

THE ARCHITECTS' JOURNAL

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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 Ic one week, Ic 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.	Welbeck 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arch 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. School of Architecture, Manchester Municipal School of Art, All Saints, Manchester, 15.	Ardwick 3480
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.	Welbeck 5721
AScW	Association of Scientific Workers. 15, Half Moon Street, Piccadilly, W.1.	Grosvenor 4761
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Welbeck 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 9, Conduit Street, W.1.	Mayfair 8641/6
BCC	British Colour Council. 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 17, Amherst Road, Ealing, W.13.	Perivale 6869
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 43, George Street, Croydon.	Croydon 5452
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BGF	British Gas Federation. 1, Grosvenor Place, S.W.1.	Sloane 8266
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Borough Architect, Town Hall, Newport, Mon.	Newport 3111
CAS	County Architects Society. C/o A. Guy Chant, F.R.I.B.A., Salop County Council, 5, Belmont, Shrewsbury.	Shrewsbury 3031
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAD	Central Institute of Art and Design. 41, 42, Dover Street, W.1.	Regent 3074
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland.	
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.	Kensington 8161
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W. Sloane 4280	
CUJC	Coal Utilization Joint Council. 13, Grosvenor Gardens, London, S.W.1.	Victoria 1534
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 1761
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
DOT	Department of Overseas Trade. 35, Old Queen Street, S.W.1.	Victoria 9040
EC	Electricity Commission. Savoy Court, Strand, W.C.2.	Temple Bar 7565
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
FB 1951	Festival of Britain 1951. 2, Savoy Court, Strand, W.C.2.	Waterloo 1951
FASSC	Federation of Association of Specialists and Sub Contractors. 21, Tothill Street, S.W.1.	Whitehall 9606
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, Nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 5615
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577

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[VOL. 110

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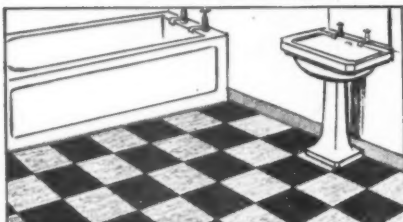


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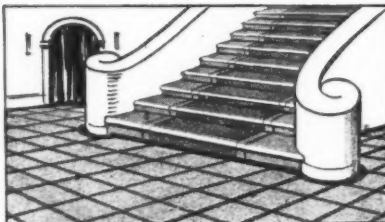
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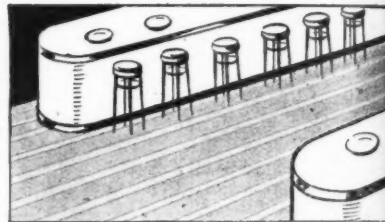
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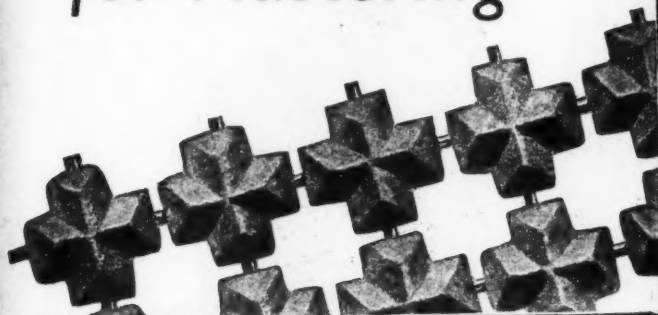


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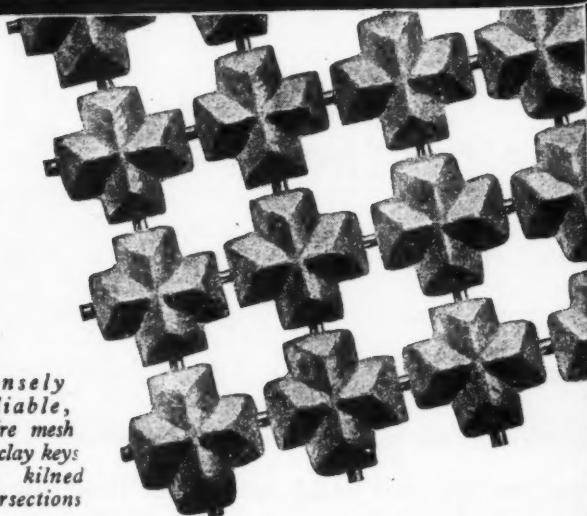
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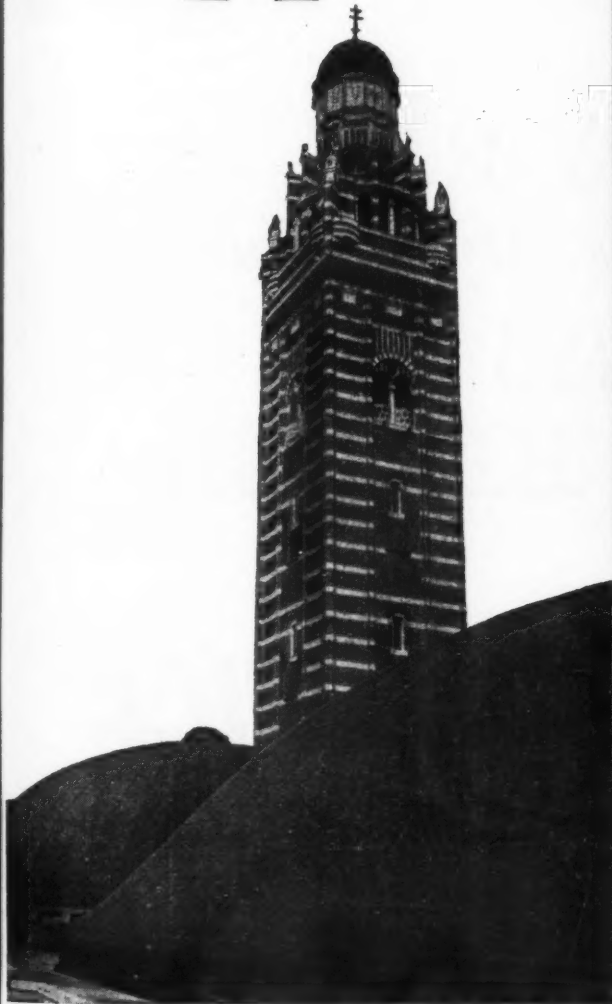
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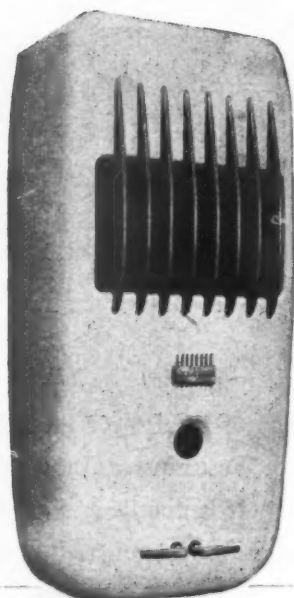
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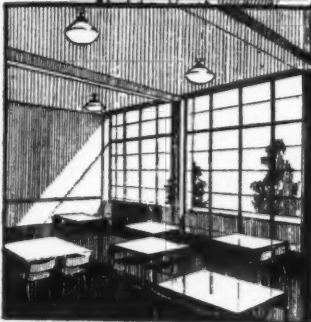
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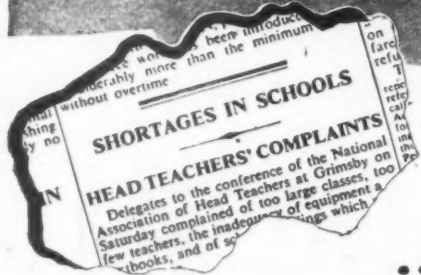
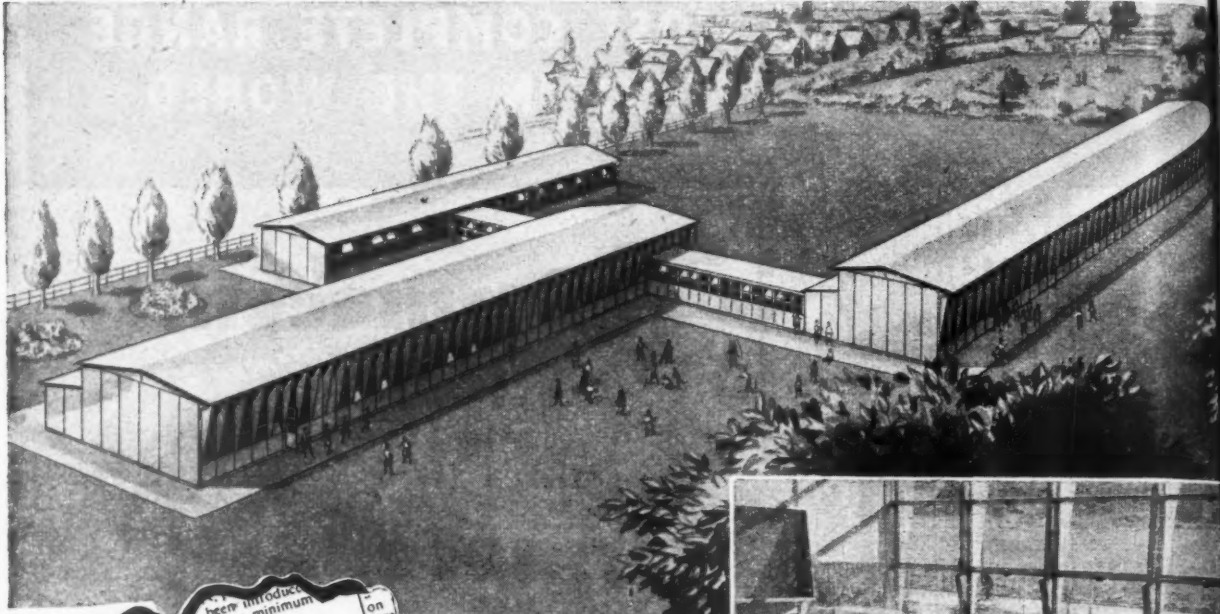
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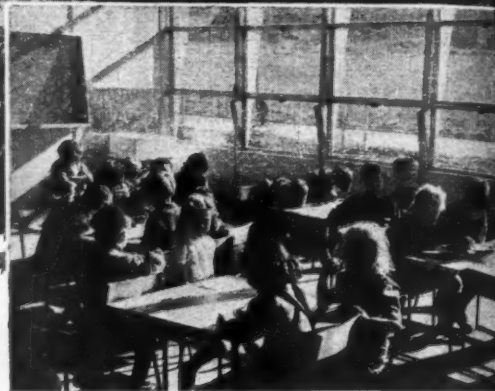
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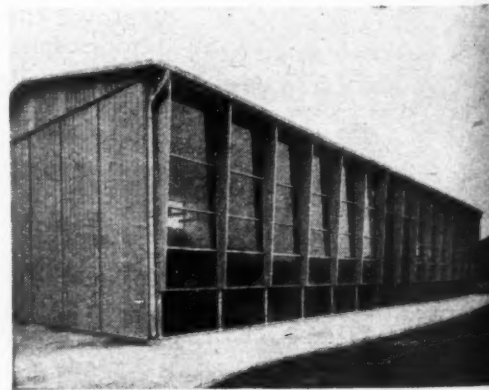


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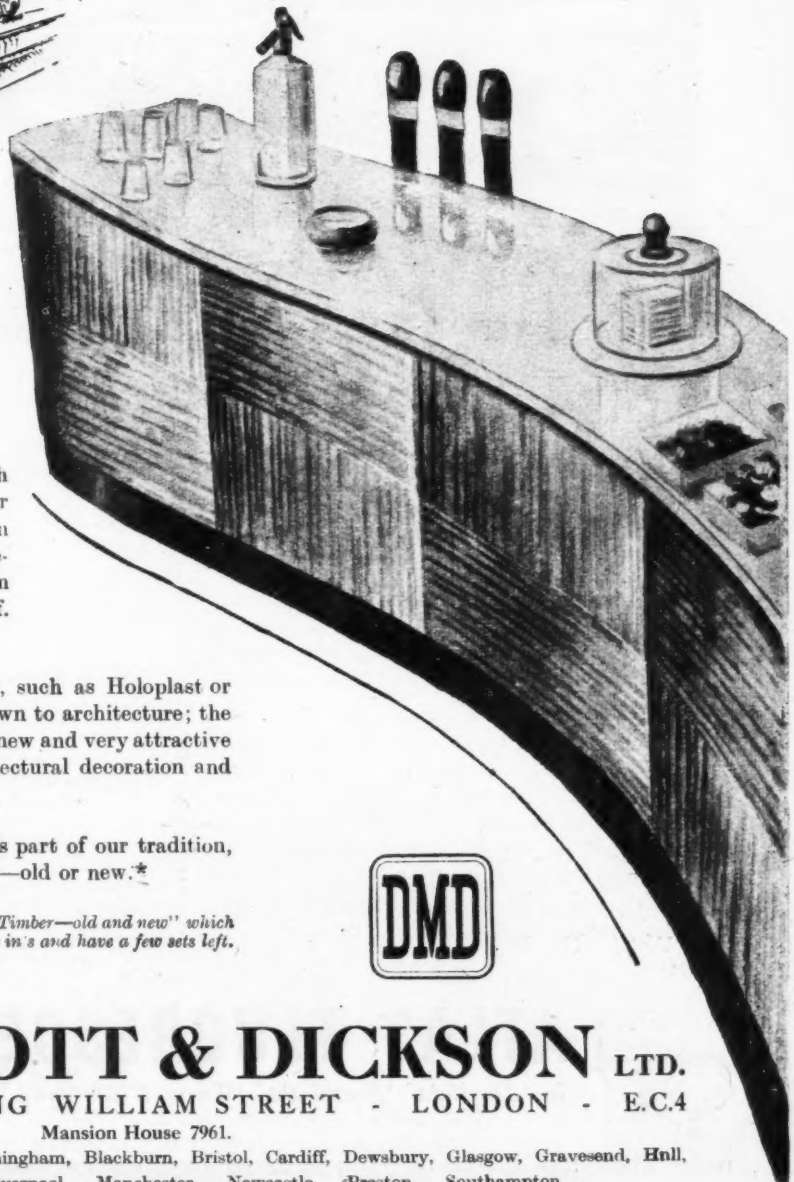
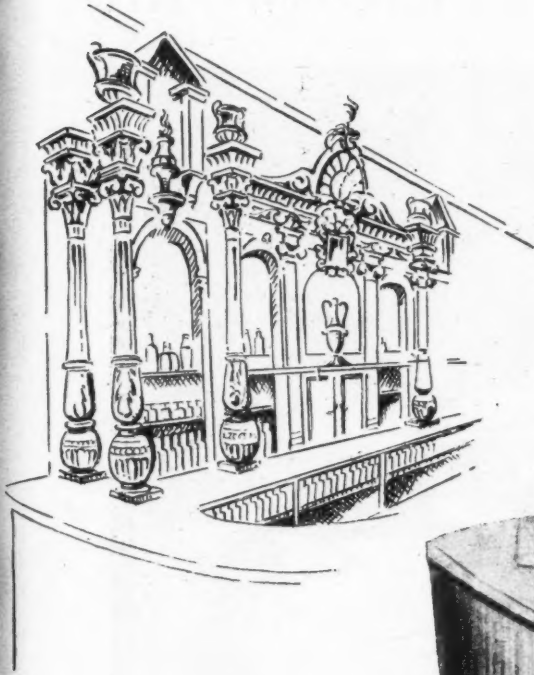
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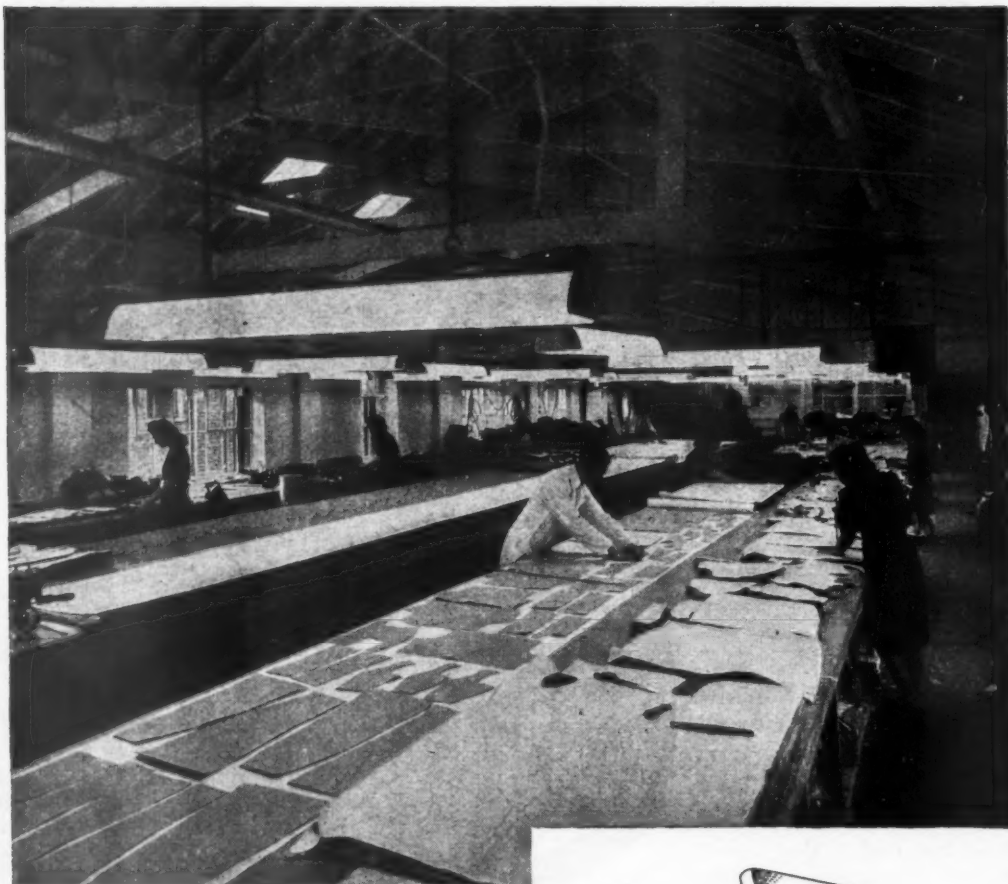
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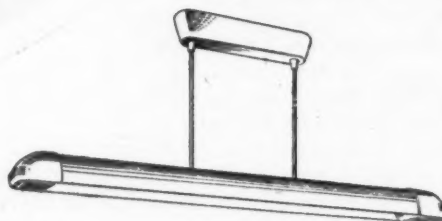
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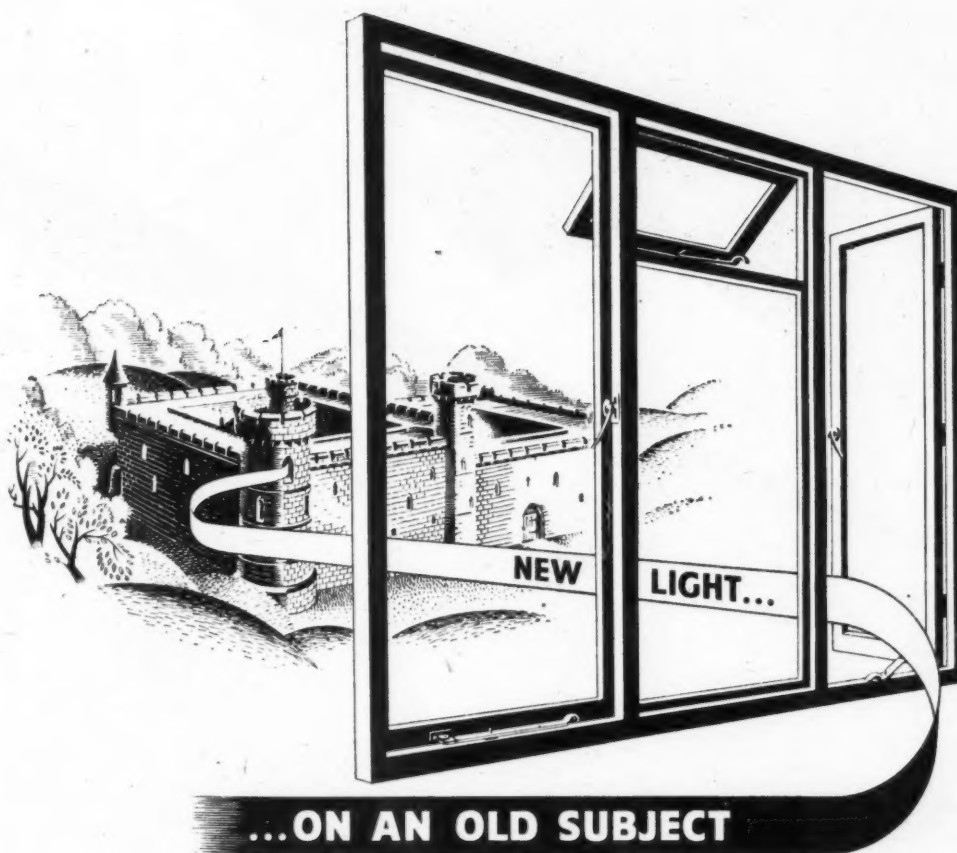
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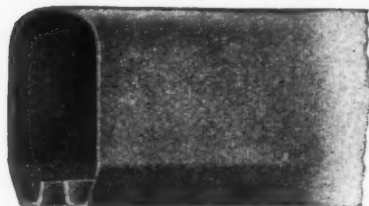
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the TRACK



and the TROLLEY

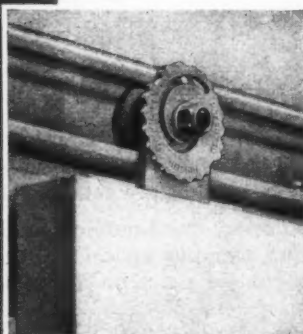
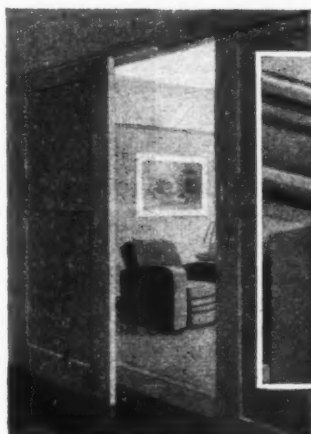


KING Sliding Door Gear, both in design and performance, is the best obtainable. Fine production facilities help to make this appliance outstanding. Above photograph shows Geo. W. King's modern factory in the new satellite town of Stevenage. The buildings cover an area of over 127,000 sq. ft. and surrounding land of 75 acres has been acquired for future development. Up-to-the-minute methods and organisation ensure efficient and economical production which is reflected in the quality of KING Products.

Photograph on right shows a small section of the large Machine Shop at the Stevenage factory. Up to date plant and efficient layout ensure accurate and expeditious work.

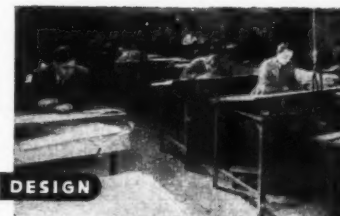


PRODUCTION



Enquiries are invited for the new "HOMESTIC" Sliding Door Gear of light alloy; eminently suitable for interior doors in dwelling houses, flats, etc.

This picture shows part of the extensive Drawing Office where a team of skilled engineers is constantly working to improve every detail of KING products.



DESIGN

Photograph on right shows a corner of the Research Laboratory where a constant check is kept on all the raw materials used in the factory and a careful scrutiny made of all new materials and processes.



RESEARCH

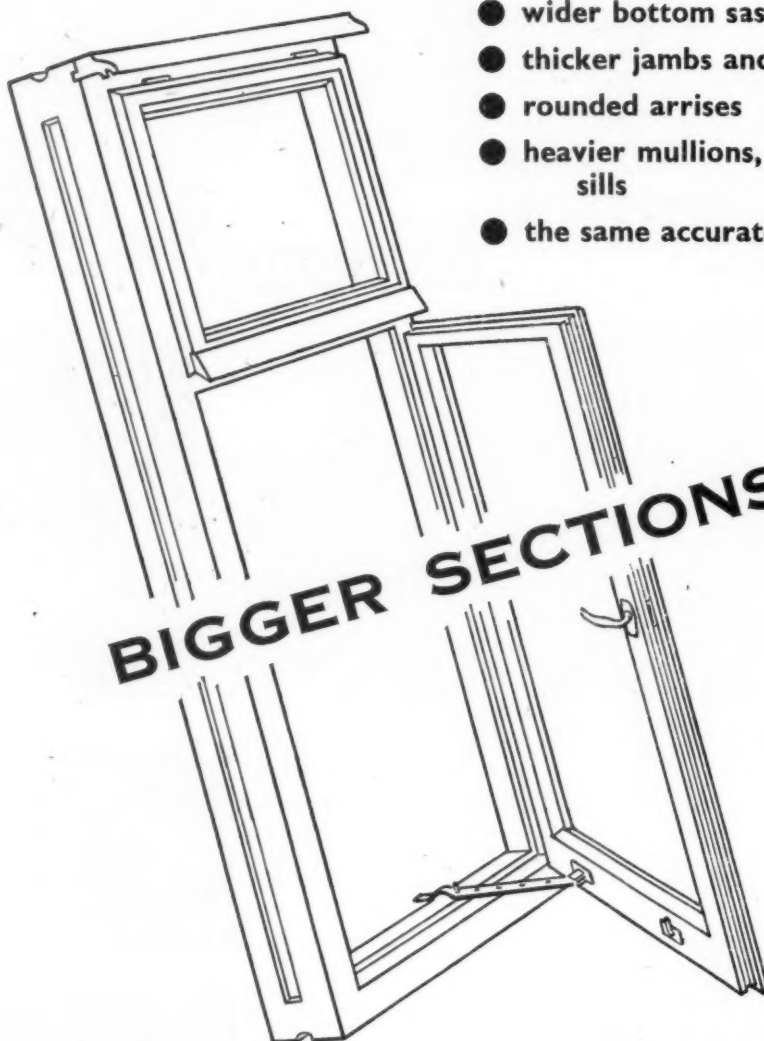
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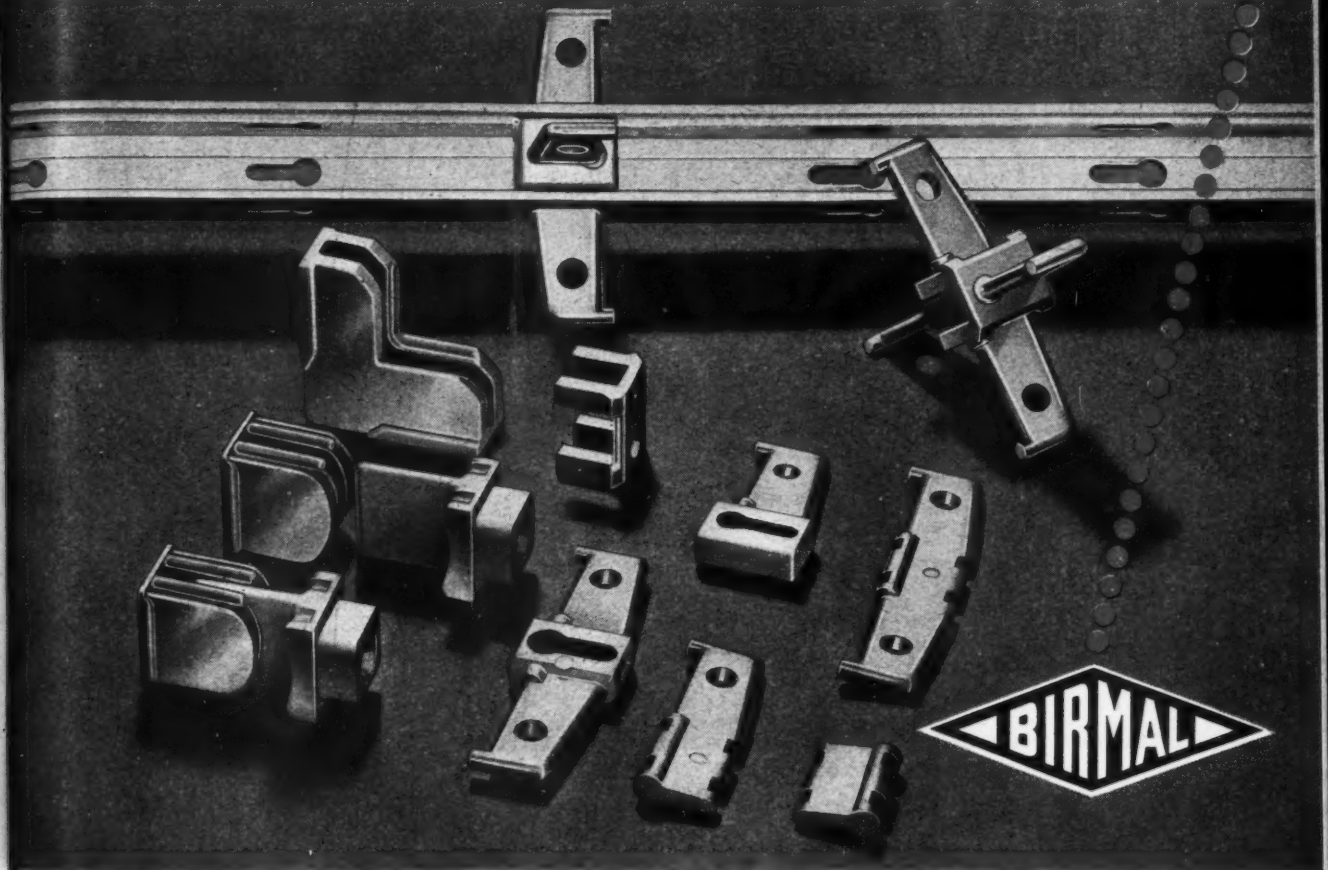
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* For detailed information see "Architects' Journal" Information Sheet 25.A2.

