

THE ARCHITECTS' JOURNAL

STACK



standard contents

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

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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 Ie one week, Ig to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhamstead, Herts.	
ABS	Architects' Benevolent Society, 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians, 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain, 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association, 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction, 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association, Department of Architecture, School of Building, Ferndale Road, Brixton, S.W.4.	Brixton 7048
ARCUK	Architects' Registration Council, 68, Portland Place, W.1.	Welbeck 9738
ASB	Architectural Science Board of the Royal Institute of British Architects, 66, Portland Place, W.1.	Langham 5721
AScW	Association of Scientific Workers, 15, Half Moon Street, Piccadilly, W.1.	
BAE	Board of Architectural Education, 66, Portland Place, W.1.	Grosvenor 4761
BATC	Building Apprenticeship and Training Council, Lambeth Bridge House, S.E.1.	Langham 5721
BC	Building Centre, 9, Conduit Street, W.1.	Reliance 7611, Ext. 1706
BCC	British Colour Council, 13, Portman Square, W.1.	Mayfair 8641/6
BCCF	British Cast Concrete Federation, 17, Amherst Road, Ealing, W.13.	Welbeck 4183
BCIRA	British Cast Iron Research Association, Alvechurch, Birmingham.	Perivale 6869
BDA	British Door Association, 10, The Boltons, S.W.10.	Redditch 716
BEDA	British Electrical Development Association, 2, Savoy Hill, W.C.2.	Flaxman 7766
BGF	British Gas Federation, 1, Grosvenor Place, S.W.1.	Temple Bar 9434
BIA	British Ironfounders' Association, 145, Vincent Street, Glasgow, C.2.	Sloane 8266
BIAE	British Institute of Adult Education, 29, Tavistock Square, W.C.1.	Glasgow Central 2891
BID	Building Industries Distributors, 52, High Holborn, W.C.1.	Euston 5385
BINC	Building Industries National Council, 11, Weymouth Street, W.1.	Chancery 7772
BOT	Board of Trade, Millbank, S.W.1.	Langham 2785
BRS	Building Research Station, Bucknalls Lane, Watford.	Whitehall 5140
BSA	Building Societies Association, 14, Park Street, W.1.	Garston 2246
BSI	British Standards Institution, 28, Victoria Street, S.W.1.	Mayfair 0515
BTE	Building Trades Exhibition, 4, Vernon Place, W.C.1.	Abbey 3333
CABAS	City and Borough Architects Society, C/o Johnson Blackett, F.R.I.B.A., Borough Architect, Town Hall, Newport, Mon.	Holborn 8146/7
CAS	County Architects Society, C/o A. Guy Chant, F.R.I.B.A., Salop County Council, 5, Belmont, Shrewsbury.	Newport 3111
CCA	Cement and Concrete Association, 52, Grosvenor Gardens, S.W.1.	Shrewsbury 3031
CDA	Copper Development Association, Kendals Hall, Radlett, Herts.	Sloane 5255
CIAM	Congrès Internationaux d'Architecture Moderne, Dolderal, 7, Zurich, Switzerland.	Radlett 5616
CID	Council of Industrial Design, Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPC	Codes of Practice Committee, MOW, 42, Onslow Gardens, S.W.7.	
CPRE	Council for the Preservation of Rural England, 4, Hobart Place, S.W.	Kensington 8161
CUJC	Coal Utilization Joint Council, 13, Grosvenor Gardens, London, S.W.1.	Sloane 4280
CVE	Council of Visual Education, 13, Suffolk Street, Haymarket, S.W.1.	Victoria 1534
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reading 72255
DIA	Design and Industries Association, 13, Suffolk Street, S.W.1.	Reliance 1761
DOT	Department of Overseas Trade, 35, Old Queen Street, S.W.1.	Whitehall 0540
EIMA	English Joinery Manufacturers' Association (Incorporated), Sackville House, 40, Piccadilly, W.1.	Victoria 9040
EPNS	English Place-Name Society, 7, Selwyn Gardens, Cambridge.	Regent 4448
FAS	Faculty of Architects and Surveyors, 8, Buckingham Palace Gdns., S.W.1.	
FASSC	Federation of Association of Specialists and Sub-Contractors, 21, Tothill Street, S.W.1.	Sloane 2837
FBI	Federation of British Industries, 21, Tothill Street, S.W.1.	Whitehall 9696
FC	Forestry Commission, 25, Savile Row, W.1.	Whitehall 6711
FCMI	Federation of Coated Macadam Industries, 37, Chester Square, S.W.1.	
FDMA	The Flush Door Manufacturers Association Ltd, Trowell, Nottingham.	Sloane 1002
FLD	Friends of the Lake District, Pennington House, nr. Ulverston, Lancs.	Ilkeston 623
FMB	Federation of Master Builders, 26, Great Ormond Street, Holborn, W.C.1.	Ulverston 201
FOB 1951	Festival of Britain 1951, 2, Savoy Court, Strand, W.C.2.	Chancery 7583
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Waterloo 1951
FRHB	Federation of Registered House Builders, 82, New Cavendish Street, W.1.	Whitehall 3902
FS (Eng.)	Faculty of Surveyors of England, 8, Buckingham Palace Gdns., S.W.1.	Langham 4041
GG	Georgian Group, 27, Grosvenor Place, S.W.1.	
HC	Housing Centre, 13, Suffolk Street, Pall Mall, S.W.1.	Sloane 2837
IAAS	Incorporated Association of Architects and Surveyors, 75, Eaton Place, S.W.1.	Sloane 2844
ICE	Institution of Civil Engineers, Great George Street, S.W.1.	Whitehall 2881
IEE	Institution of Electrical Engineers, Savoy Place, W.C.2.	Sloane 5615
IES	Illuminating Engineering Society, 32, Victoria Street, S.W.1.	Whitehall 4577
		Temple Bar 7676
		Abbey 5215

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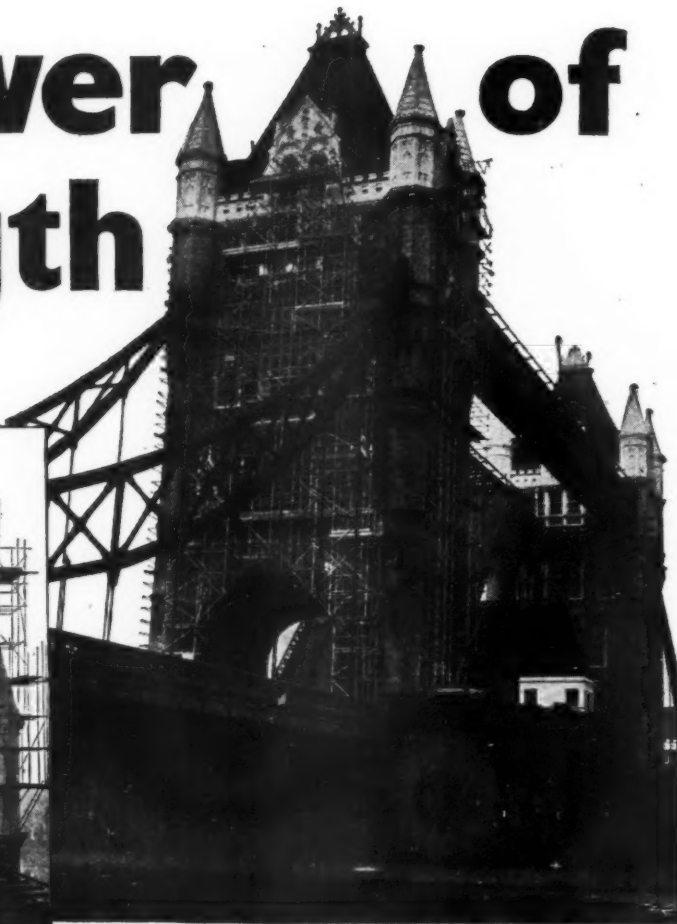
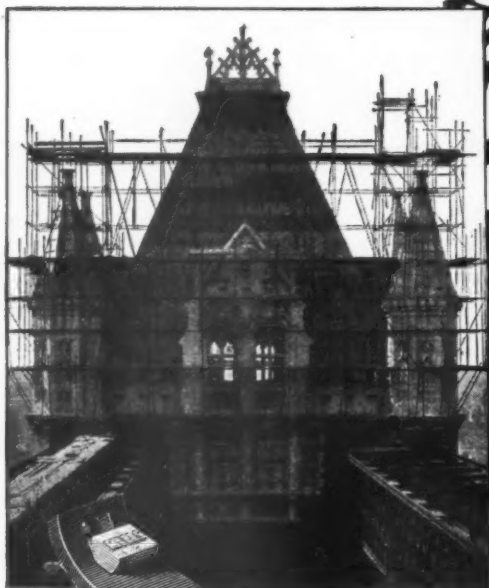
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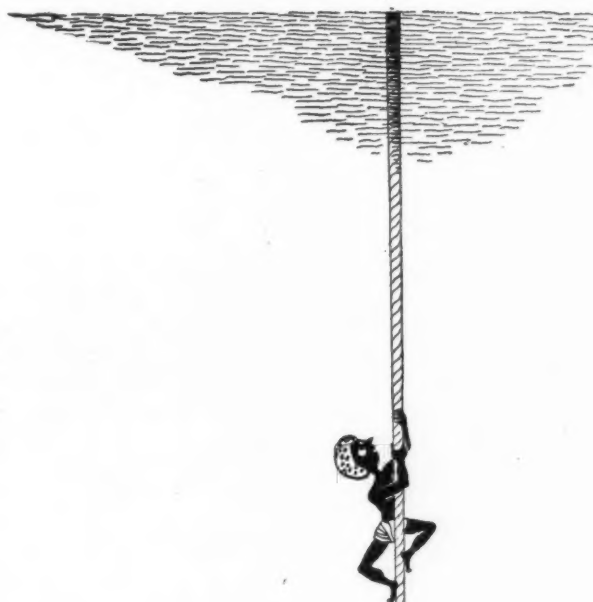
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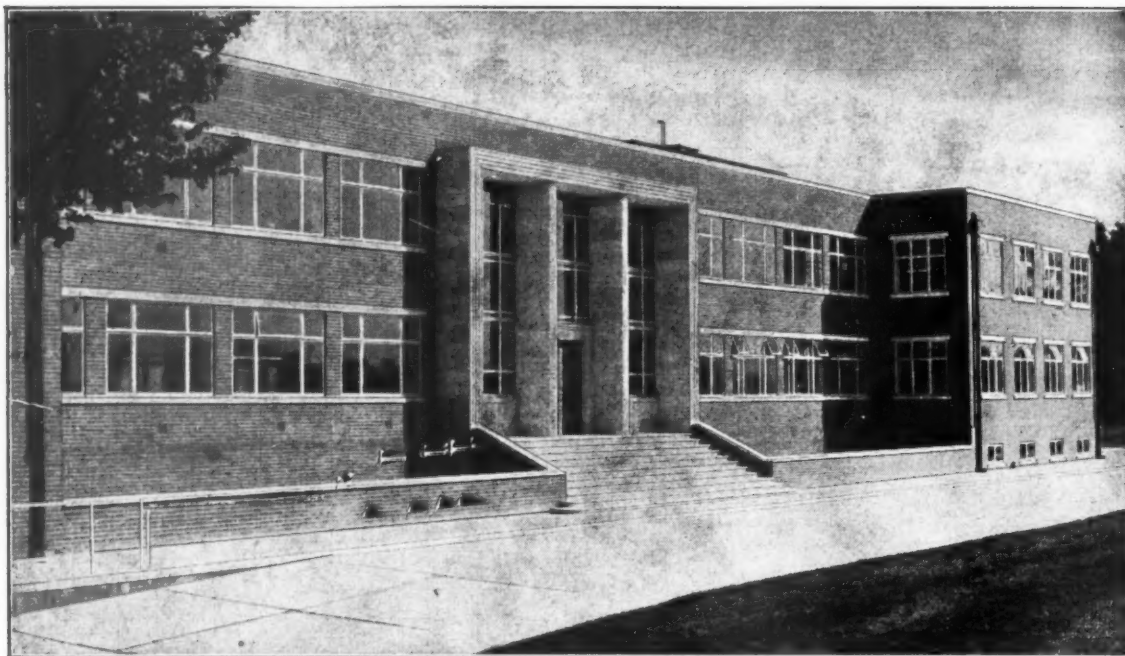
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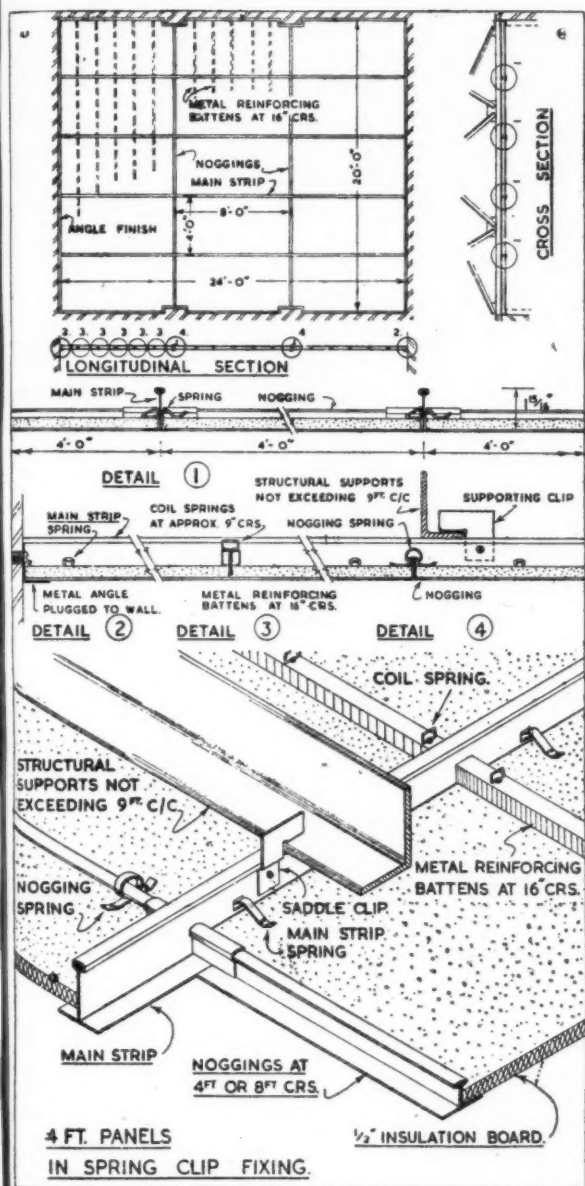
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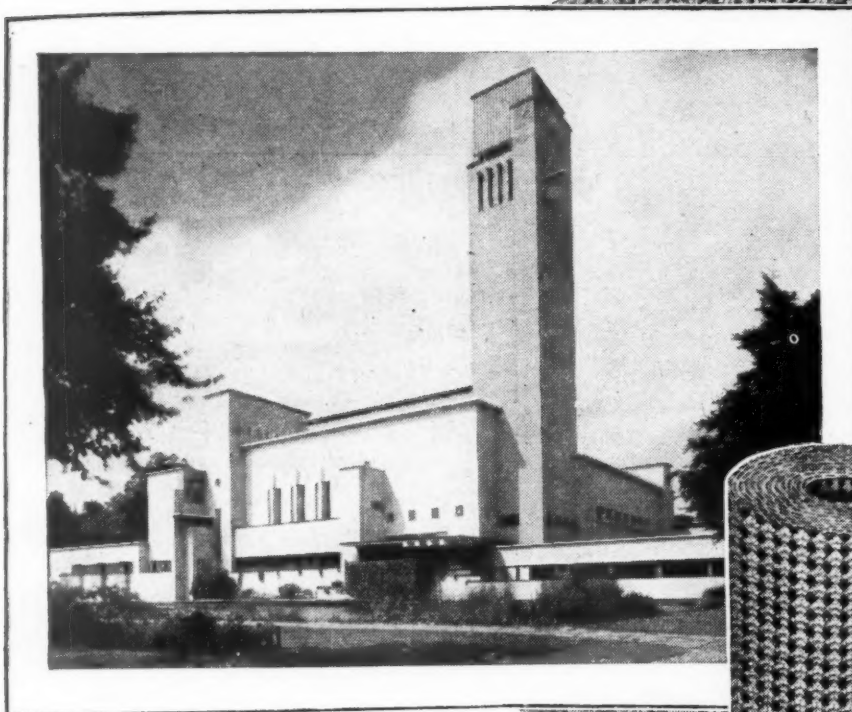
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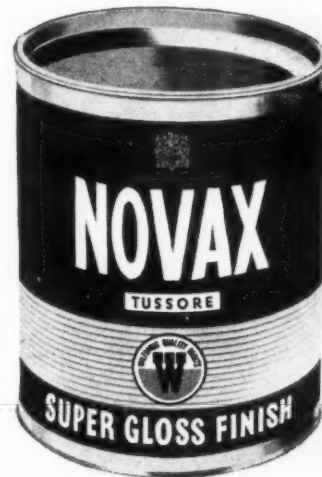
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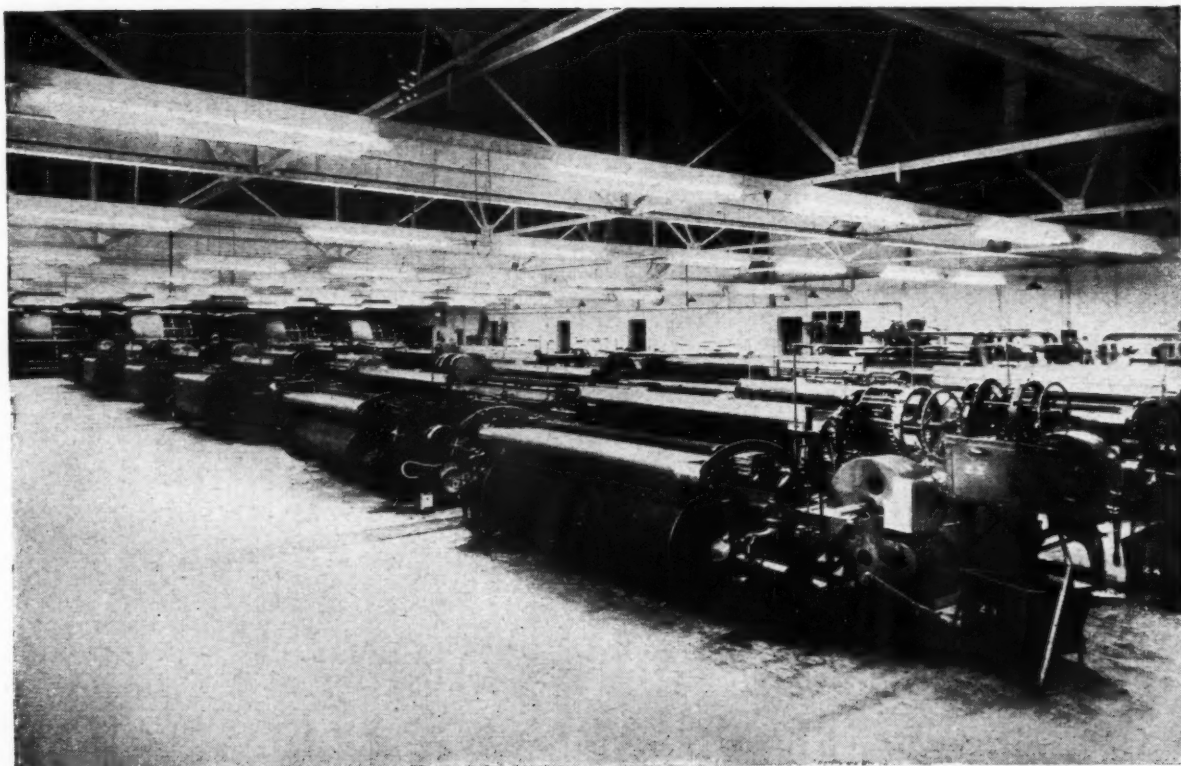
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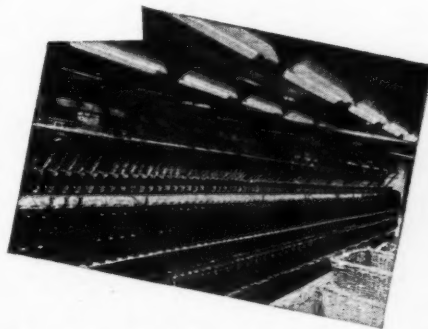
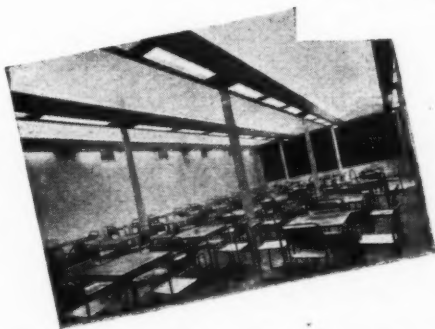
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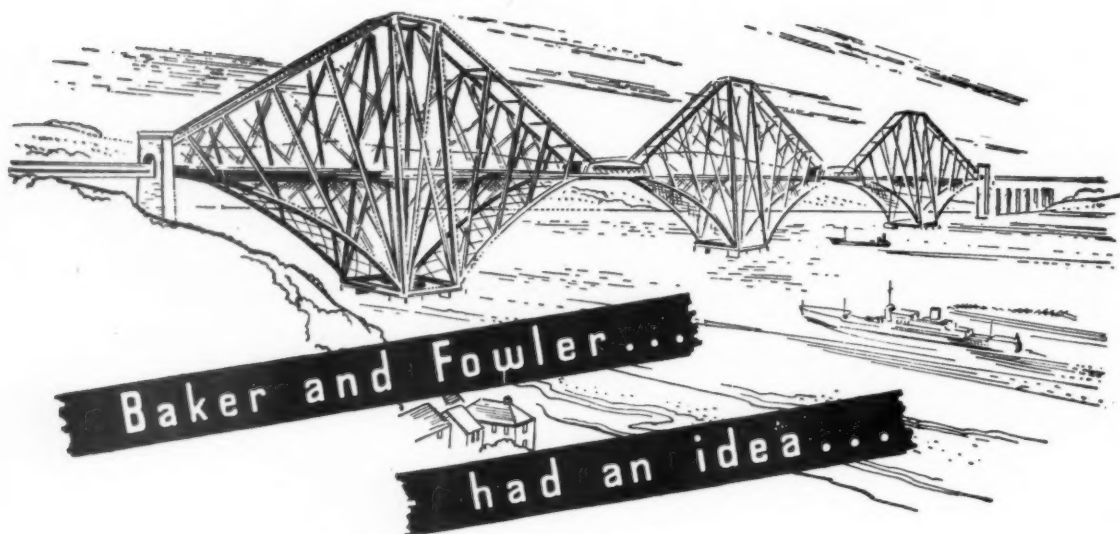
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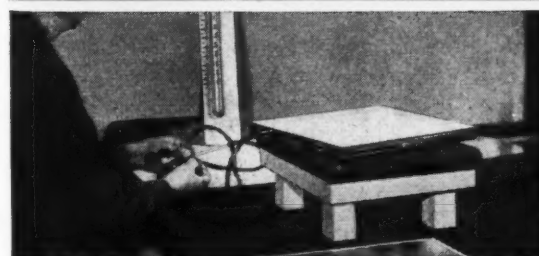
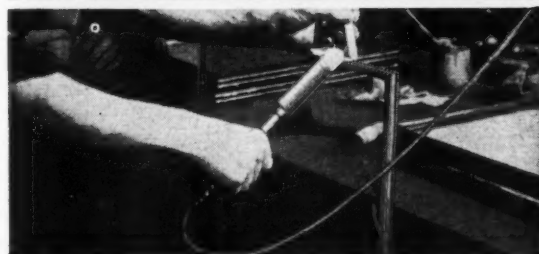
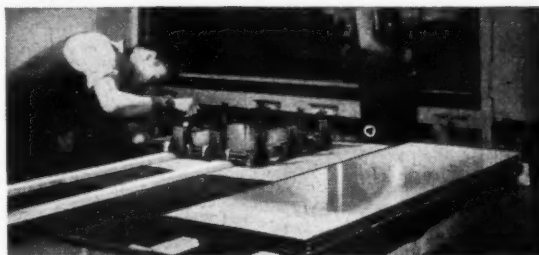
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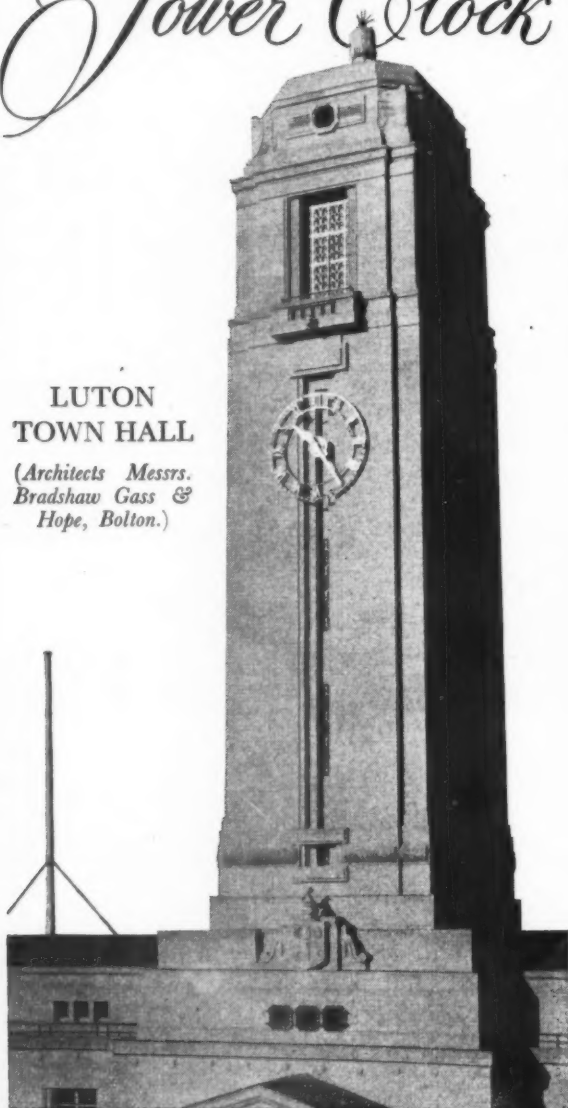
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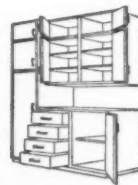
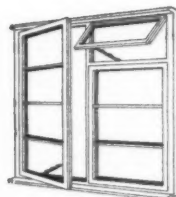
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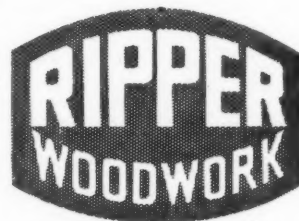
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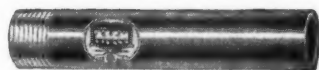
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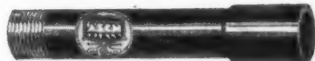
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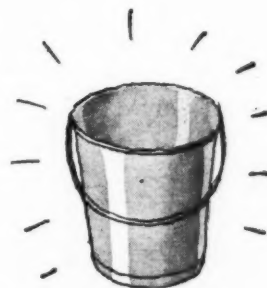
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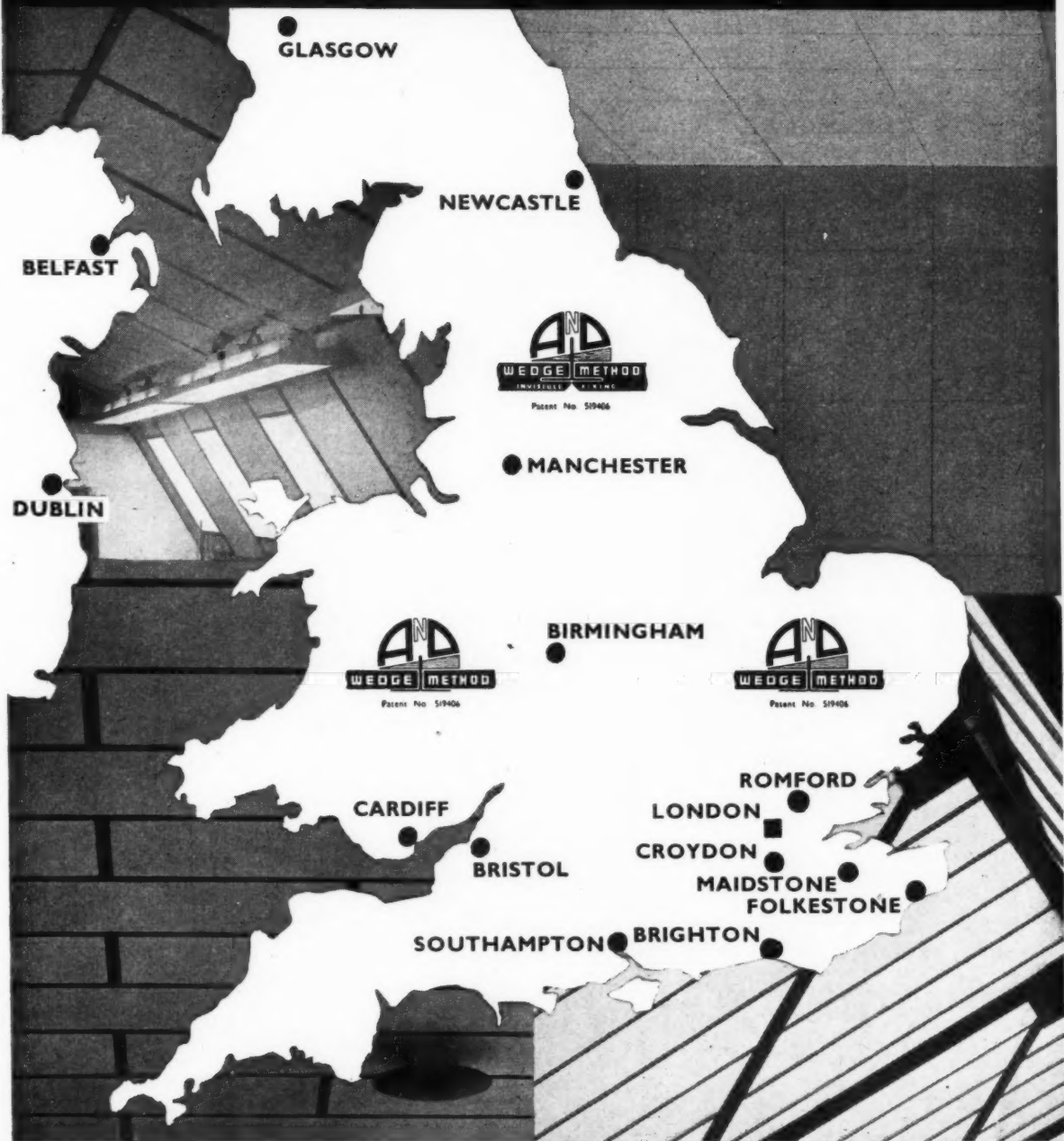
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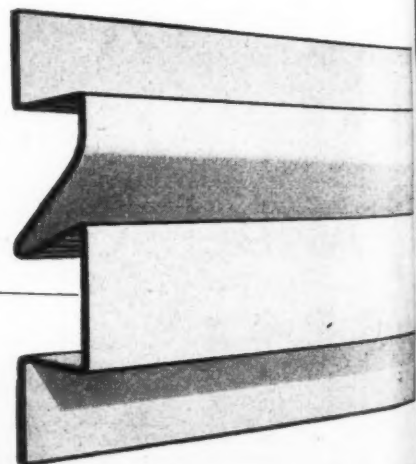
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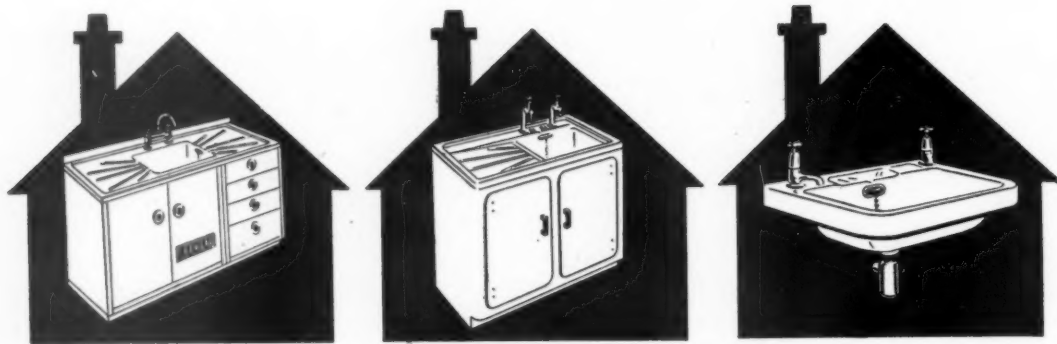


