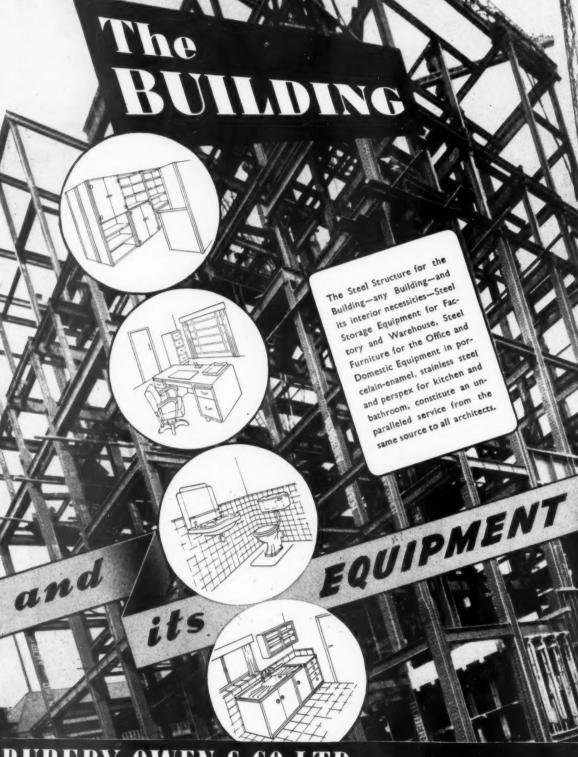


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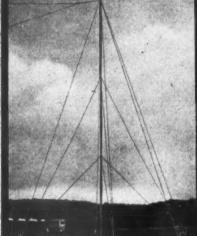


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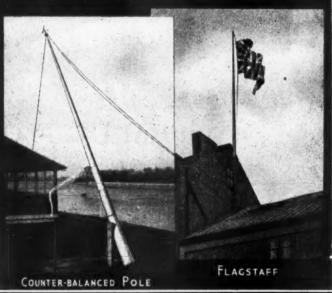


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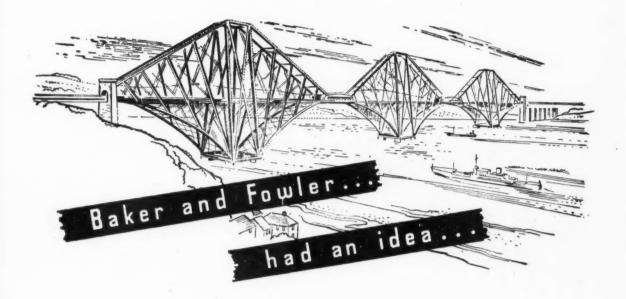
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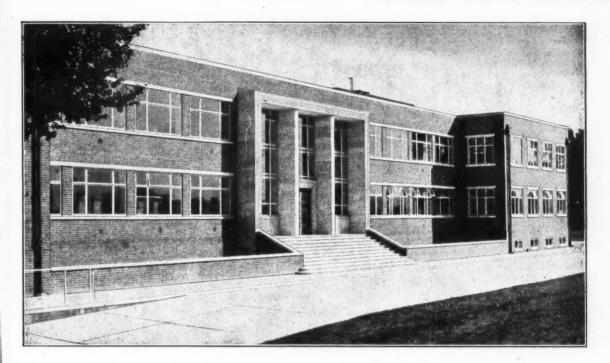
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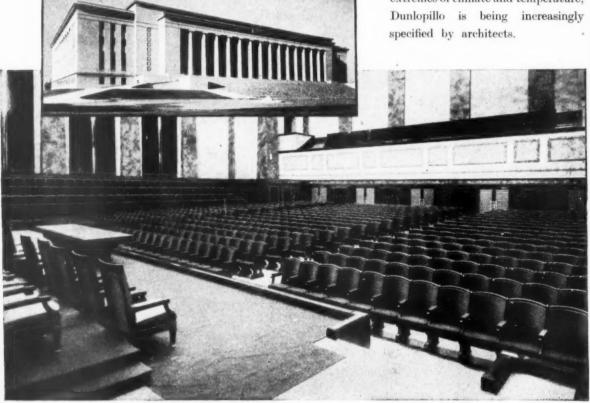
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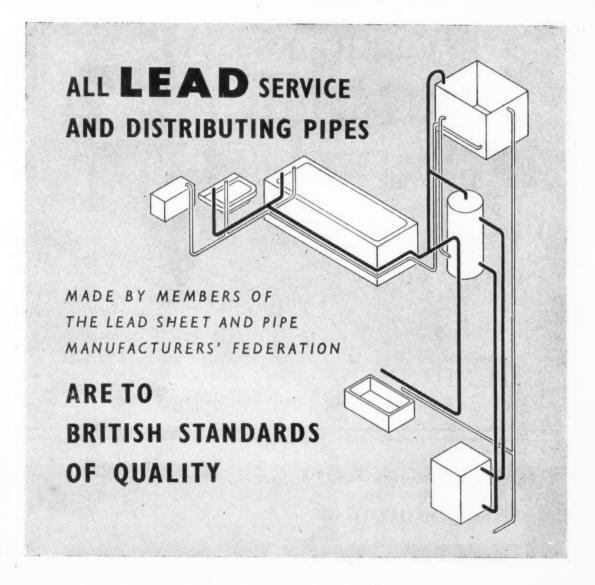
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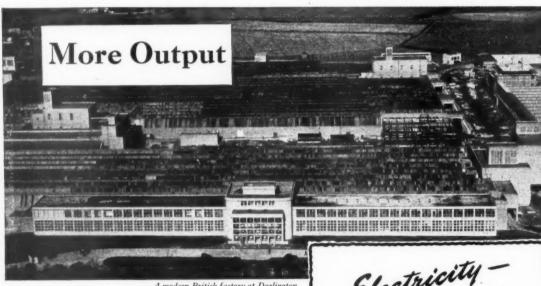
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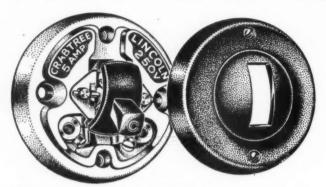
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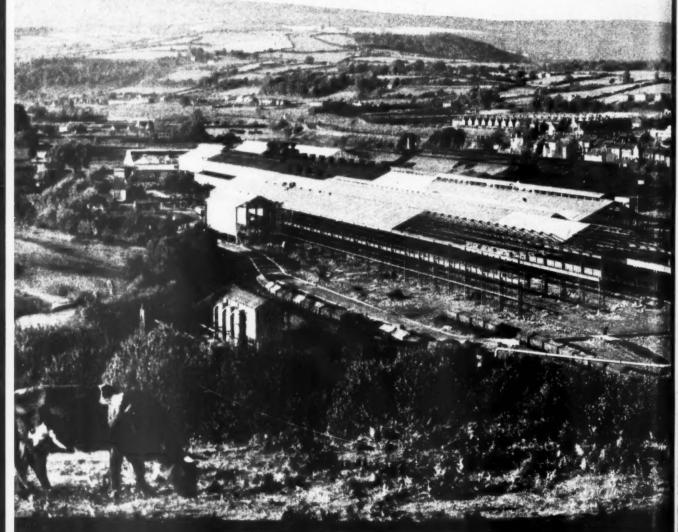
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No 2875 16 March 1950 VOL 111

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DOCTOR WITHOUT A DILEMMA

One morning last week, while a warm Spring breeze was stirring the cigarette ash beneath the open windows of the Ministry of Town and Country Planning, Dr. Dalton beamed serenely at his first Press conference. "How, Sir, do you reconcile that statement with your earlier views . . . ? " Such questions provoked no subject for banner headlines. Not even the most alert reporter could remember an occasion when the Minister had condemned planning. And it was impossible to catch him out on technical matters because, as yet, he had not looked into the complexities of his new job. He could afford to smile as he complimented his predecessor on steering three major Acts through Parliament and announced that his time at the Ministry would be spent on administrative improvements.

However, although Hugh Dalton's session in office, as successor to Lewis Silkin, is likely to be undisturbed by the complications of new legislation, there is much that he *can* do. It is his intention, he says, to concentrate on simplification and speed. Those who know of his previous interest in planning matters will not regard this as a mere piece of rhetoric. It should be remembered that as long ago as 1932 he denounced the Town and Country Planning Act of that time as inadequate, praised the work of the National Trust and advocated the creation of National Parks.

THE BYEWAY CODE

It is fitting that Hugh Dalton should commence his duties at a time when the National Parks Act has received Royal Assent and the Commission is on the verge of activity. As he told us at last week's conference, three National Parks will be created this year; one in the Peak district, another in Snowdonia and a third in the Lake District. And, as he reminded us, the Commission will shortly draw up a Country Code telling townsfolk how to behave in the country.

This guide, which will be published on similar lines to the Highway Code, is forced upon the Commission by the Act, largely because of views strongly expressed in the Lords and the Commons by the Central Landowners Association. It is just as well that the preparation of the Code is compulsory, for it is the sort of thing that might otherwise be recognized as a good idea but put on one side. It is still in the embryo stage, of course, but I am told that it will be more tactful than the numerous notices plastered about the countryside, which forbid the public to do a thing and offer them a form of punishment if they disobey orders. Apparently readers of the Code will learn how quite small actions of negligence may lead to great financial loss to farmers and serious loss to food production.

Obviously such a Code can be of immense value, but of almost equal importance is the need for a Code instructing local councils how to behave in Parks for which they will be represented on Joint Planning Boards. These Boards have not yet been set up, but now is the time for local authorities to be persuaded of the wisdom of appointing architects to them. The introduction of National Parks will undoubtedly lead to the need for more refreshment kiosks and other buildings. Are these to be the ugly, jerry-built huts that one often finds squatting on top of a hill? Or will the Commission. in its endeavour to educate the public in matters of tidiness, set an example by not strewing the litter of shack development over National beauty spots?

IDEAL EXHIBITION

Most of us, I suspect, have always been far from enthusiastic about the Daily Mail's Ideal Home Exhibition because we think of it only in terms of hire purchase furniture and the "spec" building horrors which the public loves only too well. On the whole, however, it is worth a serious visit for the sake of seeing how an Exhibition should be staged. since I can remember there has been an Exhibition architect and a certain amount of control over exhibitors. And the exhibition authorities, themselves, have always given quite a lot of work to architects. Then, in the pre-'39 years, I remember a series of Rusty windows cause extensive glass breakage from expansion, are dangerous, and make unsightly stains on cills. Constant scraping and repainting is expensive and no cure.

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Rooms by Architects and R. A. Duncan's house of the future. And has any other British Exhibition ever commissioned a show house from Le Corbusier? I feel that as a profession we have at least our fair share of the show's propaganda budget.

How far has the Ideal Home got in this, its 27th effort? Exhibitors are grouped and the stands are a uniform frame-work with standardized fascia lettering, so it is not very different from what many of us think our own Building Exhibition ought to be. It is, incidentally, the only show I can remember to be virtually completed on the Press morning, the day before the official opening. Surely it is time for us to climb down from our asthetic pedestals and take off our hats to an exhibition that is very well arranged.

#### FESTIVAL FACTS AT THE RIBA

Nobody is better than Mr. Casson at combining information with flashes of the delicate wit which makes you remember the facts you would otherwise forget. Last week he had, for his 1951 exposition, what must have been the RIBA's record crowd, and a good time was had by all, even the multitudes who had to stand at the back or sit in the gangways. Mr. Casson said, among other things, that he hoped there would be enough lavatories on the South Bank, their lack spoiling many a show for the inexperienced. If he wants to know what happens when the hat and coat arrangements break down he had a fine warning right under his nose. Seldom has it taken so long to get out of the RIBA; I wonder what distinguished visitors must think.

#### THE GREAT REPORT

Some weeks ago Mr. Key announced that he had received the Working Party's report, but its consideration and subsequent publication was presumably held up by the General Election. Now there is a new Minister who, as a nephew of Leonard Stokes and a cousin of David, can be assumed to know something both of builders and of architects. But the report must pow, if I understand the parliamentary machine, be presented to him, and not

" President Auriol, keenly interested, points to one of the features of the model at the County Hall, showing how the Festival of Britain buildings will Thus appear." reads the caption supplied by a photographic agency. But the model is, in fact, Dr. Holden's scheme for South Bank development, which has not been published hitherto. As



may be seen from these two views Dr. Holden still favours the office block built around a courtyard, a form of planning which should surely now be a thing of the past. Let us hope that the LCC will think twice before putting such a scheme into practice.



to Mr. Key, for acceptance, and there will be a delay while a new reader stops to make up his mind what it is all about.

I do not imagine that the report will arrive at any really earth-shaking conclusions. I would expect it rather to confine itself to tidying up loose ends



The Georgian Group is showing this sketch, by William Kent, of the grounds of Chiswick House, at today's exhibition, "Burlington and His Circle," at Burlington House. Although Chiswick House is now owned by the MOW, the local council is in charge of the grounds and statuary; a situation which, as the Group emphasises, might well lead to disastrous treatment of the landscape in relation to the building. (The sketch is the property of the Chatsworth Estate Co.)

Man of Taste

This cartoon by Hogarth is included in an exhibition of portraits, original drawings, books and photographs illustrating the work of Burlington and his friends, which the Georgian Group is presenting at a reception in the Royal Academy Rooms, Burlington House, today. It is thought that the drawing was inspired by a poem entitled "False Taste," in which Pope criticised the house, furniture and gardens of a man named Timon, universally supposed to

be the Duke of Chandos. Here Pope (A) is seen whitewashing Burlington Gate, on which he has placed a statue of his great favourite, Kent, with Raphael on one side and Angelo on the other. The Duke of Chandos (B) and his supporters are receiving the full force of Pope's work, while a clergyman scurries away into the bottom right-hand corner. Lord Burlington (F) has been reduced to the status of labourer. (See page 325 for another drawing.)

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as a whole, in fact, approval with minor reservations rather than major criticisms. What I do hope, most fervently, is that the report will plump for a single Ministry to be responsible for all building. I don't suppose that anything will happen as a result (how many abortive reports have we had in the last eight years?), but I would like some authoritative body to condemn the present set-up, with at least three Ministries all having a fairly large finger in the pie, while the minor influences like Fuel and Power skirmish round the edges. However, we should all know about it by the end of the month.

#### PIONEER CORPSE

It is welcome news that the LCC is discussing a scheme that will enable the Peckham Health Centre to be carried on. Perhaps a decision will have been reached by the time these words are read. Meanwhile, all one can say is that, if official support is not forthcoming, and the Centre. which has had to close for lack of funds, remains closed, it will be nothing short of tragic that so unique and valuable an enterprise should come to an end. It will also be ironical in these days of the welfare state. when such institutions as health centres are included in all planners' reports, that the one health centre which has been operating for years, should be threatened with extinction.

Sir Owen William's glass and concrete building for the Centre was, like the Centre itself, a pioneer in nature as well as in name, so it is a matter of architectural as well as of social interest that the good work that has been carried on there should be continued.

#### INFORMATION SHEETS

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I would like to call the reader's attention to this week's Information Sheets. Since the post-war sheets were introduced there has been a considerable demand from readers for copies of the complete classification system used in the Library. The full list of subjects and sections is given in the Sheets in this issue.

**ASTRAGAL** 

#### The Editors

#### THE PROFESSION'S AVERAGE SALARY

SIXTEEN and a quarter million pounds a year is the approximate figure given in the JOURNAL last week as the total income of the architectural profession, and it is likely to remain at this level for the next few years. This week we are going to show what the probable average income of those who work for architects or are themselves in practice will be when the large number of students at present in training enter the labour market.

Of this total annual income, a certain proportion is earned by official architects. No exact figure for this proportion is available, but tentative enquiries would suggest that it is about 30 per cent. of the total. This leaves 70 per cent., or £11,375,000, for those in private practice. Now what are the respective numbers of those working in public offices and in the offices of private practitioners who earn these percentages? An examination of the Register of Architects shows that, of the fifteen thousand odd architects, 20 per cent. are either in private practice or are assistants in private offices. This figure of fifteen thousand is not, of course, the total of the number who are entitled to a share of the annual There are approximately ten thousand students, the great majority of whom, if not already doing so, will soon be expecting a share of the total income, and there is, in addition, a so far inestimable number of unqualified assistants and others, as well as numerous surveyors and clerks of works, who are on the private and official architects' payroll. A rough estimate of this second category of architectural subordinates gives a figure of about fifteen thousand, of which probably 40 per cent. work for official architects.

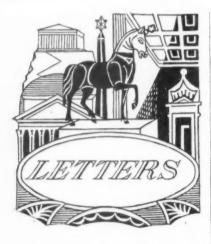
Thus, out of a total of thirty thousand architects, assistants and others, 20 per cent. of the first and 40 per cent. of the second, adding up to nine thousand men and women, are supported by work which is handled by public bodies. This leaves twenty-one thousand who have a share of the £11,375,000 available for private practice. Of this sum, about 30 per cent. is spent in the form of overheads, such as rent of offices, secretaries, and office materials, leaving  $f_{7,962,500}$ . This means an average total, per head, of just over £366 a year for those working in or for a private practice. It may be argued that, compared with salaries received in offices today, this average appears unduly low. This is for two reasons: firstly, because of the total of ten thousand students a considerable number are whole-time students and are not yet requiring their share of the total income, and secondly, because there are no figures available anywhere for the income many architects derive from the designing of projects, which, unless licensing is considerably relaxed soon (a most unlikely event) will not be carried out for a long time. The figure of £366 more accurately represents an average salary in two or three years time when the number of projects is decreasing and the bulk of the large number of post-war students is in the labour market. The serious implications of this startlingly low average salary will be the subject for further discussion in the JOURNAL.

#### SMOKE ABATEMENT

At least a million pounds worth of damage is done in this country every week by atmospheric pollution. In America drastic regulations have proved remarkably effective, in several cases, in eliminating the nuisance of smoke and sulphur fumes. In this country the advance has been slower; probably the greatest part of the present day improvements have come from economies enforced by fuel shortage and prices. These economies point the way to the solution of the smoke nuisance problem. It is in the interest both of clients and the community for architects to reduce this nuisance by installing the most efficient heating systems possible.

Is it sufficient however for the profession to end its responsibility at putting in efficient systems? Surely the architect's special knowledge should make him capable of doing more than heat his own house without smoke. There are many ways in which he could help, but first of all he should be aware of what has already been achieved in this field. Up-to-date knowledge on the subject is provided in the report of the National Smoke Abatement Society's 1949 Conference,\* which contains an excellent review of the subject by Lord Simon and progress reports from various centres, including notes on steps which have been taken.

Proceedings of the Harrogate Conference, 1949. National Smoke Abatement Society, Chandos House, Bucking am Gate, S.W.I. Price 4s. 6d.



#### Housing for Immigrants

SIR,—Much publicity has been given by the Press to the typical New Zealand State house, which is one of the features at the Ideal Home Exhibition at Olympia.

During a year's residence in New Zealand, I have made a careful study of the local housing conditions. Despite the substantial achievements both of private builders and the State Housing Department since 1945, there is still a very serious shortage of decent accommodation throughout the Dominion.

J. G. Martin
Tony Moore
J. F. G. Hastings
G. S. Harrison

It is virtually impossible at present to find either a small house or flat to let in any urban area, and, in consequence, overcrowding is appailing.

Ing is appailing.

The provision of homes is an important part of Government policy in New Zealand, and the standards of the State houses are generally high. As the average weekly rentals of such houses are substantially below those paid for privately owned dwellings of similar type, there is naturally very keen competition for tenancies of the State houses. An official handbook published in December, 1949, recorded that there were approximately 50,000 unsatisfied applicants for houses. Tenancies of the State houses are said to be allotted "according to the units of each case and the date of application."

New Zealand is a land of great opportunities, but intending emigrants from Great Britain (and especially those with families) should be warned of the serious housing difficulties that will certainly confront them on their arrival in the Dominion. In this connection it would be of service if the High Commissioner for New Zealand could state how many of the 17.791 State rental houses erected between April 1, 1943, and March

31, 1949, have been allocated to incoming British settlers. I suggest that the number is nil.

JOHN G. MARTIN.

(Formerly General Secretary of the National Housing and Town Pianning Council, London.)

Aukland New Zealand.

#### Peckham Health Centre

SIR,—A recent Press announcement told of the c'osing of the Pioneer Health Centre, Peckham; one of the most important experiments in family and social life ever carried out, and consequently of immense value to all architects. The closure was caused by financial difficulties, and though negotiations are proceeding with the LCC with a view to re-opening the Centre in some form, I feel that, in some way, architects and students should insist that the work at Peckham be allowed to be carried on in freedom. I suggest that those who are interested should write to their MP's or to the LCC pointing out the importance of the Centre's research, and requesting that it be allowed to continue.

TONY MOORE.

#### Journal Layout

SIR,—I am in the habit of pulling my AJ to pieces after reading it, and filing only those articles which interest me or to which I may want to refer. Often I find that two buildings are illustrated on the reverse sides of the same page. Would it not be possible to separae them by inserting an advertisement? Perhaps the back of every leaf could be treated thus?

J. F. G. HASTINGS.

#### York Festival Competition

SIR,—The first prize in this competition was £250, and out of this sum no less than £200 is to be merged into the fees for carrying out the work, leaving, in effect, a first prize of £50 and the job. In relation to the estimated cost of the work, about £43,000, a premium of £50 appears very inadequate.

Considering that some thirty-two schemes were received and assuming, for purpose of illustration, the actual cost to each author was £100, at present taxation level, each competitor would have to earn £180, allowing for taxation, in order to cover expenses. The total expenditure of all entrants would be about £5,800 for a prize of £50 and the

From a promoter's point of view this is a good thing and one wonders why there are not many more competitions held, particularly by private bodies and local authorities, if the cost, apart from the assessor's fee, is not more than one eighth of one per cent.

not more than one eighth of one per cent. The scale of fees in this competition is stipulated as being under the RIBA Scale and it would seem reasonable that there should be some stipulation in open competitions that if restricted to registered architects the profession should be safeguarded against a recurrence of this kind of exploitation.

I think if anybody has the ability to win in an open contest he should be reasonably compensated, and this is not going to be possible in future if the point is allowed to go by default. If architects, individually or collectively, are not prepared to press their claims they must not complain if, in time, the remuneration they are able to secure does not compare favourably with that of many entrants to other businesses and professions, where better terms and conditions are obtainable with far less outlay of time and energy in qualifying.

G. S. HARRISON.

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#### Architects for No 9 Poplar Neighbourhood Unit

The following architects are designing individual schemes for the No. 9 Poplar Neighbourhood Unit (see page 330), under the architectural and planning co-ordination of the LCC:—
Ricardo Street Primary and Nursery School, Yorke, Rosenberg and Mardall; home for the aged, Booth and Ledeboer; shopping centre and market place Frederick Gibberd:

the aged, Booth and Ledeboer; shopping centre and market place, Frederick Gibberd; housing LCC Architects Department, G. A. Jellicoe, Bridgwater and Shepheard, Norman and Dawbarn. The LCC has also appointed the following private architects to be responsible for schemes for inclusion in the live architecture exhibition area; they are voluntarily co-operating with the Council: Roman Catholic Secondary School. Canton Roman Catholic Secondary School, Canton Street, David Stokes; Roman Catholic Church, A. Gilbert Scott; Trinity Congregational Church and Clergy House, Cecil A. Handisyde and D. Rogers Stark.