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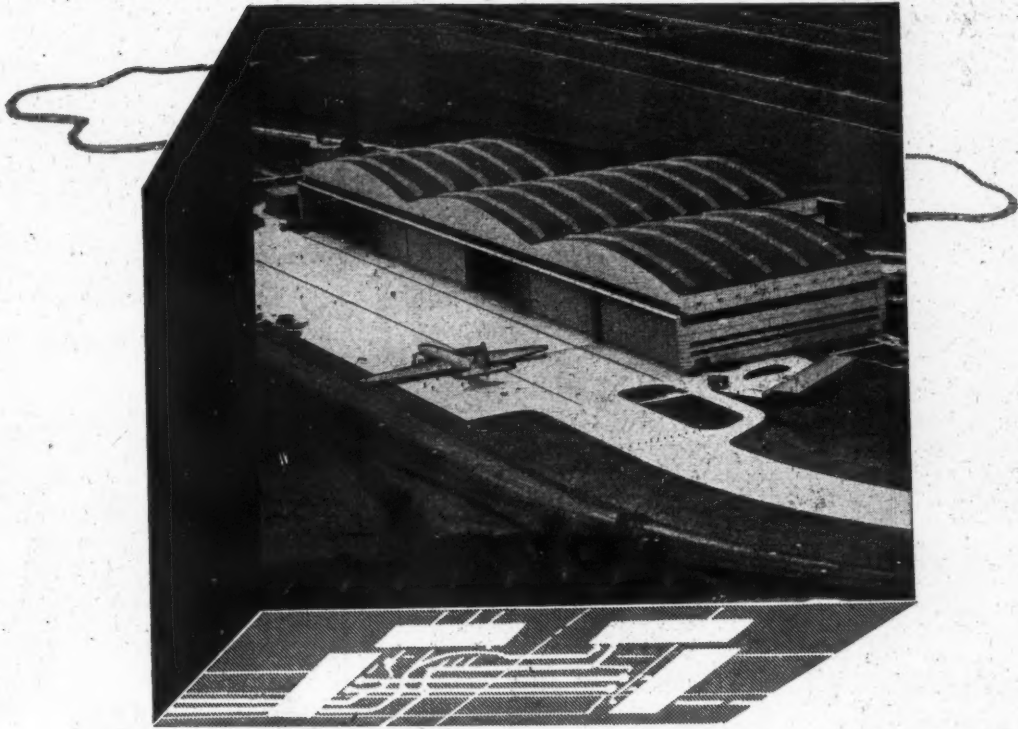
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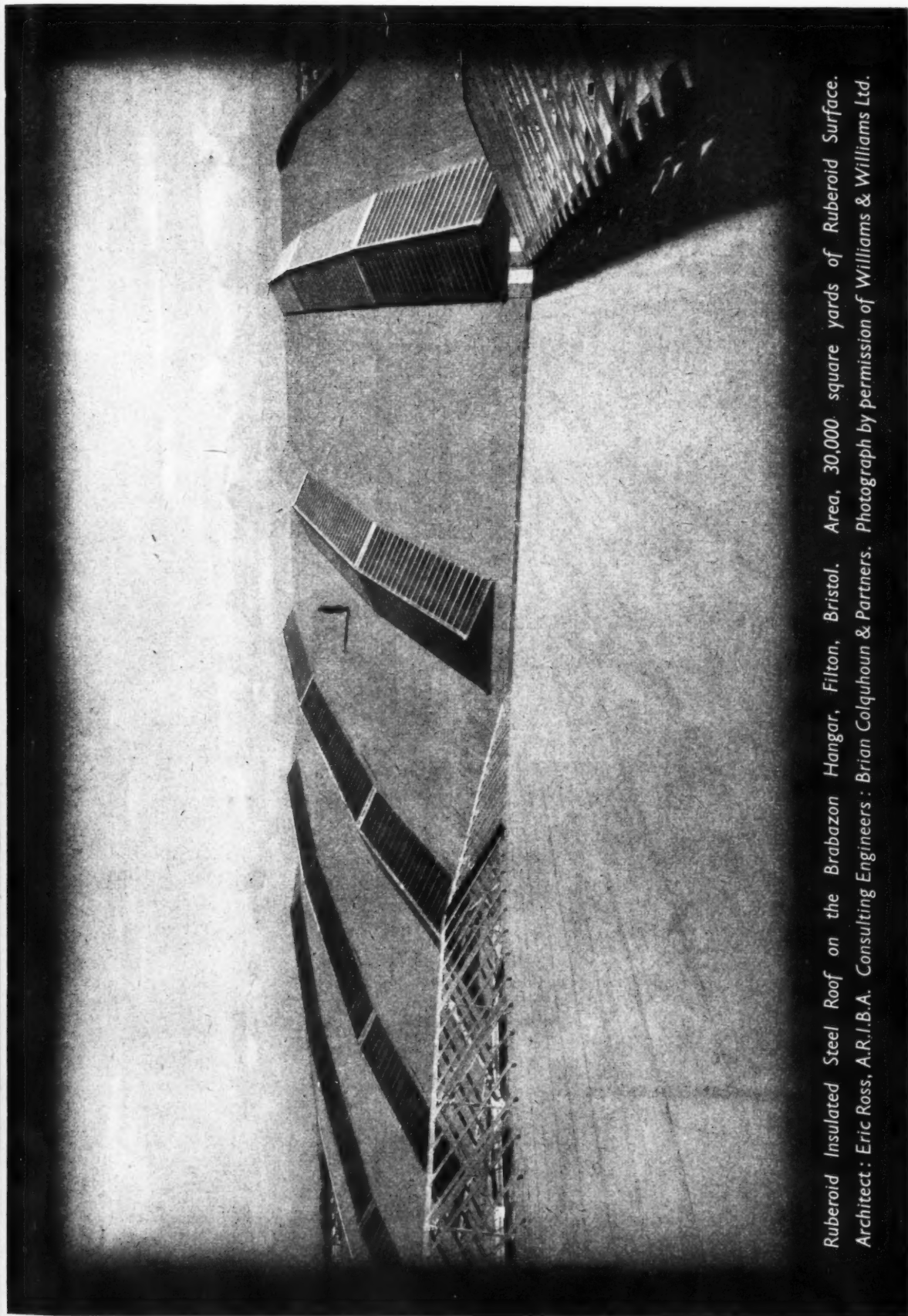
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Ruberoid Insulated Steel Roof on the Brabazon Hangar, Filton, Bristol. Area, 30,000 square yards of Ruberoid Surface. Architect: Eric Ross, A.R.I.B.A. Consulting Engineers: Brian Colquhoun & Partners. Photograph by permission of Williams & Williams Ltd.

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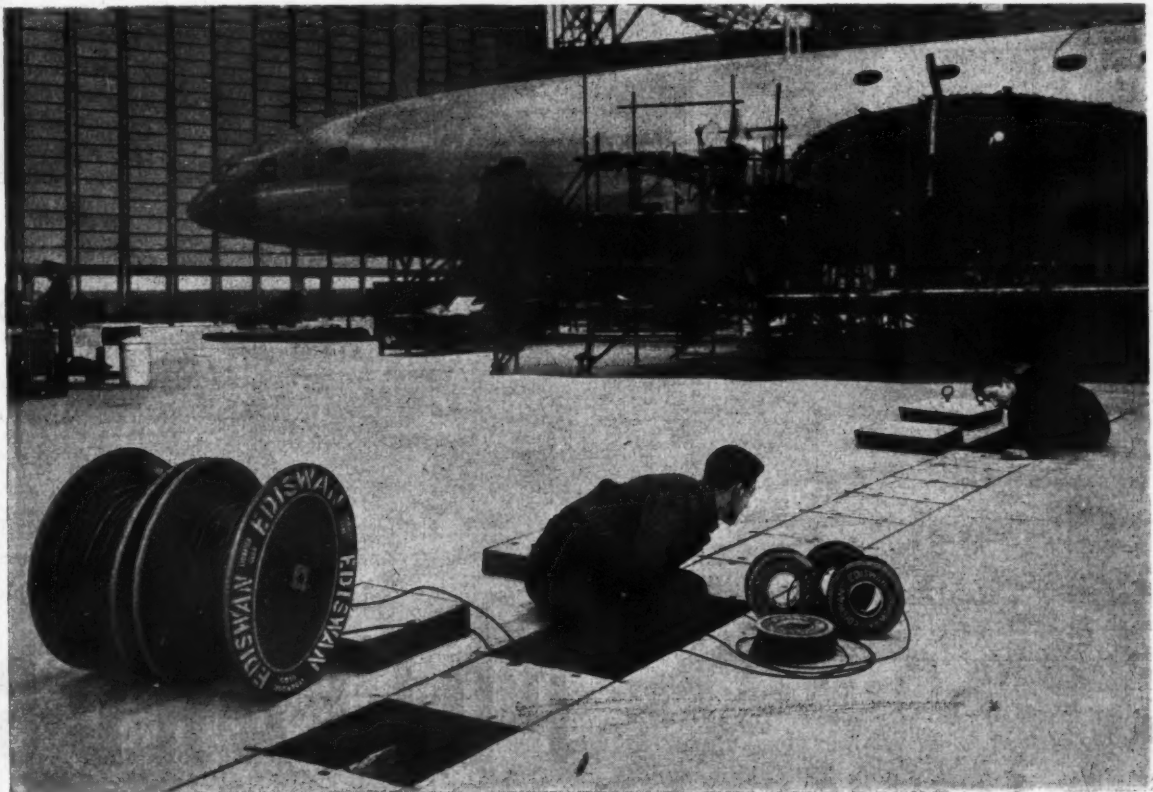
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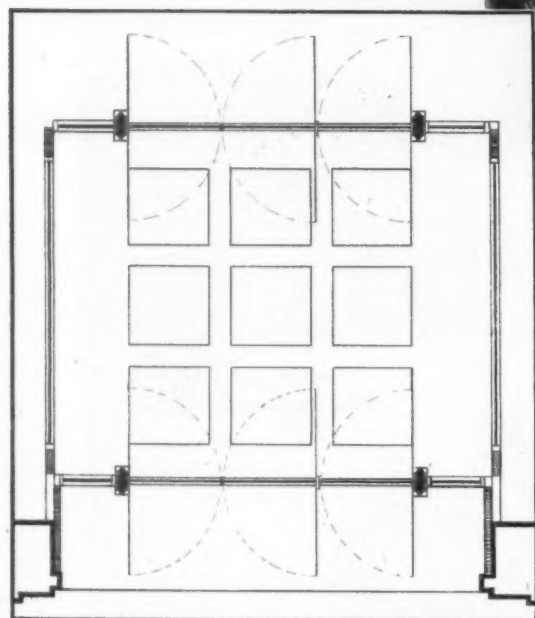
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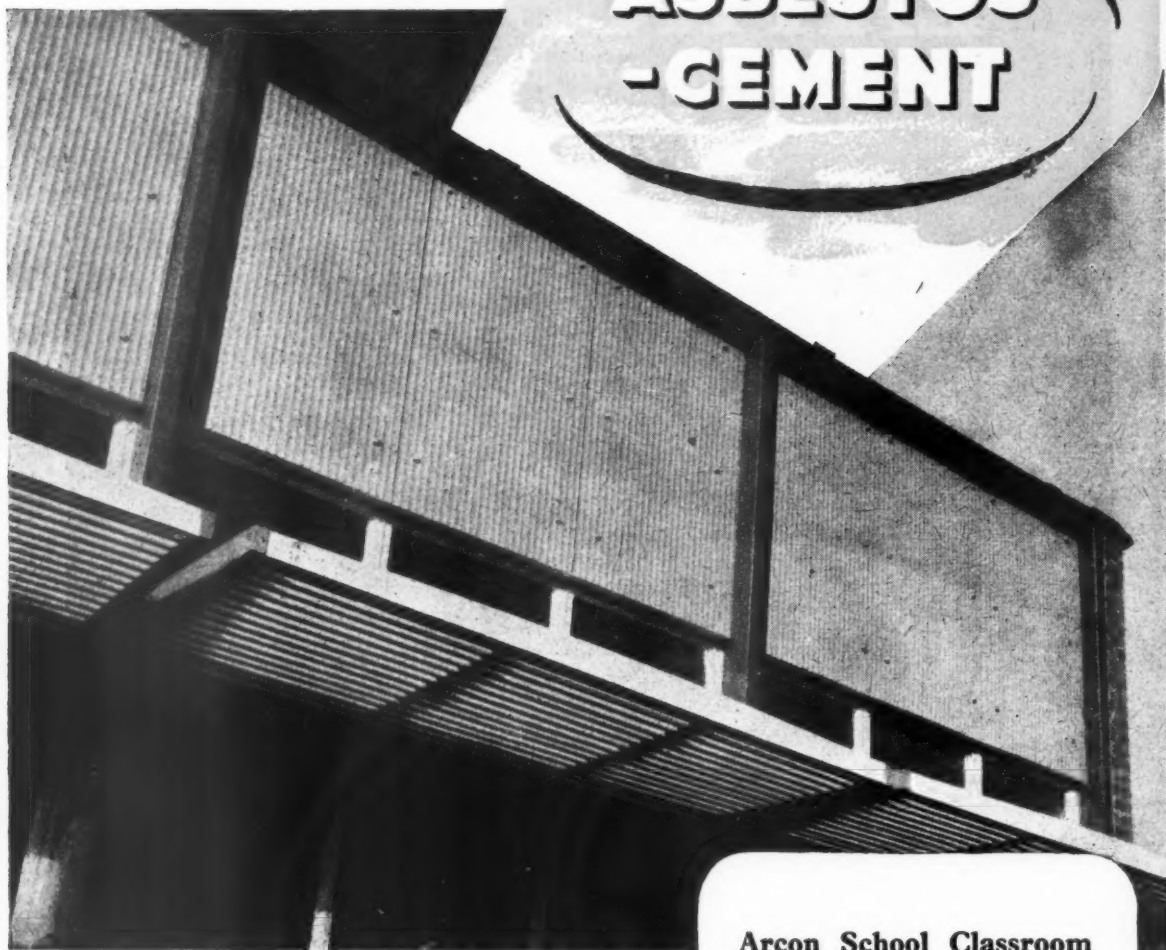
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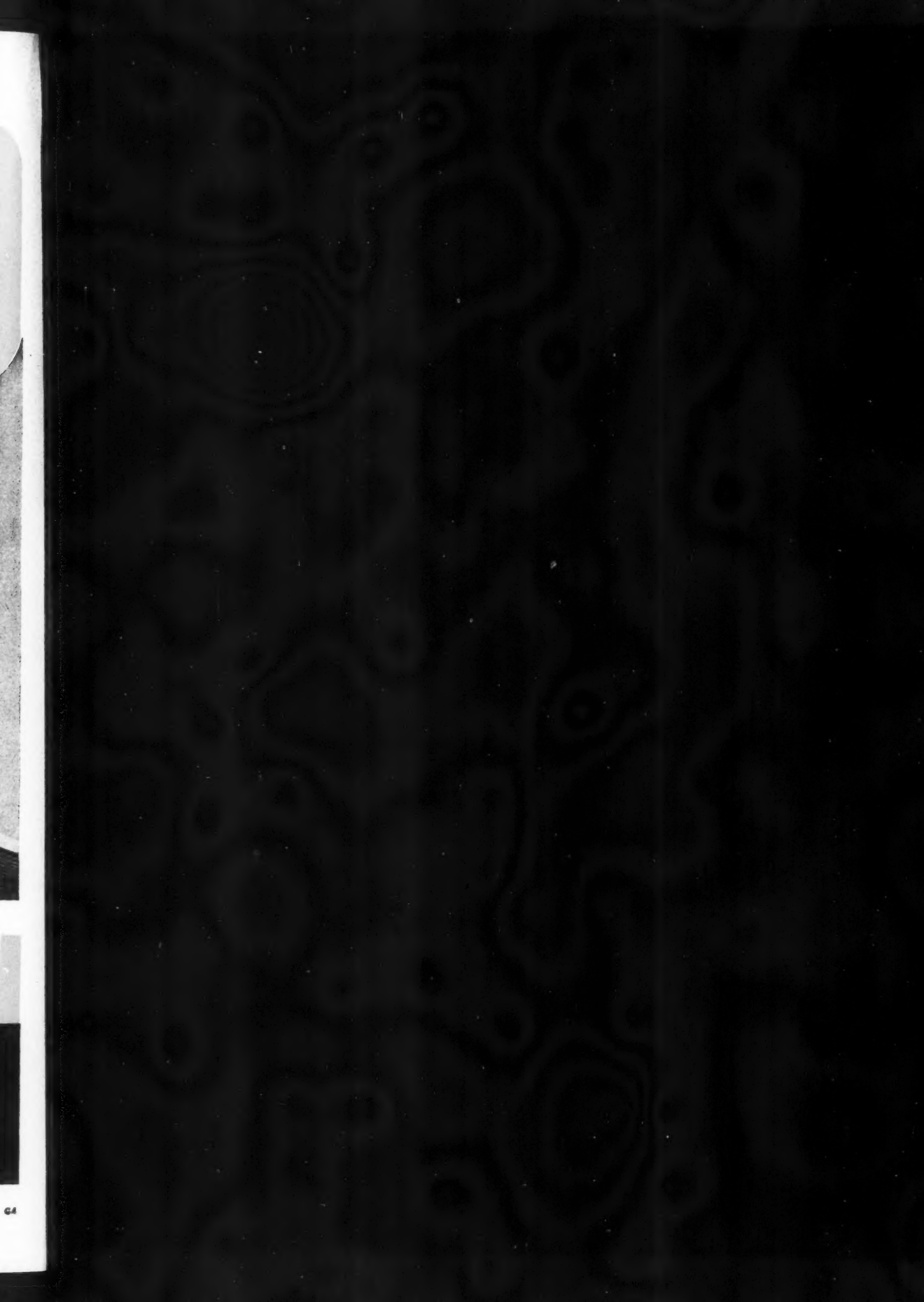
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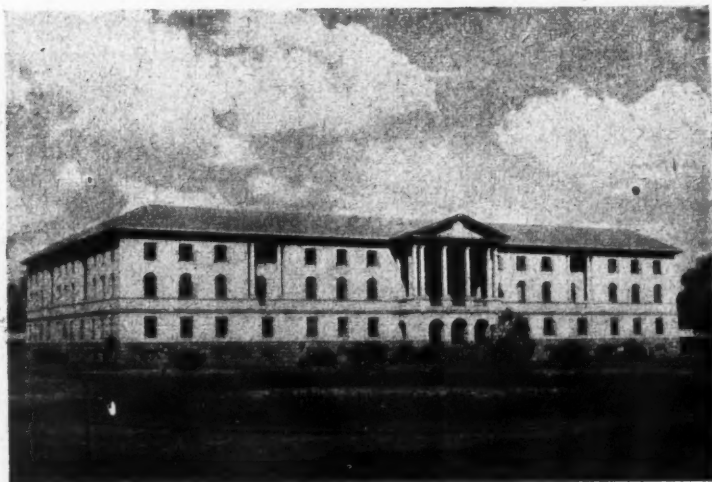
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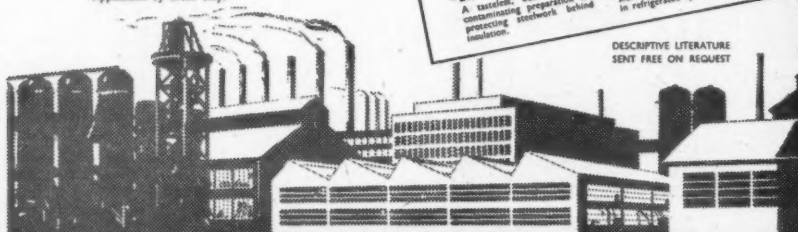
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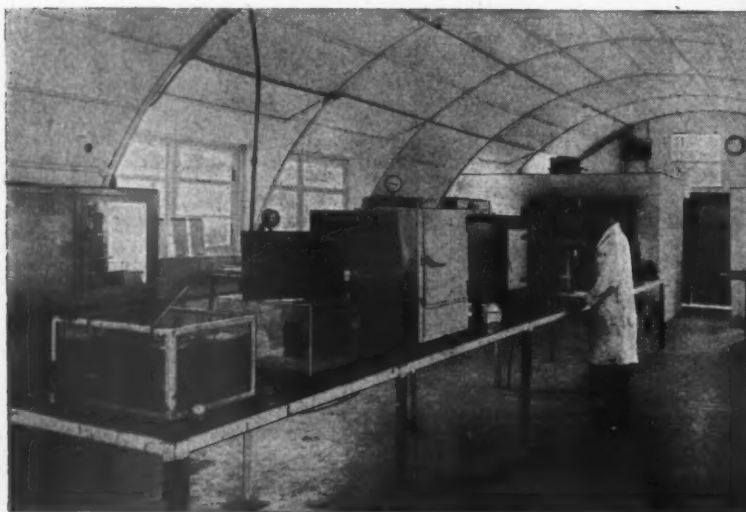
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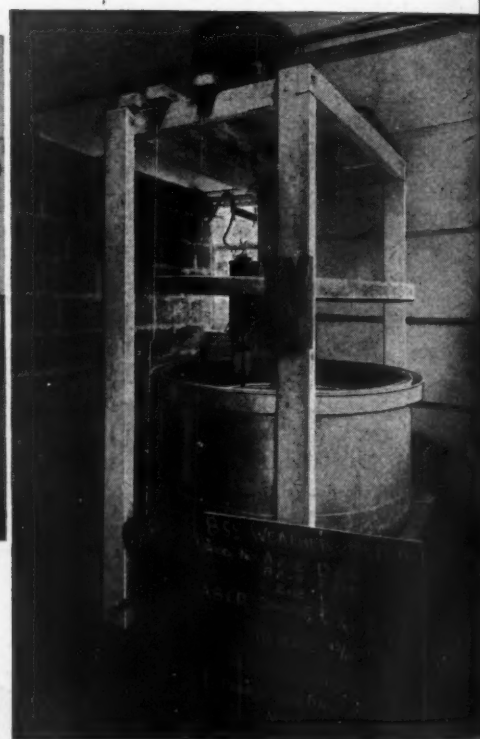


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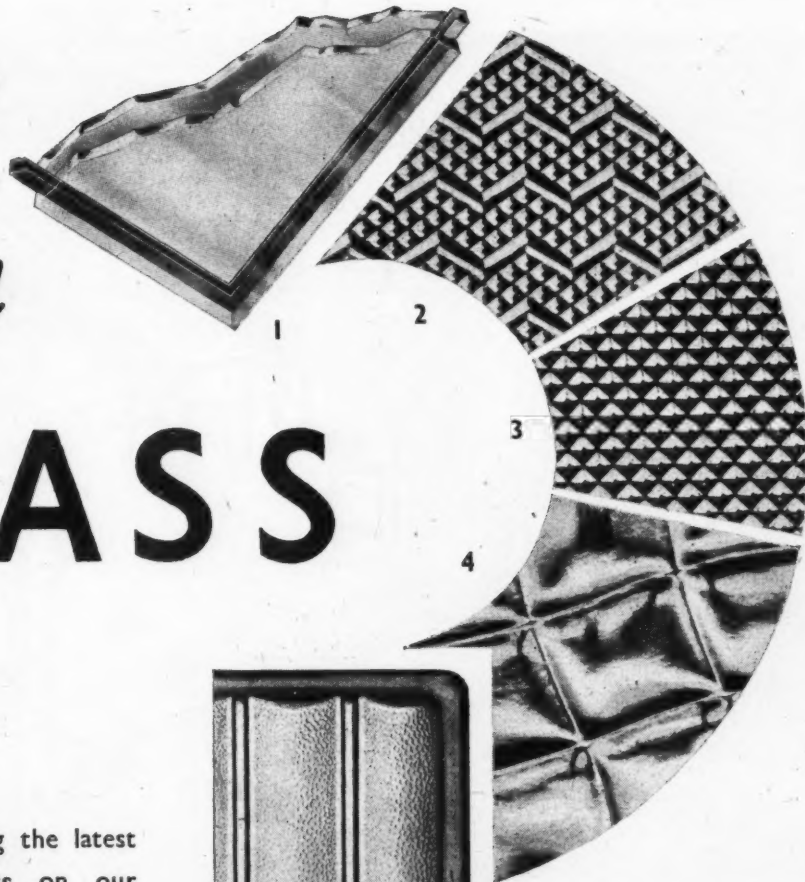


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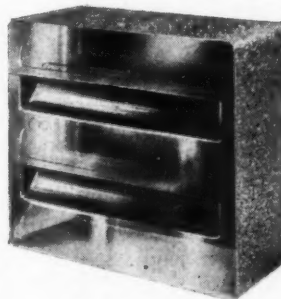
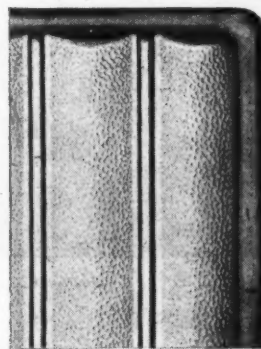
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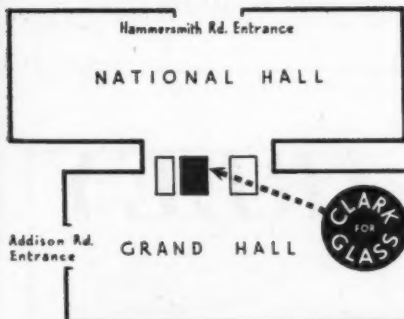
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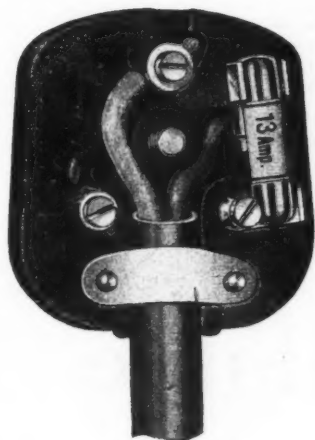
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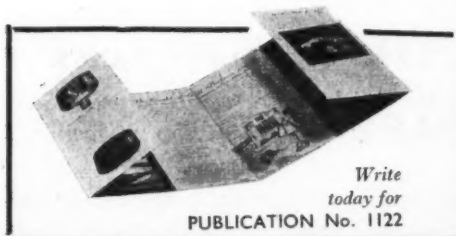
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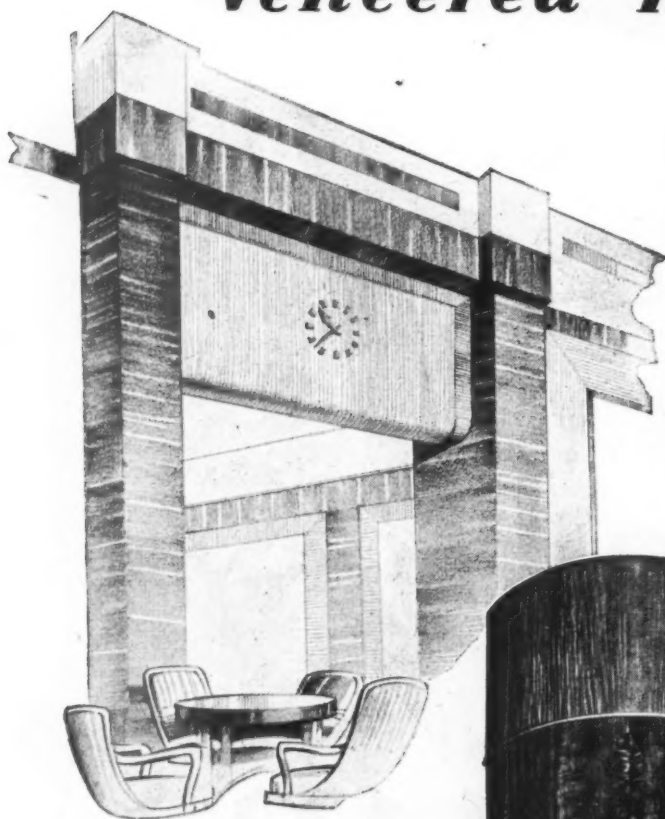
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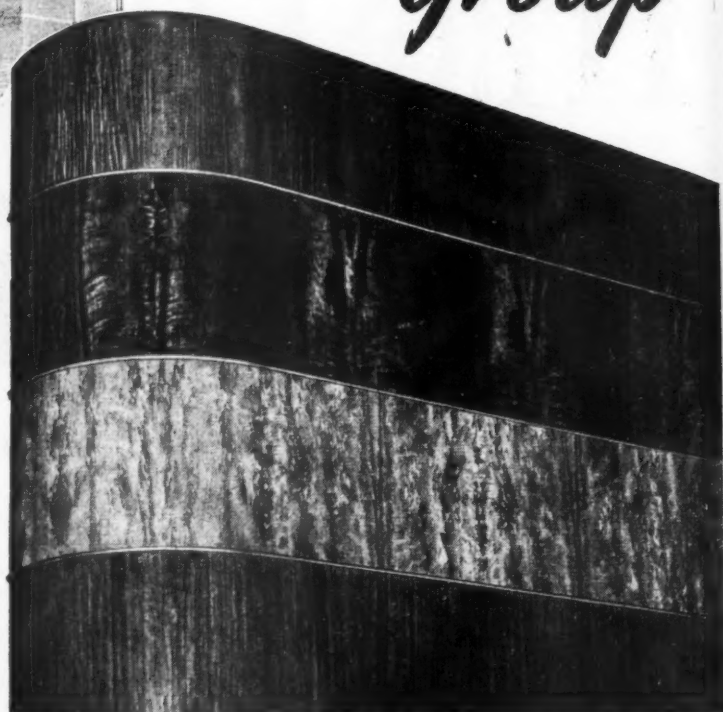


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NEWS

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No. 2857 VOL. 110

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

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

★★ means important news, for reasons which may or may not be obvious.

Any feature marked with more than two stars is very big building news indeed.

In common with every other periodical, this JOURNAL is rationed to a small part of its pre-war consumption of paper. Circulation is therefore temporarily restricted but would-be subscribers are advised to have their names put on the waiting-list. Their names will then be added to the subscription list as soon as possible. Subscription rates : by post in the U.K. or abroad, £1 15s. od. per annum. Single copies, 9d. ; post free, 11d. Special numbers are included in subscription ; single copies, 1s. 6d. ; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 17s. 6d. each ; carriage 1s. extra.

DIARY FOR NOVEMBER
DECEMBER AND JANUARY

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

BBC *Public Architecture.* Third programme talks. Speakers, Frederick Gibberd (Nov. 14, 7.25 p.m.); Percy Marshall (Nov. 18, 7.5 p.m.); and R. Furneaux Jordan (Nov. 23, 8.10 p.m.).
Nov. 14, 18 AND 23

BRIGHTON. *Annual National Housing and Planning Conference.* The Royal Pavilion, Brighton. (Sponsor, National Housing and Town Planning Council.)
Nov. 24-27

LONDON. *American Housing Exhibition.* Building Centre. 10 a.m. to 5 p.m. Saturdays, 10 a.m. to 1 p.m. UNTIL NOV. 30

Noise Control. A course of weekly lectures by Hope Bagenal, C. A. Mason, R. B. Grey, J. McLaren. LCC Brixton School of Building, Ferndale Road, S.W.4. 6.30 p.m. Nov. 16, 23, 30, DEC. 7

Business Efficiency Exhibition. Olympia. (Sponsors, Office Appliance Trades Association). 10 a.m. to 8 p.m. daily.
UNTIL NOV. 19

J. A. F. Watson. *Presidential Address.* RICS, 12, Great George Street, S.W.1. 5.30 p.m. Nov. 14

R. Fitzmaurice. *Changes in Building Technique.* RIBA, 66, Portland Place, W.1. (Sponsor, MOW.) 6.30 p.m. Nov. 14

Lionel Brett. *Second Thoughts on Planning.* RIBA, 66, Portland Place, W.C.1. 6 p.m. Nov. 15

Janko Laurin. *Aspects of Russo-Byzantine Architecture.* 15, Lisle Street, W.C.2. (Sponsor, AIA). 8 p.m. Nov. 18

Mr. Arthur Ling. *An Architect Revisits Warsaw.* 81, Portland Place, W.1. (Sponsor, British-Polish Society.) 8 p.m. Nov. 18

Building Exhibition. Olympia. Daily, 10 a.m. to 8 p.m. Nov. 17-DEC. 1

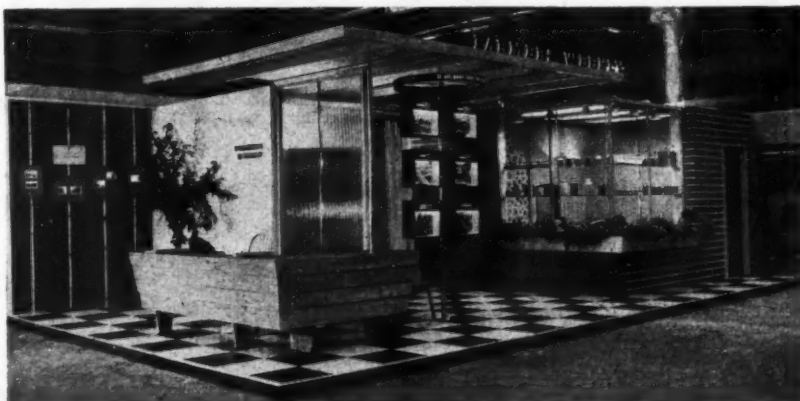
COMPETITIONS

New Civic Hall at Guildford. Promoters: Guildford Corporation. Assessor: G. A. Jellicoe, F.R.I.B.A. Premiums: (1) £1,000. (2) £500. (3) £250. Site: Firs Estate, London Road, Guildford. The promoters require a design for (a) a large assembly hall, to seat 1,200 persons, to be used for civic and concert purposes, and (b) a small hall, to seat 500 persons, for lectures with an alternative use as a banqueting hall.