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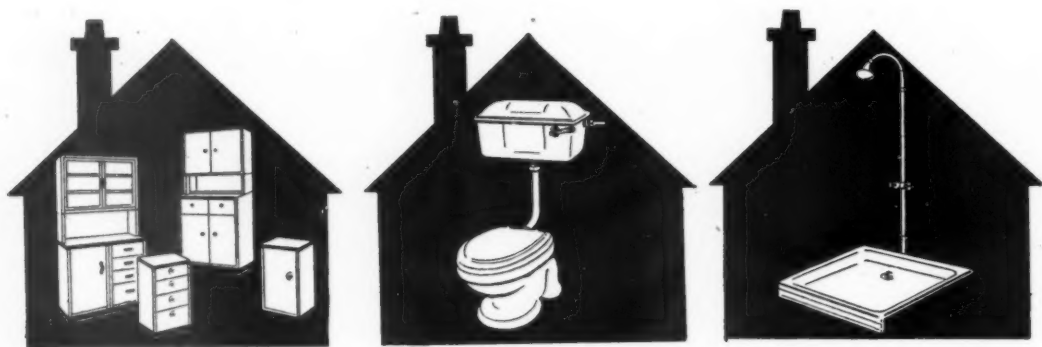
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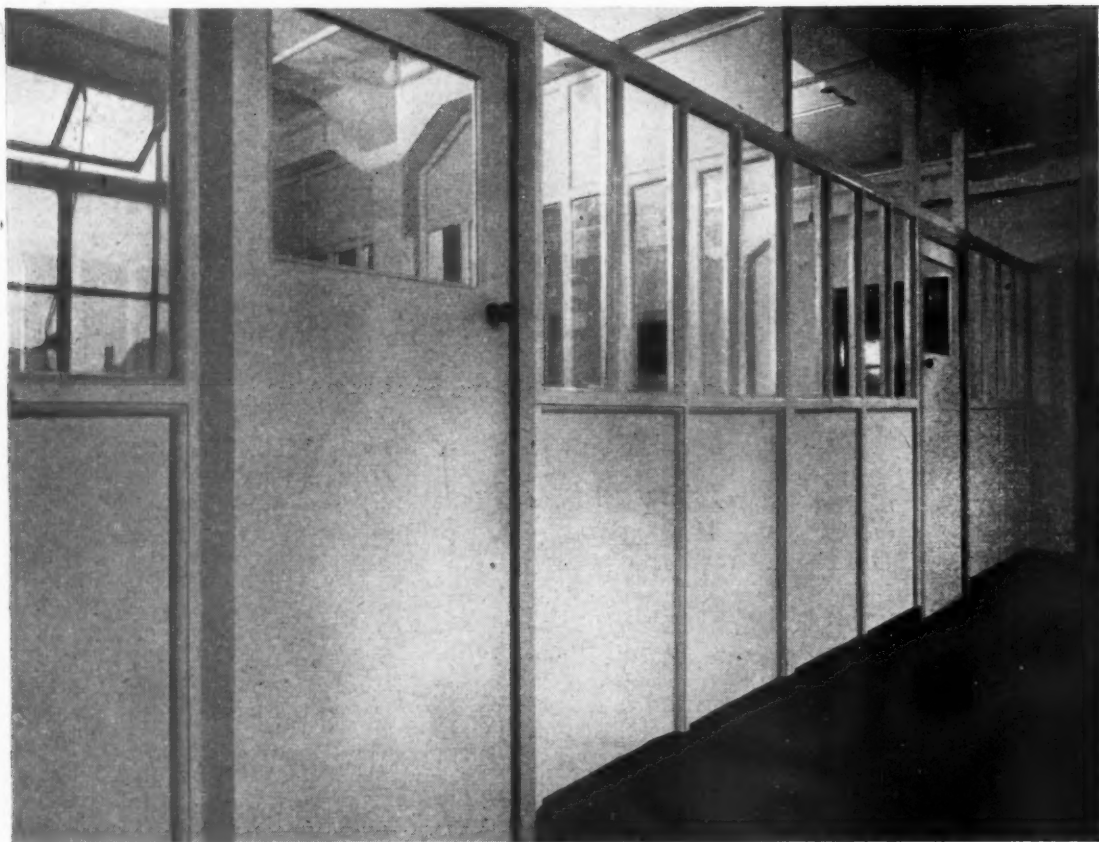
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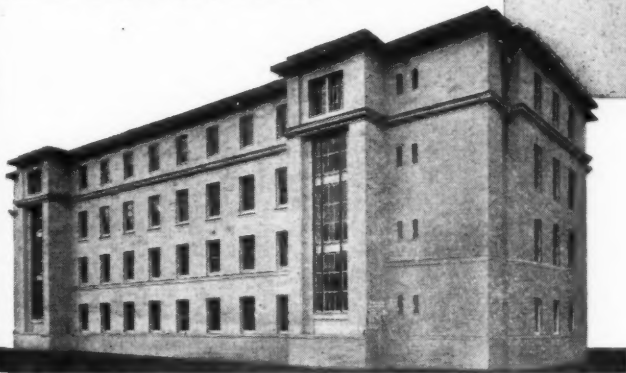
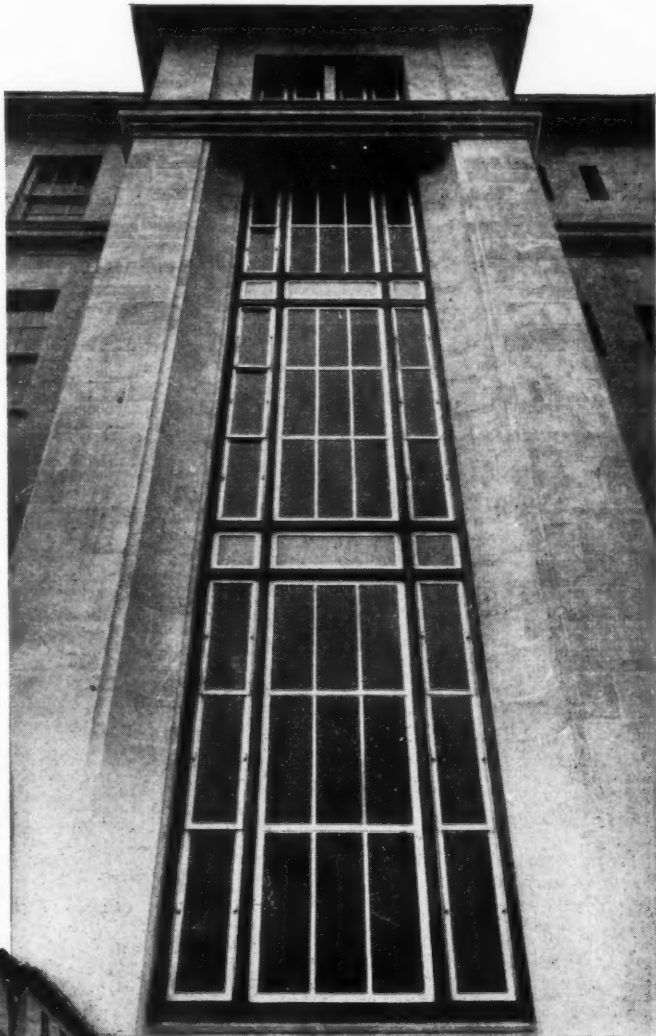
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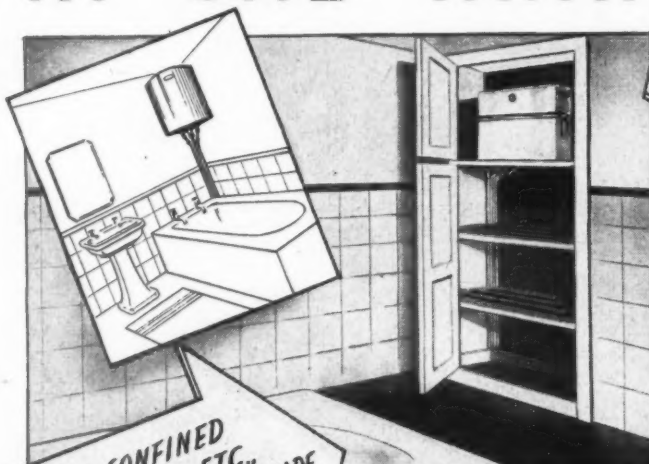
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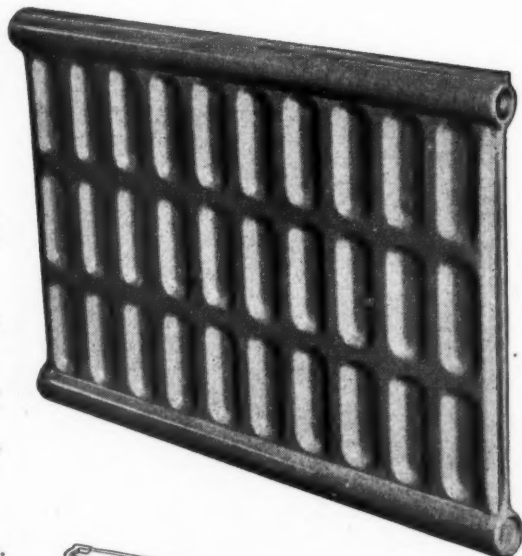
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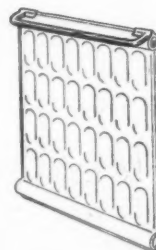
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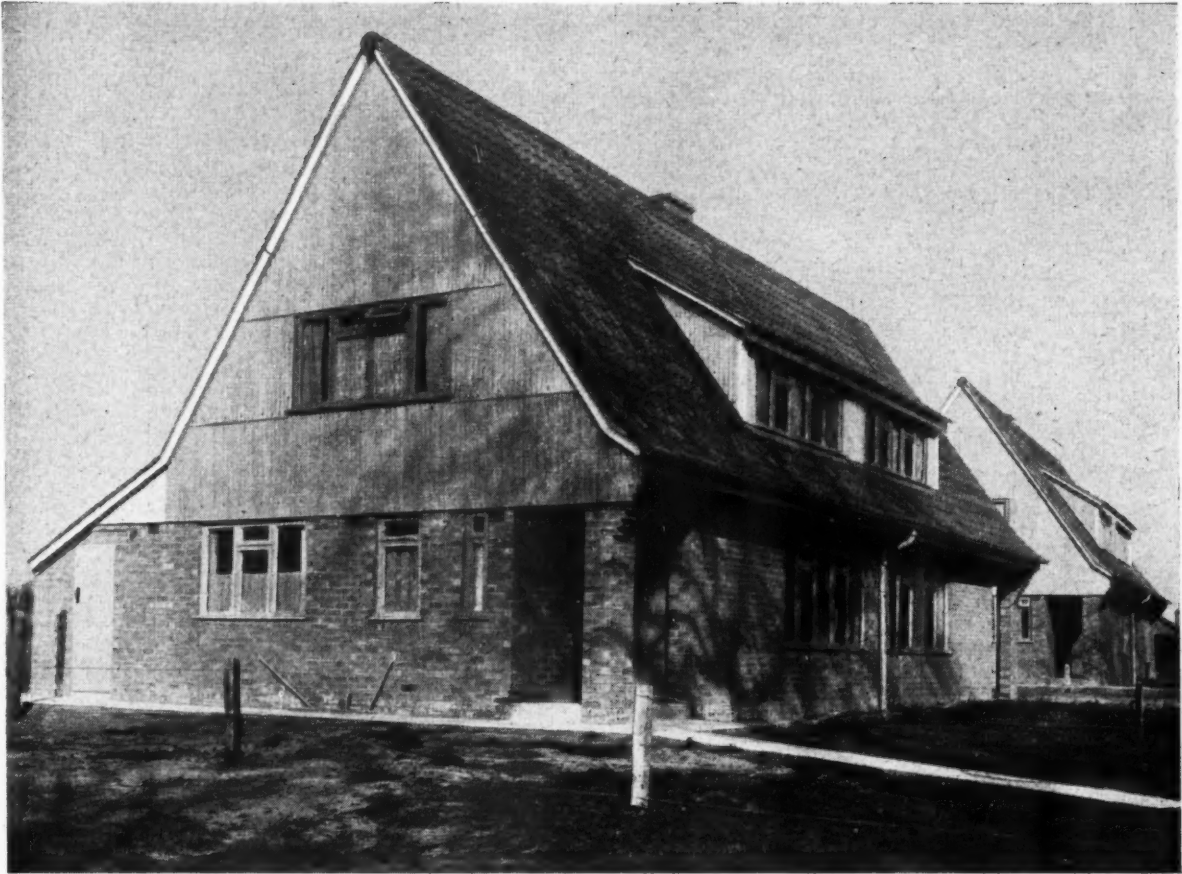


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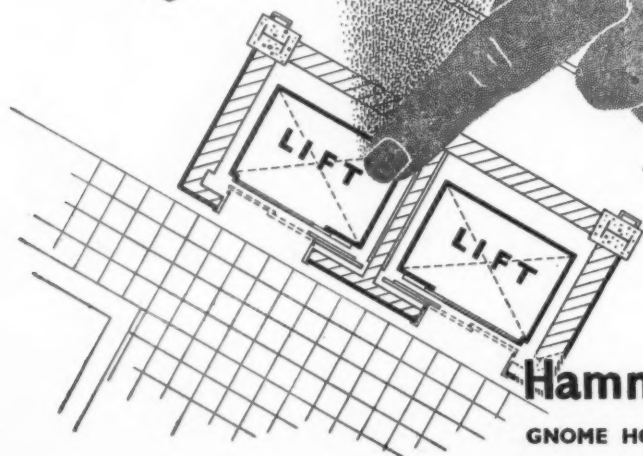


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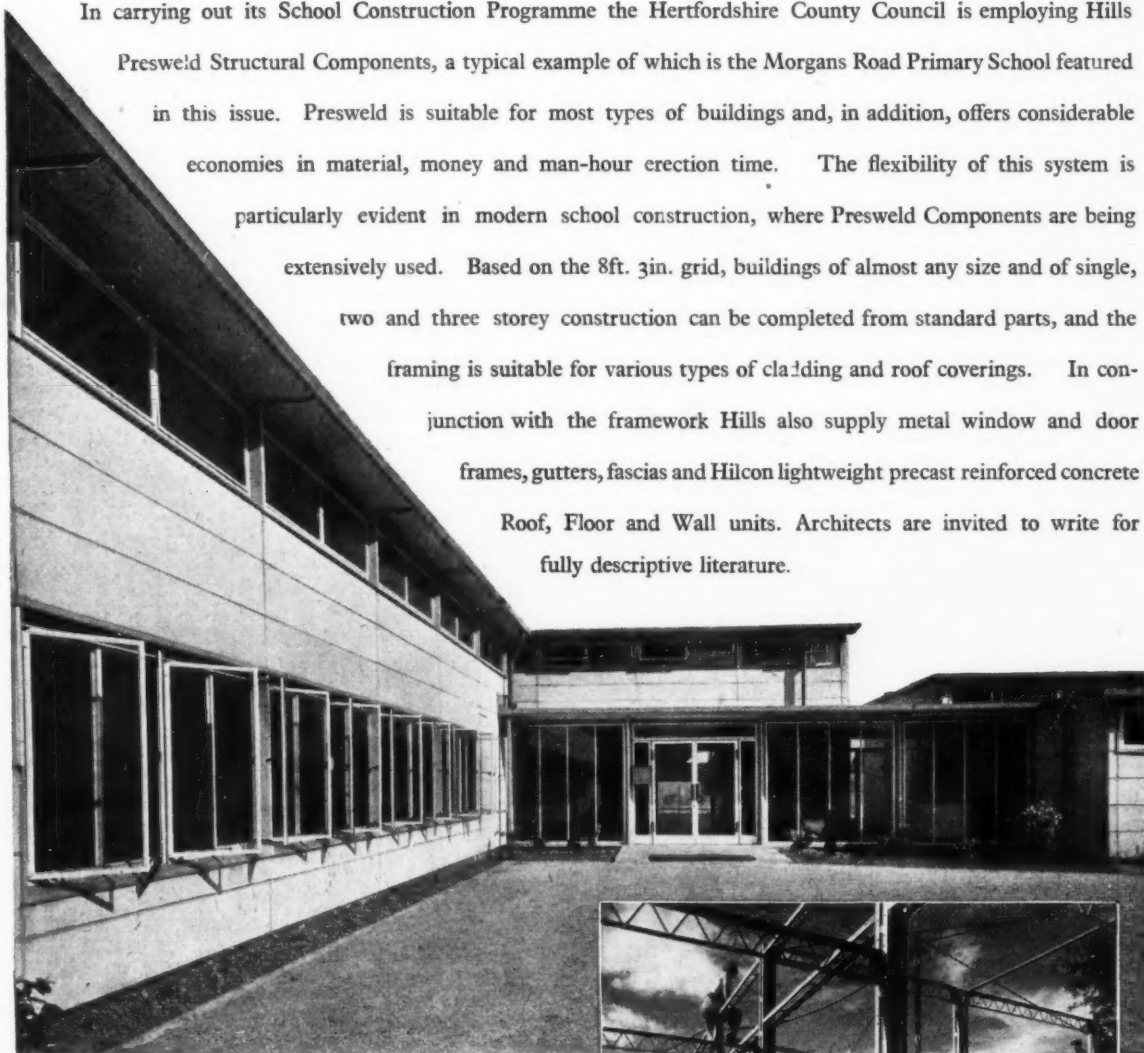
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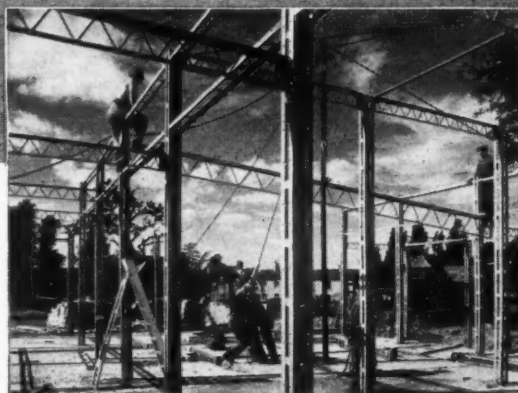
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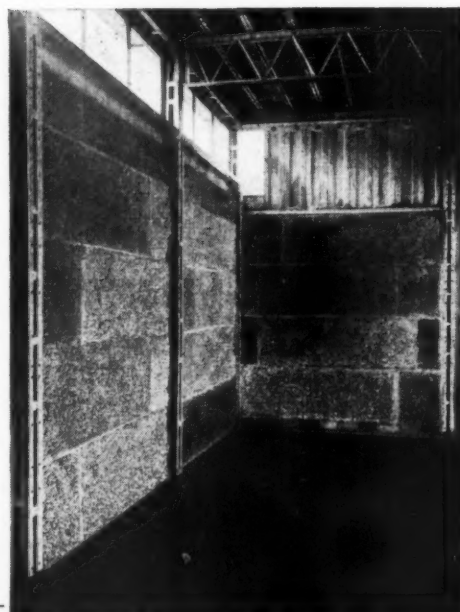
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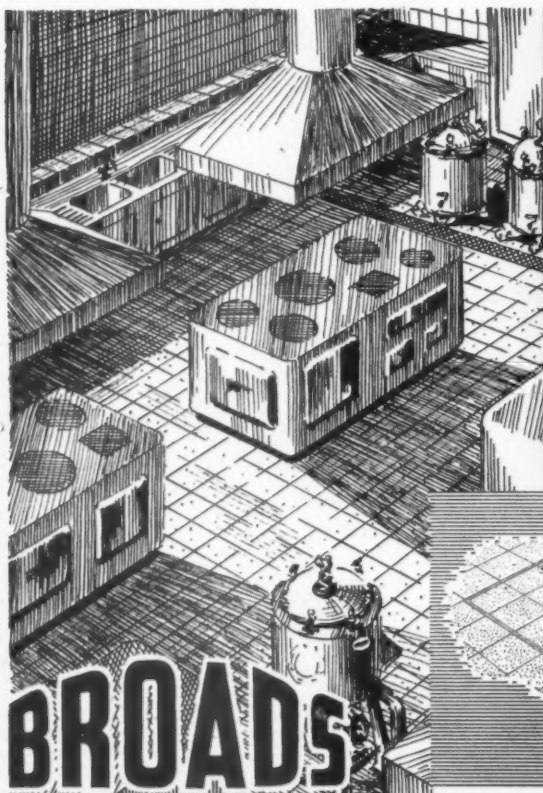
Thermacoust Wood Wool Building Slabs used as lining to external walls at the Park Road Infants School, Ware, Herts. (Architect: C. H. Ashin, F.R.I.B.A., M.I.Struct.E.)

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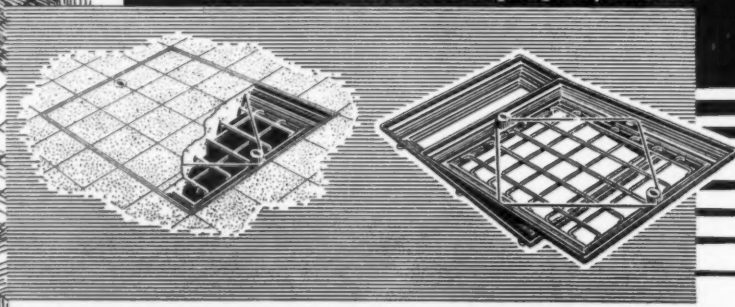
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No 2899 31 August 1950 VOL 112

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NATIONAL GALLERY

The MOW appear to have done a very competent job in providing good daylight and artificial light, as well as air-conditioning, for one room in the National Gallery. I do notice, however, that the finished design is very different from the designs which were illustrated in *THE JOURNAL* of April 15, 1948. I wonder whether the alterations in these original designs are due to further study or economy, or just neglect of technical advice?

