## A R E ARTS DEPT.

TACK



tandard contents

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

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STATISTICS

Architectural Appointments Vacant

No. 2830] THE [Vol. 109 ARCHITECTURAL 9, 11 and 13, Queen Anne's Gate, Westminster, \$.W.1. 'Phone: Whitehall 0611 'Phone: Whitehall 0611

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A glossary of abbreviations of Government Departments and Societies and Committees of 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.

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Reinforced Concrete Association. 94, Petty France, S.W.1. Whitehall 9936 **RCA** Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh RIAS Edinburgh 20396

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RS Royal Society. Burlington House, Piccadilly, W. Regent 3335 RSA Royal Society of Arts. 6, John Adam Street, W.C.2. Temple Bar 8274

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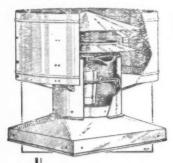
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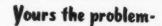
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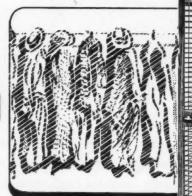
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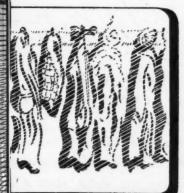




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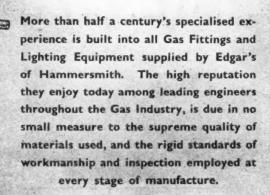
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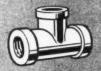
















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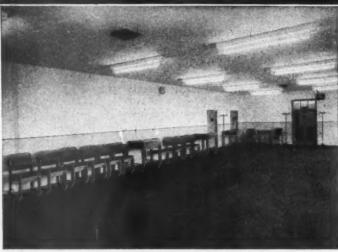
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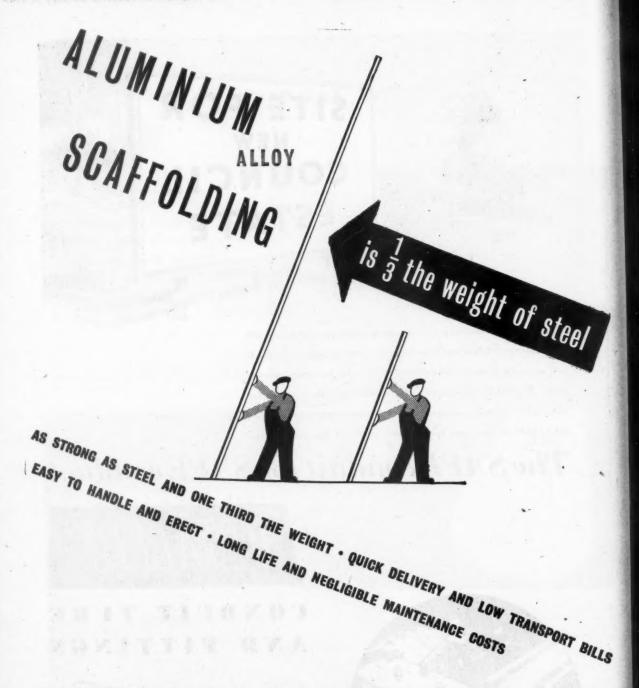
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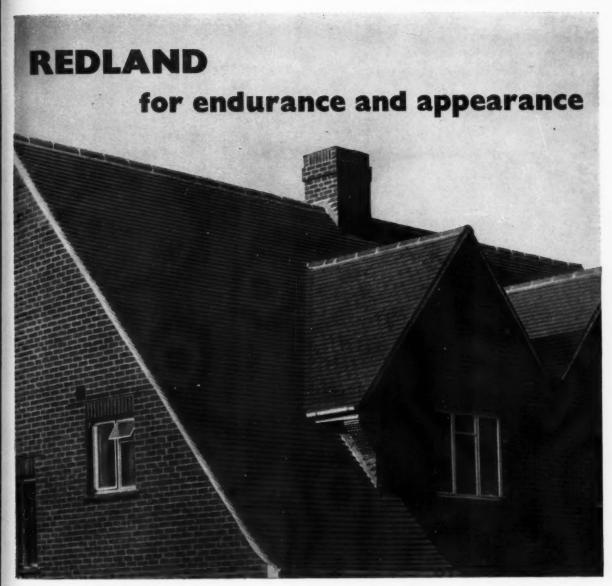
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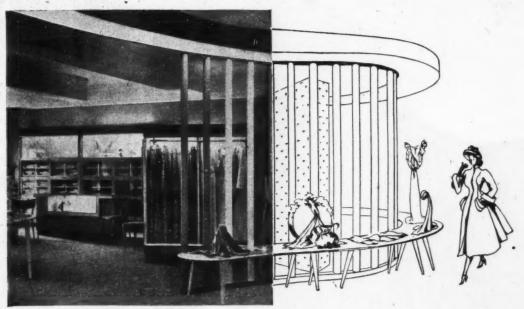
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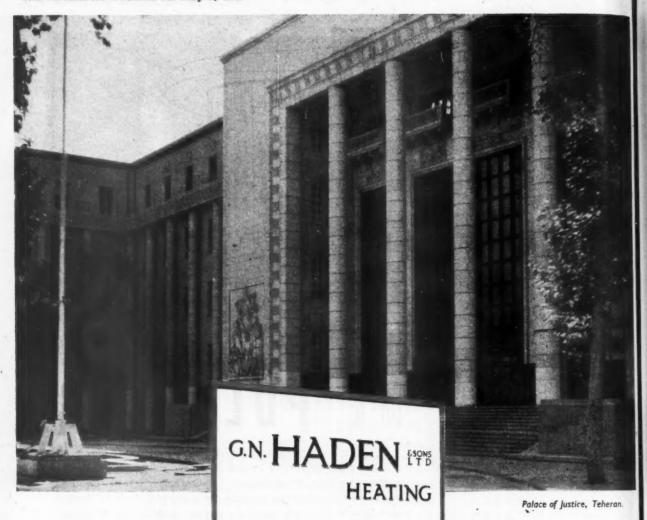
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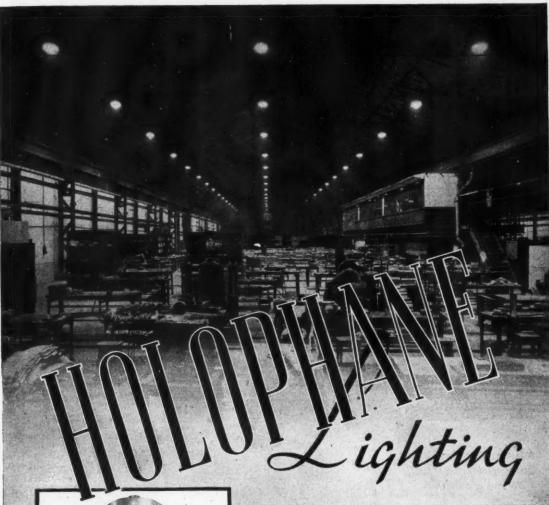
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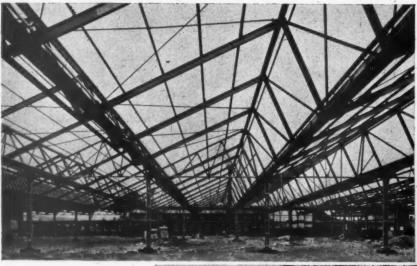
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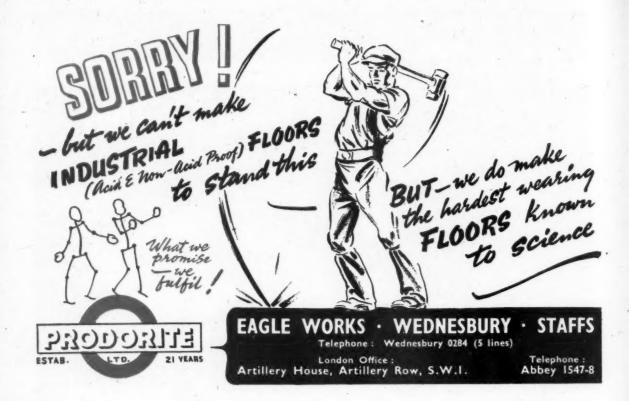
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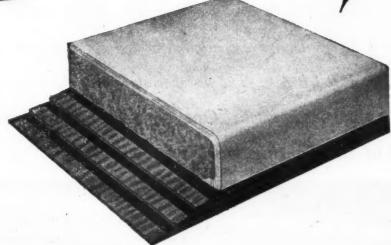
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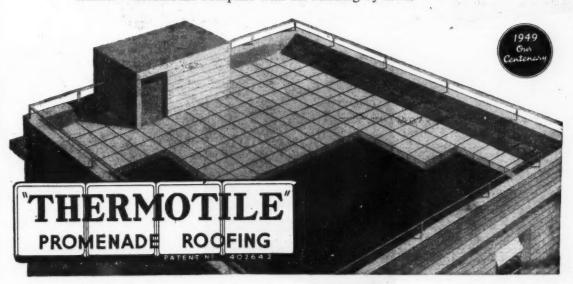
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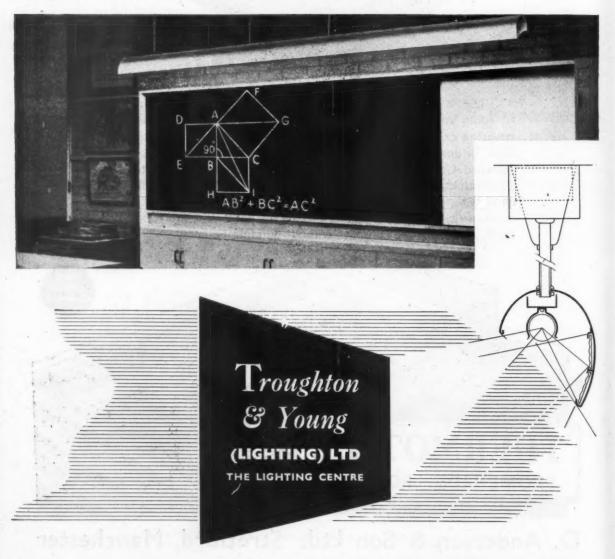


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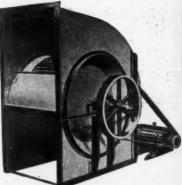
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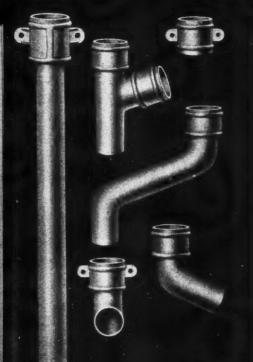
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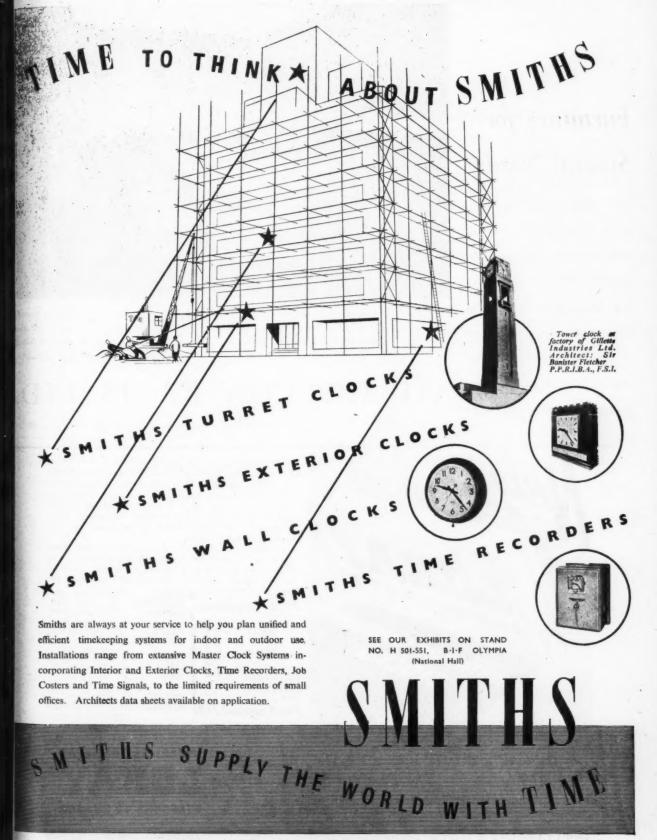
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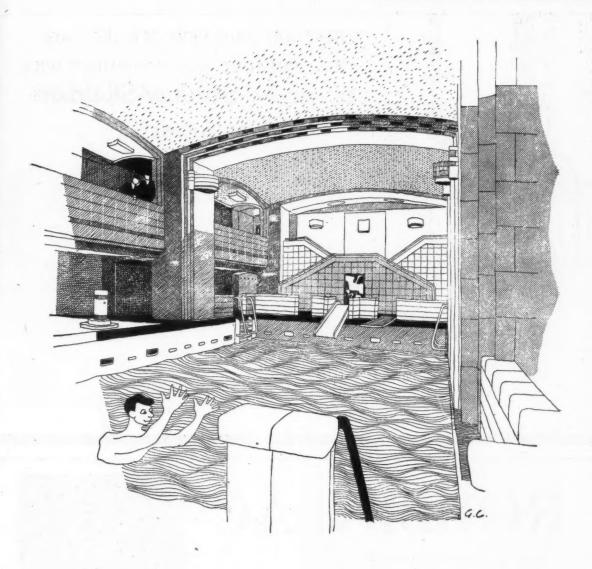
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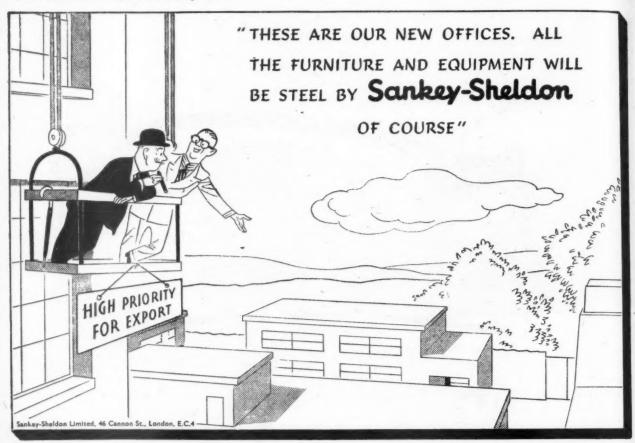


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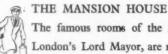
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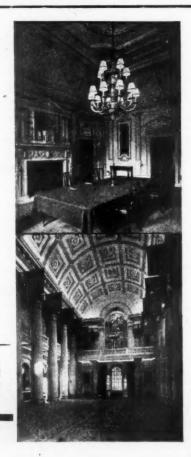
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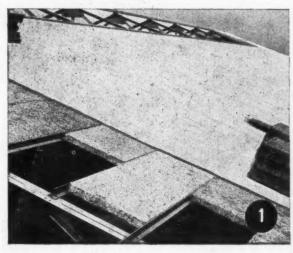
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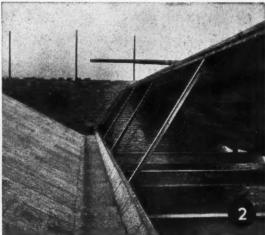
PHOTOGRAPHS, reproduced courtesy of the Secretary to the Lord Mayor, illustrate (top), The Venetian Room, (bottom) The Egyptian Hall.





# These photographs illustrate the structural adaptability of "Gypklith" light-weight building slabs

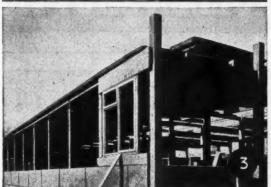




THE TOP PHOTOGRAPH shows "GYPKLITH" used on a factory roof, supported between purlins of inverted "T" section. The top surface of the "GYPKLITH" is screeded with "GYPROC" Metropolitan Stucco ready for finishing with bituminous roofing.

THE SECOND PHOTOGRAPH shows another method of factory roof construction in which 3 inch "GYPKLITH" is laid transversely across and clipped to the purlins, and then finished in similar way. The thermal transmittance "u" value of these roof constructions, using 3 inch thick "GYPKLITH", is 0.15.

THE THIRD PHOTOGRAPH shows an exterior view of a building where "GYPKLITH" is used for the roof, partitions and external walls. For the walls, it is bolted to the outside of the reinforced concrete column framework, plastered internally with PARISTONE Gypsum plaster and rendered externally with water repellent cement. For the roof, it is nailed over timber purlins and finished with a 1 inch cement screed and



built-up bituminous roofing. The free-standing, partitions are plastered on both sides with PARISTONE Gypsum plaster. Thermal transmittance "u" values are: external walls 0.2; partitions 0.19; roof and ceiling structure ("GYPSTELE" suspended ceiling) 0.17. Further particulars of these and other "GYPROC" products and systems will gladly be supplied.

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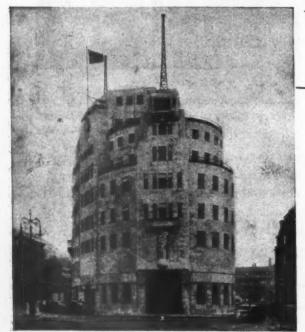
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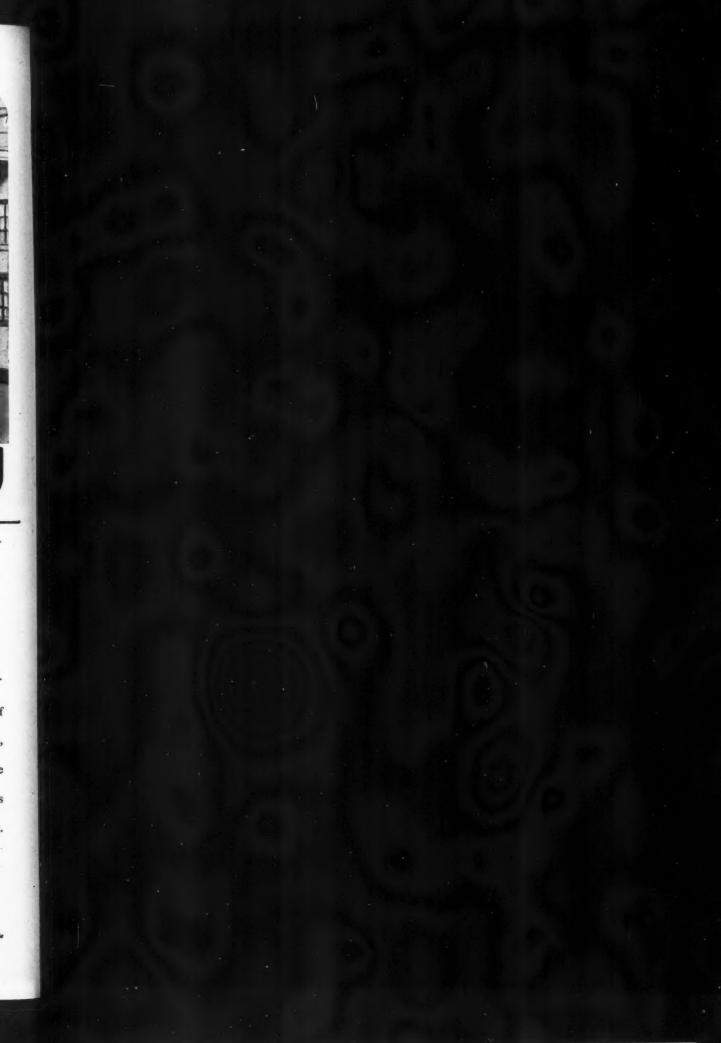
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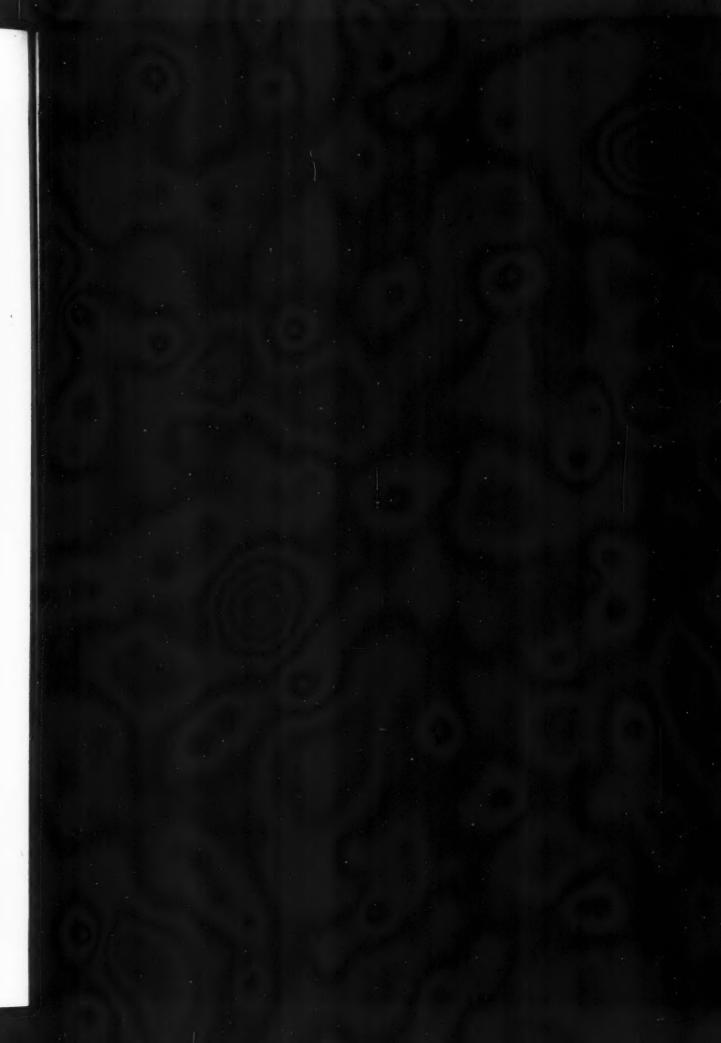
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# DIARY FOR MAY JUNE AND JULY

Titles of exhibitions, lectures and papers are printed in italics. In the case of papers and lectures the authors' names come first. Sponsors are represented by the initials given in the glossary of abbreviations on the front cover.

A BERDEEN. Trade Exhibition. At the Caledonian Hotel, Aberdeen. (Sponsor, D. Anderson. & Son Ltd.) MAY 10-12

A MSTERDAM. • International Exhibition of Industrial Design. Stedeljk Municipal Museum. (Sponsors of British section, British Council and Council of Industrial Design.) UNTIL MAY 20

B IRMINGHAM. British Industries Fair. Castle Bromwich, Birmingham.

INVERNESS. Trade Exhibition. At the Caledonian Hotel, Inverness. (Sponsor, D. Anderson & Son Ltd.) May 17-19

L EICESTER. Leicester and Leicestershire Industries Exhibition and Trade Fair. At the Granby Halls, Leicester. May 19-28 ONDON. The Royal Academy Summer

Exhibition. At Burlington House, Piccadilly, W.1. UNTIL AUG. 7

British Industries Fair. London, Earls Court and Olympia. UNTIL MAY 13

Exhibition of Packaging Materials at Murray House Exhibition Hall, Murray House, Petty France, S.W.1. (Sponsors, Institute of Packaging and Printing, in collaboration with CID.)

UNTIL MAY 31

Exhibition of paintings by Giorgio de Chirico. Summer exhibition of Royal Society of British Artists, 6½, Suffolk Street, S.W.1.

MAY 5-JUNE 11

Mr. E. B. Hugh-Jones. Safety as a Factor of Road Design, Construction and Layout. The First Rees Jeffrey's Triennial Lecture. At the Institution of Civil Engineers, Great George Street, S.W.1. (Sponsor, TPL.) 5.30 p.m. May 5

R. Chalmers and J. H. W. Turner. The Guild as an Association of Professional Engineers. Meeting at The Engineers Guild, 28, Victoria Street, S.W.1. 7 p.m. MAY 6

Open-air exhibition of paintings in the Embankment Gardens. (Sponsor, LCC.) Weekdays. May 9-21

Building and Engineering Exhibition (Equipment and Materials.) At the Horticultural Hall, S.W.1. (Sponsor, "Britain's Best" Exhibitions.) May 16-27

MANCHESTER. Exhibition of Design and Wallpaper. 19, York Street. Weekdays, 10 a.m. to 5 p.m.; Saturdays, 10 a.m. to 12 noon. (Sponsors, The Wall Paper Manufacturers Ltd.) UNTIL MAY 14

NOTTINGHAMSHIRE. RIBA New Schools Exhibition. At the county branch library, Stapleford. May 16-21 RIBA New Schools Exhibition. At the county branch library, Beeston. May 9-14

RIBA New Schools Exhibition. At the county branch library, Retford.