Enquiries must be received by the Town Clerk, Municipal Offices, Guildford, Surrey, with a deposit of £2 2s., to be paid by the competitor for conditions of entry. The last day for questions is November 15, 1949. Designs must be received by April 30, 1950.

Competition for designs for interior treatment of two saloon bars and two public bars. (Sponsor, The Architectural Press Ltd.) Prizes: (1) £500; (2) £250; (3) £100. Assessors: Hugh Casson; J. S. Eagles; R. Furneaux Jordan; E. B. Musman; and J. M. Richards (representing the editors of *The Architectural Review*). Questions must be addressed to "Pub Competition Questions," The Architectural Press Ltd., 9-13, Queen Anne's Gate, S.W.1. and must be received by November 15. Designs must be received by mid-day, February 28, 1950.

York Festival, 1951, Competition. The York Festival Society, Ltd., invites architects resident in Great Britain and Eire to submit designs in competition for a block of flats in Paragon Street, York, to be built by the corporation of the city of York as part of the city's housing programme. Organized in connection with York Festival of 1951 (June 2-16), when it will be open for public inspection. Premiums: £250; £150 and £75. Assessor, W. A. Eden. Conditions may be obtained, on payment of £2 2s., from Keith Thomson, York Festival, 1, Museum Street, York. Last day for questions, November 12. Designs to be received by January 18.



This stand was designed by Robert Gutmann of the Design Research Unit, London, for "Farmers Weekly" at the Dairy Show held at Olympia recently.



Flats, Countess Road, Walthamstow

F. G. Southgate, A.R.I.B.A. *Borough Architect*

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From AN ARCHITECT'S Commonplace Book

ELEMENTS OF ARCHITECTURE. [From A Calendar of British Taste, by E. F. Caritt (Routledge & Kegan Paul Ltd.).] Vitruvius our principall Master . . . Leon Battista Alberti the first learned architect beyond the Alpes . . . Birds do build their nests spherically . . . As semicircular arches or Hemispherical vaults being raised upon the totall diameter, bee of all others the roundest and consequently the securest . . . so those are the gracefuller which, keeping precisely the same height, shall yet bee distended one fourteenth part longer than the sayd entire diameter, which addition of distent will conferre much to their Beauty, and detract but little from their strength . . . As for those arches which our artizans call of the third and acuto, because they do always concur in an acute angle and doe springe from the division of the Diameter into three, foure, or more parts at pleasure ; I say such as these : both from the natural imbecillity of the sharpe angle it selfe, and likewise for their very Uncomeliness, ought to be exiled from judicious eyes, and left to their first inventors, the Gothes or Lumbards, amongst other reliques of that barbarous age . . . that agreeable harmony between the length, breadth and height of all the rooms of the fabric, which suddenly, where it is, taketh every beholder by the secret power of proportion . . . S. Carita (Accademia at Venice) and Riccio's S. Giustina (at Padua) do ravish the beholder and he knows not how by a secret harmony in the proportions . . . How an artificer whose end is the imitation of nature can be too natural . . . is the fault or (to speak more gently) the too great perfection of Albert Durer and perhaps also of Michael Angelo . . . the German did too much express that which was and the Italian that which should be. Which severe observation of Nature, by the one in her commonest and by the other in her absolutest forms, must needs produce in both a kind of rigidity, and consequently more naturalness than gracefulness.

The FUTURE of PLANNING was discussed in a recent talk by Mr. Lewis Silkin.

A plea for the exercise by planners of a sense of realism in the preparation of development plans—realism in the sense that that which was planned should have a reasonable chance of being carried out—was made by Mr. Silkin, M.P., Minister of Town and Country Planning, when he spoke at the first post-war annual dinner of the Town Planning Institute held at the Trocadero Restaurant, London, on November 2.

Mr. Silkin began by expressing his faith in the future of planning and the planning profession. In this country today both were in a healthy and sturdy state and despite the imminence of a "certain event" and the talk there had been in some quarters about repealing the 1947 Town and Country Planning Act and cutting the New Towns programme, he considered there was little need for any fear regarding the future. Whatever the outcome might be of that "certain event" to which he had referred, he hoped the work of town and country planning would continue. It was now accepted as one of the essential factors in the life of the Country and he did not think anyone would wish to return to the days of entirely uncontrolled development.

The Minister went on to refer to the development plans that were now being prepared in all parts of the country and pointed out that the plan was only the first stage—a very necessary first stage—to action. The time was coming when these plans would have to be translated into action and today the public had a sense of something lacking in that these beautiful, illustrated two-guinea volumes were not being translated into buildings and completed planning schemes. Hitherto these documents had been prepared in many cases in a spirit of complete irresponsibility, without any explanation as to how the plans were going to be implemented.

Very soon we would cease to talk about making plans and turn to the subject of implementing plans. Therefore the plans would have to be prepared on a much more realistic basis than they had been hitherto. For this reason, said the Minister, he wanted to make a strong plea for realism in the preparation of plans. The Minister concluded by saying that the greatest danger to planning was not this

talk about repealing certain Acts of Parliament but rather the fact that unless something concrete was done about carrying out these plans, the public would become disillusioned and lose faith.

★★

The Second CONGRESS of the INTERNATIONAL UNION of ARCHITECTS is to be held next year.

The Congress, which will take place between September 3 and 10 at Warsaw, will consider the following points:—The future reconstruction of towns destroyed, the remodelling of existing towns and the construction of new towns. The theory and practice of town planning in architecture presented for the following concrete cases: (a) Civic centres and centres of districts; (b) the dwelling; (c) free space; (d) the techniques of realization.

There will be a national exhibition closely related to the theme of the congress and organized by the Union, on view in Warsaw at the time of the conference. This exhibition will provide illustrations to the papers and reports. The congress will be directed by a committee composed of the president and the rapporteurs of each session and will be presided over by the president of the congress. This committee has been selected by the Executive Committee of the UIA and includes Roman Piotrowski (Poland), president, and the following members: Nicolas

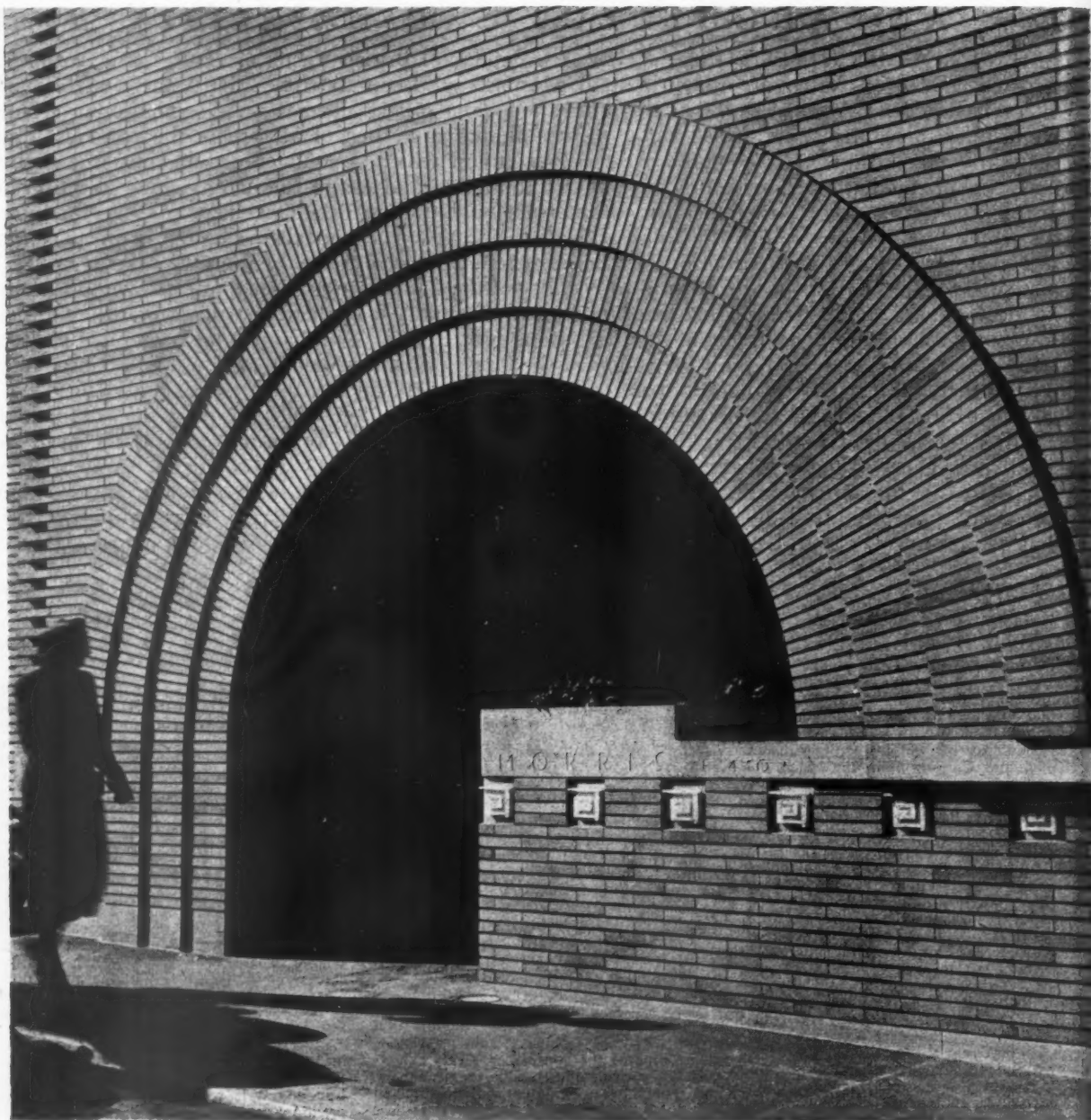
Baranov (USSR); Cesare Chiodi (Italy); Hugo Van Kuyck (Belgium); Marcel Lods (France); Tage William-Olsson (Sweden); Porfirio Pardal-Monteiro (Portugal); Thomas Sharp (Great Britain); Jean Tschumi (Switzerland).

The British Committee (chairman, Mr. H. S. Goodhart-Rendel) of the UIA will be responsible for arranging for papers dealing with the subjects of the conference from Great Britain. Architects will appreciate that this congress is open to individual architects in exactly the same way as the congress held at Lausanne in 1948. It is, however, felt that owing to currency and other restrictions individual architects may be somewhat nervous in undertaking to attend the congress. The President of the International Union, Sir Patrick Abercrombie, has, however, given an assurance that the committee in Poland responsible for organizing this conference is most anxious to help as far as they can with hospitality. It is probable therefore that the major difficulty, i.e., currency, may to some extent be relieved by the assistance which the Polish architects have promised.

Any architect who intends visiting Warsaw in 1950 is asked to write to the Secretary, British Committee, 66, Portland Place, London, W.1, without delay so that some preliminary communication can be sent to Poland of the probable position. This will also be an advantage in attempting to deal with the currency problem as it will be essential to give the currency authorities some idea of the total demand likely to be made in connection with the conference.



All over the Western sector of Berlin new shops are being built on bombed sites and on open spaces. These shops have been erected recently in front of the Zoo Station in Berlin.



The New Curiosity Shop

This shop in San Francisco, the most recent work by Frank Lloyd Wright, is designed to lead the eye to the entrance. Inside the opening a use of false perspective gives the impression that the entrance hall is longer than it is. Presumably it was thought that a stimulation of the public's curiosity would boost sales. But very few salesmen would agree that such a design has many advantages from the commercial point of view, for it does away

with the practice of window shopping which usually attracts a certain amount of custom. It is obviously better that such experiments as this should be made rather than a continued blind acceptance of the chromium and glass type of shop-front, which is doubtless of advantage to the multiple stores but creates a monotonous appearance in the shopping street. Further illustrations of this shop will be found on page 516.

★ *The APPEARANCE of BOMBED SITES may be improved.*

The text of a War Damaged Sites Bill was issued last week. This proposes to empower local authorities throughout the United Kingdom to take over war-damaged sites for a period not exceeding five years if the damage has not been made good and if the site is in a condition harmful to the amenities in the neighbourhood. The Bill concerns

bombed sites which may be unsightly and possibly dangerous, but which cannot yet be redeveloped. It is hoped that the tidying and temporary use of these sites for amenity purposes, which would become possible under the Bill, will contribute to the preparations being made for the 1951 Festival of Britain.

If it is not possible for local authorities to lease bombed sites by agreement they may be authorized to take possession of them by compulsion.

When a local authority has taken possession

of a site under the Bill, it will be its duty to execute the work needed to make the site presentable, or to secure that this is done under the lease of the land to another person. Land in the possession of a local authority may be used for any of its statutory purposes, or as a garden, or it may be leased to another person.

The local authority may be directed to relinquish such land to any person who wishes to develop it himself and has obtained planning permission.

The B.B.C. is to broadcast talks on PUBLIC ARCHITECTURE.

This series of three talks will be given in the Third Programme by Frederick Gibberd (November 14, 7.25 p.m.), Percy Marshall (November 18, 7.5 p.m.) and R. Furneaux Jordan (November 23, 8.10 p.m.). The speakers will consider whether the salaried architect attached to a public body is in a better position to contribute to architecture than the independent private practitioner, and what effect the great increase in local and central authority will have on architecture and the architectural profession. In the third broadcast in the series Mr. Jordan will sum up what the previous speakers have said and will then act as chairman in a discussion between them.

A HARVARD SCHOLARSHIP in Landscape Architecture is open to ENGLISH STUDENTS.

The Department of Landscape Architecture, Graduate School of Design, Harvard University, offers to those eligible for admission as regular students a scholarship for the next academic year with an income of six hundred dollars, equal to the tuition fee. English students are eligible for consideration. Candidates must have received their Bachelor's degree, or equivalent, within the past three years. Further information will be given on request. All enquiries should be received before December 1, 1949, and should be addressed to the Chairman, Department of Landscape Architecture, Robinson Hall, Harvard University, Cambridge 38, Massachusetts, USA.

The MOW's SITE ASSISTANCE SCHEME has been discontinued.

Under this scheme, regional officers of the MOW have been arranging the supply of materials to particular building sites when continuity of work appeared to be threatened by shortages. The winding up of this service will permit reductions in staff at headquarters and in regional offices.



Astrid Sampe-Hultberg, one of the most distinguished textile designers in Scandinavia, was recently made an Hon. RDI. She is the first woman to receive this award.

TWO MINISTRIES WITH TWO POLICIES

THE reactions of two Ministries, each concerned with a particular type of building, to the Government's recent economy proposals make an interesting comparison. The Ministry of Education aims at a 12½ per cent. reduction on the cost of school construction based on 1949 prices. The Ministry of Health, on the other hand, have accepted a cut of 35 million pounds a year, and will achieve this economy by the simple expedient of not building 25,000 of the 200,000 houses which were proposed to be built in 1950.

In other words, "Tailor" Tomlinson is cutting his children's coats according to his cloth, while Aneurin Bevan is adopting the simple expedient of letting one in eight of his children go naked. It is not fair to draw too close a comparison from the action of these Ministries, because of the obvious differences in the scope of their tasks. One factor, however, is identical to both, and that is the extreme urgency and the enormous size of their respective programmes.

It is reasonable to presume that the Ministry of Education acted on the advice of their newly-formed costing committee when the decision was made to save money by reducing the cost of schools, and not by reducing the number of school places. The JOURNAL has complete confidence that the Ministry will make its economies in the spheres of simple planning and efficient structural methods rather than in standards of classroom space, amenity and design.

With regard to the Ministry of Health, however, it is a considerably harder task to discover on whose advice they acted when deciding to reduce the housing programme. No doubt the immediate issue raised was whether to cut house standards or the numbers to be built. If asked to decide between a cottage next year and a middle-class villa sometime in the future, the Micawber spirit which lurks in most people would possibly urge the Minister to choose the latter (unless he lived in an ex-army hut or a slum). He was helped in his decision by the knowledge that he was standing true to his word: that housing standards will not be reduced.

There is, however, as the Ministry of Education will no doubt hope to prove, an alternative method of economizing, and that is in production and in a reassessment of planning needs. The Ministry of Health is in contact with a large number of advisory bodies, the chief source of information being, of course, the Ministry of Works, but the surprising fact is that there would appear to be no central guiding body on large-scale house production. Much extremely valuable work is being done at the research stations, and by the technical departments of the MOW, and the DSIR, but much of this work is based on a long term policy and the technicians are not in a position to be able to advise the Ministry of Health in time to affect changes caused by a steadily altering economic position.

Now, surely, is the moment to form an advisory group who can plan house production in a much more comprehensive way than at present. The steady sampling and testing of various types of house construction, the procuring of information on the performance of materials, and the study of comparative costs, are all necessary and desirable. The full implementation of this information, the development of a combined operation of architects, scientists, economists and the building industry to procure maximum house production within the limits of the national purse is the next step which must be taken. It is not only in times of war when such co-operative and comprehensive measures are necessary.



The Architects' Journal

9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1.
Phone: Whitehall 0611

N O T E S & T O P I C S

SHARPS THE WORD

The ordinary intelligent citizen is becoming disillusioned about the future of our cities. Since the war, innumerable plans have been published, some good and some bad, but all by well-known planners. They have been received with a mixture of acclaim and execration. Most of them have been adopted "in principle" with enthusiasm by the authorities that commissioned them. The rest is silence. From time to time, however, local newspapers allow a faint echo of internal rumblings to penetrate the stillness. From Exeter, for instance, comes a report of discussions in the Council Chamber about a new lay-out for Eastgate Square, a vital focal point in the plan. Some months ago it appears the Council abandoned Dr. Thomas Sharp's plan for this area. The present proposals are their second shot at the problem, the first having been rejected by the Ministry of Transport.

While not concerned to discuss the merits or demerits of the latest scheme (accepted unanimously), it appears remarkable that consultants should hear nothing of their plans once they are presented to the Council. Dr. Sharp tells me that he was not consulted on any modification of his plan. It must be somewhat disappointing after having expended oneself to provide a basis for the renewal of a city to find the scheme slowly being whittled away and learn of it accidentally through a newspaper cutting. The loss to the City of Exeter is considerable, and its future inhabitants may well regret a missed opportunity.

Dr. Sharp's Oxford Plan has also had a narrow escape recently, but here, although again the planner was not consulted, the City Council referred back a recommendation from the Planning Committee that the castle site should be used for the new county offices. Readers of the book *Oxford Re-planned* will remember that it was suggested that in the interests of the future of the city the County Council should not insist on a dominating site, and the castle area was scheduled as an open space. The City Council is to be congratulated on rejecting this piecemeal betrayal of their plan, but its author is not far away and could no doubt be of great help in its future development.

The biggest set-back for the future orderly and beautiful growth of Oxford was, of course, the astonishing approval by the Minister of TCP of the enormous extension of the gasworks on the existing site. Dr. Sharp rightly advised that the extension

might well form the first part of new gasworks on another site with a view to the eventual removal of the existing installation.

We hear such a lot nowadays about the need to regard planning schemes as flexible that the idea as expressed by "Authorities" has become more than a little suspect. Only too often it has become clear that even the most carefully considered conception of the future character of the town has been regarded as just another street pattern, to be altered as a kind of geometrical jig-saw. Whether such changes affect the whole conception is seldom considered. The planner sees the most stimulating and exciting possibilities denied through lack of understanding, and he may be powerless to help. It is, however, encouraging to know that, in the case of the Oxford gasworks, it was almost entirely on the evidence of Dr. Sharp that a Select Committee of the House of Lords firmly threw out the proposal of the Ministry of Fuel and Power; a fact which should surely suggest to the City Council that there are advantages in consulting Dr. Sharp even after he has produced his plan.

ANY MORE QUESTIONS?

I hear that entries are rolling in for the *Review's* pub competition, and would remind my readers that November 15 is the last day for questions. When the assessors have answered them, competitors will have just over three months left. The entries, I think, are going to be very interesting.



"Lord Littlehampton's Folly," an illustration from Osbert Lancaster's book "*Drayneflete Revealed*." See next page.



Part of the murals painted by students of the Royal College of Art for the Chelsea Children's Library. See Astragal's comment below.

and, because of the interest of the Brewers' Society in the competition, they are going to be very important for the future of public house interiors.

Another important thing, it seems to me, about this competition is that it is not—like so many competitions—an exercise in planning, but an exercise in the creation of atmosphere. Nowadays architects are made to concern themselves too much with the practical ingenuity necessary in contriving economical plans; here, for a change, is a chance of indulging in architectural creation in a much fuller sense.

MURALS

It is very appropriate that Chelsea should be the scene of an experiment in promoting interest in mural painting while at the same time giving students practise in this art. Kenneth Rowntree and Charles Mahoney, who teach mural painting at the Royal College of Art, suggested that their students should base their designs on the requirements of actual buildings, to be chosen by the students and measured up by them with the owners' permission. Three students, George Ball, Neville Dear and Malcolm Hughes, chose the Children's Library at Chelsea Public Library.

When their designs had been made,

the library was impressed with their possibilities and invited the students to execute them. The paintings were actually carried out at the Royal College and have now been installed in the library, where they were formally opened last week by Lord de l'Isle and Dudley in the presence of the mayor. The Children's Library is not an ideal interior for mural decoration, as the ceiling is not high and the wall surface broken up by book-cases and various architectural features, but the three students have exercised a lot of ingenuity utilizing the spaces available and have produced a scheme that is pleasant in colour and full of lively incident.

The idea is one that might well be followed elsewhere, though one note of warning should be sounded: the success of schemes like this must not be allowed to encourage local authorities—or others needing decorations—to regard student labour as a way of getting decorations done cheaply. I am sure the students would be the first to agree that a useful way of giving them practical training should not deprive practising artists of commissions.

MORE PROGRESS

Devoted Lancastrians will be glad to hear that a new volume of the Master has just appeared. "Drayneflele

Revealed" (John Murray, 8s. 6d. net) is a guide-book to any English suburban town, and from the first long-barrow (contents sketched with much cross-hatching by Miss Catnip) to the age of tomorrow with its clover-leaf, cultural centres, and community clinics, the architectural development of Drayneflele is affectionately recorded by Osbert Lancaster with the help of some fifty characteristic illustrations, and quite a number drawn in a less familiar style. Nor are the famous inhabitants—the Paisley-fidgetts, "Sensibility" Littlehampton, and Bill Tipple—forgotten, for you will find here not only the record of their lives, but also their unmistakable portraits. Recommended for the head of your Christmas book list.

ASTRAGAL

LETTERS

Austin Haigh

W. Macdonald

Bradford's City Architect

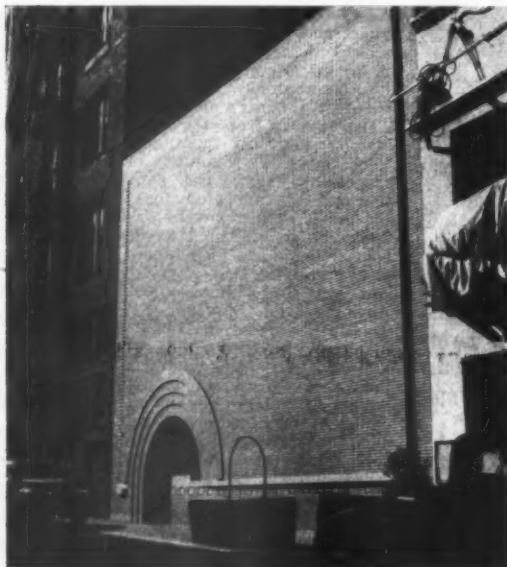
SIR,—I am writing to correct an impression which appears to have become current in certain quarters, to the effect that the Bradford City Council has decided that the City Architect's Department is to come under the City Engineer and Surveyor in respect to housing.

The City Council has abolished three Committees, including the Housing Committee, and has set up in their place a Public Works Committee. In this reorganization of Committees it has taken away certain duties, not only of the City Architect, but also of the City Treasurer and of the Medical Officer of Health, and has placed them on the City Engineer and Surveyor. So far as the City Architect is concerned, only that part of his duties which comprised the designing of the housing schemes and the arranging of housing contracts, have been transferred to the City Engineer and Surveyor.

The movers of the special resolution which established this new set-up desired that the City Architect should still be responsible for "the designing of the houses." It appeared that what was in the minds of the movers was that the City Architect should prepare designs suitable for submission to Committee, but that once having reached that stage, the City Architect was to withdraw, leaving the City Engineer and Surveyor to prepare the necessary working drawings, determine the materials, prepare the quantities and arrange and control contracts or carry out the work by direct labour. The City Architect, quite rightly in my opinion, declined to be a party to such an arrangement and, after further consideration, the City Council has transferred the duty of "designing the houses" to the City Engineer and Surveyor, so that he is now to be fully responsible for the future housing programme.

The City Architect's Department is one

LATEST WORK BY LLOYD WRIGHT



This shop in San Francisco was designed by Frank Lloyd Wright, who has alluded to some of his contemporaries as creators of the "flat-bosomed facade." Presumably this shop design is intended as an implementation of this charge, for it is claimed that the archway in a plain brick elevation was contrived to lead the eye (and the customer) into an opening which, because of its false perspective and special lighting, is said to be irresistible. The main body of the shop is an open well, lit from a ceiling of semi-opaque glass panels and hemispheres. Around this open space a continuous spiral ramp sweeps to the upper floor. The china and glass is displayed on this ramp, and above and below it, in a variety of rooms and recesses which are low and intimate in scale and therefore help the customer to visualize his purchases at home. (See also frontispiece on page 512).

of the oldest, if not the oldest, independent architectural departments of a Local Authority, having been formed in 1900. It will retain this status under the new arrangement and will in no way be subordinate to any other Department. Its duties have been curtailed with regard to housing only, for the City Architect will still continue to carry out his other duties, and as these include all architectural work for Committees, amongst others, responsible for Education, Health, Welfare, Children, Transport, Markets, Baths, Libraries and Art Galleries, the post still retains its importance, and its status in relation to all Committees excepting housing remains unimpaired.

It is a matter of deep personal regret to me that Mr. Castle has resigned this post, for it is one which offers wide opportunity and scope for architectural expression.

AUSTIN HAIGH,
Chairman of the Finance-
City Architect's Department
Sub-Committee.

Town Hall,
Bradford.

Architects Registration Act

SIR,—Mr. Howitt was wrong to refer to the alternative bodies in your issue of October 6, in his reply to Major Athoe's letter of September 22.

I am not a "Corporated" member, but an "Incorporated" member in the profession. The former term might briefly be defined as a united body endowed by law to watch the rights of an individual, and the latter term might similarly be defined as a body ready to unite with any other as an organized body politic. Mr. Howitt's remark about a "standard" of knowledge required by new entrants, is no doubt referring to a syllabus prepared by a particular section in the profession. I shall remind your readers that there was no standard laid down for Archias, Scopas, Andronicus, Elphage, Nicila da Pisa, Weston, Gainsborough, Thynne, Jones, Wren and many others to become architects, nor even had they to pay to practise as architects. I have a library equal to the next, kept well up to date, but I am unable to detect any outstanding achievements by a "Howitt" comparable to any of the former architects' works. The two largest cathedrals in London were designed by the "Unattached," and one of eight of the largest buildings in London was designed by me, and I am still able to withhold 3,000 customers of which I am retainer architect by seven multiple firms.

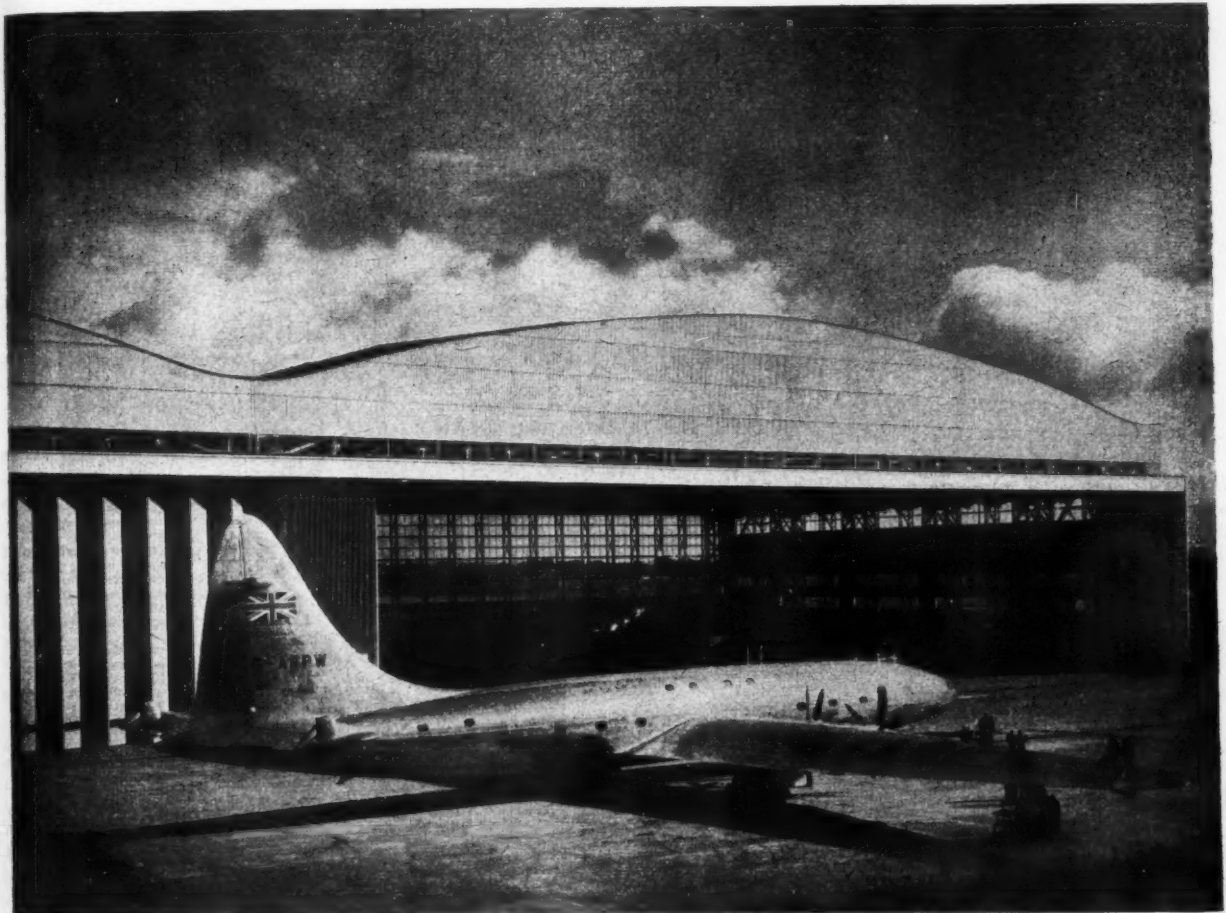
The provisions of the Architects Registration Act were unfairly constructed. They afford no protection at all for architects. Any outsider may draw and plan a building, and build it. Those provisions only restrict a person not on the register calling himself an architect, but, it appears, those persons on the register have to pay to provide towards new entrants into the RIBA. The unfairness of those provisions is that a far greater representation of RIBA members serve on the Architects Registration Council than any other society on that Council. In my view, those provisions have caused the RIBA to indulge in totalitarian principles, as shown by their manner in keeping very distant from the alternative bodies, and from the fact that vacant posts advertised in periodicals are reserved only for members of the RIBA. The Registration Acts have got to be amended in the near future, so that the representation of each society that serves on the ARCUK shall be equal, and thus bring about a statutory body suitable to a democracy. It may result in a very hard fight, but it will be worth it, no matter the expense. These views are accepted by a great number of architects in the RIBA and by powerful bodies outside the ARCUK.