*

The daylight conditions in the Gallery are not yet perfect, however, in that the effect of sunlight has not been entirely eliminated, but this can no doubt be rectified. I understand it was eliminated in the original designs. It would be interesting to discover how such a defect has crept in.

CATCH 'EM YOUNG

I have been looking at wall chart No. 1 issued by the ADA in an attempt to rouse interest in aluminium among school children. The teacher's notes are quite informative, but the chart, although no doubt quite accurate, seems to be exceptionally dreary, with somewhat hairy drawings leading up to a rather uninteresting shape labelled "ingot," but which might equally well be a pat of margarine. Production processes like rolling and extrusion are presumably to be dealt with in future charts, which should also include all sorts of things from pots and pans to aircraft. But this first effort doesn't strike me as likely to produce any great degree of excitement or enthusiasm. BISF daily press advertising, for instance, seems to me to do roughly the same job a great deal better.

FELTON AND HARVEY

I have just received no less than three books dealing with the Gothic style. Herbert Felton has long been recognized as one of our best architectural photographers; John Harvey is rapidly establishing himself as adviser-in-chief to the public in matters of Gothic architecture. Thus it was an admirable idea of Messrs. Batsford's to bring them together in a book on English cathedrals.*

*

But why on earth, having got so far in the right direction, should they then decide to reproduce Mr. Felton's pictures in photogravure? For folio-size reproductions, photogravure may have certain advantages over half-tone. Another recent book on English cathedrals† contains big photogravure

* *The English Cathedrals*, by Herbert Felton and John Harvey. Batsford, 10s.

† *English Cathedrals*, by Martin Hurlimann and Peter Meyer. Thames and Hudson, 30s.

plates (printed in Switzerland) which are really splendid. But on the scale of this book photogravure has no advantages at all that I can see; in many cases the tonality of the original photographs, and some cases their sharpness, have gone by the board.

*

With that grumble off my chest I can recommend *The English Cathedrals* without further reservations as quite the best general introduction to the subject that has come my way. John Harvey's text is equally readable and informative whether he is dealing with the broad developments of style or the narrower questions of attribution, and it contains very little that conceivably could irritate those who in the past have been disposed to find him over-enthusiastic in the Gothic (and more particularly the Perpendicular) cause.

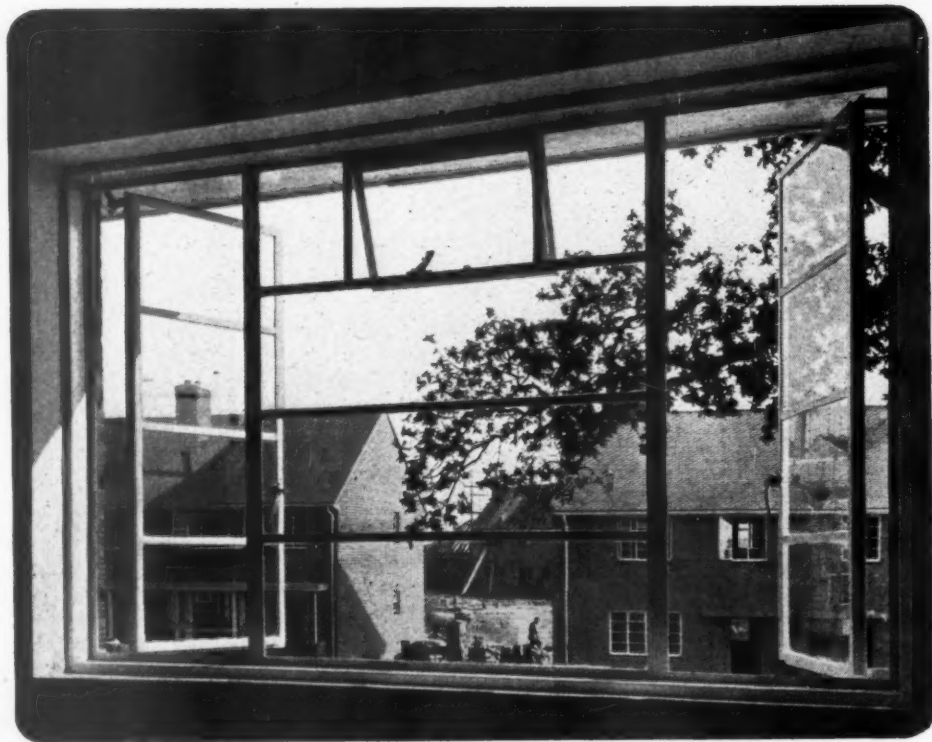
*

SIR KENNETH'S SECOND THOUGHTS

Which is the most readable book about architecture in the English language? As good a guess as any, I would say, is Sir Kenneth Clark's *The Gothic Revival*, a new edition of which has just appeared.*

The first edition, remember, appeared way back in 1928—that is, in the pre-Betjeman era (or at least before John Betjeman came to the fore as a champion of the nineteenth-century Goths). In the letter to his publisher with which he prefaces the new edition Sir Kenneth recalls that those were the days when "in Oxford it was universally believed that Ruskin had built Keble, and that it was the ugliest building in the world. Undergraduates and young dons used to break off on their afternoon walks in order to have a good laugh at the quadrangle."

* Constable, 15s.



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The block of flats in Zurich, right, were designed and built by G. Schindler, above, a Swiss architect, in collaboration with his brother, an engineer. (See Astragal's comment below).



Apart from some minor corrections, Sir Kenneth has left his text unchanged. He does, however, from time to time give us his second thoughts in footnotes. He is sternest with his 1928 self when he finds it complaining that Gothic Revival buildings resulted "in a series of erosions and excrescences, breaking the line of our streets, wasting valuable ground space, and totally disregarding the chief problem of modern civil architecture." On this he comments: "This is the stupidest and most pretentious sentence in the book. I knew little enough about 'modern civil architecture,' but if I had stopped to think for a second would have realised that the beauty of all towns depends on 'the waste of valuable ground space'; and I had not to go further than Oxford High Street to see what beauty a street can derive from its line being broken by erosions and excrescences."

*

Any book is the joint product of the man and the time. Sir Kenneth makes it clear that *The Gothic Revival* is not the book he would write on the subject now. None the less, it remains a classic of architectural literature; its re-publication is an obvious duty fulfilled.

MUSHROOM GROWTH

The block of flats shown above look to me typically Swiss. Pleasant proportions, pleasant fenestration, just what

one would expect from such a competent race. There is, however, one thing which is really remarkable about them, and that is the length of time in which they were built. If they were to be built in England, how long would they take from start to finish? A year? Or perhaps nine months, if one had really competent builders on the job? But in this case they were actually built in three months. Started in August, 1949, the tenants moved in in October of the same year. How do they do it, you may ask? This is where I hand you over to the JOURNAL's technical

editor, who will tell you all about it, I understand, in a forthcoming issue of the JOURNAL.

DEVON MADE

During a flying visit to Devonshire I dropped into the exhibition titled "Made in Devon" now on show at Dartington Hall. My picture shows a few of the everyday objects there displayed. Perhaps the most striking impression is the quality of the design of the very ordinary objects exhibited. One is apt to be satiated with the sophis-



Part of an exhibition of everyday articles which have been made in Devon. They are on view at an exhibition at Dartington Hall. See note above.



Translating Plans into Reality

Taken last month, this aerial photograph of the new town of Stevenage shows what has actually been achieved on the site. It should be studied in conjunction with the plan on page 213. In this issue THE JOURNAL publishes the first of a series of brief progress reports on the new

towns, from which it is hoped to learn of the difficulties which confront the creators of a new town, and to discover the effect the new towns are having, or could have, on the problem of rebuilding the homes, schools and factories of Britain. (Photograph: Photoflight Ltd.)

ticated flourish of what is optimistically termed "industrial design" with which one becomes familiar in London.

All too frequently fashionable and well publicised designers have become stylists whose overwhelming need is to put a new face each year on some familiar object in order to ensure the obsolescence of the previous year's model. Most of the items in the Dartington Hall exhibition show how a rightness of design can be achieved as a simple expression of the nature of the article and its manufacture.

Another good feature is the fact that apart from some old examples, all the items can be bought by the inhabitants of these islands and there are no labels "For Export Only." The FOB designers might do worse than take a look at this exhibition, no less for the way in which it is presented than for the objects there displayed, or perhaps they might care to invite the co-operation of the Dartington Arts Department for next year.

COMING TO A CITY

I am sure many readers will join me in reading with interest the reports by Rigby Childs on progress made in the New Towns during the last four years. Though, judging from correspondence in the daily press, the towns are usually considered as collections of housing and factory units and so many foot-run of roads and sewage pipes, I know from personal contact that this is not the attitude of most of the planners concerned. They are creating a new environment for a better way of living. Good luck to them.

ASTRAGAL



"Some assessors forget we have to make a living while doing these competitions"

The Editors

NEW TOWNS: AFTER FOUR YEARS

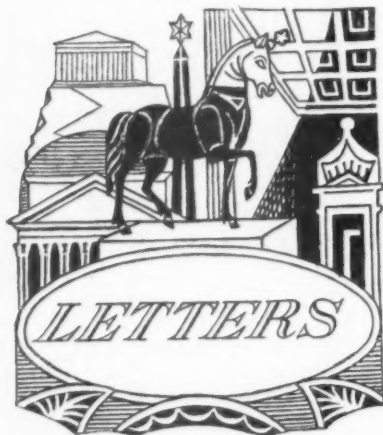
THE present is a good time to enquire how much has been achieved towards the building of new towns since the powers to provide for the creation of new towns were given to the Minister of Town and Country Planning just over four years ago. People today are rightly passing adverse comment on the progress made in the new towns and they are even scoffing at the type of sentiment which was expressed in these columns to mark the occasion of the New Towns Act, 1946, receiving the Royal Assent on August 1, 1946: "The New Town has passed from the stage of an idea under discussion to that of a project under way. . . . It is possible to see ahead the shadowy outlines of what should prove to be one of the most interesting experiments of this century. For the first time, the State has accepted responsibility for such an experiment and devised a new and specific piece of machinery, the Development Corporation, to carry it out. It will have what other experiments (in the building of New Towns) have lacked, the capital necessary to create a town in one piece, factories, houses, roads, services, cinemas, and dance halls. That is the thing which has never happened before, and it is this single fact which marks 1946 as a year legitimately to be described as revolutionary."

From the beginning this great experiment has been handicapped; first, there were troubles in the spheres of public opinion and of litigation; then, between 1948 and the spring of 1949, the Government imposed severe limitations on the amount of constructional work allowed to be put in hand. Nevertheless, in spite of these setbacks and delays caused by a general inexperience in dealing with the many new problems, much solid if unspectacular work has been done.

Development Corporations have been established for fourteen new towns. Around London there are Basildon, Bracknell, Crawley, Hatfield, Harlow, Hemel Hempstead, Stevenage and Welwyn; in the Midlands and North of England there are Corby, Aycliffe and Peterlee; in South Wales there is Cwmbran and in Scotland there are East Kilbride and Glenrothes. Some of these new towns are still very new and it is still too early to expect anything in the nature of results from them, but with the longer-established towns the first signs of progress in terms of concrete, bricks and mortar can now be seen. In every case, however, a great deal of preparatory work is going ahead in terms of surveys, preparation of master plans, neighbourhood layout plans, designs for buildings, on the one hand, and, on the other, regional schemes for roads and for water and sewerage, gas and electricity services. Nor has the vitally important sphere of public relations been entirely neglected and the attraction and selection of new population for the new towns is progressing. In this issue the JOURNAL publishes the first instalment of a series of brief surveys, prepared by Rigby Childs, the architect and town-planner, which will show how far the development

corporations of each new town have progressed in the first stage of their programme.

It is broadly true to say that the technique and resources are now available to realise these first stage programmes, the missing element is the lack of drive from the Government towards executing the policy of decentralisation of our large cities. Yet the need for decentralisation grows in urgency. Shortage of housing remains formidable and with the questions of defence re-appearing as a top priority the effective decentralisation of population and industry from large urban centres is a matter of more than common prudence.



(S. Plaister, A.R.I.C.S.

Town Planner

C.S.A. Industries Ltd.

C. R. Vinycomb, A.I.Q.S.

The Bill of Quantities

SIR,—The JOURNAL has posed the question: "Is the bill of quantities in its present form necessary and, if so, can its usefulness be improved upon?"

There can be little doubt that the bill of quantities as we know it in this country is by far the best means of obtaining competitive tenders. Other methods have been tried from time to time (notably target contracts) and found wanting. The bill of quantities has survived on its merits and not because of any vested interest in it.

To question the need for the bill of quantities is to question the need for competitive tendering. Is competition really necessary? Those who seek to eliminate competition in the building industry must first find some alternative means of keeping building management virile, of eliminating waste, and of guarding against the modern disease of over-organization; in other words, they must evolve some alternative sanction against inefficiency or complacency.

Before an answer can be given to the second part of the question it is necessary to define what is meant by "the present-day bill of quantities." This is frequently little more than an *ad hoc* collection of approximate quantities and a number of

"jumped at" prime cost items, leading inevitably to a complete re-measurement of the work, delay in settlement of the final account, and involving extra fees. Special circumstances may occasionally warrant such methods, but their indiscriminate use could well endanger the whole quantity surveying system.

The "normal" bill of quantities should be a skilfully prepared document setting forth accurately and succinctly the work to be carried out. Competitive prices for specialist's work should, wherever possible, have been obtained beforehand and the results embodied in the bill. If this is done, the amount of non-competitive work can be kept within reasonable proportions.

The usefulness of an accurate bill of quantities to both architect and builder can be enhanced if each item is annotated to indicate its position in the building, thereby eliminating the need for a separate specification. Finally, if builders are agreed among themselves that additional columns for analysis of labour, materials, etc., can assist them in connection with bonusing schemes, their wishes can be readily met.

S. PLAISTER,
OF L. C. WAKEMAN & PARTNERS,
Quantity Surveyors.

Birmingham.

Towns May Come and Towns May Go

SIR,—I was interested to see ASTRAGAL'S comments on Scottish affairs in the ARCHITECTS' JOURNAL of August 10, and thought you might like to know that the official burial of this once proposed New Town—known locally as "Cawdengelly," because of its proximity to the Burghs of Cowdenbeath and Lochgelly—is long overdue.

I think it is fair to say that from the technical town-planners' viewpoint, this New Town was never justified and the site was fantastic. The idea of this New Town began with Joe Westwood, himself a Fifer from Kirkcaldy, who was at the time, Secretary of State for Scotland, and the idea, however convenient politically, was quite unsound technically, and it was largely for political reasons that the funeral has been delayed for so long.

It is interesting to note that the present Secretary of State for Scotland, the Member for Greenock, is having the opposite effect on New Towns in Scotland. We now understand that the proposed New Town at Houston, between Greenock and Paisley, is to be dropped. This New Town was recommended in the Abercrombie/Matthews Clyde Valley Regional Plan, but the Burgh of Greenock is opposed to it!

As far as those of us who work in town and country planning are concerned, the Secretary of State's recent announcement has not caused any "ripples of distrust and irritation," but rather a sense of relief, that at last reason prevails. However, I should hate to suggest that anybody, even ASTRAGAL, was not entitled to "cast pebbles into the pool of

planning," but meanwhile we must do our best to try and help architects here, if not to a ministry medal, at least to complete the best building or project they have designed so far.

Fife.

TOWN PLANNER.

An Improved Domestic Boiler

SIR, My attention has been drawn to the statement made in the article by S. F. Newcombe entitled "Intermittent Heating" in your issue of August 3.

Mr. Newcombe has written that "no domestic boiler is yet available which, with unskilled stoking, burns less than $\frac{1}{2}$ lb. of coal or coke per hour, and, until heat pumps or atomic energy become practical, the combined cost of heating appliances and fuel is so high that, as social surveys show, few people can afford to keep fires alight continuously, even if they have low-combustion stoves."

Your readers might like to know that the Hazel domestic boiler can operate on $\frac{1}{2}$ lb. of fuel per hour, and its efficiency in tests carried out by the British Coal Utilization Research Association was 76 per cent.

C.S.A. INDUSTRIES LTD.

Warwick.

Housing and the Municipal Engineers

SIR,—The letter from Leonard C. Howitt, president of the City and Borough Architects' Society, in your issue of July 20 raises matters which have for long required ventilation.

The efforts of all men and women of good will in professions, in the industry, and in the local government electorate over the last thirty years or so have placed the official architect in his present position. But those who worked for this result were not willing that the official architect alone should ride on horseback while complementary professions of quantity, surveying and structural engineering marched on foot.

The position of the official architect in claiming responsibility for the production of bills of quantities and structural designs cannot be justified. There are no quantity surveyors or structural engineers holding chief appointments in their professions in the local government service.

The following question might well be addressed to city, borough and housing architects: Are the bills of quantities and structural designs for which you are nominally responsible undertaken by quantity surveyors and structural engineers subordinate to you?

I venture to suggest that all the replies would be in the affirmative and would furnish more useful information than the answers to Mr. Howitt's question as to the number of authorities whose technical-professional departments are in need of reorganization.

If the architects now in the saddle acted with a little more grace in this matter they could only add to the number of their supporters. For the claims of the architect still require pressing and there are many anomalies outstanding. In one city I could name, for instance, there is a city architect, but all the town planning work is undertaken by the borough engineer, with a cramping and restrictive effect on architectural initiative. No modern flat-roof dwellings are allowed in ugly built-up Victorian districts in this city.

C. R. VINYCOMB, A.I.Q.S.

Plymouth.

The EDITORS reserve the right to shorten letters from readers. Whenever possible, however, they are published in full.

IMPROVEMENTS AT NATIONAL GALLERY



UNESCO

Pact to End Duties on Art

An international agreement which will allow a wide range of educational, scientific and cultural materials to move across frontiers free of duty was circulated by UNESCO to its 59 Member States on August 21. The text was unanimously approved by the Organization's General Conference at Florence recently.

Contracting States will abolish duties on books, newspapers, magazines, music scores, maps, charts and travel literature. The agreement will also permit the free importation of paintings, drawings, and sculpture, and of newsreels, educational films and sound recordings. Duties will also be lifted from any materials consigned to approved educational, scientific and cultured institutions. These items include objects of art, scientific equipment and architectural, industrial or engineering plans and designs.

MILAN

Industrial Art and Architecture Exhibition

The "Triennale" of Milan invites artists, craftsmen and art manufacturers of all countries to take part in the Ninth International Exhibition of Decorative and Industrial Arts and Modern Architecture, which will be held in Milan from spring to autumn, 1951.

Following is an extract from the exhibition organizers' Press hand-out:—

"Italy invites all nations to present at the Milan 'Triennale' the documentation of the works by which the modern civilization, reflecting the personality of the artists and the character of their own country, finds its own expression in architecture, art industries and craftsmanship.

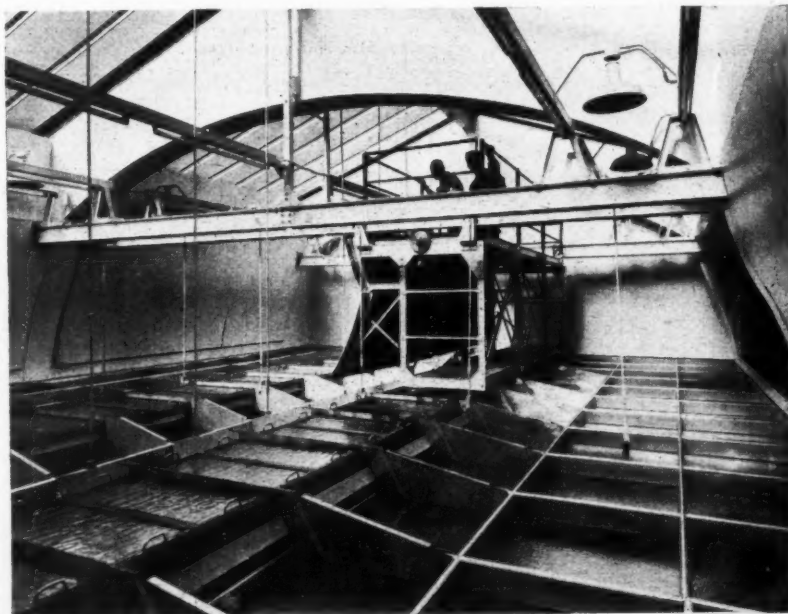
CID SCOTLAND

Competition for Ship's Chairs

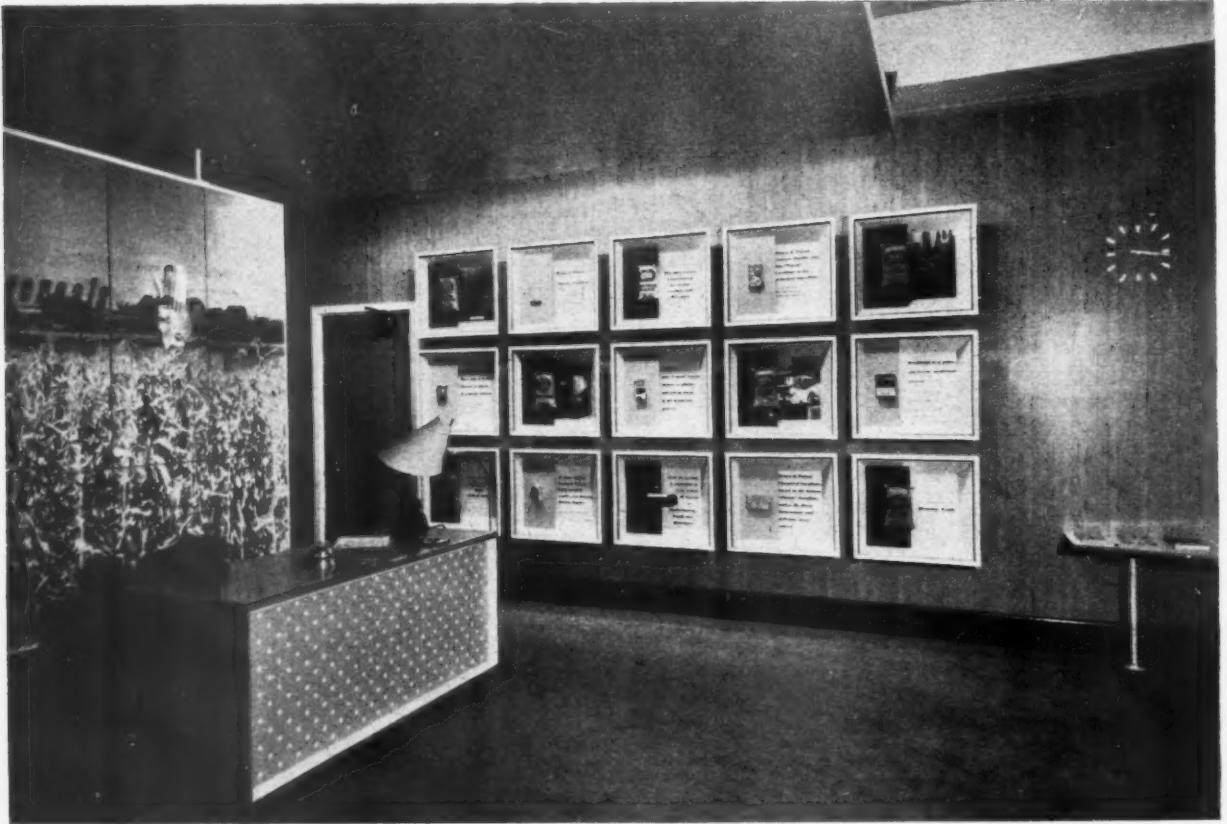
A competition for ship's chair designs sponsored by the Scottish Furniture Manufacturers' Association and organized by the Scottish committee of the CID will be judged in Glasgow on October 10 and 11. The judges will be Sir Colin Anderson, of the Orient Line, Professor R. D. Russell, and Mr. Basil Spence. The competition is restricted to furniture manufacturers in Scotland, and 13 firms have entered 44 designs.



Gallery XXIX, above, is the first in the National Gallery to be air conditioned, thus obviating the necessity for protecting paintings behind glass. Five lines of fluorescent tubes, fitted in the 21-ft. high ceiling, provide lighting intensities of 15-20 ft. candles. Travelling platforms, below, facilitate the cleaning of glass skylight and roof. Costing £47,000, the scheme was designed by the MOW (architect in charge, W. Kendall; chief assistant, H. W. Ashby). The ceiling lights are framed with aluminium, the floor is of cork tiles. See also Astragal's comment, page 201.

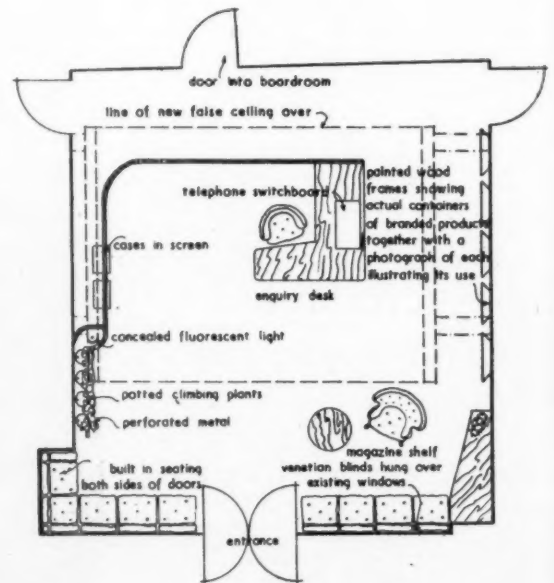
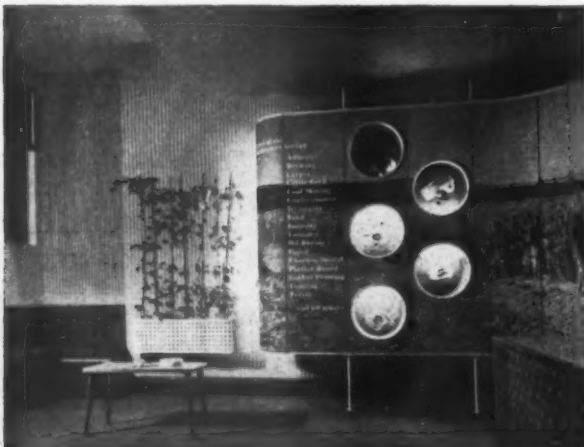


RECEPTION ROOM FOR A COMPANY'S OFFICES IN THE STRAND



The scheme for the redecoration of the reception room in the Strand office of Brown and Polson Ltd., was prepared by Brian Peake. Access to the room is from the staircase of the large office block in which it is situated. The door in the wall opposite leads to the board room and the doors on either side to offices. These doors are partly hidden by a display screen, composed of removable panels, dealing with the story of maize products. A false ceiling of fibrous plaster covers part of the room. Floors, French grey carpet. Walls, papered with imitation elm, buff and white striped paper or distempered white; skirting, grey. Doors and false ceiling, pale grey. Woodwork, flower-boxes,

display frames and ceiling, white. Desk, sycamore, front papered blue. There is no daylighting. Fluorescent tubes are concealed in the false ceiling. Above, the wall on the right side of the entrance and part of the display screen. Below left, the wall opposite. The general contractors were F. W. Clifford and Co. Ltd. Sub-contractors: page 226.