UNTIL MAY 7

RIBA New Schools Exhibition. At the county branch library, West Bridgford.

MAY 23-28

British Architects' Conference. To be held at Nottingham. (Sponsor, RIBA.)

JUNE 29-JULY 2

COMPETITIONS

Fleet Air Arm Memorial of the 1939-45
War, at Lee-on-Solent, for the Imperial War
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Graves Commission, 32, Grosvenor Gardens,
London, S.W.1. Closing date, May 20, 1949.

Design of Community Centre. The Incorporated Association of Architects and Surveyors. Details to be announced by IAAS, 75, Eaton Place, Belgrave Square, S.W.1.

# NEWS

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Though no feature in the JOURNAL is without value for someone, there are often good reasons why certain news calls for special emphasis.

means spare a second for this, it will probably be worth it.

\*\* means important news, for reasons which may or may not be obvious,



The Barclay School, a secondary modern school at Stevenage, Herts, designed by F. R. S. Yorke, E. Rosenberg and C. S. Mardal, assisted by T. R. Evans, C. Kitchen, S. W. Lucas, R. R. Tomalin, P. Whiting. County Architect, C. H. Aslin. The school was opened on May 2.

# BRITISH INDUSTRIES FAIR 1949

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### ARCHITECT'S Commonplace Book A N From

THE MECHANICAL CORE. [From Mechanisation Takes Command, by S. Giedion (Oxford University Press).]-Mechanisation brought with it difficulties of its own. There was, on one hand, the wish to use rooms as flexibly as possible and to enjoy the utmost freedom of ground plan; on the other hand, mechanisation conflicted with this by seeking the utmost concentration of all installations. The costs of mechanisation amounted to some 40 per cent. of the building costs. If the market is to be broadened, these costs will have to be cut comparably with the lowering of automobile prices three decades ago. The mechanical core of the house, embracing the kitchen, bath, laundry, heating, wiring, and plumbing, will therefore be factory-made and assembled before being brought to the building site. From 1927 on, Buckminster Fuller has been busy with the idea of the mechanical core. He incorporated the core within a mast, which carries the weight of his house. Circular or polygonal houses resulted, whose closed ground plan is in contradiction with the inherent trend of contemporary architecture. How is the problem of the mechanical core to be solved without limiting freedom of The question we are dealing with here is crucial to the future organization of the house and indeed to the very manner of living. Whether the mechanical core will be dissected into its components or gathered into a single unit has not yet become clear. . . . The American architects seem called upon to provide the next step in the development. They have the longest experience with mechanical installations and have at hand the most highly developed industry, even if their influence upon production is extremely limited. . . . What matters is to domesticate mechanisation.

### A MEMORANDUM EX-PRESSING CONCERN ABOUT THE HOUSING SITUATION has been prepared by the National Council of Women of Great Britain.

This memorandum, which has been sent to the Minister of Health and the Minister of Works, contains the following

posals:—
At least 50 per cent, of house-building should be allocated to the private builder for the purpose of building houses at a controlled price and of approved standard for home ownership, thus fulfilling the desire of a high percentage of the public who wish to own their own house. A privately owned house is an asset to the rates, and a subsidized house is a liability to them. It should

house is an asset to the rates, and a subsidized house is a liability to them. It should be clear to everyone that any additional burden for subsidy falls on all residents, whether owning or renting a house.

Facilities for building such houses should be simplified by expediting the issue of licences and permits required. The present system, which needs Town and Country Planning permission, Central Land Board certificate, and Local Authority licence, often covers a period of six months or more before building is authorized. To this period must then be added the time lag which occurs between the issue of licence and delivery of materials on the site.

The quota for home ownership should not be confined to a ratio in each local authority area but should be a regional or county allocation, as the demand for houses

county area but should be a regional or county allocation, as the demand for houses varies. A regional or county allocation would permit more flexibility of distribution of licences. In relation to the subsidized house, serious consideration should be given to the cost. If, by eliminating some of the desirable but less necessary fitments (although providing in plan for later installation), and by providing more two-bedroomed houses (which will probably be more commensurate with the size of more commensurate with the size of families desiring houses), accommodation could be produced at lower costs and rents, such would be acceptable. Standards of construction would not be sacrificed. High rents tend to deprive those whose financial need of a subsidized house is greatest from acquiring such accommodation,

If employers and operatives in the build-ing and allied industries could see a steady flow of licences and materials based on statistics which have a foundation of con-stancy, and can be readily understood, the production of houses would be improved. If softwood timber is still the restricting factor it is suggested that the manufacture of houses which consume large quantities of steel should be examined to discover whether it would not prove to be more economical to export to Canada the steel thereby utilized and to obtain timber in return. Encouragement should be given return. Encouragement should be given to further dissemination of the results of research in the use of stress grading of timber with a view to deciding whether greater economies in the use of steel and wider application of the use of timber can effected thereby.

This memorandum was issued following resolutions passed at the 1948 annual conference of the Council which represents 112 affiliated societies and has over 80 branches.

many years past, highly efficient research organizations have been maintained indi-vidually and collectively by cement com-panies. Cement is undoubtedly one of the most standardized products used in the building industry.

The industry needs to expand to improve demands not only at home but abroad. Until the outbreak of war in 1939 the indus-Until the outbreak of war in 1939 the industry planned expansion ahead of public demand, and in those days and during the war there was surplus production. The industry's present plans for expansion involve an expenditure of more than £12 million, and these plans would have been further advanced had it not been for the ifficulty live to the control of the control difficulty of obtaining licences and materials.

Total deliveries for the week ending April 4 are an all-time record.

### The Labour Party's proposals for the NATIONALIZATION OF CEMENT have been commented on in a statement issued by the cement industry. The following are some points made in the statement:

The efficiency of the building materials industry must be raised. This is a strange justification for the nationalization of The Government exhorts induscement. The Government exhorts industrialists to aim at the high productivity per man attained in the U.S.A. Why, then, does it propose to nationalize Portland cement, which, as stated by The Review (September, 1948) of the International Labour Office, is the only British industry, apart from fish curing, which has a higher output per worker than in the United States?

The industry is controlled by a tightly organized private monopoly which allows high profits to be made. There is no monopoly in the manufacture of cement. The Government have not even referred the cement industry to the Monopolies Commis-sion. Not an ounce of British cement has been sold in the home market for almost 10 years except at prices which have been controlled by the Government. Total deliveries in 1948 were a record. Of these, 6,893,000 tons were in the home market and 1,628,000 tons were export. Yet of the total profits of the industry on cement more than half were derived from export.

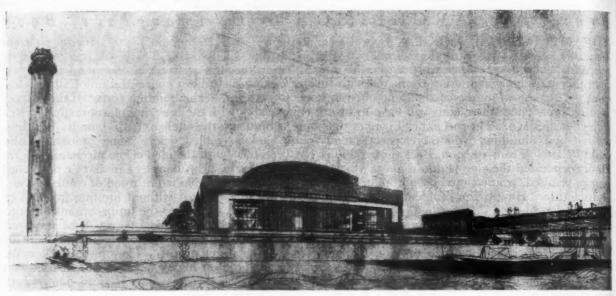
More research and more effective standardization is required in this industry. For

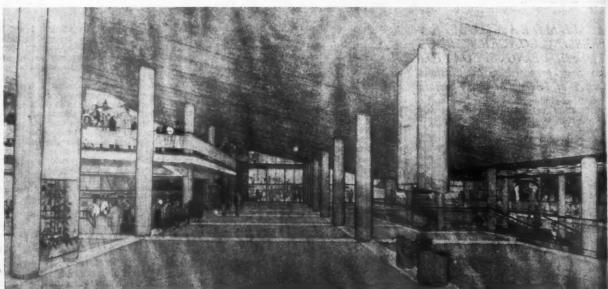
## THE BRITISH ELEC-TRICITY AUTHORITY has opened a permanent exhibition. The purpose of this exhibition on "More Power and What it Means," at 170, Great

Power and what it Means, at 100, Oreat Portland Street, W.1, is to explain the organization of British electricity and the generating plant expansion programme under which 38 new power stations are being built and additional plant provided for existing stations. The exhibition, which was designed by Donald Atkins and Arthur C. Braven, is primarily intended to be shown to organized parties.

### HOUSE HAS BEENERECTED AND FURN-TWO HOURS ISHED IN at Bushey, Hertfordshire.

at Bushey, Hertfordshire. This mobile house, constructed by Messrs. Richard Thomas & Baldwins, Ltd., on behalf of Terrapin Dwellings, Ltd., was assembled near the Watford by-pass on its way to the BIF exhibition at Birmingham. It was designed to provide industry with an immediate means of housing workers comfortably and economically where traditional housing is not available. Assembly consists simply of lowering the house on to metal piers, opening the sides on hinges, letting down two floors on to metal supports and rolling the roofs out of slots under the and rolling the roofs out of slots under the main roof. The house, which was designed by Major H. C. Bolt, costs about £900.





## London's New Concert Hall

The designs for the LCC's South Bank concert hall have now been made public. They will be fully illustrated in next week's JOURNAL. Above are two sketches showing the river frontage of the building, which will be faced with Portland stone, and the main foyer. The building, designed by LCC architects Robert Matthew and J. L. Martin, will house the concert hall; a smaller hall for drama; an underground car park; restaurant and bars, foyer and terraced gardens. It is hoped that five-sixths of the building, not two-thirds as originally estimated, will be completed in time for the 1951 Festival of Britain Exhibition. The auditorium will be constructed as a box within a box, almost hermetically sealed and surrounded by double concrete walls and roof to keep out all external sound.

Details of the COMPULSORY PURCHASE ORDERS FOR CAMPDEN HILL areas have been issued by the LCC. One of the large properties that was originally threatened by the LCC scheme, Plane Tree House, has been omitted from the order. It is understood that this is due to the fact that the building is already being converted into four maisonnettes, The publication of these orders means that residents and property owners of

Campden Hill affected by the LCC scheme, who wish to lodge complaints, have until May 17 to do so. A public inquiry into the LCC proposals is almost certain to take place in the next two or three months.

A NEW BRIDGE is being constructed under the Central Line on the London side of Leytonstone Station.
This will replace the level-crossing which previously connected Church Lane and

Harrington Road, on the east side of the Harrington Road, on the east side of the railway, with Grove Green Road and Fairlop Road on the west. The new bridge will be sited a little to the south of the former crossing, and its design incorporates a dual carriage-way approach road built on a down grading for some 150 yards parallel to Harold Road, then turning at right angles under the railway and rising to connect with the junction of Grove Green Road and Dyers Hall Road. The bridge will carry the three main-line electrified tracks, two sidings and a cartelectrified tracks, two sidings and a cartroad.

### LCC HOUSING: A SPECIAL ANNOUNCEMENT

The Architects' Journal announces that the exhibition of recent LCC housing which the leader of the Council offered to arrange, in order to give the architectural profession an opportunity of forming a critical opinion, is now open.

How and when to see the Exhibition

The exhibition will be on view in the Conference Hall at County Hall until May 19. It will be open daily, from 10 a.m. to 5 p.m., except for Saturdays and Sundays, and except for Thursday and Friday the 12th and 13th.

The idea of the exhibition

Following some criticism of recent LCC housing, printed in the JOURNAL, the Leader of the Council, Mr. I. J. Hayward, sent a letter to the Editor on March 22, which ended with the following words: "I therefore offer to arrange for a comprehensive exhibition, specially for qualified architects, at which will be displayed photographs, plans and working drawings of the Council's estates, including any which have been the subject of adverse comment, and invite the Architects' Journal to publish the opinions of the visitors." The JOURNAL, which has always advocated the trankest public discussion of architectural issues, welcomed this offer and promised Mr. Hayward the fullest co-operation.

An invitation from the JOURNAL

In pursuance of its promise to do everything possible to ensure the success of this exhibition in serving its intended purpose—that of obtaining the architectural profession's opinion on the merits or otherwise of LCC housing architecture—the Journal invites all its readers to visit the exhibition and will be glad to publish their views. It feels, however, called on to go further in order to make sure that an authoritative and representative opinion is forthcoming, since the idea of the exhibition arose first from the Journal's report of a number of adverse views that had been expressed on the radio and elsewhere on the standard of design achieved by the LCC Housing Department, secondly from the Journal's own endorsement of these views, and thirdly from the LCC's assertion that the Journal was being unfair in selecting this work for such pointed criticism. The Journal is quite content that the LCC has appealed to architects themselves for a verdict. This verdict must come from a responsible but impartial jury, and the Journal feels that such a jury can appropriately be sought in the list of members of the Council of the RIBA. The editor of the Journal has therefore written to all members of the Council to invite them,

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of the I Fairbridge of the porates uilt on yards ing at rising Grove The in-line cartin a personal not an official capacity, to send him their opinion of the work shown after visiting the exhibition. These opinions, together with any others received, will be printed in the JOURNAL. The members of the Council are as follows:

C. H. Aslin	T. Cecil Howitt	John Swarbrick	R. A. H. Livett
Victor Bain	Arthur W. Kenyon	J. Hubert Worthington	Colin Penn Andrew Rankine Ralph S. Tubbs R. H. Uren W. Dobson Chapman
J. Murray Easton	A. B. Knapp-Fisher	F. R. S. Yorke	
J. H. Forshaw	S. W. Milburn	Professor J. S. Allen	
E. Maxwell Fry	Howard M. Robertson	Henry Braddock	
Frederick Gibberd	Herbert J. Rowse	D. E. E. Gibson	Bernard H. Cox
Leonard C. Howitt	C. G. Stillman	John L. Gleave	Charles Oliver

### The issue in dispute

It should perhaps be emphasized that the criticisms out of which this controversy arose were largely criticisms of the appearance of the buildings designed in the LCC Housing Department. London's housing effort as a whole was not criticized, nor the standards of accommodation that can be provided in the present circumstances. But LCC housing schemes were described on the radio as inept in design and crude in detail, and some of them were referred to as "grim concrete barracks." It is such charges, which have been echoed in the JOURNAL and much elaborated by correspondents, that have been met by the challenge of this exhibition. The issue in dispute is one of quality in design and detailing.

### Background story

In order to remind readers of the background against which this controversy has arisen, the following summary is given of the story till now:

February 27. In "The Critics" (BBC programme), Mr. J. M. Richards, speaking as art critic, severely criticized quality of recent work by Housing Department of LCC.

March 6. Mr. C. W. Gibson, Chairman of LCC Housing Committee, invited by BBC to reply in "The Critics," but, preferring not to discuss aesthetic merits of individual buildings, concentrated on town-planning policy.

March 10. ARCHITECTS' JOURNAL: comments by Astragal on above-mentioned broadcasts. Text of Mr. Richards's criticism printed.

March 17. ARCHITECTS' JOURNAL: article illustrating typical post-war LCC housing schemes, with invitation to readers to judge quality of work for themselves.

March 31. Letter from Mr. I. J. Hayward, Leader of the Council, published in JOURNAL, criticizing fairness of discussion so far, offering to arrange comprehensive exhibition and inviting JOURNAL to print opinions of visitors. Invitation accepted in leading article.

May 4. Exhibition opened at County Hall.

Architects often complain of the absence of opportunities for the critical discussion of current work, but they do not always make the most of the opportunities there are; perhaps from diffidence about criticizing their professional colleagues, perhaps for other reasons. But honest criticism can do nothing but good. By its public-spirited action in meeting criticism by putting its own work on display, the LCC has put the onus firmly on the architectural profession. This is the profession's opportunity to show that it is genuinely interested in free criticism and discussion by responding actively to the invitation that is now jointly issued by the LCC and the Architects' Journal.

# ROUND A BIRMINGHAM TABLE

Up to now the JOURNAL'S series of round - table discussions have been on problems relating to the architectural profession and the building industry as a whole. This week appears the first of a number of discussions which turn from the general view to the particular, and give the opinions of those connected with building on subjects of special and local interest in different parts of the British Isles. The first town chosen to express such views "round the table" is Birmingham. The chairman, as on the previous occasions, is Mr. F. R. Yerbury.

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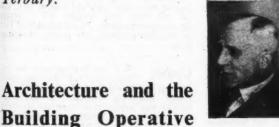
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Chairman: This is the first "Round the Table" discussion which has been held outside London, and as we are in Birmingham it is obvious that we should discuss subjects which, while being of interest to the architectural profession and the building industry as a whole, bear some relation to problems which are exercising our Birmingham friends

friends.

A wide range of interests are represented here. We have the president of the Birmingham Architectural Association, Mr. Osborne, we have Mr. Turner, who is a well-known leader of the Trades Union movement in Birmingham, and represents the operative side of the building industry. There is Mr. Silk, who is a quantity surveyor. Mr. Douglas Jones is not only an architect but a schoolmaster training the



A photograph taken while the discussion was in progress. On the far side of the table are: left, Mr. Cooper, an architect, centre, Mr. Russon, a builder, and right, Mr. Osborne, President of the Birmingham Architectural Association.

young architects at the Birmingham School of Architecture. There is Mr. Brian Cooper, an architect, and Mr. Russon, a builder of Birmingham, who, like other builders, is the man who has to handle the architect, the trade unionist, the quantity surveyor, and in the main mostly takes any knocks which may be handed out. A subject which I gather Mr. Osborne is specially interested in is the position of the operative in the building world. I think he has a notion from what he has already told me that there may possibly be some room for improvement in the skill of the accepted trade unionist in relation to the standard wages which he is paid.

Osborne:

I should like to preface my remarks by saying that I have come here today to learn, and not to lay down the law about anything. I don't know what qualifications a man needs to have before he is

accepted by a Trades Union, but from what I have seen it seems to me that Trades Union members have very different qualities and very different amounts of skill. As far as I know, all these men are paid the same —Mr. Russon should know that; he has to pay them.

Cooper:
They are not necessarily a 11 paid the same.

Osborne: I believe officially they are all paid the same, unless they happen to be foremen, and it seems to me that an arrangement might be made whereby these men might be graded, because it's not only a question of skill, but that skill should be joined with output. Now all men do not work to the same rhythm; it's quite obvious that all men cannot be expected to do the same amount of work in the same time, but canthe building trade afford to pay a man who gives a smaller output the same as a man who gives an increased output? It seems to me that in case of shortage of employment the man who gives the smaller output will be the first man to be unemployed, and therefore it might be an advantage to be down-graded—if we might use the expression.



Turner: Mr. Osborne has made a
point there—that
one operative
doesn't produce
the same amount
of work as another. Well, that's
perfectly true; but
Mr. Osborne obviously doesn't
know that at the
present day the

standard of rate of wages of the building trade is negotiated nationally, and not negotiated on the output of the best craftsman or the lowest craftsman, but on the basis of the average. Now in the industry quite recently there has been what is known as a bonus scheme, whereby the operative himself, or a number of operatives collectively, can negotiate with the employer a "payment by results" scheme on output. Now I want to say, quite frankly, that in my opinion it is not being worked properly at the present time. The only firm in the city which I know is working properly is Mr. Russon's firm.

Cooper: Wasn't this scheme introduced against the advice of the

Union? Wasn't there pressure from the men, rather than pressure from the Trades Union for "payment by results?"

Turner: The point is, sir, that the scheme was introduced after a ballot of all the operatives in the country, and the fundamental mistake our friend Mr. Cooper is making is that the men are the Union. I am going to say, quite frankly, that in my opinion the builders haven't encouraged the bonus scheme as they should throughout the country.

Chairman: Could you say what are the advantages and the disadvantages of the bonus scheme?

Turner: Well, a bonus scheme couldn't be effectively applied on a structure like a church or a first-class architectural job, but it can be successfully applied to industrial buildings or to housing estates.

Cooper: That surely indicates a bad fault in the bonus scheme; it is antagonistic to good workmanship.

Turner: No. That is not the point. The point is, you cannot measure the work upon a church the same as you can in industrial building. Let me handle you one at a time; I will handle every one of you around the table in turn. You wanted to know, sir, the advantage of the bonus scheme. It is this: it has a tendency to give a better output on the job, and the proof of it is that the average time per man per house three years ago was fourteen and a half months. The last return of the Ministry of Health and the Ministry of Works is eleven months per man per house. The reduction in our man hours is due to three factors: because there is a better supply of material; because there is a better supply of material; because there industry is getting away from the war period of cost plus jobs and back to normal contracting; and because there is a system of payment by results which, in some cases, does increase the output per man on the job. I would say that, fundamentally, you cannot have quantity and quality as well. But it is obviously true that during the war period (and this doesn't only apply to operatives, it applies to builders, architects and quantity surveyors as well) the cost plus system on our jobs practically ruined the building operative and the building trade employer.

Chairman: If the bonus system works very well with a factory, but not with a church or cathedral, does that mean that the fellow working on the factory gets more money than the fellow working on the cathedral?

Turner: Very often, sir.

Chairman: But does it again follow that he is encouraged to work on factory work, which is not so skilled?

Turner: The average building trade operative is like anybody else; he goes where he can get the best wages and the best conditions.

Chairman: That is partly answered. Now, the other question, which follows on, is: Does that tend to destroy the interest of the craftsman in craftsmanship as such?

Turner: That is a debatable point. You get this position when you get a certain man going through life who is conscientious; and it doesn't matter what class of work he is working on, he

will be conscientious and do a good job, whether he is on bonus or not.

Osborne: I would like to put it this way. A sensible man realises that his work is a very large portion of his life, and if he doesn't do it well he doesn't enjoy it.

Turner: That is one point, but you must remember what a statesman said: "The building trade workers build houses, and walk out of them; and they build workhouses, and walk into them." The other point I would like to make is that the relationships between the employers and the operatives are better than they have ever been in the history of the industry; there has been no major dispute since 1924. The machinery for the negotiating of disputes and differences is almost perfect. There is only one thing we have to complain about, this machine is so elaborate and so fine that it is slow in its functions.

Osborne: I should like to come back.
Mr. Chairman, to a point I
raised in my opening remarks: What qualifications are necessary for a man to become
a member of the Union?

Turner: The main qualification is that the man has, at some time or another, served an apprenticeship in the industry, or he has worked in the industry as a particular type of operative and has given satisfaction to his employer over a period of years. Now, there are very very few who are refused admission to come into the Trades Union these days because—since the war—the Trades Union has agreed to adopt an adult training scheme whereby we have given six months in the Ministry of Labour Training Scheme, and then so many months finishing training outside, before a man comes on the full wage.



Russon: There is no doubt about it in my mind, as a builder, that the output of the average operative has been considerably lower than it should be if we are ever going to get down to reasonable costs in the industry. There are

many forms of incentives. Mr. Osborne has touched on one, which I would classify under the heading of "Merit Awards." But those merit awards would not be satisfactory in our industry because you would have one foreman saying to his employer: "Well, Bill So-and-so is a very good chap; he ought to have a permy above the rate." Or, "Tom So-and-so has worked for the firm for twenty years and he ought to have twopence above the rate." We shouldn't get anywhere that way.

Cooper: Isn't that done?

Russon: It is done, but against the rule of the agreement which was made in November, 1947, on the question of incentives. Now, unlike Turner. I say that incentives are possible on any particular job; and if the work falls below a certain standard it is not because the incentive or payments have caused it to fall below that certain standard, it is a question of supervision all the time. My own firm has had considerable experience with incentives, and I can quote one particular case where the

men were doing a job in 6,500 man-hours, and the comparable figure before the war for that particular house might be 2,300 man-hours. In the space of four months the output per man-hour on the job fell to below 3,500, which, of course, is proof positive that incentive to do work has satisfactory results. I mean the workmanship is unimpaired; it is quite as good as it was before the incentives started.