W. MACDONALD

London.

During the recent trials of the Brabazon aircraft the limelight that was naturally focused on the machine itself rather distracted attention from the buildings at Filton which were built to accommodate it. In fact, these represent one of the most spectacular architectural enterprises of post-war Britain, both by reason of the scale of the principal units and the speed with which a complex design and construction programme was completed. On

the following pages the whole group of buildings is illustrated in some detail and, in view of the special interest of the job as an example of fruitful collaboration between architect and engineer, part of the Technical Section is given over to an analysis of the development of the design of the main assembly hall from the structural point of view. The analysis was prepared by the engineer responsible for the work.



AIRCRAFT ASSEMBLY HALL

AND ASSOCIATED BUILDINGS AT FILTON, BRISTOL

ERIC ROSS, ARCHITECT

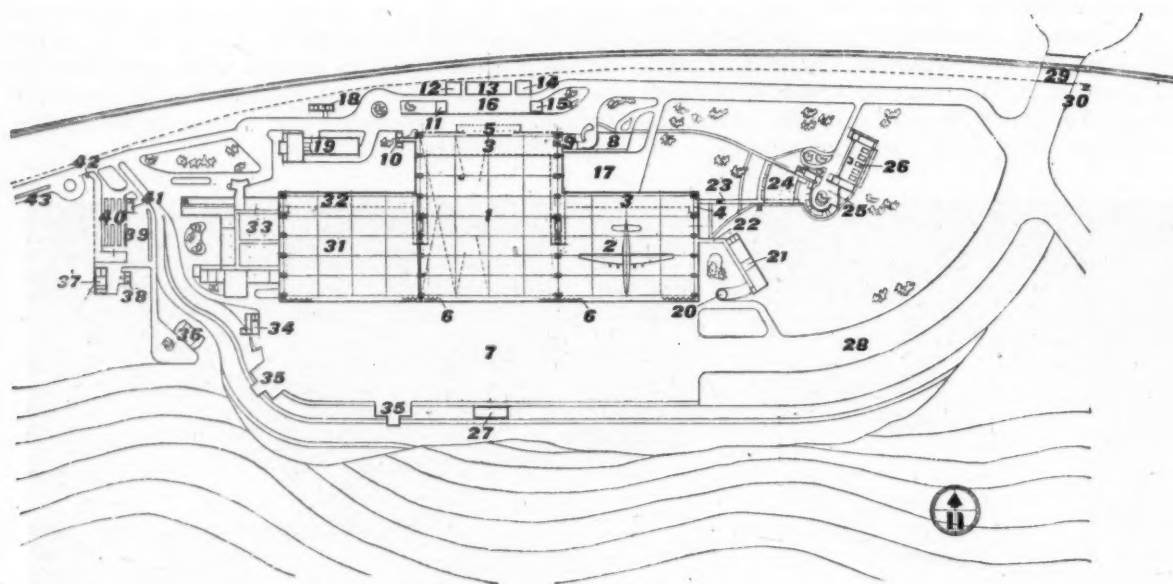
DAVID ABERDEEN AND P. N. TAYLOR, PRINCIPAL ASSISTANTS
BRIAN COLQUHOUN AND PARTNERS, CONSULTING ENGINEERS

INTRODUCTION.—There were four main divisions in the building work:—(1) the main aircraft assembly hall and apron; (2) various ancillary buildings, including boiler house and canteen; (3) buildings for the use of BOAC, and (4) the runway. The scheme took three and a half years to complete. Government approval was obtained in March, 1946; the

first contract was awarded and site works commenced in April; the Bristol Aeroplane Company began to occupy the buildings in September, 1947, and the scheme was completed in September this year. The first planning job was drawing the line for the new runway. This runway, which is 2,750 yards long and 100 yards wide, and involved the disappearance of a

whole village in its construction, was surveyed and laid out by the architect of the buildings. It was found that the best possible site for the assembly hall was an area immediately south of the take-off point outside the airfield perimeter, and separated from it by a local railway line. It was decided that the assembly hall should face south for two main

AIRCRAFT ASSEMBLY HALL AT F



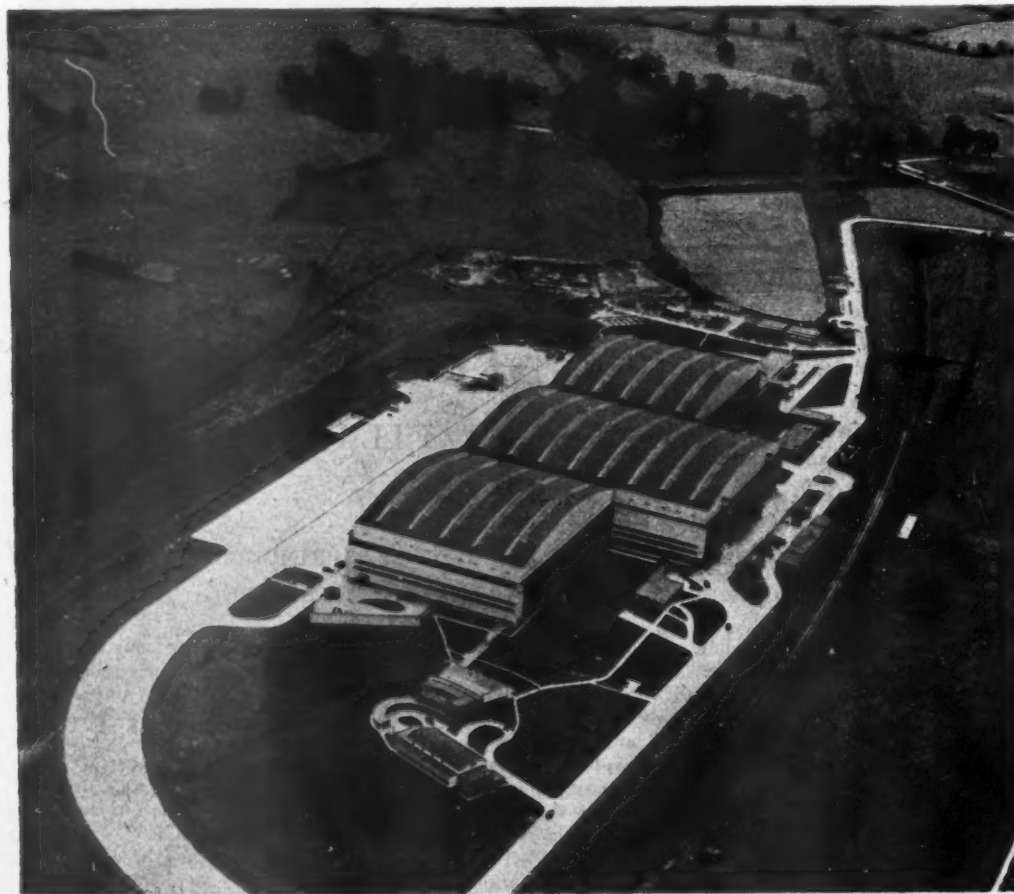
GENERAL PLAN

[Scale: 1 : 5000]

KEY :

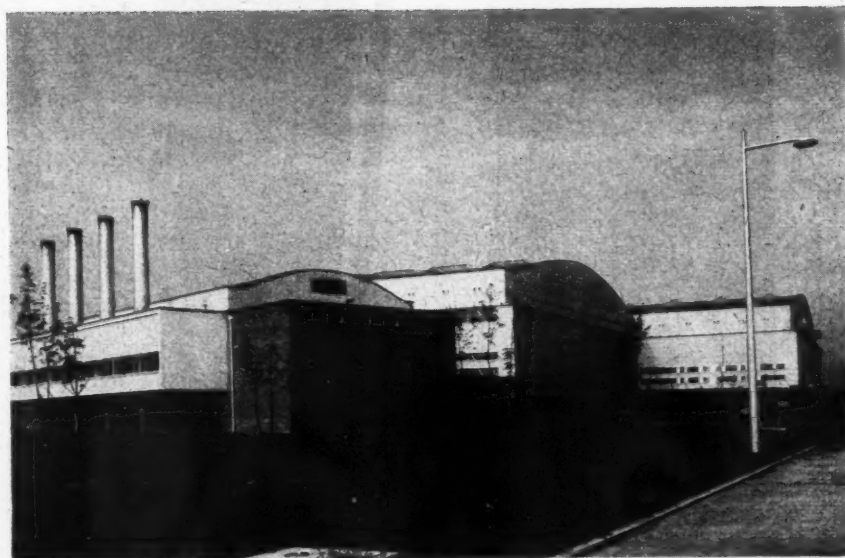
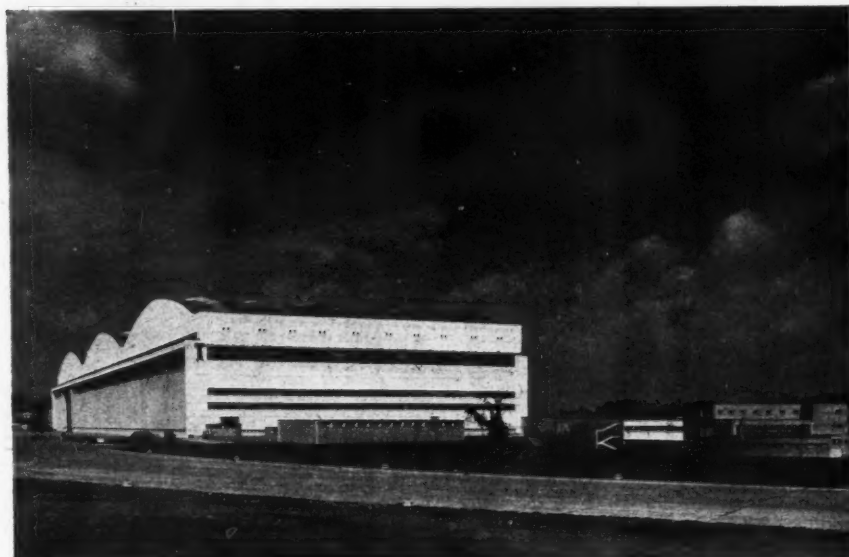
1. fabrication and assembly bay
2. final assembly and flight bay
3. galleried office and workshop accommodation
4. lavatories
5. covered unloading area
6. sliding-folding doors
7. concrete apron
8. operatives' cloakrooms and entrance
9. main entrance
10. first aid unit
11. compressor house
12. maintenance shop
13. sub-station
14. truck charging station
15. fire station
16. low level compound
17. car park
18. trade effluent waste treatment station
19. heat treatment and anodizing shop
20. petrol pump house
21. inflammable stores
22. covered link to inflammable stores
23. covered link to canteen
24. canteen
25. canteen service yard
26. boiler house
27. static water tank
28. link road from apron to runway
29. level crossing gates
30. level crossing gate house
31. aircraft maintenance bay
32. galleried offices
33. workshops, offices and stores
34. garage, petrol pump house and fire station
35. aircraft fuelling bays
36. fuel storage tanks
37. inflammable stores
38. used oil storage
39. car park
40. cycle and motor-cycle park
41. duty car station and drivers
42. gate house
43. bus queue space and shelters for public transport services

Below, air view of the whole group of buildings, taken from the north-east. The assembly hall, with its three bays, fronts on to a seven acre concrete apron. From this apron a curved taxi-way runs across a railway line to the main runway on the right of the picture. In the foreground is the group of ancillary buildings consisting of canteen, boiler house and stores.



AT FULTON : DESIGNED BY ERIC ROSS

The pictures on the right show the whole group of buildings, dominated by the assembly hall, from various aspects. Top, from the south-east, with petrol pump-house and inflammable stores in the foreground and boiler house and canteen on the right; centre, from the north-east, showing the boiler house on the left; bottom, from the west, showing in the background the west bay of the assembly hall, now used by BOAC. On the right of this picture is the administration part of the BOAC building. The small picture below shows the same view at night.

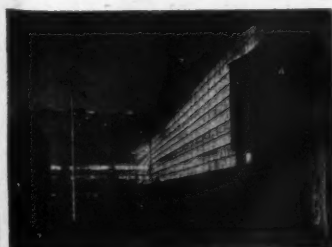


reasons. By giving the wide folding doors the warmest aspect heat losses would be reduced, and there was the additional advantage that the hall could be lit by a window facing north which would not cast sun shadows from glazing bars and would be free from glare.

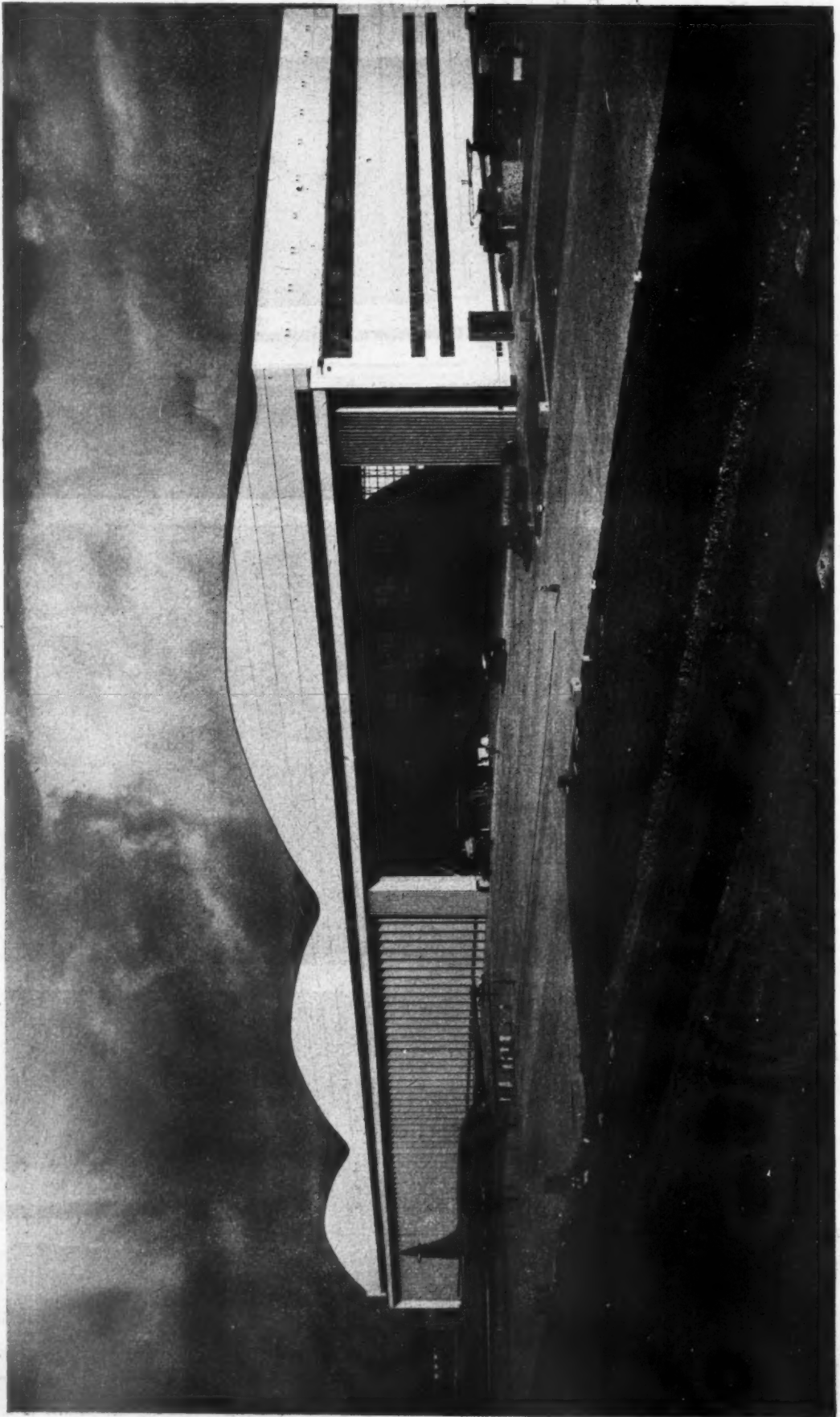
After the three-bay assembly hall had been designed on this basis, the Government decided in November, 1947, that BOAC should move their maintenance base to Filton from Canada. For this purpose, one of the three bays of the assembly hall was allotted to BOAC and a group of offices and workshops designed on its western side. Work commenced on these additional buildings in April, 1948; the first stage of occupation by BOAC of the West Bay and external buildings took place on October, 1948, and the buildings were completely occupied in August th's year. Small works are still proceeding.

I. THE ASSEMBLY HALL

GENERAL.—The planning and design of the hall was initiated in April, 1944, when the leading dimensions of the aircraft had attained a fair degree of finality.



AIRCRAFT ASSEMBLY HALL AT FILTON, BY ERIC ROSS

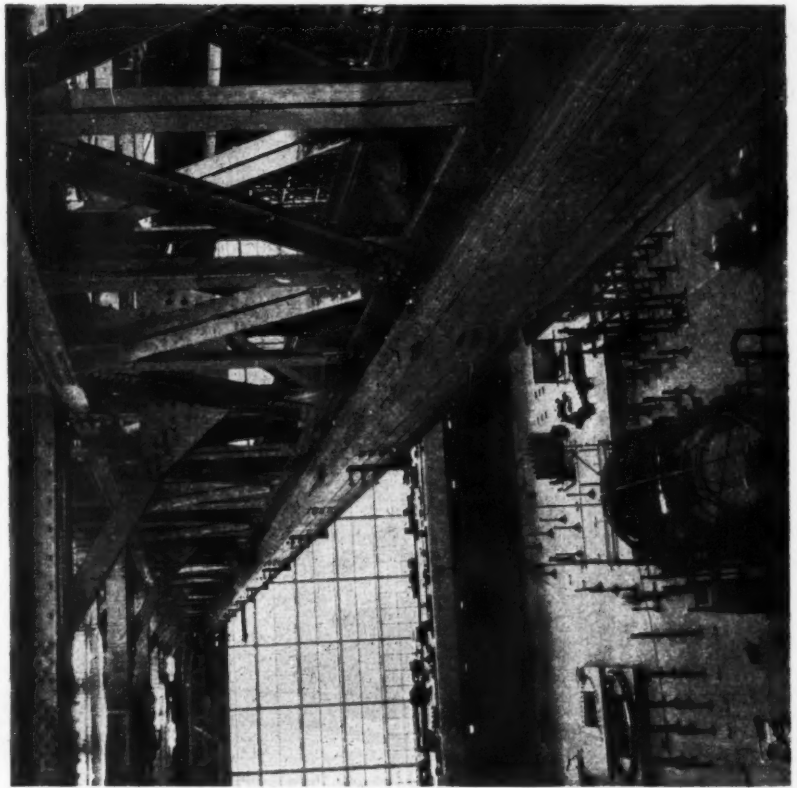
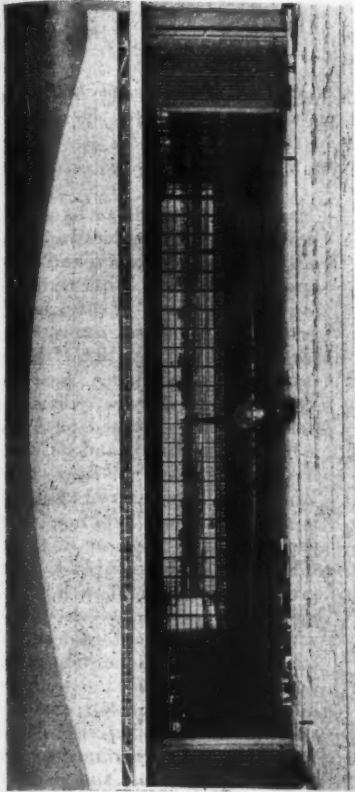


The south front of the assembly hall with the Brobazon on the apron. Virtually the whole front consists of sliding-folding doors, one bay of which is seen open. The steel-framed building is faced in corrugated asbestos, painted pink in the gable ends and white at the sides. The aluminium doors are pale green.

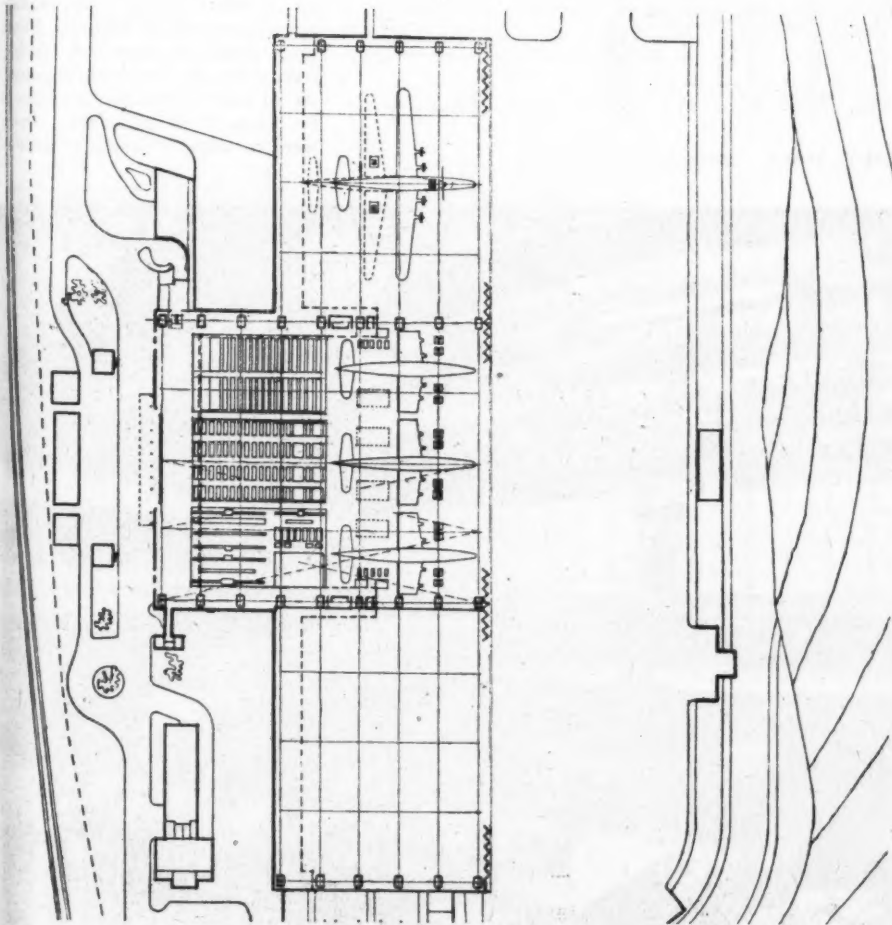


SECTION THROUGH ASSEMBLY HALL [Scale: 1 : 5000]

the whole front consists of sliding-folding doors, one bay of which is seen open. The steel-framed building is faced in corrugated asbestos, painted pink in the gable ends and white at the sides. The aluminium doors are pale green.



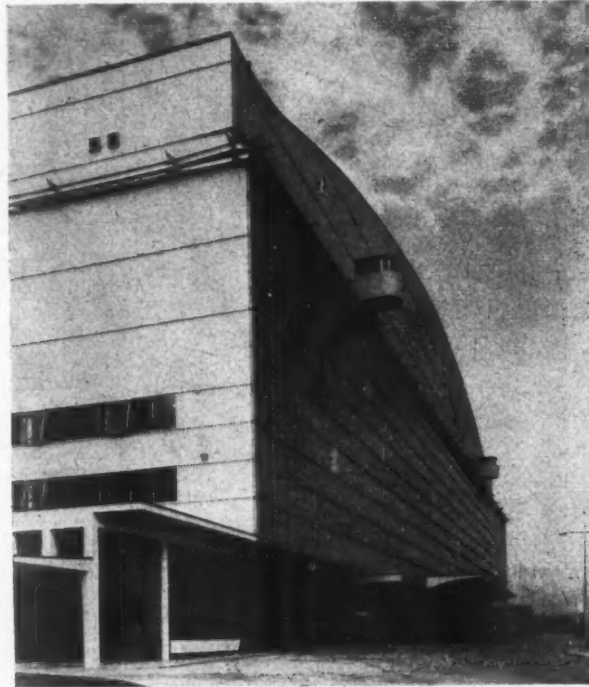
SECTION THROUGH ASSEMBLY HALL (Scale: 1 : 5000)



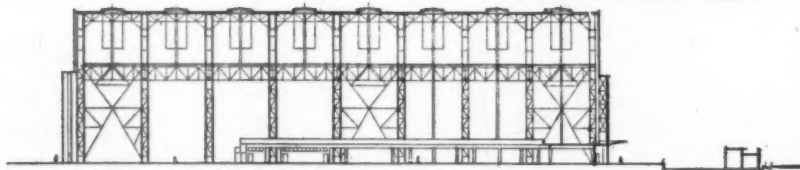
PRODUCTION LAYOUT PLAN—Showing the utilization of space since two bays only became available for the Brabazon. The centre bay is used for fabrication and assembly, and the east bay (right) for final assembly and flight testing.

Top, right, the Brabazon in the assembly bay. This photograph shows the large north window, 1,000 ft. long and 50 ft. high. Supplemented by a small amount of roof lighting and clerestory roof panels, it provides well-diffused daylighting. Right, the interior from the roof structure, showing the jigs for the aircraft framework on the assembly hall floor.

AIRCRAFT ASSEMBLY HALL AT F



Left, north front of the assembly hall, facing the main runway. Below, the interior.



SECTION THROUGH ASSEMBLY HALL [Scale: $\frac{1}{4}'' = 1' 0''$]

Three main sections, or bays, were designed: a bay for detail erecting a bay for final assembly, and a port and servicing bay. While the building was in course of construction, however, the westernmost bay was taken over by BOAC as the principal maintenance base for their Atlantic service. This bay has now been screened off by an asbestos party wall and only two bays remain for the use of the Brabazon. The centre bay (which is 420 ft. deep, 50 ft. more than the side bays) now serves as the fabrication and assembly bay and gives occasional flight-shed accommodation for the prototype Brabazon, while the easternmost bay has become the final fabrication and assembly bay for the prototype and subsequent aircraft, and also the flight testing bay. A 300-ft. minimum width clearance to each bay was necessary, and doors of this width were required to give a similar clearance from each bay on to the apron. A craneage system, capable of lifting a 10-ton load anywhere over the erecting bay, was a further basic requisite. At no point in the hall was this to be below 60 ft. in height. Doors were to allow a similar clearance.



A view along the assembly hall window at gallery level.

The roof consists of steel decking covered with $\frac{1}{2}$ -in. insulating board and mineral faced felt. Expansion jointing is provided at the junctions of the three bays. The sliding folding doors are of extruded aluminium structural sections. The north glazed wall is of $\frac{1}{4}$ -in. polished plate glass set in aluminium glazing bars, each pane being 5 ft. high by 3 ft. 6 in. wide. The floor consists of a sub-base



AIRCRAFT ASSEMBLY HALL AT F

of 6 in. of concrete, on which a base of 9-in. reinforced concrete is laid. An 11-in. hollow brick wall extends to a height of 15 ft. from the floor around all sides of the building.

FINISHES.—The external cladding of the hall, which is of asbestos cement sheeting, is lined internally with $\frac{1}{2}$ -in. fibre board. The doors are clad externally with pressed aluminium sheeting and internally with $\frac{1}{2}$ -in. fibre board. The 11-in. brick wall is finished externally with rustic facings and internally with factory white.

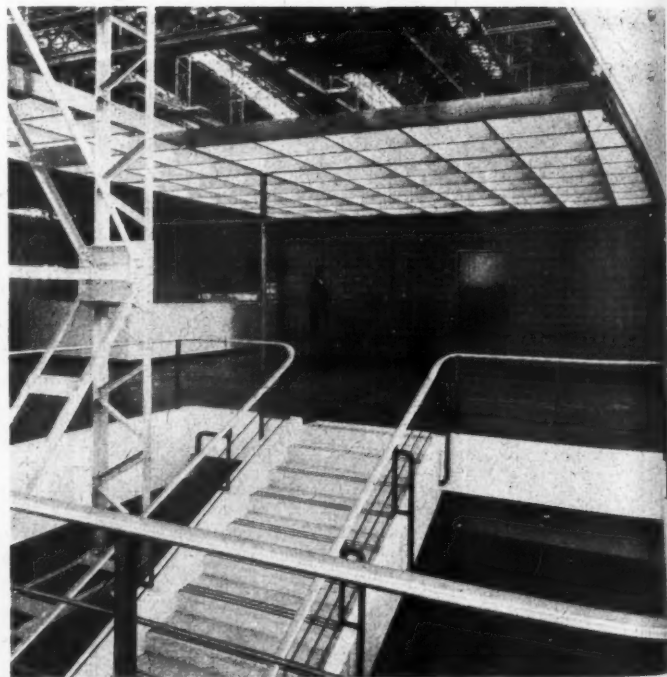
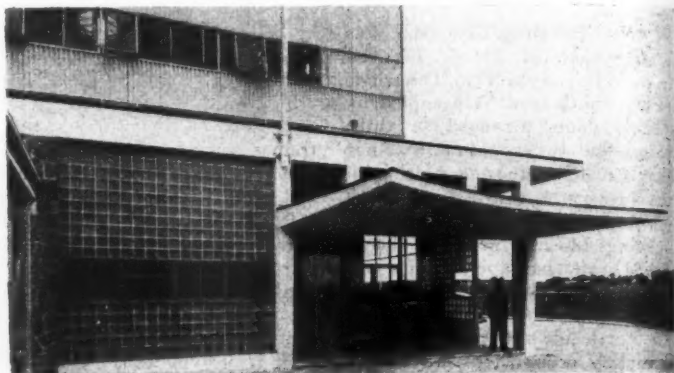
SERVICES.—Steam is used as the primary heating agent and operates heater batteries set at the foot of each main stanchion. Air from the hall is drawn over these batteries, taken up the stanchions in aluminium ducts and discharged in a downward direction through the special vents illustrated below. In addition, further batteries are arranged to come into operation automatically immediately the main doors are opened.