Floor plan of showroom [Scale: $\frac{1}{4}$ " = 1'0"]

DIARY

International Congress for Housing and Town Planning. At City University, Amsterdam. Enquiries to Singel, 453, Amsterdam, C.

UNTIL SEPT. 2

Industrial Finishes Exhibition. At Earls Court. Daily 11 a.m. to 6.30 p.m. Open until 9 p.m. on Saturday, September 2, and Wednesday, September 6. Closed on Sunday.

UNTIL SEPT. 7

Metropolitan Boroughs' Housing Schemes. Layouts, plans and photographs of recently completed housing schemes built for some of the Metropolitan Borough Councils. At 13, Suffolk Street, S.W.1. Daily 10 a.m.-5.30 p.m.; Saturdays, 10 a.m.-12 noon.

UNTIL SEPT. 15

Town and Country Planning Summer School. At University of Nottingham. (Sponsors, TPI, 18, Ashley Place, S.W.1.)

SEPT. 6-13

Building Week. At Hunslet Moor, Leeds. Sponsored by MOW and building industry.

SEPT. 11-16



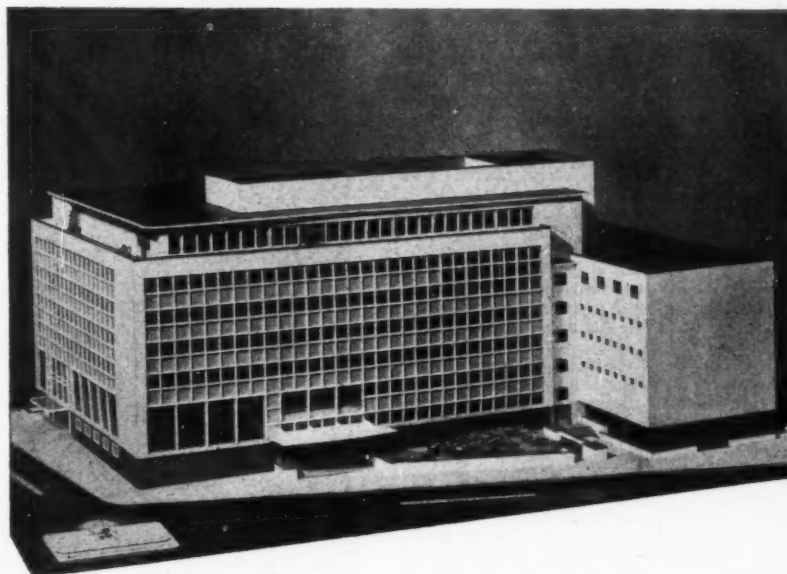
This feature covers aspects of legislation, parliamentary news or statutory rules and regulations which are of special significance to the architectural profession.

ERNEST WATKINS

The Architect and Current Affairs

The case of *Joyce v. Boots Cash Chemists (Southern) Ltd.*, decided in the High Court last month, is something of a red warning light to all who may be concerned with shops. The facts in the case are these: The plaintiff was employed as a porter in a retail chemist's shop in a London suburb. While carrying a box of bottles along a corridor he tripped over a piece of linoleum near the head of a staircase and fell down them, injuring himself. He sued the company for damages. The important point is that he based his claim for damages on the allegation that the premises constituted a factory within the definition contained in the Factories Act, 1937. Had he succeeded

DESIGN FOR A NATIONAL FILM LIBRARY



The design of a National Film Library, a national centre for the advancement of appreciation of the cinema as a form of art, was chosen by H. Russell Hegan of the Birmingham School of Architecture as his final thesis subject. The site is at the junction of Tottenham Court Road and Great Russell Street, London, W.C.1, where the Central YMCA now stands. Above, the elevation facing Great Russell Street. Below, a view from the north-east. The sub-basement contains a cinema seating 500 and a theatre seating 300, which may be used independently or together. Cloakrooms and space for constructing and storing travelling exhibitions are provided in the basement. An exhibition area is situated on the ground floor. Administration offices and film storage rooms are on the first, second and third floors. Reference libraries for film stills, books, scripts, film music and recordings are on the fourth floor. The fifth floor is used for storage and photo copying. Dining rooms, a lounge, a small cinema and a caretaker's flat are on the sixth floor. The building is constructed of reinforced concrete. There are two air conditioning systems; one serves accommodation below ground, the other the film storage rooms, where a temperature of 80 deg. F. and a relative humidity of 50 per cent. is required.



in establishing this point, his chances of success in the action would have been greatly improved, for the Factories Act lays down a detailed safety code, in which is included a provision that staircases must have handrails, and the plaintiff claimed that the staircase down which he fell had no handrail.

At first sight, a retail chemist's shop can hardly be a factory, but the definition of factories in the Act is wide. Shortly a factory is (a) a place where people are employed in manual labour and (b) a place where articles are made or "adapted" for sale. In this case the High Court held that the shop was not a factory because, first, the manager, dispenser and shop assistants were not engaged in making articles, or in adapting them for sale, and, second, although the plaintiff was employed in manual labour, his manual labour was only incidental to the main purpose of the business. The judge declined to hold that the presence of one man who might be engaged in manual labour converted a retail shop into a factory while he was so working and allowed it to revert to a "non-factory" when he stopped his manual labour. The plaintiff's claim was dismissed.

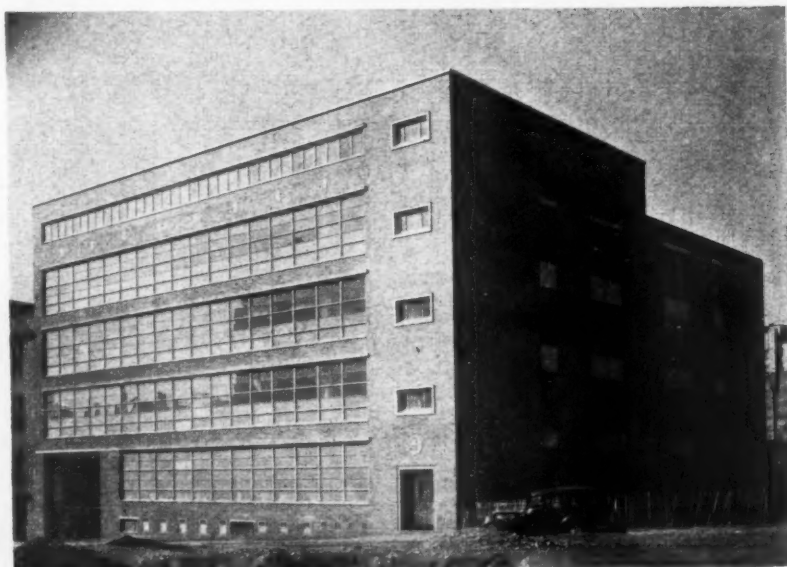
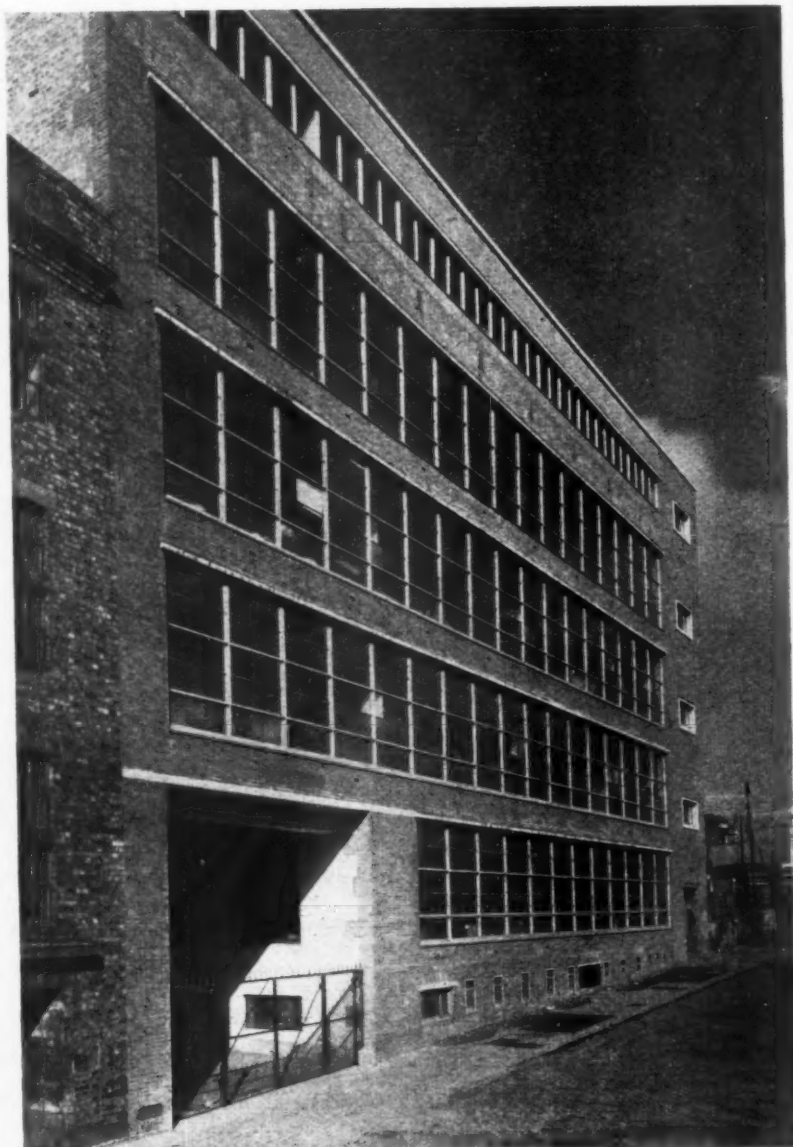
But the warning elements in the case are there. Take, for example, a large retail shop. In such a store quite a number of people are adapting articles for sale, from those who may be cutting up lengths of material in the soft goods departments to those who are on some more direct manufacturing work, as, for instance, in the dressmaking and millinery departments. And there are a considerable number of men and women who are on manual work. In fact, it might be argued, were there an appeal in the Joyce case, that making up drugs to meet prescriptions is "adapting articles for sale."

I express no opinion on that; the point is that those responsible for shops, their design and equipment, do not want to leave any uncertainties which may produce accidents, or which may produce claims for damages as a result of those accidents. It is clearly advisable that all concerned should check what the safety regulations laid down by the Factories Act are and see that the safety precautions in shops are at least up to the standard laid down in factories.

Another case from last term's High Court decisions, one on the Building Regulations, 1926. The case is *Field v. Perrys (Ealing) Ltd.* The plaintiff was a night-watchman on duty at a building site over the week-ends, and while on his rounds at night tripped over a plank in a roadway and was injured. The decision there was that the Building Regulations, 1926, apply to a building site all the time it is in existence as such, including week-ends when it is not in active use. On the other hand, the Court held that the route of a night-watchman's tour of inspection is not a "working place" within the meaning of Regulation 15, which requires working places to be effectively lighted at night. Had it been a "working place," the Court considered that the portable lamp supplied to the night-watchman would not have been "effective lighting" for the purposes of the Regulation. The decision affects contractors more directly than it does architects, but it is useful to remember that the Building Regulations apply without break to any site temporarily used for the construction of a building and at which some form of mechanical power is used.

One final note on quite a different point. MOTCP, at the request of the Ministry of Civil Aviation, has asked all local authorities to list and report all buildings and structures in their areas which exceed 200 ft. in height and are therefore a risk to aerial navigation. By international agreement, the 200 ft. level has replaced the former 300 ft. level as the limit above which a structure should be marked on pilots' charts.

A PRINTING WORKS EXTENSION

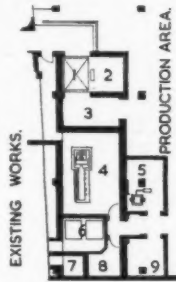


AT REDCROSS STREET IN LIVERPOOL

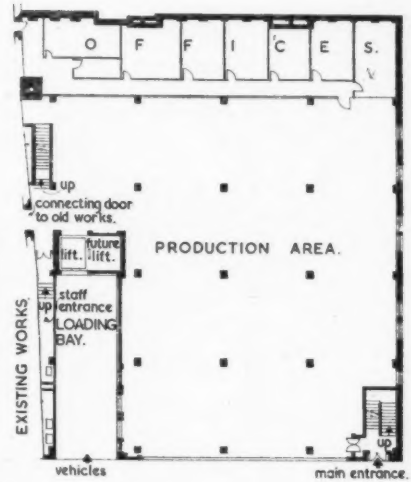
The extension to the printing works, belonging to Messrs. Charles Birchall and Sons Ltd., in Liverpool, was designed by A. Ernest Shennan. Accommodation provided is as follows:—Basement, bulk storage space for paper under controlled conditions of humidity and temperature with access to street. The three floors above act as an extension to the existing working area at identical floor levels. Staff accommodation and space for special processes are on the top floor. Offices are situated on the ground floor. There are two staff staircases. An electrically-operated goods-passenger lift serves all floors. The foundation sub-soil is red sandstone. The plan was developed upon a grid of 25-ft. centres along both axes. Primary beams run from side to side of the building. Secondary beams run from front to back at 6 ft. 3 in. centres. The floors are constructed of reinforced concrete, laid in situ. About 500 tons of structural steel frame were erected in 8 weeks. Below left, the main entrance. Bottom left, a printing department. Below centre, a corridor, below

KEY:

1. lift.
2. future lift.
3. lift bay.
4. diesel plant.
5. auxiliary mech. plant.
6. fuel tanks.
7. drain chamber.
8. electric intake.
9. rectifiers.

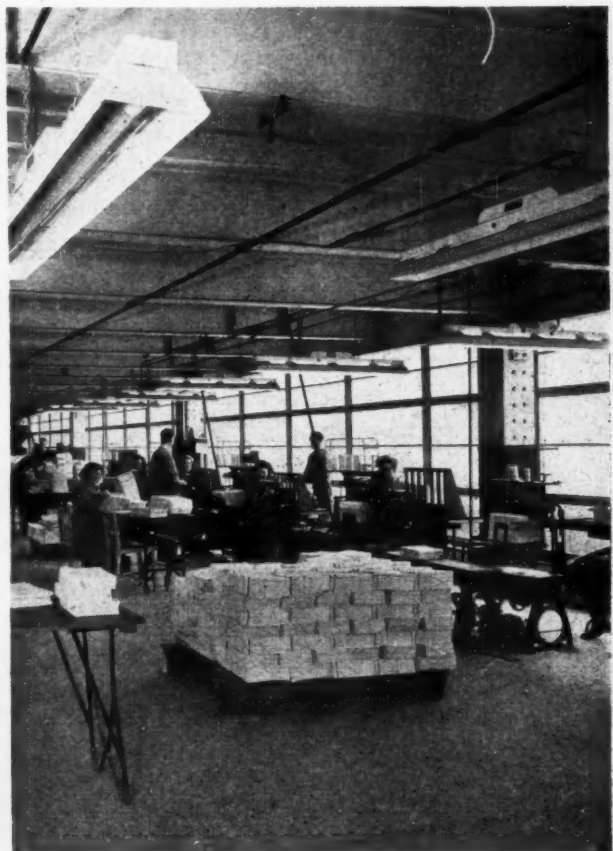
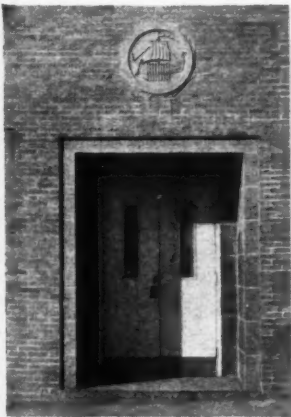


Basement plan

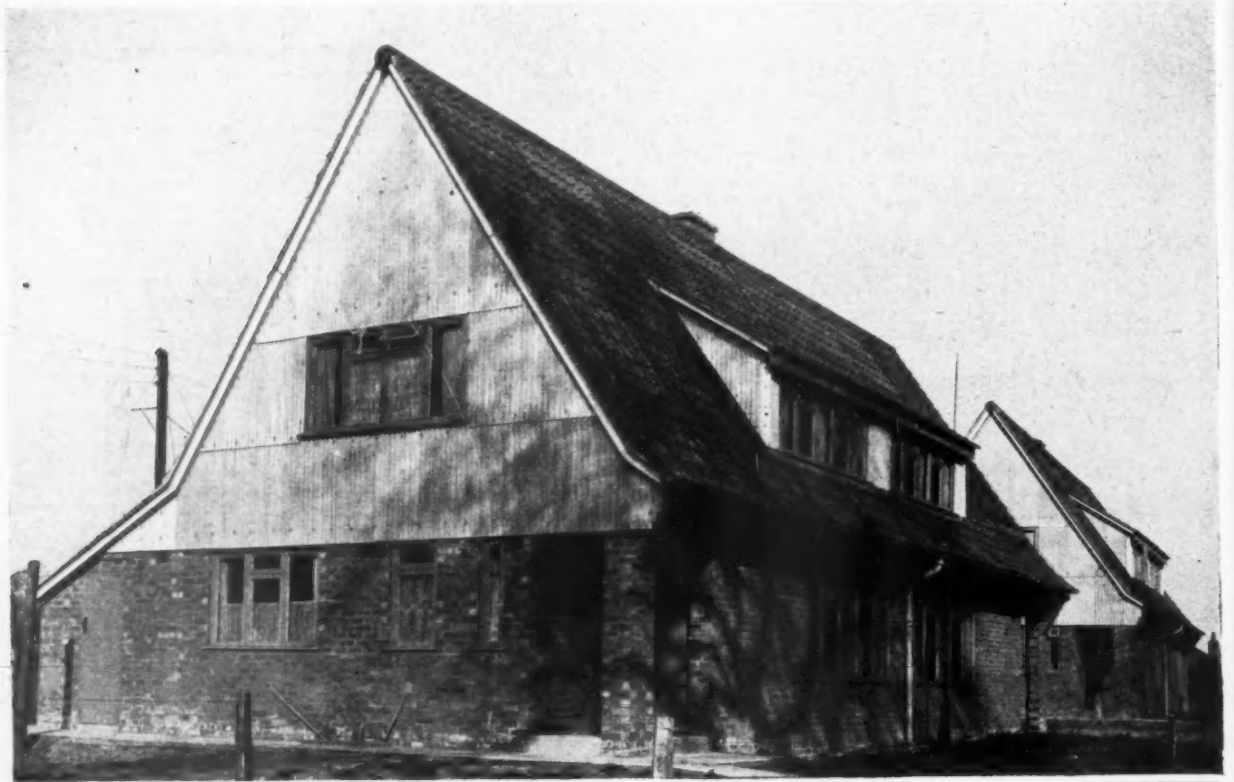


Ground floor plan [Scale: 1/8" = 1'0"]

right, a bookbinding department. On the facing page, two views of the façade facing Redcross Street. The general contractors were John Lucas and Son (Builders) Ltd. A list of sub-contractors appears on page 226.



AGRICULTURAL COTTAGES, NEWTON HARCOURT, LEICESTER



The two pairs of houses illustrated on this page were designed by Henry Goddard for the special needs of agricultural workers to give economy in running expenses and maintenance. The contract price for the four houses was £4,820, which includes septic tank and sub-soil irrigation for effluent disposal, £100; hot and cold water supply, cookers, sanitary fittings, £500; electrical installations, £150. Not included were fencing, paths and other site works, £70, and the electric pump for water supply, £60. The accommodation consists of a living room of 225 ft. super; utility room, 95 ft. super; first bedroom, 125 ft. super; second bedroom, 115 ft. super; third bedroom, 75 ft. super. There is also a bathroom, W.C., fuel store, cycle and tool store, larder, drying closet and linen cupboard in each house. The local Women's Institute members, whose advice was sought, expressed



Ground and first floor plans [Scale: 1/4" = 1'-0"]



preference for a single large living room with a combination grate, a utility room with sink and wash boiler, bathroom and indoor W.C. downstairs, a proper drying closet with heater and ventilation to outside air. The main walls are of 11-in. cavity brick, with rustic flint facings, and the gable end walls are of 4½-in. brick with corrugated asbestos cement cladding. The ground floor is of 6-in. concrete and the first floor is of wood joists with a small span enabling 4-in. by 2-in. joists to be used. The combination grate provides an open fire in the living room, cooking facilities, heat to the upper landing and hot water. The photograph above is from the south-west and that on the left from the north. The general contractors were H. V. Batchelor & Co., Ltd. For list of sub-contractors see next week's issue.



The amount of constructional work carried out, the amount of time spent on preparing plans and in legal matters: These are some of the points which are of interest to architects today in the development of our new towns. On this and the following page D. Rigby Childs gives the first of a series of reports on progress made in what has been described as the most exciting experiment of the century.

NEW TOWNS: No. 1

Progress report on Stevenage by D. Rigby Childs

The proposal for a new town at Stevenage was made by Professor Abercrombie in his Greater London Plan, 1944. As part of his plan for the decentralisation of population from London, Professor Abercrombie recommended the establishment of a "satellite" town at Stevenage. The population for the new town is to come from the North London area and the ultimate size of population is to be 60,000 persons.

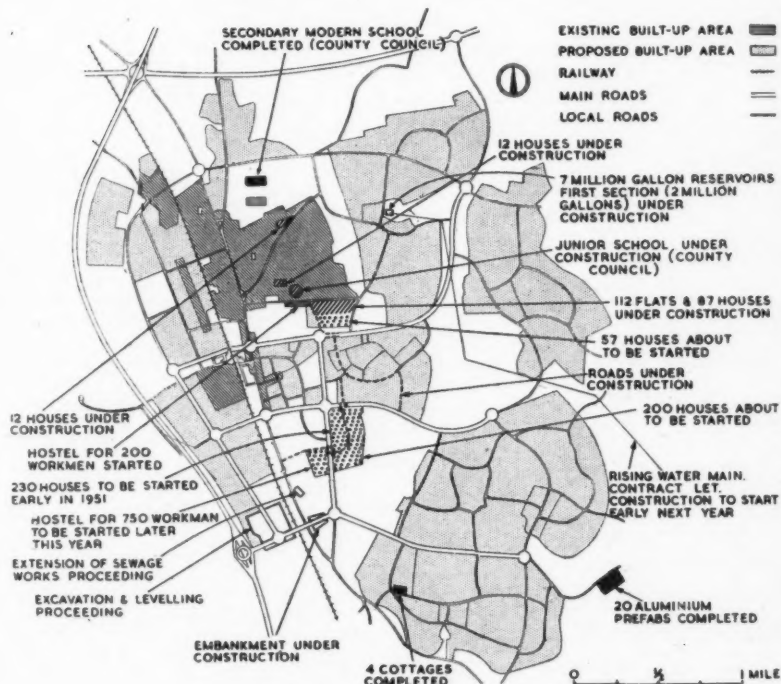
The site, which is situated in Hertfordshire, is largely open country; part of it is occupied by Old Stevenage, a small country town, with an existing population of about 6,500 persons.

Old Stevenage has a pleasant High Street, which is to be preserved as a whole. Some of the housing in the town is of a good quality but there is also some low-standard housing which may have to be redeveloped at a later stage.

The topography is undulating with levels from 230 OD to 460 OD. There is a predominant slope to south and west. The sub-soil is mostly glacial drift on chalk.

DEVELOPMENT CORPORATION

The Development Corporation is made up as follows:—Chairman, Mrs. Monica Felton, PH.D., vice-chairman, J. Corina; general manager, Major-General A. C. Duff, C.B., O.B.E., M.C.; architect and planner, Clifford Holliday, M.A.R.C.H., F.R.I.B.A., M.T.P.I., engineer, G. E. Hardy, A.M.I.C.E., M.I.M.U.E.



This plan of the new town of Stevenage, shows the areas where work is actually in progress. It should be read in conjunction with the aerial photograph on page 204. The broken line indicates the road which is being built in the foreground of the photograph. The dark grey tint shows the existing built-up area with, immediately above, on the plan, the secondary modern school, designed by Yorke, Rosenberg and Mardall. This school is just discernible in the background of this week's frontispiece. None of the light grey areas, or the roads connecting them, have yet been built.

Outside architects engaged by the Corporation for the design and erection of 5 blocks of flats (112 flats) Sish Lane, (1 seven-storey block of 54 flats, remainder in 3- and 4-storey blocks) are Messrs. Yorke, Rosenberg and Mardall.

PROGRESS

1946: First draft of master plan prepared by Ministry of Town and Country Planning.

November. Designation Order made for 6,100 acres.

1947: August. First building construction contract let (for aluminium bungalows).

1949: August. Final draft of master plan prepared by the Development Corporation, submitted to the Minister of Town and Country Planning.

November. Final draft of master plan published in form of booklet, *Stevenage New Town*. (Copies obtainable from Development Corporation offices, Aston House, nr. Stevenage. 2s. 6d. per copy.)

1950: February. General approval of master plan by Minister of Town and Country Planning. According to the draft plan the total area of land to be developed or used for town purposes as opposed to farming was 4,456 acres (including golf course 200 acres). This area has not been finally agreed with the Minister but some reduction is expected.

June. By this month approximately £80,000 had been spent on civil engineering works, and approximately £60,000 had been spent on building construction.

July. By this month the area of land acquired was about 1,000 acres.

The number of buildings completed were: 24 houses of all types and one secondary modern school with 450 places.

The number of buildings under construction were: 110 houses of all types; 112 flats of all types; one junior school with 360 places; and one hostel for 200 building workers (the hostel comprises 19 houses).

The total labour force at work was 225 men with 130 men on civil engineering and 95 men on building construction.

PROGRAMME

On the basis that the amount of factory, school and shop, etc., building will be in balance with the building of dwellings the aim for intake of new population by mid-summer of each of the three years is as follows:—

1951, total number 1,300 persons.

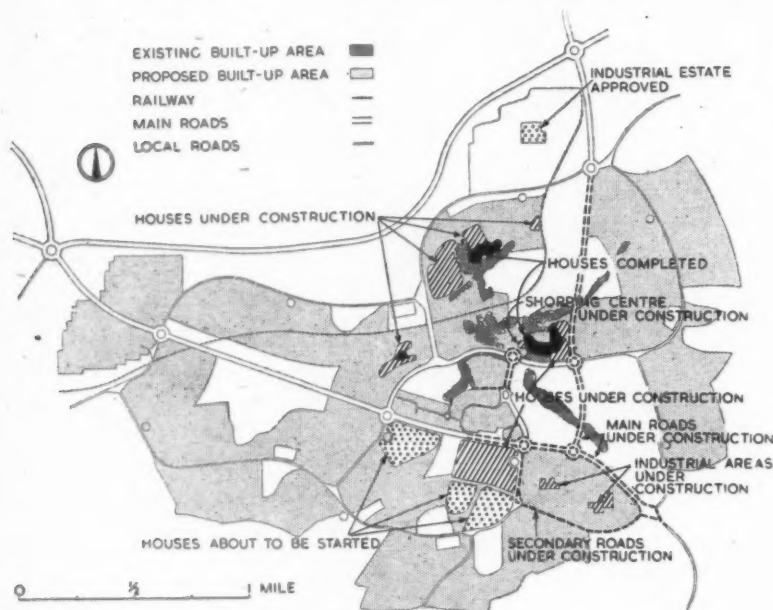
1952, further 4,000 to make total number of 5,300 persons.