#### SHOREHAM BEACH

#### MOTCP opproves plan

The Shoreham and Lancing Beaches Plan,

The Shoreham and Lancing Beaches Plan, which was submitted to the Minister of Town and Country Planning, has now been approved with modifications. This was the first Development Plan to be submitted under the provisions of the Town and Country Planning Act, 1947.

The broad objectives of the 1947 Act was to provide for the planning of land by a system at once more comprehensive, positive and flexible than under previous legislation. The West Sussex County Council are responsible for this plan which covers a small sector of the Sussex coast.

Before the war, the Beaches had been developed as a bungalow town with a mixture of pleasant and substantial villas, bungalows of poor quality, railway carriages and shacks, and the lay-out was irregular and unplanned. During the war, most of the houses on the beach were demolished for defence reasons and this provided an opportunity to re-develop the Beach on better lines. better lines.

The main objectives of the plan were to provide for increased open space for day visitors on the western half of the Beach and on residential development for all the year round, and not merely summer use,

on the middle and eastern parts. By making use of the shingle beach for building, valuable agricultural land elsewhere along the coast may be saved. The plan also provides for the lay-out of roads and car parks.

parks.

To achieve these objectives, the plan defined the whole area of the beaches as an area for comprehensive re-development and designated nearly all of it as subject to compulsory acquisition. Flats and hotels will be provided if there proves to be specified development for them. fic demand for them.

#### HEMEL HEMPSTEAD

#### New Town's new members

The Minister of Town and Country Plan-The Minister of Town and Country Planning has appointed Sir Gerald Lenanton and C. D. Pilcher to fill two vacancies on Hemel Hempstead Development Corporation. Seven of the previous members of the Corporation have been re-appointed. J. E. MacColl, who was also formerly a member, resigned on standing for Parliament. He is now MP for Widnes. Sir Gerald Lenanton, who was Director of Home Timber Production during the war, and thereafter Controller-General of the North German Timber Control, is now

North German Timber Control, is now chairman of Fay Morgan & Co.
Mr. Pilcher is a chartered surveyor and a partner in the firm of Groves, Son &

#### **CRAWLEY**

#### Modification of New Town Plan

The Ministry of Town and Country Planning, in the last Government, expressed general approval and appreciation of the Master Plan for Crawley new town shortly before leaving office. This approval was conveyed in a letter to the Crawley Development Corporation, the contents of which are now being made known.

are now being made known.

Among modifications of the plan suggested was a proposal that the Corporation should plan for a total population of 60.000, a somewhat larger figure than had been contemplated. To achieve this there should be a density of 50 persons per acre in the inner neighbourhoods instead of the figure of 36 provided for in the Master Plan, and 30 persons per acre in the outer neighbourhoods. 30 persons per acre in the outer neighbour-hoods instead of between 22 and 30. This modification would help towards relieving the congestion from London.

the congestion from London.

It was also suggested that the Corporation should plan for an industrial population of 13.000 instead of 8,500. Other suggestions made in the letter were that the shopping habits of people should be watched and, if necessary, the ratio of shops in the neighbourhood and town centres adjusted, and that the need for certain proposed roads should be clearly established before land is reserved for them. reserved for them.

In general, the Master Plan was described as "well thought out and clearly presented."

#### MOTCP

#### Hugh Dalton's secretaries

The Minister of Town and Country Planning has appointed J. D. Jones to be his private secretary, E. S. Foster to be his assistant private secretary, and George R. Chetwynd to be his parliamentary private

#### RIBA

#### Gold Medal presentation postponed

Unfortunately Professor Saarinen cannot come to England for the RIBA general meeting arranged for April 4 and this meeting has accordingly been cancelled. It is, however hoped to arrange for the presentation later in the year, when it is expected that Professor Saarinen will be able to visit



H. J. Whitfield Lewis, the newly appointed Principal Housing Architect to the LCC, received architectural training at the Welsh School of Architecture and became an Associate of the RIBA in 1934. Further particulars are given below.

#### LCC

#### New Housing Architects

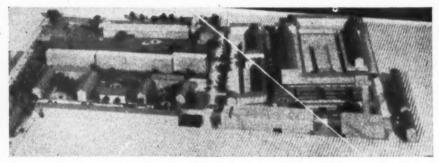
The LCC, which decided in December, 1949, to transfer back to the Architect to the Council the responsibility for the design and erection of all new housing schemes, has appointed H. J. Whitfield Lewis as the Principal Housing Architect. Mr. Lewis was for several years chief assistant to Erich Mendelsohn and Serge Chermayeff and worked on such buildings as Bexh.ll Pavilion, Messrs. Gilbey's offices and Mr. Chermayeff's house at Halland, Sussex. More recently he has been an associate in the firm of Norman & Dawbarn, in charge of all housing work, including housing schemes at St. Pancras Way, N.W.1.

The Council has appointed M. C. L. Powell as Assistant Housing Architect. He is a partner in the firm of Powell & Moya, a firm which has been responsible for largescale housing development at Pimlico for the Westminster City Council. These architects will commence their new

duties as soon as they can be released from their present commitments.

The Housing Division will be under the general direction of the Architect to the Council, Robert H. Matthew, and will work directly under the Deputy Architect, J. Leslie Martin, who will be responsible for the general policy of architectural development.





This model of the No. 9 Poplar Neighbourhood Unit, now named Lansbury, is being shown to the public for the first time on the MOTCP stand at the Ideal Home-Exhibition, Olympia. The scheme shows developments which will comprise a live architecture exhibition to be presented in 1951. See page 329 for list of architects.

#### YALE

#### New city planning programme

A new programme in city planning, leading to the degree of Master of City Pianning, has been established in Yale University's Department of Architecture. The new programme will begin next September and will require two years of study. It will be on a graduate level and will be open to a limited number of architects, landscape architects, civil engineers, and others who already hold a professional degree in a related field.

Christopher Tunnard, Associate Professor of City Planning, will be Director of Planning Studies in the programme. He has headed the section on city planning in the Department of Architecture for the past five years.

years.

#### MOH

#### Land for Churches

The Minister of Health has received representations from the Churches Main Committee on the subject of the price at which local authorities, with the consent of the Minister, may sell land for the purpose of the provision of places of worship and ancillary buildings, and he has consulted the Local Authority Associations on the matter. The following is part of a statement issued by the Ministry to County Council housing authorities:—

authorities:—
It has been pointed out to the Churches Main Committee that it is for each local authority to decide whether sites on new housing estates will be made available for such purposes and, if so, on what terms and conditions they will do so with the Minister's consent. It is felt, however, that it would be of advantage to indicate generally what view the Minister would be prepared to take

on applications which are made under that Section.

it may be that some of the sites proposed to be sold for this purpose are sites to which Section 82 of the Town and Country Planning Act, 1947, applies and that the sale will carry with it exemption from development charge in respect of development for which planning permission has been granted at the time of the sale.

The Central Land Board have decided that in determining the development charge for the erection of buildings for public worship and for other purposes of a religious body, the consent value (i.e. the value of the land with the benefit of planning permission for a particular purpose) will not be assessed at more than one-quarter of the housing value. If the building to be erected is to be used primarily for public worship the Board are prepared to consider a lower assessment.

In the past, local authorities have frequently sold land for the erection of churches at less than full market value, often indeed at nominal values, and the Department is aware that many are still following this practice.

Cases may occur in which one-quarter of the housing value would be less than the existing use value, and it is not suggested that in these cases there should be rig'd adherence to one quarter of the housing value, but that the price should be fixed in accordance with the general principle explained above, with any necessary adaptation to the particular local circumstances.

#### TIMBER ECONOMY

#### Architect disclaims responsibility

Mr. F. C. Roberts, architect to Ruthin Rural Council, has told his council that he will not be responsible for any structural defects that may arise because of the number of instructions that certain economies be effected in the use of timber for council houses.

#### DIARY

Building Teachers' Conference. Wandsworth Technical College, Wandsworth High Street, S.W.18. 10.30 a.m. to 4.30 p.m. Mar. 18

The Manufacture, Properties and Applications of Aluminium and its Alloys. Colin J. Smithells. RSA, John Adam Street, W.C.2 6 p.m. MAR. 20

Failures in Concrete Work—Their Causes and Cure. B. H. Knight. At Metropolitan Hall, High Street, Newport, Isle of Wight. (Sponsor, TDA.) 7.15 p.m. Mar. 21

The Great Exhibition of 1851. C. H. Gibbs-Smith. At 34, Bedford Square, W.C.I. (Sponsor, AA.) 8 p.m. Mar. 22

Changes in Building Lechnique. R. Fitz-maurice. At Chamber of Commerce, New Street, Birmingham. (Sponsor, TDA.) 7 p.m. MAR. 22

Economy in Traditional House Building. N. S. Pippard. At YMCA Building, Cardiff. (Sponsor, TDA.) 7 p.m. Mar. 22

Standards and Codes of Practice for Building. C. Roland Woods. At Tempest Anderson Hall, Museum Gardens, York. (Sponsor, TDA.) 7.15 p.m. Mar. 22

Prestressed Concrete Developments at MOW Field Test Unit. Dr. H. W. Webb. Technical College, Cau'don Place, Stokeon-Trent. (Sponsor, TDA.) 7.30 p.m. MAR. 23

Talks on the County of London and Greater London Plans. BBC Third Programme. John Summerson: The Nature of London (Mar. 18). Peter Shepheard: What is wrong with London? (Mar. 19). Arthur Ling, Gordon Stephenson and Peter Shepheard: The New London (Mar. 28). Prof. Holford: How will the Plans Work? (Apr. 5).

MAR. 18, 19 and 29; APR. 5

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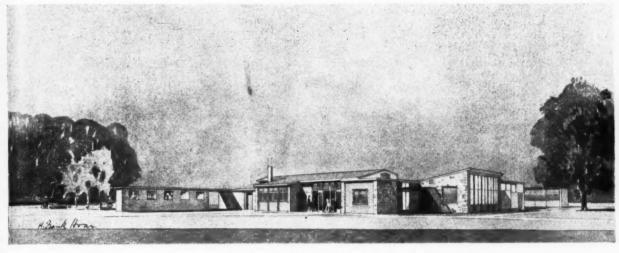
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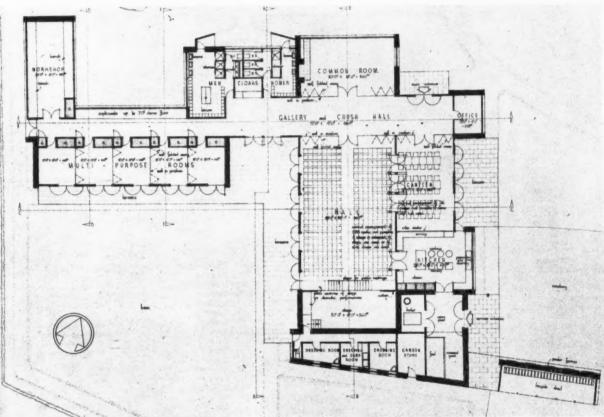
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#### WINNING RURAL SCHEME: IAAS COMMUNITY CENTRE COMPETITION





Perspective and plan of winning rural scheme.

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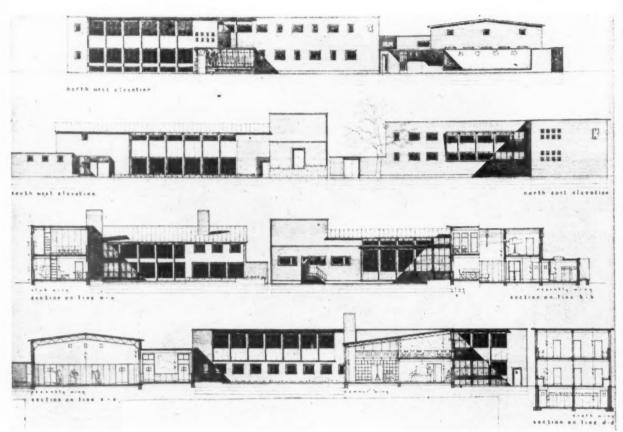
PR. 5

On this and the following two pages we publish the schemes that won first prizes in the urban and rural section of the IAAS open competition for community centres. Messrs. Devereux and Davies, A./F.R.I.B.A., of London, won £100 for their rural scheme, and W. J. Thomas and J. K. Chalton, A./R.I.B.A., of Birmingham, won £150 for their urban scheme. In the rural section, A. Clayton, of Nottingham, won a second prize of £50 and H. W. Pickstone, B.Arch., A.R.I.B.A., of Formby, Lancashire, received an honourable mention. In the urban

section, F. W. B. Charles, B.Arch., A.R.I.B.A., of Edinburgh, and Norman and Margaret E. Rix, A. A.R.I.B.A., of Hayes, Kent, tied for a second prize of £75.

The object of this, the sixth open competition to be held by the IAAS, was to encourage architectural skill in the design and economic planning of a community centre to serve a neighbourhood unit. Although of the 27 entries a larger number was received in the rural section than in the urban, the competitors in the

#### WINNING DESIGN FOR URBAN SCHEME: IAAS COMMUNITY



Elevations winning urban scheme.

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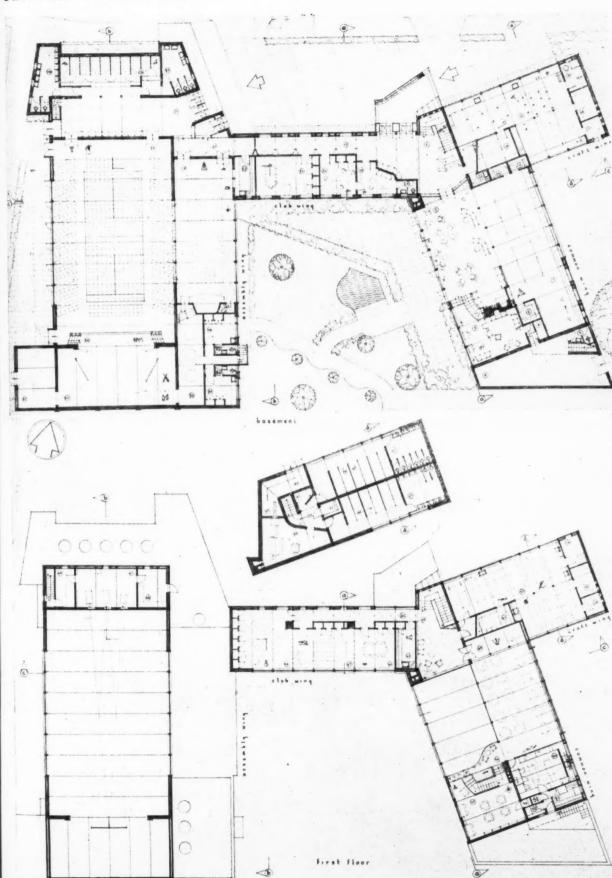
and presentation. The subject of the competition was the design of a community centre to serve a neighbourhood unit. The competitor was allowed to choose to design a community centre for a rural or urban community, taking the neighbourhood population as 2,000 and 10,000 respectively. Competitors were not bound in any way in the choice of materials but were reminded of the importance of standardization as affecting their use. The competitor was also asked to bear in mind that the size of the groups using the accommodation might vary from time to time and the flexibility of the structure would be taken into consideration by the assessors. The cost of the rural centre was limited to between £75,500 and £10,000 and that of the urban centre to between £35,000 and £50,000.

Surveys were carried out as to activities which might interest people in the two types of locality, and competitors were asked to provide group accommodation based on the results of the surveys. The following accommodation was also required: a common room, kitchen, canteen, lavatories, cloakrooms, warden's office, office for the use of group secretaries and storage. The sites upon which schemes were to be based were entirely imaginary ones.

Facing page: top, ground floor plan. Bottom, basement and first floor plan.

KE.	Υ		
	Ground Floor.		Basement.
-	Entrance foyer	38	Heating
2	Common	39	
3	Quiet reading	40	Chute-meters unde
4	Yard	41	
5	Staff lavatory	42	Cleaner
6	Fuel	43	
7	Games	-	Male cloaks
8	Store		Male lavatory
9	Store		Female cloaks
10	Store	47	
11	Cleaner		Tomate lavacory
12	Heavy crafts		
13	Forge		
14	Store		First Floor.
15	Materials		
16	Store	48	Gallery foyer
17	Exhibition half	49	Canteen
18	Enquiry	50	Kitchen
19	Lavatory	51	Larder
20	Warden	52	Vegetable store
21	Group secretaries	53	Cleaner
22	Caterers	54	Aquarium gallery
23	Small assembly foyer	55	Quiet-games
24	Small assembly	56	Store
25	Large assembly foyer	57	Light crafts
26	Cloaks	58	Store
27	Female lavatory	59	Store
28	Male lavatory	60	Store
29	Large assembly	61	Store
30	Forestage-chairs under	62	Corridor
31	Stage	63	Photography
32	Scenery	64	Club I
33	Green room	65	Club 2
34	Dressing	66	Club 3
35	Lavatory	67	Projection
36	Dressing-chairs under	68	Re-wind
37	Lavatory	69	Dimmer

#### CENTRE COMPETITION



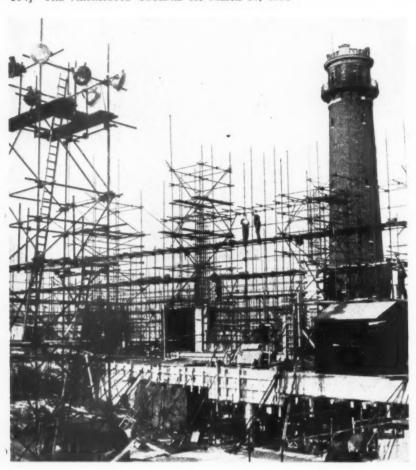
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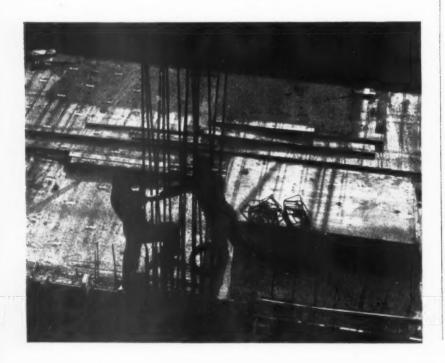
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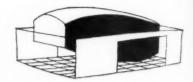
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A recent photograph of the LCC Concert Hall, showing the tower, left, by means of which the site is floodlit at night, and beyond, part of the auditorium floor, surrounded by a mass of intricate scaffolding and steel reinforcement. Below, a newly-laid concrete floor showing the pattern of fixing clips.





#### DIARY

February 8.—Orchestra platform and organ chamber cast.

February 17.—Auditorium promenade slabs, 53 level, cast. Inner skin wall up to approximately 67 level, external skin wall proceeding to 53 level.

In progress now.—Wing slabs 53 level. Terrace foundations and internal brick partitioning in kitchen, foyer and staff area, 12-18 levels. Services carcasing in basement and vent ducting in kitchen area, -02 level.

#### CONCERT HALL

Progress report by John Eastwick-Field and John Stillman.

With the exception of some of the subsidiary wailing, and of part of the roof structure, the whole fabric of the LCC Concert Hall is to be of concrete, poured in situ. There is, at the moment, little else to be seen on the site but a mass of intricate scaffolding and steel reinforcement, various types of shuttering, and the plant used for mixing, transporting and placing concrete. Provision is, of course, being made for services, and some of the drainage is in progress; furthermore, fixings are being left as the work proceeds for facing materials, but the bulk of the work is still confined to the actual concreting of the main structure.

One of the problems which any contractor has to face is to arrange the progress of the work so that the finishings, which occupy much of the allotted time, may be started as early in the job as possible. This problem is of special importance in the "progressing" of the Concert Hall, since the work is scheduled for completion in less than 10 months. The general intention, therefore, has been to proceed as quickly as possible with the concreting of the Auditorium itself, so that this part of the building shall be enclosed and ready for the other trades concerned. As was mentioned earlier, the programme submitted by the contractors was taken into account when the tenders were considered, and in its preparation, detailed progress drawings were made, showing how it was proposed to undertake the work. The proposal for the regular supply and delivery of materials was also of importance, and although facilities for transport offered by the river are not being used, the idea of doing so did not go unnoticed. The greater part of the material at present being consumed is for the concrete work, and while the necessary mixers, scaffolding, hoists, steel and timber shuttering and other plant are available on the site, the cement, sand

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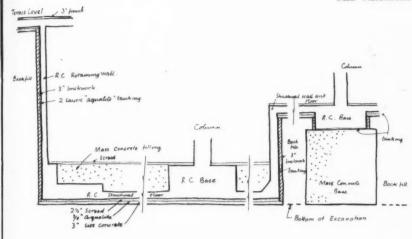
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Mr. Guthlac Wilson, of Scott and Wilson, the consulting engineers. Left, a typical column base and the method of tanking the foundations. Below, two stages in the laying of the foundation bases. (Photographs kindly lent by Blair Knox, Ltd.)

and coarse aggregate are being brought in the normal way by road, as they are required for mixing and placing.

#### THE DESIGN OF THE STRUCTURE

The photographs on page 337, taken about a fortnight ago, of the auditorium floor and of the beginnings of the auditorium walls give some idea of the progress being made.

In the following description of the structure we try to analyse how the main principles of construction have been arrived at, and later we shall give a more detailed description of the concreting technique. The idea of building the auditorium as a

anit poised within a framework of surrounding foyers, restaurants and general circulation was arrived at partly because of the limited space which the site provided, and also because of the great advantage which such an arrangement would have in isolating the auditorium from outside noise. These were factors not strictly affecting the structure, but, once the idea had been conceived, it was possible to consider what factors would influence the design of the actual

structure and to assess the merits and demerits of the various possible ways of realizing the idea.

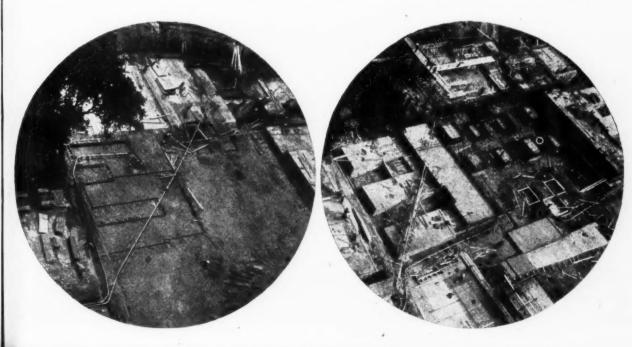
For the reasons given in the last article, reinforced concrete was chosen in preference to steel framing as the structural method. Right from the start, the one over-riding consideration in the detail design of the structure was the necessity to ensure that the acoustic conditions inside the auditorium should be as good as possible. This meant that the noise level inside the auditorium should be very low, and it was thought desirable, even with the plan arrangement discussed above, to make the walls and roof of the auditorium in two leaves with a cavity between. There is also a double floor. These were to be structurally disassociated as far as possible, and were to be heavy enough to ensure that there would be sufficient "mass" to give the required attenuation of the low frequency noise from outside. Measurements indicated that the total insulation required amounted to some 70-80 db, at a frequency of this dayle leaf enclosure.