Lighting is, in the main, arranged by batteries of lamps at catwalk level, a combination of mercury vapour and tungsten being used to give colour correction. Compressed air and electric power services are run throughout the hall in shallow ducts set in the main floor.

An analysis of the assembly hall structure appears on page 533.

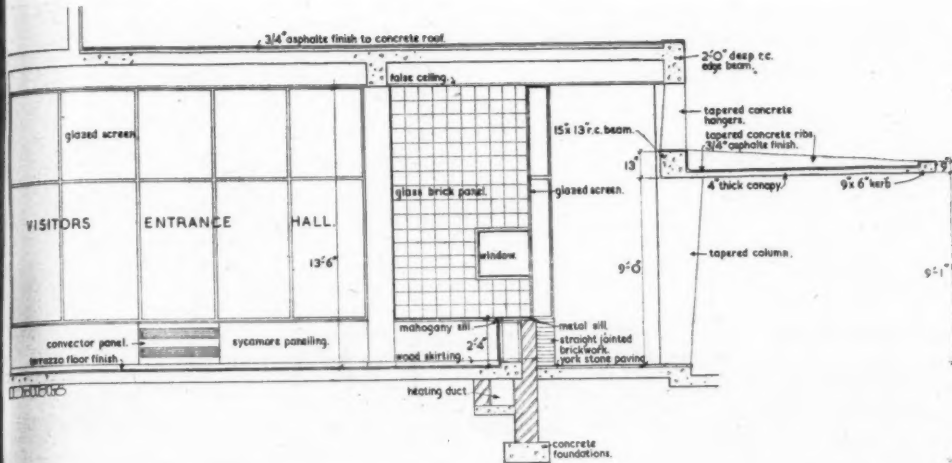


The aluminium ducts which discharge warm air into the assembly hall.



Above: top, the visitors entrance on the eastern flank of the central bay; centre, a view through the glass doors into the entrance hall, with the main staircase leading to the reception hall on the right; bottom, the gallery at reception hall level showing entrance to offices.

AT FULTON : DESIGNED BY ERIC ROSS

SECTION THROUGH ENTRANCE HALL [Scale $\frac{1}{8}" = 1'0"$]

2. THE ASSEMBLY HALL : VISITORS' ENTRANCE

GENERAL.—There is a special visitors' entrance on the eastern flank of the central bay. From the entrance hall, plate glass doors lead into the main envelope of the assembly hall. A staircase leads up to a reception hall and offices at balcony level. The upper gallery at this point has an egg-crate ceiling of steel sheeting to preserve a human scale. Through this, and through the glass entrance doors the visitor obtains glimpses of the assembly hall interior beyond.

CONSTRUCTION.—The main entrance is a reinforced-concrete structure, the roof of which is cantilevered from the gallery offices. It has a reinforced concrete cantilever canopy, carried on a vierendeel girder.

FINISHES.—The north and east walls are composed of panels of glass brick and polished plate glass. The north wall is of random rubble, i.e., local stone, of varying colours and the wall abutting the main assembly hall is covered with Ashburton marble. The staircase consists of a suspended reinforced concrete three-flight stair, finished

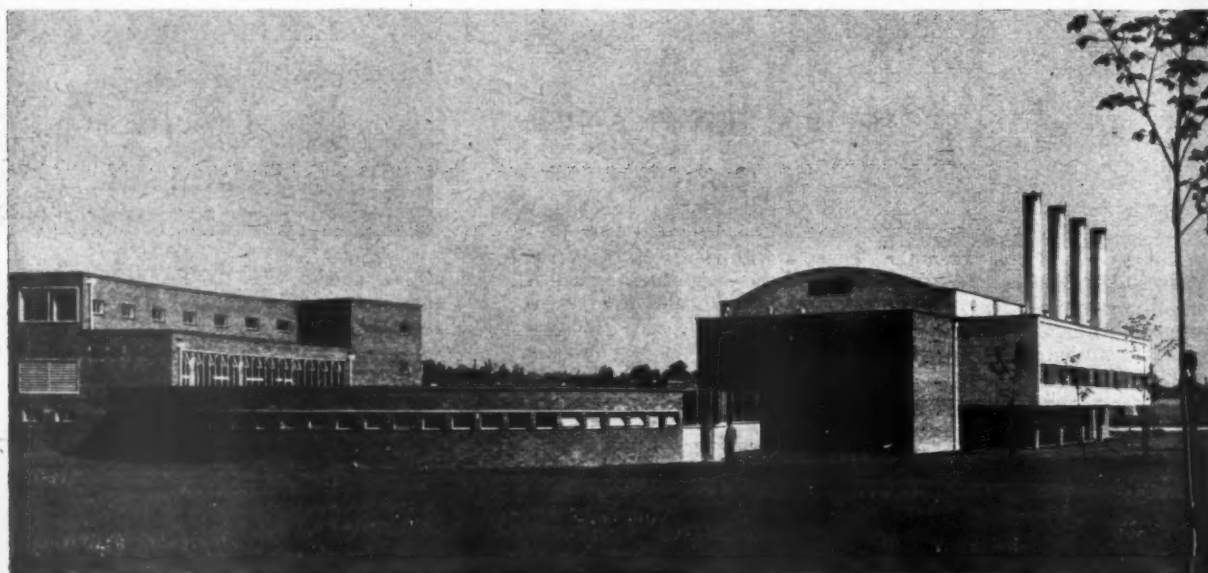
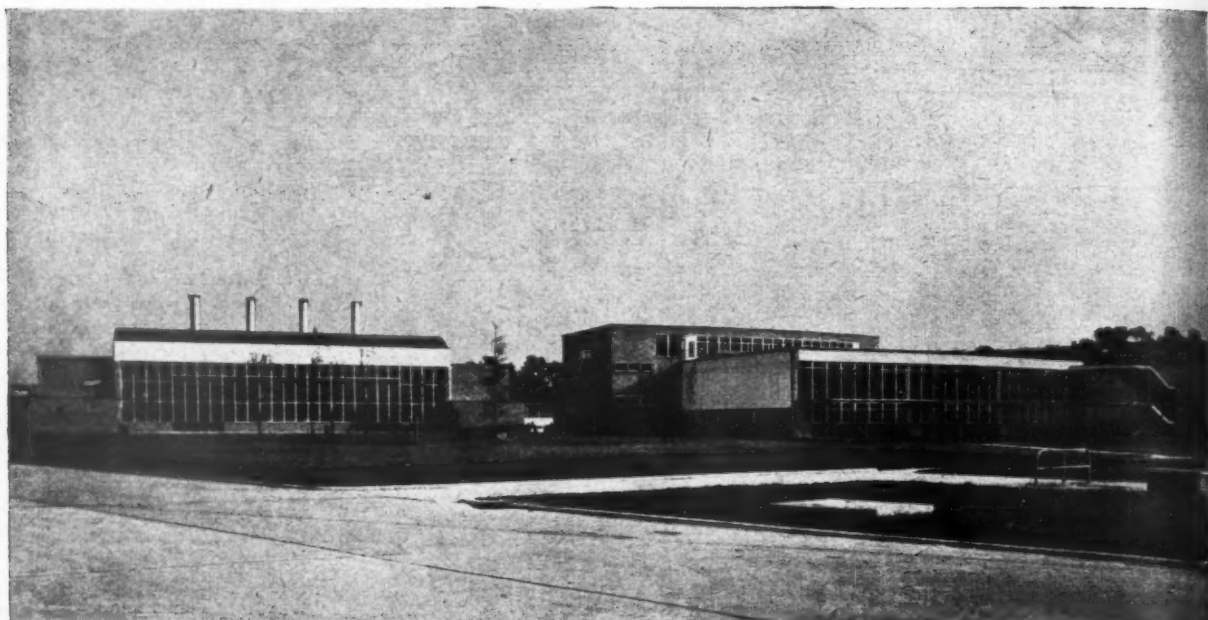
with terrazzo. At reception hall level on the gallery the floor is covered with plastic tiling. The floor to the main entrance hall is of terrazzo and the front steps of blue pennant stone. Radiator casings and furniture are in sycamore and mahogany.



Above, another view of the gallery showing entrances to offices and the egg-crate finished ceiling of steel sheeting. Below, visitors' entrance hall, with glass doors to gallery staircase on the left. See also facing page.



AIRCRAFT ASSEMBLY HALL AT F



Above: top, the boiler house (left) and canteen block (right) from the north-west; beneath, another view, from the south-east, showing the semi-circular range of stores which links the boiler house to the canteen.

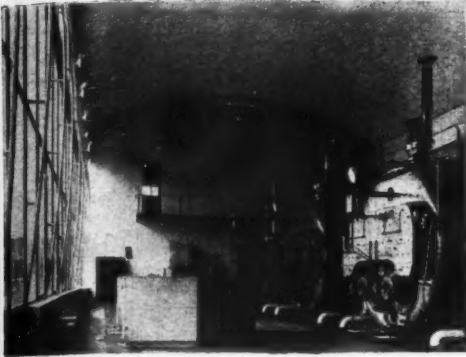
3. THE BOILER HOUSE

GENERAL.—The boiler house and canteen form one group of buildings at the eastern end of the assembly hall. They are linked to the canteen by means of a small service yard. Four boilers provide steam for the whole site.

CONSTRUCTION.—It has a shell concrete roof, whose curve echoes those of the main assembly hall. The roof varies in thickness from $2\frac{1}{2}$ in. to $3\frac{1}{2}$ in. At either end are

the main fuel oil tanks set in 18-in. brick enclosures. The $\frac{1}{4}$ -in. plate glass screen forming the front of the building was specially designed, bow-string type ribs being used for wind resistance. Induced draught fans, motors and main flues are all set on a concrete platform at the rear of the boiler hall. This platform is partly cantilevered from the main structure and partly carried on mushroom type concrete columns which provide points

FILTON : DESIGNED BY ERIC ROSS



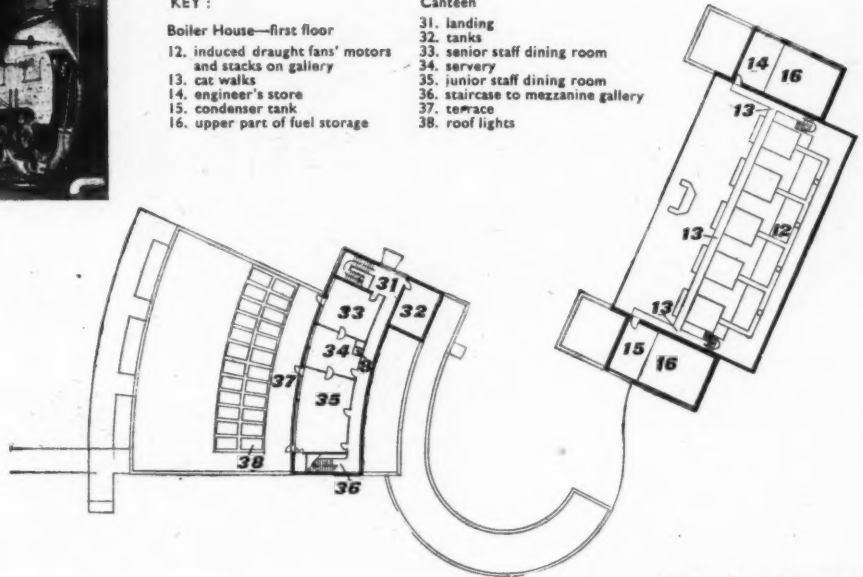
The interior of the boiler house, showing vaulted roof and the window on the left with bow-string type ribs for wind resistance.

KEY :

Boiler House—first floor
12. induced draught fans' motors and stacks on gallery
13. cat walks
14. engineer's store
15. condenser tank
16. upper part of fuel storage

Canteen

31. landing
32. tanks
33. senior staff dining room
34. servery
35. junior staff dining room
36. staircase to mezzanine gallery
37. terrace
38. roof lights



FIRST FLOOR PLAN

KEY :

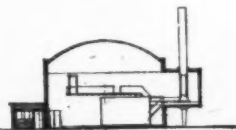
Boiler House

1. main boiler hall
2. fuel tank rooms
3. lobbies
4. office
5. lavatory and shower
6. switch room
7. store
8. store
9. calorifier room
10. control desk
11. boilers

Canteen

1. operatives' dining hall—500 seats
2. covered access to dining hall
3. covered link to main assembly hall
4. staircase to mezzanine gallery
5. servery
6. main kitchen

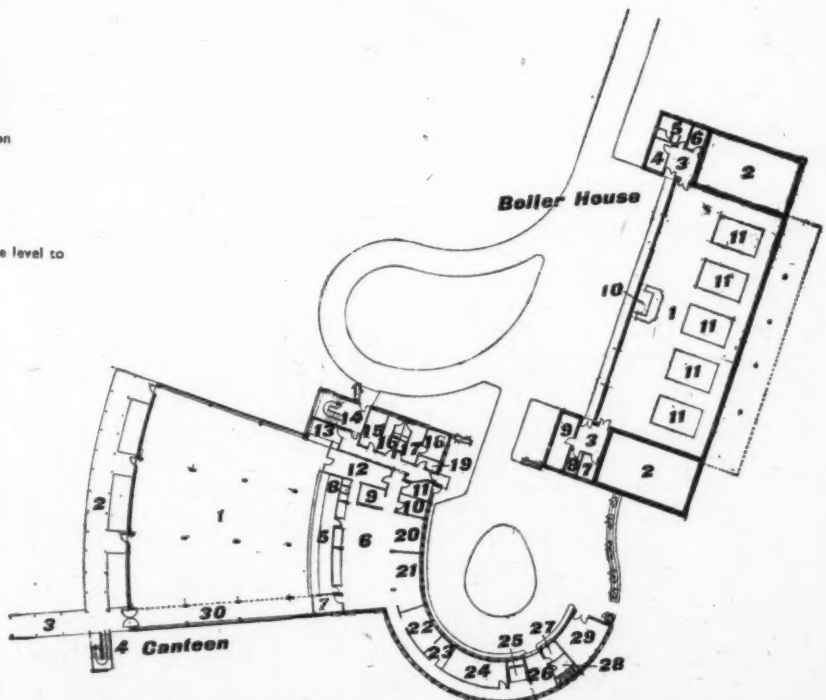
7. switch room
8. food lift to staff dining room
9. washing up, pots
10. chef's office
11. garbage store
12. washing up, cutlery
13. tea buffet
14. main entrance
15. office
16. lavatory, men
17. lavatory, women
18. women's rest room
19. cleaner's store
20. pastry preparation
21. general preparation
22. vegetable preparation
23. vegetable store
24. dry goods store
25. refrigerator
26. goods entrance
27. checker
28. salt store
29. gardener's store
30. gallery at mezzanine level to first floor



SECTION THROUGH BOILER HOUSE



SECTION THROUGH CANTEEN

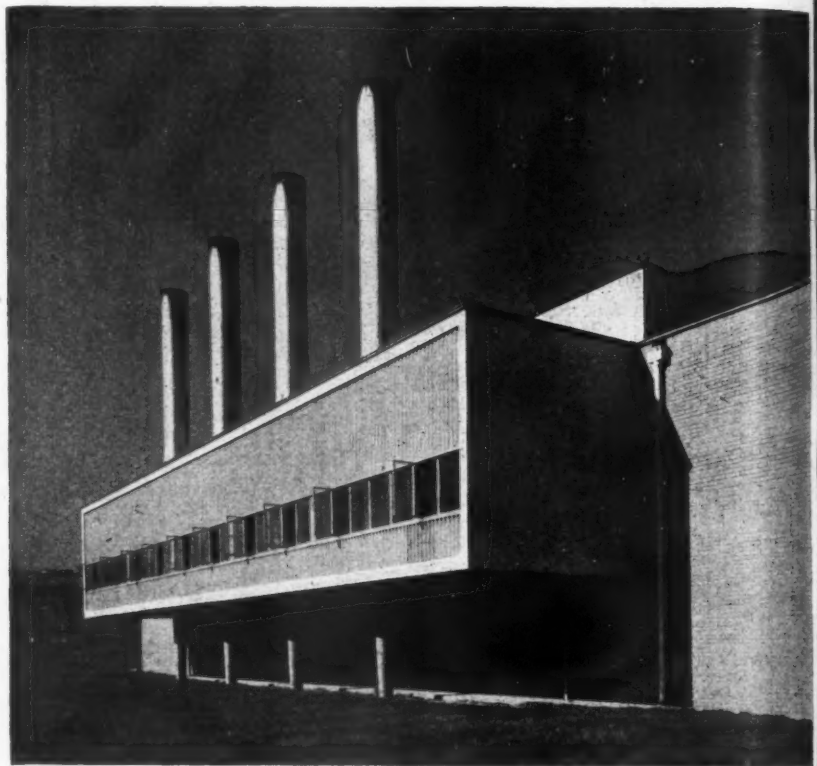


GROUND FLOOR PLAN OF CANTEEN AND BOILER HOUSE

[Scale : 1/4" = 1'0"]

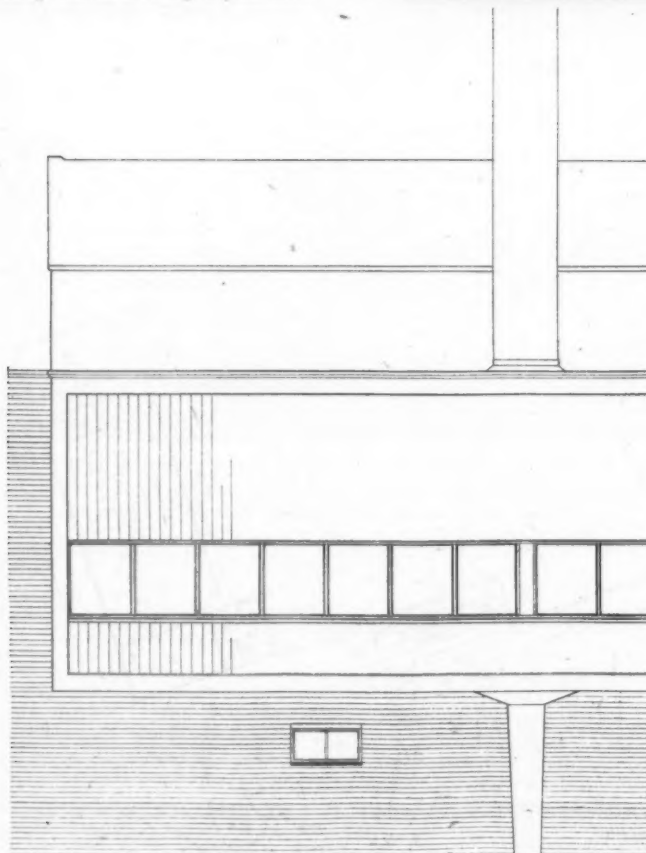
AIRCRAFT ASSEMBLY HALL AT F

A view of the boiler house from the north-east.

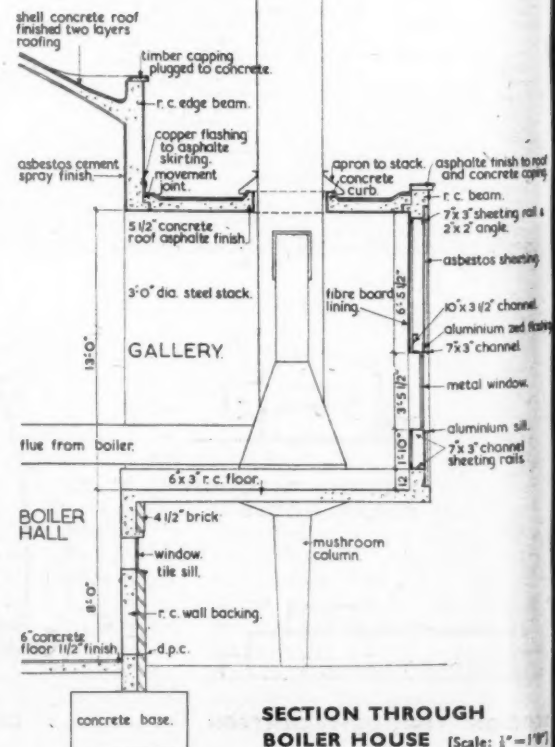


of support immediately beneath each stack.

FINISHES.—External brickwork is finished with rustic facings. Internal walls are of plaster finished with distemper. The roof is sprayed internally for insulation with asbestos and covered externally with mineral faced felt. The composition flooring is jointless.



PART ELEVATION OF BOILER HOUSE



SECTION THROUGH BOILER HOUSE [Scale: 1/4" = 1'-0"]

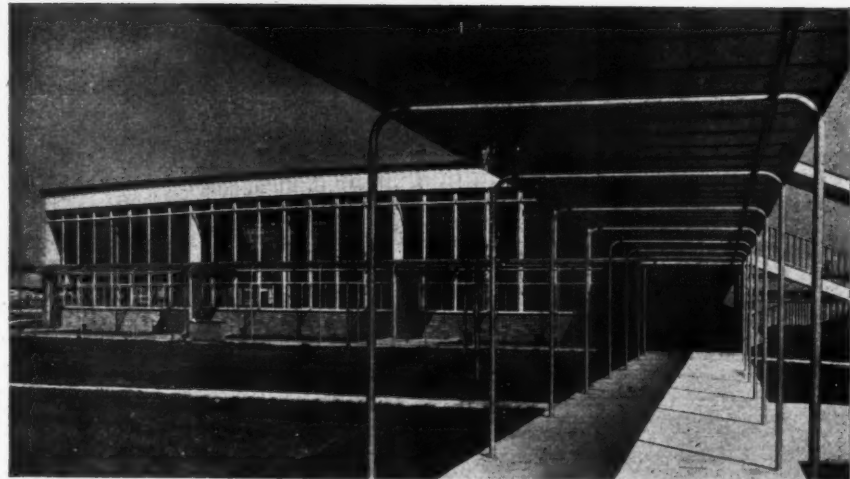
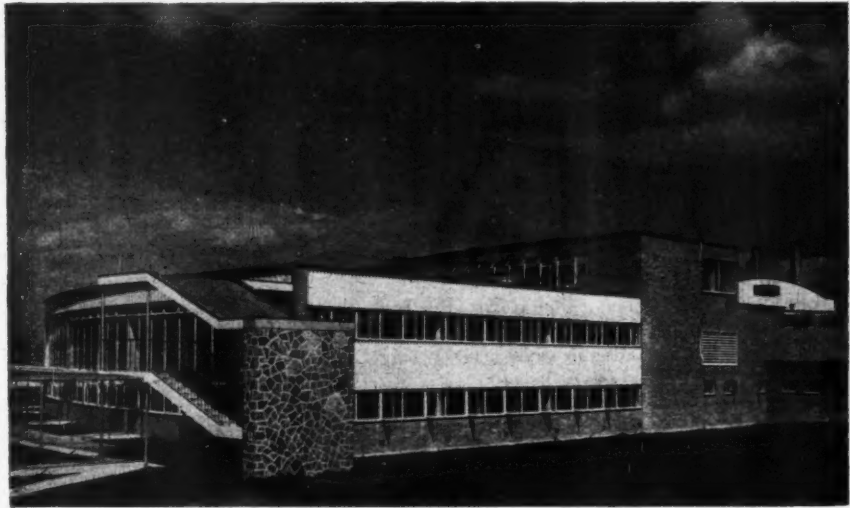
AT FULTON : DESIGNED BY ERIC ROSS

4. THE CANTEEN

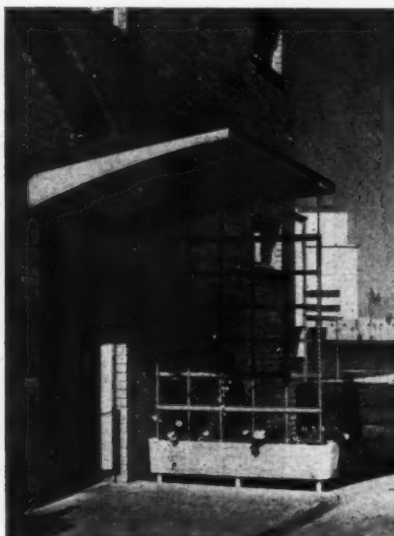
GENERAL.—The canteen block accommodates 500 operatives and 60 members of the office staff, but as the size of personnel may increase in time it was designed for unit extensions. It was considered necessary, however, to give these units an appearance of completeness at each stage of their growth. The openness of plan adopted helps this, and in doing so takes full advantage of aspect and prospect; while the incorporation of a garden precinct between the units and the hall serves as a unifying feature between the lightness of these small scale buildings compared with the main hall.

PLAN.—The main dining room for the workers, on ground level, is fan shaped in plan and the small rooms for administrative staff, which are on the first floor above the kitchens, are reached by a gallery crossing one end of the main dining room. The latter is a high airy room, glazed at the curved end, outside which is a covered walk of light tubular construction. A similar covered way connects the canteen with the assembly hall.

CONSTRUCTION.—The canteen is constructed mainly of steel with 11-in. cavity brick panel walls. The main dining room has 11-in.



Above : top, south-west view of the canteen building with the boiler house chimneys beyond and the covered way to the assembly hall on the extreme left ; centre, a view along the covered way. Below : left, the open staircase to the staff dining room ; centre, detail of entrance to administrative part of canteen ; right, view of covered way from assembly hall.



te finish to roof
concrete coping
12mm.
sheeting rail &
angle.
tos sheeting
1/2" channel
aluminium and flange
channel.
al window.
aluminium sill.
channel
ing rails

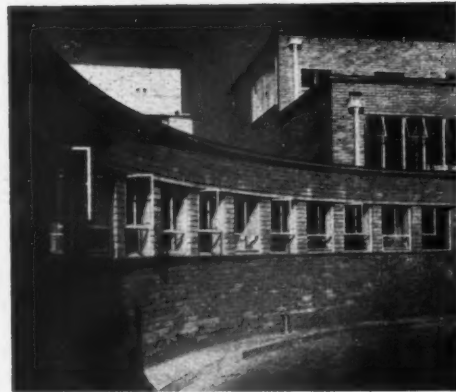
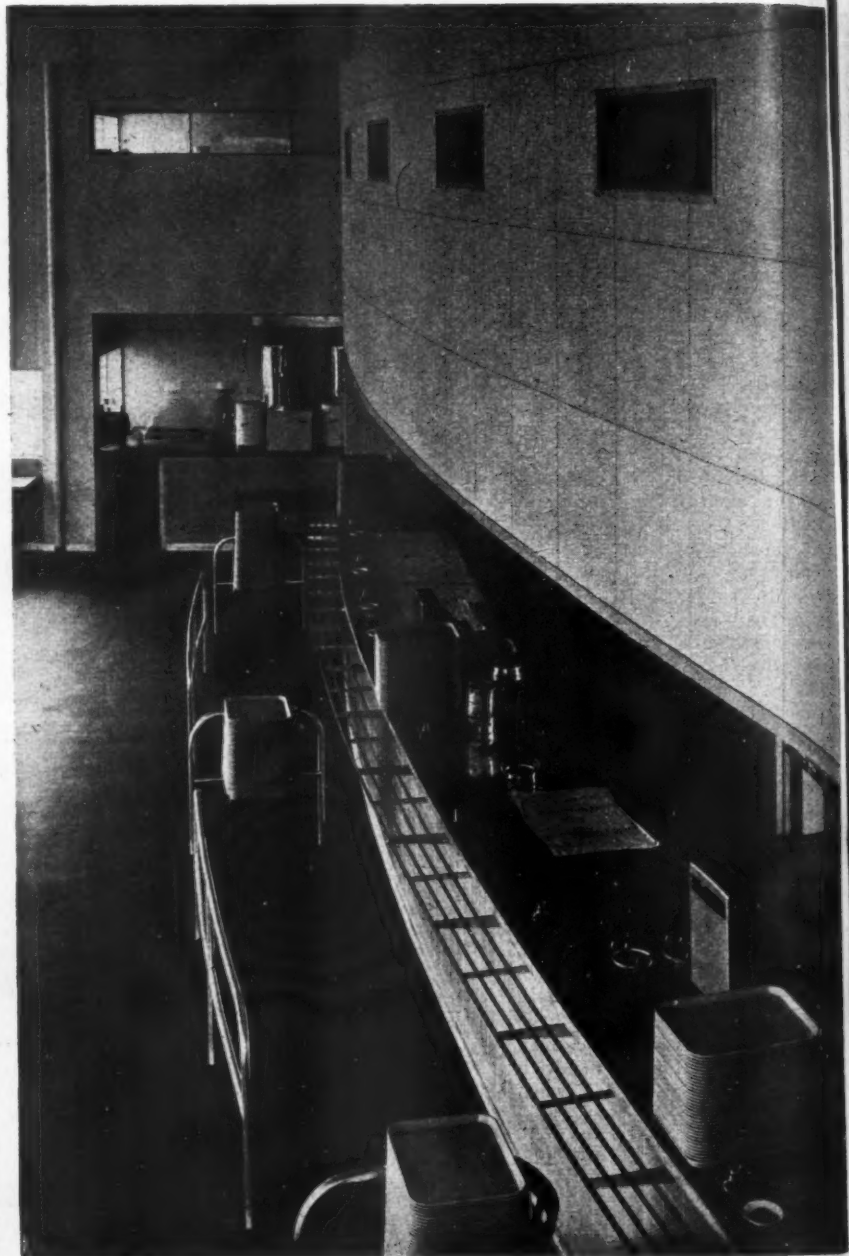
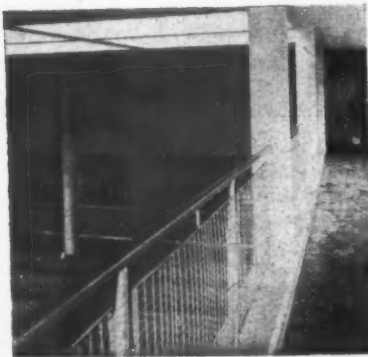
e: 1/8" = 1'0"

AIRCRAFT ASSEMBLY HALL AT F

cavity brick walls up to 15 ft. Suspended floors and roofs are of precast concrete beams.

FINISHES.—The roof is finished with asphalt. The main hall has jointless flooring; private rooms have tiling. Rubber floors are used in the corridors, quarry tiling in the kitchens and terrazzo in the entrance hall and stairways. Aluminium skirtings have been used throughout, except in the case of tiled floors. Wall finishes are of plaster and distemper, except for tiled dados in the main canteen and the counter front and tiled walls to the canteen and stores. The external brickwork is carried out in rustic facings.