1953, further 3,400 to make total number of 8,700 persons.

COMMENT

Stevenage Development Corporation was the first to be appointed and its early activities in 1947 were embarrassed by the litigation carried to the House of Lords on the legality of the Designation Order.

Good progress is being made on the provision of water supply and sewage disposal and construction is proceeding on works which will provide these services to support by 1953-1954 a total population of 18,000 persons, including that is the present and new population.



Plan of East Kilbride.

NEW TOWNS: No. 2

Progress report on East Kilbride by D. Rigby Childs

The proposal for a new town at East Kilbride was first made by the Clyde Valley Advisory Planning Committee in 1946. The new town is to relieve over-crowding of housing and industry in Glasgow and Lanarkshire and to provide for expansion and relocation of industry in the Scottish Development area. The ultimate size of population is to be between 40,000-45,000 persons. The new population is to come from Glasgow and N.W. Lanarkshire.

Situated in Lanark County the site, partially built-up, contains the old agricultural and semi-residential village of East Kilbride with an existing population of 2,500. The topography is undulating and wooded.

DEVELOPMENT CORPORATION

The Development Corporation is made up as follows:—Chairman, Sir Patrick J. Dollan, LL.D., D.L., J.P.; vice-chairman, John Mann, C.B.E.; general manager, Major-General B. E. C. Dixon, C.B., C.B.E., M.C.; chief architect and planning officer, D. P. Reay, B.A.R.C., M.Sc., A.R.I.B.A., A.M.T.P.I. The Corporation has no chief engineer. All engineering work is carried out by the Lanarkshire County Council's highways engineer, drainage engineer, water engineer, street lighting engineer, etc., and their work is co-ordinated by the Corporation's planning staff. Both highway and drainage engineers have special staffs housed on the site to design and supervise engineering work.

Outside architects engaged by the Corporation are: Cullen, Lochhead & Brown; Weddell & Thomson; John Keppie & Henderson and J. L. Gleave (housing); Gillespie, Kidd & Coia (flats); Reiach & Cowan (shops and flats).

PROGRESS

1946: June. Preparation of master plan started by the Department of Health for Scotland.

1947: May. Designation Order made for 10,200 acres.

1948: June. Revision by Development Corporation of preliminary master plan prepared by the Department of Health for Scotland.

The first building construction contract let.

October. Master plan final draft by the Development Corporation submitted to the Secretary of State for Scotland.

1949: November. Draft master plan considered to be in order by the Secretary of State for Scotland. The master plan is not yet available in published form.

According to the master plan the total area of land to be built-up is 2,700 acres.

1950: July. By this month the area of land acquired was 2,400 acres.

The number of houses, of all types, completed and occupied were 118 up to July 7. No other buildings had been completed.

The number of buildings under construction were: 386 houses and the main workshop, materials laboratory, central power house, canteen and recreation building for the mechanical engineering research laboratory of the Department of Scientific and Industrial Research. Approval was received for the construction of a Board of Trade Industrial Estate and site work will commence very soon.

Tenders for 6 shops and a bank had been received and construction was expected to start very shortly.

A building was in course of being adapted for a County library.

The total expenditure on works constructed or approved by this month was £2,060,000: civil engineering, £960,000; building construction, £1,100,000.

The total labour force at work was 600 men with 200 men on civil engineering and 400 men on building construction.

PROGRAMME

On the basis that the amount of factory, school and shop, etc., building will be in balance with the building of dwellings the aim for intake of new population by mid-summer of the next three years is as follows:

1951, total number—2,000 persons.

1952, further 1,500 to make total number of 3,500 persons.

1953, further 2,200 to make total number of 5,700 persons.

COMMENT

No really serious obstacles have so far been encountered in developing East Kilbride. There are neither subsoil nor sewage difficulties and the water supply problems are very minor and in process of solution. At the public enquiry, pressure from agricultural interests led to a slight shifting of the town site and a reduction in the acreage of the built-up area.

The acreage of the proposed built-up area is low (2,700 acres) for the proposed population (45,000) and compared with some new towns, the gross residential density is high, being 17.5 persons per acre. This will give the town a built-up architectural character and the hilliness of the site will be exploited for visual effect. From nearly every point in the town there is a built-up or wooded hill on the horizon. Owing to the fact that the site is rather windy, extensive tree shelter belts are planned, which will affect the architectural character of the layout to some extent.

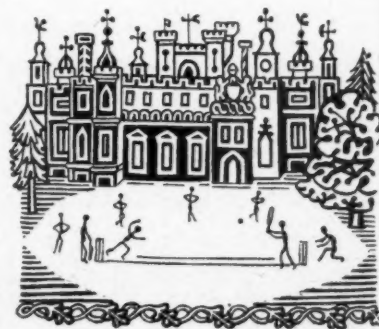
NOTES ON PROGRESS

The greater part of the land in the built-up area is in the ownership of the Corporation. Main and branch sewers and disposal works to cater for two-thirds of the site are nearing completion, and work on main sewers for the remainder of the site is in progress. Arrangements for water supply for a rate of building rising to 800 dwellings per annum are in hand and progressing well. Work has started on stage one of the main classified road programme, and the construction of approximately two miles of classified road including roundabouts, bridges, etc., is well in hand.

A start on the first buildings in the town centre is expected to be made before 1951 and designs for the first office and shop blocks for the town centre are reaching approval stage.

Construction of the first primary school has been approved and site work will commence in January, 1951. Other secondary and primary schools to cater for the planned population growth are in the design stage. Road and drainage works for a further 550 dwellings are expected to start within two months.

It is expected that construction of the first private factory will commence shortly. Approval has been given for the construction of the roads and services for an industrial estate and the first buildings of the mechanical and engineering research laboratory will be in operation in early 1951.



PRIMARY SCHOOL

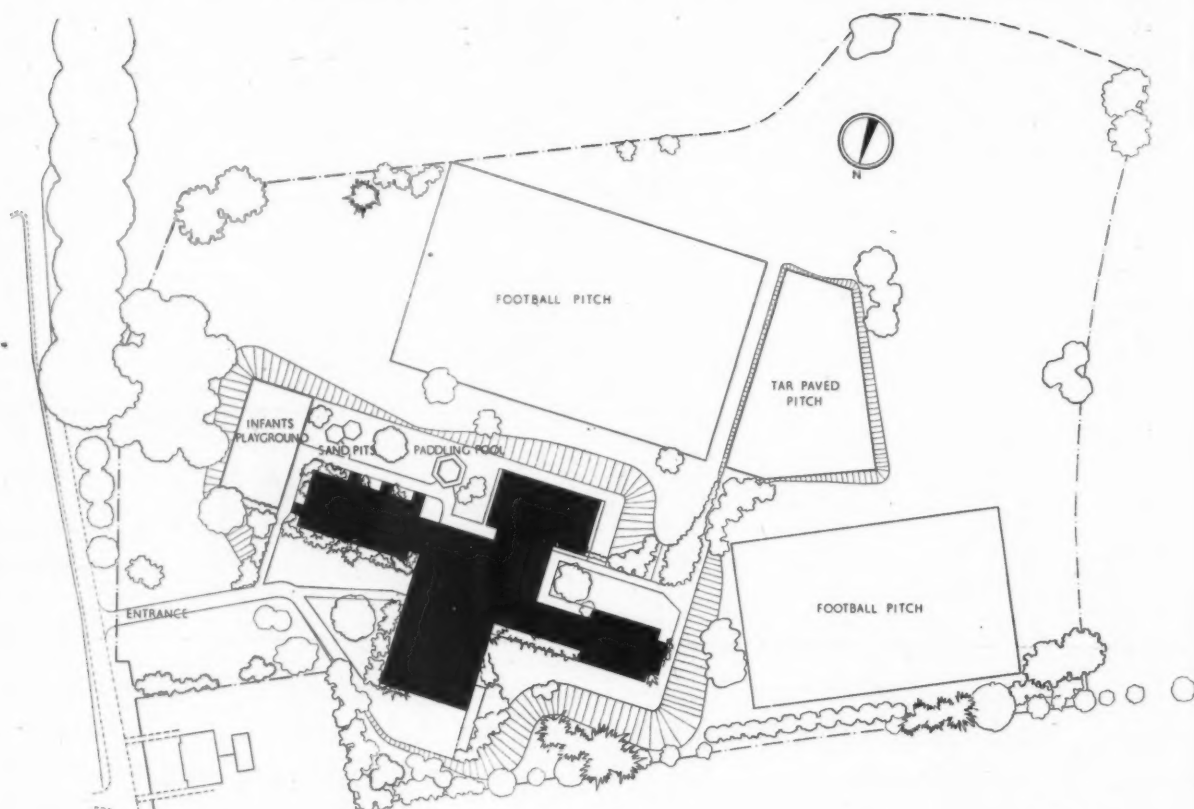
at HERTFORD

designed by C. H. ASLIN, County Architect
schools group—site architect, BRUCE MARTIN

The junior mixed and infants' school in Morgans Road, Hertford, is designed for 120 infants between the ages of 5 and 8 and 200 juniors up to 11 years. The site of $3\frac{1}{2}$ acres is flat and the building is set back from the road so that it overlooks the playing fields. There are trees along the north border of the site and considerable new planting of trees and shrubs is to be carried out to the plans of Brenda Colvin. The junior and infants' teaching spaces are kept separate with their own cloakrooms and lavatories, but the halls are for combined use. A domestic, rather than an institutional atmosphere has been aimed at in the design of the school.

Infants' classrooms and assembly hall from the east.





Site plan

PRIMARY SCHOOL

at HERTFORD

designed by C. H. ASLIN, County Architect

South façade of assembly hall.



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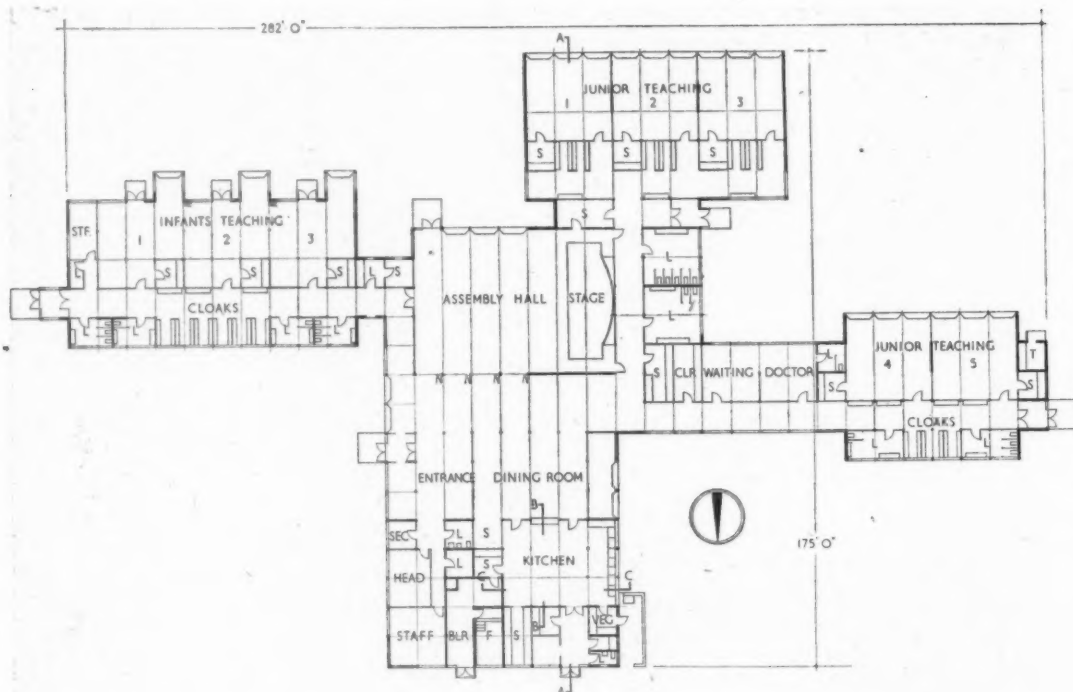


Function of assembly hall and junior teaching wing.

PLAN.—The entrance hall is flanked by the assembly hall and the dining room. In small wings around this central core are placed the infants' rooms, two sets of junior teaching spaces, staff rooms, kitchen and boiler house. The central core is well lit and ventilated, (see section A-A), with clerestory and roof lighting. Each teaching area faces south and the infants' rooms are approached

separately from the east off the main entrance.

CONSTRUCTION.—There is a light steel frame with walls of precast concrete blocks and steel panels externally and fibrous plaster and wood wool slab linings internally. Partitions are of fibrous plaster and plastered wood wool. Roofs are covered with built up felt roofing and vermiculite screed on concrete blocks. Floors are of concrete slab.

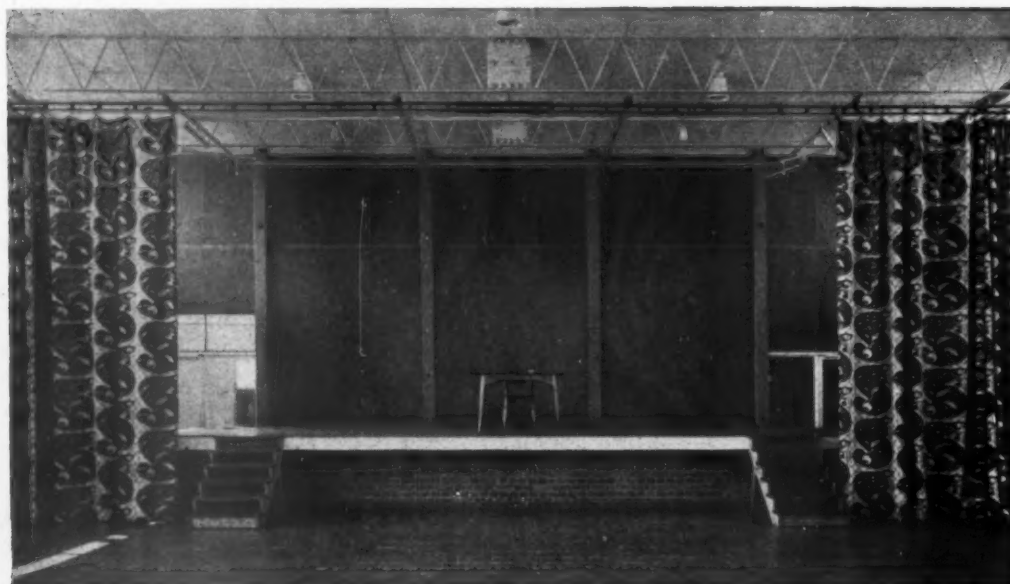
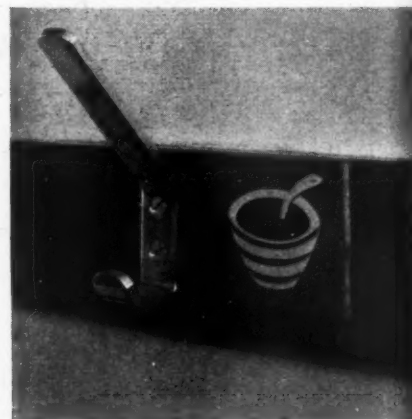


PRIMARY SCHOOL

at HERTFORD

designed by C. H. ASLIN, County Architect

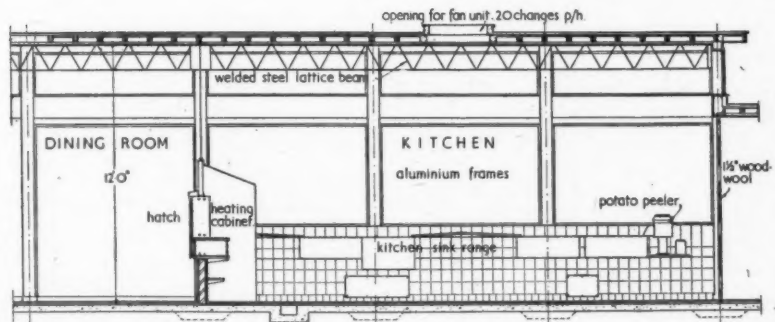
FINISHES.—There is little colour used externally except on the steel panels, which are rust red, ochre or light blue. Window frames and fascias are white and wall blocks cream and white. The detailed colour study of each room was undertaken in conjunction with the BRS. There are bright yellow walls in the dining room, red and blue in the entrance hall and greys and browns in the assembly hall.



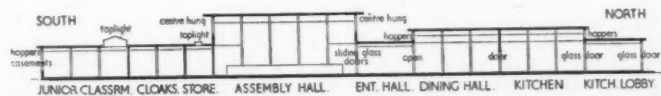
Above, a clothes peg with picture, instead of number, for identification. Left, assembly hall.



Kitchen and dining hall wing, looking east.

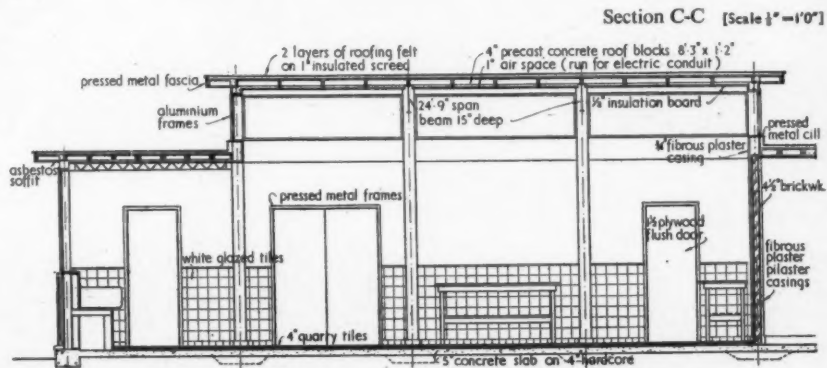


Section B-B



Section A-A

[Scale: 1/8" = 1'0"]



Section C-C [Scale 1/8" = 1'0"]

The floors in classrooms and the assembly hall are of small wood blocks and floors elsewhere are of tiles.

SERVICES.—The heating system is similar to that employed on previous schools in the county, namely, slow running fans blowing air over a heater battery thermostatically controlled and housed in a fibrous plaster heater cabinet.

The general contractors were Ekins & Co., Ltd. For list of sub-contractors see page 226.



PRIMARY SCHOOL

at HERTFORD

designed by C. H. ASLIN, County Architect

Above left, infants' classroom with adjustable louvers (shown in detail above) designed by Arcon. Below, staff room with specially designed bookcase and cupboard fitting. The infants' classrooms are only 9-ft. high. This has been made possible by the substitution of roof light ventilation for the usual clerestory method.



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

TECHNICAL SECTION

This feature covers both the production and marketing of new materials and designs of equipment, as well as the general trend of developments within the Building Industry.

THE INDUSTRY

By Brian Grant

MORE ABOUT ALUMINIUM

This week there seems to be an unusual amount of news about aluminium. First of all Allan Barclay Ltd., (13b, Grove Road South, Portsmouth), have issued a catalogue of light alloy rainwater goods of the kind which have now been in use for four years or more, and are now accepted as normal practice, but this firm also makes air bricks, gully grids, brackets, soot boxes and fresh air inlets in the same material, fittings which one does not remember having seen before made in light alloy. One of the most interesting items listed is the new and patented Barclay collar, with which a watertight push fit joint can be made in plain ended pipe, so that there is no need to order special lengths and no jointing is needed. At the same time these collars, which are really a double sided socket to take the plain spigot end of the pipe, should make it possible to use up the piles of useless offcuts which one often finds lying about in builders' yards. So far it is made only for 2½ in. pipes, but other sizes will follow later.

The photograph on this page shows a light alloy footbridge in Scotland which is larger than one would imagine from the angle at which the picture was taken. It has a total length of 310 ft. 6 in. made up of a centre span of 172 ft. 6 in. and two side spans of 69 ft. each, the design being by Sir Alexander Gibb & Partners, and the material supplied by James Booth of Birmingham.

Part of the Tummel-Garry hydro-electric scheme involved raising the level of the River Tummel by 50 ft. with a dam at Pitlochry. This in turn brought up the problem of a bridge to replace the old stone one at Clunie, which was to be demolished, as it would be submerged in the reservoir.

The metal is Duralumin H used in the full heat-treated condition, and all rivets were made in "MG5" light alloy driven cold. Considerable use was made of beaded I beams for the compression members. It is interesting to note that in the fabrication of the bridge much time was saved by the lightness of the material—the engineers found there was no necessity to wait for a crane to lift even some of the largest parts. The structure will not be painted so as to indicate clearly the material used. (The Aluminium Development Association, 33, Grosvenor Street, London, W.1.)

PERMANENT PLYWOOD

Under the name of Permaply, Venesta Limited, have now produced a material which is completely resistant to climatic conditions.

It is accepted that ordinary resin-bonded plywood is resistant to decay in that the bonding will hold until the wood fails. The physical properties of Permaply, however, are claimed to have far greater permanence. It is a plywood which, during the course of manufacture, is so treated that the plies are effectively protected from moisture, dryness and heat, so that the wood plies which in the past have limited the durability of resin-bonded plywood now have a life equal to that of the resin bonding.

Pieces of Permaply, buried beneath the earth in the Tropics for more than three years have emerged dirty but otherwise in precisely the same condition as when they were deposited.

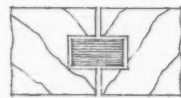
The makers suggest that Permaply can be used under conditions where even resin-bonded plywood would fail, for instance, for facing and roofing buildings; on the outside of vehicles, or signboards, and in any climate, without the application of a coat of paint.

It is not only resistant to rot, but also to white ant and beetle attack. Moisture absorption is much less than that of ordinary wood and in many ways it resembles teak, its surface being hard and resistant so that it should be a good material for laboratory bench tops and draining boards.

The manufacturers claim that it is an improvement on their pre-war product Shuttaply, which was well known as a concrete shuttering, in that Permaply has greater resistance to rot under prolonged, wet conditions. (Venesta Ltd., Vintory House, Queen Street Place, London, E.C.4.)



SQUARE EDGED



PLOUGHED & TONGUED

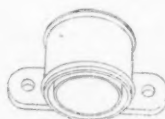


SPLAYED REBATED TONGUED & GROOVED



SPLAYED HEADING JOINT

Secret Nailing



FLOORING MATERIALS

The National Flooring Co., have just issued quite a useful *Guide to Flooring Materials* which does not attempt to be an exhaustive treatise, but which covers most of the main materials in use today and deals specifically with the various types of wood flooring, jointless floorings, asphalt, tile, cork, and cork carpet. Under each heading there are useful and informative notes on selection of the right type of floor and on laying them.

For very heavy traffic, mainly industrial, the recommendations are greenheart, rock maple, East African olive, pinkado, "Rhodesian Teak" and tallowwood, while for heavy pedestrian traffic the recommendations are European beech, Canadian yellow birch, gurjun, jarrah, karri, merbau and oak. Moderate to light traffic in hospitals, offices, and for domestic work shows two tables for hardwoods and softwoods:

HARDWOODS	
Species	Wearing Quality
Camphorwood,	
Borneo	Moderate
Serya, white	Moderate
Seraya, Red	Moderate
"Tasmanian Oak"	Moderate
Teak	High to Moderate

SOFTWOODS	
Species	Wearing Quality
Douglas Fir	Moderate to Low
Hemlock, western	Moderate to Low
Matai	Moderate
Pine, longleaf,	
pitch	High to Moderate
Redwood	Moderate to Low
Whitewood	Low

It may not be out of place to suggest here that in specifying some of these species it is as well to use the standard names given in BSS 881 and 589, as some trade names are often applied to several different species. (The National Flooring Co. Ltd., 183, Hammersmith Road, London, W.6.)



Above left, various types of jointing for wood floors, part of an illustration from the National Flooring Co.'s Guide to Flooring Materials. Left, a patented collar for making joints in 2½-in. piping. Above right, a new light alloy bridge at Clunie, over the river Tummel. (Photo by courtesy of The Scotsman).

Our erratic climate produces considerable variations in the rate of air change and conventional methods of adjusting ventilation in houses leave much to be desired.

J. B. Dick, of BRS, suggests how adequate ventilation can be maintained whilst avoiding excessive rates of air change.

DOMESTIC VENTILATION

By J. B. Dick

THE REASONS FOR VENTILATION

The main function of ventilation in a dwelling is to reduce any contamination of the air which occurs to a level at which it is no longer unpleasant to the occupants nor has any harmful effect on health. There are a variety of ways in which contamination can occur. For instance, it may be caused by body odour, tobacco smoke, or odours given off during cooking; by airborne bacteria exhaled by the occupants; or by carbon monoxide from a flueless gas fire. It may be noted incidentally that the reduction in the oxygen content and the increase in carbon dioxide content as air is breathed is unlikely to be sufficient to have a harmful effect.

When a contamination becomes objectionable, it obviously can be reduced by increasing the ventilation rate by opening doors and windows. Unfortunately some contaminants can have a harmful effect before becoming noticeable, and to prevent this happening, some provision must be made for background ventilation which will continue even when doors and windows are shut. Contaminants such as body odour, airborne bacteria and carbon monoxide from flueless gas fires must be considered from this point of view. Taking these in turn, the requirement to keep down the concentration of body odour is a general one, and it has been shown that an air supply of about 600 cubic feet per hour per person is necessary to avoid body odour having an effect on health (which may be shown by loss of appetite even when not obvious to individuals). The effect of airborne bacteria has recently been discussed by Williams who summed up by saying that there was no justification on the medical side "in pressing for the maintenance, in dwellings, of a high rate of air change at the expense of adequate space

heating." As regards the combustion products from flueless gas fires, the ventilation needed will depend on the rating of the appliance and the local gas authority should be consulted for advice.

The general recommendations for ventilation of bedrooms and living rooms have been based on the air supply necessary to prevent body odour having a harmful effect. In other spaces, such as kitchens, halls, bathrooms and w.c.s., different limiting factors arise, and for these the recommendations (based on experience) are that kitchens should have an air supply of at least 1,000 cubic feet per hour, that there should be at least one air change per hour in halls and two air changes per hour in bathrooms and w.c.s.

It has been shown that for the ventilation of a room to be satisfactory, a certain amount of air movement is required as well as air change. A mechanical ventilation system can be designed to provide this desired air movement, but this is much more difficult in dwellings where natural ventilation is used as the air movement depends to a much greater extent on factors other than the ventilation system; these include the type of heating system used and the degree of thermal insulation and consequent temperatures of the wall surfaces. It is, however, important in dwellings to ensure that the ventilation system cannot produce air movement which is so high that it is felt as a draught.