Now, Mr. Turner has touched on a point which I know to be a fact: the building industry generally is not incentive-minded. That is because the majority of the workers and the builders are not cost-minded; and costs and incentives go hand in hand—in fact, cost, incentives and estimating go hand-in-hand.

Chairman: These last remarks of Mr. Russon must be of special interest to Mr. Silk, the quantity surveyor.



Silk: I am very interested in what has been said up to now. Human nature being what it is, I can't get beyond the fact that a man's reward for his labour is his chief interest. He should also, we hope, be interested in his job. From

He should also, we hope, be interested in his job. From all that has been said I cannot see any argument for paying all tradesmen the same wages. I should say that it would be far better to fix a minimum wage and reward a man who is above that minimum.

Turner: That is what happens theoretically; maybe, it does happen in fact. But fundamentally the Joint Council of the Building Industry fixes a standard wage. Up till recently, under the Defence Regulations, a builder wasn't allowed to pay more or less than the agreed standard rate. About eighteen months to two years ago the House of Commons removed the regulations (or part of the regulations) and took away the part where a builder was not allowed to pay any more. He can pay more if he likes. There is nothing which could stop any builder paying above the standard rate of pay, but let me warn any builder it's a pretty dangerous precedent. The fundamental fact is that the national rate is the minimum rate.

Cooper: Is it true that, prior to the introduction of the incentives scheme, the Ministry of Works used to go round enquiring whether a particular builder was paying more than the standard rate, and that that builder might be hauled over the coals for offering incentives?

Turner: You have hit a point; yes, it's perfectly true. About two years ago, if we found a builder refusing to pay the standard rate, then if he wasn't a member of the Association we could deal with him for violating the conditions of the registration. Now the Ministry of Works try to find out. They get a report from some common informer, who says that So-and-so is paying more than the rate, and then the Ministry makes enquiries.

Cooper: Until eighteen months ago these people did it at their own risk, but it still goes on, because in the case of many small builders that is their way of operating the payment by results scheme. They pay their best men a higher rate than they pay the other men.

Turner: What you must realize is that every firm doing that is violating the National Agreement in the

Russon: There is one point which has not been mentioned. An employer has the option of having a scheme or otherwise.

Turner: If the employer says: "I would like an incentive scheme," then he is asked to negotiate a scheme with the operatives—so many bricks per hour, or so many yards of brickwork per house, or so many cubic feet of concrete, or yards per mixer.

Cooper: Then does an ordinary approved scheme mean that the men have to work in gangs?

Turner: Not necessarily. If Mr. Russon has a job for, say, a place to be faced with artificial stone, and he has two masons on that job, you have a separate scheme for the bricklayer filling the back in, or doing the main structure, and another scheme just to apply to those two individual men who are fixing the stone. It can, if necessary, be an incentive scheme between one man and his employer.

Cooper: That is pretty good, because surely the good craftsman ought to be paid more than the standard rate because of his superior capacity.

Turner: Mr. Russon mentioned the point of the small builders not being cost- or incentive-minded. The fundamental point is this: Does it pay to operate an incentive scheme, because of overhead charges of running it? An ordinary small builder has to have a costing clerk and a bonus clerk to work out the bonus. There is a possibility that he would be unable to afford them.

Russon: Well, most of the small firms are mainly engaged on maintenance and repair work. From the daywork point of view, the longer they take the more profit they make. We have not got over that difficulty yet, but I think that most of the small builders are certainly not prepared to alter their mode of business, because they have got nothing to gain from it.

Now for the other side of the picture. In America it is the Trades Union leaders who are responsible for saying that the output of the men shall be a certain figure, and if the output of an operative falls below the figure laid down by the Trades Union, it isn't the foreman on the job who sacks that operative, it is the Trades Union leader. Now, of course, that would be a marvellous system if we had got it in this country at the present moment.

Chairman: Would you accept that, Mr. Turner?

Turner: The position, you see, Mr. Chairman, is very funny in this country; there are a great many accusations thrown at the operative—particularly at bricklayers—that the Trades Union limits him to laying so many bricks per hour. or per day, or so many bricks per week. Now that is a complete fallacy. The Trades Union has never, as long as I can remember (and that is going back 35 years), laid any limit, or given the operative any stipulation as to how many he shall, or shall not, lay. It does not matter, from the Trades Union angle, whether he lays many or not; because the figure of 400 bricks a day is ridiculous. On a rough wall he could lay 700 or 800, or maybe 1,000; but if it is a glazed wall he is lucky to lay 150. As to

the question of American practice—I wonder sometimes whether America has got the Socialism, or Britain, when the Trades Union sacks the man, and not the employer.

Chairman: He has raised a very important point there. Would you, Mr. Turner, prefer to be in the position where the Trades Union leader sacked the operative, or would you prefer to leave it to the builder?



Douglas

Jones:
The Union leader insists on a minimum wage, but he is not willing to accept the responsibility of sacking the incompetent man.

Turner: If you are talking about me, I should like to sack a lot of them. The point is that the craftsman in America is the cream of all industry. The craftsman in this country is almost the Cinderella.

Chairman: We have covered many aspects of the economic and output sides of building; there is, however, the question of qualification. Mr. Douglas Jones, who is training architects, may say: "My students have to work hard for five years and pass all their examinations, unless they pass they will never get a job as architects, and will not be called architects." But on the other hand, anyone can call himself a carpenter or a brick-layer tomorrow, if he likes, and there is no guarantee if he is a good or bad technician.

Turner: The building industry throughout the ages has always been of a casual nature. The building trade craftsman is known as a journey-man; that means he is supposed to go anywhere at any time. Now the operatives side of the industry, for many many years, has been advocating, on the Joint Council, for a nationally controlled joint apprenticeship scheme.

Douglas Jones : But you don't in-

Turner: There was no urge, in the period from 1926 until the war breaking out, for the average building operative to put his son in the industry. The average unemployed of the building industry between the war years was somewhere round 15 per cent. to 18 per cent. Now if you are a qualified building trade operative, the tradition is that the son follows the father; but if you do as I did, and you take, many weeks, ten or twelve or fourteen hours' wages home to keep a wife and family—well, if you have any children you make up your mind: "If there is anything better than this, they are going to have it." That is the position. The building industry offers no security, not even today.

Chairman: In spite of all that, you do advocate apprentice-

Turner: Our proof today is that we have got an apprenticeship training scheme. There are hundreds of apprentices up and down the country, but we can't place them in industry as we have to get the Ministry to discuss with the Municipalities the setting-up of what is known as apprentice-master schemes.

There is one in Smethwick where there's a number of apprentices building houses under an instructor. That is a very good scheme for the first 18 months of the boy's apprenticeship, but no boy can learn his full apprenticeship information (or whatever it may be) on a housing scheme alone.

Osborne: Mr. Turner has said that builders are partly responsible for the breaking down of the apprenticeship scheme. I should like to hear Mr. Russon say why.

Russon: That goes back a little before my time. In 1931 every-body was trying to undercut everybody else because there was no work about, and since the war there has not been sufficient continuity. An ordinary builder, about to enter into agreements with apprentices, cannot always foresee enough work for the apprentices. Sometimes, in my own business we are flooded out with brickwork and no carpentry or joinery work, and then, a few months later, the position is reversed. As far as I can see, there will always be a casual side to our industry; it can never be anything else but casual, because we haven't got the free flow of materials and work which will give the continuity necessary to keep the industry and workmen employed fully throughout the year. That is one of the big facts that we are up against.

up against.

Every contract of every builder is practically the inception of a new firm. It starts with a handful of men and it has got to be built up to a peak; when that peak has been reached, then it falls. That is the fundamental trouble of our industry and of the housing situation. If the Government could get one specific builder up to his production peak on a housing project and keep him there then we should get all the houses we need. What actually happens is that one builder goes up to a peak, and as soon as he has reached the peak they bring in another builder, and he has to start where the other builder has left off.

Chairman: And, of course, if you had your peak that would answer the question of the apprenticeship.

Cooper: I think there is another very important point, and that is that the building industry, as a whole, does include too many small firms.

Osborne: How is a small builder to become a big builder, if he doesn't start in a small way? I have been in practice rather longer than I like to remember, and I can, looking back, think of builders who were in a very small way when I started, and are quite important builders today.

Cooper: There are a lot of casualties by the wayside, I believe.

Turner: If we are going to get the production of the buildings we require—the factories, schools—they can't be built by small contractors; they have got to be built by large concerns.

Osborne: You are in favour of large contractors and letting the small contractors die out. Is that it?

Turner: No. If I had my way I would say that no man should be allowed to come and start as a registered builder in the building industry without three qualifications. First, he should prove that he has some background in the industry—that he is an efficient craftsman. Secondly, he would have to prove that he had got the financial backing

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s ago their in the their results higher to pay his operatives. And thirdly, he would have to prove that he had plant, which would enable him to carry on as a builder, even in a small way.

Russon: I feel very strongly on this particular point, not because my firm happens to be of a fairly reasonable size, but because I do feel that there is something in what Mr. Osborne says, although I wouldn't altogether agree with regard to the three qualifications. The most important qualification after the first one, is that he can keep a set of books and know how to cost and estimate.

Chairman: What does the quantity surveyor say about all this? Would you regard that as a qualification?

Silk: I would say that for a contractor of any size a knowledge of costing is of fundamental importance. But you must also have the necessary capital and plant behind you, and you must be a craftsman. Some builders have said to me in the past: "Why is it that building firms often seem to go downhill after a time?" and I would say that it is for this reason: in the first instance, the firm is built up by a craftsman; he is an outstanding man, and has built up the small organization. His son comes along; he is trained in the shops, and he starts as a craftsman; he knows it all, and is respected by his men for his powers. In the third generation, the grandson is not put through the mills; he starts in the office and doesn't know his job, and the firm fails.

Douglas Jones: It surprises me, as an educationist, that the whole conversation has taken place on bonus and money and very little on enthusiasm. I wonder why we should have to rely only on bonuses and incentives. Recently I went to Hertford and watched a school being erected there, where they are doing brilliant work. I arrived there in the evening when a crowd of workmen were piling into a bus after erecting the whole of the steelwork for that particular school in a day. Their enthusiasm was quite fantastic.

Russon: Maybe on bonus!

Douglas Jones: No, there was much more to it than

Turner: I would not accept that; I would gamble that there was a bonus.

Cooper: I think Mr. Turner is probably right. I have seen steel erectors in the United States; one gang wore red berets and the other gang wore blue berets, and they were working against each other. There were these chaps, throwing their rivets from one end of the job to the other, catching them in little buckets, and fixing them with their pneumatic riveters. There was a tremendous intensity of effort apparent, and I think it was due to the competition between the gangs.

Turner: They keep a chart, and they week.

Douglas Jones: All that is schoolboy stuff. Surely there is something more in life than red or blue berets and competitive teams? The spirit among those men at Hertford was excellent. I went round with some of the architects, and, incidentally, I believe that

Hertford has got the most progressive and brilliant people working on their schools. These men had a firm belief in the architects, and their enthusiasm for the job was quite phenomenal. That is what we should achieve. And therein lies the answer, rather than in bonuses.

Turner: One of the great failings of a building operative is that the average operative does not know who the architect is.

Douglas Jones: I am laying the blame, if anywhere, with the profession; and I am interested in this because I train architects, and it is one of my jobs to see that we achieve a spirit of co-operation. I believe that you people in the TUC fix the wages, but that you are not prepared to fix the responsibility.

Turner: Don't misunderstand. We don't fix the wages, not by any means.

Douglas Jones: You fix the minimum wage.

Turner: No, we don't fix the minimum wage for the industry. The Joint Council of Employers and Operatives fixes the minimum wage, not us. But you have got to get the right outlook; you have got to let a man know what you are leading him to, not what you are leading him for. The suspicion still rests in the operative's mind that the harder you work, the quicker you work yourself out of work.

Russon: I cannot see what is going to take the place—in a country of full employment—of the conditions we had before the war, that is to say, two men for each job. Everyone can decry incentives if they wish, but we have got to substitute something else if we are going to get the output from the men, and if we are going to reduce the costs.

Chairman: Would it not be a very good thing for your apprentices and the builders and operatives to get to know the architectural student, so people who will work together will know each other's jobs?

Douglas Jones: May I second that, very heartily?

Turner: Would you suggest, sir, that the architect student should have six months on the job—practical experience—and the building operative craftsman have six months in the architect's office?

Chairman: I don't think we had better discuss that now, but what I suggest is this: Mr. Jones' young architect should keep well in touch with all the people represented here today and get out of it what he can.

Douglas Jones: Yes, I do think that our young architects look at architecture as an adventure; they may be disillusioned, but that's what they believe. As for your point, Mr. Turner, our students already visit buildings in process of erection, and they make progress reports every week while following the job through. That is just the beginning; we have just started that. We believe that we have got to return to the age of the "master builders"—arkhitekton. We have, perhaps, lost that position, but I think we are regaining it.

Chairman: Well, I think we had better leave it at that.



The Architects' Journal

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N O T E S

## TOPICS

THE LCC IN THE NEWS

A double event at County Hall this week. I will comment on the housing exhibition first because the JOURNAL—and in indeed Astragal himself—is so closely concerned, Astragal having joined in the criticism of the design quality of LCC housing which prompted the leader of the Council to offer to put the work on show and challenge the JOURNAL to publish the profession's opinion on it.

When I commented on Mr. Hayward's offer I said that this would be the architectural profession's chance to show that they really meant it when they pleaded for more and franker architectural criticism. The exhibition will be open by the time you read this. Go to it and tell the JOURNAL what you think. Perhaps I should emphasize that it is the æsthetic aspect of LCC housing in particular that the Journal has promised to help the LCC collect opinions on. Also that the subject of the previous criticism was the work of the Housing Department under the Valuer. I believe the exhibition (which is not yet open as I write) also shows the housing work done for the LCC by private architects.

Architects — rightly I think — sometimes feel uneasy about publicly criti-





An amusing incongruity. Left, Mr. Winston Churchill, addressing the Massachusetts Institute of Technology in Boston, reviews the past against a modern background. Above, Mr. Dean Acheson at the Atlantic Treaty signing ceremony in Washington, discusses the future amid all the paraphernalia of a school prize giving.

cizing the work of their colleagues, but I do not think they need in this instance. The invitation to criticize has come from the LCC itself, and the least the profession can do is to respond to their invitation. If the response is good it may well set a precedent for regular public discussion of the work of other authorities, which will be all to the good.

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The other LCC event is, of course, the publication of the designs for the South Bank concert hall. These have been awaited with special interest since the concert hall will be virtually the first public building—and the first non-utilitarian building—of post-war Britain as well as being the first instalment of the LCC's long-awaited transformation of the South Bank.

My first impression—though time will be needed thoroughly to appreciate such a complex project—is that the LCC's architects, Robert Matthew and Leslie Martin, have done us-and London-proud. I like the conception of the great auditorium rising with impressive (and, we are assured, soundproof) solidity from the middle of the airy, transparent structure that envelopes it. It shows every promise of performing that rare feat: combining a frankly modern expression with a monumental character and real refinement of detail-to say nothing of solving exceptionally difficult circulation problems.

Two years is all too little time in which

to put up a building like this. I wish the architects good fortune over all the obstacles that putting up a building nowadays involves. They will need full support from everyone concerned and I am sure they will get it, for this will be the key building at the Festival of Britain, 1951.

### GROWTH AT GARSTON

It must be nearly 20 years since I first started going out to BRS at Garston. In 1930 or so the staff numbered about a dozen, and one knew most of them by name, so that a visit was more like a family party; now the place has grown and grown-I suppose mostly since 1939—and the staff is now about 400 in all, and it's a series of rapid services in the canteen instead of a cupper and a bun in someone's office. For years the complaint has been that, as a nation, we spent nothing like enough on research. Now, when one adds up the various MOW scientific sections, the other DSIR departments and the private laboratories, the amount spent on research directly concerned with building must be quite Although I doubt whether it is really enough, it is perhaps nearly what it ought to be.

### AND MOW RESEARCH IDEAS

The report of the Emmerson Advisory Research Council makes a number of different recommendations for priority research work, but to me their most interesting suggestion is that research should be presented in an intelligible way. So far they think that it is presented in a way suitable for "the professions "-but I doubt it. Reports are far too often written by physicists and chemists in such a way that they are read by other physicists and chemists, but not nearly often enough by architects. If the Ministry produces, as it undoubtedly should, booklets "for the smaller contractor," I suggest that they will be bought in large quantities by architects. As I've said, I haven't the faintest idea how much, all told, we're spending on building research, but I'm sure we're getting nothing like as much of it back as we should from the point of view of building economy or of anything else. But I admit I don't envy anyone the job of producing a popular pamphlet; trying to reconcile the views of different scientists is the direct route to persecution mania.

### EDWARD BLORE, DOLLAR EARNER

A correspondent has written to me identifying the so-called castle near Ross-on-Wye (illustrated in last week's AJ) which has been bought by an American for export. It is, in fact, Goodrich Court, and was designed for Sir Samuel Rush Meyrick, the antiquary, by Edward Blore (best remembered as architect of the Pitt Press at Cambridge).

Meyrick was the famous expert on armour and the inventor of a terminology relating to the subject—a highly fanciful terminology which was much less surely founded on medieval precedent than the design of Blore's battlements, and which (I'm told) more recent antiquaries have been at pains to get rid of. Goodrich Court was designed to contain his vast collection of armour, and was so carefully thought out in relation to this programme that long before the building was completed a volume of engravings was issued, showing every piece in the place it was destined to occupy.

Meyrick would have liked to buy Goodrich Castle, the great medieval ruin painted by Turner and many others, which lies just outside the photograph at about four o'clock. (Would he have got Blore to "restore" it?) But the owner would not sell, and he had to be content with looking at it instead. Perhaps it was just as well. On the other hand, says my correspondent, the removal of Goodrich Court is something worse than just too bad, because the Castle and the Court, the genuine medieval ruin and the mock medieval mansion are perfect foils to each other and almost equally romantic in their Wyeside setting.

### DEMON ARCHITECT

Le Corbusier, perched on his threedimensional theory outside Marseilles, is faced by a foxy challenge from across the Atlantic. A few weeks ago architect A. M. McSweeney, of San Francisco, deposited plans with the local authority for a 440-storey building designed to house 400,000 people. Communal amenities in this building (which may cost \$7,000,000,000) include 300 elevators, 20 churches, 50 nightclubs, 10 hospitals, 1,000 shops, and parking for 80,000 automobiles. From cradle to grave you need never eave the building—one of the shops is sure to be a funeral parlour and no doubt there's a 1,000-acre Whispering Glades tucked away somewhere behind the third-floor neighbourhood centre.

Well, Mr. McSweeney, good luck to your project. Like Oscar Hammerstein's song about Kansas City-"You've got everything . . . you've gone about as far as you can go." But if you want any help with the halfinches, include me out.

ASTRAGAL

# LETTERS

J. H. Hanley Percy 7. Waldram, F.S.I.

### Architects' Remuneration

SIR,—Efforts are being made by the RIBA to secure income tax relief on the fees paid by its members, thus saving each one some-thing like 30s. a year. This is perhaps the only attempt made in recent years by the Institute to obtain some monetary benefit for the profession.

I think it is time that some progress was

made towards a high remuneration for architects and their assistants. The profes-sion must easily be the lowest paid in the country.

Even chemists—those usually found in the chemist's shop, who are hardly in the same class as the architect's assistant—are asking for a minimum wage of £650, rising to £850, and they will get it.

Doctors, dentists, etc., are paid well over £1,000 a year, while numerous qualified architects are working for less than £600 a year, which is absolutely outrageous.

Northumberland J. H. HANLEY

### Principles of Structural Mechanics

SIR.—The review on page 214 of your issue of March 3 last of the third edition of this book, suggests that dangerous design may result from the failure of a new chapter on reinforced concrete to include chapter on reinforced concrete to include any reference to shear. It also complains that certain graphs are drawn to stresses which do not accord with the latest practice. Your reviewer omits to mention that ever since its first appearance in 1912 this publication has devoted a whole chapter (XIV) to the vital necessity of allowing for shear stresses in all beams. The new-chapter on reinforced concrete does not purchapter on reinforced concrete does not purchapter. chapter on reinforced concrete does not pur port to be more than an introduction, and the reader is specifically warned—on page 377—that it does not, for obvious considerations of space, attempt to deal with, inter alia, problems of shear. The last words of the book advise the

reader to re-draw the calculating graphs for any stresses locally permissible. London PERCY J. WALDRAM

Our technical specialist repties:—
In the preface to the third edition of Mr.
Waldram's book it is particularly emphasized that the new chapter on reinforced concrete "will at least serve a useful purconcrete "will at least serve a useful purpose in the ordinary drawing office." It is further suggested that the book will enable its users to design "at least simple construction in reinforced concrete." On the cover of the book it is claimed that in the new chapter "the analysis and derivation of Standard Formulæ for Members of Reinforced Concrete, which hitherto have been regarded by many writers as "sacrosanct," are fully explained, from first principles."

Admittedly, in chapter XII on Shear (p.

Admittedly, in chapter XII on Shear (p. 131) it is stated that "in plate and lattice girders and in reinforced concrete beams the shear stresses are of the greatest possible im-portance," but nothing is mentioned about the method of dealing with them in reinthe method of dealing with them in rein-forced concrete beams. In chapter XXXVI, containing formulæ and graphs for the design of reinforced concrete beams, the problem of shear is simply dismissed (p. 377) in the same way as that of long columns, spirally reinforced columns, re-taining walls etc.

while it is perfectly justified to limit the scope of a chapter on reinforced concrete to "simple ribbed slab floors and roofs with

stout columns," within this restriction the subject must be treated in such manner that the reader can, in fact, design at least simple floors and roofs.

The danger is that not remembering p. 131 when arriving at p. 377 and overwhelmed by the formidable array of formulæ and graphs presented to him, the reader may feel encouraged to design simple beams without going into the question of shear at all, since shear is relegated into the realm of special problems beyond the scope of the book. In the best case, remembering p. 131, he will look in vain for advice and will have to realize that, in spite of the analysis from first principles which he has analysis from the property of the same than the property of the same than the property of the property learnt, he is not in a position to design even a simple beam unless he buys another

u

The chapter on reinforced concrete comprises 23 pages and 5 graphs. It would certainly have been possible to include within this space the simple formulæ necessary for dealing with shear and to show their amplication on a few examples. their application on a few examples.

The advice on p. 377, that the reader should calculate and re-draw his own graphs for different steel and concrete stresses, may for different steel and concrete stresses, may induce him to waste a lot of time. Actually, the design of concrete members in bending reinforced in tension only, can be done in a much simpler way than suggested. The preparation of graphs may be useful as a practice on the slide rule or the calculating machine, but does in no way contribute to the practical, or even theoretical, knowledge of reinforced concrete.

### Report Law

In the Chancery Division on April 14, Justice Vaisey delivered his reserved judg-ment in an appeal by Mr. John Frederick Lidle, of Rosamund Street, Sydenham, for a decision of the War Damage Commission decision of the War Damage Commission in respect to the damage to the roof of his house. The Commission awarded a cost of works payment of £34 16s. The cost of reinstating the roof, as before the damage, with tiles or pantiles would be £61 8s. 3d. The Commission arrived at the conclusion that the cost of a new roof of tiles or pantiles ought not to be regarded as part of the proper cost of re-instatement as defined in

proper cost of re-instatement as defined in section 8 of the War Damage Act 1943.

The sum of £34 16s, provided for a roof made of corrugated asbestos sheeting with cement fillets instead of flushings of lead and the Commission decided that that was a reasonable and satisfactory substitute and that there was no obligation to provide exactly the same kind of roof as had originally existed.

His Lordship in giving judgment said the case raised questions of law and fact. The house was a small dwelling house and the amount in dispute was trifling, but the appellant was the owner of other houses in the neighbourhood with regard to which includes the company of the c similar questions might arise and the Comsimilar questions might arise and the Com-mission appeared to consider the case of some general importance. The owner took the view that he was entitled to have a tile roof. The question of suitability was really a question of fact to be decided by the Com-mission within the limits of reason and common sense. If the Commission were to hold that blue slates were suitable for the visible roof of a house in a row of houses visible roof of a house in a row of houses with red tiled roofs, or that new brightly coloured tiles would be suitable for the high of the law would certainly be long enough to correct them. The Commission took the view that an asbestos roof satisfied the test in the present case and he could not see that he had any power to say that they were wrong. Here a hard and fast rule was entirely out of the question. Mr. Lidle had not established that the Commission had erred on any point of law. He accordingly dismissed the appeal with costs.