The provision of this double leaf enclosure was one of the special and more unusual

problems which the consulting civil engineer had to face; but there were others which were more or less peculiar to this job and which influenced either the design of the structure or the method of carrying it out. Among these were the special site conditions, the need for speed of erection, and the isolation of the small hall. Because of these conditions, and especially because of the speed at which the building had to be completed, it became clear that the actual structural design should be as straightforward as possible, not involving experimental techniques over which there might be delays. There is, in fact, nothing exceptional about the design of the actual reinforced concrete, which is wholly in accordance with the Code of Practice.

#### THE FOUNDATIONS

As we have described previously, the site had been heavily built over, and it was uncertain what obstructions would be met with in forming the foundations. For this reason, among others, such as the convenience of excavating the whole site after



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ROOF 2 outer last 12" Carriey, 6" inner head. Weight of outer last transmiller through inoutated dwarf walls to inner leaf

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Top, part of the tanking, showing the structural wall and the brick protective skin. The bricks are laid on edge for economy. Above, a diagram showing the principles of construction of the auditorium. Left, forming, with steel shuttering, one of the leaves of the auditorium walls. In the background is the auditorium floor. Right, Mr. A. B. Taylor, the resident engineer.

ground water lowering, and the fact that it was possible to obtain a good foundation on gravel for individual column bases, mass and reinforced concrete foundations were used in preference to piles. As it happened, large areas of former concrete foundations were uncovered, and these might have proved a considerable embarrassment if piling had been decided upon. Incidentally, the load carried by the largest individual foundation is some 2,000 tons.

Since part of the structure is below the ground water level, the water has had to be excluded by tanking. This has been done by enveloping the whole of the substructure with a continuous concrete slab, about 6 in. thick, containing a membrane of two layers of patent waterproof sheeting. The upward pressure of water exerted on the slab is resisted by the RC column bases and the structural floor laid over the slab. The tanking is carried up the outside of the structural containing walls and is protected by a skin wall of 4½-in. brickwork. The particular waterproofing material, which is a heavy quality, hessian base, bitumen sheeting weighing 10 lb. yd., supplied in rolls and applied by means of a blowlamp, was chosen for the tanking because it is convenient to use and can be applied quickly and cleanly, causing very little interference with the other work in progress. It is also thought to have a good capacity for taking up any small relative movements in the substructure.

Part of the tanking, showing the outer skin wall, which is constructed of semiengineering red pressed bricks, known to be satisfactory when used below ground, is shown in the photograph on this page. The soil was analysed by Ground Explorations Ltd. for its sulphate content, and it was found that no special bricks or cement were necessary, even in the water-bearing ground.

THE WALLS AND FLOORS

It would be unreasonable to suppose that because the design of the building is unusual in many respects, there might be corresponding innovations in the structure, but any techniques of which there is not a wide experience, such as prestressing at the site, might have endangered the completion of the job to time. For this reason the structure has been designed as a series of beams and slabs supported on columns; and infilling walls are, so far as is possible, non-structural. Column and beam construction was thought to be more rapid and more flexible than other systems.



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Nevertheless, structural walls are being used in two places. One is in the construction of the auditorium itself, and the other is in the four staircase blocks at the corners of the building. They are being used in the auditorium because it is possible thereby to give sufficient strength to the relatively thin and slender leaves of the walls so that they shall support the noof without piers; and in the staircase blocks because these have been conceived as stabilizing buttresses in support of the auditorium, which rests on tall flexible columns, and is otherwise unrestrained laterally.

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The two leaves of the auditorium walls are each 10 in, thick, with a cavity of 12 in. There are no ties between the leaves and the inner leaf, which carries the roof, is buttressed to some extent by short return walls which support the boxes. The outer leaf is independently buttressed by the stair-

The sloping auditorium floor, like the walls, is of "double" construction and both leaves are of reinforced concrete. Wherever there is contact in the double floor, pads of asbestos felt are inserted, and glass silk is draped over the dwarf walls supporting the outer roof slab, to reduce the transmission of sound. There is also a layer of wood wool on the inner face of the outer leaf of the walls which serves further to reduce the passage of sound from outside by making the air space non-reverberent.

Other floors in the building, apart from the auditorium floor, were to have been of pot" construction with hollow clay blocks, and some floors of this kind have been laid. It was found, however, that they were slower construction than a straight reinforced concrete floor, and that there was more difficulty in strutting from them than from the

#### THE DOUBLE COLUMNS

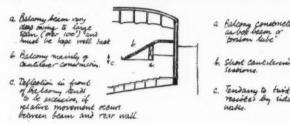
One of the technical difficulties already mentioned as arising out of the design has been the problem of insulating the small hall from the floor of the main orchestratiers which are immediately aboye it. It is hoped to avoid sound transmission by arranging for the small hall to be carried on annular columns constructed round the principal columns carrying the main hall, and insulated from them by glass silk, and from the common foundation by a form of asbestos insulator known to give reasonable insulation under pressure.

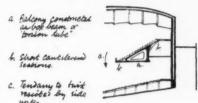
#### THE AUDITORIUM ROOF

One of the factors which has influenced the structural design of the roof is the very limited space available inside or outside the auditorium walls for buttressing. If solid

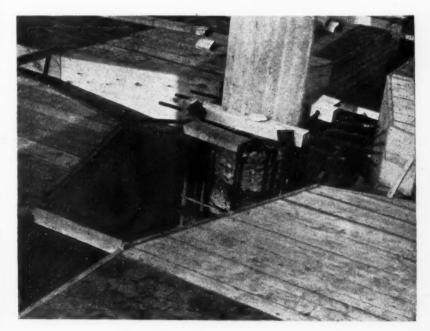


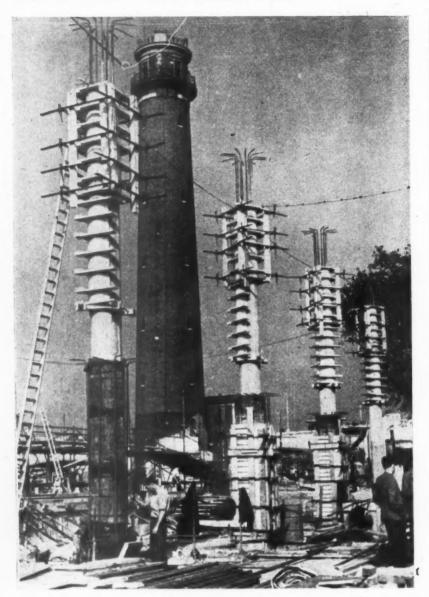




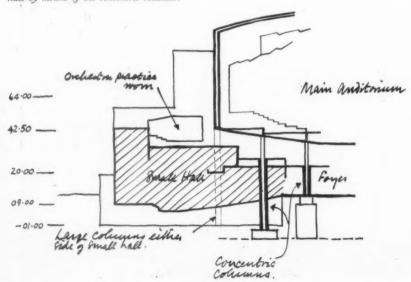


Top, the sloping bottom leaf of the auditorium floor. This photograph, taken on February 15, shows the progress made up to about level 67-0. Above, the theory of balcony construction, showing, lest, the traditional method, and right, the method used for the concert hall. Below, the concentric columns under construction. The connection of the beams and slab to the outer ring of the concentric columns. Below lest, Mr. H. Reynolds, the contract manager.





Above, the concentric columns under construction. Below, the method of isolating the small hall by means of the concentric columns.



buttressing could have been accommodated has been suggested that the whole design, it has been suggested that the whole design, including the roof, might well have been considered as a rigid frame construction with the buttresses as legs.

In fact, however, the construction of the

auditorium has three distinct parts. First the floor, carried independently of the walls and supported on columns, second the walls, also supported on columns, second the waits, also supported on columns, and third the roof which is essentially a tied concrete barrel vault in two layers, supported on the inner leaf of the walls. The thrust exerted by the leaf of the walls. The thrust exerted by the barrel vault is taken by twelve ties which have been framed up into steel lattice girden which are capable of supporting the inner vault slab while it is being cast. The outer slab will rest on insulated dwarf walls and will be mainly of precast construction, covered with insulating board and orthodox copper roofing.

A casual glance at the published drawings of the design would suggest that the whole of the auditorium is one monolithic concrete box with a shell roof construction. As has been pointed out, it is not constructed in this way, and some of the reasons for avoiding shell construction are worth men-tioning. First, one of the main advantages avoiding shell construction are worth men-tioning. First, one of the main advantages of shell construction is the saving in material due to the thinness of structure which is possible; here a certain mass is essential. Secondly, it is of greatest value when there is considerable repetition; here there is very little. Thirdly, it requires ex-tensive shuttering and it has been the aim to keen the auditorium clear of a birdcase to keep the auditorium clear of a birdcage of scaffolding so as not to handicap the finishing trades.

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#### THE MAIN BALCONY

The position of the main balcony beam in relation to the back wall of the auditorium was dictated by architectural considerations, but since it was necessarily close to the back wall, it was considered that any relative movement between the main beam and the rear wall would produce pronounced de-flection of the cantilever beams. For this reason it was decided to form the balcony in one hollow box, spanning across from side wall to side wall, independently of the rear wall. Any eccentric loading of the beam itself would thus be resolved into a twisting motion which would be resisted by the complete box formation of the balcony.

EXPANSION JOINTS AND SETTLEMENT

The structure as a whole has been designed as one unit without expansion joints, and it is considered to be just within the maximum dimensions which may be permitted without such joints. There is, however, to be one construction joint at the junction of the main structure with the small hall, and this has been put in partly to take up any movement between the two halls, and partly for acoustic separation.

Settlements are expected to be very small and should therefore, it is thought, be taken up in the framing.

THRUSTS

Where the walls of the auditorium are restrained at the corners by the return walls, and also at one end by the balcony, the thrust exerted by the expansion of the vault ties under load has been calculated to be such that it cannot be neglected, and in order to keen it within the desired limits, lacks are to keep it within the desired limits, jacks are to be incorporated. They will occur in the bottom chords of the three girders at either

The authors are indebted to Mr. E. O. Measor, of Scott & Wilson, the consulting engineers, for advice in describing the structure. All the illustrations, with the exception of those at the bottom of page 335 and the two portraits on pages 336-7, have been photographed or specially drawn by the authors. authors.

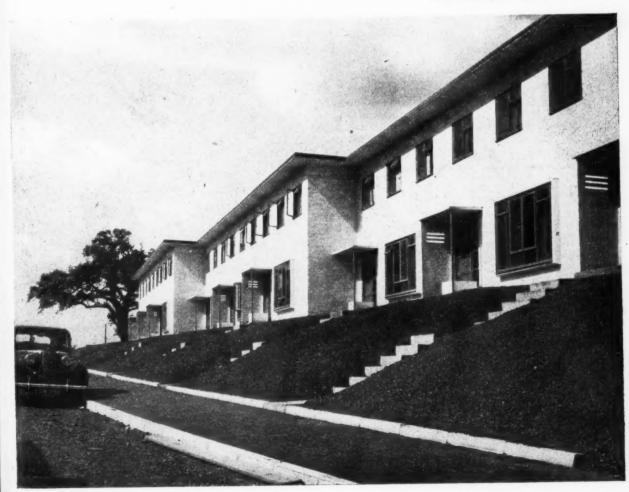
The Architects' Journal for March 16, 1950 [339

#### HOUSING

at GAER-STELVIO, NEWPORT, MONMOUTHSHIRE designed by JOHNSON BLACKETT

The neighbourhood development at Gaer-Stelvio has been planned to provide accommodation for 3,900 persons on a total site area of 163 acres. The neighbourhood centre includes sites for community, health and shopping centres, church, cinema and schools. Two areas of parkland have been opened to the public.

Three-bedroom, flat-roofed houses in terraces.



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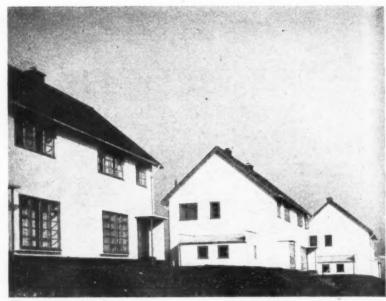
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SITE.-Newport, with a population of over 100,000 lies on both sides of the river Usk, in a flat alluvial plain surrounded by hills. Most of the undeveloped flat land is either high grade agricultural land, or reserved for industrial development. The new neighbourhoods have therefore had to be sited in the hills which surround Newport. The Gaer-Stelvio neighbourhood is one of these, and is located one and a half miles south-west of the town centre.

PLAN.—Two main types of house unit have been designed by the borough architect's department, although the scheme does include BISF houses, Arcon type bungalows and apprentice built houses to MOW Duplex forms. The two main types consist of paired houses and terrace type houses. Accommodation in paired houses consists of one single

#### HOUSING

at GAER-STELVIO, NEWPORT, MONMOUTHSHIRE designed by JOHNSON BLACKETT



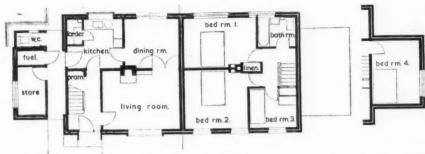
Three-bedroom pitched-roof houses in pairs.

#### KEY TO PLAN BELOW

- Three storey flats
- K Kinema Ch Church CC Commu
- Community centre Infants' school Junior school Playing fields

- Shopping centre Public house Public parks Private School Prefab. bungalows Nursery schools





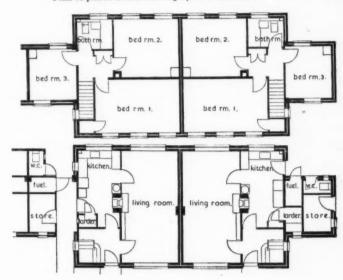
Plan of paired house showing optional bedroom.

[Scale: 13"=1'0"]



Plan of terrace houses.

140

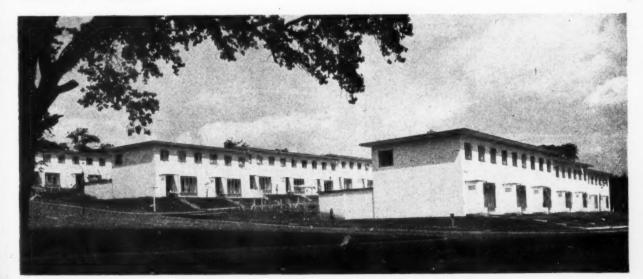


Plans of paired houses.

and two double bedrooms, which in some cases has been modified to give an extra bedroom, combined w.c. and bathroom on the first floor, a large working kitchen, living room, outside storage space and w.c. on the ground floor. Accommodation in the terrace type houses is identical except for the inclusion of a dining space.

CONSTRUCTION.—The external walls of both types are of brick, with a cavity and an inner skin of breeze or hollow pot blocks. Internal partitions are of the same materials as the inner skin. Ground floors are of concrete with a finish of coloured asphalt. First floors consist of T & G boarding laid on timber joists. Gabled roofs of the paired houses

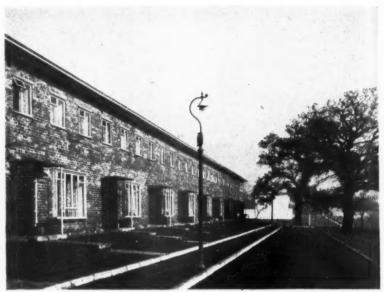
Three-bedroom houses in terraces.



FINISHES.—Exterior walls have in some cases been colour washed. Entrance porches vary in design and some have been colour rendered.

SERVICES.—Water and space heating in the paired houses have been provided by a back to back range, with subsidiary heating by gas fires in the main bedrooms. Radiators have been installed in the terrace type houses, as well as gas fires in the main bedrooms.

The general contractors for the terrace houses were Messrs. Amalgamated Building Contractors Ltd.; for the pitched-roof houses, Messrs. Percy Trentham Ltd. A list of sub-contractors appears on page 352.



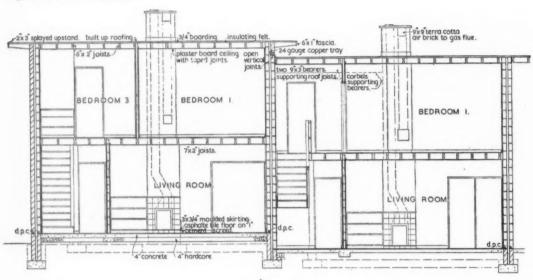
Three-bedroom houses in terraces.

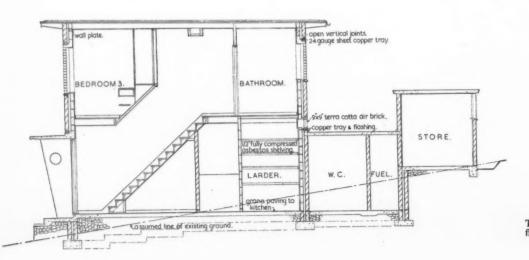
#### HOUSING

342]

at GAER-STELVIO, NEWPORT, MONMOUTHSHIRE

designed by JOHNSON BLACKETT





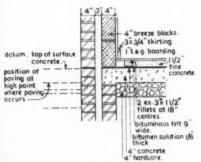
Typical sections of flat-roofed houses.

[Scale: \frac{1}{2}" = 1'0"]

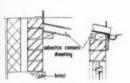
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Wall

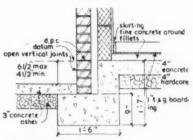
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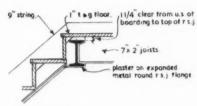
Wall and floor slab at ground 2001



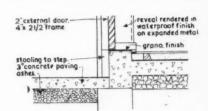
Outbuilding roof



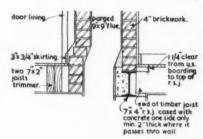
Foundations to rear wall



Head of staircase



Threshold of front door



Flue at first floor level

Details of three-bedroom paired houses

[Scale: }"=1'0"]

Three-bedroom houses.





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#### SWEDISH TRAVEL BUREAU

at 21, COVENTRY STREET, LONDON designed by GERALD LACOSTE

The Swedish Travel Bureau at 21, Coventry Street, W.1, acquired the adjacent premises. It was decided to reconstruct the two premises, making provision for a booking hall and a manager's office on the ground floor. Practically all the material for the reconstruction came from Sweden.

Interior of the booking hall.



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[Scale : 1 "=1'0"]

OFFICE

Ground floor

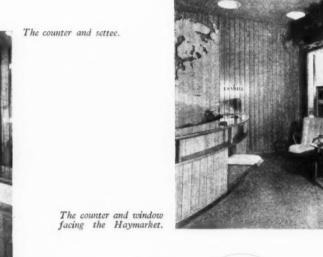


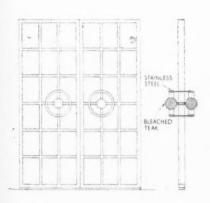
Basement

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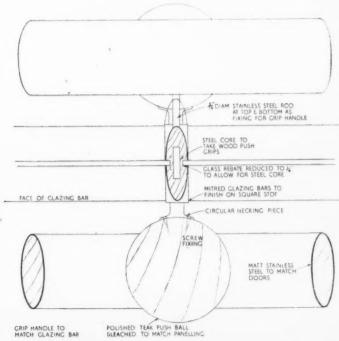
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Flevation, section and plan of entrance door [Scale: ]"=1'0"]



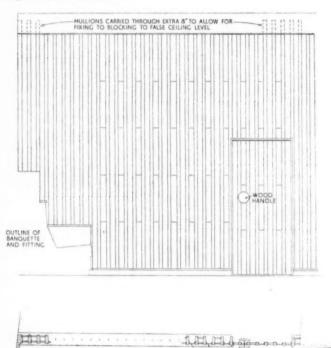
Details of entrance door handle

EXTERIOR FINISH.—The exterior is faced with panels of green oxidised copper. Window and door frames are of stainless steel with a matt finish.

INTERIOR FINISH.—Panelling, partitions and fittings are in bleached and polished pine. A map of Europe behind the counter is sawn out of elm. For the benefit of clients, 48 principal places have been provided with pilot lamps, each of which can be illuminated to indicate any desired travel route to Sweden. Four folding seats are attached to the semi-circular counter, for the use of clients. Beech has been used for the armchairs. Upholstery is in nylon cotton, folk weave. The settee at the end is covered with pale yellow material. Above it are display cases. The three display windows are

#### SWEDISH TRAVEL BUREAU

at 21, COVENTRY STREET, LONDON designed by GERALD LACOSTE

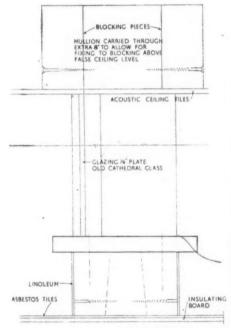


Elevation and plan of screen between office and reception

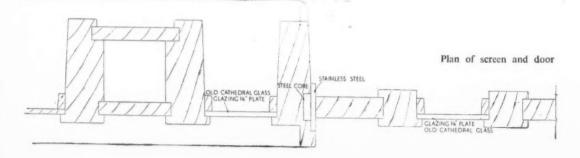




The Coventry Street façade



Section through screen [Scale: 3"=1'0"]



GLAZING OLD CATHEDRAL GLASS

### CLASSIFICATION

The Architects' Journal Library of Information Sheets 257. Editor: Cotterell Butler, A.R.I.B.A.

This Sheet sets out the simple classification system on the basis of which the Information Sheet Library is organised. It is unlikely that the 46 subjects will be revised at any time in the foreseeable future but readers are warned that any given section only becomes established as and when a Sheet is actually published in that section. The system is designed to permit of the maximum flexibility consistent with simplicity and is based on grouping together those subjects most likely to be required at the same time in actual practice.

#### GENERAL

#### 1. General Practice

- Office practice Draughtsmanship Surveying (including quantity surveying) Specification Glossary and definitions Miscellaneous

- Building Science
- Mechanics
- Light

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- Electricity and magnetism Chemistry
- Mensuration
- Comparative properties of materials Weights and measures Equivalents
- Equivalents Mathematics : Tables
- Professional Procedure (legal matters to be covered under appropriate sections) 3.

- Consultants Authorities Professional bodies Regulations Miscellaneous

#### 4. Planning and Design

- General data Administrative and office
- Ecclesiastical
  Art galleries, museums
  Communications and transport (including roads)
- Education
- Health Hotels, restaurants, hostels

- Hotels, restaurants, Rustens
  Houses and housing
  Industrial
  Recreation and entertainment
  Shops and warehouses
  Town and country planning (including landscape)
  Miscellaneous (sociological data, etc.)

#### CONSTRUCTION (BY MATERIALS)

### 5. Stone (natural and artificial)

- Natural: General data Natural: Applications Reconstructed and artificial: General data Reconstructed and artificial: Applications C

#### 6. Concrete

- General data (theory of design, aggregates, etc.)
- ABCZ
- Applications
  Lightweight
  Miscellaneous (integral waterproofing, etc.)