THE CAUSES OF NATURAL VENTILATION

Natural ventilation can be caused in two ways:—

- (a) By the action of wind;
- (b) By the action of a difference between the air temperatures in two adjoining spaces.

In the first case, when a wind blows on an exposed building a pressure is developed on the windward wall and there is usually a suction on the other walls and the surface of the roof (if the pitch is high there may be a pressure on the windward slope); the wind also causes a suction at the terminals of any projecting flues. Although there may be some variation in pressure at different points on a particular wall, this will usually be small compared with the pressure difference between the windward wall and one of the other surfaces. Thus if the surfaces have openings (which may be ventilators or only the gaps between the sash and the frame in openable windows) the predominant air flow pattern will be in through the openings on the windward wall, through the building and out through openings in the other surfaces. This occurs in a house even if the internal doors are shut, as there are usually sufficient gaps to allow a considerable amount of air to pass. The air flow pattern is shown diagrammatically in Fig. 1. The characteristic of this mode of ventilation is that the air usually enters through an opening in one surface and leaves through an opening in a

different surface, thus providing cross ventilation.

The air flow produced by a difference of air temperature is most obvious in the case of a heated flue. There the column of hot air and gas inside the flue is less dense than the corresponding air outside the flue, and the air consequently rises up the flue and is replaced by air drawn in at the bottom. In a similar way if the air inside a building is warmer than the air outside, it tends to leave through any high level openings and be replaced by air drawn from outside through any low level openings. The rate of air flow increases with an increase in the temperature difference, or the vertical distance between the inlet and outlet, or the area of the openings. With this type of ventilation the openings need not necessarily be in different surfaces but only require to be at different levels. Fig. 2 shows the pattern of air flow produced when the air in a building is warmer than the air outside, and wind speed is low.

Of the two factors producing ventilation, wind is the more important, and will swamp the effect of a temperature difference between the air inside and outside a house unless the wind speed is low. Recent measurements in detached and semi-detached houses at the BRS showed that when the wind speed was below about 5 m.p.h. the rate of ventilation was affected by the temperature difference, but that as the wind speed rose above 5 m.p.h. so it took control and the ventilation rate was then approximately proportional to the wind speed.

Now both these factors vary from hour to hour and day to day, and consequently the ventilation rate will vary. It is apparent, however, that inadequate ventilation is most likely to occur when the wind speed is low and thus the provision for background ventilation should be designed so as to make full use of any pressures due to temperature differences.

METHODS OF VENTILATION

Measurements of ventilation rates in rooms, by a number of investigators, have shown that although a considerable amount of air may pass through such gaps as those between the sash and frame of openable windows and around doors, the flow occurring cannot be considered to give adequate ventilation unless the room also has a flue serving a heating appliance. In this case when wind speed is low, any temperature difference will cause air to be drawn into the room through the gaps around doors and windows and pass up the flue. It should be noted that there are some modern gas appliances such as water heaters where the flue may be smaller than that normally serving, say, a space heating appliance; such flues cannot always be taken as inducing sufficient ventilation, and the local gas authority should be consulted for its recommendation.

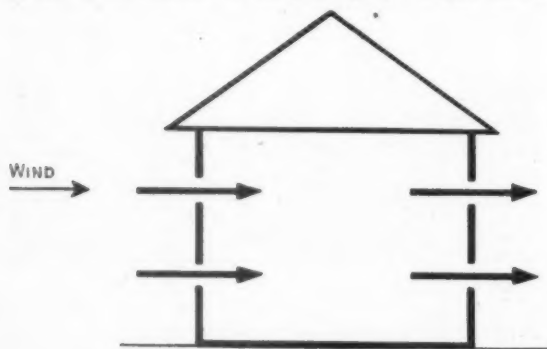


Fig. 1. Air flow produced by wind.

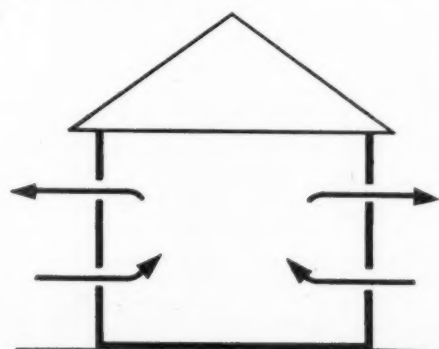


Fig. 2. Air flow produced by a temperature difference.

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Various methods for providing extra ventilation in rooms without flues are given in local bylaws. These vary to some extent, but usually allow the extra provision to be by means of either

- (a) an opening in an external wall,
- or (b) a ventilation shaft,
- or (c) an opening to a ventilated lobby.

Now, as already pointed out, low ventilation rates tend to occur when the wind speed is low, and therefore, as the gaps around windows and doors are mainly in the lower half of the room, any extra opening provided should be placed as high as possible in the room in order to get the maximum effect of any temperature difference. At the other extreme when the wind speed is high, if there is an opening in a windward wall the rate at which air enters may be so great that it causes discomfort in winter. This can be avoided by using a ventilator of the constant flow type which closes automatically as the pressure across it is increased: it should be noted that the full benefit of such ventilators will only be obtained if the uncontrolled flow through incidental gaps is negligible. With either of the other two methods of ventilation, however, although the ventilation rate will increase as the wind speed rises, the increased entry of air through gaps around windows and doors is less likely to cause discomfort in winter than that occurring through a fixed opening in a windward wall. Thus it is considered preferable to use one of these methods, and in particular the use of a ventilation shaft (which simulates flue action) is recommended. This is particularly suitable for ventilating rooms upstairs in two storey dwellings which have a ventilated roof space, as in this case a short duct through the ceiling into the roof space will suffice. As it is becoming more common to provide thermal insulation of dwellings by insulating the first floor ceiling rather than relying on the insulation provided by the roof, the

opportunity to ventilate into a ventilated roof space should arise more frequently than in the past. If the method is adopted, the flues from gas appliances should not be allowed to terminate in the roof space. As has been recently pointed out, a wise precaution in the construction of a ventilated roof space is to cover the opening at the eaves with wire gauze to keep out birds or wasps.

When there is a flue serving a space heating appliance in a room, often the main requirement is not to increase the rate of air flow by providing extra openings, but rather to make sure that the flow up the flue is not unreasonably high when the fire is alight and the flue is heated. For instance, four persons in a room require 2,400 cubic feet of air per hour for ventilation, whereas with an open fire burning there may well be 6,000 cubic feet of air per hour entering through gaps around windows and doors and then passing up the flue. This excessive rate of flow can be reduced by using modern appliances which restrict the flow to some extent by incorporating smaller throats; these also have the advantage of increasing the temperature of the flue and its consequent "pull" so that fewer troubles are experienced from draughts under adverse wind conditions. An improved control of the rate of air flow up a heated flue can be obtained in appliances which incorporate a damper in the throat; these seem to have gone out of fashion, but there is considerable advantage to be gained from their use.

Sometimes a duct from outside is used to supply air direct to the fire. Such ducts can only be fully effective if the house construction is tight so that the greater part of the air to the fire does in fact pass through the duct rather than through the gaps around windows and doors. Some ducts are terminated outside, but may be exposed to adverse wind effects there, and more reliable operation can be obtained if the air supply

is drawn from elsewhere inside the house, say from a central hall.

The above notes are applicable to all rooms in a house, but there are individual cases which may be specially mentioned. It is desirable that the passage of air from kitchens to the rest of the house be reduced as much as possible, and a ventilation shaft will be much more satisfactory in this respect than a ventilator in an exposed wall; this also applies to the ventilation of W.C.s. Extra provision for ventilation of a central hall in a house is not normally required, as sufficient air flow to give adequate ventilation can take place through the gaps around the numerous doors opening off it.

FUTURE DEVELOPMENTS

Each room has so far been considered as a separate unit requiring its own supply of fresh air. An alternative approach which is now being explored, is to supply fresh air to a group of rooms and encourage recirculation between them; the group could well include living room, central hall and bedrooms without flues and would, of course, exclude kitchen, bathroom and W.C. Recirculation could be encouraged by openings in or above the internal doors to the central hall. This system has the advantage of reducing the total amount of air required for satisfactory ventilation, and one might be able to rely on the infiltration which can occur around the gaps in the house construction.

Even this system will however show variations in the ventilation rate with wind speed, and the ideal constant rate can only be obtained by reducing gaps so that the air flow through them is negligible (either by improving the fit of the windows or by weatherstripping) and then providing controlled ventilators. This combination is of course more expensive and cannot at present be recommended for general adoption, but it may be that a combination of controlled inlets, negligible gaps and adequate recirculation will eventually become possible.

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INFORMATION CENTRE

7.28 practice BONUSING

Bonusing for Builders. Frank Russon.
(Norman Tiptaft Ltd. 1950. 10s.)

One of the first attempts to examine the problem in detail, carried out by a practical builder who has actually applied the methods he describes.

There is little doubt that this book will make a major contribution to the rationalisation of the many and varied methods of calculating and paying bonus in the building industry. One of the most interesting contentions in the book is that a reasonably low target is the most effective, providing, of course, that the operatives' share is proportionally moderate. This may not appeal to builders who suffered from the effects of low targets in the war-time Payment-by-

Results scheme. Operatives too, may be critical of the proposal that they should receive only 50 per cent. of the savings. Nevertheless, the author's suggestion is well worth consideration as it emphasises what is generally not appreciated; the importance of relating the operatives' share to the target level.

The author applies the incentive scheme to all classes of building work and throughout the book he reiterates the ultimate need to standardize target levels either regionally or nationally. At present the so-called "basic output" varies greatly and early agreement on this aspect of bonusing is of vital importance to the success of the scheme. Given the necessary co-operation between builders through their Associations there is little doubt that it is possible to standardize target levels, if only for the major operations, providing the individual builder is permitted to adjust these targets within closely defined limits. A scheme on these lines is operating successfully in Holland and productivity is already approaching the pre-war level.

Pending this regional or national standardization the author recommends that each builder should establish his own target levels in each trade and thereby create a yardstick to cover as many building operations as possible, keeping the constants of labour to major items of work and varying the yardstick by percentages as circumstances warrant. A section of the book is taken up with examples of these yardsticks in each trade with basic output given in manhours per unit of work. This advice is excellent and should aid the reaching of agreement between employers and operatives.

The mechanics of bonusing is also dealt with in detail, and an explanation is given

of methods of measuring, recording and calculating. As an example the author uses the method he has adopted for his own firm, based on what he calls the "shilling share." This should certainly appeal to the operative, because, as the author emphasises, "any incentive scheme must be readily understood by the operative, so that he may check individual payments made to him."

The author recommends further research to increase the application of incentives to maintenance, daywork and jobbing work, and that "methods of incentives" be included in the curriculum of building technical colleges and schools.

Although the author has not overlooked it, it is unfortunate that in writing this book he did not lay greater emphasis on the fundamental purpose of incentives *i.e.* to "reduce the cost of building." To ensure the effectual development and success of the scheme it should be made clear to all concerned that of the cash saving resulting from the extra effort of operative and organization, the operative should take at least 50 per cent., the employer a small percentage to cover the cost of running the scheme, and the balance used to reduce tenders for future contracts.

Another point which might have been made, is the importance of applying bonus to all operations or at least to the bulk of operations on a contract. Many builders today have schemes working for some trades only, with the result that operatives on unbonused work get dissatisfied, reduce their output and tend to dissipate the savings made on bonused work.

Despite these omissions the author is to be commended for this excellent contribution to such a controversial subject.

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22.47 sound insulation and acoustics
FLOOR INSULATION

The Reduction of Sound Transmission Through Floors. (Building Research Station Digest No. 19, June, 1950.)

Standards and methods of construction. Useful.

BRS has been doing further work on floating floors and the Digest shows simplified, more reliable techniques than were formerly used. For high insulation at low cost the hollow-soffit concrete systems are shown to have a big advantage in the semi-discontinuous ceilings usually necessary.

22.48 acoustics**ABSORPTION COEFFICIENTS**

A Review of the Absorption Coefficient Problem. H. J. Sabine (J. of Acoustical Society [USA]. Vol. 22, No. 3, May, 1950. p. 387.)

Discrepancies between test results; proposals for improved testing. Of passing interest.

Absorption coefficients can be accurately measured in any individual laboratory, but the laboratories themselves are somewhat different and the results are somewhat different from the various laboratories.

At the higher frequencies agreement is reasonable, but is much less satisfactory at the lower ranges which are important in modern "monolithic" buildings. This is especially so with panel absorbers. Proposals are made for improvements in testing, but they are unlikely to be introduced at all quickly. Fortunately the discrepancies, while they are apparently im-

portant to American competitive tendering, matter to architects chiefly in the kinds of buildings where consultants are likely to be employed.

23.134 heating and ventilation
RESEARCH IN DENMARK

Heating Research in Denmark. Neville S. Billington. (JHVE, June 1950, Vol. 18, No. 179.)

Review of results of heating research in Denmark, carried out during the war.

This review covers the work of the Committee for the Study of Domestic Heating, set up in 1938, whose work is now continued as part of the activities of the newly-formed Danish Building Research Station.

The reports reviewed include those on physiological work carried out by Dr. Nielsen, the late Professor Krogh, and others, on tests on intermittent heating by Professor Becker and Messrs. Pedersen and Bisgaard, and on experiments by Dr. Becher on the behaviour of air jets.

Architects will find much that is of interest to them in this review.

24.139 lighting
HOME LIGHTING

Lighting and Seeing Conditions for Hand Sewing in the Home. M. Fahsbender and P. Presbrey. (Illum. Engineering [USA]. April, 1950. p. 242.)

Sewing the critical eye-work of the home; studies with different cloth and fittings. Good; illustrated photographs and diagrams.

Hand sewing is the most critical eye-work in the home and therefore provides the most exacting standard for home lighting. The analysis is thoroughly good and the ideas significant for many other applications. Cloth is shown to require for comfortable visibility, a range of conditions from very diffuse (virtually indirect) for materials with a sheen, like satin, to a mixture of direct and diffuse light for dull materials like cotton. High intensities are also required. The result is necessarily a combination of fittings, some giving indirect or diffuse light and others direct. For instance there is a picture of a standard lamp of special type, with a small direct-light source which is fixed to the upright with a flexible holder. This is only one of several ideas urgently needing development, others being related to general fixtures in rooms.

26.77 services and equipment : miscellaneous
GLAZING OF HOT-WATER ACCUMULATORS

Glazing of Hot Water Accumulators. (The Plumbing Trade Journal, June, 1950. 1s.)

Note on glazing of hot water accumulators in the Pimlico Housing Scheme.

The accumulator is a cylinder 126 feet high by 29 feet diameter, electrically welded. It is insulated with 3 in. thick cork slabs held in place by steel studs electrically welded to the shell. The whole is enclosed in a steel framework covered with translucent glass panels in patent aluminium glazing bars.

This glazing starts 30 feet from the base of the cylinder, and rises 198 feet above the base wall in 16 tiers, each 6 feet high. The glazing forms a polygon of 16 sides, each subtending an angle of 22½ deg. Each facet is 7 ft. 4 in. wide, in four panes; the radius is 18 ft. 5 in.

Normal patent glazing bars are used, reversed for internal glazing. They are electro-

polished and anodized. The three lowest tiers of glazing are protected by wire mesh against damage by boys, etc. There is a retractable jib at the top of the tower to support a glass-cleaner's cradle. Glazing is of ¼ in. rough cast glass.

This feature answers any question connected with building confidentially and free of charge. Questions to the Technical Editor, The Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1.

QUESTIONS AND ANSWERS**3031 DISCOLORATION OF JOINTS IN GLAZED BRICKWORK**

Q We have recently experienced considerable difficulty in obtaining a true white cement joint to white glazed brickwork in a lavatory block, and should be pleased to receive any reasons which you can advance for the defect. The wall consists of 9-in. brickwork, half of which is built of commons and half white glazed brickwork, with the unglazed headers of the inner skin showing on the external face. All brickwork has been bedded in 1:4 cement mortar and the joints on the inside face raked and finished with white Portland cement. About 50 per cent. of the joints are discoloured and show a dark grey, giving a dirty appearance to the wall as a whole. The joints have been raked and re-pointed once, but the same defect has appeared.

A It is difficult to prescribe a remedy in a case of this sort without an inspection of the work, but I hope that the following comments may help you to diagnose the cause of the trouble.

A good-quality glazed brick presents a completely impermeable surface, whereas even a dense cement mortar is slightly permeable to water and to water vapour. The discoloration complained of would only come in one of two ways. If the walls were wiped down periodically with a damp cloth, and if the damp cloth was dirty, it is possible that some of the dirt might be absorbed in the mortar, though the glaze on the bricks would be wiped clean. The fact that only a proportion of the joints are affected would suggest that this is not the explanation.

The alternative, which is more probable, is that moisture contained in the wall moves slowly but positively to the mortar joints, bringing with it soluble material picked up in its passage through the wall. Bricks sometimes contain traces of soluble iron compounds which can give a considerable discoloration of light-coloured adjacent materials, though this would not be apparent on the bricks themselves. The fact that the wall in this case is an external one and without a cavity suggests that this is the most likely explanation. The only simple remedy if the light joint is essential would be to point with a white oil mastic; this would be highly impervious, though there is the possibility that the offending salts might bleed through fine cracks which would form as the mastic hardened.

Readers requiring up-to-date information on building products and services may complete and post this form to The Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1.

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Announcements

Mr. A. S. Chatwin, A.M.I.STRUCT.E., has been appointed a director of Messrs. Diespeker & Co. Ltd. He has been with the company for more than 30 years. For 10 years he has been manager of the construction department.

Mr. E. John Evans, L.R.I.B.A., has commenced practice at 66, High Street, Walton-on-Thames, Surrey, and will be pleased to receive trade catalogues.

Messrs. Lawrence Farman & Partners have now taken into partnership Mr. Alun A. Thomas, A.R.I.B.A., who has been appointed to take charge of their office at No. 1, Middle Row, Maidstone, Kent. The name of the firm will continue as before.

Mr. Stanley Hamp, F.R.I.B.A., of 126, Wigmore Street, W.1, announces that he has taken into partnership Mr. D. Bryan Frowd, A.R.I.B.A., Mr. Alex Moira, A.R.I.B.A., and Miss Christian Hamp, A.R.I.B.A. The practice will continue under the style of Colcutt & Hamp, architects.

Mr. L. Douglas Penman, D.A. (GLAS.), A.R.I.B.A., has resigned from the Colonial Service and has been appointed chief assistant to Messrs. Deacon & Laing, Chartered Architects, 9, St. Paul's Square, Bedford.

We regret to announce that E. L. Moore, director of Art Pavements and Decorations Ltd., and vice-president of The National Federation of Terrazzo-Mosaic Specialists, died suddenly, on August 16.

Corrections

In Table I, which was part of an article on intermittent heating by S. F. Newcombe, page 119 of our issue of August 3, we stated

that the U value for 4-in. thick foam slag was 0.5. This should read as 0.3.

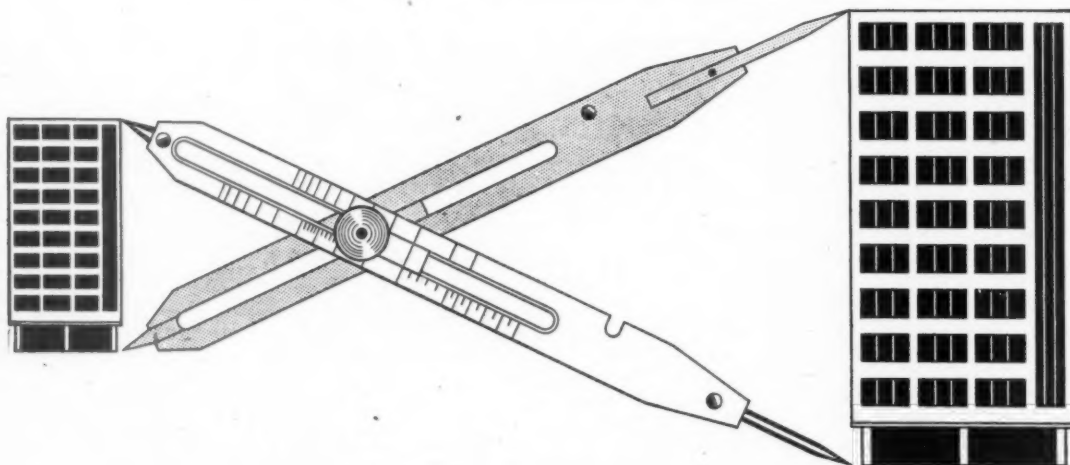
In the footnote at the bottom of the second column, in the 7th article on the Royal Festival Hall, page 188 of our issue of August 24, we stated that Peter Moro was a senior assistant architect. He is, in fact, associate architect.

Buildings Illustrated

Reception Room for Brown & Polson Ltd., 125, Strand, London. (Page 208.) Architect: Brian Peake, F.R.I.B.A., M.S.I.A. Formalised corn cob designed and executed in perspex by M. H. Armengol. General Contractor: F. W. Clifford & Co. Ltd. Sub-contractors: Formalised models, Artads Ltd.; lettering, The Lettering Centre; furniture, Ernest Race; photograph enlarging and mounting, Carlton Studio; plants, R. A. Berthoud; carpet, Wm. Perring & Co. Ltd.; wallpaper, Sandersons.

Printing Works, Redcross Street, Liverpool. (Pages 210-211.) Architect: A. Ernest Shennan, M.A., F.R.I.B.A. General Contractor: John Lucas & Son (Builders) Ltd. Sub-contractors: Asphalt, Ragusa Asphalte Ltd.; reinforced concrete, Diespeker Ltd.; bricks, Buckley Junction Brick Works Ltd.; stone, James S. Stubbs Ltd.; structural steel, Redpath Brown & Co. Ltd.; partitions, Pilkington Brothers Ltd.; waterproofing materials, "Sika" Ltd. Concessionaires, Harries; central heating, Young Austen & Young Ltd.; plumbing, Morris & Bros.; sanitary fittings, Baxendale; door furniture, Quiggin Bros.; casements, Crittall Manufacturing Co. Ltd.; fireproof doors, Milners Safe; plaster, Pollock Bros. (London) Ltd.; office fittings, Rowe Bros.; lifts, Waygood-Otis Ltd.

Primary School at Morgans Road, Hertford. (Pages 215-220.) Architect: C. H. Aslin, F.R.I.B.A., M.I.STRUCT.E., County Architect for Hertfordshire; Schools Group—Site Architect, Bruce Martin, A.R.I.B.A. Quantity Surveyor: Messrs. Gardiner & Theobald. General Contractor: Ekins and Company Ltd. Sub-contractors: Foundations, joinery, Ekins & Co. Ltd.; concrete blocks, terrazzo sills, Orlit Ltd.; Uniment Ltd.; bricks, precast concrete sills, Dunbrik Ltd.; structural steel, gates, Hills (West Bromwich) Ltd.; special roofings (roof blocks), patent flooring (stage floor blocks), Millbank Floors Ltd.; roofing felt, Ruberoid Co. Ltd.; partitions (wood wool), Thermo-cast Ltd. (fibrous plaster), plaster, cloak-room fittings, Claridges Ltd.; glass, Pilkington Bros. Ltd.; roof lights (designed by Arcon), Williams & Williams Ltd.; wood-block flooring (stage), Hollis Bros. (Kham wood strip), Masters & Andren Ltd.; Armstrong Cork Co. Ltd.; fencing, Lawsons (Wheatstone), Ltd.; central heating, boilers, Weatherfoil Heating Systems Ltd.; gasfitting, Tottenham & District Gas Co.; electric wiring, Hartley Electromotives Ltd.; electric light fixtures, Hume Atkins & Co. Ltd.; kitchen ventilation, Greenwood Airvac Ventilating Co. Ltd.; sanitary fittings, Adamsez Ltd.; down pipes, T.I. Aluminium Ltd.; door furniture, N. F. Rumsey & Co. Ltd.; casements, window furniture, Aluminium Sash & Casement Co. Ltd.; bells, Gent & Co. Ltd.; telephones, G.P.O.; doors, furniture, Geo. M. Hammer & Co. Ltd.; sunblinds, J. Avery & Co.; tiling, Carter & Co. (London), Ltd.; J. C. Edwards & Co.; textiles (curtains), Messrs. Gerald H. Holtom; furniture, Educational Supply Association Ltd.; Geo. M. Hammer & Co. Ltd., Kingfisher Ltd., Harris Lebus Ltd.; paint, R. Gay & Co.; clocks, Smiths English Clocks Ltd.; water supply, Borough of Hertford Waterworks.