SERVICES.—Electric lighting is provided throughout. Cooking is done partly by means of electricity and partly by steam. Softened water is provided and special attention has been given to extract ventilation to ensure the removal of all smell of cooking from the dining room.



Above, left, the main dining hall seen from the mezzanine gallery. Above, the serving counter. Left, details of the semi-circular stores building which links the canteen to the boiler house.

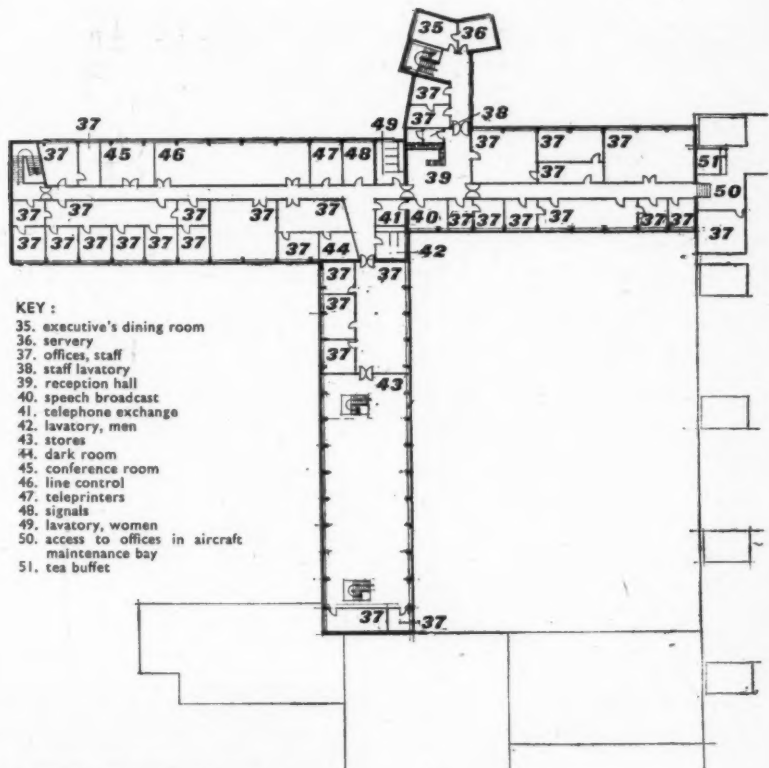
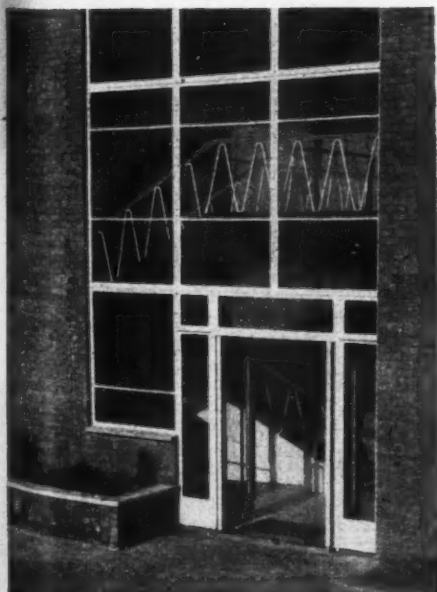
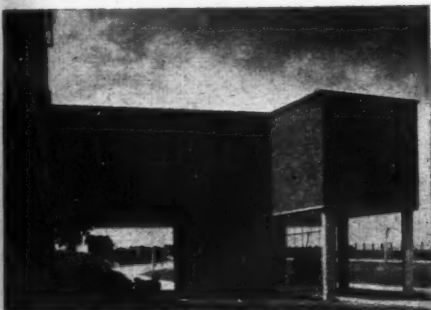
AT FULTON : DESIGNED BY ERIC ROSS

5. THE BOAC BUILDINGS

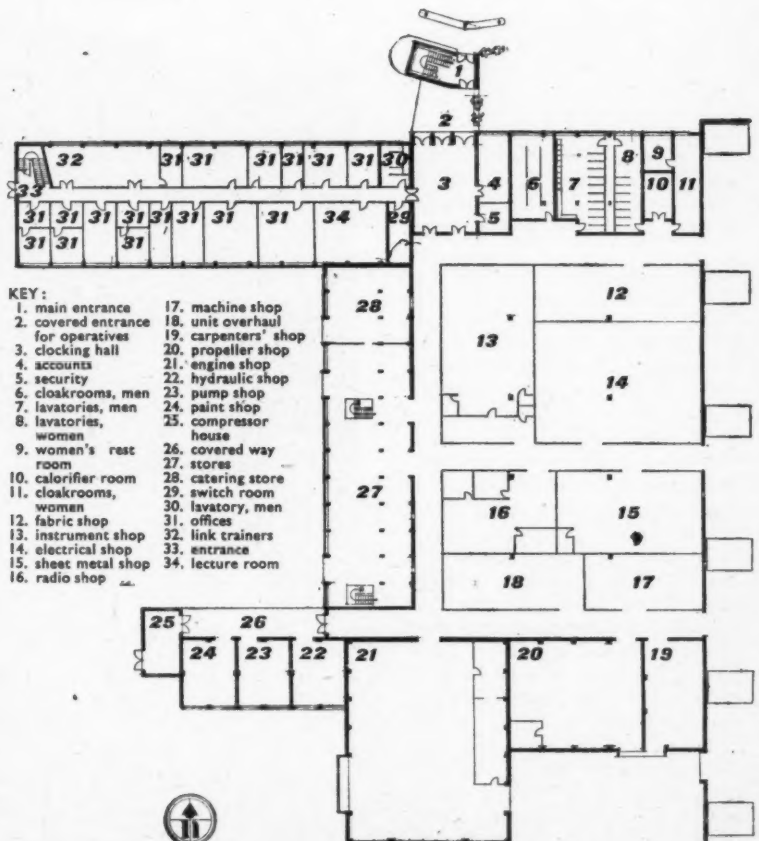
GENERAL.—The block at the western end of the central bay, which was added when the west bay of the assembly hall was taken over as a BOAC maintenance station, consists of a two-storey office wing and single-storey workshops.

CONSTRUCTION.—The two-storey portion has a concrete frame, since no structural steel was available at the time. Columns and beams were precast in a horizontal position on the site. These were then hoisted into position and fabricated on similar lines to

Below, entrance wing to BOAC office block from the east. Bottom, west window and entrance to office block, showing staircase.



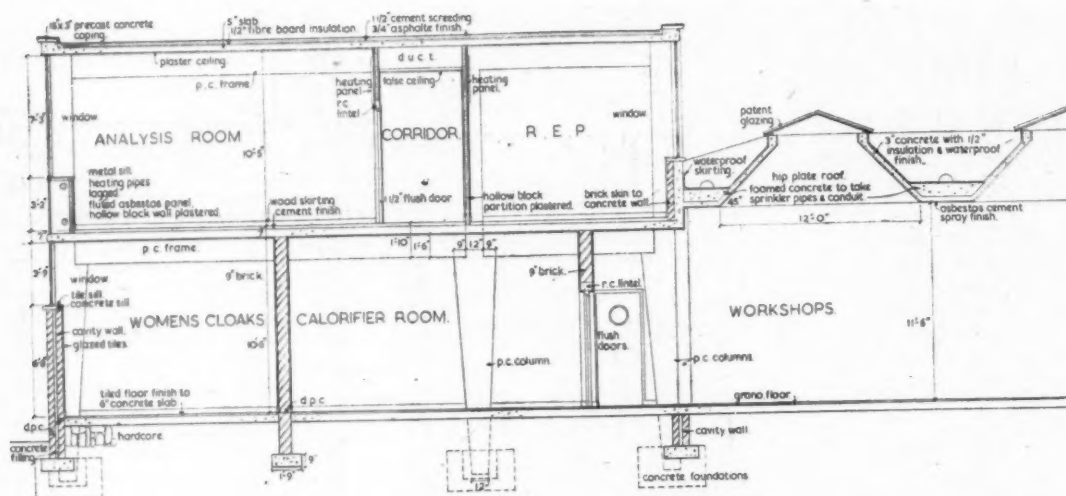
FIRST FLOOR PLAN



GROUND FLOOR PLAN

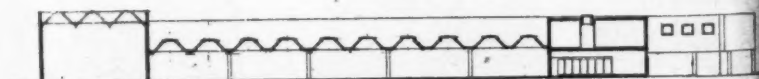
[Scale: $\frac{1}{4}$ " = 1'0"]

AIRCRAFT ASSEMBLY HALL AT FILTON



structural steel. Flat roofs and floors are of *in-situ* concrete. These give the necessary lateral stiffness which is lacking in the precast frame. The single-storey workshop area, where clear floor space, free of columns, and good natural lighting was required, has an unusual form of roof construction consisting of a thin slab prismatic roof in concrete, formed as a continuous series of 45 degrees slope. The slabs are only 3 in. thick and were poured *in situ* without top shuttering, after testing, to discover a concrete mix stiff enough to avoid slumping. In general, 11-in. cavity panel walls are used in conjunction with the concrete frame, but in places structural brick walls up to 18 in. in thickness were required.

FINISHES.—All flat roofs are covered with asphalt, but for the thin slab prismatic roof bitumen roofing has been used. External brickwork is of rustic facings. Internal finishes are of dustproof granolithic filling. Internal walls have been finished with plaster and distemper, except in the stores, workroom and engine room, which have been treated with faced brickwork and distemper. Lavatories and wash rooms have tiled floors and dados. The entrance hall, floors and stairways are finished in terrazzo with steel balustrading and aluminium handrails. Floors in the workshops, stores and engine bay are of dust-proof granolithic. Tiling is laid in the administrative block. The infilling between ground and first floor windows to the administrative block consists of fluted asbestos panels and an inner skin of hollow blocks with a cavity between.



ON



This is a
brick
window

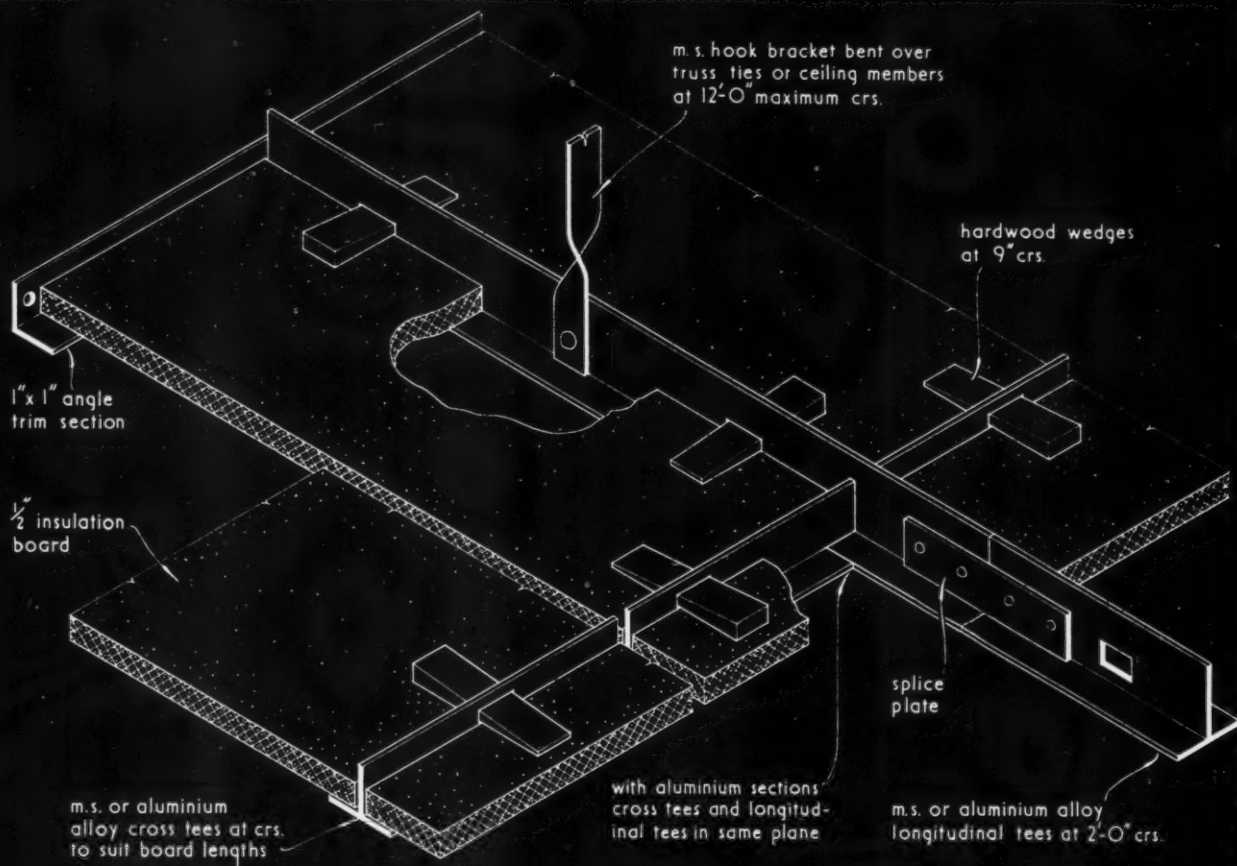


2.4" = 1'0"

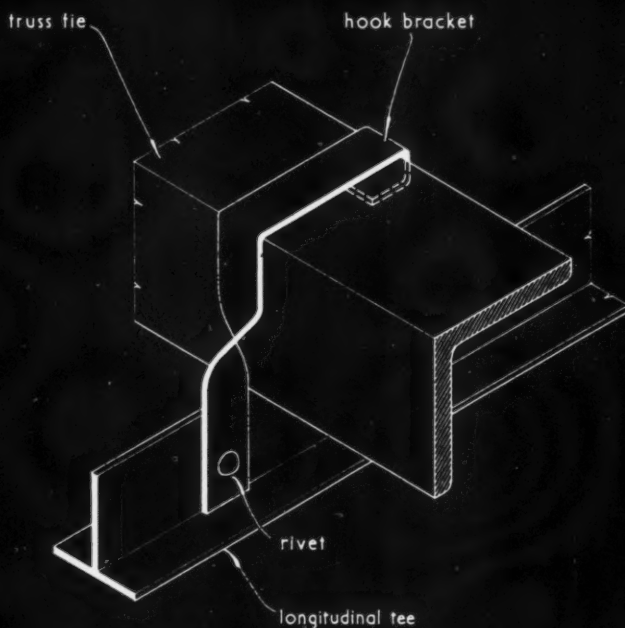
CEILINGING | BUILDING BOARD

22.D12

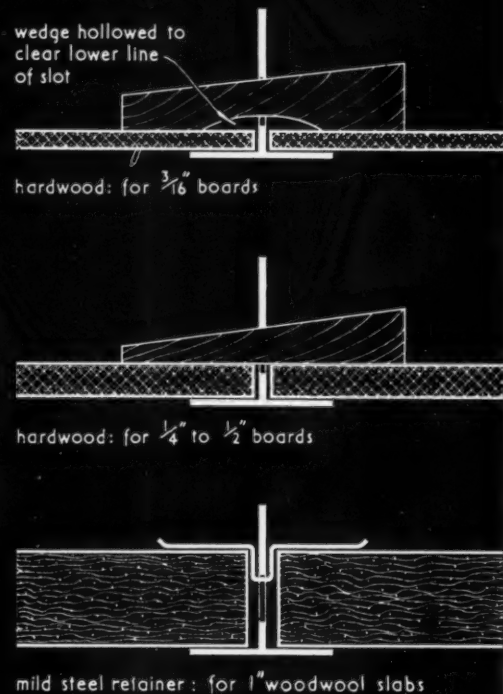
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GENERAL ASSEMBLY OF COMPONENT PARTS.



DETAIL OF HOOK BRACKET FIXING TO TRUSS TIE.



TYPES OF WEDGE.

22.D12 ANDERSON WEDGE METHOD OF BOARD FIXING

This Sheet describes a method of board fixing combining the use of various types of sheet materials from $\frac{1}{8}$ in. to 1 in. thick, with mild steel or aluminium alloy suspension and jointing members. The boards are carried on tee sections which are slotted at 9 in. intervals to take hardwood wedges which hold the boards in position.

The system is applicable to flat or curved ceilings and linings to walls or roofs.

Components (Sections and Angles)

These are available in sherardized or bonderized and sealed painted mild steel or, alternatively, in extruded aluminium alloy AW.10B and in sections to suit various spans.

Deep tee: Steel—2 in. wide by $1\frac{1}{8}$ in. high. Aluminium alloy— $1\frac{1}{2}$ in. wide by 2.2 in. high.

Intermediate tee: Steel— $1\frac{1}{2}$ in. wide by $1\frac{1}{8}$ in. high. Aluminium alloy— $1\frac{1}{2}$ in. wide by $1\frac{1}{8}$ in. high.

Standard tee: Steel—2 in. wide by 1 in. high. Aluminium alloy— $1\frac{1}{2}$ in. wide by 1 in. high.

Angle trim: Steel or aluminium alloy 2 in. by 1 in. and 1 in. by 1 in. Splayed angle sections are also available in the 1 in. by 1 in. size in angles of 110° , 120° and 135° .

Fittings

Hook brackets: These are of mild steel and are used for securing the tees to the main structure. A pressed steel bracket is available for fixing to timber structural members.

Splice plates: These are of steel and are used for jointing the tee sections.

Wedges: These are of hardwood or mild steel and in sizes to suit different thicknesses of board.

Bolt sets and/or rivets: These are used for securing hook brackets, splice plates, etc.

Safe Spans for Various Types of Lining

The following table gives the appropriate tee section and safe spans for various types of lining.

Lining	Section	Span	
		Steel tee	Alloy tee
$\frac{1}{4}$ -in. insulation board	Deep tee ..	12 ft. 0 in.	11 ft. 0 in.
	Intermediate tee ..	9 ft. 0 in.	8 ft. 6 in.
	Standard tee ..	7 ft. 0 in.	5 ft. 6 in. (sloping) 5 ft. 0 in. (flat)
$\frac{1}{4}$ -in. asbestos wallboard	Deep tee ..	10 ft. 0 in.	10 ft. 0 in.
	Intermediate tee ..	9 ft. 0 in.	8 ft. 0 in.
	Standard tee ..	6 ft. 6 in.	5 ft. 0 in.
$\frac{3}{8}$ -in. plaster board	Deep tee ..	10 ft. 0 in.	10 ft. 0 in.
	Intermediate tee ..	9 ft. 0 in.	8 ft. 0 in.
	Standard tee ..	6 ft. 3 in.	4 ft. 6 in.
$\frac{1}{4}$ -in. asbestos-cement flat sheet	Deep tee ..	9 ft. 0 in.	9 ft. 0 in.
	Intermediate tee ..	8 ft. 0 in.	7 ft. 0 in.
	Standard tee ..	5 ft. 6 in.	4 ft. 0 in.
1-in. wood-wool slab	Deep tee ..	8 ft. 0 in.	8 ft. 0 in.
	Intermediate tee ..	7 ft. 6 in.	6 ft. 0 in.
	Standard tee ..	5 ft. 0 in.	—

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Anderson Construction Co. Ltd.

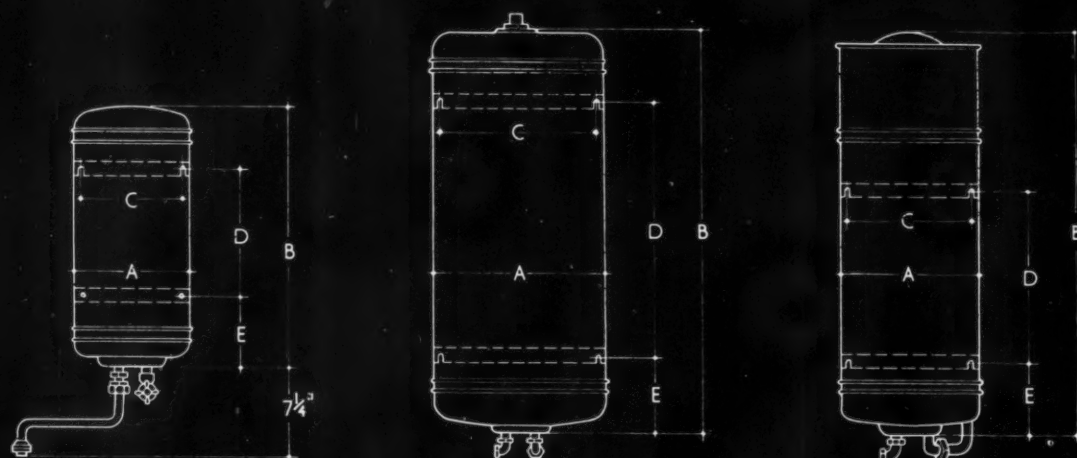
Address: Clifton House, Euston Road, London, N.W.1.

Telephone: Euston 7465

WATER HEATING | UNITS | ELECTRIC

32.D8

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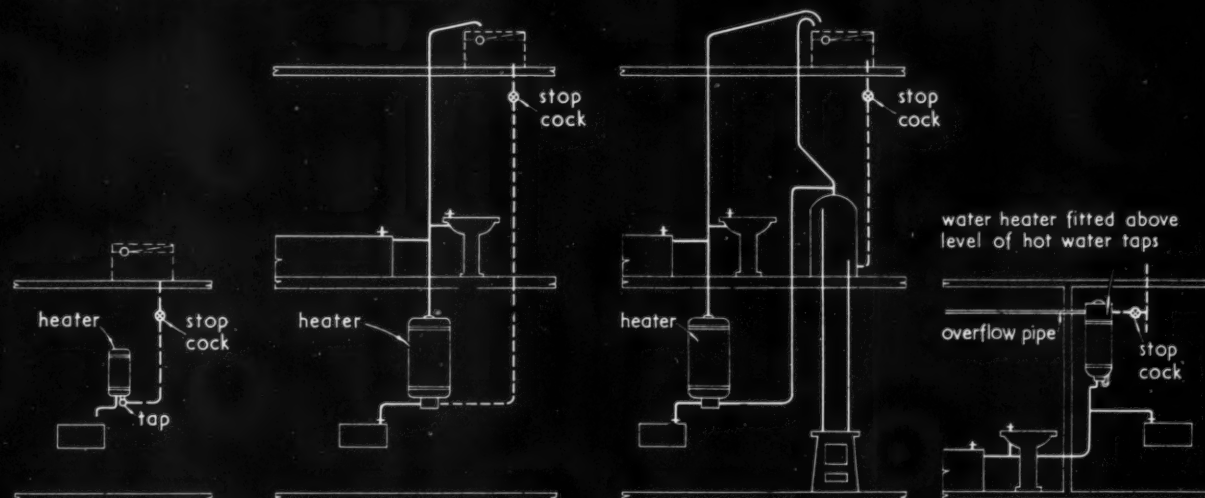
FREE OUTLET TYPE

FREE OUTLET OR PRESSURE
TYPES

CISTERN TYPE

type		capacity (gallons)	A	B	C	D	E	water inlet	connections outlet	loading (watts)
free outlet	G	1½	9¾"	1' 7¼"	9"	1' 0"	3¾"	½"	spout	500 or 750
	H	3	11"	2'-1"	9"	1'-0"	6¾"	½"	"	500 or 750
free outlet or pressure	B	5	1'-1¼"	2'-5"	1'-0"	1'-4"	7"	½" or ¾"	½" or ¾"	500 or 1000
	L	7½	1'-1¼"	3'-3"	1'-0"	2'-0"	8"	½" or ¾"	½" or ¾"	750 or 1000
	C	12	1'-4½"	3'-2"	1'-3"	2'-0"	7¼"	½" or ¾"	½" or ¾"	1000 or 1500
	D	15	1'-4½"	4'-2"	1'-3"	2'-11½"	7½"	½" or ¾"	½" or ¾"	1500
cistern	BBT	5	1'-1¼"	3'-2¼"	1'-0"	1'-4"	7"	½"	¾"	500 or 1000
	LBT	7½	1'-1¼"	4'-0¼"	1'-0"	2'-0"	8"	½"	¾"	750 or 1000
	CBT	12	1'-4½"	3'-11"	1'-3"	2'-0"	7¼"	½"	¾"	1000 or 1500
	DBT	15	1'-4½"	4'-11"	1'-3"	2'-11½"	7½"	½"	¾"	1500

CAPACITIES, DIMENSIONS AND LOADINGS.



1. free outlet heater

2. pressure type heater

3. pressure type heater
with solid fuel boiler

4. cistern type heater

TYPICAL INSTALLATIONS.

SADIA AUTOMATIC ELECTRIC WATER HEATERS: FREE OUTLET, PRESSURE AND CISTERN TYPES.

Manufacturer: Aidas Electric Ltd.

32.D8 · SADIA · AUTOMATIC ELECTRIC WATER HEATERS: FREE OUTLET, PRESSURE AND CISTERN TYPES

This Sheet, one of a series on automatic electric water heaters, illustrates the wall-mounted water heaters of free outlet, pressure and cistern types. The free outlet water heaters are manufactured in 1½, 3, 5, 7½, 12 and 15 gallons capacity; they supply hot water at one point only. The pressure and cistern type water heaters are manufactured in 5, 7½, 12 and 15 gallons capacity, and are designed to supply hot water at a number of taps.

Design and Construction

Each type of water heater consists of a heavy gauge copper container with copper welded seams, tinned by immersion in pure molten tin and twice tested at a pressure of 120 lb. per sq. in. The outer casing is made of silver sheet steel specially treated to prevent rust or corrosion. It is finished in oven-dried white enamel, which under normal conditions will neither chip nor scratch. The joints of the case with the top and bottom covers are trimmed with blue bands. The space between the hot water container and the outer casing is packed with re-granulated cork as heat insulator.

The heating elements and the thermostat fit into tinned copper tubes which are mounted on an element plate, and can be taken out without emptying the container. Each heating element consists of a spiral of the highest quality nickel-chromium alloy, completely enclosed in porcelain insulators, and working at dull heat it is practically indestructible. The element plate of tinned manganese bronze is fastened to the container by eight bolts and can be unscrewed with an ordinary box spanner. A drain plug is provided for emptying the container before unscrewing the element plate.

The cistern type water heater contains in addition a built-in cold water storage tank, which is automatically controlled by a ball valve. This ball tank is insulated from the water container by re-granulated cork. To prevent heat losses, the internal vent pipe is air lagged where it passes through the ball tank. An external feed pipe leads from the ball tank to the cold water inlet at the bottom of the hot water container.

Operation

The cold water enters at the bottom of the inner container displacing the hot water which is drawn off from the top of the container through the flow tube, or in the case of pressure type also from the top outlet. The entering cold water is prevented from mixing with the hot water by a baffle dome, and all the hot water in the container can be drawn off before an appreciable fall in temperature.

When the hot water is drawn off and replaced by cold water, the difference in temperature causes the thermostat to switch on the electricity. When the water is hot again, the thermostat switches off the current and the hot water is stored for later use practically without cost.

Application

The 1½ and 3 gallon water heaters are intended for kitchen sinks, cloakroom basins, bedroom wash basins, hand basins in surgeries, and can be connected direct to the water mains.

The 5 and 7½ gallon water heaters are suitable for kitchens and cloakrooms with two or three sinks or wash-basins.

The 12 gallon Sadia provides sufficient hot water for a small household of three to four persons. It will supply the normal domestic requirements for washing up during the day and one small bath in the evening.

The 15 gallon Sadia supplies one large morning bath, normal domestic requirements during the day, and two more baths in the evening with an interval of two or three hours between.

The cistern type water heaters are particularly adapted to installation in flats as they do not require expansion pipes. The existing down service pipes to the cold water taps can be used for feeding the water heaters and no new pipes need be carried through the intervening floors.

Installation

Typical installation arrangements are shown in the illustrations.

1. This installation shows an arrangement for a free outlet water heater. The flow of water is regulated by a tap on the inlet; the outlet spout must never be closed or connected to a tap.

2. This installation shows a pressure type water heater supplying hot water to both kitchen and bathroom. A separate cold water pipe is provided from the storage tank and is fitted with a stop cock. A vent or expansion pipe leads from the highest point in the draw-off pipes to above the cold water tank. The Sadia is fixed near the sink tap where hot water is drawn most frequently.

3. This installation shows a pressure type water heater working in conjunction with a solid fuel boiler, all the hot water passing through the Sadia. An additional vent or expansion pipe is fitted. No other system of working in conjunction is practicable nor is there any satisfactory way of utilising only one expansion pipe.

4. This installation shows the arrangement for a cistern type water heater. All hot water taps must be at a lower level than the water heater. It should, therefore, be fitted as high as possible, leaving about 6 in. between the top of the heater and the ceiling for access to the ball valve.

The methods of installation shown in the diagrams have proved to be reliable and safe and should be followed closely. In particular, the draw-off pipes must be run as dead legs and not as a circulating system. These water heaters cannot be used in place of a boiler for circulating hot water through towel rails or radiators, or to maintain any form of circulation.

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Aidas Electric, Ltd.

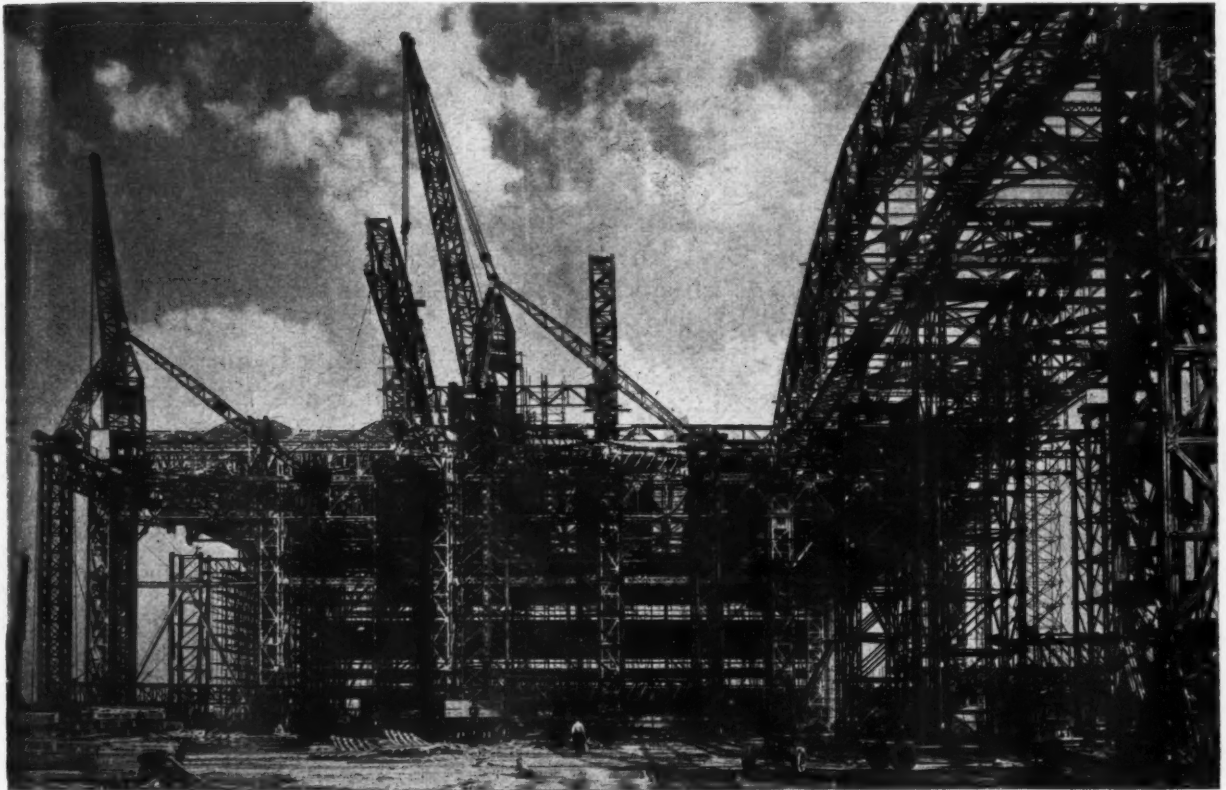
Address : Sadia Works, Rowdell Road, Northolt, Middlesex.