#### Cements, Mortars and Plasters

- Cements, Mortars and Plasters

  Cements and mortars: General data (including sands)
  Cements and mortars: Portland
  Cements and mortars: Lime
  Cements and mortars: Aluminous
  Cements and mortars: Miscellaneous (fire-resisting,
  blast furnace, etc.)
  Plasters: General data
  Plasters: Lime
  Plasters: Fibrous
  Plasters: Fibrous
  Plasters: Miscellaneous
  Miscellaneous (grouts, etc.) DE
- FGH

#### Glass 8.

- General data
- Plate
- Blown Fibres

- F Applications (finishes, etc.)
  Z Miscellaneous

#### Iron and Steel

- General data
  Mild steel riveted: Applications
  Mild steel welded: Applications
  Alloy steels
  Wrought iron, cast iron, etc.

### 10. Non-ferrous Metals and Alloys

- General data
  Aluminium and alloys: General data
  Aluminium and alloys: Applications
  Copper and alloys: General data
  Copper and alloys: Applications
  Lead and alloys: Applications
  Lead and alloys: Applications
  Zine and alloys: Applications
  Zine and alloys: General data
  Zine and alloys: Applications
  Brasses and bronzes: General data
  Brasses and bronzes: Applications
  Miscellaneous
- KLZ
- 11. Timber (natural, laminated and ply)
- Natural: General data Laminated and ply: General data A B
- D
- Joinery Complete structures Miscellaneous

#### 12. Materials : Miscellaneous

- Rubber

- Slate
  Clay
  Fiastics
  Cork
  Bitumen, pitch, etc.
  Slag
  Magnesite
  Diatomaceous earth
  Asbestos
  Tar macadam
  Straw thatch, etc.
  Glues, pastes, adhesives generally

#### CONSTRUCTION (BY PRODUCTS)

- 13. Bricks (9 in, by 41 in, by 3 in., and the like)

- General data
  Applications
  Clay common: General data
  Clay facing: General data
  Clay engineering: General data
  Clay miscellaneous: General data
  Clay miscellaneous: General data
  Clay: Applications
  Sand lime: General data
  Sand lime: Applications
  Concrete: General data
  Concrete: Applications
  Fire resisting and insulating: General data
  Fire resisting and insulating: Applications (including
  diatomaceous earth, etc.)
  Lightweight materials: General data
  Lightweight materials: General data
- ice, etc.)
  Reinforced brickwork
  Miscellaneous
- 14. Building Blocks and Slabs (thick materials : including and above 1 in.; generally of limited area)
- General data

- A General data
  B Clay: General data
  C Clay: Applications
  C Clay: Applications
  D Concrete: General data
  E Concrete: Applications
  F Reconstructed stone: General data
  G Reconstructed stone: Applications
  H Fire-resisting and insulating: General data
  J Fire-resisting and insulating: Applications (including diatomaceous earth, etc.)
  Lightweight materials: General data
  L Lightweight materials: Applications (breeze, pumice, wood-wool, sawdust, etc.)
  M Glass: General data
  N Glass: Applications
  Z Miscellaneous

- 15. Sheet Materials (generally thin, relatively rigid materials, and of large area : including and below § in. generally)

- General data General building boards: General data General building boards: Applications Special fire-resisting building boards: General data Special fire-resisting building boards: Applications Special water-resisting building boards: General

- Special water-resisting building boards: Applications Plaster boards: General data Plaster boards: Applications Asbestos cement: General data Asbestos cement: Applications Timber: General data Timber: General data Asplications

- Timber: Applications Metal: General data Metal: Applications
- Plastics: General data Plastics: Applications Miscellaneous
- Roof Sheets, Roof Sheet Materials and Special 16.
- Roofing General data

- General data
  Sheets, metal: Applications
  Sheets, estal: Applications
  Sheets, asbestos cement: General data
  Sheets, asbestos cement: Applications
  Sheets, composite: General data
  Sheets, composite: Applications
  Sheets, miscellameous
  Sheets, miscellameous
  Sheet material, bituminous and the like (including
  special finishes on sheet roofing): General data
  Sheet material, bituminous and the like (including
  special finishes on sheet roofing): Applications
  Sheet material, metal: General data
  Sheet material, metal: Applications
  Sheet material, miscellaneous
  Special roofing: General data
  Special roofing: Applications

- LMNPQ
- Roof Tiles, Slates. Shingles, etc. (including applica-tions other than on roofs)
- tions other than on roots)
  Tiles: General data
  Tiles, clay: General data
  Tiles, clay: Applications
  Tiles, concrete: General data
  Tiles, concrete: General data
  Tiles, concrete: Applications
  Tiles, glass: General data
  Tiles, glass: General data
  Tiles, glass: General data
  Tiles, glass: Applications
  Tiles, miscellaneous (including composite, asbestos

- Tiles, miscellaneous (including composite, asbestos cement)
  Slates: General data
  Slates, natural: Applications
  Slates, glass: General data
  Slates, spasses General data
  Slates, asbestos cement: General data
  Slates, asbestos cement: Applications
  Slates, ansicellaneous (including bituminous, metal, etc.)
  Shingles (timber): General data
  Shingles (timber): Applications

- Wall and Floor Tiles and Flat Roof Tiles, Faience and Terra-cotta

- Tiles: General data
  Tiles, asbestos cement
  Tiles, concrete
  Tiles, conspalt
  Tiles, cork
  Tiles, cork
  Tiles, cork
  Tiles, cork
  Tiles, composite
  Tiles, miscellaneous (including rubber, plastics and metal)
  Faience: General data
  Faience: Applications
  Terra-cotta: General data
  Terra-cotta: Applications
  Miscellaneous
  Miscellaneous
- GH

- Floor and Wall Finishes (excluding tiles, papers, plasters, panelling, etc.)
- General data
- Granolithic etc.
- Concrete Asphalt Magnesite Rubber
- Linoleum Metal
- Miscellaneous
- 20. Floors and Roofs: Floor and Roof Structural Elements
- - General data
- General
  Clay
  Steel
  Concrete
  Timber (stressed skin flooring units)
  Cincluding composite)
- Partitions and Walls: Partition and Wall Structural Elements (excluding general products such as blocks, sheets, etc.)
- BCDEF General data

- A General data
  Concrete
  C Metal
  D Reconstructed timber
  E Building Board
  F Asbestos cement
  C Plaster board and plaster
  Note: Sections A to G are classified by panelling
  material
  Miscellaneous

29. Space Heating

A General data (including neighbourhood systems, energy distribution, thermostatic control etc.)
B Units: Solid fuel
C Units: Gas
D Units: Electric

### 1.A1 CLASSIFICATION

22.	Ceilings	E	Units: Miscellaneous	37.	Services and Equipment : Miscellaneous
A	General data	G	Systems: Gas Systems: Electric	A	Entertainment
B	Metal Reconstructed timber	H	Systems: Hot water and or steam: Mechanical	B	Heat and light therapy equipment
D	Building board		stokers	D	Services and equipment: Power supply: Electric Services and equipment: Power supply: Gas
F	Plaster board Plaster	K	Systems: Miscellaneous Miscellaneous (with hot water supply combined)	E	Protection (including guard rails to machinery, lightning protection, A.R.P., etc.)
Z	Miscellaneous			F	Refuse collection and disposal Sterilisation and pest control
23.	Doors and Frames (including fanlights)	30.	Ventilation, and Combined Heating and Ventilation	H	Telecommunications
A	General data	AB	General data	ž	Time Miscellaneous (including X-rays and prime and
B	Timber	C	Flues: Gas or oil Flues: Solid fuel		secondary movers)
C	Steel Non-ferrous	D	Ventilation, natural (including air bricks, etc.) Ventilation: Units		
F	Composite Combined (metal doors in timber frames, etc.)	F	Ventilation: Systems, positive pressure	AF	PLIED FINISHES AND TREATMENTS
G	Concrete	G	Ventilation: Systems, extract Ventilation: Systems, equipment		
H Z	Rolling shutters Miscellaneous (including mechanically operated,	J K	Combined heating and ventilating units Combined heating and ventilating systems	38.	Paints. Stains, Varnishes and Polishes
	etc.)	Z	Miscellaneous	A	General data
94	Windows, Frames and Roofgluzing	21	Caldia	В	Paints: Water
184.		.51.	Cooking	C	Paints: Natural oil Paints: Synthetic and cellulose, etc.
A	General data Windows and/or frames, timber	AB	General data Solid fuel	E	Paints: Miscellaneous
Č	Windows and/or frames, steel: General data	C	Gas	G	Stains, water, spirit, oil, etc. Varnishes, spirit, natural oil, synthetic resin, etc.
D	Windows and/or frames, steel: Applications Windows and/or frames, aluminium: General data	B	Electric Steam	H	Polishes, French, oil, wax, etc. Miscellaneous
F	Windows and/or frames, aluminium: Applications	ž	Miscellaneous (oil cooking, etc., combined heating and cooking, cooking and hot water supply)	4.	viscendiecus
G	Windows and/or frames, miscellaneous (including bronze, etc.)		and cooking, cooking and hot water supply)	39.	Line Resisting Transmitte
H	Rooflights and pavement lights, timber Rooflights and pavement lights, metal	32	Water Heating		Fire-Resisting Treatments
K	Rooflights and pavement lights, concrete			B	Paints Renderings
1	Rooflights and pavement lights, miscellaneous (in- cluding domes)	B	General data (including neighbourhood systems, etc.) Units: Solid fuel	C	Impregnators
M	Roof glazing: Aluminium Roof glazing: Steel	C	Units : Solid fuel Units : Gas Units : Electric		
P	Roof glazing: Timber	E	Units: Miscellaneous (oil stoves, etc.)	40.	Anti-rot. Anti-Corrode, Anti-Water-Penetration,
Q	Roof glazing: Concrete Roof glazing: Miscellaneous including bronze, etc.	F	Systems : Solid fuel Systems : Gas		Anti-Dust Treatments
SZ	Windows: Control systems	н	Systems: Electric	A	Timber: Coal-tar, creosote and bitumen products;
2	Miscellaneous	K	Systems : Oil Systems : Steam	В	synthetic resin products; miscellaneous Metals: Chemical treatments; painting; plating;
95.	Complete Structures (classification here will be by	Z	Miscellaneous (with heating combined)	C	miscellaneous. Stone and concrete, etc.: Coal-tar, creosote and
aJ.	the proprietary name of the structure)		man of the standard	-	bitumen products; synthetic resin products; petrifying liquids; painting
		33.	Water Supply and Sanitation		petrifying fiquids; painting
26.	Products : Miscellaneous	AB	Water supply: General data (including systems) Water supply and sanitation, copper (including	41	Applied Finishes and Treatments : Miscellaneous
A	Damp proof courses		plumbing generally)	71.	Applied Philsnes and Treatments . Miscenaneous
В	Roads and pavings (including : tennis, fives-courts, etc.)	C	Water supply and sanitation, lead (including plumb- ing generally)		
C	Fencing and gates; railing and gates Gates and grilles	D	Water supply and sanitation, steel, wrought iron, cast iron (including plumbing generally)		RNITURE AND FITTINGS here design and planning considerations are involved
E	Foundations and piling	E	Water supply and sanitation, miscellaneous	1	bey are dealt with here, under appropriate sections)
F	Staircases, ladders, balustrades, etc. Papers, felts and membranes	F	Water supply equipment (drinking fountains, taps, cisterns, etc.)		
H	Preformed fibrous plaster products	G	Water supply, miscellaneous Water storage, purification and distribution	42.	Furniture General (Fixed and Freestanding)
J	Fixing components (including screws and nails), and fixing systems, metal trim, etc.	H	Sanitation : General data	A	Beds, bunks
K	Laths, lathing, expanded metal, etc. Wire, wire ropes	K	Sanitation: Disposal systems: Soil and waste	B	Bins, bunkers, tanks
M	Mastics (including glazing compound)	M	Sanitation: Disposal systems: Soil and waste Sanitation: Disposal systems: Rainwater and land	C	Bookcases, racks, shelves Chairs, stools, forms, benches
N	Packings, glands, wrappings, etc. Miscellaneous	N	drainage Sanitation: Disposal systems: Combined (one pipe	E	Cupboards, wardrobes, chests, lockers
-		P	system)	F	Divans, settees, sofas Fire-scuttles, fire-irons, etc.
		r	Sanitation: Equipment: Pipes, traps, gullies, fresh- air inlets, etc.	H	Platforms, rostra, dais, etc. Screens, partitions
	RVICES AND EQUIPMENT tings and small items of equipment will be grouped	Q	Sanitation: Equipment: v.c. pans, dry and chemical	K	Shutters, blinds, venetian blinds
V	ith each appropriate section, unless given special	R	closets (including flushing cisterns) Sanitation: Equipment: Urinals, slopsinks, bidets	Z	Tables, trestles, counters, desks Miscellaneous
	ection)	S	(including flushing cisterns) Sanitation: Equipment: Baths, basins, showers		
27	Sound Control and Acoustics	T	Sanitation: Equipment: Sinks Sanitation: Equipment: Rainwater goods	43.	Specialised Furniture and Fittings
4		Z	Miscellaneous		Cinemas, theatres, etc.
B	Acoustics: General data Acoustics: Details			B	Hospitals, clinics, etc.
C D	Acoustics: Products Insulation and isolation: General data (theory and	34.	Hlumination	C	Hotels Industrial
17	products)	A	Natural	E	Kitchens
F	Insulation and isolation: Complete structures Insulation and isolation: Floors and foundations	B	Artificial: General data Artificial: Units (electric, gas, etc.)	G	Offices Schools
G	(Acre cailings)	DE	Artificial: Systems: Gas Artificial: Systems: Gas, neighbourhood Artificial: Systems: Electric	H	Shops Miscellaneous
Н	Insulation and isolation: Walls and partitions Insulation and isolation: Roofs and ceilings Insulation and isolation: Windows, doors, vents	F	Artificial: Systems: Electric		
Z	Insulation and isolation: Windows, doors, vents Insulation and isolation: Miscellaneous	G	Artificial: Systems: Electric, neighbourhood Artificial: Systems: Miscellaneous	44.	Fittings
		3	Artificial: Equipment and fittings: Gas	A	Bathroom and toilet fittings
28.	Thermal Insulation and Isolation, and Refrigeration	K	Artificial: Equipment and fittings: Electric Artificial: Equipment and fittings: Miscellaneous	B	Brackets
A	General data	Z	Miscellaneous (signs, etc.)	D	Chains Curtain fittings
B	Insulation and isolation: Complete structures Insulation and isolation: Floors	35.	Lifts, Escalators, Transport Generally	E	Door stops, hinges, springs and checks Handles
Ď	Insulation and isolation: Walls and partitions	A	Lifts and hoists	G	Hooks and hangers
E	Insulation and isolation: Roofs and ceilings Insulation and isolation: Windows, doors, vents	B	Escalators Conveyors and chutes	J	Kicking-plates, finger-plates Locks, bolts, catches (door, window, etc.), window-
G	Insulation and isolation: Miscellaneous	D	Road equipment	Z	fastenings Miscellaneous
J	Refrigeration units: Electric or gas Refrigeration: Cold rooms: General data Refrigeration: Cold rooms: Details Refrigeration: Miscellaneous (mechanical plant)	E	Railway equipment Air transport equipment	2	Was production of the state of
K	Refrigeration: Cold rooms: Details	Z	Miscellaneous (including cranes)		Planton and Planton and the
-	remperation : miscendieous (meedanicai piant)			45.	Furniture and Fittings: Miscellaneous

36. Fire Prevention and Protection

A Furnishings (including soft-blinds, curtains, carpets, etc.)





### BUILDING SCIENCE MECHANICS

2.BI

The Architects' Journal Library of Information Sheets 258. Editor: Cotterell Butler, A.R.I.B.A.

section	area	moment of inertia	distance of neutral axis from extreme fibre	section modulus	radius of gyration	
symbol	。 A	/) I	γ -	Z	k	
unit	in <sup>2</sup>	in <sup>4</sup>	in.	in <sup>3</sup>	in.	
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	∘b(D−d)	<u>b (D<sup>3</sup> – d<sup>3</sup>)</u>	<u>D</u>	2 <u>I</u>	$\sqrt{\frac{D^3 - d^3}{12 (D-d)}}$	
151 d D	BD-bd	BD3- bd3	<u>D</u> 2	2 <u>I</u>	$\sqrt{\frac{BD^3 - bd^3}{12 (BD - bd)}}$	
$\frac{2d}{1+b}$ d	<u>bd</u> 2	bd <sup>3</sup> 36	2 d 3	<u>bd</u> ² ■ 24	<u>d</u> √18	
→ b → i d	(B+b).d 2	$\frac{(B+b)^2+2Bb}{36(B+b)}\cdot d^3$	(b+2B).d 3(B+b)	$\frac{1}{y}$	$\sqrt{\frac{1}{A}}$	
d	•866 d²	-06d <sup>4</sup>	<u>d</u> 2	•12 d³	$\sqrt{\frac{1}{A}}$	
d	∙65d²	∙0338 d⁴	<u>d</u> 2	•O676 d³	$\int \frac{1}{A}$	
d	<u>d<sup>2</sup>π</u>	<u>d<sup>4</sup>π</u> 64	<u>d</u> 2	<u>d<sup>3</sup> π</u> 32	<u>d</u> 4	
	$\frac{\pi}{4} \left( D^2 - d^2 \right)$	$\frac{\pi}{64} \left( D^4 - d^4 \right)$	<u>D</u>	$\frac{\pi}{32}  \frac{\left(D^4 - d^4\right)}{D}$	$\frac{\sqrt{D^2+d^2}}{4}$	
d D	$D^2 = \frac{d^2 \pi}{4}$	D <sup>4</sup> -3/6 d <sup>4</sup> π	<u>D</u> 2	D <sup>4</sup> - 3/6 d <sup>4</sup> π 6D	$\sqrt{\frac{T}{A}}$	
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$\sqrt{\frac{d}{2}}$	<u>d<sup>2</sup>π</u> 16	•○○35₫	·29d	<u> </u>	$\sqrt{\frac{1}{A}}$	
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d 2 45° y y y	d²π 16	-0024d <sup>4</sup>	•3Od	<u>T</u>	$-\sqrt{\frac{I}{A}}$	
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a bola b	4 ab 3	16 ba <sup>3</sup>	3a 5	16 ba²	$\int \frac{\overline{1}}{A}$	

- Radius of gyration (basis of buckling calculations) is independent of breadth b
- refers to extreme fibre at apex

### 2.B1 GEOMETRICAL PROPERTIES OF VARIOUS PLANE SECTIONS

This sheet sets out the geometrical properties of various plane sections. The formulæ refer to the geometrical shape of the cross sections and are therefore independent of the material. They apply equally to steel, concrete, timber, light alloys, plastics, etc. The symbols and the nomenclature conform to B.S. 560: 1934 Engineering Symbols and Abbreviations, Amendment PD 396, September, 1945.

The properties given in the table on the face of this Sheet are based on the neutral axis drawn horizontally through the centre of gravity as shown in the diagrams. For an axis parallel to and at a distance d from the neutral axis the moment of inertia can easily be derived by the formula:

 $Id = I + Ad^{2}$ The section modulus  $Z = \frac{I}{y}$  where  $I = \text{moment of inertia, in in.}^{4}$ 

y = distance of axis to which I refers from extreme fibre of section, in inches.

The radius of gyration k =the square root of  $\frac{1}{A}$  where:

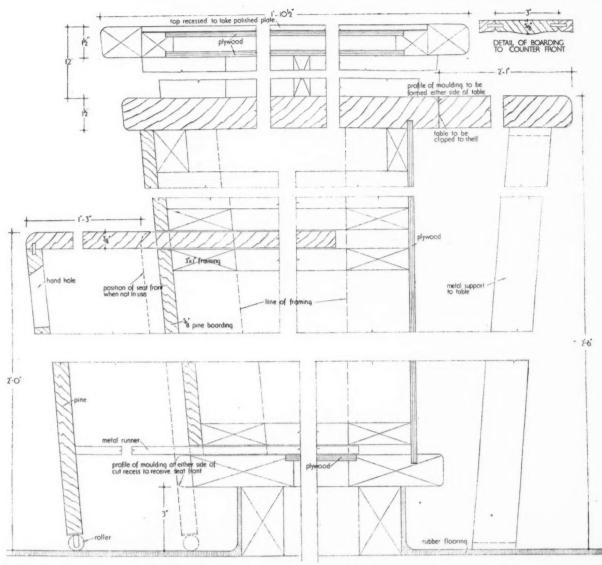
I = moment of inertia, in in.4

A = area of section, in in.2

The geometrical properties of a cross section must be known before a structural member or part of a building can be checked for strength, stability and deflection. Light alloy sections produced by modern extrusion processes, and plastics, provide an infinite variety of shapes. Most of these, however, can be conveniently split up into geometrical elements covered by the table.

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Section through counter

[Scale: 3"=1'0"]

The booking hall counter

fitted with vertical stainless steel fins. These are removable. They are slotted at intervals to take the horizontal supports to the display frames. The handrail of the staircase leading to the basement is also of stainless steel. The floor is part composition and part fitted blue carpet. The ceiling is fitted with acoustic panels, and is tinted blue. The lighting in the booking hall is direct. The bulbs are recessed and project through semi-opaque shields. The display window lights are fitted with raked metal grilles, which prevent the source of light from being visible from the outside. Offices in the basement are fitted with fluorescent lighting.

SERVICES.—A plenum installation supplies fresh air, which is electrically heated during the cold

The general contractors were Nordiska Kompaniet of Stockholm, Sweden. The work was executed by E. Pollard & Co.



INFORMATION CENTRE · INFORMATION SHEETS
QUESTIONS AND ANSWERS · CURRENT TECHNIQUE
THE INDUSTRY · PRICES · TECHNICAL ARTICLES

## TECHNICAL SECTION

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order. Headings below.

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I SOCIOLOGY. 2 PLANNING General. 3 PLANNING: Regional and National. 4 PLANNING: Urban and Rural. 5 PLANNING: Public Utilities. 6 PLANNING: Social and Recreational. 7 PRACTICE. 8 SURVEYING, SPECIFICATION. 9 DESIGN: General. 10 DESIGN: Building Types. 11 MATERIALS: General. 12 MATERIALS: Metal. 13 MATERIALS: Timber. 14 MATERIALS: Concrete. 15 MATERIALS: Applied Finishes, Treatments. 16 MATERIALS: Miscellaneous. 17 CONSTRUCTION: General. 18 CONSTRUCTION: Theory. 19 CONSTRUCTION: Details. 20 CONSTRUCTION: Complete Structures. 21 CONSTRUCTION: Miscellaneous. 22 SOUND INSULATION-ACOUSTICS. 23 HEATING, VENTILATION. 24 LIGHTING. 25 WATER SUPPLY, SANITATION. 26 SERVICES EQUIPMENT: Miscellaneous. 27 FURNITURE, FITTINGS. 28 MISCELLANEOUS.

## 10.71 design: building types CATTLE MARKETS

Construction of Cattle Markets. J. S Clitheroe. (The Surveyor, Jan. 6, 1950.)

Siting, planning and some details of construction. 4 pp. diagrams.

The author argues that the need to expand the livestock industry will result in an increasing demand for new or improved markets. On siting, he suggests moving to the outskirts of a town, and gives recommended accommodation for a market having an annual throughput of 250,000 animals, with a once weekly sale. Sizes and some details of design and materials for the various parts of the market are given.

## 10.72 design: building types DOMESTIC KITCHENS

Kitchen Planning Standards. Elizabeth M. Ranney. (University of Illinois Bulletin Vol. 47 No. 19. Circular Series Index No. C5.32. Oct., 1949. Free.)