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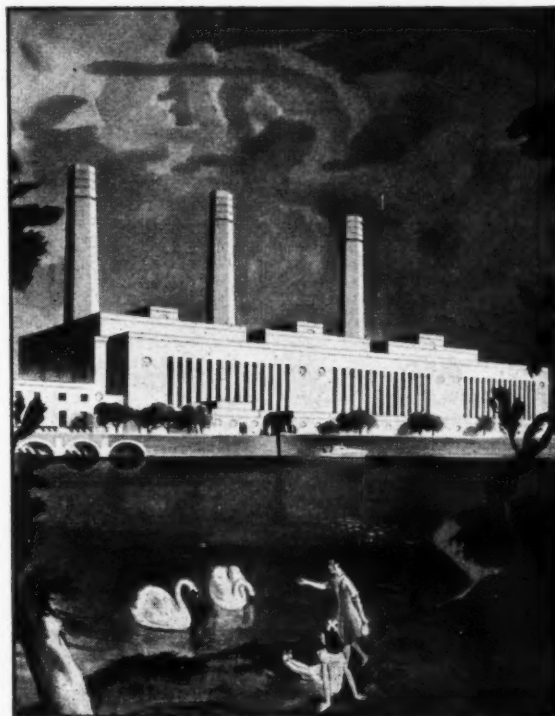
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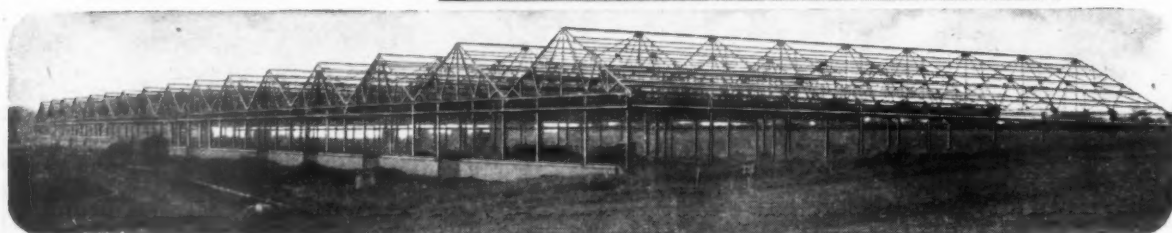
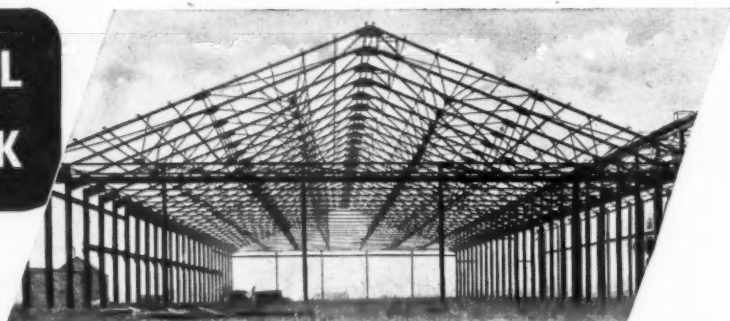
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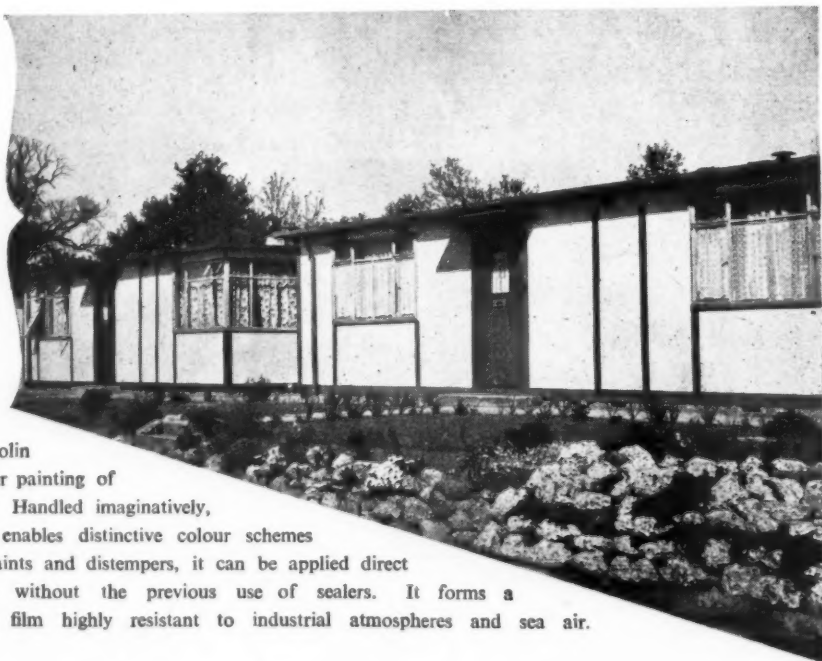
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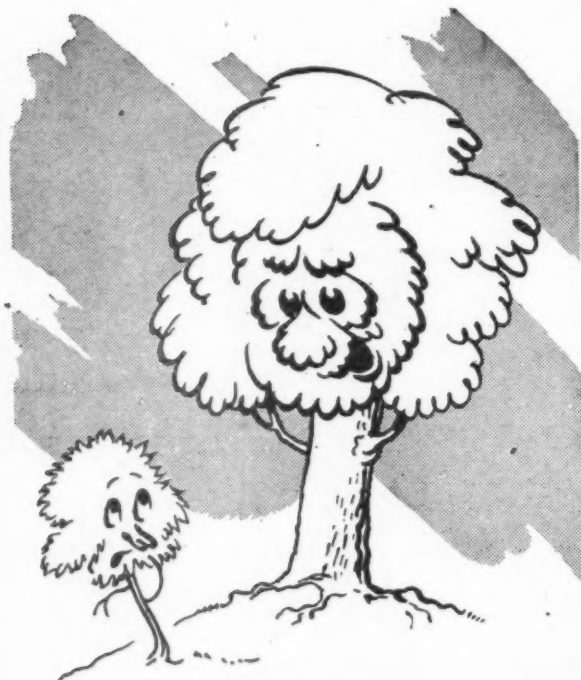
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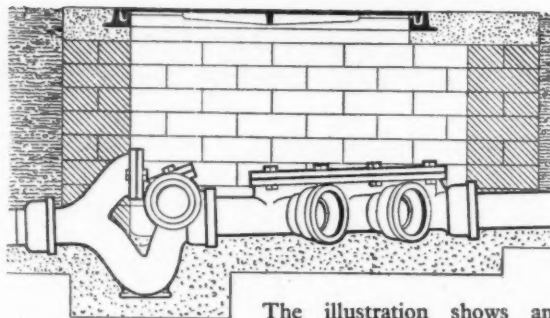
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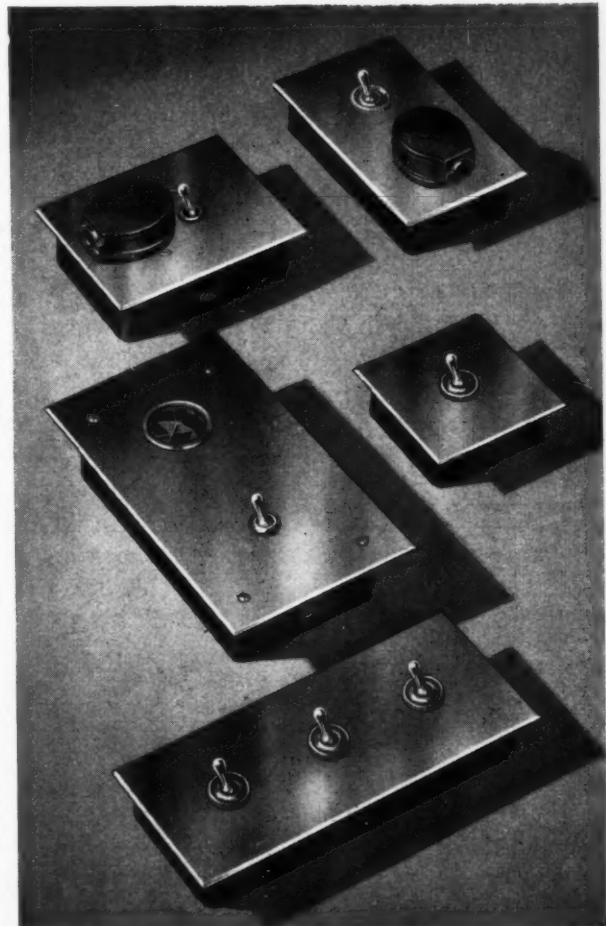
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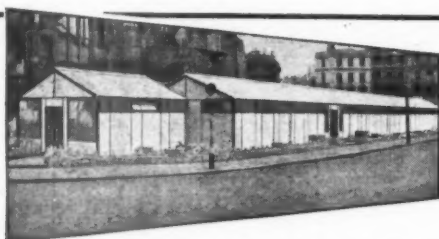
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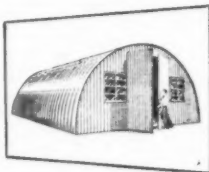
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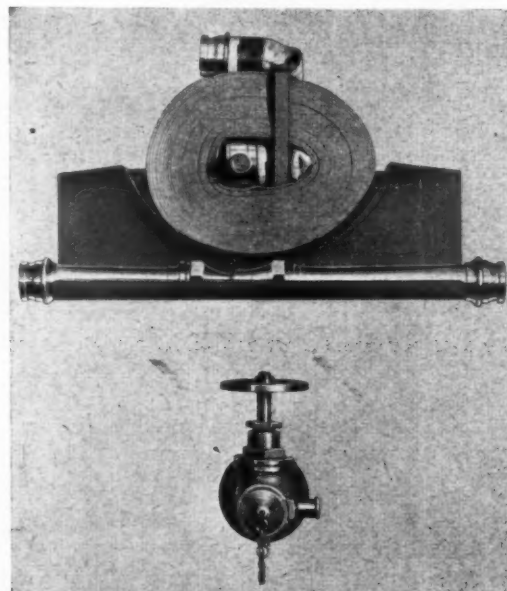


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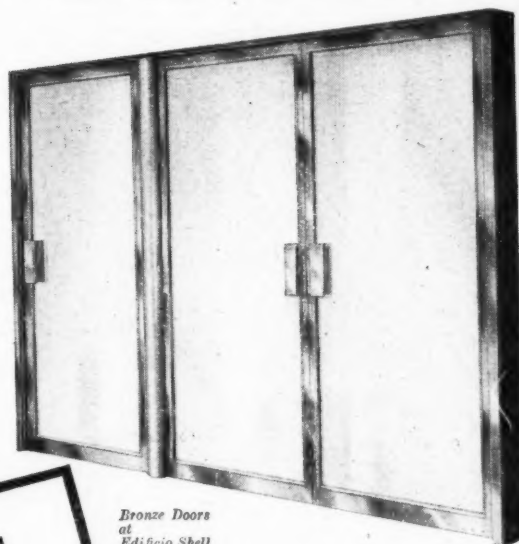
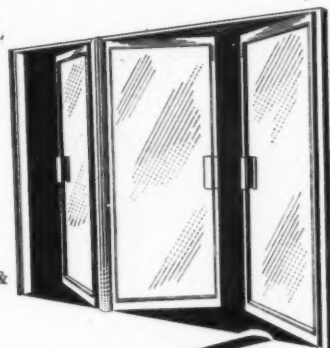


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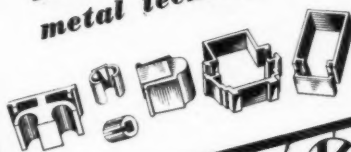
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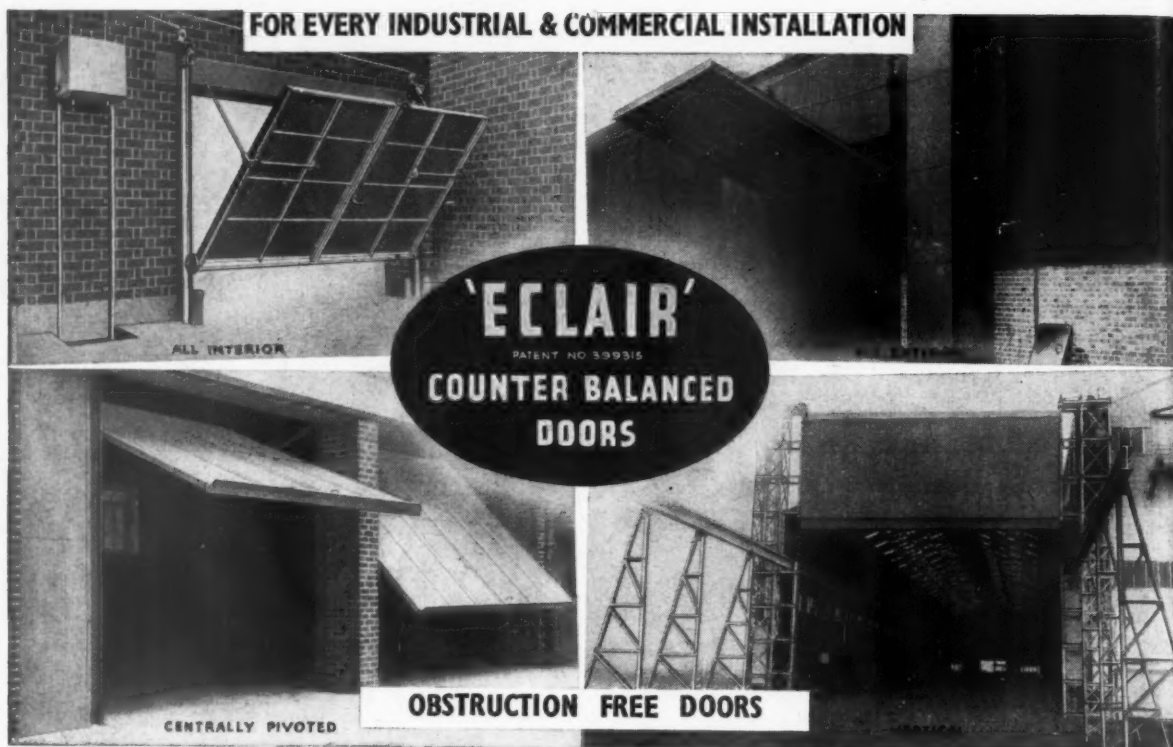
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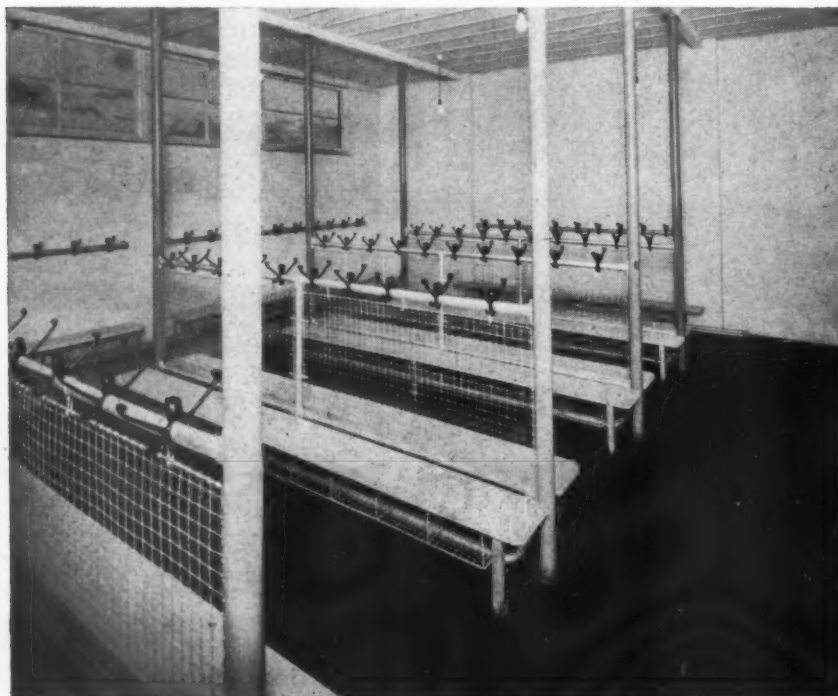
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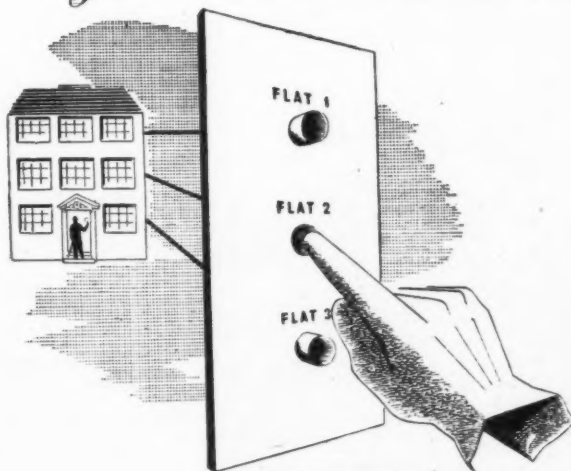
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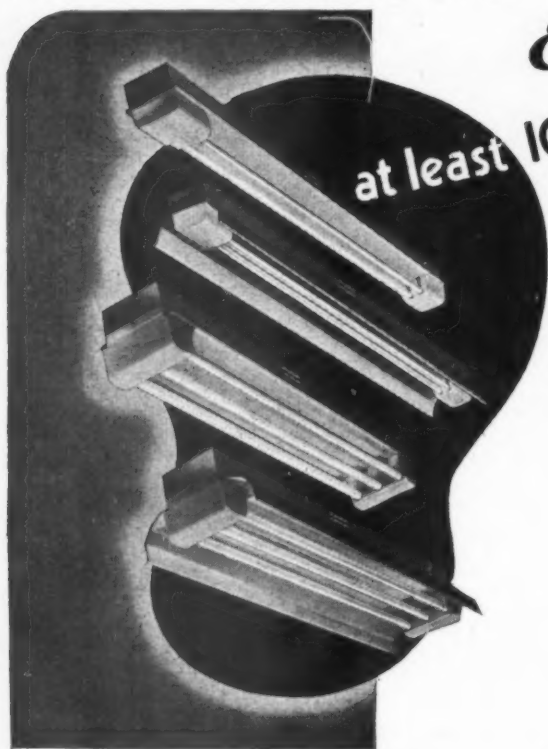
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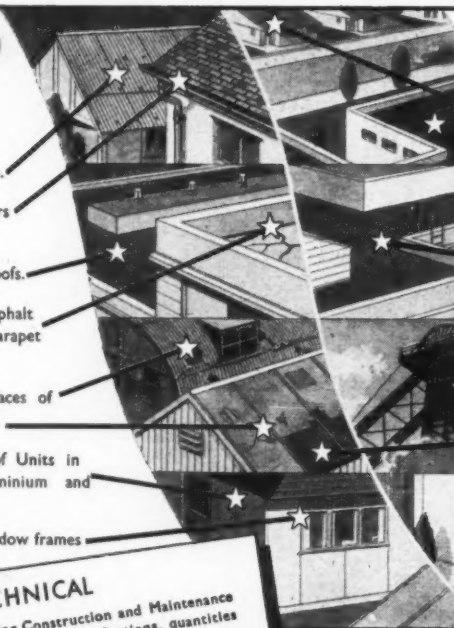
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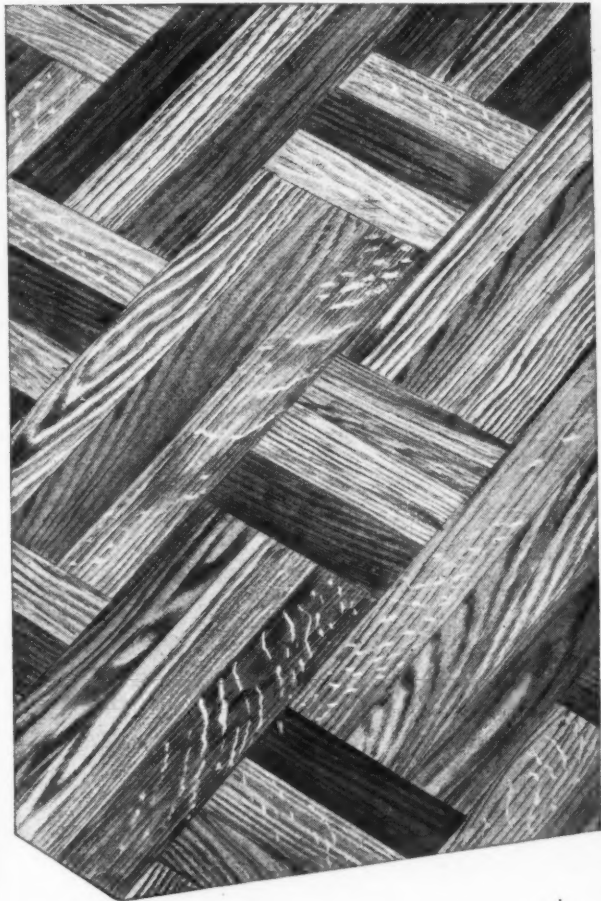
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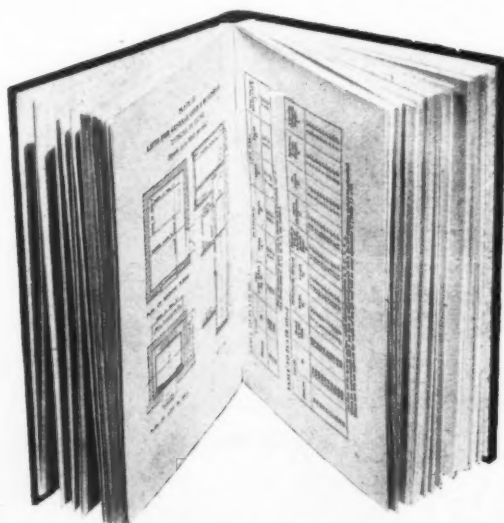
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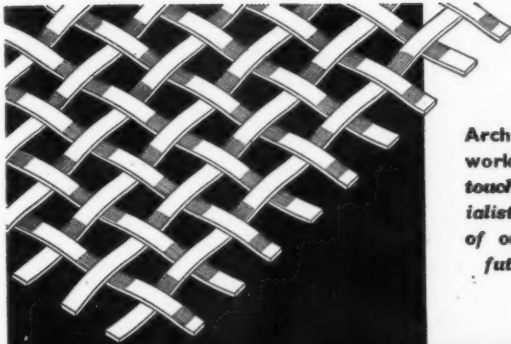


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Applicants, who must be Registered Architects and should be studying for or have passed the Final Examination of the R.I.B.A., should be capable of preparing working and detailed drawings and specifications, and supervising and controlling the work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

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

Applications, stating age, qualifications, and particulars of previous appointments held, must be submitted to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.8, quoting reference 957. 4341

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Full details of past and present appointments should be given.

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

Applications, stating age, qualifications, full details of experience, accompanied by three recent testimonials, should be addressed to the County Architect, Surrey County Council, County Hall, Kingston-upon-Thames, to reach him not later than the 11th September, 1950.

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

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

DUDLEY AUKLAND.

Clerk of the Council.
County Hall, Kingston-upon-Thames. 697

LONDON COUNTY COUNCIL.

Applications are invited for positions of ARCHITECTURAL ASSISTANT (salaries up to £600 a year) in the Housing and Valuation Department. Commencing salaries will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Act, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

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BOROUGH OF REDCAR. APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above-mentioned permanent appointment on the staff of the Borough Engineer, Surveyor and Water Engineer, at a salary in accordance with Grade A.P.T. III (£450-£495). The appointment will be subject to the terms of the National Joint Council's Scheme of Conditions of Service, to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applicants should be experienced in the preparation of designs, working drawings, specifications, quantities and estimates for Architectural and Housing Works, and preference will be given to those who have passed the Intermediate Examination of the Royal Institute of British Architects.

Applications, stating age, qualifications and experience, and accompanied by three copies of recent testimonials, and appropriately endorsed, are to be delivered to R. Hilton, Esq., A.M.I.C.E., Borough Engineer, Municipal Buildings, Redcar, Yorks., not later than noon on Saturday, 2nd September, 1950.

Canvassing, directly or indirectly, will disqualify.

H. CALDWELL,
Town Clerk.

Municipal Buildings, Redcar.
August, 1950. 657

THE CRAWLEY DEVELOPMENT CORPORATION require a fully qualified Architect as ASSISTANT ARCHITECT, Grade IV (£550×£30-£750 p.a.). The commencing salary will be determined by qualifications, age and experience. Applicants should have good general architectural experience in design and planning. A knowledge of town planning is desirable but not essential. The appointment is established, pensionable, and subject to medical examination as to fitness, and to such conditions of service as may be adopted by the Corporation from time to time. Application forms and particulars should be obtained from the Chief Architect, A. G. Sheppard Fidler, M.A., B.Arch., F.R.I.B.A., A.M.T.P.I., Broadfield, Crawley, Sussex, and returned to him by 14th September, 1950.

C. A. C. TURNER,
Chief Executive. 732

CITY OF BRADFORD. CITY ENGINEER AND SURVEYOR'S OFFICE. APPOINTMENT OF TECHNICAL STAFF (PLANNING AND ARCHITECTURAL).

Applications are invited for the following appointments in accordance with the National Scales of Salaries, on the grades indicated:-

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Where more than one grade is shown for any post, successful candidates will be appointed on the appropriate grade, depending on their qualifications and experience, and strictly in accordance with the National Scheme of Conditions of Service.

In addition to general planning, engineering or architectural experience, applicants for the various posts should preferably have had particular experience as shown below, should preferably hold a recognised engineering, architectural or surveying qualification, and must hold the qualifications indicated.

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(b) Must be A.M.T.P.I. and A.R.I.B.A., and in addition to architectural and general planning experience should have taken a responsible part in the preparation of development plans.

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

Intending applicants must apply to the City Engineer and Surveyor for form of application (quoting post No.), which form, together with details of experience and accompanied by not more than three testimonials, should be received by the undersigned not later than the 7th September, 1950.

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

No assistance can be given in the provision of housing accommodation.

W. H. LEATHAM,
Town Clerk. 691

Town Hall, Bradford.

CITY OF PLYMOUTH.

APPOINTMENT OF CITY ARCHITECT.

Applications are invited for the appointment of City Architect, at a salary of £1,600, rising to £1,750 per annum. The appointment will be terminable by three months' notice on either side, is subject to the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination. Forms of application and particulars of the terms and conditions and duties of the office may be obtained from me. Applications must reach me not later than the 16th September, 1950. Canvassing, directly or indirectly, will disqualify, and applicants must disclose in writing if they are related to any member or senior officer of the Council.

COLIN CAMPBELL,
Town Clerk.

Town Clerk's Office, Pounds House, Plymouth.
25th August, 1950. 698

LEEDS REGIONAL HOSPITAL BOARD.

Applications are invited for the post of SENIOR ASSISTANT ARCHITECT on the Headquarters Staff of the Board. Salary in accordance with Grades A.P.T. VI, VII, £635-£750 per annum. Candidates who must be registered Architects with recognised architectural qualifications, must have had considerable experience in hospital design and construction.

The appointment will be subject to the National Health Service (Superannuation) Regulations, 1960, to such Terms and Conditions of Service as may be laid down from time to time, and the successful candidate (if not already in the National Health Service) will be required to pass a medical examination. The appointment will be terminable by one calendar month's notice on either side.

Applications, stating age, qualifications, experience and present salary, together with the names of two referees, should be forwarded to the Secretary, 29/31, Eastgate, Leeds, 2, by not later than Saturday, 16th September, 1950.

Canvassing in any form, either directly or indirectly, will disqualify. 694

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Applicants must be Registered Architects, and should have experience in a Municipal engineer's office, particularly in respect of housing design, construction, and the control of contractors. Housing accommodation will be made available to the successful applicant if required.

(b) SENIOR ENGINEERING ASSISTANT. Salary in accordance with Grade A.P.T. V(a) (£550×£20-£610 per annum).

Applicants must have passed the examination for Associate Membership of the Institution of Civil Engineers, or have the testimonial of the Institution of Municipal Engineers, and must have had at least 8 years' experience (including training or pupillage) in General Municipal works.

Experience in sewerage and reinforced concrete design will be an advantage. Housing accommodation will be made available to the successful applicant if required.

(c) JUNIOR ENGINEERING ASSISTANT. Salary in accordance with Grade A.P.T. I (£390×£15-£435 per annum), or Grade A.P.T. II (£420×£15-£465 per annum), according to qualifications and experience.

Applicants should be graduate assistants with an engineering degree, or junior assistants who have completed their articulated pupillage.

The appointments are on the established staff and are subject to: (1) The National Scheme of Conditions of Service; (2) the provisions of the Local Government Superannuation Act, 1937; (3) the passing satisfactorily of a medical examination, and (4) one month's written notice on either side.

Applications, stating age, whether married or single, qualifications, and experience, and accompanied by the names and addresses of two referees, must be received by me not later than 14th September, 1950. Canvassing will disqualify.

H. E. H. LAWTON,
Clerk of the Council.

Council Offices, Derby Road, Huyton. 626

August, 1950.

CITY OF LEEDS.

CITY ENGINEER'S DEPARTMENT.

Applications are invited for the post of PLANNING ASSISTANT, Grade A.P.T. IV (£480-£525).

Candidates should have had planning experience, and preference will be given to candidates who have some experience in the administration of the Control of Advertisements Regulations, 1948.

The successful candidate will be required to pass a medical examination, and the appointments will be probationary for 6 months.

Applications on the forms provided, which are obtainable from the undersigned, to be delivered not later than 7th September, 1950, accompanied by copies of not more than three testimonials.

Canvassing in any form, either directly or indirectly, will be a disqualification.