# ROYAL ACADEMY EXHIBITION

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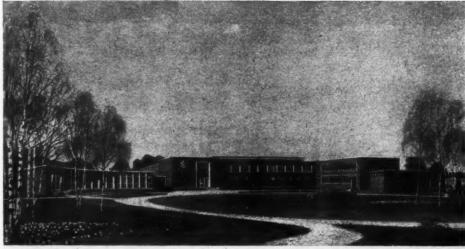
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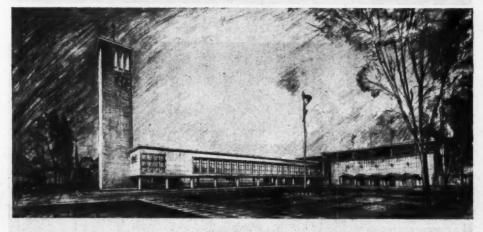
The number of exhibits of Architectural Drawings, Stained Glass and Models at the RA Exhibition, which opened last Saturday, is sufficiently small for them to be contained in the Architectural Room. A total of sixty-two drawings and two models is displayed. On this and the following two pages is shown a selection of the designs. The exhibition closes on August 7.



1183 University College, London: reconstruction of dome. By A. E. Richardson, R.A.

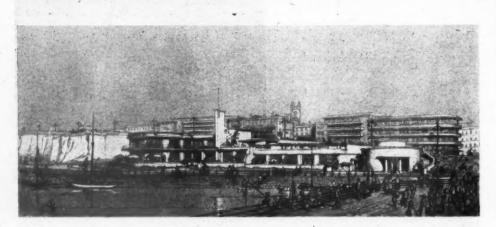


1166 Proposed Miners' Community Welfare Centre, Bannockburn, Scotland. By J. A. Dempster and D. D. Jack. Drawn by Peter Shepheard.



1206 The Borough of Wood Green Civic Centre. By Sir John Brown, A. E. Henson and Partners. Drawn by Edmund Ward.





1231 University College of the West Indies: a model of three of the Halls of Residence. By Norman and Dawbarn.

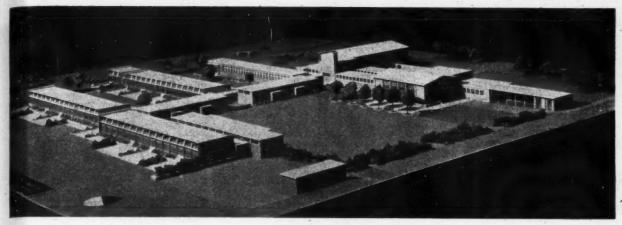
1185 "The Ship," Margate. By Ernest B. Musman. Drawn by J. D. M. Harvey.



1225 The West End Lane Housing Scheme for the Hampstead Borough Council, By Ernest B. Glanfield.



1177 Reconstruction of City Centre, Georgetown, British Guiana; General Post Office. By W. H. Watkins, Gray and Partners. Drawn by L. Myerscough-Walker.



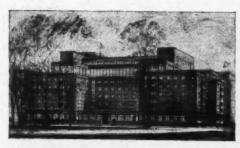
1235 A model of Ramsgate Manston Road County Primary School, for the Kent Education Committee. By Howard V. Lobb in collaboration with S. H. Loweth. Model by E. J. Thring.

Right, 1212 University of London: Hall of Residence for Men Students in Cartwright Gardens, W.C.1. By Adams, Holden and Pearson. Drawn by Kenneth Urquhart.

Extreme right, 1214 Memorial to the Missing: Saiwan Bay, Hong Kong. By C. St. G. Oakes. Drawn by Ronald Sims.

Right, 1203 Development of the Grove Estate, Pinner, for the Harrow Urban District Council. By G. H. James, R.A.

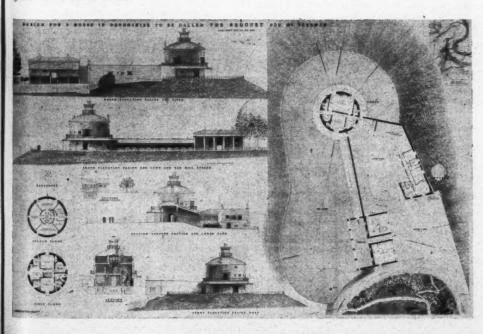
Extreme right, 1205 Borough of Camberwell Housing, Lordship Lane Site: Entrance Block. By John Grey and Partners. Drawn by D. F. Martin Smith.











1170 Design for a House in Devonshire to be called The Redoubt. By Raymond Erith.

R O Y A L ACADEMY EXHIBITION

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before societies as well as reports of their activities, are dealt with under this title, which includes professional societies, trade associations and government departments. To save space they are represented by their initials—see front cover. Lectures cannot usually be reported in full, but the extracts given are in the speaker's own words.

## IUS

# Arthur Ling

April 25. RIBA, 66, Portland Place, W.I. Extracts from a talk on Town Planning for the People, given at the International Student Conference.

Last year I had Arthur Ling: the pleasure visiting Poland and seeing there the gigantic effort which is being made to overcome the effort which is being made to overcome the devastation of war. No one could visit Warsaw without feeling a sense of excitement and wonderment at the speed with which the buildings and roads are being constructed. The East-West road in the centre of the city is being constructed on a three-shift basis, so that work proceeds at all hours of the lay and night. This is in spite of the incredible difficulties with which all hours of the day and night. This is in spite of the incredible difficulties with which the Polish people are faced in respect of lack of equipment and an inadequate number of technical advisers. The excavated earth from the tunnel where the road passes under the old city was being carried away in primitive peasant farm carts. I was told by the men on the site that they could do with much more building equipment-bulldozers, forries, mechanized excavators, and so on—and although they received some of these from the United States immediately after the war, their export from that country had recently been banned because it was alleged that they might be used for war purposes.

I was impressed by the very sound economic basis which had been worked out before the physical reconstruction plans of the towns and countryside in Poland. An economic plan had been prepared which established the general direction of the country's future development in three stages: firstly, rehabilitation; secondly, in-

dustrialization (including the development of agriculture); and thirdly, urbanization. The town and country plans were a final interpretation of this programme, so that every building, road or amenity contributed to the economic plan as well as to the cultural environment of the people. One failing I noticed, however, was that there was little town planning at the local level; it had only penetrated down to the regional level. This was due partly to the absence in the past of planning legislation giving powers to the local authorities to consider the future of their areas, and partly to the present lack of technical personnel to cope with the vast amount of work to be done.

## PLANNING IN BRITAIN

In contrast, town planning in this country has developed upwards from the local level, starting with schemes for improved sanitation and preservation of amenities, and then gradually developing to the position we have today, where the operative planning authorities are the country and town borough councils. As yet, the regional authorities and the national authority for planning are relatively weak; this is not because they wish to be so, but because the co-ordinated economic plan for the country as a whole has not yet taken a definite shape. The Ministry of Town and Country Planning is therefore unable to give guidance, through its regional offices, to the planning authorities on the general programme of development which should be carried out in order that they should make their proper contribution to a national development plan. At present the county and county borough authorities have the responsibility of preparing a development plan within the next three years without the advantage of a background economic plan, and this must inevitably lead to an unbalanced national plan.

We would be closing our eyes to realities if we became so engrossed in the technique of town planning that we failed to appreciate the events and conditions which determine, in the first instance, whether planning is to be carried out at all. There are so many good plans and planning ideas which are frustrated by lack of opportunity to put them into operation. The test of our success in planning, I would suggest, is not the quality of our planning reports, schemes for new towns, new neighbourhoods, and so on, but what is happening on the ground, how many new neighbourhoods have been built, how many new towns have been built, how many regional planning schemes have been put into practice. It is so easy to be lulled into a sense of well-being by words or documents if one does not stop now and again to examine the extent of achievements.

We have to remember that in any town planning scheme which aims to satisfy the requirements of the people, speed is a most important factor. Perfection is desirable, but if it can only be achieved at the expense of the people, we may have to be satisfied with less than perfection at this moment of change. We must examine what the people's most urgent requirements are. If any requirement should be first, it is, of course, housing, but our aim must be to provide all the essential social services at the same time as the housing. It may, however, be in a country's interest to put the development of industry and the erection of new factories even before housing, because only by so doing is it possible to increase the economic resources of a country to the extent that the country can afford new houses and social services on the scale required. In other cases it may be more important, in the interest of the people, to put social services before housing, because these will allow a life to be carried on and alleviate the overcrowding in housing in a quicker way than could be effected by satisfying a restricted number of families. This seems to be the case with

countries which have suffered most devastation as a result of the war; for instance, in Warsaw, where the average occupancy of the rooms left after the Nazis had deliberately blown up the city was in the region of three persons. Under these conditions the quickest way to help the people reconstruct their lives, and, in turn, reconstruct the cities, was to provide public buildings of a community character which would provide several amenities for the greatest number.

It is essential that the humane approach should be brought to town and country planning, and the technician cannot afford to stay isolated in his office, designing what he alone feels to be an ideal plan. He must approach town planning alongside the people, so that he understands the people's ambitions and can give them technical interpretation. To put several thousand people in one block of flats on stilts just because the designer thinks it is a good idea and gives scope for his designing ability is not a sure way of achieving successful results. On the other hand, I think it is essential that the technician should not compromise his integrity to the extent that he gives people what they want without bringing his specialized knowledge and designing ability to bear on the problem of their demands. The result must satisfy both the architect or town planner and the people for whom he designs and builds. This requires effort on both sides, and a first essential is that people should be in a position to feel that they are the initiators as well as the recipients. But they will not move very quickly if fundamental problems of land and the organization of the building industry have not been solved.

## THE TRAINING OF ARCHITECTS

The last point I want to make concerns the training of architects and town planners. In the past the architectural student has been encouraged to work as an individual and to imagine an ideal world waiting for him—a world of which he or she is the centre, as a master architect or town planning architect. The programmes of study were set with this in mind. Changes have been made in the more progressive schools, but I do not think it could be said that the large-scale programmes involved in planning for the people and the new forms of organization required to carry them out have had sufficient influence on the training courses. What are needed today are teams of architects and planners to work together on very big jobs. This does not mean that we should accept bureaucratic organizations or that there should not be ample scope for the individual to express everything he has got in him, but it does mean that we should recognize our new patrons and work with the organizations that represent them. Before the war, at least in this country, an architectural student, after completing his course, began with the idea of setting up in private practice himself. Second best to this was to work in the office of a private architect. As a last resort—and this meant, in the eyes of his colleagues, that he was a failure—he would work in a government or local authority department. It is true that the order of preference was revised—those public architectural and planning departments which deal with the bulk of the work require the most talented students. They are not organized as well as they should be, but the right people can build up the right organizations. The student wants to feel that his training is worth while, that society is waiting for him to qualify. If there is so much going on that people are crying out for architects and planners, then a student can be enthusiastic; he can work on the real project in his spare time, and when he has finished his course he can be sure of a responsible job. Planning for the people wil

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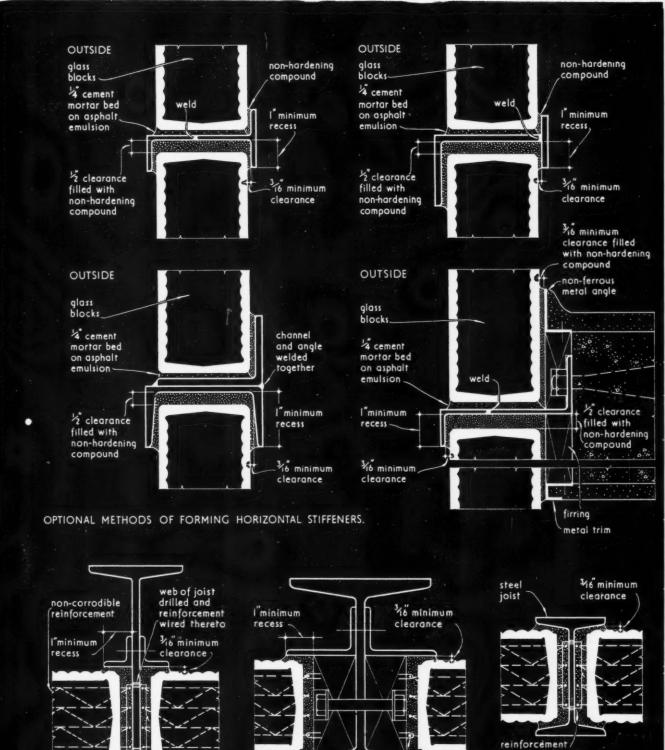
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14.N3

The Architects' Journal Library of Information Sheets 167. Editor: Cotterell Butler, A.R.I.B.A.



OPTIONAL METHODS FOR FIXING TO MAIN STEELWORK.

non-hardening compound

VERTICAL STIFFENER.

wired to web of joist

METHOD OF FORMING

-INSULIGHT HOLLOW GLASS BLOCK EXTERNAL PANELS: HORIZONTAL AND VERTICAL STIFFENERS AND DETAILS OF FIXING TO MAIN STEELWORK. Manufacturer: Pilkington Brothers Limited.

reinforcement

nailed to timber

# 14.N3 ·INSULIGHT· HOLLOW GLASS BLOCK EXTERNAL PANELS: HORIZONTAL AND VERTICAL STIFFENERS AND DETAILS OF FIXING TO MAIN STEELWORK

This Sheet describes the construction of hollow glass block external panels in steel framed buildings, and various types of stiffener which may be used where the areas of panels exceed those recommended as maxima without sub-division. Sheet 14.N2 describes the construction of hollow glass block external panels in a reinforced concrete frame. Sheet 14.M1 gives standard shapes and sizes of blocks together with tables of dimensions of openings to accommodate panels up to 20 ft. high or 20 ft. wide, and area not more than 120 ft. super. Sheet 14.N1 describes the general construction of external panels using hollow glass blocks.

## Construction

The transmission of any load from the building to the glass block panels must be avoided.

The stiffeners must be so designed that they are capable of transmitting to the main frame, without visible deformation, the deadweight and wind loads arising from the glass block panels.

Horizontal stiffeners: Three methods of forming horizontal stiffeners are illustrated. These would normally be supported only at their ends and the difference in steel sections shown is intended to take this fact into consideration. The sections employed are, therefore, dependent on the span. The fourth horizontal stiffener detail shows more or less continuous attachment to a floor or landing, which is part of the main structure. Care must be taken to observe the minimum clearances indicated.

Vertical stiffeners: Joist sections are the simplest to use although built-up sections are equally satisfactory. The reinforcement must be attached to the stiffener and it is suggested that in the case of joists, the web should be drilled at intervals 2 in. or 3 in. above the levels of the reinforcement so that the latter can be turned up against the web and wired through the holes, the wire being drawn tight so as to provide a minimum amount of projection. Minimum clearance again must be observed.

Fixing to main vertical steelwork: Two alternative methods are shown, the principle being the same as that described for vertical stiffeners.

## Panel Sizes

Insulight hollow glass blocks are non-loadbearing units, and although they will carry their own weight safely up to a reasonable height it is necessary because of wind pressure and other stresses to put intermediate support in panels where the height is more than 20 ft., the width more than 20 ft. or the area more than 120 ft. super. These dimensions may be exceeded for internal panels in certain cases.

## Fixing

Treatment at head and jambs: In all panels, the head and sides must be built free of the main structure—except for the reinforcement—to prevent panels being subjected to strains due to settlement, building load, or expansion. A  $\frac{1}{2}$  in. clearance should be provided which must be kept free of mortar spillings, and filled with a non-hardening compound. Where inter-

mediate support or structural dividing members are introduced into panels, as shown on this Sheet, the glass blocks must be insulated by clearance joints. In external panels, recesses into which the head and sides are built free of the main structure must be provided, except where the dimensions of the panel do not exceed 8 ft. high by 2 ft. wide, or 6 ft. high by 3 ft. wide. The recess should be 4½ in. wide by 1 in. deep, allowing ½ in. clearance and ½ in. cover with ½ in. play on either face; the ½ in. clearance should be filled with a non-hardening compound to provide a weatherproof joint.

In internal panels, rebate fixing is recommended: in certain cases butt fixing can be used.

Treatment at sill: Before the bottom course is laid, the sill should be coated with an asphalt emulsion or similar material, and the blocks then bedded with mortar as specified below, so as to allow for slight movement without disrupting the mortar bed and thereby preserving the weather-resistance of the panel.

Reinforcement: Reinforcing strips should be built into every third to every fifth course dependent on the size and position of the panel. The ends should pass through the clearance joint and be secured to the main structure. Such a material as "Exmet"  $2\frac{1}{2}$  in. wide No. 20 gauge expanded metal has been found suitable for this purpose.

Bedding and pointing: As glass blocks are non-absorbent a fairly dry and fatty mortar should be used. A suitable mix is one part Portland cement, one part hydrated lime (preferably lime putty) and four parts of sand by volume. Clean builders' sand free from gravel (not sea sand) should be used. The face of the joints may be struck back and smoothed during erection. If coloured joints are required they may either be picked out in colour by painting after the mortar is thoroughly dry or raked out at the time of erection and later pointed with coloured cement. The pointing may be of any form or finish; a keyed joint formed with a curved jointing tool is the normal one.

## Doorways, Windows and Ventilators

Small windows and ventilators may be set in a panel as insets. Doors and larger windows require clearance joints and special treatment. Doors and windows in internal panels are dealt with on Sheet 14.N7 and in external panels on Sheets 14.N8 and 14.N9.

## Further Information

The Manufacturers maintain a Technical Research and Information Bureau which is available to answer questions and advise on technical problems dealing with this subject generally.

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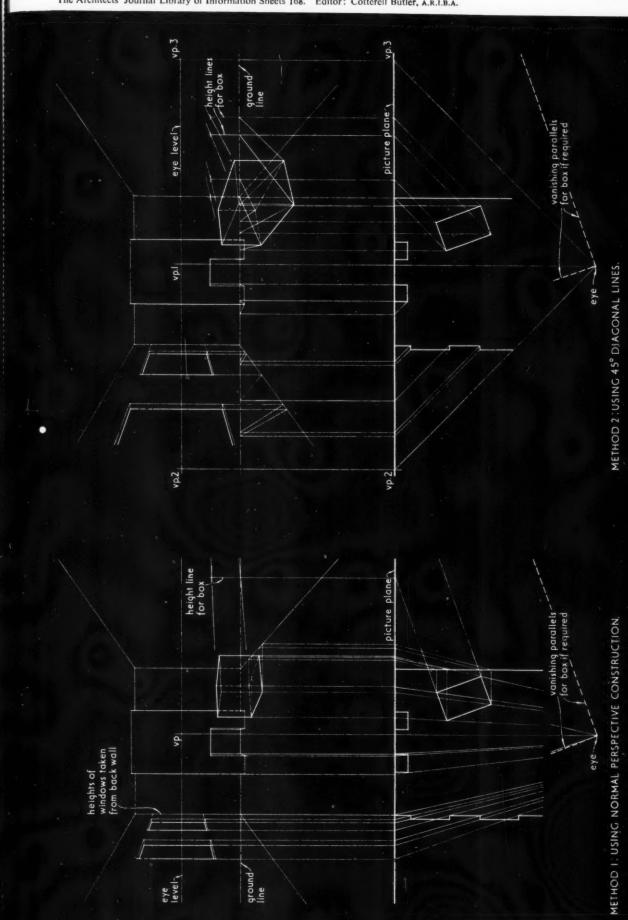
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The Architects' Journal Library of Information Sheets 168. Editor: Cotterell Butler, A.R.I.B.A.



Compiled by Lestic A.Lee, L.I.O.B. and H.N. Haskings, A.R.I.B.A. for Eagle Pencil Company—Chemi-Sealed Turquoise pencils PERSPECTIVE DRAWING: PARALLEL PERSPECTIVE

## 1.B34 PERSPECTIVE DRAWING: PARALLEL PERSPECTIVE

This Sheet, one of the series on draughtsmanship, describes two methods of setting up parallel perspectives. Parallel perspectives are often used for interior views or vistas where an elevational view is require d.

### Method 1

This drawing shows an interior set up by the usual method for interior and exterior perspectives.

To simplify the construction the picture plane is taken on the back wall of the room so that all detail on this plane will appear true to scale as an elevation on the perspective view.

The elevational view of the end wall is projected up from the plan, and across it the eye level line is drawn at the selected height. The vanishing point for the side walls and all planes parallel to the direct line of vision is found by drawing a line from the eye position perpendicular to the picture plane to cut the eye level line. Points in the perspective are then located in the usual manner by the use of height lines on the back wall.

### Method 2

This shows another method in which 45° diagonal lines are used to locate points in the perspective view. This construction is more accurate for those parts of the drawing that are in the vicinity of the direct line of vision.

The picture plane is taken on the back wall as before and the elevational view of it is projected up from the plan. The eye level line is chosen and on it is found the vanishing point vp.1 for lines parallel to the direct line of vision as described in method 1. Two vanishing points vp.2 and vp.3 for the 45° diagonal lines are found by drawing lines from the eye position to make an angle of 45° with the picture plane. These points on the picture plane are projected up to the eye level giving vp.2 and vp.3 on the perspective view.

To locate a point on the ground: From the point on plan draw a 45° diagonal to cut the picture plane then project vertically to the base of the picture

plane, i.e., the back wall of the room seen as an elevation in the perspective view. Through this point draw a line from the appropriate vanishing point for 45° diagonals. Now project the point on plan to the base line in the perspective view. Draw a line from vp.1 through this point to cut the line representing the 45° diagonal just drawn. The point of intersection is the position in perspective of the point required.

To locate a point above ground level: The plan position of the point is first found as already described. Above the point found on the base line of the back wall in the perspective view set up the height of the point above ground level. Through this point draw a line from vp.3 to cut a vertical set up from the plan position of the point already found, thus locating the required point in space.

## Objects Not Parallel to Walls of Room

In either method if much detail has to be shown on objects not parallel to the walls of the room (such as the box in the examples) vanishing points may be found for these by drawing from the eye vanishing parallels to cut the picture plane. These points projected up to the eye level line in the perspective view will give the required vanishing points.

This Series of Sheets covers geometrical drawing, orthographic, isometric and axonometric projections, perspective, rendering, lettering and draughtsmanship generally.

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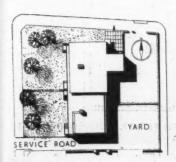
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From the north-west.

# FLATS AT KENMURE ROAD, HACKNEY

DESIGNED BY EDWARD D. MILLS



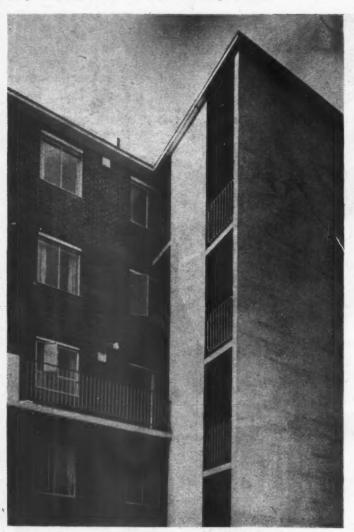
SITE PLAN [Scale: +"-1"0"]

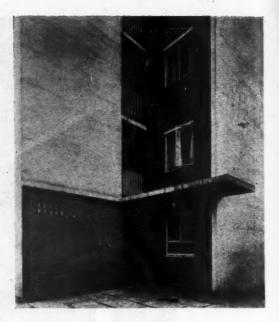
GENERAL.—This scheme consists of a small block of eight two-storey maisonette flats with a pent-house flat, all to be let at moderate rentals. The site, at Kenmure Road, Hackney, London, was used for semi-underground air-raid shelters, and is approximately 12,000 square feet in area. The scheme is sponsored by a charitable trust.