Eight page analysis of small kitchens, Clear recommendations on planning arrangements for fittings.

Several publications in this series by the Small Homes Council issued from the University of Illinois have been valuable for their clear statement of problems. The present one is of interest to architects. The work is based partly on an analysis of 103 plans for kitchens in mass-produced houses. Planning faults found in their kitchens are tabulated and their number suggests that architects have still quite a bit to learn. The Bulletin goes on to state the requirements for kitchens having "liberal," "medium," or "limited" storage facilities. The space requirements are clearly set out in terms of "foot run" of cupboards, benches, etc. A

few diagrams add to the usefulness of the Bulletin and an interesting feature is the inclusion of a score sheet with which to check the overall efficiency of a design.

Not everyone will agree with all of the recommendations and a few modifications are necessary to bring them into line with British conditions but a routine check on one's plan on the lines suggested would probably reveal to most architects that improvements should be considered.

## 17.67 construction: general STEELWORK BUILDINGS, GERMANY

Steelworks and Other Industrial Buildings (Structural) in Germany. (BIOS Final Report No. 1822, Item No. 31. HMSO. 17s. 6d.)

Of considerable importance to the architect. Gives examples of up-to-date steel buildings of excellent appearance. 140 pp., 85 illustrations.

This report, one of very many in the long list of the BIOS, CIOS and FIAT series, is a document of some importance. It shows what capable architects in pre-war Germany did achieve in a comparatively new field, namely that of industrial build.ngs for steelworks. Apart from giving a vast amount of purely technical information, the report follows a clear line of thought from beginning to the end, emphasizing the archibeginning to the end, emphasizing the arcni-tect's decisive influence in designing these industrial structures. He was put in charge of the whole scheme, not only for the general planning and the elevations. He was also responsible for the appearance of the building incide and even stiffeners for the building inside, and even stiffeners for the plate girders, crane gantries, rigid frame corners and other details were controlled by him. The high-low type of roof was used in a number of variations, and the Reichswerke at Wattenstedt and other steelworks seem to have provided many examples of excellent design of rigid frames with clean open lines. In the words of the report "they achieved an aesthetic value that cannot be obtained by the use of the orthodox
pitched roof truss." The achievements of
their German colleagues were frankly
acknowledged by the British team in this report. The architect in charge of design, collaborating with structural engineers of wide experience in continuous and other statically indeterminate systems, is given full credit. Two other causes emerge from this report as being equally important in contri-buting to success: a wide range of special steel sections was being rolled in Germany, including many sizes of broad flange beams, and highly specialized design for welding was taken for granted. Many lessons learnt from steelwork building design in Germany, and welded construction especially, have since been put to good use in this country. Some of the welded buildings for the Margam Steelworks in South Wales show the very pleasing lines as a novel feature in such structures.

## 22.42 sound insulation and acoustics NOISE AND SOUND TRANSMISSION

Noise and Sound Transmission. Report of the 1948 Summer Symposium of the Acoustics Groups. (The Physical Society, 1949, 17s. 6d. plus 6d. postage.) Sound transmission through floors and walls; standards; techniques of construction; insulation levels and noise complaints in practice; methods of measurement; insulation in ships and aircraft; insulation along ducts; sound absorption; machinery noise. Landmark in the subject illustrations, plates and graphs. pp. 205.

This is the most important publication on sound insulation ever published. It consists of more than 40 papers given at the Acoustics Group's symposium held in 1948 at the RIBA. Nearly half the papers deal with sound insulation in buildings and another half-dozen or so deal with sound absorption and other building problems. The remainder concern ships, aircraft and other such structures, or the problems of measurement. This is a publication which all architectural schools should possess, and many architects, especially those engaged on flats and houses, will find it worth while having on their shelves.

One of the outstanding papers is from Parkins & Humphreys at BRS giving the results of insulation measurements from blocks of flats all over England and Scotland. Unexpectedly good results came from monolithic RC construction lined with plaster-board on battens. 11 in. cavity construction in one case yielded, as was hoped, the recommended standard, but fell back to 9 in. brick insulation in another. Old Scotlish construction with walls 2 ft. thick conform to modern recommendations for insulation. As for impact noise the modern floating floor constructions and the old pugged joist floors also seem much the same, but with modern untreated construction conditions are far worse.



THE LIBRARY
OF
INFORMATION
SHEETS

### CLASSIFICATION

Since the inception of the post-war Information Sheet scheme there has been a considerable demand from readers for copies of the complete classification system used for the Library. While the 46 subjects have been made public from the beginning, the Editor has been reluctant to publish the sub-divisions (sections) in order to allow them to be revised as the development of the Library proceeded. No extensive changes have, however, been necessary, and as it seems that many architects wish to make use of the system for their own office files, it has been decided to publish the complete list of subjects and sections this week. The Editor draws attention to the fact that while the 46 subjects may be regarded as fully established, he reserves the right to vary the sections and, if necessary, until an actual Sheet appears in any given section it must not be regarded as established. For instance, prior to this week there was no Sheet in the Library in section 2, but this week a Sheet 2.B1 appears, and the section 2.B is therefore established.





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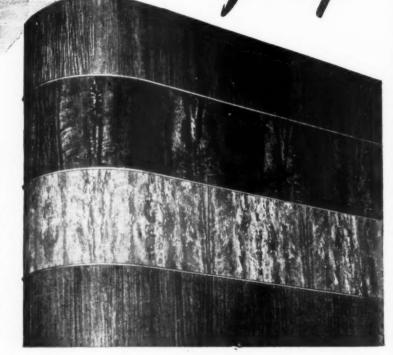
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All this confirmed Allen's analysis of a noise survey which showed how much greater the noise complaints are among people living in modern blocks, and in another paper he discusses successful party wan treatments, including a construction in which sheet metal linings 1 ft. apart were simply filled with rubble. Humphreys describes in detail the construction of floating floors and Furrer from Switzerland shows how glass wool is the best resilient for this kind of treatment. Aston from NPL gives many new results for wood joist floors, including a simple combination of pugging and floating floor which gives nearly 60 d.b. reduction in the laboratory.

Burel from Sweden discusses their standards and it is interesting to see that they and we have much the same objectives. They go into more detail as to requirements in quiet and noisy districts, and it would be useful to know how widely their standards

are accepted.

N

These are only a few points scanned in passing. There are papers from many other countries and it is not possible in a review to indicate more than their general character. No emphasis has been laid here upon the theoretical papers, which are of course as important as the others; but architects will not have a central interest in them.

### 24.131 lighting VISION IN INDUSTRY

Sight, Light and Efficiency. H. C. Weston. (H. K. Lewis, London, 1949, 42s.)

Description of the eye; causes of evestrain: occupational demands on eyesight; making work easier; lighting and colour in factories; testing and protecting sight at work; summary of codes and legal requirements; excellent reference; figs. 132. pp. 308.

It can be expected that this book will form a standard reference work for many years. It is entirely unique in its presentation of material on eyesight and its study of vision in relation to industry and industrial build-ings. Its author is a senior investigator of the Industrial Health Research Board. The text should make comparatively easy reading, even for those who are not familiar with vision studies.

Its architectural impact is necessarily indirect and mainly industrial. It does not describe how to build factories, but it teaches some of the vital things which factories have to be built to do In fact it should teach anyone how to use their eyes more usefully, and how people who work

in factories have to use their eyes. If these ideas do exist in the designers' mind at present their importance may seem a little exaggerated. Time will tell, but this much is certain: eyesight is the chief tool of a factory operative, and the efficiency of use of this tool is largely in the hands of the factory designers. To an increasing extent this means our profession, but to what extent depends on our competence in providing good conditions. It is too little realised that factory lighting, factory colouring, the visual conditions around machinery, the heating and ventilation, the quietness of a factory and, in some, the working conditions and efficiency are left in the hands of people who treat them as sidelines, or overlook them, if architects do not take effective charge. Factories are not the easy buildings they are sometimes taken to be; when they seem easy, it is because things that matter are being overlooked.

This book of Weston's can give to con-scientious factory architects the heart of a big part of the factory problem and set his standards at the right level. He will under-stand what kinds of conditions cause eyehow to anticipate the kinds of problems which different industries present, and what sort of things to overcome in shaping

and equipping the buildings. There is, in addition, a useful summary of code and legal requirements, and a schedule of recommended values of illumination.

### 26.62 services and equipment: miscellaneous **ELECTRICAL WIRING**

This Earthing Fetish. T. C. Gilbert (Electrical Review, Nov. 18, 1949, Vol. CXLV, No. 3756. 1s.)

Article discussing advisability, or otherwise, of earthing domestic electric wiring

The Fire Research Board's report for 1948 showed that in that year 2,598 fires due to electrical wiring occurred in post-war temporary buildings. In the Manchester area, the North-Western Electricity Board reports 37 electrical fires in 133 prefabricated buildings, and many complaints of shocks in other Similar complaints have been reported elsewhere. In the case of Manchester houses, earthing faults were discovered in many cases, and the authorities appeared to take the view that such faults were responsible for the troubles.

The author of the article under review states that, in his opinion, with AC electrolysis was unlikely to have played a part, the short circuits are much less dangerous than with DC. In his opinion, insulated earth leakages seemed to be to blame. Cer-tainly, there was bad workmanship in this instance; but, in the author's opinion, 50 per cent. of installations, however well made in the first place, fail to keep up the proper standard of earthing after the first few

In some continental countries, notably Switzerland, earthing, as we know it, is not practised at all. It is customary to deride systems; but, in fact, only 4 per cent. of all fires in the latter country, in any year, are established as electrical fires. It would not be right to advocate the leaving un-earthed of all our metal - clad wiring systems: though this might reduce rather than eliminate the fire risk. Rather, all metallic sheathed systems should be avoided, except where the circumstances of the installation specifically demand it; and all insulation should be reinforced by non-metallic enclosures. This principle should be ex-tended to the appliances themselves; in fact, the "all insulation" idea of twenty years ago is revived.

The argument, that if the metal-clad system is properly carried out, the danger does not arise, is discounted since an oversize fuse may revive the risk; so, also, may corrosion, which is difficult to detect by an ordinary resistance test, unless a heavy current is used, a rare event. Further, the regulations for earthing in code of practice 321/1948, "E'ectrical Installations, General," are inadequate to cover faults to earth in all conditions in which they could occur, and unisolated earth leakages, prime cause of most electrical fires, may still arise. Even the new draft code: "Farm and Horticultural Electrical Installations," which recognized the statement of t nizes the danger of earth faults, and states that "it is essential that the resistance of the whole earthing circuit should be so low that the supply of electricity is cut off before any object, from contact with which a shock could be received, has attained a potential of 40 V to earth," does not say how this desirable result is to be achieved in all circumstances.

In the author's opinion, circuit conductors should be enclosed in non-metallic casings, and where earth conductors are necessary, while metallic equipment is still used, they also should be insulated, and treated with the same care as the circuit conductors. Such a practice is seen as a possible necessity

in the same draft code.

Had no form of earthing been provided in the prefabricated houses earlier mentioned, the fires would not have occurred: and it is illogical to increase greatly the fire risk, in order to reduce the already negligible risk of shock. Even this risk may arise from earthing: a fatal accident was recently reported, due to the unused earth conductor of an iron entering the adaptor. There is also the risk of heavy fault currents from distribution networks being brought into the installation through the earth connections. Further, an ERA report (V/T 101) has drawn attention to the difficulties and dangers of earthing to metallic pipes which are eventually connected to asbestos cement mains; in such circumstances, an unearthed system would appear better. Continuity in the internal installation should be aban-doned, as without it, leakage is confined to the one appliance where the fault is, and

with it, the leakage is extended to all the other sound devices in the system.

The report's suggestion, that installations should be earthed to the lead sheath of the cable, where this is properly bonded and earthed, is considered inadvisable, as it may facilitate the entry into the internal installation of cable network faults, with disastrous

consequences.

The conclusion drawn by the author article is that indiscriminate earthing is a source of danger rather than safety. should be done to prevent leakages, rather than to isolate them when they have occurred: the means of doing the latter doubles the cost of the system, and appears to show very little return after many years. To pay for the avoidance of a few shocks by increased fire incidence is a bad bargain; and evidence suggests that that is the case at the moment.

There is no doubt that there is a great deal to be said for the author's arguments; especially when the cheaper class of installation is considered. The constant'y increasing use of plastics for domestic appliances of all kinds makes the "all insulated" system a much more practical proposition than it was: it certainly deserves the most serious consideration.

This feature answers any question connected with building confidentially and free of charge. Questions to the Technical Editor, The Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S. W.I.

## OUESTIONS AND ANSWERS

### 3016 ASSESSMENT OF FINAL ACCOUNT

Can you state the correct procedure to of follow when a contractor refuses to furnish a final account? This position has arisen on a largish contract, which finished over a year ago, and the contractor has stated that the pressure of work is such that it may take another year for him to finalize his accounts. Under these conditions would it be correct for the architects to assess the final account and issue a final certificate in discharge of any balance?

Under the RIBA Contract it is for the architect or surveyor to measure and value variations and adjust the contract sum. If the contract does not state who is to pre-pare the final account, this could be done by the architect. The account thus prepared would be notified to the contractor so that he could agree or state any objections he might have. In the event of dispute the matter could be referred to arbitration.



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## THE INDUSTRY

By Brian Grant

### ELECTRICAL PROBLEMS

The Electricity Act of 1947, which nationalized the supply industry, is a complicated piece of legislation, involving the operation of a number of set rules. These need to be properly interpreted and applied to ensure the best interests of the consumer. This naturally involves specialised knowledge in regard both to electrical matters and to the Act itself. On jobs where the services of a professional consultant would not be justified, it is obviously better to employ electrical contractors who consider their work as something more comprehensive than the mere installation of conduits and wiring.

Messrs. Mortimer, Gall & Company Ltd. tell me that they are paying particular attention to this advisory side of their work, and they are willing to investigate and advise on the most appropriate tariff, having regard to the circumstances of consumption, i.e. the time and type of industrial or commercial

There are, of course, many questions involved in such negotiations, including considerations of supply voltage whether it should or should not be high tension, and whether the consumer should be called upon to provide a transformer chamber—and the financial responsibility for the ultimate standardization if an existing supply is non-standard.

They quote one instance of a large office block which had a DC supply. The building became vacant, ownership was about to change hands, and, quite legally, the Electricity Board removed their service and declared the future supply as 3-phase AC. Several thousands of pounds were involved in altering the existing wiring and replacing lift and pump motors, and since this was payable by the building owners, Mortimer Gall's investigation and report gave grounds for a favourable adjustment of the purchase price before the deal was concluded. It is on this sort of question that we all need reliable advice. (Mortimer, Gall & Co. Ltd., Cannon Street, London, E.C.4.)

which the light is intercepted by the surface of the glass. This change of direction occurs in general both at entry and emergence from the glass, and by suitable design of the contours of both surfaces a ray of light may be controlled in vertical and lateral directions.

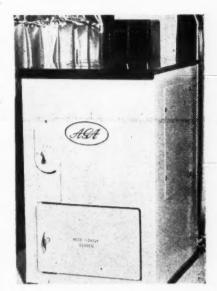
This directional control and the efficient utilization of the light emission from the lamp is a feature of all Holophane units, which employ refracting, reflecting and diffusing prisms designed specifically for the light distribution required.

The types of ceiling lighting equipment have been arranged to provide suitable demonstrations of alternative systems both in regard to their distribution characteristics and the application to specific types of interior. Each system embodies a group of four or six fittings of similar type, mounted at suitable height and spacing, in order that the performance of such a system can be appreciated under service conditions.

The wide range of fittings exhibited cover industrial reflectors of the metal-covered and enclosed translucent types, flame-proof, vapour-proof and bulkhead units, flood-lighting and street-lighting equipment, commercial pendants, and in-built lighting units for almost all applications. Fluorescent surface and in-built systems are also included, and these fittings are mounted in such a way that the relative merits of both surface and built-in systems may be more readily assessed. (Holophane Ltd., Elverton Street, Vincent Square, London, S.W.1.)

#### NEW AGA BOILER

For fuel economy Aga cookers have for many years been something of a by-word, and this firm has now introduced a boiler for which they claim equal virtues and an appliance efficiency of no less than 70 per cent. With overall dimensions of 2 ft. 9½ in. high, 1 ft. 9½ in. wide and 2 ft. 1½ in. from front to back, the new boiler, which is known as the Agamatic, can be used separately, or can be mounted alongside the Aga cooker and can, if necessary, use the same flue. Output is suitable for a storage tank of from 40 to 100 gallons capacity and up to



The new Aga boiler.

200 sq. ft. of radiating surface if the boiler is used for heating only.

The boiler runs best on coke, for which its

The boiler runs best on coke, for which its special fire box and grate were designed, but it will also burn ordinary house coal, anthracite, peat or any solid fuel. It will also cope with any type of combustible domestic rubbish—a very useful feature, since so many of the present-day high efficiency boilers are only suitable for limited types of fuel, and the majority of them are not capable of burning rubbish.

Control is by thermostat acting on the combustion air and fuelling and riddling are both simple. 1½ in. flow and return pipes can be on either side of the boiler, and there are cleaning holes on each side. (Aga Heat Ltd., North Audley Street, London, W.1.)

### HOLOPHANE SHOWROOMS .

Most architects will remember the small theatre in Elverton Street where Holophane gave demonstrations of colour lighting in the comparatively happy days when theatres and cinemas were actually being built. It is good news, therefore, that they have now added a new showroom where they can demonstrate the principles of light control on which their systems of lighting are based and at the same time show the various fittings in use

various fittings in use.

An inquiry for lighting equipment is primarily based on a need for adequate and suitable illumination, the requirements of which cannot be satisfied by the simple procedure of selecting a particular type of lighting unit in a showroom display. Within the natural limitations imposed by the dimensions and proportions of the new room, however, Holophane have installed a comprehensive installation for demonstrating some of the alternative systems of lighting, having particular characteristics suitable for various specific applications.

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A number of cabinets which are of particular interest are arranged along one side of the demonstration room. These show the principles of refraction, reflection and diffusion, together with their practical applications in present-day lighting.

The extent to which the path of a ray of

The extent to which the path of a ray of light may be controlled is predetermined by the profile of the glass and the angle at



The Holophane showrooms in Elverton Street.

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Sons; gas nxtures, wates Gas Board; electric wiring, Potter Fowler & Co. Ltd.; sanitary fittings, South Wales Builders Supply Ltd.; stairtreads, joinery and casements, Magnet Timber Co. Ltd.; door and window furniture, Mountford Bros.; plaster,

Plasterers (Chester) Ltd., Davies Bros. (Dee Bee) Ltd.; mantels, South Wales Builders Supply Ltd.; shrubs and trees, Newport Corporation Parks Dept.; water supply, South Wales Water Board.

Sub-contractors:

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## Announcements

A presentation to Mr. John E. M. Macgregor was made recently by the committee of the Society for the Protection of Ancient Buildings in recognition of his professional knowledge and skill and of his valued ser-vices as technical adviser to the Society, which appointment he has resigned in order that he might devote himself to his private

The BOT announce the work of the Mica, Rubber and Sundry Materials Directorates were amalgamated in January. The rewere amalgamated in January. The remaining functions of the present separate Directorates will be carried out from that date under the title of the Directorate of Sundry Materials. The address will continue to be Empire House, St. Martin's-le-Grand, E.C.1 (tel.: Monarch 1020).

Douglas White & Furniss, A./A.R.I.B.A., have changed their address to 147, Cheapside, E.C.2 (tel.: Monarch 9575 and 9576). They will be pleased to receive trade catalogues.

Mr. Robert K. Bradford, A.M.I.C.E., 21, College Road, Newton Abbot, Devon, would be pleased to receive trade catalogues, information sheets, etc.

Messrs. Nightingale & Ambrose, F./F.R.L.B.A., have opened a branch office at 19, Dumfries Place, Cardiff, and will be pleased to receive trade catalogues, etc.

South Wales Water Board.

Pitched roofed houses in pairs at the GaerStelvio Estate (pages 339-343). Architect:
Johnson B'ackett, F.R.I.B.A. General contractor: Messrs. G. Percy Trentham Ltd.
Sub-contractors: Excavation, foundation,
plaster, Messrs. G. Percy Trentham Ltd.;
bricks, Star & Brick Tile Co.; precast concrete, The British Dominion & Fire Co.
Ltd.; tilers, Messrs. W. N. Small (Newport)
Ltd.; patent flooring, The Marley Tile Co;
grates, sanitary fittings, South Wales Builders
Supply Ltd.; gas fitting, Wales Gas Board
Newport Undertaking; electric wiring, Electrical Repairs & Installations Co. Ltd.; door
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## Buildings Illustrated

Flat-roofed terrace housing at the Gaer-Stelvio Estate (pages 339-343). General contractor: Amalgamated Building Con-

## Correction

In our issue for March 2 we omitted to state that Hubert Lidbetter collaborated with H. Martin Lidbetter on the scheme for Thornaby Infants' Primary School.