D. CURRIE, M.I.C.E.,
City Engineer. 711

Civic Hall, Leeds, 1.

SALOP COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the appointment to the Established Staff of an ASSISTANT QUANTITY SURVEYOR, on A.P.T., Grades V-VI (£520 to £660 per annum). The commencing salary will depend on the qualifications and experience of the successful applicant.

The appointment will be subject to one month's notice in writing on either side; to the terms of the National Joint Council's Scheme of Conditions of Service, and to the provisions of the Local Government Superannuation Act, 1937.

The successful applicant will be required to pass a medical examination.

Application forms may be obtained from the County Architect, A. G. Chant, F.R.I.B.A., Column House, London Road, Shrewsbury, to whom they must be returned, accompanied by not more than three recent testimonials, not later than Tuesday, 12th September, 1950.

G. C. GODBER.

Clerk of the Council.

Shirehall, Shrewsbury.
August, 1950.

710

WORCESTERSHIRE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.
APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment on the permanent staff of the County Council of a Senior Architectural Assistant, at a salary in accordance with Grade VII of the Administrative, Professional and Technical Division of the National Joint Council Scales of Salaries (£535 to £710 per annum).

Experience in the control of building development under the Town and Country Planning Act, 1947, will be considered an advantage for this appointment, and preference will be given to applicants who are qualified by membership of the Royal Institute of British Architects and the Town Planning Institute. The successful applicant will be required to provide and maintain a car for his official duties, for which a travelling allowance will be paid on the scale approved by the County Council. Housing accommodation near Worcester will be available if required.

The appointment is subject to:—

(a) The provisions of the Local Government Superannuation Act, 1937.

(b) The National Scheme of Conditions of Service for Local Government Officers.

(c) The passing of a medical examination. Applications must be made on forms to be obtained from the County Planning Officer, County Buildings, Worcester, and returned to him not later than Monday, 25th September, 1950, endorsed "Senior Architectural Assistant."

W. R. SCURFIELD,

Clerk of the County Council.

Shirehall, Worcester. (J299) 709

THE LANCASHIRE COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

Experienced and qualified Architects, with a flair for design, are invited to apply for vacant positions, with commencing salaries of £665, rising to £760 per annum, to assist on a school building programme which includes technical colleges.

Application forms obtainable from the County Architect, County Offices, Preston, to be returned by the 16th September, 1950.

607

BOROUGH OF KEIGHLEY.

BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment on the permanent staff of a QUANTITY SURVEYING ASSISTANT, Grade A.P.T., IV, salary scale £480-£525.

Applicants for the position should possess general quantity surveying experience obtained in the office of a Quantity Surveyor of Architectural Department. Preference will be given to applicants having passed the Intermediate Examination of the Royal Institute of Chartered Surveyors (Quantities).

Suitable housing accommodation will be provided, if required.

Applications to be made upon the prescribed form to be obtained from the undersigned, to whom same must be returned, accompanied by copies only of two recent testimonials, not later than Friday, 15th September, 1950.

E. G. FELGATE, A.R.I.B.A.,

Borough Architect.

Borough Architect's Department,
College Street, Keighley. 735

SPALDING RURAL DISTRICT COUNCIL.
ARCHITECT'S DEPARTMENT.

Applications are invited for the full-time appointment of ARCHITECTURAL ASSISTANT, in A.P.T. Division, Grade IV, of the National Scale (commencing at £480 and rising to £525 per annum). The successful applicant, who will work under the direction of the Council's Architect, should have practical experience in housing and other architectural work normally carried out by a Local Authority.

The appointment will be subject to the Local Government Superannuation Act, 1937, and to a satisfactory medical examination.

Applications, stating age, qualifications and experience, together with the names and addresses of three persons to whom reference may be made, to be sent at the earliest possible date to the Clerk to the Council, Rural District Offices, 10, The Crescent, Spalding, Lincs.

A candidate who is related to a member or official of the Council must disclose the fact in his application. Canvassing will disqualify.

The Council are prepared to let a house in the Rural District to the successful applicant. 708

MINISTRY OF EDUCATION.
ARCHITECTS.

Applications are invited for posts of Architect in the Architects' and Building Branch of the Ministry of Education. The appointments will be temporary in the first instance, but a competition for establishment will be held later. The salary is on the scale £750×£25—£1,000 p.a. (men), £650×£25—£850 p.a. (women).

The work is at present of two kinds, and there are vacancies on both. The first consists mainly in consulting with architects engaged in the design of educational building projects for Local Education Authorities and in advising the Ministry on the suitability of these projects. The second consists of the study in principle and detail of the design and construction of educational buildings and of their services, fittings and furniture.

Applicants should state on which work they would prefer to be engaged in the first place; but it should be noted that work of the first kind is expected to diminish and that those engaged on it will be increasingly concerned with the second.

Candidates should preferably be between the ages of 30 and 40, and should have had experience in the design and supervision of educational buildings in the office either of a Local Authority or of an Architect in private practice.

QUANTITY SURVEYOR.

Applications are also invited for the post of Quantity Surveyor: £750×£25—£1,000 p.a. (men), £650×£25—£850 p.a. (women).

The appointment will be temporary in the first instance, but a competition for establishment will be held later.

The work at present comprises the preparation of cost data and detailed cost analyses for educational building projects and advice to the Ministry on the costs of structures in new and established techniques. It is anticipated that the duties will include the preparation of quantities for new development in various types of educational building.

Candidates should be Chartered Quantity Surveyors, preferably between the ages of 30 and 40, and should have had experience of educational building in the office either of a Local Authority or of a Quantity Surveyor in private practice.

Application forms obtainable from Ministry of Labour and National Service, Technical and Scientific Register (K), York House, Kingsway, W.C.2, quoting J210/50A (Architects), or J211/50A (Quantity Surveyor) 719

BOROUGH OF BRENTFORD AND CHISWICK.
APPOINTMENT OF TEMPORARY ARCHITECTURAL ASSISTANT.

BOROUGH SURVEYOR'S DEPARTMENT.
Applications are invited for the appointment of a temporary Architectural Assistant, at a consolidated salary according to A.P.T. Division, Grade V, of the National Scheme (£520 to £570 p.a., plus appropriate London weighting, commencing 1st year), the appointment to be terminable by one month's notice on either side.

Applicants should have passed the Intermediate Examination of the Royal Institute of British Architects (or hold a similar qualification), but consideration will also be given to applicants intending shortly to take the Intermediate Examination.

Applicants should have had experience in general architectural work and possess a sound knowledge of design and construction of housing estates, including the preparation of working drawings and specifications. It may be possible to provide housing accommodation for the successful applicant.

Applications for the above-mentioned appointment must be made on the prescribed form (which contains particulars and conditions of appointment), obtainable from the undersigned, to whom applications should be sent not later than the 18th September, 1950.

W. F. J. CHURCH,

Town Clerk. 729
Town Hall, Chiswick, W.4.

ISLE OF ELY COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the under-mentioned appointments on the staff of the County Architect:—

SENIOR QUANTITY SURVEYOR. A.P.T., Grade VIII (£685×£25—£760).

SENIOR ASSISTANT ARCHITECT. A.P.T., Grade VI (£595×£20—£660).

SECOND ASSISTANT ARCHITECT. A.P.T., Grade Va (£550×£20—£610).

THIRD ASSISTANT ARCHITECT. A.P.T., Grade V (£520×£15—£570).

ASSISTANT QUANTITY SURVEYOR. A.P.T., Grade III (£450×£15—£495).

JUNIOR ARCHITECTURAL ASSISTANTS (TWO). A.P.T., Grade I (£390×£15—£435).

QUANTITY SURVEYOR'S CLERK. Miscellaneous, Grade I (£315×£15—£360).

The appointments are permanent and are subject to the provisions of the National Scheme of Conditions of Service, the Local Government Superannuation Act, 1937, and to the passing of a medical examination.

Excellent experience is available over the whole field of County Council building administration. Forms of application may be obtained from the County Architect, County Hall March, Cambs., and are to be returned not later than 22nd September, 1950.

R. F. G. THURLOW,

Clerk of the County Council.

County Hall, March.
23rd August, 1950. 743

HINCKLEY URBAN DISTRICT COUNCIL.
SURVEYOR'S DEPARTMENT.
APPOINTMENT OF SECOND ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment at a salary within Grade A.P.T., III, or Grade A.P.T., IV, according to experience and qualifications.

The person appointed will be engaged mainly in preparing designs, specifications, etc., for houses and flats.

The appointment will be subject to the N.J.C. Scheme of Conditions of Service, to the provisions of the Local Government Superannuation Act, 1937, and will be terminable by the giving of one month's notice on either side.

Applications, stating age, experience, etc., accompanied by copies of two testimonials, should reach the undersigned not later than 4th September, 1950.

Canvassing in any form will be deemed a disqualification, and applicants must disclose relationship to any member or senior officer of the Council.

The successful applicant will be required to pass a medical examination.

J. G. S. TOMPKINS,

Clerk of the Council.
16, Station Road, Hinckley, Leicestershire.
12th August, 1950. 693

COUNTY BOROUGH OF GREAT YARMOUTH.
EDUCATION COMMITTEE.

SCHOOL ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointment on the permanent staff in the Department of the Schools Architect, Mr. F. Jackson, A.R.I.B.A.:—

JUNIOR ASSISTANT ARCHITECT. A.P.T., Grade III (£450×£15—£495). Candidates should have had good architectural training and general experience, and be capable of preparing detail and working drawings.

Previous local authority experience is not essential. Appointment will be terminable by one month's notice on either side, and is subject to the provisions of the Local Government Superannuation Act, 1937.

Canvassing will be deemed a disqualification, and candidates must disclose any relationship to any member or holder of any senior office under the Council. Candidates who fail to do so will be disqualified or if appointed liable to dismissal without notice.

Applications, stating age, qualifications, experience, and giving details of past and present appointments, together with copies of two testimonials, must be delivered to the undersigned not later than the 7th September, 1950.

D. G. FARROW,

Chief Education Officer.
Education Office, 22, Euston Road,
Great Yarmouth.
11th August, 1950. 662

CITY OF STOKE-ON-TRENT.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited from suitably qualified persons for the following appointments to the permanent staff:—

(a) **SENIOR ASSISTANT ARCHITECTS.** Salary A.P.T. Div., Grade VII, £635-£710.

(b) **ASSISTANT ARCHITECTS.** Salary A.P.T. Div., Grade VI, £595-£660.

(c) **ARCHITECTURAL ASSISTANTS.** Salary A.P.T. Div., Grade III, £450-£495.

(d) **ASSISTANT QUANTITY SURVEYORS.** Salary A.P.T. Div., Grade VI, £595-£660.

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

Previous experience of Local Government work is not essential.

Suitable housing accommodation can be made available to the successful candidates for appointments (a), (b) and (d).

Applications, giving date of birth, particulars of training, experience, etc., with copies of two recent testimonials, should be received by J. R. Piggett, F.R.I.B.A., City Architect, Kingsway, Stoke-on-Trent, endorsed with the title of the appointment applied for, not later than Tuesday, 12th September, 1950.

HARRY TAYLOR,

Town Clerk.
Town Hall, Stoke-on-Trent.
17th August, 1950. 696

BOROUGH OF SWINDON.

APPOINTMENT OF PLANNING ASSISTANT.

Applications are invited for the appointment of a Planning Assistant on the staff of the Borough Architect and Planning Officer, at a salary in accordance with A.P.T., Grade II, of the National Scale.

Applicants should be capable draughtsmen and colourists. The successful applicant will be required to assist in the revision of ordnance maps and presentation of town planning surveys and proposals in map form.

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

Applications, on forms obtainable from me, must be returned not later than 9th September, 1950.

Canvassing will be a disqualification.

D. MURRAY JOHN,

Town Clerk.
Civic Offices, Swindon.
18th August, 1950. 722

**LONDON COUNTY COUNCIL.
PARKS DEPARTMENT.**

Applications are invited for the following positions:—

ARCHITECTURAL ASSISTANTS for surveys, preparation of sketch schemes, working drawings and specifications for buildings at parks and new layouts of parks and open spaces. Preference will be given to candidates possessing professional qualifications. Experience in landscape and general ground work an advantage. Salary from £550 to £700, according to qualifications and experience.

LANDSCAPE ARCHITECTURAL ASSISTANT for preparation of schemes, working drawings and specifications for layouts of sports grounds, gardens and grounds attached to housing estates, schools, etc. Salary from £300 to £550, according to qualifications and experience.

Application forms from the Second Officer of the Parks Department (PK/A1), The Old County Hall, Spring Gardens, S.W.1. Canvassing disqualifies. (1111) 728

IMPERIAL WAR GRAVES COMMISSION invite applications from suitably qualified candidates to fill vacancies in their London office in the following grades:—

ASSISTANT ARCHITECTS. Candidates should have received recognised training and be Associates of the R.I.B.A. or have an equivalent qualification. They should have had employment with recognised architects in design and construction of buildings of architectural merit. Salary scale £475×£25—£750 per annum (point of entry according to age and experience), plus extra duty allowance of 3 per cent. of salary for 45½ hour week.

SENIOR ARCHITECTURAL ASSISTANTS. Candidates should be up to Final R.I.B.A. standard, skilled draughtsmen with considerable experience in architect's office, and able to prepare working drawings from sketch designs. Salary scale £625×£25—£750 per annum, plus extra duty allowance of 3 per cent. of salary for 45½ hour week.

LEADING ARCHITECTURAL ASSISTANT. Candidates should have several years' experience in an architect's office, preferably have reached at least Intermediate R.I.B.A. or equivalent standard, and be capable of supervising the work of a small team of Draughtsmen. Salary scale £500×£20—£625 per annum (point of entry according to age and experience), plus extra duty allowance of 3 per cent. of salary for 45½ hour week.

ARCHITECTURAL ASSISTANTS. Candidates should be skilled draughtsmen, capable of preparing half inch scale working drawings and full size details from the Architect's designs. Salary scale £300×£20—£525 per annum (point of entry according to age and experience), plus 1½ hours overtime pay for 45½ hour week.

Applications to be addressed to Appointments Officer, Imperial War Graves Commission, Woburn House, Woburn Green, High Wycombe, Bucks. 730

IMPERIAL WAR GRAVES COMMISSION. Applications are invited from suitably qualified candidates for the post of **ASSISTANT DIRECTOR OF WORKS** in the French district.

Candidates should be Associate Members of the Institution of Civil Engineers or the Royal Institute of British Architects, under 50 years of age, and preferably have had experience in carrying out constructional work abroad. Considerable Administrative experience and a good knowledge of French necessary. Preference will be given to ex-Servicemen. Salary £750×£25—£875 per annum, plus variable temporary local allowance, at present at the rate of £185 per annum for a single man or £280 per annum for a married man.

Applications to be addressed to Appointments Officer, Woburn House, Woburn Green, High Wycombe, Bucks. 731

**COUNTY BOROUGH OF ST. HELENS.
BOROUGH AND WATER ENGINEER'S
DEPARTMENT.**

Applications are invited for the following appointments on the permanent establishment in accordance with the National Conditions of Service and Salary Scales:—

(a) **CHIEF ARCHITECTURAL ASSISTANT.** Grade A.P.T. VIII (£585-£760).

(b) **ARCHITECTURAL ASSISTANT.** Grade A.P.T. VI (£595-£660).

Applicants should be Registered Architects, and for appointment (a) Corporate Members of the R.I.B.A., and preference will be given to applicants who have had previous Municipal experience.

Housing accommodation will be made available if required by the successful candidate.

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

Candidates must, when making application, disclose in writing whether to their knowledge they are related to any member of the Council or to a holder of any senior office under the Council.

Applications, stating age, qualifications, present and past appointments and details of experience, accompanied by copies of three recent testimonials, must be forwarded to the undersigned not later than Monday, 18th September, 1950.

Canvassing in any form will be deemed a disqualification.

M. WARD, M.I.Mun.E., A.M.T.P.I.,
Borough and Water Engineer.

Town Hall, St. Helens.
24th August, 1950. 744

**BOROUGH OF BARKING.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.**

Applications are invited for the position of **TOWN PLANNING ASSISTANT**, Grade A.P.T. V, £520-£570 per annum, plus appropriate London weighting.

Candidates must have had Town Planning experience and the possession of suitable qualifications will be an advantage.

Forms of Application and Conditions of Appointment may be obtained from the Borough Engineer and Surveyor, Town Hall, Barking, Essex, and should be returned to the undersigned not later than the 11th September, 1950.

E. R. FARR,
Town Clerk.
Town Hall, Barking. 700

**WARWICKSHIRE COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.**

Applications are invited for the under-mentioned appointments on the established staff:—

ASSISTANT ARCHITECT. A.P.T. VI, £595-£660 per annum.

ASSISTANT ARCHITECT. A.P.T. V, £520-£575 per annum.

ASSISTANT ARCHITECT. A.P.T. IV, £480-£525 per annum.

ASSISTANT ARCHITECT. A.P.T. III, £450-£495 per annum.

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

Application forms can be obtained from C. H. Elkins, F.R.I.B.A., A.R.I.O.S., County Architect, Shire Hall, Warwick.

L. EDGAR STEPHENS,
Clerk of the Council. 721

**CORPORATION OF LONDON.
CITY PLANNING OFFICE.**

Applications are invited for the following appointments at salaries within the scales shown, the point of entry depending upon experience:—

(1) **ASSISTANT DEVELOPMENT OFFICER.** Higher Grade III, £600×£25—£750.

The duties will consist of:—

(i) Surveys for planning purposes;

(ii) The preparation of plans and areas of re-development;

(iii) Development control, including architectural treatment, and

(iv) Generally to assist in the work of the Planning Department.

Previous experience with a Local Authority is desirable but not essential. Preference will be given to candidates possessing one or more of the following qualifications—A.R.I.B.A., A.R.I.C.S., A.M.T.P.I.

(2) **FIRST CLASS PLANNING ASSISTANT.** Higher Grade III, £600×£25—£750.

Applicants should possess the qualification of A.R.I.B.A. and/or A.M.T.P.I., and have had experience in the detailed planning of central areas and in the control of external appearance of buildings. Applicants should have a sensitive design ability.

Successful candidates will be required to pass a medical examination. The appointments will be subject to the provisions of the Corporation of London Superannuation Fund established under the City of London (Various Powers) Acts, 1931 to 1950, which provide for the payment, in appropriate circumstances, of superannuation allowances to officers and dependants, and pensions to widows and children, further details of which will be supplied on request.

Applications, giving details of age, qualifications, experience, present position and salary, accompanied by copies of two recent testimonials, must be received by the City Planning Officer, Corporation of London, 55/61, Moorgate, London, E.C.2, not later than the 25th September, 1950.

PICKFORD. 720

THE ROAD HAULAGE EXECUTIVE

are prepared to receive applications for the following post in the Department of the Divisional Surveyor in the North-Western Division:—

DRAUGHTSMAN. Applicants, preferably qualified, must be able to carry out land and building surveys, be good draughtsmen, able to prepare estimates and details, and have experience in the keeping of plans and their records. Salary within the range £400-£500 p.a., according to qualifications and experience.

Applications, in duplicate, should state date of birth, qualifications, previous experience, present post and salary, together with any other relevant information, including the names of two referees, and be sent to the Divisional Staff and Welfare Officer, Road Haulage Executive, North-Western Division, 679-681, Chester Road, Manchester, 16.

Candidates selected for appointment will, where eligible, be expected to join a contributory superannuation scheme and, in this respect, to comply with whatever provisions are decided upon later for the staff of the Executive as a whole. 712

**LANCASHIRE COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.**

Appointment of **SENIOR QUANTITY SURVEYOR**, with commencing salary of £685, rising to £760 per annum. Applicants must be suitably qualified and be capable of carrying out the duties of a Section Leader.

Application forms obtainable from the County Architect, County Offices, Preston, to be returned by the 16th September, 1950. 734

**BOROUGH OF BARKING.
DEPARTMENT OF THE BOROUGH
ARCHITECT.**

APPOINTMENT OF ARCHITECTURAL ASSISTANT—Grade A.P.T. III to V.

Applications are invited for the above permanent appointment, at a commencing salary of £450 per annum, plus London weighting.

Terms and conditions of employment, together with application forms, may be obtained from the Borough Architect, Town Hall, Barking.

Completed applications should reach the undersigned not later than 15th September, 1950.

E. R. FARR,
Town Clerk.
Town Hall, Barking, Essex.
21st August, 1950. 727

MINISTRY OF WORKS.

There are vacancies in the Chief Architect's Division for **ARCHITECTURAL ASSISTANTS** and **LEADING ARCHITECTURAL ASSISTANTS** with recognised training and fair experience. Successful candidates will be employed in London and elsewhere on a wide variety of Public Buildings, including Atomic energy and other Research Establishments, Telephone Exchanges, and Housing.

Salary: Architectural Assistants, £300-£525 per annum; Leading Architectural Assistants, £500-£625 per annum. Starting pay will be assessed according to age, qualifications and experience. These rates are for London; a small deduction is made in the Provinces.

Although these are not established posts, some of them have long term possibilities, and competitions are held periodically to fill established vacancies.

Apply in writing, stating age, nationality, full details of experience and locality preferred, to Chief Architect, W.G.10/BC, Ministry of Works, Abell House, London, S.W.1, quoting reference W.G. 10/BC. 4826

**HAYES AND HARTINGTON URBAN
DISTRICT COUNCIL.**

APPOINTMENT OF CHIEF ARCHITECTURAL ASSISTANT.

Applications are invited for the above-mentioned permanent appointment, at a salary in accordance with A.P.T. Division, Grade Va (£550×£20-£610), plus appropriate London weighting.

Candidates should be suitably qualified and not over 40 years of age, must have high ability in design and be capable of taking charge of large contracts, controlling staff, and be thoroughly conversant with Local Government procedure.

The duties attaching to the appointment are to organise and supervise the execution of all work in the Architectural Drawing Office, and to assist in the administrative work of the Architect's Section.

Forms of application, together with further particulars of the appointment, can be obtained from the Engineer and Surveyor of the Council, Town Hall, Hayes, Middlesex, to whom completed applications, endorsed "Chief Architectural Assistant," should be returned by Monday, the 11th September, 1950.

A. E. HIGGINS,
Clerk of the Council. 742

**THE NORTH-WESTERN ELECTRICITY
BOARD.**

APPOINTMENT OF SENIOR ARCHITECTURAL DRAUGHTSMAN.

Applications are invited for the appointment of Senior Architectural Draughtsman at Area Board Headquarters, Cheetwood Road, Manchester, 8.

Applicants should have an overriding interest in contemporary design, and have recently completed, or be about to complete, a course at a recognised School of Architecture. Applicants should be Associates R.I.B.A., or be studying for the Final Examination of the Institute.

Consideration will also be given to applicants of similar interest or ability whose qualifications do not comply fully with the above conditions.

The scope of the work will cover divergent types of building, including large sub-stations, showrooms, offices, depots, etc.

The provisional salary for the position will be within the range £525-£600 per annum, subject to negotiation with the appropriate body.

Applications should be made on a form to be obtained from the Establishment Officer, The North-Western Electricity Board, Cheetwood Road, Manchester 8, the completed form being returned so as to arrive not later than Saturday, the 16th September, 1950. 707

**CITY OF COVENTRY ARCHITECTURAL
AND PLANNING DEPARTMENT.**

Two Grade VII vacancies for **ASSISTANT ARCHITECTS** exist in the Housing Section of this Department.

Applicants should be about 35 years of age and should have had extensive experience in the preparation of working drawings and management of housing contracts. The men appointed will be required to prepare working and detail drawings, and whilst a thorough knowledge of traditional construction is absolutely essential, there will be real scope for new ideas in construction and uses of materials.

Applications on forms available from my Office should be returned immediately.

Provision of housing accommodation will be considered by the Council.

DONALD E. E. GIBSON, M.A.,
A.R.I.B.A., M.T.P.I.,
City Architect and Planning Officer.

1a, Warwick Row, Coventry.
31st August, 1950. 751

**ORKNEY COUNTY COUNCIL
COUNTY ARCHITECT AND PLANNING
OFFICER.**

The County Council of Orkney invite applications for the post of County Architect and Planning Officer. The salary will be £700 per annum. Full conditions of appointment may be had on application to the Subscriber, with whom applications and copies of three recent testimonials should be lodged not later than 25th September, 1950.

DOUGLAS M. WOOD,
County Clerk.

Kirkwall,
25th August, 1950. 753

**CORPORATION OF GREENOCK.
MASTER OF WORKS DEPARTMENT.**

Applications are invited for the position of ASSISTANT ARCHITECT in the Master of Works Department of the Corporation, the salary payable being in accordance with Grade A.P.T., VI, of the National Scale of Salaries.

Applicants must be Registered Architects and experienced in local authority work, including housing and general architectural work.

The appointment will be subject to the provisions of the Local Government Superannuation (Scotland) Act, 1937.

Applications, giving details of age, marital state, qualifications, present and previous employment, training and experience, and enclosing copies of not more than three recent testimonials, should be lodged with the undersigned on or before Friday, 22nd September, 1950.

JOHN LIDDELL,
Town Clerk.

Municipal Buildings, Greenock.
25th August, 1950. 752

Tenders for Contracts

6 lines or under, 12s. 6d.; each additional line, 2s.

BOROUGH OF BEXLEY.

TENDERS FOR THE ERECTION OF HOUSES.
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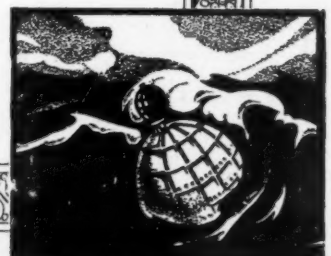
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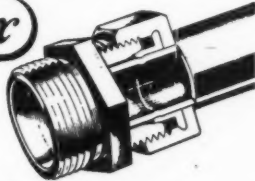
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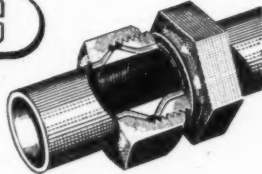
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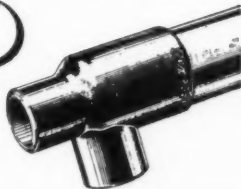
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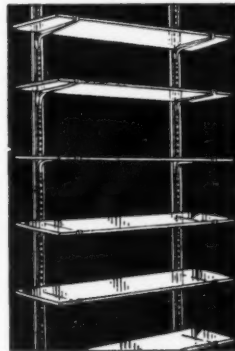


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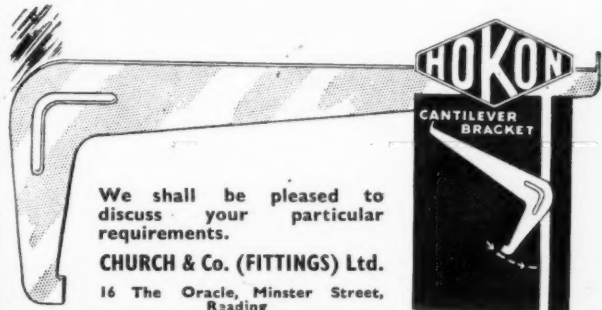
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