PLANNING.—As the site is limited in size and the land available for the flats is restricted by the building line and existing roads, a single staircase block was planned, facing east and west.

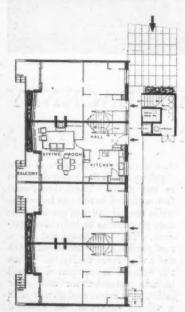
Access to individual flats is from a gallery, each flat being designed on two floors. The living rooms face west and have large balconies, while the balconies of ground floor flats give access to individual gardens. The pent-house flat has a roof garden on the south side with the living room facing it. When the scheme is completed it will include perambulator and cycle lock-ups, a communal garage with a vehicle turntable, an external lavatory block, and allotment gardens for tenants.

CONSTRUCTION is box-frame with continuous reinferced con-

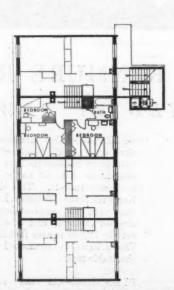




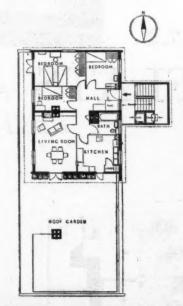
Above: main entrance on the north elevation. Left: exterior of the staircase tower from the south-east.



GROUND AND SECOND FLOOR PLANS [Scale: + "=1" 0"]

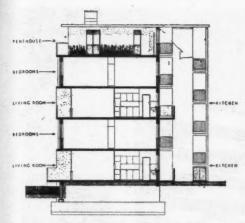


FIRST AND THIRD FLOOR PLANS



FOURTH FLOOR PENTHOUSE FLAT PLAN

F L A T S A T H A C K N E Y



TYPICAL SECTION THROUGH FLATS

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Y



Right: from the southwest: showing the ground floor balconies. Below: left, the block from the north; right, detail of ground floor windows and balconies.

crete slabs, and with load-bearing spine walls of reinforced concrete. Interior surfaces are flush for ease of maintenance. On the east and west elevations the panel walls, which are non-structural, are of 11 in. cavity brickwork. All con-

crete spine walls and floor slabs are sound insulated.

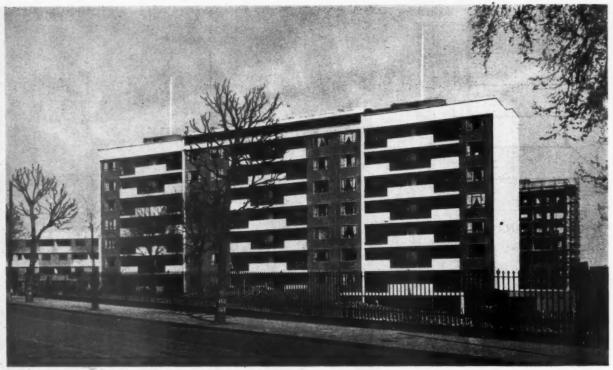
SERVICES.—The limited size of the scheme precludes central heating, and continuous-burning smokeless fuel stoves are installed in living rooms. Bedroom heating is by electric convectors, and gas water heaters supply hot water. The main contractors were Messrs. J. and J. Dean Ltd. For a list of sub-contractors see page 422.





BYEDWARD

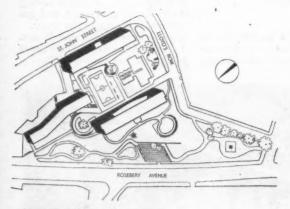
M I L L S



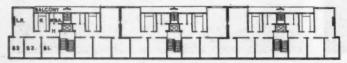
The completed eight-storey block seen from Rosebery Avenue.

# F L A T S AT FINSBURY

DESIGNED BY TECTON



SITE PLAN [Scale: 1"-220' 0"]



TYPICAL FLOOR PLAN OF EIGHT-STOREY BLOCK [Scale: 1/2"]

GENERAL.—On April 29 the first eight-storey block of the Spa Green Estate (formerly the Rosebery Avenue Housing Scheme), designed for the Finsbury Borough Council, was opened and although the scheme is not yet finished, the JOURNAL takes this opportunity of illustrating the progress made. The scheme, when finished, will consist of three parallel blocks; two of eight storeys, each containing 48 flats, and one of four storeys, containing 32 flats.

After the dissolution of Tecton two of the partners, B. Lubetkin and F. Skinner, became responsible for the supervision.

PLANNING.—The layout of the buildings has been arranged to avoid closed courtyards and to provide the maximum light and sun to all parts. All flats are



The west elevation of the eight-storey block.

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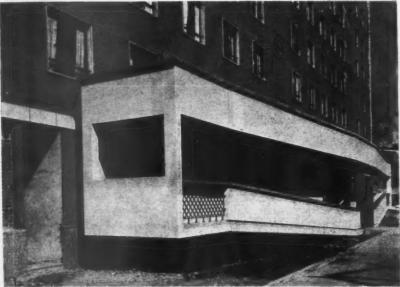
designed to have the living rooms, kitchens and balconies along one elevation, with the bedrooms facing the opposite way. Perambulator shelters and bicycle sheds, etc., are provided for all tenants in the entrance hall, so that they can be reached under cover. From the entrance hall, staircases and

lifts give access to two flats on each landing. Two blocks contain eight storeys each, while the lower block in between is 5 storeys high including the ground floor.

CONSTRUCTION.—This is of reinforced concrete and was carried out with a new system of hydraulically-jacked shuttering which has never previously been used in this country. The construction is on the box-frame principle of continuous slabs and walls. Thus, projecting columns and beams have been avoided and a very rigid structure ensured. Brick panels with cellular openings are



Left: the east elevation of the eight-storey block. Below: the main entrance to the block which takes the form of a covered ramp leading to the ground-floor pram and bicycle sheds provided for each tenant.





TYPICAL FLAT PLAN [Scale: 11' 0"]

used for lighting the staircases. Each block is surrounded by a light-coloured frame with tiled finish. The balcony balustrades, some solid, some with open grilles, provide an interesting contrast in the design. In order to reduce sound transmission through the buildings, the lift shafts and staircase wells are isolated from the main structure and each flat is specially insulated from its neighbours.

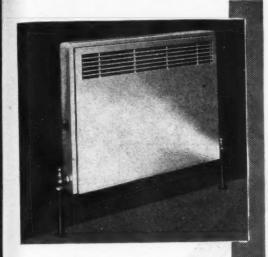
EQUIPMENT. — Central heating provides hot water in each kitchen through a calorifier and supplies sufficient radiators in the living room and hall of each flat to give background warmth. Open fireplaces are omitted with the advantages that bulky flues are eliminated. Built-in gas and electric fires help to top-up the temperature as necessary.

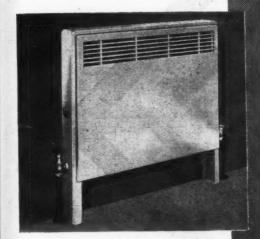
Washing is done in the individual kitchens, where a movable gasheated copper is provided. Drying is partly done in the hot cupboard provided in each kitchen, and larger items can be dried naturally on the roof, where shelters are provided for the purpose. Kitchens are fully equipped with larders, a range of built-in cupboards and a service hatch to the adjacent living-dining room.

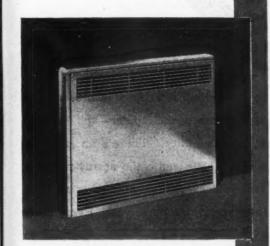
SERVICES.—The Garchey system by which waste is disposed down each sink by flushing, is installed throughout and is here used in London for the first time, the only other example of its use in this country being at Quarry Hill, Leeds.

Services throughout are run in ducts with access panels, all pipes being thus concealed. The block of flats has passenger lifts with automatic control. A centralized plug-in radio system is installed throughout.

The main contractors were William Moss and Sons Ltd. For list of sub-contractors see page 422.







See them on STAND C. 300
B-I-F CASTLE BROMWICH

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INFORMATION CENTRE · INFORMATION SHEETS
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## TECHNICAL SECTION

## SOUND INSULATION—A SOLID ADVANCE

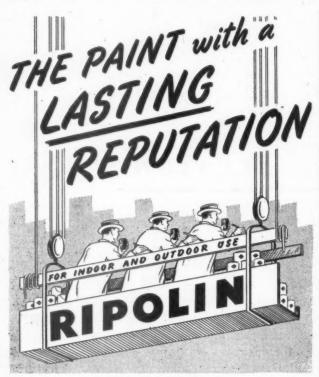
The publication by the BRS of a bulletin on party wall construction\* shows how rapidly and how far this country has gone forward in sound insulation technique. Ten years ago, when Fitzmaurice and Allen 'published from BRS the first clear picture of sound transmission and how it might be reduced, everyone welcomed even the inexact and rather extravagant proposals they put forward because there was at least the assurance of good insulation. Now we can turn, not to one hypothetical technique of construction, but to exact details of a considerable number of constructions; not to something which merely suggests a large but vague improvement, but to systems whose performance is known from extensive measurements in completed structures.

The advances which are recorded would be welcome merely for the physical measure of control they display over an awkward building problem, but another recent BRS publication† which provides us with some social measure of the problem should be read at the same time. This is a survey of noise in British homes, and it provides a wealth of data on the extent and nature of annoyance which the population at large has to endure and looks likely to continue. Spectacular is the only word which adequately describes an increase from 35 per cent. (people troubled by noise in the big charity blocks of flats of the 1870's) to 57 per cent. in the kind of buildings we provide today.

One of the features of these two studies which will give architects most satisfaction is their direct practical bearing. Much scepticism—often seemingly quite sound—is still entertained among architects about the usefulness of some of the scientific studies we are offered. But the bulletin on party walls, in particular, shows how accurately the research workers can strike the target as they approach the end of their journey, for here we have a simultaneous attack on the two main criteria of party walls; fire resistance and sound insulation—with the result that in place of an arbitrary tradition of 9-in. "solid and incombustible material" we can establish immediately a scientific tradition with known ends and known means.

The big problem now is flats. BRS has begun construction of its experimental blocks, but there is no need to wait for them to finish before we start to take up the ideas. This is a matter now for the same kind of co-operation that produced the results in houses. BRS is never unwilling to help; the question is whether we are. As a profession we have world leadership on this matter in our grasp if we want to take it, for no one else has the organization to get anywhere near us now.

Party Walls, their Fire Resistance and Sound Insulation, by R. C. Bevan and W. A. Allen. Published by HMSO as National Building Study Special Report No. 5. Price 2s. 0d. † A Survey of Noise in British Homes, by D. Chapman, edited by W. A. Allen, prepared for the BRS by the Social Survey and published by HMSO, as National Building Study Technical Paper No. 2. Price 9d. See Inf. Centre 22.26.



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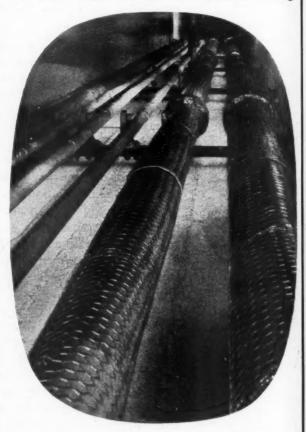


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## 2.79 planning: general 1947 ACT, SCOTLAND, INDEX

Index to the Town and Country Planning (Scotland) Act, 1947, and Relevant Regulations and D.H.S. Circulars. County Clerk's Office, Cupar-Fife. (J. & G. Innes, Ltd., Cupar, 1949. 1s. 6d.)

Very useful alphabetical subject index to Act and Regulations. Appendix containing bibliographical list of relevant Statutory Instruments and Circulars issued Department of Health for Scotland.

## 2.80 planning: general LONDON LIBRARIES FOR PLANNERS

Planner's Guide to Selected Sources of Information in Great Britain, Part II: London Libraries. E. G. Schoendorff and R. R. Sale. (APRR Information Bulletin, Reference Sheet No. 19, March, 1949. 6d.) List of 58 London libraries of interest to planners, covering Government and University libraries, loan services, and libraries attached to research establishments, learned societies and private organizations.

The list, which is arranged in alphabetical order, provides information on each library's facilities, scope, and times of opening. There is also a note on the Metropolitan Public Libraries.

## 5.30 planning: public utilities SMOKE PREVENTION

Proceedings of the Cheltenham Conference, 1948. National Smoke Abatement Society. (The Society, London, 1949. 3s. 6d.)

Compilation of factual information concerning atmospheric pollution, district heating schemes, and smoke prevention in relation to town planning.

Two of the papers presented in this conference report are of interest to planners. An Interim Report on a National Survey of the Sources and Incidence of Atmospheric Pollution, by A. J. Cousin, discusses a questionnaire survey among local authorities in England, Wales and Scotland, sponsored by the National Smoke Abatement Society. Ouestionnaires were sent to 198 local Questionnaires were sent to 198 local authorities of whom 149 have sent in returns. The paper gives a summary of an

analysis of the replies, together with con-clusions to be drawn from them.

The second paper, entitled Smoke Prevention in Relation to Town Planning, by J. N. Meredith, City Architect of Bristol, deals with the problem. Meredith, City Architect of Bristol, deals with the problem of atmospheric pollution in central urban areas and recommends the installation of district and block heating plants in order to provide smokeless zones. There are also some useful notes on the effect of smoke on building stones.

Among a number of specified progress reports presented to the conference is one on central and district heating schemes, which gives some data on the number of houses supplied in various areas and towns, including London.

including London.

## 5.31 planning: public utilities

## ROAD TRANSPORT: ROUNDABOUTS

The Design of a Roundabout in a Built-Up Area. R. Young. (J. of the Institution of Municipal Engineers, Jan. 4, 1949, pp. 405-411.)

Useful article. Survey of traffic capacity. Mathematical calculations to achieve correct setting-out. Illustrated by diagrams,

Recommendations for the design of roundabouts at busy traffic intersections were contained in the Ministry of War Transport's report on Design and Layout of Roads in Built-Up Areas (HMSO, 1946). Little guidance, however, has been given regarding the estimation of the volume of traffic which actually circulates round the island of the roundabout in terms of the traffic arriving at the intersection. The author states that the traffic circulating will be half the sum of the entrant volumes. In order to establish traffic figures one may In order to establish traffic figures one may either refer to police records or undertake a traffic survey to obtain peak hour figures. In relation to design factors and layout size the weaving angle is the ultimate criterion for traffic capacity and smooth flow. An angle of 40° is considered adequate. It is desirable to reduce the crossing to a direct right-angle where crossing to a direct right-angle where possible. Where this cannot be achieved, owing to the angle of approach or the number of converging streets, the final shape should be such as to provide for a weaving angle in the neighbourhood of 40°. A useful table is given showing variations of roundabout size for varying columns of traffic under the headings of:—Peak traffic vehicles/hour; diameter of island; width of carriageway width across square; and weave carriageway; width across square; and weav-

ing angle.

The second part of the article is concerned with the actual setting-out of the roundwith the actual setting-out of the round-about as laid down on the drawings. It is stated that owing to the high cost of property in large towns considerable precision is necessary in defining the position of the roundabout limits so that the area computed, and paid for, from the plan will be exactly the same as that set-out on the site. This accuracy cannot be obtained by scaling dimensions from a survey, and under heavy traffic conditions accurate setting-out is impossible except during those hours when traffic is almost at a standstill. To overcome this difficulty the author provides a detailed method of the author provides a detailed method of calculation whereby only certain distances will have to be measured from survey stations along the appropriate survey lines and those points fixed where the limits of the roundabout intersect the survey lines. This method can be adapted to any type of intersections. of intersection.

# ECONOMY IN CEMENT

Economy in the Use of Cement. MOW Committee's Recommendations. (Memorandum PI 31/5. Use of Cement in Housing and Small Scale Building, and PI 31/6, Use of Cement in Engineering and Large Scale Building.) Scale Building.)

Recommended standards of construction for the component parts of a house. Quality control of concrete.

The application of the recommendations for small scale buildings should result in the use of not more than 6 to 7½ tons of cement (apart from prefabricated materials, e.g., concrete tiles) for building a normal brick house of 1,000 sq. ft, gross. This allowance should cover all cement requirements. The higher figure should include rough casting, although few cases require it. The recommended range is considerably below the average of the cement actually specified in current jobs. About two-thirds of the cement can be saved by gauging the mortar for brickwork with lime as recommended by BRS.

It is not suggested that the growing use of light weight concrete blocks for the internal linings of cavity walls to improve their thermal insulation should be discontinued. The figures do not, however, allow for concrete walled houses.

The construction of carriage ways and The application of the recommendations

The construction of carriage ways and footpaths of other materials than concrete should be encouraged.

The memorandum referring to large scale buildings deals with mortars and renderings, sewers and drains, approach roads, foot-paths, paved areas, parking places, etc., foundations of structures and work below ground, floors, deferment of work (e.g., paving of footpaths, omission of external

paving of footpaths, omission of external renderings on buildings), concrete mixes. This last item seems to be of the greatest importance, since considerable cement economies would be made in concrete mixes for all purposes if quality control were universally exercised.

The problems of large scale projects, such as dams and bridges, which take a long time to design and build, have not yet received close attention, nor has the possibility of the use of pre-stressed concrete been considered.

The form printed below is to assist readers requiring up-to-date information on building products and Complete and post it to The Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1, and the advertisers listed will be asked to supply information direct.

appearing in this Journal."	the following advertisements issue of "The Architects'
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Please ask mans particulars to:—	ufacturers to send further
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## Announcements

Mr. C. E. Pearson, F.R.I.B.A., of Messrs. Charles B. Pearson & Son, 18, Dalton Square, Lancaster, announces that they have opened an office in Manchester which will be under the direction of Mr. G. R. Lovell, be under the direction of Mr. G. R. Lovell, A.R.I.B.A. The address is 24, Devonshire Street, Grosvenor Square, All Saints, Manchester, 13, where they will be pleased to receive trade catalogues, etc.

Mr. Edward S. Wright, A.R.I.B.A., c/o P.O. Box 123, Umtali, S. Rhodesia, is in future managing the Umtali branch of Macgillivray & Son, architects. He will be

gillivray & Son, architects. He will be pleased to receive trade catalogues, etc., at the above address.

The North British Rubber Company has been allotted one of the twelve special sites in "Millionaires' Avenue" which is the centrepiece of the Scottish Industries Exhibition to be held in the Kelvin Hall, Glasgow, from September 1 to 17.

from September 1 to 17.

Messrs. Shaw & Lloyd, chartered architects, of 74. Great Russell Street, Bloomsbury Square, W.C.I, have opened a branch in Israel. The temporary address there is c/o I.C.I. (Levant), Ltd., P.O.B. 1703, Tel-Aviv, where they will be glad to receive trade literature. Mr. Shaw has left for Israel and expects to be a way for two months.

Mr. Basil R. Matthew, L.R.I.B.A., has been appointed architect to the Executive appointed architect to the Executive Development Board, Lagos, Nigeria, West Africa, where he would be glad to receive trade catalogues.

trade catalogues.

Wellington Tube Works, Ltd., of Great
Bridge, Tipton, Staffs., have opened an
office at 36, Victoria Street, London, S.W.1.
Telephone, Abbey 1326/7. This will be the
headquarters of the firm's London representatives, Messrs. J. A. Blackburn, G. C.
Parks and A. C. Sorrell. The address of the company's London warehouse at Stonhouse

Street, Clapham, S.W.4. Macaulay 1182-3. Telephone

## Correction

In the JOURNAL for April 21, the firm of Courtney Pope, Ltd., shopfitters, was omitted from the list of sub-contractors for the Swiss National Tourist Office, Golden Cross House, Trafalgar Square.

## Buildings Illustrated

Flats at Rosebery Avenue (pages 416-418). Architects, Tecton. General contractors, William Moss & Sons Ltd. Sub-contractors: reinforced concrete engineers, J. L. Kier & Co. Ltd.; terrazzo work, Art Pavements & Decorations Ltd.; electrical installation, The Berkeley Electrical Engineering Co. Ltd.; exernal tiling, Carter & Co. (London) Ltd.; quarry and white glazed tiling, Carter & Kernahan Ltd.; painting, C. & T. Painters, Ltd.; concrete insulation, Christiani & Nielsen Ltd.; tubular handrailing and balustrading, Clark Hunt & Co. Ltd.; lightning conductors, R. C. Cutting Ltd.; wireless installation, E.M.I. Cutting Ltd.; wireless installation, E.M.I. Sales & Service, Ltd.; sewer connections. Finsbury Borough Council; gas installation, The Gas Light & Coke Co.; mastic asphalt floors, The General Asphalte Co. Ltd.; wirefloors, The General Asphalte Co. Ltd.; wire-less masts, J. W. Gray & Son Ltd.; plumb-ing, heating and hot water installation, G. N. Haden & Sons Ltd.; Garchey disposal system, Matthew Hall & Co. Ltd.; lifts, Hammond & Champness Ltd.; drying enclosures, Haywards Ltd.; wood block

flooring, Horsley Smith & Co. (Hayes) Ltd.; glazing, H. Lewis (Glazing) Ltd.; cast-iron balustrades, Walter Macfarlane & Co. Ltd.; palustrates, water Mactariane & Co. Ld.; asphalt and felt roofing, Permanite Ltd.; plastering and granolithic floors, W. A. Telling Ltd.; sanitary fittings, Dent & Hellyer Ltd.; foundation stone, Fenning & Co. Ltd.; precast concrete balcony panels, Girlings Ferro-Concrete Co. Ltd.; precast window surrounds, Liverpool Artificial Stone Co. Ltd.; door frames, The Morris Singer Co.; ironmongery, Parker, Winder & Achurch Ltd.; metal window frames, Williams & Williams Ltd.

Flats at Kenmure Road, Hackney (pages F.R.I.B.A., F.R.S.A. General contractor, J. & J. Dean Ltd. Consulting engineer, Ove. N. Arup. Quantity surveyors, Lay & Clark, Arup. Quantity surveyors, Lay & Clark, A/A.I.A.S. Sub-contractors: asphalt, General Asphalte Co. Ltd.; reinforcement, Twisteel Reinforcement Co. Ltd.; bricks, Accrington Brick & Tile Co. Ltd.; tiles, B. Finch & Co. Ltd.; lino flooring, Cellulin Flooring Co. Ltd.; Esse stoves, Smith & Welstood Ltd.; gas fitting, Gas Light & Coke Co.; water heaters. Accot. Water, Heaters, Ltd.; electric gas Inting, Oas Light & Coke Co.; water heaters, Ascot Water Heaters Ltd.; electric wiring, Speedy & Eynon Ltd.; electric light fixtures, Merchant Adventurers Ltd.; "Thermovent" electric heating, E. K. Cole Ltd.; door furniture, Parker, Winder & Achurch Ltd.; casements, James Couper & Co. Ltd.; cipke Wallis & Co. Ltd.; explice charges sinks, Wallis & Co. Ltd.; refuse chutes, G. A. Harvey & Co. Ltd.; cement glaze, John Ellis & Sons Ltd.; metalwork, Allan & Greaves Ltd.; joinery, Austins of East Ham; metal door frames, Henry Hope & Co. Ltd.; flush door frames, Henry Hope & Co. Ltd.; flush doors, Leaderflush Ltd.; coal chutes, Nicholls and Clarke, Ltd.; lightning conductors, J. W. Gray & Co. Ltd.; curtain tracks, Thomas French & Co. Ltd.; concrete paint, Screetons Ltd., Cement Marketing Co. Ltd.; lifts, Pickering Ltd.; signs, The Lettering Centre.





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pages Mills, J. & re. N. Clark, eneral risteel ngton & Co. Co. Ltd.; water lectric light Ther-Ltd.; hurch Ltd.; hutes, glaze, Allan East pe & ; coal urtain ncrete keting The

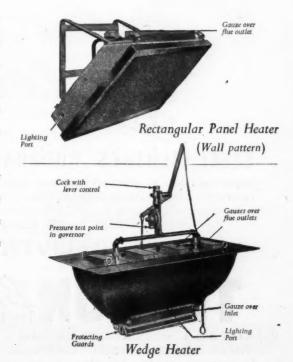
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These and other New Day products including the 'Twin Two' double socket, the 'Fireside' Triple Outlet and the 3kw Micro-gap Switch-Socket will be on show at the B.I.F.