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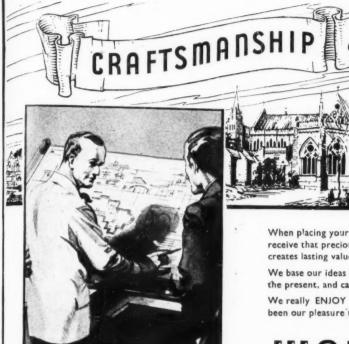
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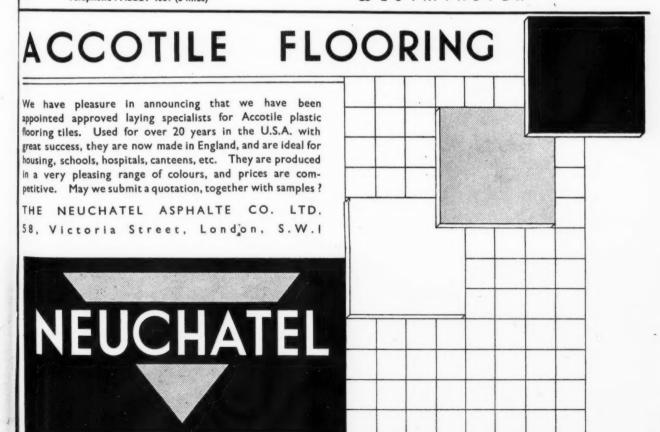
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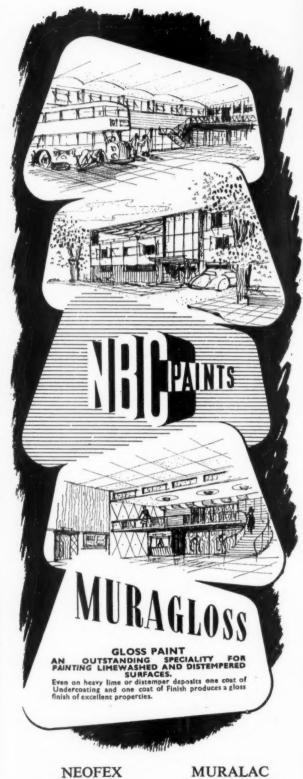
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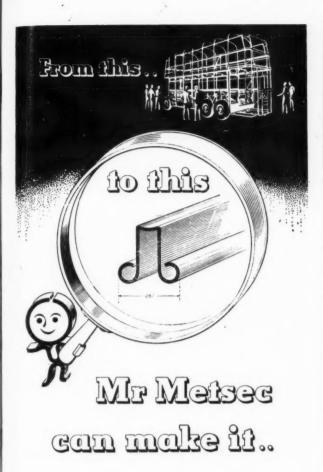
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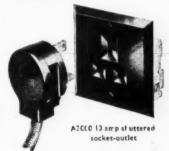
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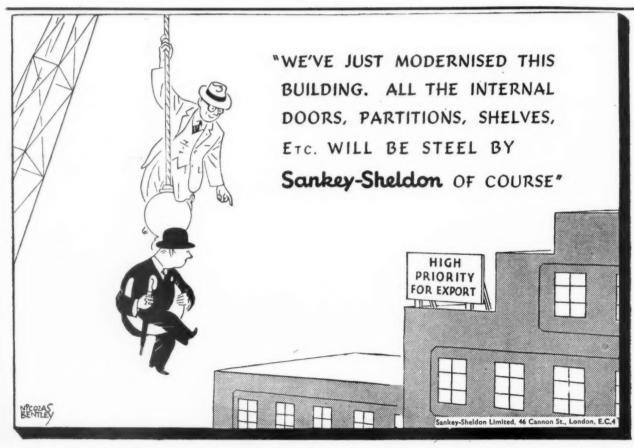
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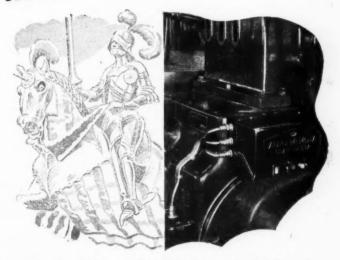
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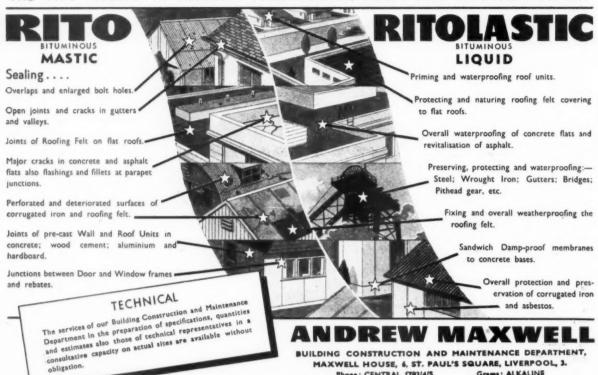
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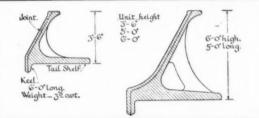
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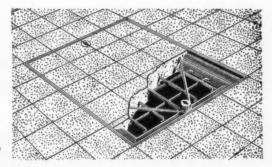
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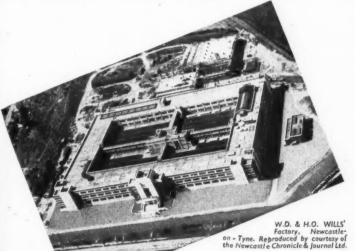
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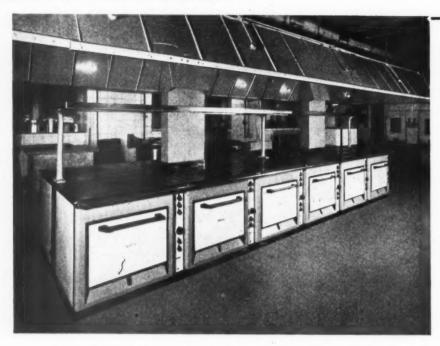
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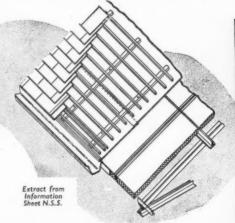
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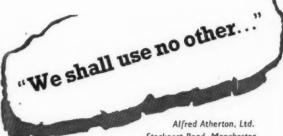
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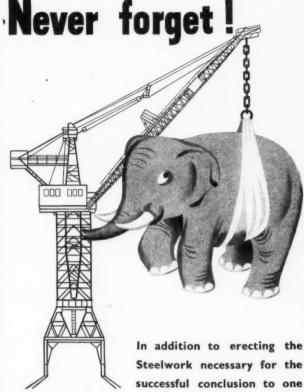
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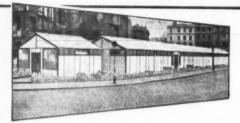




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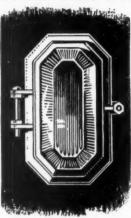


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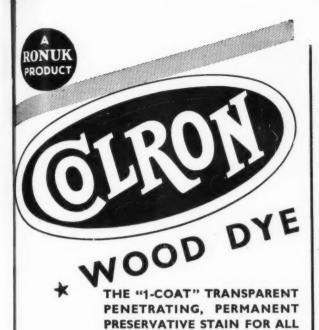
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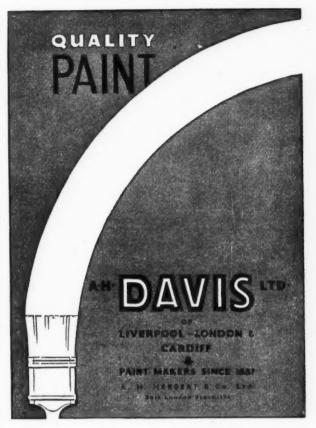


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Applications are invited for unestablished positions of (i) ARCHITECT, Grad III (salaries up to £700 a vear) and (ii) ARCHITECTURAL ASSISTANTS (salaries up to £500 a vear), in the Housing and Valuation Department. Commencing salaries in either grade will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Acts. and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

Buccessful candidates will be required to undertake the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flate), and will be employed in the Housing Architect's Division. Preference will be given to candidates holding a recognized professional qualification.

Forms of application may be obtained from the Director of Housing. The County Hall. Westminster Bridge. S.E.I (stamped addressed envelope required, and quote Ref. G.R.3). Canvassing disqualifies. (2269)

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Conditions of the above appointments, and application forms, which must be returned by the 24th March, 1950, may be obtained from me.
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APPLICATIONS are invited for the following audiniment in the Architects' Section of the Chief Engineer's Department of Westminster: SENIOR ARCHITECTURAL ASSISTANT, minimum starting salary 2550 per annum.

Applicants, who must be Registered Architects and should be studying for or have passed the Final Examination of the R.I.R.A., should be capable of preparing working and detailed drawings and specifications, and sunervising and controlling the work on contracts. Experience in design and nlanning of industrial buildings would be an advantage.

The appointment is of a permanent nature, and pension arrangements will be discussed with short list candidates.

Applications, stating age, qualifications and particulars of previous appointment's held, must be submitted to the Staff Controller. North Thames Gas Board. 30. Kensington Church Street. London.

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ment.

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Applications, stating age, unalifications and previous experience, accompanied by recent testimonials, should be forwarded to the County Architect, County Hail, Newcastle-on-Tyne, net later than 25th March, 1950.

3740

BOROUGH OF HORNSEY.
ENGINEER AND SURVEYOR'S
DEPARTMENT.
APPOINTMENT OF ARCHITECTURAL
ASSISTANT.
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Applications are invited for the following temporary appeintment:—
ARCHITECTURAL ASSISTANT, Grade I-III (A.P.T. Division of the National Scale), at a salary of £350.£495 per annum, plus appropriate London weighting allowance. Commencing salary according to experience.

Applications, stating age, present and previous appointments, technical training, qualifications, experience, ctc., together with the names of three referees, must be delivered to Mr. J. H. Melville Richards, A.M.I.C.E., M.I.Mun.E., Borough Engineer and Surveyor, Hornsey Town Hall, N.8, not later than the 20th March. 1950 (Monday).

(Monday). Canvassing, either directly or indirectly, will

H. BEDALE, Town Clerk. Town Hall, Hornsey, N.8. 28th February, 1950.

SURREY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Apolications are invited for the appointment of
ARCHITECTURAL ASSISTANT. Grade IV. at a
commencing salary of £480 per annum. rising by
annual increments of £15 to a maximum of £525,
plus London allowance of up to £30, according

plus London allowance of up to £30, according to age.

Applicants must be of good general training and give full details in their applications, and preference will be given to applicants who have passed the Intermediate Examination of the Royal Institute of British Architects.

The appointment will be subject to the provisions of the Local Government Act, 1937, and the successful applicant will be required to pass a medical examination.

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect. Surrey County Council, County Hall, Kingston-upon-Thames, not later than the 18th March, 1950.

March, 1950.

Canvassing, either directly or indirectly, will disqualify a candidate from consideration.

The Council will be unable to provide any housing accommodation, and the successful applicant will be required to make his own arrangements in this direction.

DUDLEY AUKLAND,
Clerk of the Council.
County Hall, Kingsten-upon-Thames. 3643

County Hall, Kingsten-ppon-Thames.

URBAN DISTRICT COUNCIL OF URMSTON.
ENGINEER'S AND SURVEYOR'S

DEPARTMENT.
SENIOR ARCHITECTURAL ASSISTANT.
Applications are invited from men and women for the above permanent appointment, at a salary in accordance with Grade VI of the Administrative Professional and Technical Division of the National Joint Council Scales (£595-£660) per annum.

National Joint Council Scales (£595-£560) per annum.

Applicants should have received training in Architecture. Planning and Surveying.

The appointment is subject to a medical examination, the Local Government Superannuation Act, 1937, the N.J.C. Conditions of Service, and one month's written notice on either side.

If necessary, consideration will be given to the provision of a house for the successful candidate. Applications, stating age, our lifeations and experience, and disclosing whether or not the applicant is related to any member or senior officer of the Council, should be accompanied by copies of two recent testimonials, he endorsed "Senior Architectural Assistant." and reach the undersigned not later than the 22nd March, 1950

L. WATKINS.

Clerk of the Council Council Council Offices. Urmston.

Council Offices, Urmston.

27th February, 1950.

3665

HAYDOCK URBAN DISTRICT COUNCIL.

ENGINEER & SURVEYOR'S DEPARTMENT.

ARCHITECTURAL ASSISTANT.

The Council invite applications for the above appointment, at a salary in accordance with Grade III. A.P.T. Division of the National Joint Council Scheme of Conditions of Service (£450 per annum, rising by annual increments of £15 per annum to a maximum of £495 per annum to Applicants must have had experience in the carrying out of surveys, preparation of plans, specifications for architectural work usually undertaken by a Local Anthority, and in particular Housing. Proficiency in the complete process of taking off and billing quantities for new housing will be considered an advantage.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, the National Joint Council Scheme of Conditions of Service, and the person appointed will be required to pass a medical examination.

The Council will be prepared to allocate a Council house to the successful applicant, if desired.

Applications, endorsed "Architectural Assistence.

desired.

Applications, endorsed "Architectural Assistant." stating age, present, and previous appointments, and experience, together with names of two persons to whom reference may be made, should be received by the undersigned not later than Wednesday, the 22nd March, 1950.

C. LEDGER.
Clerk of the Council.
2nd March, 1950.

C. LEDGER.
Clerk of the Council.
And March, 1950.

CORPORATION OF THE CITY OF

ABERDEEN.

TOWN PLANNING DEPARTMENT.
Applications are invited for the following posts in the Town Planning Department:—

(a) DEVELOPMENT ASSISTANT. Salary scale £595, rising by annual increments to £660 per annum.
Applicants must possess one or other of the following qualifications, viz., A.R.I.B.A., A.R.I.C.S., A.M.I.M.I.E., or A.M.T.P.I. The successful applicant will be required to assist the Senior Development Assistant in dealing with development applications made to the Corporation under the Town and Country Planning (Scotland) Act, 1947, and the Aberdeen City Acts.

(b) PLANNING ASSISTANT. Salary scale £595, rising by annual increments to £660 per annum and to the great annual increments on the great and applicants must hold one or other of the great.

(b) PLANNING ASSISTANT.

Salary score
2595, rising by annual increments to £660 per
annum.

Applicants must hold one or other of the qualifications referred to in (a) above, and should
have had considerable planning experience. The
successful applicant will be required to assist
in the preparation of the Statutory Planning
Proposals for the City.

(c) JUNIOR PLANNING ASSISTANTS
(TwO). Salary scale £390, rising by annual
increments to £570 per annum.

Applicants should preferably hold one of the
qualifications referred to above, and must at least
have passed one or other of the Intermediate
examinations leading to these qualifications.
Placing in the combined salary grace will be in
accordance with qualification and experience,
The appointments are superannuable and are
subject to the passing of a medical examination.
Application forms (which should be submitted
in duplicate) may be obtained from the Director
of Town Planning, 5. Bon-Accord Crescent,
Aberdeen, to whom they should be returned on
or before Jist March, 1950.

J. C. RENNIE,
Town Clerk.

Town House, Aberdeen. 2nd March, 1950.

2nd March, 1950. 3727

HEMEL HEMPSTEAD DEVELOPMENT
CORPORATION.
ARCHITECT'S DEPARTMENT.
Applications are invited for the following appointments:—
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Salary in the scale £400 £25-£25. Applicants must possess at least the Intermediate qualification of the R.I.B.A., and have had experience in the design of layouts and dwellings on housing estates.

estates.

JUNIOR ASSISTANT ARCHITECTS.

Salary by age, rising from £225 at 18 years to £350 at 23. Applicants must have had experience in the design of layouts and dwellings or housing estates and have had experience in 2n Architect's

estates and have had experience in an Architect's office.

The appointments will be subject to the Development Corporation's staff rules and conditions of service, in particular to one month's notice of termination on either side. Contributory superannuation with an opportunity of entering or continuing in Local Government Superannuation Fund will be provided. A house or flat will be offered to the successful candidates if required.

Applications, giving full particulars of age, qualifications and experience, together with names of two persons to whom reference may be made, and endorsed "Architect," should reach the undersigned not later than 24th March, 1950.

W. O. HART.

General Manager.

Westbrook Hay, Hemel Hempstead, Herts. 3712

NEWPORT COUNTY BOROUGH COUNCIL.

Westbrook Hay, Hemel Hempstead, Herts. 3712

NEWPORT COUNTY BOROUGH COUNCIL.
Applications are invited for the appointment of ASSISTANT PLANNING OFFICER, in accordance with A.P. and T., Grade VIII, 2685, rising to 2760 per annum.
Applicants should have had considerable planning experience, especially in the preparation of Development Plans and the layout of Central Areas and Neighbourhood Units.
The Council will consider the provision of suitable housing accommodation for the successful applicant.
Details of duties and forms of application, to be obtained from me, must be delivered not later than the 6th April. 1950.

H. F. ALSTON.
H. F. ALSTON.

Corn Exchange Chambers,

H. F. ALSTON,
Borough Planning Officer.
Corn Exchange Chambers,
Thomas Street, Newport, Mon.
Amended Advertisement.
CITY OF PORTSMOUTH.
CITY ARCHITECT'S DEPARTMENT.
Applications are invited for appointments of PRINCIPAL ASSISTANT ARCHITECTS. Grade VI. £535-£660.
Applicants should be Associates R.I.B.A.
A special subsistence allowance may be paid to a married applicant for a pericd of six months after taking up the appointment if he is unable to secure housing accommodation immediately.
Applications, setting out in tabular form, name, age, qualifications, present post and salary, previous posts with dates, details of experience, with names of three referees, must be delivered to the undersigned not later than 10 a.m. on Monday, 27th March, 1950
Canvassing will disqualify.
V. BLANCHARD.

V. BLANCHARD, Fown Clerk.

City Council Chambers, 1, Clarence Parade, Southsea.

EASTERN REGIONAL HOSPITAL BOARD
Applications are invited for the following appointments in the Departments of the Regional Architect and the Regional Engineer:—
(a) ARCHITECTURAL ASSISTANT. A.P.T., Grade VI. £595.£660,
Candidates should be Associate Members of the R.I.B.A. and have had good general experience in design, construction and maintenance of public buildings, including hospitals.
(b) QUANTITY SURVEYOR. A.P.T., Grade V, £529.£570.

(b) QUANTITI SCHALARY, V, 529-2570.

Candidates should have experience in the preparation of Schedules of Quantities, according to the Scottish Mode of Measurement, site measuring, and in settlement of jobbing and final accounts for all trades, Preference will be given to Members of the Royal Institution of Chartered Surveyors, and previous experience of hospital

Surveyors, and previous experience of hospital work will be an advantage.

(c) ARCHITECTURAL ASSISTANT. A.P.T.. Grade III, £459-£495. Candidates should have passed the Intermediate Examination of the R.I.B.A., have had some experience in an Architect's office, and be capable of undertaking surveys and preparing working drawings under supervision.

tect's office, and be capable of undertaking surveys and preparing working drawings under supervision.

(d) SENIOR ENGINEERING ASSISTANT (ELECTRICAL). A.P.T., Grade VII, 2635-£710. Candidates should have had experience in the preparation of Electrical Schemes, Assessment of Spec'fications and Drawings, and in the Design of Electrical Installations, including Lighting and Power, Alarm Systems and Wireless. Associate Membership of I.E.E. or other professional qualifications will be an advantage, and hospital experience is desirable but not essential. (c) CLERICAL ASSISTANT. H.D., Grade II, 2440-2485.

The successful candidate will be required to take charge of the office routine of the Regional Engineer's department. Experience in an Engineer's department. Experience in an Engineer's office and a wide knowledge of engineering terms and trade conditions is essential. Candidates must be capable of supervising a system of filing for a large number of hospitals and of dealing with Insurance Reports, Costs of Work, Time Sheets, etc., and of assisting with tracing when required.

All appointments will be subject to the National Health Service (Scotland) (Superannuation) Regulations, 1948, and to the passing of a medical examination. Appointments (a) and (d) will be terminable by two months' notice on either side, and appointments (b), (c) and (e) by one month's notice.

notice.

Canvassing in any form will disqualify.

Applications, stating age, qualifications, experience, past and present appointments, and accompanied by the names and addresses of three referees, should be addressed to the Secretary, Eastern Regional Hospital Board, "Bracknowe," 430, Blackness Road, Dundee, and lodged not later than 25th March, 1959.

FIFE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT,

CUPAR.

Applications are invited from parties having suitable qualifications for appointment as ARCHITECTURAL ASSISTANT. Candidates must be qualified Architects with previous experience of local authority schemes. particularly housing and schools. Salary £570, rising by annual increments of £25 to £710 per annum. Housing accommodation will be made available for the successful applicant. The appointment is superannuable, and the successful applicant. The appointment is superannuable, and the successful candidate will require to pass a medical examination. Applications, accompanied by recent testimonials, to be lodged with the undersigned by 23rd March, 1950. No canvassing. canvassing.

J. M. MITCHELL, County Clerk.

J. M. MITCHELL,
County Buildings, Cupar.
6th March, 1950.

ESSEX EDUCATION COMMITTEE.
SOUTH-WEST ESSEX TECHNICAL COLLEGE
AND SCHOOL OF ART. FOREST ROAD,
WALTHAMSTOW. E.17.
Part-time day STUDIO INSTRUCTORS IN
ARCHITECTURAL DESIGN required.
The appointments, which can be made on half-days to suit individual applicants, are for instruction and criticism on architectural design in the Department of Architecture and Building of the College in the five-year full-time course in preparation for the Intermediate and Final Examinations of the Royal Institute of British Architects.
Applications (no forms), giving full particulars of qualifications, experience, and times available, should be made to the Clerk to the Governors at the College, from whom further information may be obtained.

D. N. BUNGEY.

D. N. BUNGEY, Acting Chief Education Office

LONDON COUNTY COUNCIL

VACANCIES FOR TEMPORARY CLERKS OF
WORKS IN ARCHITECT'S DEPARTMENT.
Applications are invited for Temporary Clerks
of Works to supervise the work of painting 'and
cleaning contracts at Council schools for a period
of 6 months from 1st April, 1950.
Rate of pay—up to £9 5s. a week.
Application forms from the Architect
(AR /P/C/W), County Hall, Westminster Bridge,
S.E.I, enclosing stamped addressed foolscap
envelope. Canvassing disqualifies. (266) 3698

GLOUCESTERSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the appointment of
ASSISTANT ARCHITECT (Section Leader) on
A.P. and T., Grade VIII (2685-2760) in the above
Department.
The successful applicant will be in charge of a
section of the County and will be responsible for
all work carried out in that section.
Applications should be Associate Members of
the R.I.B.A. and have wide experience in projects
usually dealt with by a County Council, i.e.,
Education. Police, etc.
Appointment will be subject to the Local
Government Superannuation Act, 1937 and candidates before appointment will be required to pass
a medical examination.
The appointment will be terminable by one
menth's notice on either side.
Applications, stating (a) name and address,
(b) married or single, (c) ag., (d) qualifications,
(e) present position, salary and date of appointment, (f) previous positions with dates and
salaries, (g) particulars of experience, and accompanied by copies of two recent testimonials,
together with names and addresses of two persons
to whom reference may be made, should be sent
to S. E. Urwin, F.R.I.B.A., County Ar hit ct,
Shire Hall, Gloucester, not later than Monday,
20th March, 1950.

CITY OF BRADFORD.

3rd March, 1950.

GUY H. DAVIS.

Televis of the County Council.

Told March. 1950.

CITY OF BRADFORD.

CITY ENGINEER AND SURVEYOR'S

DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL

ASSISTANTS.

Applications are invited for the appointment of
Three Architectural Assistants: (a) Grade A.P.T.,

VI. £595 to £660; (b) Grade A.P.T., IV. £480 to
£525. and (c) Grade A.P.T., III, £450 to £495.

Candidates for appointment (a) should be
Associates of the Royal Institute of British
Architects or its equivalent, and preferably have
had experience in design of houses, flats and
shops for Corporation Housing Estates.

Applicants for post (b) should have passed the
Intermediate Examination of the Royal Institute
of British Architects or its equivalent, and candidates for appointment (c) should have had at
least two years' practical experience in an Architect's or Municipal Engineer and Surveyor's office.

Practical experience in the design of houses will
be an advantage.

The appointments are subject to the provisions
of the Local Government Superannuation Act,
1937. and the successful candidates will be
required to pass a medical examination.

Applications, stating age, past and present
appointments, qualifications and experience, and
accompanied by copies of not more than three
testimonials, should be received by the undersigned not later than 31st March, 1950.

Canvassing will disqualify, and an applicant
who is related to a member of, or a senior officer
of, the Council must disclose the fact in his
application.

W. H. LEATHEM, Town Clerk.

W. H. LEATHEM, Town Clerk Town Hall, Bradford. 3719

Town Hall, Bradford.

COUNTY OF GLOUCESTER.

APPOINTMENT OF BUILDING INSPECTORS.

Applications are in "it" of for the appointment of Two Building Inspecturs, in the County Architect's Department, at a salary of £420 p.a., rising to £465 p.a. (A.P. and T., Grade II. of the National Joint Councils' Scheme of Conditions of Service).

National Joint Councils' Scheme of Conditions of Service).

Candidates must have had a sound experience of the building trade, be competent to carry out inspections of buildings, their furnishing a dequipment, prepare Specifications and Estimates of costs of repairs required, set out wirks, suprivise their execution, measure up on completion and check accounts.