Telephone : Waxlow 1607

Telegrams : Aidaselect, Greenford, London.

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TECHNICAL SECTION



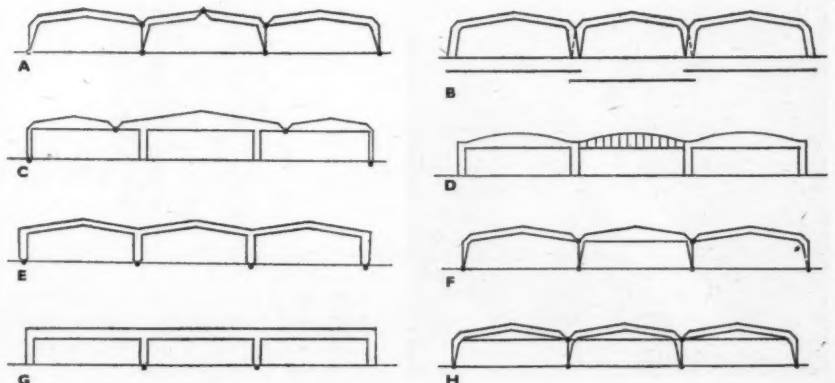
This week part of the JOURNAL's Technical Section is given to comments by Dr. O'Sullivan, of Brian Colquhoun and Partners, the consulting engineers, on the problems involved in the structural design of the Aircraft Assembly Hall at Filton.

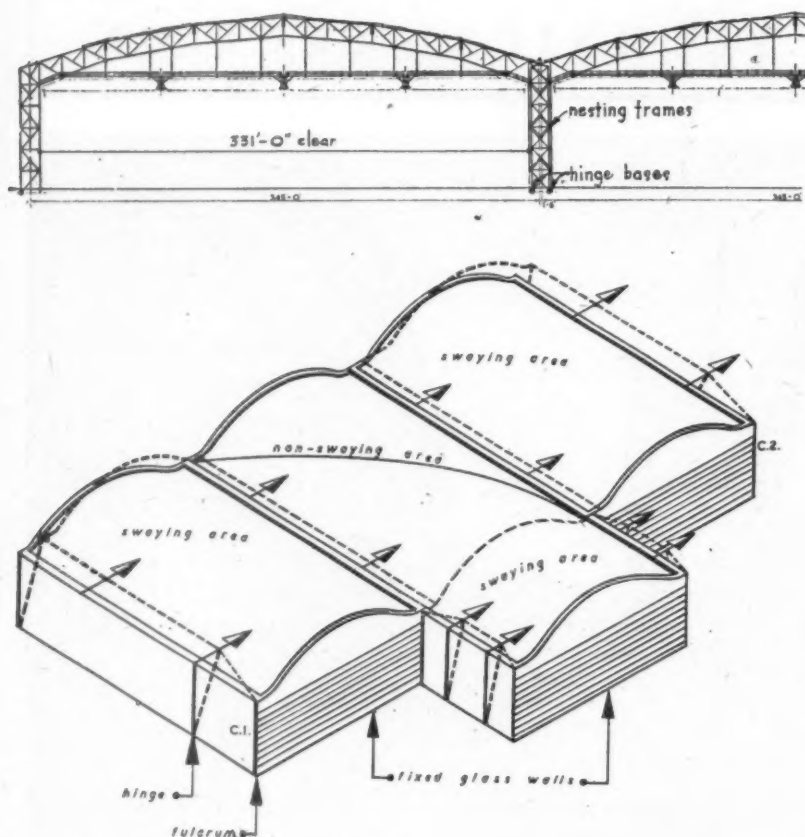
THE ASSEMBLY HALL

EFFECT OF PRODUCTION REQUIREMENTS

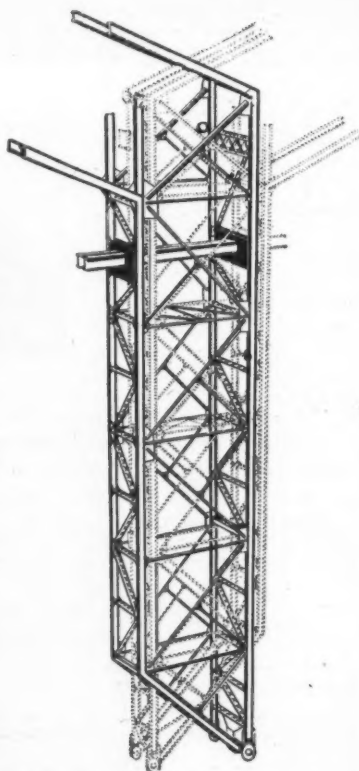
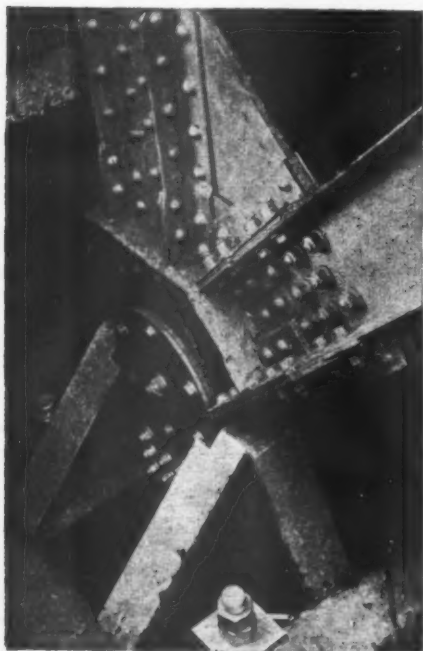
Considering the size of the Aircraft Assembly Hall at Filton, the shape of the cross section of the building is one of its most unusual features. A number of hangars have been built of roof span approaching the 331-ft. clear of the assembly hall, and one just recently in the United States of substantially the same span. Figure 1 gives a view of the latter, from which it may be seen that it is a stiffened concrete shell of inverted catenary form. This figure is reproduced to show a building which is obviously simple and at the same time most economical. However, the functional requirements at Filton entirely ruled out the adoption of such an arrangement, as it was laid down that the whole floor area of each bay should be capable of being serviced by overhead cranes, with hooks capable of being raised not less than 57 ft. from the floor at every point. This requirement formed the fundamental basis upon which the shape of the

Above, the assembly hall in course of erection. Right, figure 1, a concrete hangar in the USA of substantially the same span. Below, figure 2, eight of the possible structural variants. A, a central, cambered 3-pinned frame with flanking lean-to frames. B, cambered staggered frames which are independent and fixed at base. C, a central fixed frame with extension cantilevers to support lean-to frames for the outer bays. D, a composite fixed frame and bow-string girder. E, cambered continuous frames on hinged bases. F, a central 2-pinned arch with flanking lean-to frames. G, a continuous frame with varying base conditions. H, similar to F, but with ties.





Above, top, fig. 3 shows the type of structure used. It consists of a series of independent frames with ties at haunch level, adjacent members of which are nested one into the other to economize in space. Beneath it is fig. 4 which shows where wind sway problems were encountered and gives a diagrammatic indication of how they were resolved.



Left, fig. 5 is a detail of one of the hinge pins to the main arches. Above, fig. 6 shows the nesting of the upright parts of frames to adjacent bays.

structure was determined. Hence, it became quite impossible to use the economic arch shape of the building shown in Fig. 1. It will be seen from this figure that such a building would neither give the specified clearance nor lend itself to the provision of a practicable craneage system, as finally developed.

CHOICE OF STRUCTURAL MEDIUM

Prior to the investigation into the various types described later, the nature of the structural medium to be adopted was given the closest consideration. In view of the prevalent shortage of steel, the possibility of using reinforced concrete was examined at the outset. Whilst there appeared to be no radical difference between the cost of reinforced concrete and certain other forms of construction, this medium was finally ruled out owing to the difficulty of meeting the special requirements involved in the provision of shuttering, formwork and travelling staging. Furthermore, it was realised at an early stage that the east bay of the building must be available for use within twelve months from commencement of the work, and, as a result of this, it was found that more factors would remain outside the control of the consultant and the contractor if a metallic design were not adopted.

It became apparent from the foregoing that some kind of lattice construction should be used incorporating metal sections. As the weight of the main arch inevitably formed a very large proportion of the total load, aluminium alloy might well have been adopted as a medium. However, the availability of the material, together with the limited knowledge of its use in structures of such magnitude, made its adoption at that time an injudicious proposition.

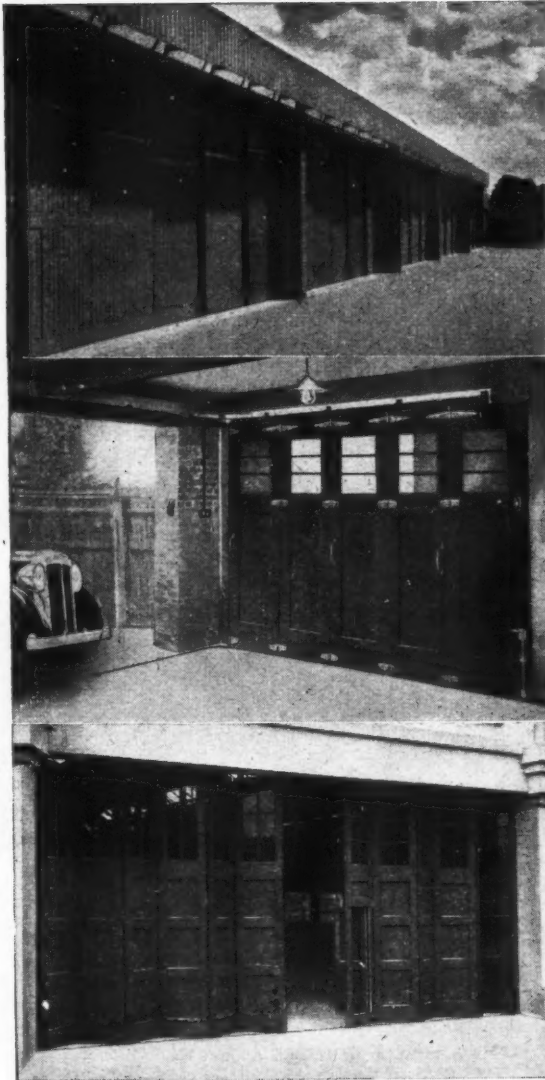
It was ultimately decided that the basic design should consist of structural steel members arranged in lattice formation. Considerable economies were eventually effected by the use of high tensile steel for the components under the roof. These were brought about as a result of the reduction of material required consequent upon the diminution of the dead weight to be carried.

NATURE OF STRUCTURAL ARRANGEMENT

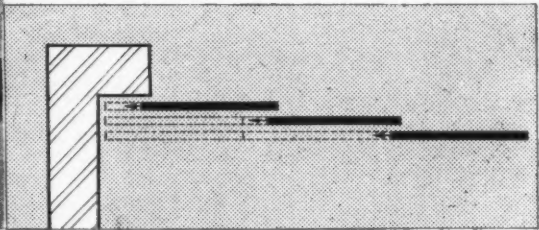
Once the general form and materials of construction had been determined, it was necessary to consider in detail how adjacent frames should be arranged. Figure 2 shows eight of the conceptions based upon the accepted requirements, which were ultimately abandoned in favour of the final structure which was made up as shown in figure 3.

It may be of interest to consider a number of reasons why the arrangements shown in figure 2 were abandoned. Types (c) (d) and (g) were eventually considered neither suitable for meeting the aesthetic requirements, nor economical in themselves.

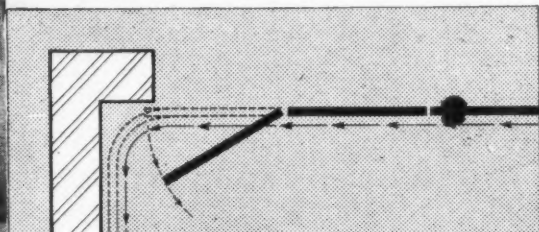
Since it became apparent at a fairly early stage that a high level structural grid independent of the room framing would be required for providing suspension for the overhead cranes, as well as for the lighting and heating units, it was decided that a tie would be necessary, converting in effect the upper part of the frame to a bow-string arch. Apart from the advantages in providing a basis for this grid, the tie was found materially to reduce the stresses in the whole arch system as it prevented the tendency of each frame to splay out freely at the haunches under load. For these and the following reasons, (a), (b), (e) and (f) as shown, were finally ruled out. Under normal conditions, scheme (e) with the tie system would probably have proved the most economical. However, owing to the cumulative width of the three bays being over 1,000 ft., it was found that the stresses resulting from temperature changes



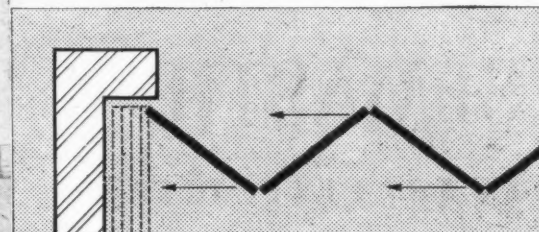
Should they simply slide?



... slide round the corner?



... or slide and fold?



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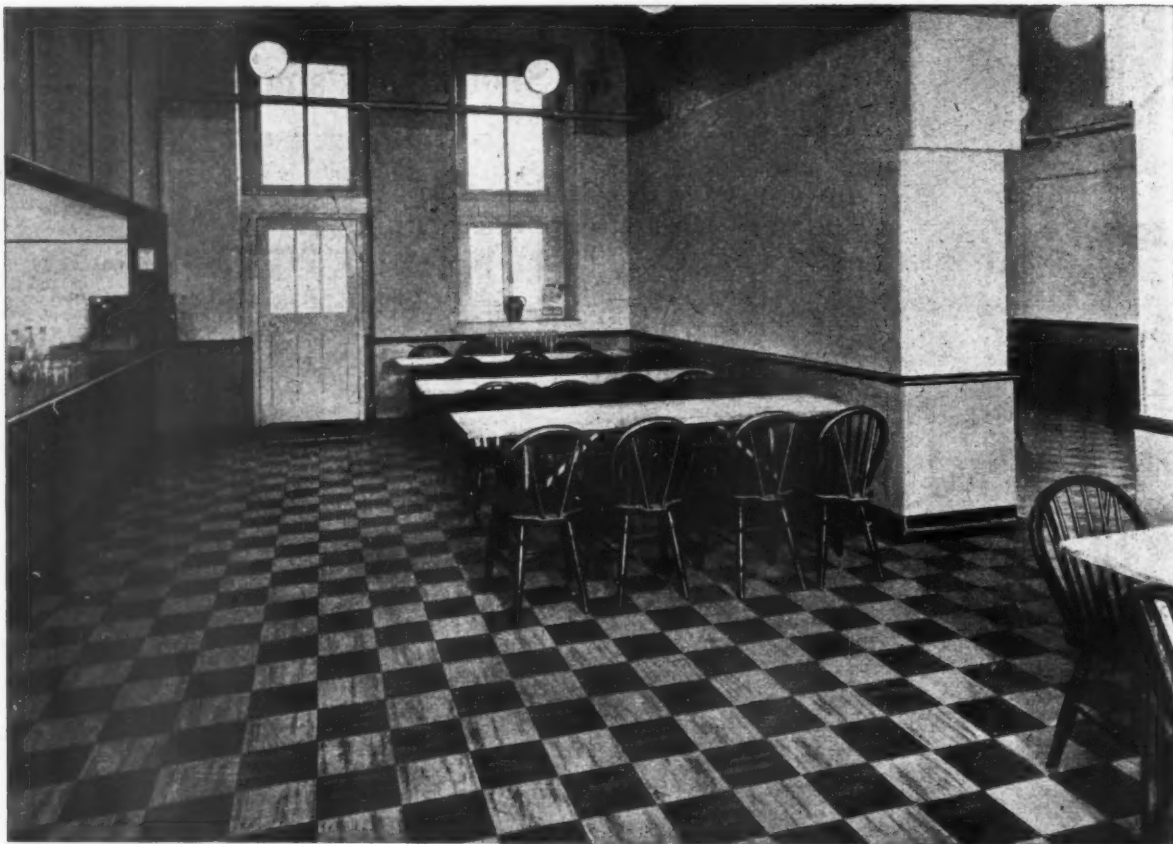
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would have been most excessive were such a fully continuous arrangement adopted. Types (a) and (f) were also unsuitable owing to the impossibility of giving priority to the construction of the outer bays with such an arrangement. It will be seen in these cases that the outer frames cannot be constructed until the centre frame is itself in position. The situation then resolved itself to providing an independent type of construction on the basis shown in (b). For the considerations previously given, scheme (h) had already been eliminated.

The ultimate development of scheme (b) is shown in figure 3, which indicates the adopted arrangement, which was to provide a series of entirely independent frames with ties at haunch level, adjacent members of which were nested one into the other in order to economize as far as possible with space. The resultant scheme, it was found, best met the aesthetic requirements, gave flexibility to the construction programme, allowed speed of erection and was consonant with economy.

The final structural arrangement consisted of main frames at 50-ft. centres which supported a series of longitudinal lattice frames. These in turn supported subsidiary frames. Purlins and sheeting rails running from subsidiary frames to main frames supported the roof sheeting, cladding and insulating board lining.

FEATURES OF STRUCTURAL DESIGN

The carrying of such fragile cladding materials as asbestos cement and glass on such a leviathan structural framework created a number of problems which perhaps had never been encountered before. Under extreme gale conditions it was estimated that frames carrying exposed parts of the hall would sway up to five inches each side of their normal position. This meant that a range of movement up to ten inches must be allowed at eaves level. The problem of providing a satisfactory support for the cladding material was exacerbated by the fact that a lateral wind force, whilst causing a sway in an outer bay, would not set up a similar movement in the sheltered part of the adjacent centre bay. This arises partly from the curious fact that the effect of lateral gale on a roof is to cause a setting up of a suction effect only, over its whole length acting normal to the surface, in that the drag effect of the wind is negligible. Hence it was necessary to allow for movement at the valley gutter and to make special provision for drainage.

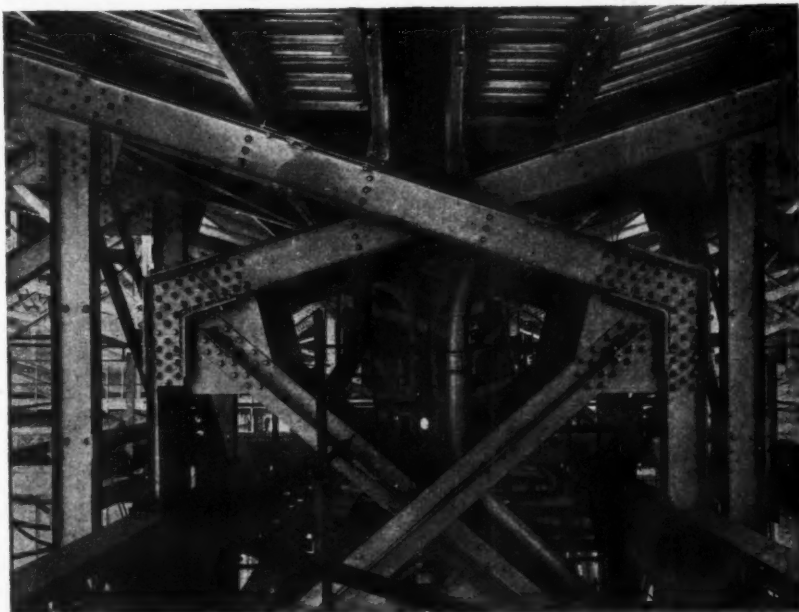
Another problem of some interest arising out of wind sway arose from the fact that the steel framework carrying the north glazed walls had to remain fixed in position whilst the adjacent return walls and roof remain subject to sway under gale conditions.

Figure 4 gives a bird's-eye view showing where these problems were encountered, and a diagrammatic indication of how they were resolved.

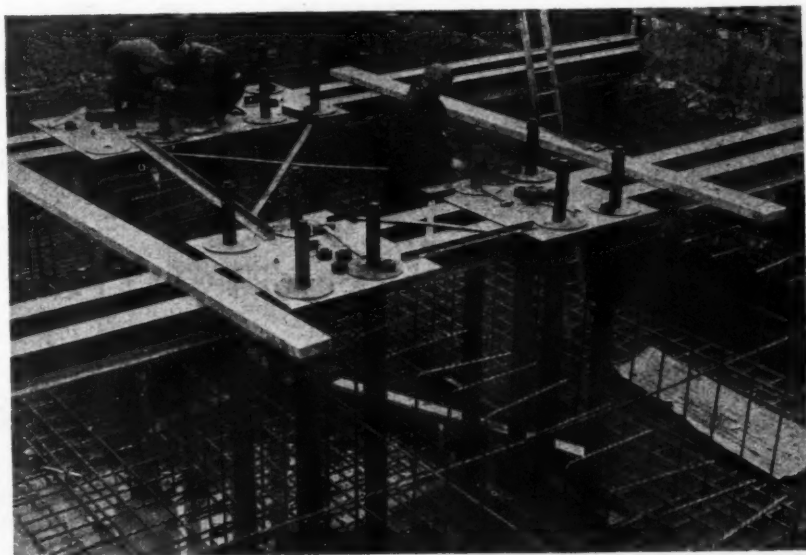
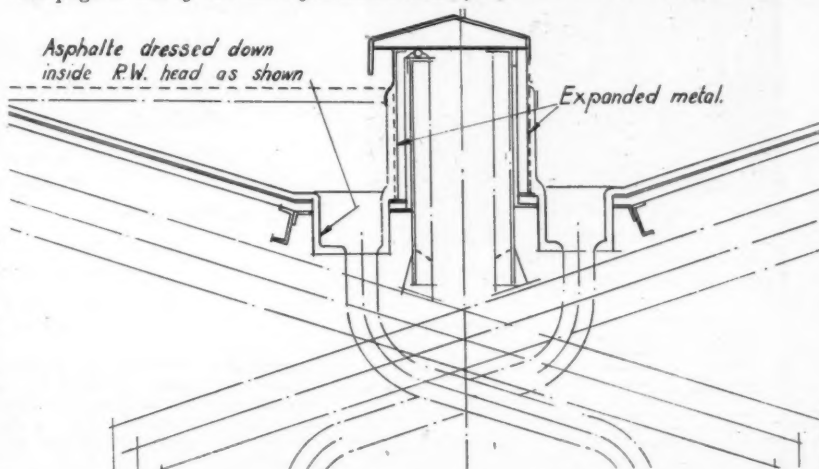
Figure 5 is a detail of one of the hinge pins to the main arches.

Figure 6 shows the nesting of the upright portions of frames to adjacent bays. Details of the expansion jointing in the roof sheeting at the dual valley gutters and down pipes are shown in figures 7 and 8.

An example of the framing arrangement required to allow the north glazed wall frames to remain fixed in position whilst the adjacent return walls and roof remain subject to sway under gale conditions, is indicated in figure 11. It may be seen from this that the basis of the scheme is that the sheeting rail at X is cantilevered out to Z, to which is attached sheeting rail ZY, which works as a link acting in a horizontal plane with fulcrum Y, the rail XZ moving backwards and forwards in parallel fashion in accordance with the prevailing wind conditions.

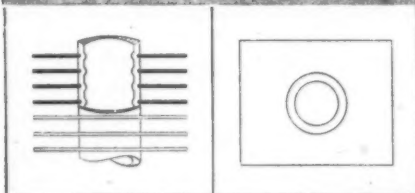
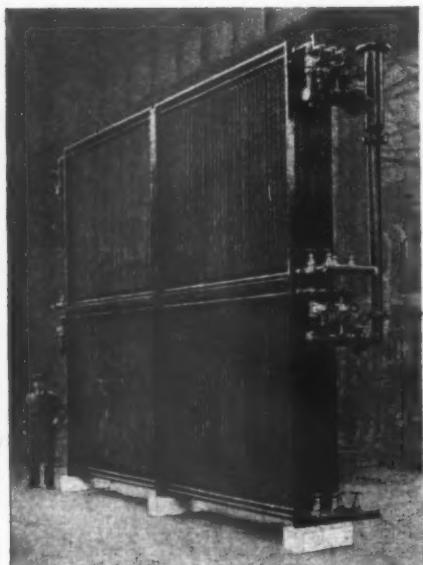


Above, fig. 7 shows details of the expansion jointing at the dual valley gutters and down pipes. Below, fig. 8, a detail drawing of the expansion joint. Fig 9 at the bottom of the page is one of the main foundation bases of a frame in the course of construction.



PLANNED HEATING AND VENTILATING

PLENUM HEATERS The Plenum system of heating and ventilating is used extensively ; and where this system of heating is used, it is desirable to specify Weldex All Steel, All Welded Heater Batteries as they enable unlimited utilisation where specialist design and production is required. Weldex Batteries are produced for operation either by steam or hot water. In the Weldex Heater, the medium is passed through the tubes whilst the air is



passed over the tubes. The tubes may be plain or gilled, but as gilling reduces the overall cost by some 60 per cent. to 70 per cent., this type of battery is most called for. It is only when very special precautions have to be taken regarding dust and dirt that the plain tube heater is specified. All Weldex Heater Batteries are designed for particular conditions, and for the benefit of engineers, the following information is required:—

1. Volume or weight of air to be handled per minute or hour.
2. Inlet Air Temperature.
3. Outlet Air Temperature required.
4. Whether any special humidity conditions exist, or are required to exist after heating.
5. Heating medium.
 - (a) In the case of steam, its pressure and condition, i.e., saturated or super-heated.
 - (b) In the case of hot water, the flow and return temperature.

Perfectly flat smooth gills are embedded into the walls of the tube, resulting in a heating element of great mechanical strength. As the gills are so securely fitted to the tube, the heat transmission is high and efficiency permanent.

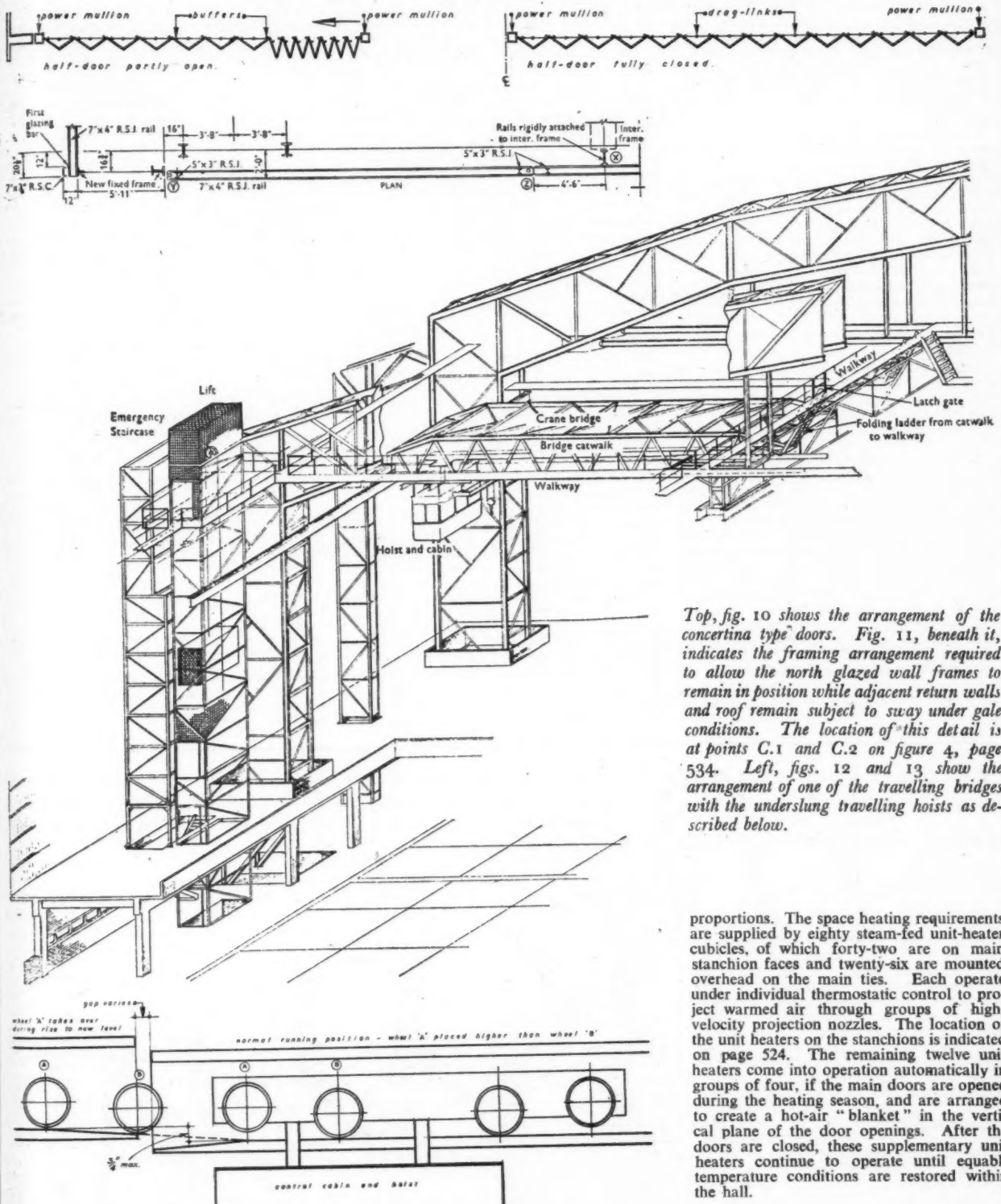


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Top, fig. 10 shows the arrangement of the concertina type doors. Fig. 11, beneath it, indicates the framing arrangement required to allow the north glazed wall frames to remain in position while adjacent return walls and roof remain subject to sway under gale conditions. The location of this detail is at points C.1 and C.2 on figure 4, page 534. Left, figs. 12 and 13 show the arrangement of one of the travelling bridges with the underslung travelling hoists as described below.

proportions. The space heating requirements are supplied by eighty steam-fed unit-heater cubicles, of which forty-two are on main stanchion faces and twenty-six are mounted overhead on the main ties. Each operate under individual thermostatic control to project warmed air through groups of high-velocity projection nozzles. The location of the unit heaters on the stanchions is indicated on page 524. The remaining twelve unit heaters come into operation automatically in groups of four, if the main doors are opened during the heating season, and are arranged to create a hot-air "blanket" in the vertical plane of the door openings. After the doors are closed, these supplementary unit heaters continue to operate until equable temperature conditions are restored within the hall.