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Untidy coats make an untidy office. Timson Steel Clothes Lockers are now available as single units, 6ft. x Ift., or in "nests" of two, three, four or six. Fitted two hooks, shelf, lock and key. Send for Catalogue.

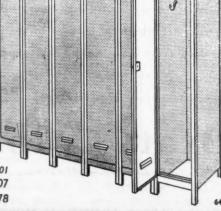
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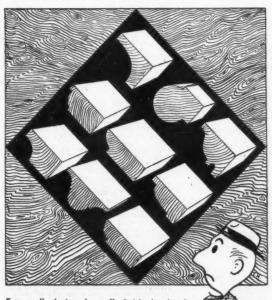
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B.I.F. Olympia Stand No. B 38

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paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

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The Incorporated Association of Architects and Buravaroas maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff reaches. Additionally applications are surveyors. Tel.: Uplands 0335. 991

LONDON COUNTY COUNCIL.

Applications are invited for unestablished positions of (1) ARCHITECT, Grade III (salaries up to £700 a year) and (ii) ARCHITECTURAL ASSISTANTS (salaries up to £850 a year), 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 Superannation Acts, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

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

Forms of application may be obtained from the Director of Housing. The County Hall, Westminster Bridge, S.E. (stamped addressed envelope required, and quote Ref. G.B.3). Canvassing diaqualifies. (2259)

LONDON COUNTY COUNCIL.

VACANCIES FOR QUANTITY SURVEYORS

quantines. (2269)
LONDON COUNTY COUNCIL.
VACANCIES FOR QUANTITY SURVEYORS
AND ASSISTANTS IN ARCHITECT'S DEPARTMENT.
BURVEYOR. Grade II. £700×£35-£810 a year.
SURVEYOR. Grade III. £550×£25-£700 a

year.
TEMPORARY TECHNICAL ASSISTANT (a).
2440×220—2590 a year.
TEMPORARY TECHNICAL ASSISTANT (b).
Up to 167s. 6d. a week.
Commencing rates for Grade III and Technical Assistants according to qualifications and experi-

Assistants according to qualifications and experience.
Candidates for Grade II and Grade III should be Associates of the Royal Institution of Chartered Surveyors, and experienced in abstracting and billing, estimating, interim valuations for payment on account, measuring, adjusting and agreeing final accounts, "taking off," and the preparation of Bills of Quantities. Applicants for positions as Temporary Technical Assistants should be up to Intermediate R.I.C.S. standard, and should have had previous experience in a quantity surveyor's office.
Successful candidates are required to contribute to the Council's Superannuation and Provident Fund. There are opportunities for Temporary Assistants to compete on merit for permanent appointment.

Application forms from the Architect (AR/P/Q), County Hall, Westminster, S.E.I., enclosing stamped addressed foolsoap envelope. Canvassing disqualifies. (389)

BOROUGH OF PRESTWICH.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.
Applications are invited for the following

pointments:—
(a) ENGINEERING ASSISTANT (A.P.T.,

Applications are invited for the following appointments:

(a) ENGINEBRING ASSISTANT (A.P.T., Grade II. 2420-2465 per annum).

(b) JUNIOR ENGINEBRING ASSISTANT (A.P.T., Grade II. 2390-2435 per annum).

(c) ARCHITECTURAL ASSISTANT (within A.P.T., Grade V, 2520-2570 per annum).

Applicants for appointment (a), which is on the permanent staff, should have passed the intermediate examination of the Institution of Municipal Engineers. or eduvalent, and have had some previous Municipal experience.

Applicants for appointment (b) (permanent staff) should have reached the standard of the Intermediate examination of the Institution of Municipal Engineers.

Appointment (c) is at present temporary, but is expected to last for at least 5 years, with the prospect of a permanency. Applicants should hold suitable qualifications and have had some experience in housing.

The appointments will be terminable by one month's notice on either side and will be subject to the provisions of the Local Government Superannuation Act, 1897

Applications, stating age, qualifications, experience, etc., together with copies of two recent testimonials, should he sent to the undersigned in envelopes appropriately endorsed so as to be received not later than Saturday, 21st May, 1949.

Canvassing disqualifies, and applicants must state whether to their knowledge they are related to any member or senior office of the Council.

Town Hall, Preswich, Lancs.

Town Hall. Prestwich, Lancs. 29th April, 1949.

MERIONETH COUNTY COUNCIL.

Applications are invited for the following populations in the County Planning Depart-

ment:—
SENIOR PLANNING ASSISTANT.
Salary £450, rising by three annual increments of £15 to a maximum of £496.
Applicants should have experience in all matters appertaining to the planning of a large rural area. The County of Merioneth includes over 500 square miles of potential National Park, and the work offers special opportunities in this field. An appreciation of the problems of such an area is desirable.

An appreciation of the problems of such an area is desirable.

Preference will be given to candidates who have at least passed the Intermediate examination of the Town Planning Institute and who have had previous planning experience in the Local Government Service.

The successful applicant should be prepared to run a motor car for official purposes, for which a travelling allowance will be paid.

The appointment is subject to the terms and conditions of service applying to the Administrative, Technical and Clerical Officers of the County Council. The appointment will be terminable at the end of any month by one month's notice in writing on either side.

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

1937.

Applications, stating age, qualifications, present position and salary, previous appointments held and full details of experience, accompanied by copies of two recent testimonials, are to be sent to the undersigned not later than Saturday, 21st May, 1040

and full details of experience, accompanied by copies of two recent testimonials, are to be sent to the undersigned not later than Saturday. 21st May, 1949. HUGH J. OWEN, Clerk of the County Council. County Offices, Dolgelley, Merioneth. 729

FRIERN BARNET URBAN DISTRICT COUNCIL.
APPOINTMENT OF TEMPORARY JUNIOR ARCHITECTURAL ASSISTANT.
Applications are invited for the appointment of Temporary Junior Architectural Assistant within the range of Grade II for the London area, 2426-2465, plus London weighting (£10-£30, according to age).

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and is terminable by one month's notice on either side.

on either side.

Applications, stating age, experience, qualifications and past appointments, accompanied by copies of two recent testimonials, should be addressed to Kenneth R. Smith, Esq. A.R.I.B.A.

A.A. Din., Architect, Town Hall. N.11. and should be received not later than Tuesday, 10th May, 1949.

AA. DID., Architect, Town Hall. N.11, and should be received not later than Tuesday, 10th May, 1949.

G. T. FLETCHER. Clerk of the Council. Town Hall, Friern Barnet, N.11.

BOROUGH OF KETTERING.

APPOINTMENT OF CHIEF ARCHITECTURAL ASSISTANT.

ADDications are invited for the appointment of a Chief Architectural Assistant in the Borough Surveyor's Department of the Borough Surveyor's Department of the Borough Of Kettering. at a salary within Grade VI of the A.P.T. Division of the National Scale of Salaries (£959 per annum, rising by two increments of £20 and one of £25 to £660 per annum. In determining the commencing salary the experience of the successful applicant will be taken into consideration.

Applicants must be Begistered Architects, and preference will be given to persons who are Associates of the Royal Institute of Britisa Architects. Applicants must have had experience of Local Anthority housing schemes.

The appointment will be subject to the Local Government Superannuation Act, 137, and to the provisions of the National Scheme of Conditions of Service, and the successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications, present and previous appointments and experience, together with the names of three referees, must be delivered to the undersigned not later than 14th May, 1949.

D. DUNSFORD PRICE,

D. DUNSFORD PRICE,

Town Clerk's Office, High Street, Kettering. 16th April. 1949.

COUNTY BOROLIGH OF CROYDON.

EDUCATION COMMITTER.

SCHOOL ARCHITECT'S SECTION.

Annileations are invited for the annointment of a JUNIOR ARCHITECTURAL ASSISTANT.

Candidates should be of Inter. B.I.B.A. standard, with experience in preparing working drawings.

standard, with experience in preparing working drawines.

Salary A.P.T. II. £420 n.a.×£15-£465 p.a. In addition Lendon weighting of £30 p.a. is paid (£20 p.a. if under 26 years of age).

The appointment is established and superannuable, sublect to medical examination.

The Council does not offer living accommodation for this appointment.

Forms of anolication obtainable from the Chief Education Officer. Katharine Street. Croydon (on sending stamped addressed foolscap envelope): must be returned to him not later than the 23rd May. 1949.

May, 1949.
Canvassing will disqualify.

E. TABERNER. Town Clerk

COUNTY BOROUGH OF ROTHERHAM.
CHIEF ARCHITECTURAL ASSISTANT.
Applications are invited for the appointment of a Chief Architectural Assistant, in the office of the Borough Engineer, at a salary in accordance with Grade VIII (A.P.T.) of the National Scales (£685-£766 per annum), commencing at an incremental point within the grade, according to qualifications and experience of the successful candidate.

candidate.

Applicants must be Associate Members of the R.I.B.A., and have high ability in design.

The Architectural work in the department is very varied, and consists of Educational, Housing Health and other types of Local Authority Buildings, and the volume of work is rapidly expand-

ings, and the volume of work is tajuity expansing.

The appointment will be subject to the Conditions of Service adopted by the Council, and based on the National Scheme of Conditions of Service, and will be determinable by one month's notice on either side.

The post is superannuable, and the candidate selected for the appointment will be required to pass a medical examination.

Housing accommodation will be made available for the successful applicant if required.

Applicants must state whether they are relaised on any member or officer of the Rotherham County Borough Council, deliberate omission to disclose any such relationship will disqualify any sunch relationship will disqualify any candidate.

Borough Council whether candidate.

Canvassing of members of the Council whether direct or indirect, will disqualify.

Applications, endorsed "Chief Architectural Assistant" stating age, qualifications, and details of experience, accompanied by copies of three recent testimonials, should be delivered to the undersigned not later than 19th May, 1949.

JOHN S. WALL,

JOHN S. WALL, Town Clerk

JOHN S. WALL,

Municipal Offices, Rotherham, Yorks.

Wincipal Offices, Rotherham, Yorks.

Wincipal Offices, Rotherham, Yorks.

Wincipal Offices, Rotherham, Yorks.

Wincipal Offices, Rotherham, Yorks.

BEPARTMENT.

APPLICATION OF THE ALL ASSISTANT.

Applications are invited for the appointment of Architectural Assistant on Grades IV and V of the AP-T. Division of the National Scales (2460 to 2570 per annum, plus London weighting, at present 230 for age 26 and over).

Applicants should have had a good Architectural training, and preference will be given to candidates with experience of Local Authority Housing Schemes and holding a recognized prefessional qualification. The appointment will be subject to the National Scheme of Conditions of Service, to the provision of the Local Government Superannuation Act, 1937, and to the passing of a medical examination. Applications, stating age, Marital state, present and previous appointments, qualifications, and giving details of experience, together with the names and addresse of three persons to whom reference may be made, should be forwarded to Harold E. G. Stripp, Esq., A.M.I.C.E., F.R.I.C.S., Engineer, Surveyer and Architect, 263, High Street, Uxbridge, not later than Thursday, 12th May, 1949. Candidates are required to disclose in writing whether, to their knowledge, they are related to any officer or senior member of the Council.

JOHN POLLE,

Clerk of the Council.

JOHN POOLE,
Clerk of the Council.

Council Offices, 265. High Street,
Uxbridge, Middlesex. 734

Council Offices, 265. High Street,

Uxbridge, Middlesex.

TM

COUNTY BOROUGH OF DARLINGTON.

BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following per
manent appointments:—

(a) ONE ASSISTANT ARCHITECT. Salary

Grade VII (£635-£710).

(b) TWO ASSISTANT ARCHITECTS. Salary

Grade Va (£550-£610).

(c) ONE ASSISTANT ARCHITECT. Salary

Grade Va (£550-£610).

(d) ONE ASSISTANT QUANTITY SUB

VEYOR. Grade Va (£550-£610).

Candidates for (a), (b) and (c) should preferably have previous experience on Education and

Housing work and be Members of the R.I.B.A.

Candidates for (d) should be experienced in the

preparation of Bills of Quantities. the checking of

Interim Valuations and the settling up of Final

Amounts. Preference will be given to Members

of the Royal Institute of Chartered Surveyors

(Quantities Division).

Applications, specifying the appointment (a),

(b), (c) or (d), together with age, qualifications,

present appointment with salary, previous experience,

and names and addresses of three referees,

to be sent to E. A. Tornbohm, A.R.I.B.A.

A.M.T.P.I.. Borough Architect. Central Build
ings. Darlington, not later than Monday, is

15th May, 1949.

THE NORTH OF SCOVILAND COLLEGE OF

THE NORTH OF SCOTTAND COLLEGE OF AGRICULTURE.

The Governors invite applications for the post AGRICULTURAL DRAUGHTSMAN, for the Farm Buildings Advisory Service (Headquarters at Craibstone).

Salary scale £220 to £410, with entry according to age and qualifications.

Letters of application, in triplicate, giving particulars of age, qualifications and experience, and three copies of not more than three recent testimonials, should be lodged with the undersigned not later than 14th May, 1949.

JOHN L. INNES

412, Union Street, Aberdeen.

CITY OF PORTSMOUTH.
CITY ARCHITECT'S DEPARTMENT.
Applications are invited from Associates of the
B.I.B.A. for the following appointments:—
(4) SENIOR ARCHITECT. Grade VIII
(£685-£760). RHAM. TANT. intment intment of the office of in accord-e National cing at an ecording to successful

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VALL, Cown Clerk.

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NNES, Secretary.

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(a) SENIOR ARCHITECT. Grade VIII (£685-£760.1)—A. ASSISTANT ARCHITECT. Grade VI (£595-£660). The persons appointed will form the nucleus of a team to be engaged on an interesting and extensive civic rebuilding scheme, commencing with the rebuilding of the Guildhall. Applicants for (a) should have had considerable experience of large building schemes, preferably civic buildings and assembly halls. Applicants for (b) should have had a sound general experience in the design of new buildings of a public character.

Character.

The appointments are permanent, and are subject to the National Scheme of Conditions of Service, the passing of a medical examination, and determinable by one month's notice on either

side. Applications, stating age, training, qualifications, experience, present and previous posts with
dates, together with names of three referees, to
the undersigned not later than 10 a.m. on Monday,
16th May, 1949.
Canvassing will disqualify.

City Conveil Chambers 1 Clarence

City Council Chambers, 1, Clarence
Parade, Southses.

COUNTY BOROUGH OF GATESHEAD.
Applications are invited for the following appointments:—
(a) SENIOR ASSISTANT ARCHITECT.
A.P.T., Grade VI (£595-£660 p.a.).
(b) JUNIOR ARCHITECTURAL ASSISTANT.
A.P.T., Grade I (£390-£435 p.a.).
(c) SENIOR ASSISTANT QUANTITY SURVEYOR. A.P.T., Grade VI (£595-£660 p.a.).
(d) MALE CLERK. with Building Trade experience. General Division (£245 at 22 years, rising to £385 at 32 years of age).
Candidates for (a) must be Registered Architects and be Corporate Members of the Royal Institute of British Architects. They should have good experience in the design and construction of Education and Public Buildings.
Candidates for (b) should have had previous experience in an Architect's office and must have passed the B.I.B.A. Intermediate examination.
Candidates for (c) should be Members of the Royal Institution of Chartered Surveyors, and should be experienced in the preparation of Bills of Quantities, Specifications, Estimates, and the settlement of Final Accounts.
Candidates for (d) should have a sound knowledge of Building Terms and General Building Routine.
The appointments will be subject to the Local Government Surerangation 44 1070.

Routine.

The appointments will be subject to the Local Government Superannuation Act, 1937, and to one month's notice on either side. The successful candidates will be required to pass a medical examination.

The question of housing accommodation, if found necessary, will be discussed at the interview.

Applications of the control of

view.

Applications to be made on forms obtainable from the Chief Architect, should be returned together with copies of three recent testimonials. to H. J. Cook. A.R.I.B.A., M.I.Struct.E., Chief Architect, Municipal Buildings, Swinburne Street, Gateshead, 8, not later than 14th May. 1949.

J. W. PORTER, Town Clerk.

Town Hall. Gateshead, 8. 13th April, 1949.

13th April, 1949.

BARNET URBAN DISTRICT COUNCIL.

SENIOR ARCHITECTURAL ASSISTANT.

ADDications are invited for the annountment of a SENIOR ARCHITECTURAL ASSISTANT.

ADDications are invited for the annountment of a SENIOR ARCHITECTURAL ASSISTANT. at a salary in accordance with Grade A.P.T., V, of the National Scheme (£520-£570 per annum), plus the aporopriate Loudon weighting.

Applicants should have sound experience of housing work, the preparation of working drawings, and the supervision of work under construction, and preference will be given to Associate Members of the B.I.B.A.

The appointment will be 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.

No housing accommodation can be offered by the Council.

Applications, stating age, qualifications, and particular of

No housing accommodation can be offered by the Council.

Applications, stating age, qualifications, and particulars of present and previous appointments, together with copies of three recent testimonials should reach the Engineer and Surveyor, Ravenscroft House. Wood Street, Barnet. Herts, on or before the 20th May. 1949.

ALFRED S. MAYS.

Clerk of the Council.

Clerk's Department. Municipal Offices,
Wood Street. Barnet.

TIO

COUNTY BROUGH OF WALLASEY.

APPOINTMENT OF ARCHITECTURAL

ASSISTANTS.

Applications are invited by the 18th May. 1949. for the above appointments in the Denartment of the Borough Architect. at salaries within the range of Grade A.P.T., VI (£595-£560) of the National Scale of Salaries.

Forms of application, etc., may be obtained from the Borough Architect, Town Hall, Wallasey.

from tue Wallasey. EMRYS EVANS, Town Clerk.

THE UNIVERSITY OF LIVERPOOL.

Applications are invited for the post of LECTURER AND STUDIO INSTRUCTOR, in the School of Architecture, at a salary scale of £550×£35—£900 per annum.

Applications accompanied, if possible, by drawings or photographs of work, two testimonials, and the names of two referees, should be received not later than 11th June, 1949, by the undersigned, from whom further particulars of the conditions of appointment may be obtained.

STANLEY DUMBELL,

Registrar.

Registrar

UNION OF SOUTH AFRICA.
DEPARTMENT OF NATIVE AFFAIRS,
Applications are invited for appointment to following vacancies, on contract for three

Applications are invited for appointment to the following vacancies, on contract for three years:—
(1) ASSISTANT ARCHITECT. Salary scale 2375-2425-2476-600×230-2840 per annum.
(2) ARCHITECTURAL ASSISTANT Grade I).
Salary scale 2400×225-2600 per annum.
(3) ASSISTANT QUANTITY SURVEYOR.
Salary scale 2375-2425-2475-2600×230-2840 per annum.

annum.
(4) ENGINEERING SURVEYING ASSISTANT (Grade I). Salary scale £400×£25-£600

TANT (Grade I). Salary scale £400×£25—£600 per annum. In addition to the normal salary a cost-of-living allowance is payable which at present is £200 p.a. for married and £50 p.a. for single personnel. The prescribed forms of application, together with further particulars, are obtainable from the Secretary, Office of the High Commissioner for the Union of South Africa, Trafalgar Square, W.C.2, to whom they should be returned, in duplicate, accompanied by full particulars regarding educational qualifications and previous experience. Original educational certificates should not be submitted in the first instance. £13 SOUTHERN ELECTRICTY BOARD.

Should not be submitted in the first instance. 813

SOUTHERN ELECTRICTY BOARD.
NO. 1 (SOUTHALL) SUB-AREA.
APPOINTMENT OF QUANTITY SURVEYOR.
Applications are invited for the position of Quantity Surveyor at Sub-Area Engineering Headquarters at Waterloo Road, Uxbridge.
The commencing salary, which is provisional
and subject to adjustment by the appropriate
negotiating machinery, will lie within the range
£500-£700 per annum, at a point dependent upon
qualifications and experience.
Candidates must be fully experienced in the
writing of specifications. the working up and
preparation of Bills of Quantities for Industrial
type buildings. Showrooms and Offices, and be
canable of settling Contractors' accounts and preparing preliminary estimates for projected
schemes.

schemes.

Applications, on the prescribed form obtainable from the Administrative Officer, Southern Electricity Board, 2/6, Windmill Lane, Southall, should be sent so as to reach there not later than 21st May, 1949. F. W. KEMPTON, Secretary.

DERBYSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the undermentioned appointments on the permanent

staff:— Conditions of service and salaries are in accordance with the National Joint Council Scheme for Local Authorities, as adopted by the County

Council SENIOR ASSISTANT ARCHITECTS.

(a) Grade VI. £596 to £660 per annum.

ASSISTANT ARCHITECTS.

(b) Grade II. £420 to £465 per annum.

(c) Grade II. £420 to £465 per annum.

(d) Miscellaneous (Grade I) Division, £315 to £360 per annum.

(e) Miscellaneous (Grade II) Division, £375 to £420 per annum.

(e) Miscellaneous (Grade II) Division, £375 to (e) Miscellaneous (Grade II) Division, £375 to £420 per annum.

\*\*ENGINEBRING DRAUGHTSMAN.\*\*
(f) Grade III. £450 to £495 per annum.

\*\*For (e) applicants must have had experience in the design and construction of modern buildings, and must possess a professional qualification. Preference will be given to those who have had administrative experience.

\*\*Applicants for (b), (e), (d) and (e) to have had a good general architectural experience and to be first-class draughtsmen.

\*\*Applicants for (f) must be skilled draughtsmen, and have had technical training to the standard of the Ordinary National Certificate in Engineering.

\*\*Experience in Central Heating and allied services is essential.\*\*

The appointments will be terminable by one month's notice on either side, and subject to the provisions of the Local Government Superannation Acts, and the successful candidates will be required to pass a medical oxamination.

\*\*Canvassing of members of the Council. directly or indirectly, will be a disqualification for appointment.

\*\*Applications to be made on a form to be

appointment.

Applications to be made on a form to be obtained from the undersigned, to whom it must be returned, accompanied by copies of three recent testimonials, not later than 10th May, 1949. Envelopes and applications must be endorsed, stating clearly the vacancy for which the application is made.

F. HAMER CROSSLEY, Dipl.Arch., A.B.I.B.A., County Architect.

St. Mary's Gate, Derby. 22nd April, 1949.

COUNTY BOROUGH OF CARLISLE.
CITY ENGINEER'S DEPARTMENT.
Applications are invited for the following appointments:

(a) CHIEF ASSISTANT ARCHITECT. Grade
VII. £555-£710.

VII. £638-£710.
(b) PRINCIPAL ASSISTANT ARCHITECT.
Grade VI. £598-£660.
(c) ARCHITECTURAL ASSISTANT. Grade
IV. £480-£525.

(c) ARCHITECTURAL ASSISTANT. Grade IV. £480-£525.
(d) QUANTITY SURVEYOR. Grade V. £520-£570.
(e) JUNIOR QUANTITY SURVEYOR. Grade I. £390-£435.
(f) HEATING AND VENTILATING ENGINEER. Grade V. £520-£570.
(g) CHIEF ASSISTANT ARCHITECT. Grade VII. £635-£710.
(g) CHIEF ASSISTANT ARCHITECT. Grade VII. £635-£710.
Applicants for appointments (a), (b), (g) and (h) should be Members of the Royal Institute of British Architects, For appointment (d) applicants for (c) should have passed the Intermediate examination of the Royal Institute of Gritish Architects, For appointment (d) applicants must have experience in the preparation of Bills of Quantities, Estimates and Settlement of Final Accounts. Preference will be given to Associates of the Royal Institute of Chartered Surveyors. Applicants for (e) should have experience in working up Bills of Quantities, and preference will be given to those who have passed the first examination of the Royal Institute of Chartered Surveyors. For (f) applicants should be experienced in the design and preparation of drawings, specifications and estimates for all classes of Heating and Ventilating Work. Preference will be given to Associate Members of the Institute of Heating and Ventilating Engineers.

Forms of application and conditions of employment may be obtained from the City Engineer, 18, Fisher Street, Carlisle, to whom applications should be returned not later than Monday, 23rd May, 1949.