The appointments are terminable by one month's notice on either side, and are subject to the provisions of the Local Go ernment Superannuation Act, 1937, and to the passing satisfactorily of a medical examination.

Applications, stating age, qualifications and experience, and accompanied by copies of three recent test monials, should be sent to the County Architect, Shire Hall, Gloucester, not later than Monday, the 20th March, 1950.

GUY H. DAVIS, Clerk of the County Council.

Shire Hall, Gloucester. 3rd March, 1950.

LONDON COUNTY COUNCIL.
nersmith School of Building and Arts and
Lime Grove, W.12. Required as soon as

possible:—
A SENIOR ASSISTANT, responsible for the Architectural course for the Intermediate and Final Examinations of the R.I.B.A. Applicants should hold the A.R.I.B.A. and be well qualified in design and draughtsmanship. The diploma of a recognised school would be an additional

of a recognised school would be an additional recommendation.

Hammersmith is one of the R.I.B.A. "listed" schools providing approved full-time instruction on Architecture up to the R.I.B.A. Final examinations.

Salary Burnham Senior Assistant scale, ranging in London from a minimum of £736-£738 to a maximum of £748-£953, according to age, qualifications and experience. Application forms, obtainable from the Secretary at the School, should be returned there within 14 days of the publication of this advertisement. (297)

CORPORATION OF LONDON.
APPOINTMENT OF PRINCIPAL ARCHITECTURAL ASSISTANTS.
Applications are invited for the following

appointments:PERMANENT STAFF: PRINCIPAL ASSIS.

TERMANENT STAFF: PRINCIPAL ASSISTANT.

This appointment requires good general experience in design, building construction, specification writing, contract management, and sound general business administrative ability.

The salary will be within the range of Higher Grade VI. 2750×225—290.

The commencing salary will be arranged according to age, qualifications and experience. Applicants should be Associate Members of the Royal Institute of British Architects and should be between 35 and 45 years of age. years of age.
AUXILIARY STAFF: PRINCIPAL ASSIS-INT.

Syears of age.

AUXILIARY STAFF: PRINCIPAL ASSISTANT.

This appointment requires good practical experience in the preparation of working drawings, \( \frac{1}{2} \) in. and full size details, a sound knowledge of building construction and contract management. The Assistant will be in charge of the Drawing Office and other assistants in connection with the reconstruction of the Central Criminal Court, Old Bailey, E.C. The salary will be within the range of Higher Grade V, £700×£25-£850. The commencing salary will be arranged according to age, qualifications and experience. Applicants should be Associate Members of the Royal Institute of British Architects and be between 30 and 49 years of age. Previous experience with a local Authority is not essential in either case. Temporary service, in the event of establishment to the permanent staff, will count for the purposes of superannuation. Appointed officers will be required to assa a medical examination and to contribute to the Superannuation Fund of the Corporation.

Applications, giving full personal details, particulars of qualifications, experience, age, past and present appointments, and the names of two persons to whom reference may be made, should be sent to the City Surveyor, Corporation of London, 55-61, Mcorgate, London, E.C.2, not later than the 31st March, 1950.

CITY OF BRADFORD.

than the 31st March, 1959.

CITY OF BRADFORD.

CITY ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF SENIOR ASSISTANT ARCHITECT (TOWN PLANNING).

Applications are invited for the position of Senior Assistant Architect (Town Planning), in the City Engineer and Surveyor's Department, in accordance with Grade A.P.T., VII, of the National Scale of Salaries, i.e., £635 to £710 per annum.

National Scale of Salaries, i.e., £655 to £710 per annum.
Candidates should be Associates of the Royal Institute of British Architects and hold a University Degree or Diploma in Architecture, and possessing a high standard of contemporary design. Preference will be given to candidates with experience in Town Planning and Civic Design. Practical experience in Housing and Estate Development will be an advantage.
The appointment is subject to the provisions of the Local Government Superannuation Act. 1937, and the successful candidate will be required to pass a medical examination.
Applications, stating age, past and present appointments, qualifications and experience, and accompanied by copies of not more than three testimonials, should be received by the undersigned not later than the 31st March, 1950.
Canvassing will disqualify, and an applicant who is related to a member of, or a senior officer of, the Council must disclose the fact in his application.

W. H. LEATHEM. Town Clerk.

application.

of, the Council must disclose the fact in his application.

W. H. LEATHEM, Town Clerk. 3718

Town Hall, Bradford.

THURROCK URBAN DISTRICT COUNCIL. ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL ASSISTANT, GRADE IV.

An Architectural Assistant is required on the staff of the Engineer and Surveyor, Mr. C. S. H. Hawkes, A.M.I.C.E., M.I.Mun.E., M.R.San I., at a salary in accordance with Grade IV of the A.P.T. Division of the National Scale of Salaries, i.e., 2480 per annum, rising, by three increments of £15. to £525 per annum.

General architectural experience is necessary, and candidates must be capable of preparing detailed plans and specifications and supervising housing schemes.

Candidates snould have passed some part or parts of the Associate Membership Examination of the Royal Institute of British Architects.

Housing accommodation, if necessary, will be provided for the successful candidate if he lives beyond twenty miles from the Thurrock Urban District.

The appointment is subject to the provisions

District.

The appointment is subject to the provisions of the Local Government Superannuation Act. 1937, and the successful applicant will be required to pass a medical examination.

Applications, endorsed "Architectural Assistant, IV." stating age, qualifications and experience, and quoting three references, should reach the undersigned not later than the first post on Monday, 27th March, 1950.

Canvassing will disqualify, and applicants must discless in writing any relationship to any member or senior officer of the Council.

A. E. POOLE, Clerk of the Council.

Council Offices, Whitehall Lane, Grays, Essex.

The above ably qualiments to Department (a) SENI TANT for (b) SENI TANT for Consolida A.P.T., Grants must fown and Associate Institute.
(c) COU Headquart Rast Area Consolida nentioned LP.T. G

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DENBIGHSHIRE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.
The above Council invite applications from suitably qualified persons for the following appeintents to the Staff of the County Planning spartment:

Department:—
(a) SENIOR COUNTY PLANNING ASSISTANT for the Headquarters' Office at Ruthin,

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and
(b) SENIOR COUNTY PLANNING ASSISJANT for the East Area Office at Wrexham.
Consolidated salary for each of the abovementioned appointments in accordance with
A.P.T., Grade V, £520-£570 per annum, Applicanis must have obtained previous experience in
fown and Country Planning and should be
associate Members of the Town Planning
testitute.

mentimed appointments in accordance with I.P.T., Grade V, £520-£570 per annum. Applicants must have obtained previous experience in fown and Country Planning and should be issociate Members of the Town Planning Institute.

(c) COUNTY PLANNING ASSISTANT for the Headquarters' Office at Ruthin, and (d) COUNTY PLANNING ASSISTANT for the East Area Office at Ruthin, and I.P.T., Grade III, £450 to £495 per annum. Consolidated salary for each of the abovementicned appointments in accordance with A.P.T., Grade III, £450 to £495 per annum. (e) JUNIOR PLANNING ASSISTANT for the Readquarters' Office at Ruthin, and (o) SURVEYOR AND DRAUGHTSMAN for the Headquarters' Office at Ruthin. Consolidated salary in accordance with Misc. Div., Grade I. £315-£360 per annum. (f) SURVEYOR AND DRAUGHTSMAN for the Headquarters' Office at Ruthin, and (o) SURVEYOR AND DRAUGHTSMAN for the East Area Office at Wrexham. Consolidated salary for each of the abovementioned appointments in accordance with AP.T. Grade II, £420-£465 per annum. Applicants must be competent surveyors and expert draughtsmen, Previous experience in Ordnance survey work is essential. (h) TWO DRAUGHTSMEN for the Headquarters' Office at Ruthin. Consolidated salary for each appointment in accordance with Misc. Div., Grade II, £375-£420 per annum. Applicants must be competent surveyors and expert draughtsmen, Previous experience in Ordnance survey work is essential.

(h) TWO DRAUGHTSMEN for the Headquarters' Office at Ruthin. Consolidated salary for each appointment will be subject to the terms and conditions of service applying to the administrative, technical and clerical officers of the county Council, and will be transmation and will be subject to the Local Government Superannuation Act, 1937. Applicants should indicate the appointment applied for and should state whether they wish to be considered for more than one appointment. Applications, stating age, whether married or single, and full particulars of qualifications and experience in the prevarious positions, and full

municate only with applicants selected for further consideration.

ROYAL BOROUGH OF KINGSTON-UPON-THAMES.

BOROUGH SURVEYOR'S DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL

ASSISTANT

Applications are invited for the appointment of an Architectural Assistant, at a salary in accordance with Grade III of the A.P.T. Division of the National Scale of Salaries, £450, rising by annual increments of £15 to £495, plus London weighting. Preference will be given to candidates who are Members of the Royal Institute of British Architects.

The appointment is a permanent one and will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination. The appointment is subject to one month's notice on either side.

Applications, stating age, qualifications and experience, and accompanied by copies of not more than three recent testimen'a.s, must be sent in a sealed envelope endorsed "Architectural Jusistant," so as to reach the undersigned not later than 27th March, 1950.

A. W. FORSDIKE.

Town Clerk.

Guildhall, Kingston-upon-Thames.

March, 1950.

Guildhall, Kingston-upon-Thames.

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.
Architect to the Council: ROBERT H. MAYTHEW.
Deputy Architect: J. L. MARTIN.
APPOINTMENT OF SCHOOLS ARCHITECT. AND
PRINCIPAL ASSISTANT (PROFESSIONAL).
Applications are invited for the following positions in the Architect's Department:—
(1) SCHOOLS ARCHITECT. £1,500×£100—
£1,700.

Responsible to the Architect for the Schools

Responsible to the Architect for the Schools Division.

(2) ASSISTANT SCHOOLS ARCHITECT.

£1.250×£75-£1.550.

To assist the Schools Architect, mainly in the sphere of design.

(3) PRINCIPAL ASSISTANT (PRO-FESSIONAL). £960×£40-£1.000×£50-£1.100.

To take charge of a group in the Schools Division.

To take charge of a group in the Schools Division.

No age limits. Experience of public architecture

No age limits. Experience of position of essential.

Form of application obtainable from the Architect to the Council. The County Hall, Westminster Bridge, London, S.E.L. Stamped addressed foolscap envelone necessary. Letters should be marked AR/B/S. Application forms to be returned not later than 31st March, 1950.

Canvassing disqualifies. (257) 3655

CITY OF COVENTRY ARCHITECTURAL AND PLANNING DEPARTMENT.

There are at present two varancies (on Grade VI and III) in the Quantity Surveyor's Section of this Department. Applications are invited from persons who are suitably ounlifted and who seek the varied work associated with a City of this type, with its reconstruction and expansion programme.

rogramme.

Housing accommodation may be made available in suitable cases to successful applicants for both grades if so desired.

The successful applicant will be expected to belong to an appropriate organisation, as referred to in Paragraph 44 of the National Conditions of Service.

to in Paragraph 44 of the National Conditions of Service.

The usual form of application may be obtained from the undersigned, and must be returned by Saturday, 25th March, 1950.

City Architect and Planning Officer.

A. Warwick Rew, Coventry.

COUNTY BOROUGH OF SOUTHAMPTON.
BOROUGH ARCHITECT'S DEPARTMENT
Applications are invited for the following positions:—

(a) SENIOR OUNTITY SUPPLYON.

(a) SENIOR QUANTITY SURVEYOR. Grade V (£535-£710 p.a.), (b) ASSISTANT QUANTITY SURVEYOR. Grade V (£520-£570 p.a.), (c) ASSISTANT QUANTITY SURVEYORS. Grade IV (£480-£525 p.a.), (d) TECHNICAL ASSISTANT. Grade V (£520-£570 p.a.)

2570 p.a.).
Applicants for appointment (d) should be full qualified Structural Engineers, experienced in design and in checking calculations. A knowledge of heating and ventilation will be an

ledge of neating and ventilation with be an advantage.
Applications, on forms obtainable from L. Berger, Dip.Arch., A.R.I.B.A., Borough Architect, Civic Centre, Southampton, must be returned not state than 27th March, 1950.

HUYTON-WITH-ROBY URBAN DISTRICT
COUNCIL.
APPOINTMENT OF SENIOR AND GENERAL
ARCHITECTURAL ASSISTANTS.
Applications are invited for the following
appointments:

SENIOR ARCHITECTURAL ASSISTANT.
SENIOR ARCHITECTURAL ASSISTANT.

appointments:— SENIOR ARCHITECTURAL ASSISTANT.
Salary in accordance with Grade A.P.T. V. £520-£570 per annum. Candidates must comply with the scheme of conditions of service and be registered Architects, and should have experience in a Municipal engineer's office, particularly in respect of housing design, construction, and the control of contractors. Housing accommodation will be made available to the successful candidate if required.

respect of nousing design, construction, and the control of contractors. Housing accommodatin will be made available to the successful candidate if required.

GENERAL ARCHITECTURAL ASSISTANT. Salary in accordance with Grade A.P.T., II, £420-£495, acco ding to qualifications and experience. Candidates must comply with the scheme of conditions of service for local government officers, and must have passed the R.I.B.A. Intermediate Examination, or its equivalent at one of the recognised schools of architecture, and with less than one year's subsequent experience in an architect's office will be appointed on A.P.T., II. Applicants having had a minimum period of one year in an architect's office with the above qualifications, or who have completed or are serving articles, or who have worked for a minimum period of three years in an architect's office and have passed the Intermediate Examination or its equivalent, will be appointed on Grade A.P.T., III.

Both appointments are on the established staff and are subject to the provisions of the Local Government Superannuation Act, 1937.

Applications, stating age, qualifications, details of experience, and the names of two persons to whom reference may be made, should be received by the undersigned not later than the 3rd April, 1950.

Canvassing disqualifies.

H. E. H. LAWTON,

Clerk of the Council.

BOROUGH OF WALTHAMSTOW.
COMMITTEE FOR EDUCATION.
ARCHITECT'S DEPARTMENT.
Applications are invited for the fellowing permanent appointments, in the office of the Architect to the Committee for Education, Mr. Frank H. Heaven. A.R.I.B.A., A.R.I.C.S.
(4) ONE CHIEF ASSISTANT ARCHITECT, at a salary of £685, rising by increments of £25 to £760 per annum.

(4) ONE CHIEF ASSISTANT ARCHITECT, at a salary of £685, rising by increments of £25 to £760 per annum.
(b) ONE SENIOR ASSISTANT ARCHITECT, at a salary of £635, rising by increments of £25 £710 per annum.
(c) ONE ASSISTANT ARCHITECT, at a salary of £480, rising by increments of £15 to £525 per annum.
In addition, a London weighting addition (£30 if over 26 years of age, or £20 age 21 to 25) will be payable.
The appointments will be subject to the Standing Orders of the Essex County Council from time to time in operation, to the provisions of the Local Government Superannuation Act. 1937, and to the conditions of service contained in the Scheme of the National Joint Council for Local Authorities, Administrative, Professional, Technical and Clerical Services, as amended from time to time and as adopted by the County Council.
Applicants should have qualified as Members

Council.

Applicants should have qualified as Members of the R.I.B.A. or be in progress of qualifying for membership, or ho'd other similar qualifications, and for the posts (a) and (b), must have had considerable experience in an Architect's office in connection with the design, construction and maintenance of educational or similar buildings, and some administrative experience.

Canvassing, either directly or indirectly, will be deemed a disqualification.

Forms of application may be obtained from and should be returned to the undersigned not later than three weeks from the publication of this notice.

E. T. POTTER, B.Sc.,
Borough Education Officer,
Forest Road, E.17.

March, 1950.

EAST GRINSTEAD URBAN DISTRICT
COUNCIL
TEMPORARY TECHNICAL ASSISTANT—
Applications are invited for the above appointment, at a salary equivalent to the A.P.T., Grade II (£420-£465 per annum), of the National Joint Council Salary Scales, the commencing salary being within the scale according to qualifications and/or experience. The appointment is for a guaranteed minimum period of two years, and thereafter will be subject to review in the light of the current housing programme of the Council.
The candidates must have a thorough allround experience in contouring sites and preparing layouts, specifications, and bills of quantities, for roads and sewers construction, and experience in house design and construction would be an advantage.

Applications, stating age, qualifications.

perience in house design and construction would be an advantage.

Applications, stating age, qualifications, appointments held, and details of experience, together with copies of three recent testimonials, must be sent to the undersigned not later than noon on Wednesday, 22nd March, 1950.

The Council will endeavour to assist the successful applicant in obtaining housing accommodation.

L. R. BENNETT,

L. R. BENNETT,

East Court, East Grinstead, Sussex.

March, 1950.

BRECONSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the following permanent appointments (Male or Female) in the County Architect's Department:—
(a) ONE ASSISTANT ARCHITECT. Grade V, 650,650 per annum.

a) ONE ASSISTANT ARCHITECT. Grade V, 2500-2570 per annum.
(b) ONE SISSTANT ARCHITECT. Grade IV. 940-2525 per annum.
(c) TWO ASSISTANT ARCHITECT. Grade III. 9460-2495 per annum.
(d) TWO ARCHITECTURAL ASSISTANTS. General Division, £200-2385 per annum, or Grade III. £420-2465 per annum.
(e) ONE QUANTITY SURVEYOR. Grade VII. £635-2710 per annum.
Applicants for the appointment under (a) above must be registered Architects. Successful applicants for appointment under (d) above will be paid a salary within the Grades stated, according to their previous experience and qualifications.

ing to their previous experience and quantistions.

The appointments will be subject to (i) the National Scheme of Conditions of Service, (ii) the provisions of the Local Government Superannuation Act, 1937, (iii) the passing of a satisfactory medical examination, and (iv) one month's written notice on either side.

Canvassing, directly or indirectly, will definitely disqualify the candidate for the appointment. Applications must be made on a form to be obtained from the County Architect, Mr. H. C. W. Strickland, F.R.I.B.A., Rhyd Offices, Brecon, South Wales, and must be received by the undersigned not later than 31st March, 1950.

No housing accommodation can be provided by the Council for the successful applicants.

C. M. S. WELLS.
Clerk of the County Council. County Hall, Brecon.

BOROUGH OF SOUTHGATE.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.
TECHNICAL STAFF.
Applications are invited for the following permanent and superannuated appointments in the Department of the Borough Engineer and

Department of the Borough Engineer and Surveyor:—

(a) & COND ARCHITECTURAL ASSISTANT.

A.P.T., Va-VI.

(b) SENIOR ARCHITECTURAL ASSISTANT.

A.P.T., Va-VI.

(c) TWO ARCHITECTURAL ASSISTANTS.

A.P.T., IV-V.

(d) TOWN PLANNING TECHNICAL ASSISTANTS.

A.P.T., IV-V.

In all cases the appropriate London weighting will be paid.

For appointments (a) and (b), applicants should be Associate Members of the Royal Institute of British Architects, and for appointment (c) preference will be given to applicants who are in possession of the Intermediate Examination of that Institute, although applications from persons who are undergoing a regular course of study for the above mentioned examination will be considered.

sidered.

and the mentioned examination will be considered.

Apticintment (b) is primarily in connection with the Maintenance of School Buildings, and preference will be given to applicants who have had previous experience of such work.

For appointment (d), applicants must at least be in possession of the Intermediate Examination of an approviate Professional Institution, and preference will be given to those who have had previous experience in a Planning Office.

Forms of application may be obtained from the Borough Engineer and Surveyor, and should be returned to the undersigned not later than 9 a.m. on Monday, the 3rd April 1950.

Canvassing, directly or indirectly, will be a disqualification.

disqualification.

GORDON H. TAYLOR Town Clerk. Town Hall, Palmers Green, N.13. 8th March, 1950.

Town Hall. Palmers Greef, N.13.

3th March, 1980.

BOROUGH OF WIMBLEDON.

ARCHITECTURAL ASSISTANTS.

Applications are invited for the following appointments on the established staff of the Borough Engineer and Surveyor's Department:—
(a) ONE ARCHITECTURAL ASSISTANT, on Grade A.P.T.. IV, at a commencing salary of 2480 per annum, rising by three annual increments of £15 to a maximum of £525 per annum. Applicants must have passed Intermediate Examination of R.I.B.A. and must have had experience in Municipal architectural and housing work.

(b) ONE ARCHITECTURAL ASSISTANT on Grade A.P.T.. III, at a commencing salary of 2450 per annum, rising by three annual increments of £15, to a maximum of £495 per annum. Applicants must be up to the standard of the Intermediate Examination of R.I.B.A. and should have had experience in Municipal architectural and housing work.

Londen weighting according to age is paid in addition to the above sa'aries.

The appointments are subject to the National Scheme of Conditions of Service, the provisions of the Leval Government Superannuation Acts. and to satisfactory medical examination, Applications, endorsed (a) Architectural Assistant III, stafing age, qualifications, experience in detail, all former Local Government service, present and previous appointments, length of notice required to terminate present arovointment, and the names and addresses of three persons as referees, must be forwarded to the Borouch Envineer and Surveyor, Tewn Hall, Wimbledon, S.W. 19. W. 19st March. 1950. Canvassing will disonality and candidates must disclose in writing 2: the undersigned if to their knowledge they are related to any member or senior officer de the Council

EDWIN M. NEAVE.

Town Hall, Wimbleden, S.W.19.

Town Hall. Wimbleden, S.W.19. 3767
CRAWLEY DEVELOPMENT CORPORATION require an ARCHITECT, within the salary scale of \$750×550-\$1000.
Abolicants should have first class experience in design of housine, industrial buildings public buildings, etc., and must be fully qualified; town planning experience would be an advantage.
Contributory superannuation.
Form of application and further particulars should be obtained from the Chief Architect.
A. G. Sheppard Fidler, M.A., B.Arch., F.R.I.B.A., A.M.T.P.I., Broadfield, Crawley, Sussex, to whem the completed application must be returned not later than the 27th March, 1950.

C. A. C. TURNER.

C. A. C. TURNER. Chief Executiv

2nd March, 1950.

2nd March. 1950.

3722

SOUTH-EASTERN REGIONAL HOSPITAL
BOARD. SCOTLAND.
Applications are invited for the following permanent appointment in the Chief Architect's
Department. headquarters in Edinburgh.
ARCHITECTURAL ASSISTANT. Salary scale
A.P.T.. Grade IV. 4800×215-4525.
Candidates should have a sund architectural training and he capable of making surveys and preparing working and detail drawings.
Applications, giving details of age, training, experience, present appointment, and accompanied by the names of two referees, to be sent to the Chief Architect, 6, Cambridge Street, Edinburgh.
1, on or before the 25th March. 1950.

SHEFFIELD REGIONAL HOSPITAL BOARD.
Applications are invited for the following permanent appointments in the Regional Architect's Department of the Headquarters' Staff of the

SENIOR ASSISTANT ARCHITECTS A.P.T., VIII (£685×£25-£760 per

Grade

annum).

Applicants must be Members of the Royal Institute of British Architects, and have had experience in the design and construction of hospitals and be capable of carrying out and advising on large building contracts.

(b) SENIOR ASSISTANT QUANTITY SURVEYOR (ONE).

Grade A.P.T., VIII (£685 × £25 – £760 per annum).

Grade A.F.1., VIII (2003×225—2700 per annum).

Applicants must be members of the Royal Institute of Chartered Surveyors (Quantities Subsection) and be experienced in the preparation of detailed estimates. Bill of Quantities, Specifications, valuation and settlement of accounts.

() ASSISTANT ENGINEER (ONE).

Grade VII (2660×225—2710 per annum). Applicants should be Members of the Institute of Mechanical Engineers or the Institute of Mechanical Engineers, and have wide experience of the design and operation of hospital heating, hot water, ventilating, laundry and kitchen installations, including the preparation of technical reports and the supervision of contracts. contracts

ntracts.

Appointments will be subject to the National (ealth Service (Superannuation) Regulations.

47. and will be terminable by one month's

1947, and will be terminable by one month's notice.

Applications, stating age, qualifications, present position and past experience, together with the names of three referees, should be addressed to the Secretary, Sheffield Regional Hespital Brard, Fulwood House, Old Fulwood Road, Sheffield, 10, not later than the 31st March, 1950.

3769

ruiwood House. Old Fulwood Road, Sheffield. 10, not later than the 31st March. 1950. 3769

BOROUGH OF SOUTHALL.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment on the permanent staff of the Corporation. Salary in accordance with Grades A.P.T.. IV and V. of the National Scheme (\*480-2570), plus appropriate Lendon weighting, the commencing salary being dependent upon qualifications and experience.

Candidates should have passed the Intermediate Examination of the R.I.B.A, and have had previous Local Government experience. The appointment is subject to one month's notice on either side and to the provisions of the Local Government Superannuation Act, 1937. The successful candidate will be required to pass a medical examination. Applications on forms to be obtained from the Borough Engineer, Town Hall, Southall, most be returned to him not later than 11th April, 1950.

J. S. SYRETT.

Town Clerk's Offices, Southall. Middlesex.

March, 1950.

BUCKS COUNTY COUNCIL.

The County Architect invites applications from qualified ASSISTANT ARCHITECTS who possess a keen and energetic enthusiasm for their profession. Candidates should preferably have been strained at a recognised School of Architecture. Salary Grade IV. £480-£525 p.a.; Grade VI. £595-£660 p.a. Salary Grac £595-£660 p.a. A vacancy ONE ASSIS

£595-£660 p.a.
A vacancy also exists for:—
ONE ASSISFANT BUILDING SURVEYOR,
Grade IV, Salary £480-£525 p.a.
Further particulars and form of application
may be obtained from the County Architect.
County Offices, Aylesbury, to whom they must
be delivered by 31st March, 1950.

3742

may be obtained from the County Architect. County Offices, Aylesbury, to whom they must be delivered by 31st March, 1950.

GLENROTHES DEVELOPMENT

CORPORATION.

APPOINTMENT OF CHIEF ARCHITECT AND PLANNING OFFICER.

Applications are invited for the post of Chief Architect and Planning Officer to the Development Corporation. The functions of the post include the direction of the architectural and planning departments of the Corporation and advising the Corporation on all questions relating to the planning of the new town and the design and execution of development projects carried out by the Corporation. Candidates should be Members of the Roval Institute of British Architects, and preferably of the Town Planning Institute, and should, in particular, be completely familiar with the latest developments in planning standards and technique appropriate to a development of this scale and character.

The salary range for this appropriate to a development of this scale and character.

The salary range for this appropriate to a development of the months of the initial salary payable will depend upon the onalifications and experience of the successful applicant.

The Development (Soviland) Act. 1937.

Canasasine, directly or indirective of the members of the Development (Corporation will constitute an absolute disapplification and experience, together with the manil references Markinch, Fite not later than 20th March 1950.

There is no prescribed form of application.

WILLENHALL URBAN DISTRICT COUNCIL.
HOUSING ARCHITECT'S DEPARTMENT.
APPOINTMENT OF ARCHITECTURAL
STAPF.
Applications are invited for appointments to the Architectural Staff of a recently established Architect's Department.
Appointments will be made in A.P.T., salary grades I-V (£370 per annum—570 per annum, and will be subject to one month's notice on either side and to the terms of the National Scheme of C. nditions of Service and the provisions of the Local Government Superannuation Act, 1937.
Applications, stating age, qualifications, full details of training and experience, and giving two referees, should be sent to R. T. Chappelle, A.R.I.B.A. Housing Architect, Town Hall, Willenhall, not later than 27th March, 1950.
Canvassing will disqualify.
JOHN R. RIDING.
Clerk of the Council.

Town Hall, Willenhall.

Town Hall, Willenhall.

NORTH THAMES GAS BOARD.

DESIGNER DRAUGHTSMAN.

A Designer Draughtsman is required for the preparation of detailed drawings of proposed alterations to existing showrooms and the erection of new showrooms, and to work on the design of such jobs as exhibition stands, demonstration kitchens, mobile showrooms, etc. The appointment would be of a permanent nature, and pension arrangements will be discussed with short list candidates.

Applications stating age and giving full particulars, should be sent to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.S., quoting reference number 9770.

METROPOLITAN BOROUGH OF POPLAR.
WORKS DEPARTMENT.
Applications are invited from suitably qualified ergons for the under-mentioned established

posts:—
(a) ARCHITECTURAL ASSISTANT for Reconstruction Planning (A.P.T., V.).
(b) ARCHITECTURAL ASSISTANT (A.P.T., (c) ARCHITECTURAL ASSISTANTS-2

I., IV.).
ARCHITECTURAL ASSISTANT (Misc. 1.)

(e) ENGINEERING ASSISTAN1

(f) ENGINEERING ASSISTAN1

III.).
Full details of the appointments and forms of application may be obtained from the Borough Engineer and Surveyor. Poolar Town Hall. Bor Road. E.3. to whom completed applications must be delivered not later than first post on Monday. March 27, 1950.

Requests for application forms should state clearly for which post the form is required.

9th March, 1950.

BOROUGH OF REIGATE.

BOROUGH OF REIGATE.

9th March, 1950.

ROROUGH OF REIGATE.

APPOINTMENT OF SENIOR

ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Senior Architectural Assistant on the staff of the Borough Engineer and Surveyor, at a salary in accordance with Grade V of the A.P.T.

Division of the National Scale of Salaries (£520—2570 per annum). Applicants should have previous experience in connection with the design of buildings, estate development and the conversion of existing properties into flats. The appointment is subject to the provisions of the Local Government Superannuation Act. 1937, and to the passing of a medical examination. Housing accommodation will be provided, if required for the successful candidate if he is a married man.

for the successful candidate.

Forms of application may be obtained from Mr. George G. Sanderson, A.M.I.C.E., Borough Engineer and Surveyor, Town Hall, Reigate. Applications, endorsed "Architectural Assistant" and accompanied by copies of three recent testimonials, must reach the undersigned not later than Saturday, April 1, 1950.

HEBER DAVIES.

Town Clerk.

Town Hall. Reigate. March, 1950.

**Tenders for Contracts** 

Tenders for Contracts
6 lines or under, 12s. 6d.; each additional line, 2s.
COUNTY BOROUGH OF BLACKBURN.
BUILDING OF AGED PERSONS'
10 Bungalows at Philips Road Site and 12 st.
Contractors wishing to tender for the erection of these Bungalows should submit their names to the Borough Engineer, Town Hall, Blackburn by Tuesday, 21st March.
Tenders will be considered for either contract or both.
CHAS. S. ROBINSON.

CHAS. S. ROBINSON.

Practice for Sale

4 lines or under, 7s. 6d.; each additional line, 2 A RCHITECT'S General Practice in Esses country town for Disposal, including Small

'S General Practice in Esses wn for Disposal, including Small House. Box 3660. FOR SALE.—Owing to death the practice

a Chartered Architect in the Lake District is for Sale. Enquiries, showing what information is required, should be addressed to J. A. Oglethorpe, Solicitor, Keswick. (Tel. 125.) 378

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Architec lines or A SSISTA opportunity to show h capable m experience RCHI A Maide of supervi laws. Rep mlary requ

A RCHI stand essential, manency a cant. Apprenquired. NORTH TRA Department Architectu ing to ag Mondays Saturdays. granted as able. Ca years of a North The Street, W PERMA peter ished Lorence up t

MIDLA or Semi-S Buildings not essen SENIO quir cants to s of si ings, and Apply in salary r Petersbur A RCH Apr experience L.R.I.B.A Backs. EADI

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Architectural Appointments Vacant times or under, 7s. 6d.; each additional line. 2s.

A SSISTANT required in busy Berkshire office, with work in all parts of the country; an opportunity for a man with initiative and drive to show his capabilities; good prospects for a napole man. Apply, with full particulars of experience and salary required, to Box 3342.

A RCHITECTURAL ASSISTANT required in and Provincial work; applicants must be capable of supervising work and conversant with bylows. Reply, with particulars of experience and salary required, to Box 3343.

A RCHITECTURAL ASSISTANT. Inter. standard, neat and efficient draughtsman essential, in small office, W.C.2 district; permanency and good prospects for suitable applicant. Apply, stating age, experience, and salary required, to Box 3603.

NORTH THAMES GAS BOARD.—A WOMAN NORTH THAMES GAS BOARD.—A WOMAN

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eant. Apply. stating age, experience, and salary required. to Box 3603.

NORTH THAMES GAS BOARD.—A WOMAN IRACER is required in the Board's Estate Department. Kensington, to work on General architectural and Building Plans; salary according to age and experience, and there are good prospects for advancement; hours 9 a.m. to 5 p.m. Mondays to Fridays, and 9 a.m. to 12.30 p.m. Saturdays. with one Saturday merning in four granted as leave with pay; staff canteen is available. Candidates, preferably not more than 25 years of age, should apply to the Staff Controller, North Thames Gas Board. 30, Kensington Church Street, W. 8. quoting reference 9788.

3344

PERMANENT positions available for competent SENIOR ASSISTANTS in established Lendon office; salary according to experience up to 2650 per annum. Bcx 3593.

MIDLANDS.—ARCHITECTURAL ASSISTANTS in Stationary of Semi-Senior, with experience of Industrial Buildings; one Junior, preferably with same, but not essential; good salaries. Please write Box Senior and Acceptably with same, but not essential; good salaries.

Bot essential; good salaries. Freeze 2580.

ENIOR ARCHITECTURAL ASSISTANTS required by United Dairies. Limited; applicants to state age and experience in the preparation of surveys. sketch plans and working drawings, and be able to supervise work in progress. Apply in writing, stating qualifications and many required, to Chief Architect, 31, 84. Petersburgh Place, London, W.2.

ARCHITECT'S ASSISTANT required at end toril. Write in confidence, stating age, experience, and salary, to W. Leslie Jones. LR.I.B.A., 87, High Street, Great Missenden, Bucks.

Bocks. State Manufacturing Company, with several branches in all parts of the U.K.. has vacancy for first-class Architect and member of the R.I.B.A.. to take charge of all building repairs and maintenance work, deal with building contractors and new construction work for the Company.

ompany. Age limit: 28-37 years. Salary: approximately £800-£1.000 per annum. Only men with considerable experience shou

Only men with considerable experience should apply.
Revies to Box 3693.

WEST END Architect's Office requires exexperienced ARCHITECTURAL ASSISTANT also JUNIOR or IMPROVER. Apply Box 3629.

TANT. also JUNIOR or IMPROVER. Apply Box 3629.

A RCHITECT'S ASSISTANT for working drawings, specifications. supervision; Inter. slandard or approaching Final, good salary suitable applicant. Watson. Johnson & Stokes, Victoria Square, Birmingham, 2. 3638

PROMINENT firm of London Architects requires qualified ARCHITECTURAL ASSISTANTS and JUNIOR ASSISTANTS of Intermediate standard for varied practice; salary by arrangement; West End office. Box 3640.

CENERAL ASSISTANT required immediately; experienced in the preparation of working drawings for housing alterations and other classes of work. a.so capable of surveving, levelling and specification writing. Apply, stating age, experience, and salary required, D. Ward & Son, 11. The Crescent, Plymouth. 3644

A SSISTANT required for general practice; varied and interesting work over large area in North-West; able to take entire charge of contracts. J. H. Martindale & Son, F. F. R. L. B.A., Architects, Cathedral Chambers, Castle Street, Carlisle.

ARCHITECTURAL ASSISTANT required, with at least 3 years' general office experience; sound knowledge of construction and neat draughtsmanship essential; superannuation and five-day week operated. Send full details of past experience and salary required, to Box 3659.

A BCHITECTURAL ASSISTANT required of Inter, standard or above; interested in Consemporary Design. Apply Chamberlain Ind., Ltd., Staffa Road. E.10, or Tel. LEY. 3678.

QUALIFIED OR EXPERIENCED ASSISTANT required in Architect's Department of multiple company in the Midlands. Conversant with design, alteration and maintenance of retail shop premises, working drawings, specifications and surveys. Salary offered, 2600 (2750 per annum according to ability. Five-day week and pension scheme in operation. Applicants are requested to furnish full details of training, age and experience. Box 3708.

THE CO - OPERATIVE WHOLESALE SOCIETY, LTD., invite applications for the following appointments on the Staff of the Manchester Architects Department THREA ASSISTANT ARCHITECTS. Salary range 2470-1255 per annum. Applicants should have a sound knowledge of building construction and architectural design, and be able to produce working drawings and details, under supervision. From sketch plans
THREA ASSISTANT ARCHITECTS. Salary range 1400-465 per annum. Applicants should be good draughtsmen and possess a sound knowledge of construction and some general architectural experience.
The above appointments are permanent and offer prospects of apgrading to competent Assistants. Successful candidates will be required to undergo a medical examination for entry into compulsory superannuation scheme.
Applications, stating age, experience, and qualifications, to be addressed to:—The Chief Architect. Co-operative who esale Society, Ltd., 1. Balloon Street, Manchester, 4. 3594

A FIRM of Industrial Architects has a vacancy for an ARCHITECTURAL ASSISTANT, experienced in surveying and levelling and of working drawings, details, etc., in connection with large industrial undertakings. Applicants are asked to give particulars of their age, experience, and salary required, to Box 3666.

A RCHITECTURAL ASSISTANT required for general practice in Westminster; at least Intermediate standard; office experience essential, and capable of preparing working drawings, details, and supervision; oppertunity to take responsibility and exercise initiative. Please apply to B.x 3670.

LONDON ELECTRICITY BOARD.

LONDON ELECTRICITY BOARD.
PPLICATIONS are invited for the following
app\_iutments in the Architect's Section of
Chief Engineer's Department in Central

app. intments in the Architect's Section of the Chief Engineer's Department in Central London:

(a) ARCHITECTURAL ASSISTANTS. Commencing salary will be from £500 per annum, dependent upon qualifications and experience. Applicants should be studying for or have passed the Intermediate examination of the R.I.B.A., be capable draugnismen, and have had several years' experience in an Architect's office.

(b) DRAUGHTSMEN. Commencing salary will be from £350 per annum, dependent upon ability and experience.

Applicants should be neat draughtsmen, and preferably have had several years' experience in an Architect's office.

The salaries for the above posts are provisional, and the salaries and conditions of employment will be in accordance with those laid down from time to time by the appropriate negotiating body.

Application forms obtainable from Establishments Officer, 46/47, New Broad Street, E.C.2, on receipt of an addressed foolscap envelope. To be returned duly completed not later than 25th March, 1950. Please mark envelope EST/V/66/A.

A BCHITECTURAL ASSISTANT required.

A REHITECTURAL ASSISTANT required, experience and salary required, Box 3738.

experience and salary required, Box 3738.

A SSISTANT ARCHITECT required for General Practice; Final R.I.B.A. stage or recently qualified; experience of private office essential; flat can be made available; salary £500.£600, according to experience. Please wrife, giving age, qualifications and training, to Ernest L. Smith & Scn. L./A.R.I.B.A. Melville Chambers, Sandown, I.o.W.

SCHERRER & HICKS, FF.R.I.B.A. 19, Cavendish Square, W.I. require TWO SENIOR ASSISTANTS in their Lendon office (Museum 105) and TWO JUNIOR ASSISTANTS and ONE SENIOR ASSISTANT in their Manchester office (Eccles 3967).

ARCHITECTURAL DRAUGHTSMAN required in Pacific Control of the control

chester office (Eccles 3967).

ARCHITECTURAL DRAUGHTSMAN reparing working drawings; willingness to go abroad an advantage but not essential. Write, giving experience and salary required. Box 3746.
CO-OPEDATUR WHOLFS LE SOCIETY, LTD. ARCHITECTS DEPARTMENT, LONDON. Applications are invited for the f-llowing:—FOUR ASSISTANT ARCHITECTS. Salary £490-£555 per annum. Applications are invited for the f-llowing:—FOUR ASSISTANT ARCHITECTS. Salary £490-£555 per annum. Applications are invited for the f-llowing:—FOUR ASSISTANT ARCHITECTS. Salary £490-£555 per annum. Applications are invited for the f-llowing invited for the f-llowing and Architectural design. Capab'e of preparing working drawings and details under supervision.
SURVEYOR'S ASSISTANT. Experienced, taker-off, with sound knowledge of present day proessed as a few and a permanent.

The appointments are permanent and offer prospects of up-grading.

The appointments are permanent and offer prospects of up-grading.

Successful candidates will be required to undergo medical examination for a compulsory Superannuation Scheme.

Applications, stating age, experience, qualifications and salary expected to the Chief Architect, Co-operative Wholesale Society, Ltd., 99, Leman Street, London. E.1.

TWO JUNIOR ASSISTANTS required for Architect's office in Westminster area; hospital work; good prospects. Write, stating age, experience and salary required. Box 3710.

A RCHITECTS CO-OPERATIVE PARTNER A SHIP require ASSISTANT for working drawings and detailed design; salary £400-£550, according to experience. Apply in writing to 34, Gordon Square, London, W.C.1.

SENIOR ARCHITECTURAL ASSISTANTS required for work in connection with the reouila.ng of the exeter City Centre. Apply stating quantifications, experience and salary required. Lucas, Koderts a brown, Architects and Surveyors, Barnnead Hill, Exeter.

NORTHERN RHODESIA.

A RCHITECTURAL ASSISTANTS required design, sketen p.ans and accurate working drawings. Aust be willing to work hard. Single men preferred. Junnor partnerships offered to 101.y quantined applicants it satisfactory after 9 months in territory. Salaries 2000—300 per annum. Reply to Horace williams, A.R.I.B.A. P.O. Box 304, Kitwe, Northern Rhodesia. 3774

A RCHITECTURAL ASSISTANT, experienced in preparation of working drawings, required immediately for London once. Telephone Mayfart 0.557 or write Box 3768.

A SISTANT ARCHITECT required in London of draughtsmanship and sound knowledge of construction essential. Write, stating experience, quainfeations and salary required, hox 3751.

A RCHITECTURAL ASSISTANT required for detailing; aged 35 or over. State experience, age, qualifications, and salary required, to Box 3751.

A RCHITECTURAL ASSISTANT required for Sen.or. abe to take charge of each state of the control o

ARCHITECTURAL ASSISTANTS required, to Box 3751.

ARCHITECTURAL ASSISTANTS required, one Sen.or, able to take charge of and organise jobs at all stages, for which a sound knowledge of construction and standards of design are essential. Also an ASSISTANT of at least R.I.B.A. Intermediate standard, with some office experience. The work is of a varied nature, providing ample scope for good men. Write stating fully particulars of experience and salary required. Welch & Lander, FF.R.I.B.A., 38, Gloucester Place, W.I.

EXPERIENCED ASSISTANT wanted for busy pro incial and country practice, as Senior under Principals; good practical knowledge essential. F. J. Lenton & Partners, Chartered Architects. Stamford.

UNIOR ASSISTANT urgently required by

Architects, Stamford.

JUNIOR ASSISTANT urgently required by Brighton architect; state age, experience, and salary required. Box 3755.

ARCHITECT'S ASSISTANT required; must be details, and good knowledge of construction; experience in supervision an asset. Write, stating previous experience and salary required. 20 H. S. Goodhart-Rendel & Partners, 13, Crawford Street. London, W.1.

ROULD WILLIAM.

London, W.1.

BOURNVILLE VILLAGE TRUST

QUALIFIED ASSISTANT ARCHITECT required, with good training and experience, not over 35; good salary and prospects of advancement to suitable man, willing to take keen interest in his work; house available. Apply, giving full details of qualifications and experience, to Secretary, Estate Office, Bournville, Birmingham, 30.

3729

Musman, 30.

WANTED, immediately, experienced ASSISTANT, preferably Schools. Apply E. B.
Musman, B.A., F.R.I.B.A., 12, Upper Berkeley
Street, W.1. (Padd. 7114). State qualifications,
salary.

Salary.

ARCHITECT-ST. ASAPH DIOCESAN
BOARD OF DILAPIDATIONS.—An
INSPECTOR of Parsonage Houses (or two
District Inspectors) will be appointed shortly;
the work could be combined with other work of
official or of private character. For further
information apply Secretary, Diocesan Office, The
Palace, St. Asaph, Flints.

3735

## Architectural Appointments Wanted

CHARTERED ARCHITECT (43), University qualified, desires change; seeks responsible position with scope in London; extensive first-class experience in large-scale modern Housing, Commercial and Industrial schemes; complete charge. Box 3294.

A B.I.B.A., age 34, 10 years' general experience in various types of building, car owner, requires position of responsibility, with possibility of advancement; southern county town preferred; salary by arrangement. Tel.: Haslemere 138.

ARCHITECTURAL ASSISTANT seeks temporary or permanent post, London; interested modern design; spent 5 years' Polish School of Architecture; University qualifications; 15 months' experience this country; 4 years' Assistant Architect abroad. Box 3480.

Assistant Architect abroad. Box 3480.

A. R.I.C.S. (Building Sub-division, 1944), studying for Final R.I.B.A. and T.P.I., age 28, over 10 years' varied experience in private architect's office, local authority and running own practice, requires post as MANAGER in Architect's branch office or similar responsible position in Southern England; car owner/driver. Please state salary offered. Box 479.

A RCHITECT for appointment as ASSISTANT; over 20 years' in own practice; London district interviews only. A. R. Shibley, F.R.I.B.A., Downsway, Park Lane East, Reigate. 480

### Other Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

INTELLIGENT and enthusiastic, young man, with some knowledge of building construction and materials, wanted for unusually interesting selling job, mainly in London (full-time). Write, with full particulars of age, training, experience, salary required, to Box 366.

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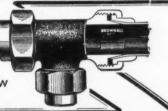
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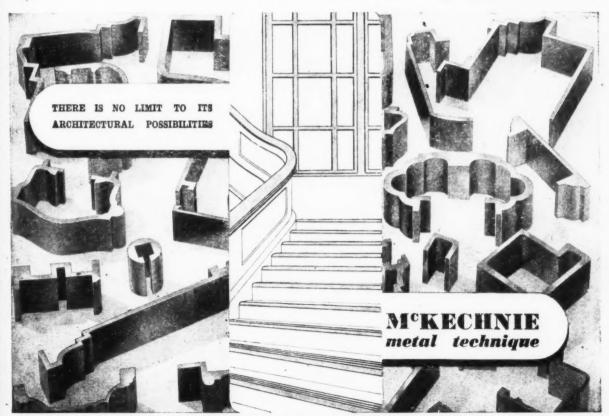
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