H. D. A. ROBERTSON.

H. D. A. ROBERTSON, Town Clerk.

15, Fisher Street, Carlisle.

COUNTY BOROUGH OF BARROW-IN-FURNESS,
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.
Applications are invited for the tollowing permanent appointments:—
(a) SENIOR ASSISTANT ARCHITECT. Grade
VI. £595-£660 p.a.
(b) ASSISTANT ARCHITECT (New Works).
Grade Va. £550-£610 p.a.
(c) ASSISTANT ARCHITECT (Maintenance).
Grade Va. £550-£610 p.a.
(d) QUANTITY SURVEYOR. Grade Va. £550-£610 p.a.

Edil p.a. Candidates for post (a) must be Associates of the R.I.B.A.

Candidates for post (a) must be Associates of the R.I.B.A.

For other posts the possession of a recognized professional qualification will be an advantage. The Council has accepted the principle of providing housing accommodation.

The appointments will be subject to: (1) The National Scheme of Conditions of Service; (2) the provisions of the Local Government Superannuation Act. 1937; (3) termination by one month's notice on either side; (4) the successful candidate passing a medical examination. and (5) becoming a member of the appropriate Trade Union.

Purther details of the posts and forms of auplication may be obtained from the Borough-Engineer and Surveyor, to whom completed annications must be returned not later than Saturday, 21st May. 1949.

Canvassing in any form will disqualify.

W. L. ALLEN.

Town Clerk.

will disquairs.

W. L. ALLEN.
Town Clerk.

COUNTY BOROUGH OF BARNSLRY.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.
SCHOOLS ARCHITECT.

Applications are invited for the appointment of Schools Architect, in the Borough Engineer and Surveyor's Department, at a salary in accordance with Grade A.P.T., VII, of the National Scales, viz., £635 × £25—£710.

Candidates must be Members of the Royal Institution of British Architects, must have had sound experience in architectural design and in the preparation of working drawings, with full understanding of modern School construction. The successful applicant will be expected to take charge of the Schools Section of the Denartment. The appointment will be subject to termination by one month's notice on either side, the Corporation's Staffs Conditions of Service, and to the provision of the Local Government Superannation Act, 1937. The successful candidate will be required to pass a medical examination.

Applications, endorsed "Schools Architect," stating age, qualifications and particulars of previous appointments, and accompanied by copies of three recent testimonials, to be sent to the Berouch Envineer. Town Hall. Barnsley, not later than Friday, 13th May, 1949.

Canvassing, either directly or indirectly, will disqualify.

A. E. GILFILLAN,

A. E. GILFILLAN, Town Clerk. Town Hall, Barnsley. April, 1949.

ISLE OF ELY COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointment:

ASSISTANT QUANTITY SURVEYOR (Grade III, A.P.T. Division). Salary 2.450×215—2.495.

National conditions will apply, and the appointment is subject to the Local Government Officers' Superannuation Act, 1937, to a medical examination, and to one month's notice on either side.

Full particulars and copies of three recent testimonials should be sent to the County Architect, County Hall, March, Cambs., not later than the 16th May, 1949.

R. F. G. THURLOW.

County Hall, March.

22nd April, 1949.

BOROUGH OF ROMFORD.

County Hall, March.
22nd April, 1949.

BOROUGH OF ROMFORD.

ARCHITECTURAL ASSISTANT, GRADE VI.
Applications are invited for the post of SENIOR
ARCHITECTURAL ASSISTANT, in the Borough
Engineer and Surveyor's Department, at a salary
in accordance with Grade VI of the National
Stake of Salaries for Local Authorities' Staffs,
viz., 2596 p.a., rising to 2660 p.a.
Applicants must be Chartered Architects, and
possess a thorough knowledge of design and
construction, preferably of a Municipal nature.
They should also possess experience in dealing
with contracts, preparation of estimates and
specification for repairs, and administrative experience in dealing with correspondence, accounts
and labour.
The appointment is subject to:—
(a) National Scheme of Conditions of Service.
(b) Local Government Superannuation Act, 1937.
(c) One month's notice on either side.
(d) Satisfactory passing of a medical examinaApplications. endorsed "Architectural Assi-

tion.

Applications, endorsed "Architectural Assistant," stating age, present position, salary, qualifications, and details of previous experience, together with the names of two referees to whom enquiry may be made as to character and ability, should reach the undersigned not later than 11th May, 1949.

Provision of housing accommodation will be discussed with a suitable applicant.

J. TWINN, Town Clerk

Town Hall, Romford.

Town Hall, Romford.

NORTHUMBERLAND COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.
Applications are invited from persons with
suitable qualifications for the appointment of
JUNIOR PLANNING ASSISTANT, at a salary
in accordance with Grade A.P.T. I (2300-2435)
of the National Joint Council's Scale of Salaries.
The appointment (which is a whole-time one)
will be subject to the National Scheme of Conditions of Service. to the provisions of the Local
Government Superannuation Act, 1937, and to
three months' notice on either side, and the
successful candidate will be required to pass a
medical examination to the Council's satisfaction.
Applications, on forms to be obtained from the
undersigned, must be submitted not later than
the 26th May, 1949.

medical scale of the submitted not restricted to the 26th May, 1949.

E. P. HARVEY, Clerk of the County Council.

County Hall, Newcastle-upon, Tyre, 1.

25th April, 1949.

COUNTY COUNCIL OF THE COUNTY OF LANABE.

HOUSING ARCHITECT AND ENGINEER'S DEPARTMENT.

Lications are invited for the under-noted

Applications are invited for the under-noted appointments:—(d) ONE QUANTITY SURVEYOR. A.P.T., Grade VIII, £695 to £760.
(b) ONE ARCHITECTURAL ASSISTANT. A.P.T., Grade VIII, £635 to £710.
(c) ONE ARCHITECTURAL ASSISTANT. A.P.T., Grade VI, £595 to £660.
(d) ONE CIVIL ENGINEERING ASSISTANT. A.P.T., Grade VII, £635 to £710.
(e) ONE CIVIL ENGINEERING ASSISTANT. A.P.T., Grade VII, £635 to £660.
(a) ONE CIVIL ENGINEERING ASSISTANT. A.P.T., Grade VI, £956 to £660.
Applicants for (a) should be capable of "taking off" quantities, measuring and adjusting variations, preparing estimates, and settling building contracts.
Applicants for (b) and (c) should have experi-

Applicants for (b) and (c) should have experi-ence in the preparation of designs and working drawings for housing schemes. Preference will be given to those who have had administrative

be given to those who have had administrative experience.

Applicants for (d) and (e) should have experience.

Applicants for (d) and (e) should have experience in contouring and surveying of land, design and construction of road, etc., works and preparation of schedules and final measurements. Preference will be given to those having administrative experience and supervision of aite constructional works.

The appointments will be subject to the provisions of the Local Government Superannuation (Scotland) Act, 1937, and successful candidates will require to pass a medical examination.

Canvassing, directly or indirectly, will be a disqualification.

Applications, giving date of birth, full details of qualifications and experience, and accompanied by the names and addresses of three referees, should reach Samuel McColl, A.R.I.B.A. County Housing Architect and Engineer. 23, Beckford Street, Hamilton, by 18th May, 1949.

WILLIAM C. BROWNLIE, Lanarkshire House, 191, Ingram Street, Glasgow, C.1.

LONDON COUNTY COUNCIL.

QUANTITY SURVEYORS.

Vacancies exist for Quantity Surveyors in the Housing and Valuation Department, for work in connection with the development of cottage estates and the construction of multi-storcy dwellings, at salarnes of up to £700 a year, the commencing salary in each case being determined according to qualifications and experience. Successful candidates will be required to contribute to the Council's Superannation and Provident Fand, and will be slighle for appointment to the Council's permanent staff and for advancement on the occurrence of vacancies.

Daties will include:—

(a) Measurement of work in construction of houses, roads and sewers, preparation of interim and final bills; measurement and adjustment of sub-contracts; preparation of cost statistics, estimates, etc.

(b) Management of housing contracts of considerable value; interim valuations for payments; measurement of variations and settlement of final accounts.

Forms of application may be obtained from

accounts.

Forms of application may be obtained from
the Director of Housing and Valuer, The County
Hall, Westminster Bridge, S.B.I. (a stamped
addressed foolscap envelope required), quoting

Addressed foolscap envelope defensed foolscap envelope (S.1. and Carvassing disqualifies. (2140) 752

BOROUGH OF NELSON.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

AMENDED ADVERTISEMENT.

Applications are invited for the appointment of Architectural Assistant, in the Borough Surveyor's Department, at a salary in accordance with Grade V of the National Scales (2520 to 2570) (consolidated).

Department, at a construction of the National Scales (£520 to zoro) to volume the National Scales (£520 to zoro) to solidated).

Candidates should have experience in housing and general work, and preference will be given to applications, enders who have passed the Final or Inter. R.I.B.A. examination. Applications, glving detailed particulars of experience and qualifications, endorsed "Architectural Assistant," with copies of three recent testimonials, to be delivered to the undersigned on or before Saturday, 14th May, 1949.

F. W. ROBERTS.

Town Clerk.

Town Hall, Nelson.
25th April, 1949.

STAFFORDSHIRE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.
APPOINTMENT OF TECHNICAL STAFF.
Applications are invited for the following appointments in the County Planning Departments.

ment:—PLANNING ASSISTANTS. A.P.T., Grade III. salary £450-£495 per annum.
PLANNING ASSISTANTS. A.P.T., Grade I or II, salary £390-£435 per annum or £420-£455

per annum.

Applicants should have had experience of planning work and procedure, and, in the case of the Grade III appointments, preference will be given to those having passed the Intermediate examination of the Town Planning Institute.

The persons appointed in Communication of the Town Planning Institute.

nestitate.

The persons appointed in Grade III will be required to work either in the Headquarters office at Stafford, or in the Area office at Wolverhambton, and those in Grades I or II either at Stafford or at Lichfield.

The appointments will be subject to the provisions of the Local Government Superannuation Act. 1937; the National Joint Cruncil's Scheme of Conditions of Service as adopted by the County Council; the passing of a medical examination; and to one month's notice on either side.

Canvassing, directly or indirectly, will be deemed a disgualification, and relationship to any member or senior officer of the Council must be disclosed.

Applications should give details of age, education, technical training, qualifications, present and previous appointments and experience, and

applications should give details of age, education, technical training, qualifications, present and previous appointments and experience, and should include copies of two recent testimonials and the names of two other persons to whom reference can be made. They should be sent to D. W. Rilev. County Planning Officer, County Planning Officer, County Planning Department, 41a, Eastsate Street, Stafford, not later than 15th May. 1949. and the envelope should be clearly marked "Technical Staff."

T. H. RVANS.

Clerk of the County Council.

County Buildings, Stafford.

21st April, 1949.

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CITY OF PORTSMOUTH.
CITY PLANNING DEPARTMENT.
Applications are invited for the following appointments:—
(a) ASSISTANT PLANNING OFFICER (Grade VIII, 2685-2760 per annum).

(a) ASSISTANT PLANNING OFFICER (Grade VIII. £685-£760 per annum).

(b) TWO PLANNING ASSISTANTS (Grades III-V. £460-£570 per annum, according to experience and qualifications).

Applicants for post (a) must be Corporate Members of the Town Planning Institute, and preference will be given to those having architectural training or qualifications. Applications, stating age, present position, qualifications and experience, together with names of three responsible persons to whom reference may be made, must be delivered to the undersigned, marked "City Planning Appointment," not later than 23rd May, 1949. Canvassing will disqualify.

V. BLANCHARD.

V. BLANCHARD, Town Clerk.

City Council Chambers, Southsea, 7th April, 1949.

COUNTY BOROUGH OF BURNLRY.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.

Applications are invited for the appointment of a SENIOR PLANNING ASSISTANT at a salary in accordance with A.P.T., Grade VI, of the National Scales, viz., 2595 to 2660 per annum. Applicants for the appointment should be Associate Members of the Town Planning Institute and the holding of other qualifications will be an advantage. Experience in a similar capacity in a Planning Office is essential. Conditions of service are those formulated by the National Joint Council, and the appointment is on the established staff and subject to the provisions of the Local Government Superannaxtion Act, 1937, the successful applicant being required to pass a medical examination. The appointment is terminable by one month's notice on either side.

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Canvassing, either directly or indirectly, will disqualify the candidate, and any relationship to a member or senior officer of the Council must be clearly stated in the application.

Forms of application may be obtained from the Borough Engineer and Surveyor, Town Hall, Burnley, to whom applications should be returned in the envelope provided, not later than 9 a.m. on Saturday, the 14th May, 1949.

C. V. THORNLEY, Town Clerk.

Town Hall, Burnley. April, 1949.

April, 1949.

CITY OF MANCHESTER.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the permanent staff of the City Architect's Department:

(a) SENIOR ARCHITECTS.

(NE). Salary A.P.T., Grade VII, £535-£710.

Candidates must have high ability in design and be capable of taking charge of large contracts and controlling a group of assistant architects.

tects.
(b) ASSISTANT ARCHITECT (ONE). Salary A.P.T., Grade V, £520-£570.
(c) ASSISTANT ARCHITECTS (TWO). Salary A.P.T., Grade IV, £430-£525.
Preference for all architectural appointments will be given to candidates who hold a Degree or Diploma in Architecture and/or are Associates B.I.B.A.

OHANTITY SURPLEYOR

will be given to candidates who hold a Degree or Diploma in Architecture and/or are Associates R.I.B.A.

QUANTITY SURFEYOR.

(d) DEPUTY CHIEF QUANTITY SURVEYOR. Salary A.P.T., Grade VIII, £685-£760. Candidates must be fully qualified with wide experience, preferably Fellows or Associates R.I.C.S. (Quantities Division).

The Joregoing appointments are subject to the provisions of the National Scheme of Conditions of Service and to the Standing Orders and the Instructions of the City Council.

Byery candidate must disclose in writing to me whether he is related to any homber of the Council or to the holder of any senior office under the Council. Deliberate omission to make such a disclosure will disqualify a candidate and render the successful candidate liable to dismissal after appointment.

The successful candidates will be required to pass a medical examination before the appointments are confirmed, to contribute to the Corporation's Superannuation Fund, and to execute the City Architect's Office, must be returned, together with not more than three recent testimenials, to Leonard C. Hewitt, B.Arch., Dip.T.P., D.P.A., F.R.I.B.A., M.T.P.I., City Architect, Town Hall, Manchester, not later than Saturday. 21st May, 1949, endorsed for the appropriate appointment.

Canvassing in any form, oral or written, direct or indirect, is prohibited, and will be regarded as a disqualification.

PHILIP B. DINGLE,
Town Hall, Manchester.

April, 1949.

Town Hall, Manchester.

April, 1949.

COUNTY BOROUGH OF GRIMSBY.

ARCHITECTURAL ASSISTANTS,

Applications are invited for the following Architectural appointments in the Borough Engineer and Surveyor's Department,

Grade A.P.T., VII (£635, rising to £710 per annum). annum). Grade A.P.T., V (£530, rising to £570 per

Grade A.P.T., III (£450, rising to £496 per

Grade A.P.T., III (£450, rising to £496 per anum).

Housing accommedation will be made available to successful married applicants.

Preference will be given for the Grade A.P.T., VII. appointment to candidates with experience in New Schools and other Public Buildings.

The appointments are terminable by one month's notice on either side, and are also subject to the provisions of the Local Government Superannuation Act. 1937. The successful candidates will be required to pass a medical examination. Applications, stating age, qualifications, and details of experience, together with copies of two recent testimonials, must be suitably endorsed and delivered to the undersiened not later than 10 a.m. on Saturday, the 25th May, 1949.

J. V. OLDFIELD,

J. V. OLDFIELD, Borough Engineer and Surveyor.

Municipal Offices, Town Hall Square, Grimsby. April, 1949.

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Clerk. Y. llowing

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COUNTY BOROUGH OF WEST HAM.
Applications are invited for the following from those prepared to work on the immediate Reconstruction Programme, including completion of Derelopment Pian, large Housing Schemes, and Permanent School Buildings.
Applicants should have energy and vision and be prepared to take responsibility. The Council is the Planning, Housing, and Education Authority for the area, which is situated within a similar to the Preference will be given to those who hold the Recessary professional qualifications for the posts for which they are applying.
TWO SENIOR ASSISTANTS (PLANNING). Grade A.P.T., VIII (£685×£25-£760).
ONE ASSISTANT (PLANNING). Grade A.P.T., VIII (£685×£25-£760).
THREE SENIOR ASSISTANT ARCHITECTS.
Grade A.P.T., VIII (£685×£25-£760).
ONE SENIOR ASSISTANT ARCHITECT.
Grade A.P.T., VIII (£685×£25-£760).
THREE ARCHITECTURAL ASSISTANTS.
Grade A.P.T., VIII (£685×£25-£760).
THOUSENDED ASSISTANTS.
Grade A.P.T., VIII (£685×£25-£760).
THREE ARCHITECTURAL ASSISTANTS.
Grade A.P.T., VIII (£685×£25-£760).
THOUSENDED ASSISTANTS.
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follows:—21.25 years, £20 p.a.; 26 years and over, £30 p.a.
Application forms (returnable by 24th May, 1949) may be obtained from Thomas E. North, F.B.I.B.A., Borough Architect and Planning Officer, 70, West Ham Lane, E.15.
E. B. KING,
Town Clerk.
West Ham Town Hall, Stratford, E.15.
LONDON COUNTY COUNCIL.
Applications are invited for the position of PRINCIPAL of the London County Council Hammersmith School of Building and Arts and Crafts, Lime Grove, Shepherd's Bush, W.12. The acale of salary is £1.250×£50-£1.450 (subject to the approval of the Ministry of Education), plus £36 or £48 London allowance, and additions for graduate or equivalent qualifications and training.

graduate or equivalent qualifications and training.

The School provides full-time, part-time day and evening instruction up to Higher National Diploma and Certificate Standard in the building industry and for examinations for membership of professional institutions in a variety of careers, such as architecture and surveying. There is a secondary (technical) school for boys entering the building trade, and an Arts and Orafts department providing courses for practice and research in all branches of art.

Applicants should have had prefessional or industrial experience in addition to teaching and organizing experience in a technical college. Ability to maintain close contact with the industry and professional bodies concerned is essential.

Further particulars and application forms

essential.

Further particulars and application forms (stamped addressed foolscap envelope necessary) from the Education Officer (T.1). County Hall. Westminster Bridge, S.E.1, returnable by 4th June, 1949 (399).

Westminster Bridge. S.E.1, returnable by 4th June, 1948 (39).

NATIONAL COAL BOARD.
Applications are invited for the following appointments:—ARCHITECTURAL ASSISTANTS (Grade I and II) in Manchester Salary, Grade I up to £550 per annum (men) and £46 per annum (women); Grade II, up to £440 per annum (women); Grade II, up to £461 per annum (women); Grade II, up to £440 per annum nen) and £352 per annum (women), according to qualifications and experience. Applicants should be students of the R.I.B.A., be able to prepare sketch plans and working drawings from preliminary sketches, and have a sound knowledge of construction.
Apply in writing, giving full particulars (in chronological order) of age, education, qualifications and experience (with dates). to National Coal Board. Establishments (General) Branch, Hobart House, Groevenor Place, London, &W.I., marking envelope TT/135, Oreinal testimorials should and he forwarded. Final closing date 14th June. 1949.

NORTHERN TRELAND HOHISTING TRIBET.

APPOINTMENT OF ARCHITECT AND
Adolications are invited for the following posts:—
(a) ASSISTANT ARCHITECT. Salary scale

posts:—
(a) ASSISTANT ARCHITECT. Salary scale 500 × \$25-\$750. (b) OUANTITY SURVEYOR. Salary scale

(b) OHANTHY SURVEYOR. Salary scale \$2500×25-2750.

Applicants for (a) must be Pellows or Associates of the Royal Institute of British Architects. Successful candidates will be encaged on the design, layout and preparation of works, for both Urban and Rural Estates. Experience in the design of Community Buildings and Shops will be an advantage.

Applicants for (b) must be Members of the Royal Institution of Chartered Surveyors and be experienced in the preparation of Estimates, Bills of Quantities. Measuring and the adjustment of Final Accounts in connection with housing schemes.

Preference will be given to ex-Service candidates necessaring the required qualifications.

Application should be made not later than 27th May, 1949, on forms which may be obtained from:—

GENERAL MANAGER.

GENERAL MANAGER, Northern Ireland Housing Trust. 5, Donegall Square South, Belfast. 756

URBAN DISTRICT COUNCIL OF CORBY.
Applications are invited for the following appointments in the Engineer and Surveyor's Department:

(a) TECHNICAL ASSISTANT (Buildings).
A.P.T. Division, Grade VI (£595-£660). Applicants should hold the qualifications of A.B.I.B.A. or A.R.I.C.S. (Building's Division), and have experience in housing, Municipal building design, and general building construction.

(b) QUANTITY SURVEYOR (Temporary). Salary at the inclusive rate of £600 per annum. Applicants must be experienced in the preparation of Bills of Quantities, checking of Interim valuations and settlement of final accounts, and previous experience of contracts for Municipal housing schemes is desirable. The appointment, which is of a temporary nature, is expected to last for a number of years.
Housing accommodation will be made available to the selected candidates, if married.
The provisions of the Local Government Superanuation Act. 1937, will apply.

Forms of application for the respective appointments are to be obtained from the undersigned, to whom they must be submitted not later than 9 a.m. on Monday, the 16th May, 1949.

G. B. BLACKALL.

Council Offices, Corby, Northants.

27th April, 1949.

COUNTY BOROUGH OF OLDHAM.

APPOINTMENT OF ARCHITECTURAL ASSISTANT in my Department at a salary in accordance with A.P.T., Grade V. of the National Scales (£520 to £570 per annum).

Candidates must hold a recognized architectural qualification, and should have had experience in the design and construction of Housing Schemes and Public Buildings.

The appointment will be subject to the Local Government Superanuation Act, 1937, and the successful candidate will be required to pass a medical examination. Housing accommodation will be provided, if necessary.

Applications, stating age and Drevious appointments, in addition to qualifications and experience. and copies of three recent testimonials, must reach the undersigned not later than Saturday. 1945, in envelopes endorsed "Architectural Assistant. Grade V."

A. L. HOBSON.

Borough

75. Union Street, Oldham.

27th April. 1942.

GLOUCESTERSHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Addications are invited for the appointment of
ASSISTANT ARCHITECT (SECTION LEADER)
on A.P. and T., Grade VIII (£685-£760), 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.

Applicants should be qualified Members of the
R.I.B.A., and have wide experience in projects
usually dealt with by a County Council, i.e.,
Education, Police and Health Buildings.

Applications should be sent to S. E. Urwin,
F.R.I.B.A., County Architect, Shire Hall,
Gloucester, not later than Monday, the 16th May,
1949, stating (1) name and address, (2) parried
or single, (3) age, (4) qualifications, (5) present
position, salary and date of appointment, (6) previous positions with dates and salaries, (7) particulars of experience, and accompanied by two
recent testimonials and the name and address of
one person to whom reference may be made.

GUY H. DAVIS,

CORPORATION OF LONDON

22nd April, 1949.

22nd April, 1949. 770
CORPORATION OF LONDON.
Applications are invited for the appointment of ARCHITECTURAL AND SURVEYING ASSISTANTS for employment on the following types of work:—
(1) Reconstruction of the Central Criminal Court. Old Bailey.
(2) Rehabilitation of City Schools, Market and Institutions.

(1) Reconstruction of the Central Criminal Court. Old. Bailey.

(2) Rehabilitation of City Schools, Market and Institutions.

(3) The erection of new administrative dwellings on the Corporation's open spaces.

The applicant appointed for Item (1) will be employed exclusively on this project, and a good knowledge of architectural detailing is required. Applicants appointed for Items (2) and (3) will also be required to undertake work of War Damage repair to a variety of buildings.

The age of applicants should not be less than 25 years, and the salary will be from £375 p.a. to £625 p.a., according to experience and qualifications.

The appointments will be subject to the permanent saff should such a varancy occur.

The appointments will be subject to the provisions of the Loral Government Superannuation, and candidates will be required to pass a medical examination. The appointments are subject to one month's notice on either side.

Applications, giving full personal details and particulars of qualifications, experience, are, past and present appointments together with one recent testimenial, should be forwarded to George Holliday, F.R.I.C.S. City Surveyor, 55/61, Monragate, E.C.2, before 16th May, 1949.

COUNTY BOROUGH OF SOUTHAMPTON.
BOROUGH ARCHITECT'S DEPARTMENT.
Applications are invited for the appointment of
BRANCH ARCHITECT FOR EDUCATION, at
a salary in accordance with A.P.T., Grade VIII,
£685-£760 p.s.
The successful candidate will be responsible for
the organization and control of all education
work carried out in the Architect's Department,
and he should have a special knowledge of the
requirements of the different types of education
buildings, and actual experience in carrying out
contracts of considerable size. Preference will
be given to Fellows or Associates of the Boyal
Institute of British Architects.
Applications, on the forms obtainable from I.
Berger, Dip.Arch., A.B.I.B.A., Borough Architect,
Civic Centre, Southampton, should be returned
not later than 14th May, 1949.

R. RONALD H. MEGGESON,
Town Clerk.

Civic Centre, Southampton, should be returned not later than 14th May, 1949.

R. RONALD H. MEGGESON,
Civic Centre, Southampton.

25th April, 1949.

COUNTY LONDONDERRY COUNTY
COUNCIL.

APPOINTMENT OF ASSISTANT COUNTY
PLANNING OFFICER.

The above-named Council invites applications for the post of Assistant County Planning Officer. Applicants should be Fellows, Associates or Members of one of the following:

(a) The Royal Institute of British Architects; (b) the Royal Institute of British Architects; (c) the Institution of Civil Engineers; (d) the Association of Manieripal and County Engineers; (e) the Surveyor's Institution, and, in addition, have some experience of, or qualifications in, Town and Country Planning. Candidates who have passed one or more of the examinations of the Town Planning Institute will receive special consideration.

The salary attached to the post is £500 per annum, inclusive of cost-of-living bonus, and the person appointed will be required to use his own motor '2ar in the service of the Council, in respect of which he will be paid a travelling allowance at the rate of £100 per annum.

The appointment will be a full-time one, and will be on a temporary basis, subject to termination by three months' notice on either side, but may later become permanent and pensionable Preference will be given to ex-Service candidates can, or within a reasonable time will be able to fill the post efficiently.

Applications and experience, and accompanied by a medical certificate of physical fitness and copies of at least two recent testimonials, will be able to fill the post efficiently.

Applications are invited for the appointment of a Senior Assistant Architect (Section Head).

NORFOLK EDUCATION COMMITTER.

Applications are invited for the appointment of a Senior Assistant Architect or pressess a recognized equivalent qualification, and should lave had considerable experience in the planning, design and construction of educational build-ings and be used to supervising the work of other staff.

design and construction of educational buildings and be used to supervising the work of other staff.

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.

Application forms may be obtained from the undersigned on receipt of a stamped addressed envelope, and should be returned not later than 14 days after the date of this advertisement.

The envelopes of all communications with recard to this appointment should be endorsed "Senior Assistant Architect."

W. O. BELL.

County Education Office, Stracey Road.

Norwich.

TOTTERS BAR UREAN DISTRICT COUNCIL TEMPORARY ARCHITECTURAL ASSISMANT.

Applications are invited for the appointment of a Temporary Architectural Assistant, at a salary in accordance with Grades V-VI. A.P.T. Division (£520-£660). Dius London weighting. The commencing salary will be fixed in accordance with the qualifications and experience of the applicant. Candidates should be experienced in the design and construction of Municipal buildines, and be capable of preparing and supervising Local Anthorities' Housing Schemes.

The successful annication and experience of the applicant.

Applications, endorsed "Architectural Assignance Construction of Municipal buildines, and be capable of preparing and appointment. qualifications and experience of the applicant appointment. qualifications and experience and experience accompanied by names of two persons to whom reference may be made. should be delivered to the undersigned not later than 12th May, 1949.

E. H. WALDEN,

E. H. WALDEN,

E. H. WALDEN,
E. H. WALDEN,
E. H. Walder and Surveyor.
Wyllyotts Manor, Darkes Lane, Potters Bar,
Middlesex.
21st April, 1949.

LONDON TRANSPORT EXECUTIVE.
Applications are invited for the vacancies in
the Office of the Architect as set out below:—
The commencing salary within the ranges indicated will be determined according to age, qualifications and experience.

fications and experience.

The appointments are subject to a medical examination. On completion of a satisfactory probationary period, the selected applicants will, where eligible, be expected to join a Contributory Superannuation Scheme.

Canvassing, either directly or indirectly, will dismalify.

Superannuation Scheme.

Canvassing, either directly or indirectly, will disqualify.

PRINCIPAL ASSISTANT ARCHITECT (ROAD TRANSPORT). (Ref. F/EV 69.)

Applicants must be Chartered Architects of a high standard of professional and administrative experience, capable of organizing and controlling the "Road Services" section of the Architect's Office. Knowledge and experience of the design of large garages for bus operation and/or large industrial buildings will be an advantage.

The successful applicant will be responsible to the Architect for the design, programming and erection of all architectural works for Road Services when carried out departmentally and for liaison, programming and organizing when Consultant Architects are engaged for such works.

Salary range £1,100-£1,300 per annum.

SENIOR ASSISTANT ARCHITECT. (Ref. F/EV 70.)

Applicants must be Chartered Architects of a

F/EV 70.)

Applicants must be Chartered Architects of a high standard of professional and administrative experience, capable of organizing and controlling, under the supervision of a Principal Assistant Architect, a section of the architectural work. They should be designers of considerable ability and imagination, capable of controlling staff with firmness and tact.

The duties include general responsibility for all works allocated to their sections, from the preparation of schemes to the final completion of the work.

work.

Salary range £800 to £900 per annum, with prospects of further advancement.

ASSISTANT ARCHITECTS. (Ref. F/EV 71.)
Applicants must be Chartered Registered Architects of a good standard of professional training and experience. The duties include the control of a small unit of Architectural Assistants and Draughtsmen, and the preparation of schemes and working drawings under the supervision of a Senior Assistant Architect.

Salary range £600.£700 per annum, with prospects of further advancement.

ARCHITECTURAL ASSISTANTS (Ref. F/EV 72.)

F/EV 72.

Applicants must have a good background of architectural training and office experience.

The duties include the preparation of schemes and working drawings under the supervision of an Assistant Architect.

Salary range £500.£560 per annum, with prespects of further advancement.

ARCHITECTURAL DRAUGHTSMEN. (Ref. F/EV 73.)

ARCHITEUTURAL PROJECT AND ARCHITECTURAL PROPERTY APPLICATION Applicants must be good draughtsmen, capable of preparing sketch and working drawings under supervision; they must show aptitude for architectural design, and will be expected to study for the professional qualifying examination. Salary range £260.£470 per annum. Salary range £260.£470 per annum.

Salary range £260-£470 per annum.
ASSISTANT QUANTITY SURVEYORS. (Ref. F/EV 74.)

Applicants must be experienced Chartered Surveyors (Quantities) or of exceptionally sound experience

experience.

The duties include control of a "Unit" of Assistants, the preparation of estimates, Bills of Quantities, preparation of interim certificates, measurement of work in progress, and settlement of final accounts under the supervision of the Chief Quantity Surveyor.

Salary range £600-£700 per annum, with prospects of further advancement.

QUANTITY SURVEYING ASSISTANTS. (Ref. F/EV 75.)

Applicants must have considerable Quantity.

QUANTITY SURVEYING ASSISTANTS. (Ref. P/EV 75.)
Applicants must have considerable Quantity Surveying experience, and professional qualifications will be an advantage. They must be experienced "workers-up" and he able, under supervision, to take off and measure work in progress. Salary range £500-£560 per annum, with prospects of further advancement.

EXECUTIVE ASSISTANT (STRUCTURAL DEBIGN). (Ref. F/EV 75.)
Applicants must hold professional qualifications and be experienced in the design of steel and reinforced concrete construction as applied to architectural buildings.
The duties include the control of a small unit of Assistants and Draughtsmen, calculations for and preparation of working drawings for steel and reinforced concrete frames and other constructional details, under the supervision of the Senior Executive Assistant in charge of the Sepecial construction section.

Experience of large span structures for road sewices would be an advantage.

senior Executive Assistants charge of the special construction section.

Experience of large span structures for road services would be an advantage.

Salary range £600-£700 per annum, with prospects of further advancement.

ENGINEERING ASSISTANT (STRUCTURAL DESIGN). (Ref. F/EV 77.)

Applicants must have a good background of training and practical experience in the design of steel and reinforced concrete as applied to architectural buildings.

The duties include calculations for and preparation of working drawings for steel and reinforced concrete frames and other constructional

details of buildings under the supervision of an Executive Assistant (Structural Design). Salary range £500£560 per annum, with prospects of further advancement.

STRUCTURAL ENGINEERING DRAUGHTS-MEN. (Ref. F/EV 78.)
Applicants must be good draughtamen, able to design simple structures and prepare details under supervision, and will be expected to study for professional qualifying examinations. Salary range £260£470 per annum. Applications, giving full details of age, professional and other qualifications, and experience, and quoting the appropriate reference number, should be sent within 14 days of the appearance of this advertisement to the Staff Officer. London Transport Executive, 55, Broadway, S.W.1.

For acknowledgment, enclose addressed experience.

envelope. 23rd April, 1949. (62)

Applications are invited for the following wholetime appointments on the permanent staff of the
City Architectural Department:

(a) ONE ASSISTANT ARCHITECT. Salary en
Grade A.P.T., VII, commencing at £635 per
annum and rising to £710 per annum.

(b) ONE ASSISTANT ARCHITECT. Salary
on Grade A.P.T., V, commencing at £520 per
annum and rising to £570 per annum.
In certain circumstances, Housing accommodation may be made available for the successful
applicants.

annum and rising to £570 per annum.

In certain circumstances, Housing accommodation may be made available for the successful applicants.

Applicants should be Associate Members of the Royal Institute of British Architects, or hold equivalent qualification.

(c) ONE ASSISTANT ARCHITECT. Salary on Grade A.P.T., IV, commencing at £480 per annum and rising to £525 per annum.

(d) ONE ASSISTANT ARCHITECT. Salary on Grade A.P.T., III, commencing at £450 per annum and rising to £495 per annum.

Applicants should have passed the Intermediate examination of the Royal Institute of British Architects.

examination of the Royal Institute of British Architects.
(e) ONE ASSISTANT ARCHITECT. Salary en Grade A.P.T. II. commencing at £420 per annum and rising to £465 per annum.
(f) ONE ASSISTANT QUANTITY SURVEYOR. Salary on Grade A.P.T., IV. commencing at £460 per annum and rising to £525 per annum. Applicants for (f) should have passed the Intermediate examination of the Royal Institute of Chartered Surveyors (Quantities Division).
Balary increments are subject to satisfactory service.

Salary increments are subject to satisfactory service.

The posts are subject to one month's notice on either side, and to the provisions of the Local Government Superannuation Act, as amended in regard to annuities to widows by the Coventry Corporation Act, 1936, and a satisfactory certificate will be requisite from the Council's medical referce. The successful male applicants will be required to contribute to the Coventry Municipal Officers' Widows' and Orphans' Pension Fund.

Applications for all the above appointments must be made on the forms obtainable from the undersigned, and should be returned completed, together with copies of not more than two recent testimonials, or names of two persons to whom reference may be made, not later than ten days after the publication of this advertisement.

Canvassing, directly or indirectly, will be a disqualification.

D. E. B. GIBSON, whitesther in the contraction of t

D. E. B. GIBSON, City Architect.

1A, Warwick Row, Coventry. 14th April, 1949.

14th April, 1949.

CITY OF BRADFORD.

CITY ENGINEER AND SURVEYOR'S

DEPARTMENT.

APPOINTMENT OF TWO SENIOR TOWN
PLANNING ASSISTANTS (ARCHITECTURAL).

ONE GRADE A.P.T., VI, ONE Grade A.P.T., V.
Applications are invited for the positions of Senior Town Planning Assistants in the City Engineer and Surveyor's Denartment: one appointment in accordance with Grade A.P.T., V, of the National Scales of Salaries (£520-£570 per annum), and one appointment in accordance with Grade A.P.T., VI (£595-£660 per annum).

Candidates should be Associates of the R.I.B.A. and hold a University Degree or Diploma in Architecture, or the Pinal examination of a recognized School of Architecture with experience in Town Planning.

These appointments are subject to the Local Government Succrannuation Act, 1937, and the successful candidates will be required to pass a medical examination.

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

Applications, stating age, present and previous appointments, with dates, qualifications and experience, accompanied by copies of three recent testimonials, should reach the undersigned not later than 16th May, 1949.

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

Town Hall, Bradford

Town Hall, Bradford 748

MODELLER.
Deportment of Health for Scotland invite applications for a post (non-pensionable) of ASSISTANT MODELLER. Applicants must have experience of medel-making and also basic training in wood-working, with nattern-making experience. Work mainly concerned with architectural, town planning and landscape models. Salary within range 2590 to 2500. Form of application from Establishment Officer (Room 30), St. Andrew's House, Edinburgh, 1.

RURAL DISTRICT COUNCIL OF WINCANTON.

ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Architectural Assistant in the Architect's and Housing Department of the Council.

The appointment will be temporary, but will subsist for at least three years.

Applicants must be competent to make surveys, prepare plans, deal with quantities, and to assist generally in the drawing office.

The salary will be in accordance with Grade III of the National Scale (2459-2495).

Applications, endorsed "Architectural Assistant," stating age, qualifications and experience, and giving the names of three persons to whom reference can be made, must be received by the undersigned not later than the 19th May, 1949.

If the person appointed is a married man, the Council will be prepared to assist him in the matter of housing.

Canvassing, direct or indirect, will be a disqualification.

S. L. CHAVE,

8. L. CHAVE,
Clerk of the Council.
27th April, 1949.

COUNTY BOROUGH OF SOUTHEND-ON-SEA EDUCATION COMMITTEE.

MUNICIPAL COLLEGE.

Principal: R. W. WILSON, B.Sc. (Eng.). A.C.G.I., Whit.Sch., D.I.C., A.M.I.E.P.

DEPARTMENT OF ARCHITECTURE, SURVEYING AND BUILDING.
Applications are invited for the post of STUDIO INSTRUCTOR AND LECTURER. with special responsibility for work in the School of Architecture up to Intermediate standard. The salary will be in accordance with the Burnham Technical Scale, with an additional responsibility allowance of £30 per annum. Application forms and further details of the post may be obtained from the undersigned on receipt of stamped and addressed foolscap envelope. Applications must be returned to the Principal within two weeks of the issue of this advertisement.

H. BOYES WATSON,

Chief Education Officer.
Southend-on-Sea.

20th April, 1949.

DEVON COUNTY COUNCIL.

Applications are, invited for the following appointments on the permanent establishment of the County Architect's Department. at consolidated salaries, in accordance with the grades of, and subject to the scheme of conditions of service of the National Joint Council for Local Authorities' Administrative, Professional and Technical Services. Applications from suitably qualified disabled persons will be considered.

(a) ONE ASSISTANT ARCHITECT. Grade A.P.T., VII. Commencing salary \$635 per annum, rising by three annual increments of £25 to £710 per annum.

(a) ONE ASSISTANT ARCHITECT. Grade A.P.T., VII. Commencing salary \$635 per annum.

(b) THREE ASSISTANT ARCHITECTS. Grade A.P.T., V. Commencing salary \$520 per annum, rising by three annual increments (£15×£15×£20) to £570 per annum.

(c) ONE ASSISTANT ARCHITECT. Grade A.P.T., IV. Commencing salary £480 per annum, rising by three annual increments (£15×£15×£15) to £525 per annum.

(d) ONE ASSISTANT ARCHITECT. Grade A.P.T., III. Commencing salary £450 per annum, rising by three annual increments (£15×£15×£15) to £525 per annum.

(d) ONE ASSISTANT ARCHITECT. Grade A.P.T., III. Commencing salary £450 per annum, rising by three annual increments (£15×£16) to £495 per annum.

(e) ONE ASSISTANT EXTINATOR AND SURVEYOR. Grade A.P.T., III. Commencing salary £450 per annum, rising to £495 per annum as for (d).

Candidates for (a) and (b) must be Associates of the R.I.B.A., and possess a sound experience in the design and maintenance of all types of buildings carried out by a large Local Authority: they must be fully conversant with the Building Regulations of the Education Act. 1944. and the Regulations for Police Buildings and Fire Stations; and possess organizing ability and experience in the management of building contracts. For (c) and (d) candidates must have 2 good training in architecture, and preference will be given to those who have passed the Intermediate examination of the R.I.B.A., and have had experience with a Local Authority.

Candidates for (e) should have passed at least the Intermediate examination of the Rule.B.A., and have had experience with a Local Authority.

Candidates for (c) should have passed at least the Intermediate examination of the Royal Institution of Chartered Surveyors (Quantities SubDivision), and be capable of undertaking preparation of detailed estimates, taking off quantities from drawings for variations; preparation and settlement of final accounts, and the general technical duties in the Estimating Section of the Department.

Applications, shaling age, qualifications and experienc

Department.

Applications, stating age, qualifications and experience, accompanied by not more than three recent testimonials, should be sent to the County Architect. 97. Heavitree Road. Exeter, not later than Friday, the 27th May, 1949.

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

Canvassing, directly or indirectly, will disqualify.

H. A. DAVIS.

H. A. DAVIS.
Clerk of the County Council. The Castle, Exeter.

WEST SUFFOLK COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
ACHITECT'S DEPARTMENT.
OBJOICATIONS ARE INVITED IN THE APPOINTMENT OF A COUNTY Architect's Department, on A.P.T., Grades VI-VIII.
(2595-2710), position on scale according to qualifications and experience.
Travelling allowance in accordance with the National Joint Council's Scales and Conditions of Allowances.

Travelling allowance in accordance with the National Joint Council's Scales and Conditions of Allowances.

Applicants should have had experience in the preparation of Bills of Quantities, interim valuations, settlement of final accounts, and estimating of all classes of building work, including new works and improvements to existing County buildings. Preference will be given to those who are Associates of the Royal Institution of Chartered Surveyors (Quantities Division).

The appointment will be terminable by one bottle Surveyors (Quantities Division).

The appointment will be terminable by one bottle of the National Joint Council, and the provisions of the Local Government Superannuation Act, 1337. The successful candidate will be required to pass a medical examination.

Forms of application may be obtained from the molerigned, by whom applications, together with the names of two referees, should be received not later than Tuesday, the 24th May, 1949.

L. G. H. MUNSEY.

Clerk of the County Council.

Shire Hall, Bury St. Edmunds.

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TASFFORDSHIRE COUNTY COUNCIL.

STAFFORDSHIRE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.
APPOINTMENT OF SENIOR ASSISTANTS.
Applications are invited for appointments as senior assistants in the County Planning Department.
Applicants should be applied to the county of the

APPLINITMENT OF SENIOR ASSISTANTS. Applications are invited for appointments as senior Assistants in the County Planning Department.

Applicants should be qualified and experienced in at least one of the following professions:—
Architecture; Landscape Architecture and/or Forestry; Estate Management; Engineering.
The duties of the appointment will include assistance in the preparation of Development Plans and in development control. Experience in design will be an advantage. An additional qualification in planning, though desirable, is not essential.

The salaries of the appointments will be in accordance with the National Scales of Salary as follows:—
One appointment, A.P.T., Grade VII, £635-£710 per annum.
Other appointments, A.P.T., Grade VII, £556-£660 per annum.
The persons appointed may be required to work either in the Headquarters office at Stafford, or in the Area office at Wolverhampton.
The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937; the National Joint Council's Scheme of Conditions of Service as adopted by the County Council; the passing of a medical examination; and to one month's notice on either side.
Canvassing, directly or indirectly, will be deemed a disqualification, and relationship to any member or senior officer of the Council must be disclosed.
Applications should give details of age, education, technical training, qualifications, present and previous appointments and experience, and should include copies of two recent testimonials and the names of two other persons to whom reference can be made. They should be sent to D. W. Riley, County Planning Officer, County Planning Denartment, 41a, Eastgate Street, Stafford, not later than 16th May, 1949, and the envelope should be clearly marked "Senior Assistants."

T. H. EVANS.

T. H. EVANS.

COUNTY OF DORSET.
COUNTY ARCHITECT'S DEPARTMENT.

COUNTY OF DORSET.

COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the appointments of THREE SENIOR ASSISTANT ARCHITECTS.
on Grade A.P.T., VII, of the National Scales (2635-2710). Candidates must be Associates M.I.B.A. and have had a wide experience of Architectural work undertaken by a Local Authority, especially in the design and erection of Educational Buildings. Experience in the control of a small section of staff will be considered an advantage.

The appointments will be subject to the provisions of the Local Government Superanuation Act. 1937. and the successful candidates will be required to pass a medical examination.
Applications, on forms to be obtained from the undersigned, should be received not later than the 25th May, 1949.
Canvassing, either directly or indirectly, will be a disqualification.

C. P. BRIUTENN.

C. P. BRUTTON,
Clerk of the County Council.
County Hall, Dorchester. 828

# Partnerships and Financial 6 lines or under, 10s.; each additional line, 1s. 6d.

A BCHITECT, F.R.I.B.A., seeks position with view to Partnership; capital available.

Architectural Appointments Vacant

Rese of under, 5s.; each destions time, is. as SERLY & PAGET, F.L.E.I.B.A., require fully qualified ASSISTANT; must be experienced working drawings and specifications, with sound knowledge of all normal methods of construction; licensed work now in hand includes many important acclessastical commissions. Apply by letter, giving usual details, to 41, Cloth Pair, E.O.1.

letter, giving usual details, to 41, Cloth Fair E.O.L.

OLALIFIED CHIEF ASSISTANT (not under 35) required for busy hast Anglian office; housing accommodation provided if required; car owner-driver; good designer; experienced in controlling jobs through all stages. Reply, stating salary required and with full details, to Box 647.

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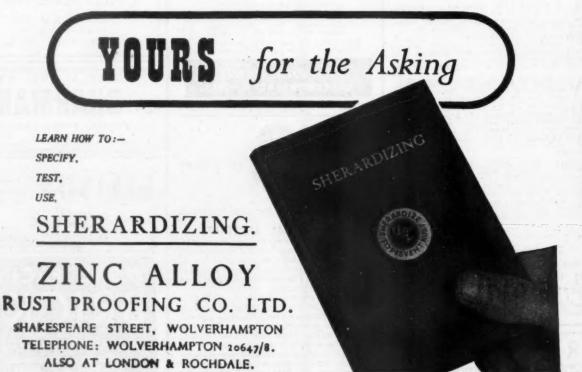
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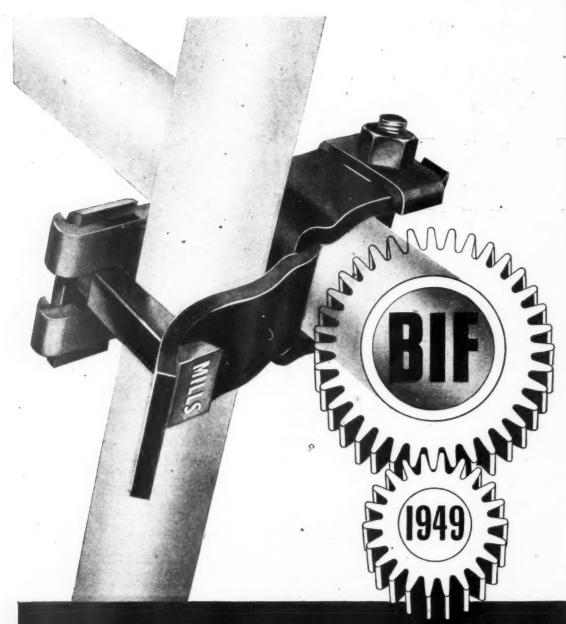
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