CRANES

Fig. 12 shows the general arrangement of one of the travelling bridges with the underslung travelling hoists. Owing to the changes in length of the tie with variations of temperature and alterations in loading condition, it was found that the distance between the ends of the rails for the travelling hoist forming part of the mobile bridges was subject to variation by just over an inch. The problem of hoist transference was made more difficult by the difference in level up to $\frac{1}{4}$ in.

FABRICATION AND ERECTION OF STRUCTURE

Figure 9 shows one of the main foundation bases of a frame in the course of construction. At the north and south sides, the size of these was governed by anchorage requirements against uplift rather than safe foundation pressure. The overturning effect of the wind was of such a magnitude that the joint foundations at the south side between the centre and outer bays called for a reinforced concrete block

48 ft. by 30 ft. by 9 ft. deep in each case, in order to hold the building down.

It will be apparent from these considerations why such heavy foundation bolts and reinforcement were required, as is shown in Fig. 9.

HEATING AND VENTILATION

In view of the large capacity of the assembly hall, which in volume approaches 33 million cubic feet, the heating and ventilating arrangements involve installations of vast

arising from non-uniform loads setting up a torque in the supporting box girders. The problem was only overcome by providing the hoist with two axles at each end mounted at different levels together with a scarfing arrangement to the rails of the travelling bridges, as shown in Fig. 13.

DOORS

Concertina type doors provided to each of the three bays allowing for openings 300 ft. wide by 65 ft. high are, as far as can be ascertained, the biggest that have ever been constructed. They are entirely of aluminium alloy and operate automatically; push buttons for this purpose are provided on the power mullions, in which are fixed powerful electric motors. The method of operation is for the power mullions to wind themselves backwards and forwards along fixed cables running one above the top guides, the other in a groove in the floor. Fig. 10 indicates the arrangement diagrammatically.

FLOOR

The prototype Brabazon mark 1 was designed so that the greater part of the weight was carried principally on two undercarriages, each having two wheels. Since the laden weight of the aircraft amounts to about 130 tons, each wheel may apply a load of approximately 30 tons to the floor over the contact area. It is apparent that this extraordinary loading condition demanded a scientific design for the floor itself.

The construction finally settled upon to meet these conditions consisted of consolidated layers of hardcore on an ash-blinded formation overlaid by a 6-in. concrete sealing slab which was surmounted by a 9-in. high grade concrete top slab. The required thickness of consolidated hardcore, and the use, or otherwise, of reinforcement was determined as a result of shear tests made to undisturbed samples of the sub-soil together with micrometer deflection tests on loaded plates applied to the prepared surface prior to the casting of the concrete slabs.

Buildings Illustrated

Bristol Aeroplane Co.'s "Brabazon" Hangar. (Pages 517-532.) Architect: Eric Ross, A.R.I.B.A. Engineers: Brian Colquhoun & Partners. Contractors: Access road, W. J. Chivers & Son; transit road, earthworks, drainage, foundations, concrete paving, apron and hall floor, factory roads, retaining walls, level crossing gates and tracks, anodising dept., ancillary works, Sir Alfred McAlpine & Son Ltd.; sub-base, Cheecol Processes Ltd.; floor finishes, precast floors, Johnson Floor Co. Ltd.; gatic covers, Dover Engineering Works Ltd.; level crossing gates, goods lift, passenger lifts, G. K. Jensen & Co. Ltd.; borehole survey, John Thom Ltd.; sewage pumping equipment, Wallwin Pumps Ltd.; steelwork and cladding, doors, scaffolding, passenger lifts, overhead cranes, walkways, glazing maintenance equipment, Redpath Brown & Co.; steel fabrication, Dorman Long & Co., Tees Side Bridge & Engineering Co., Sir William Arrol Ltd.; overhead cranes, doors to chair harbours, Geo. W. King Ltd.; scaffolding, Scaffolding (Gt. Britain) Ltd.; main doors, Esavian Ltd.; glazing and flashings, glazing cradle, Williams & Williams Ltd.; cladding, Turners Asbestos Cement Co.; roofing, Ruberoid Co. Ltd.; walkway fabrication, S. W. Farmer & Son Ltd.; walkway erection, Steel Erection Co.; bosun's hoist and chairs, Witton-Kramer Electric Tool & Hoist Works; glazing washing equipment, Rhodes, Brydon & Youatt Ltd.; general builders' work, reinforced concrete galleries, lavatories, goods lift, Gilbert Ash Ltd.; partitions, Roneo Ltd.; terrazzo flooring, The Marble Mosaic Co. Ltd.; ironmongery, Gardiners Ltd.; electrical installations, B. French Ltd.; cables, main feeder cables, road lighting, British Insulated Callenders' Cables; cables, Edison Cables Ltd., Pyrotenax Ltd.; trunking, Mantel Metalworkers Ltd.; switchgear, dispersive lighting fittings, British Thomson-Houston Ltd.; switchgear, conduit, lamps, tubular

lighting fittings, General Electric Co. Ltd.; conduit, plugs and sockets, Walsall Conduits Ltd.; conduit, Metallic Seamless Tube Co. Ltd.; lamps, Metropolitan-Vickers Electric Co. Ltd.; motor starters, Electrical Apparatus Co. Ltd.; plugs and sockets, Donovan Electric Co. Ltd.; high-tension switchgear, A. Reyrolle Ltd.; low-tension switchgear, Johnson & Phillips Ltd.; main transformers, C. A. Parsons Ltd.; service binnacles, Grierson Ltd.; telephone equipment, Reliance Telephone Co.; AD/DC rectifier equipment, Electrical Construction Co.; lighting voltage regulators, Brentford Transformers Ltd.; lighting control contractors, Igranic Ltd.; concentrating lighting fittings, Holophone Ltd.; auxiliary wiring in sub-station, Christy Brothers Ltd.; electrical installation in FTI gallery, B. French Ltd.; heating and ventilation, Z. D. Berry & Sons Ltd.; unit heaters, Carrier-Ross Engineering Co. Ltd.; trunking, Geo. E. Tupholme & Co. Ltd.; calorifiers, Royles Ltd.; valves, C. Winn & Co. Ltd.; steel tubes, Stewarts and Lloyds Ltd.; boiler-house equipment, Davey, Paxman & Co. Ltd.; pipework, Brightside Engineering Ltd.; oil fuel installations, British Combustion Engineering Co. Ltd.; automatic control equipment, Electroflo Meters Ltd.; valves, Dewrance & Co. Ltd.; lagging, Falcon Insulation Co. Ltd.; tanks, Braithwaite Ltd.; induced-draught system, Musgrave & Co. Ltd.; flame failure equipment, Radiovisor Parent Ltd.; platforms, Steelways Ltd.; fuel installation, Wayne Tank & Pump Co. Ltd.; northern ancillary buildings (sub-station, fire station, compressor house, etc.), eastern ancillary buildings (canteen, boiler house, inflammable store, etc.), Stone & Co. Ltd.

Obituary

We regret to record the death of Mr. Lionel George John Bratt, founder of Bratt Colbran, Ltd., which occurred at his home in Budleigh Salterton.

PRICES

This regular feature, prepared by Davis, Belfield and Everest, Chartered Quantity Surveyors, summarises basic prices for materials and gives labour rates for the London District and Grade Classifications outside London. Detail prices of materials are given quarterly.

BASIC MATERIALS			BASIC PRICES AND RATES OF WAGES, 1949					
			May	June	July	Aug.	Sept.	Oct.
Portland cement (6 tons and over)	per ton		60/6	60/6	60/6	60/6	62/6	62/6
Paper bags			11/-	11/-	11/-	11/-	9/-	9/-
2-in. unscreened ballast	per yd. cu.		14/5	14/5	14/5	15/5	15/5	15/5
Fletton bricks	per 1,000		85/-	85/-	85/-	85/-	85/-	85/-
Stoneware drain pipes (British Standard, 2 tons and over). Standard List +			42½%	42½%	42½%	42½%	42½%	42½%
Roofing tiles (ex works)	per 1,000		189/-	189/-	189/-	189/-	189/-	189/-
Steel joists (basic sections ex mills)	per ton		£20 3s. 6d.	£20 3s. 6d.	£20 3s. 6d.	£20 3s. 6d.	£20 3s. 6d.	£20 3s. 6d.
Grey or white hydrated lime (inc. bags)	"		89/6	89/6	89/6	89/6	89/6	89/6
Sheet lead (5 cwt.-1 ton lots)	"		£112 5s.	£99	£99	£104 15s.	£142	£124
Iron rainwater goods and soil pipes								
List 3100 A.B. +			71½%	72½%	72½%	72½%	72½%	72½%
White lead paint	per gallon		43/6	41/6	41/6	43/6	49/-	46/-
RATES OF WAGES (LONDON)—								
Within 12 miles radius								
Craftsmen	per hour		2/11½	2/11½	2/11½	2/11½	2/11½	2/11½
Labourers	"		2/4½	2/4½	2/4½	2/4½	2/4½	2/5
From 12 to 15 miles radius								
Craftsmen	"		2/11	2/11	2/11	2/11	2/11	2/11
Labourers	"		2/4	2/4	2/4	2/4	2/4	2/4½

Prices of materials above include for delivery to site in the Central London Area and the rates of wages are for London only.

Current rates of wages outside London are as follows: Liverpool and District, Craftsmen, 2/11½; Labourers, 2/5.

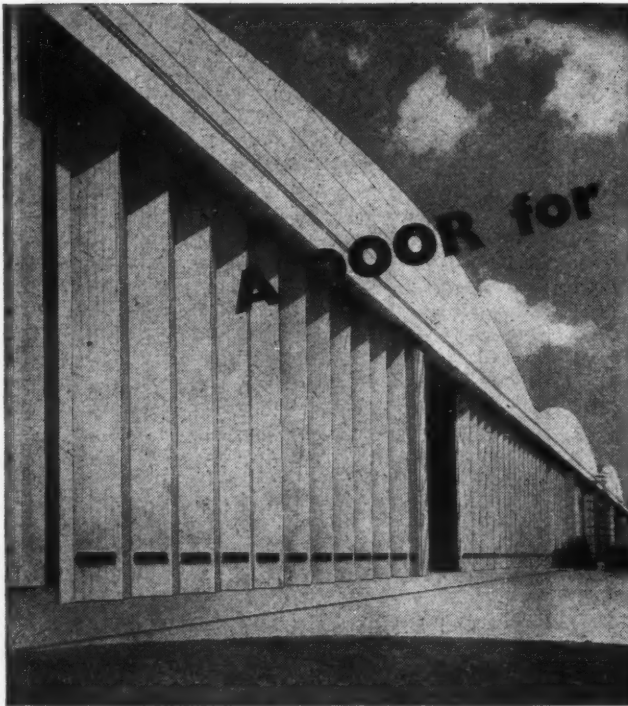
GRADE CLASSIFICATIONS

	A	A ¹	A ²	A ³
Craftsmen	2/10	2/9½	2/9	2/8½
Labourers	2/3½	2/3½	2/3	2/2½

NOTE.—Changes in Labourers' rates are effective from 3rd October, 1949.

T. Davis

F.R.I.C.S., F.I.Arb.



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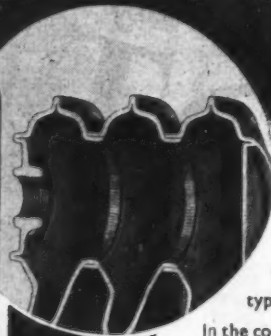
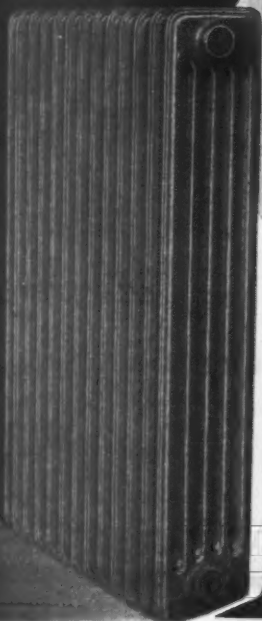
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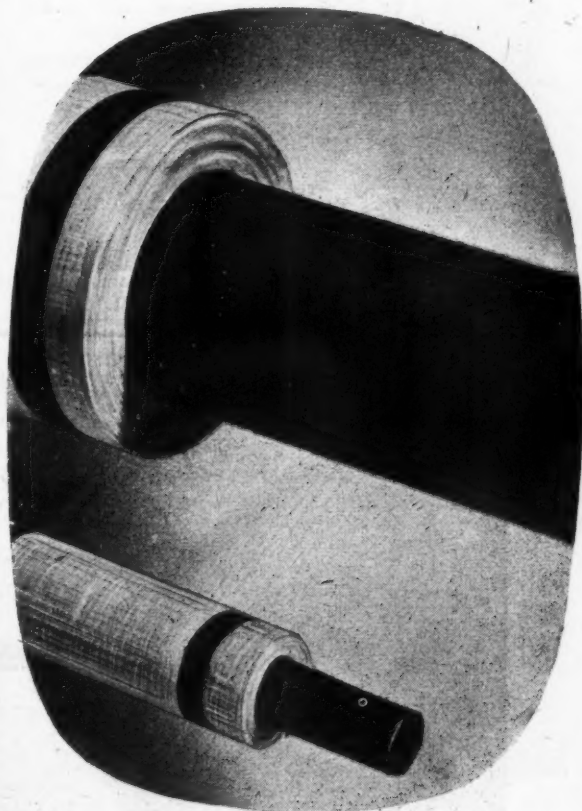
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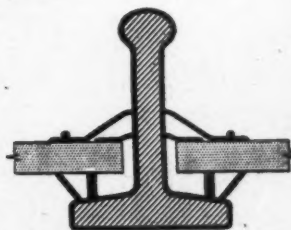
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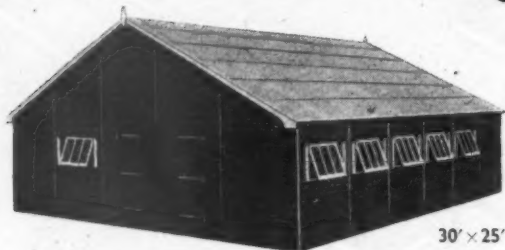
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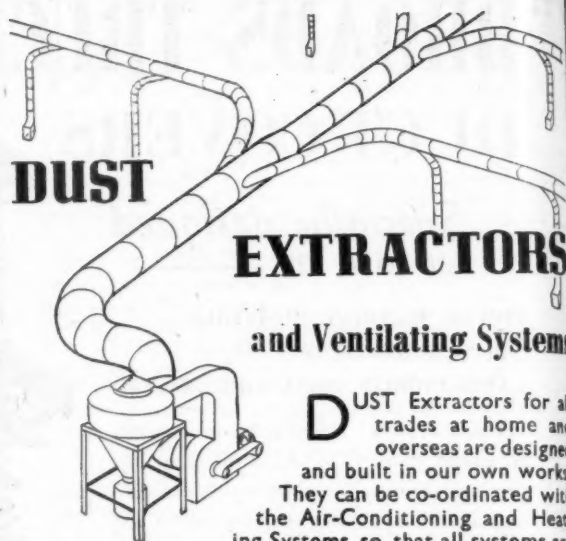
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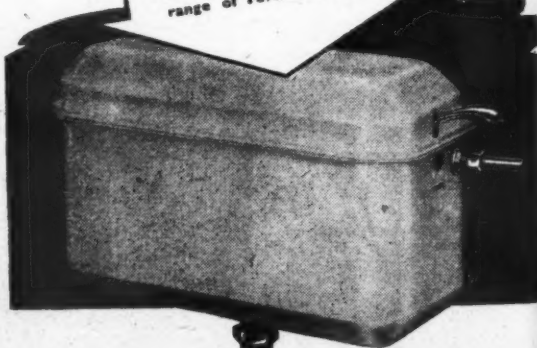
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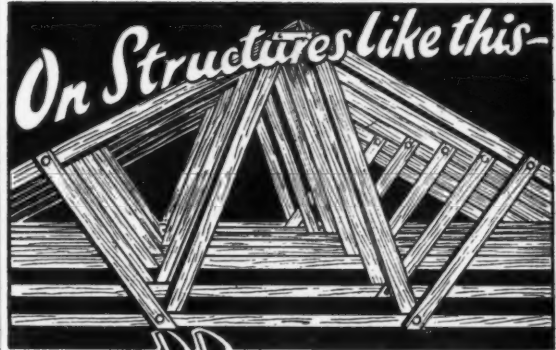


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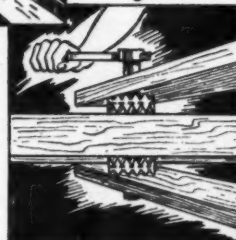
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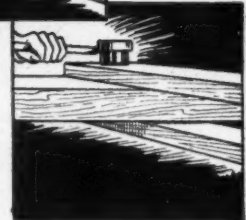
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Foreword by CLOUGH WILLIAMS-ELLIS, F.R.I.B.A.

THIS is the first comprehensive text-book to be published which gives all the practical information required by architects who are either designing a new public house or planning alterations and extensions to existing licensed premises. Mr. Yorke is a specialist with a long and varied experience in the planning and equipment of large and small public houses built on many different types of site. His text is illustrated by an extensive series of plans, each of which is included to show how particular problems were dealt with by well-known architects when designing pubs built during the years immediately preceding the last war.

The book contains 216 pages, and the illustrations include over 140 plans and diagrams, and 32 pages of exterior and interior views of recently built public houses, together with examples of equipment. Its size is 9in. by 7in., and it is bound in cloth. The illustration on the left is a reduced reproduction of the saloon bar counter at the Park Royal Hotel, Middlesex. Welch and Lander and Cachemaille-Day, architects.

Twenty-one shillings, postage ninepence
THE ARCHITECTURAL PRESS
9-13 Queen Anne's Gate, S.W.1.

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13 Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

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

Available only to applicants excepted from the Control of Engagement Order, 1947.

Public and Official Announcements

12s. per inch; each additional line, 2s.

THE INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. ADDRESS: EMPLOYMENT REGISTER, WASH PARK, WHITELEAF. Tel.: Uplands 0935. 991

LONDON COUNTY COUNCIL.

Applications are invited for unestablished positions of (i) ARCHITECT, Grade III (salaries up to £700 a year) and (ii) ARCHITECTURAL ASSISTANTS (salaries up to £580 a year), in the Housing and Valuation Department. Commencing salaries in either grade will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Act, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

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

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope required, and quote Ref. G.R.3). Canvassing disallowed. (2269) 1946

MINISTRY OF WORKS.

There are vacancies in the Chief Architect's Division for ARCHITECTURAL ASSISTANTS, with recognized 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. Similar vacancies also exist for ASSISTANTS, with specialized knowledge and experience in stonemasonry particularly in detailing and jointing of ashlar and carved stonework.

Salary: Architectural Assistants, £300-£525 per annum; Leading Architectural Assistants, £500-£625, plus overtime. Starting pay will be assessed according to age, qualifications and experience. These rates are for London; a 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.C.10, Ministry of Works, Abell House, London, S.W.1. 2065

GLOUCESTERSHIRE COUNTY COUNCIL. COUNTY ARCHITECT'S DEPARTMENT.

APPOINTMENT OF HEATING, VENTILATING AND ELECTRICAL ENGINEER. Applications are invited for the appointment of a Heating, Ventilating and Electrical Engineer, in the County Architect's Department, at a salary of A.P.T. & Grade VI (£595, rising to £660 per annum).

The appointment will be subject to the Local Government Superannuation Act, 1937, and the candidate, before appointment, will be required to pass a medical examination.

Applications, stating age, qualifications and experience, together with copies of three recent testimonials, should be sent to S. E. Urwin, Esq., F.R.I.B.A., County Architect, Shire Hall, Gloucester, not later than Wednesday, 16th November, 1949, endorsed "Appointment of Heating, Ventilating and Electrical Engineer."

GUY H. DAVIS,

Clerk of the County Council. 2556

20th October, 1949.

BLACKWELL RURAL DISTRICT COUNCIL. ARCHITECT AND HOUSING SUPER-INTENDENT'S DEPARTMENT.

ARCHITECTURAL ASSISTANT. Applications are invited for the appointment of Architectural Assistant, in the Architect and Housing Superintendent's Department, at a salary of £420 per annum, rising by annual increments of £15 to £465 (Grade A.P.T., II).

Applicants should have attended a full-time course of Architecture and have passed the R.I.B.A. Intermediate Examination or its equivalent at one of the recognized Schools of Architecture, but have had less than one year's subsequent experience in an architectural office.

Applications, stating age, experience and training, accompanied by two recent testimonials, should be sent so as to reach the undersigned not later than 21st November, 1949.

R. EVANS,

Clerk to the Council.

Dale Close, 100, Chesterfield Road South, Mansfield. 2519

COUNTY OF WARWICK. ARCHITECT'S DEPARTMENT.

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

ASSISTANT ARCHITECTS: A.P.T., VI (salary £595 to £660); A.P.T., V (salary £520 to £570); A.P.T., IV (salary £480 to £525); A.P.T., III (salary £450 to £495); A.P.T., II (salary £420 to £465).

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidates 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.C.S., County Architect, Shire Hall, Warwick.

L. EDGAR STEPHENS,

Clerk of the Council.

Shire Hall, Warwick. 2534

BRITISH ELECTRICITY AUTHORITY. EASTERN DIVISION.

Applications are invited for the following positions in the Generation Construction Department at Divisional Headquarters in North London:—

(a) ASSISTANT ARCHITECTS. Commencing salary range £636-£734, inclusive of 5 per cent. London weighting, N.J.B. Schedule, Class J, Grade 7 to 5.

(b) ARCHITECTURAL ASSISTANTS. Commencing salary range £518-£636 per annum, inclusive of 5 per cent. London weighting, N.J.B. Schedule, Class J, Grade 8B to 7.

Applicants should have had experience in the design and alteration of industrial buildings. Initial salaries will be in accordance with previous experience and qualifications.

The salaries are in accordance with the scales at present operating, but may be subject to negotiation through the medium of the Joint Board.

The appointments will be superannuable in accordance with the British Electricity Authority and Area Boards Superannuation Scheme.

Applications, stating age, experience, and present position, and endorsed with the appointment sought, should be submitted to arrive not later than 14th November, 1949, to the Divisional Controller, British Electricity Authority, Eastern Division, Northmet House, Southgate, N.14.

W. N. C. CLINCH,

Controller.

Northmet House, Southgate, N.14. 2518

COUNTY BOROUGH OF CARLISLE. APPOINTMENT OF AN ASSISTANT TOWN PLANNING OFFICER (GRADE A.P.T., VII).

Applications are invited for the above appointment on the permanent staff of the City Engineer and Surveyor and Planning Officer, at a consolidated salary of £235, rising by annual increments of £25 to £310 per annum.

Applicants should be Corporate Members by examination of the Royal Institute of British Architects, or the Institutions of Civil or Municipal Engineers, and preference will be given to applicants who are also Corporate Members of the Town Planning Institute, and who have had previous Town Planning experience.

The appointment offers considerable scope for the successful applicant to gain experience in the preparation of the Development Plan, layout of Neighbourhood Units which are to be proceeded with almost immediately, re-development of small areas in central area, the control of development, etc.

The Council will, if required, allocate the successful applicant a Corporation house.

Application forms may be obtained from the City Engineer, 13, Fisher Street, Carlisle, and completed forms should be returned to me not later than Monday, 14th November, 1949.

H. D. A. ROBERTSON,

Town Clerk.

Town Clerk's Office, Fisher Street, Carlisle. 2510

CITY OF PETERBOROUGH. CITY ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF ASSISTANT QUANTITY SURVEYOR.

Applications are invited for the appointment of Assistant Quantity Surveyor, A.P.T., Grade IV (£480-£525 per annum).

Applicants should be students of the Royal Institution of Chartered Surveyors and should be capable of abstracting, billing, site measurement, taking off quantities for small works, and settlement of final accounts.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination. Applications, stating age, qualifications and experience, accompanied by copies of not more than three recent testimonials and suitably endorsed, must be delivered to the undersigned not later than 18th November, 1949.

Candidates should state whether they are related to any member or senior officer of the Council. Canvassing, either directly or indirectly, will disqualify.

Housing accommodation is not immediately available, but the Council will, if necessary, assist so far as they are able, the successful applicant to obtain accommodation, but it must be distinctly understood that the Council do not guarantee to find either a house or living accommodation.

ARTHUR J. REEVES,

Town Hall, Peterborough.

Town Clerk.

October, 1949. 2574

COUNTY BOROUGH OF SUNDERLAND. BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the new appointments mentioned below on the Staff of the Borough Architect's Department:—

(1) SENIOR ARCHITECT. A.P.T., Grade IX (£750-£900).

Candidates for this position must have had current experience in the design of Schools of all categories, and preference will be given to those who have specialised in this class of work.

(2) SENIOR ARCHITECT. A.P.T., Grade IX (£750-£900).

Candidates for this position must have had a wide and varied experience in design, and preference will be given to those who qualified with distinction at a recognized School of Architecture and whose work shows imagination and originality.

(3) SENIOR ARCHITECT. A.P.T., Grade IX (£750-£900).

Candidates for this position must have had wide experience in the design of estate layouts and houses, and must have had considerable experience in the Site administration of large housing projects and of the contractual work involved.

(Candidates for each of the above-mentioned posts must be Associates of the R.I.B.A., or hold equivalent qualifications, and experience in the service of a Local Authority is preferable but not essential.)

(4) QUANTITY SURVEYOR. A.P.T., Grade IX (£750-£900).

Candidates for this position should be Members of the R.I.C.S., and must be experienced in the administration and organisation of a Quantity Surveyor's office and be able to prepare Bills of Materials of all scale, working drawings and preliminary details for work such as Schools, Public Buildings, etc., prepare detailed approximate estimates, make valuations and measure for interim payments, prepare statements of and settle final accounts, negotiate variations, etc.

(5) CHIEF CLERK. A.P.T., Grade V (£520-£570).

Candidates for this position must be capable of co-ordinating and administering the whole of the clerical, costing, statistical and other routine work of an Architect's Department in a Local Authority, and preference will be given to applicants with previous similar experience.

All appointments are permanent, and are subject to the Scheme of Conditions of Service of the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services, and to the provisions of the Local Government Superannuation Act, 1937. They are subject also to two months' notice in respect of appointments 1, 2, 3 and 4, and one month in respect of appointment 5, on either side, given from the first day of any month.

Successful candidates will be required to pass a medical examination.

Forms of application may be obtained from Mr. Harvey C. Bishop, A.R.I.B.A., Borough Architect, Grange House, Stockton Road, Sunderland, and applicants should state clearly for which post they are applying.

Applications, endorsed with the name of the particular post applied for, should be sent to the undersigned not later than Thursday, 17th November, 1949.

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

G. S. McINTIRE,

Town Clerk.

2538

CITY OF COVENTRY ARCHITECTURAL DEPARTMENT.

The City Architect, Mr. Donald Gibson, invites applications for his permanent staff from persons interested in contemporary architecture, to work on schools, housing, central redevelopment, etc.

There are vacancies on the Establishment of the Department on A.P.T. Grades up to a maximum of Grade A.P.T., VII. The present vacancies are for:—

ARCHITECTS, Grades V to VII;

ARCHITECTURAL ASSISTANTS, Grades II to IV;

ASSISTANT QUANTITY SURVEYORS, Grades II to VII, and an

ASSISTANT HEATING ENGINEER, Grade III.

Will interested persons kindly apply to the City Architect for a copy of the usual form of application.

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

City Architectural Department,

1A, Warwick Row, Coventry.

2550

B.B.C. invites applications for a qualified ARCHITECT'S post in the Building Department. The work will be mainly connected with the practical application of acoustic principles to the design of studios. The successful candidate will be required to work in close co-operation with the Research Department. Preference will be given to candidates with a sound knowledge of physics, with particular emphasis on acoustics.

A knowledge and appreciation of music is essential. Salary and grade will depend on qualifications, experience, and age. Applications must be made on the prescribed form, which can be obtained from Engineering Establishment Officer, B.B.C., Broadcasting House, W.1. For reply please enclose stamped addressed envelope. Completed application forms must be returned within 14 days of the appearance of this insertion. 2572

**COUNTY BOROUGH OF DARLINGTON.
BOROUGH ARCHITECT'S DEPARTMENT.**

Applications are invited for the following permanent appointments:—

(a) ASSISTANT QUANTITY SURVEYOR. Salary, Grade VII (£635-£710).

(b) ASSISTANT ARCHITECT. Salary, Grade Va (£550-£610).

Candidates for (a) should be experienced in the preparation of Bills of Quantities, the checking of Interim Valuations, and the settling up of Final Accounts. Preference will be given to Members of the Royal Institute of Chartered Surveyors (Quantities Division). The successful candidate will be principally employed upon the preparation of Bills of Quantities for large educational buildings.

Candidates for (b) should preferably have previous experience on Education and Housing work and be Members of the R.I.B.A.

The Corporation will endeavour to make flats available to the successful candidates, if required.

Applications, specifying the appointment (a) or (b), together with age, qualifications, present appointment with salary, previous appointments with dates, and names and addresses of three referees, to be sent to E. A. Tornbohm, A.R.I.B.A., A.M.T.P.I., Borough Architect, Central Buildings, Darlington, not later than Monday, the 14th November, 1949.

H. HOPKINS.

Town Clerk.
2539

**LONDON COUNTY COUNCIL.
VACANCIES FOR ARCHITECTS, GRADE III,
AND TECHNICAL ASSISTANTS IN THE
ARCHITECT'S DEPARTMENT.**

Applications are invited for the following vacancies in the Architect's Department:—

A ARCHITECT, GRADE III. Salary £560 to £700 a year. Section (a).

TECHNICAL ASSISTANTS. Salary £440 to £600 a year. Section (a).

TECHNICAL ASSISTANTS. Up to 167s. 6d. a week. Section (b).

Required for the preparation of schemes, working drawings, specifications and estimates for works at schools and other buildings.

Commencing rate according to qualifications and experience. Successful candidates are required to contribute to the Council's Superannuation and Provident Fund and are subsequently eligible for permanent appointment and for advancement to higher positions according to merit. Candidates for Grade III positions should possess appropriate professional qualifications.

Application forms may be obtained from the Architect to the Council (AR/P/A), County Hall, Westminster Bridge, London, S.E.1, enclosing stamped addressed foolscap envelopes. Canvassing disqualifies. (992).

CANNOCK RURAL DISTRICT COUNCIL.

APPOINTMENT OF ARCHITECT.

Applications are invited for the appointment of Architect, at a salary in accordance with Grade A.P.T. V (£520-£570), of the National Scales. Candidates must be Associate Members of the Royal Institute of British Architects or hold other satisfactory technical qualifications, and be thoroughly experienced in the architectural work for the erection of houses by Local Authorities.

Applications, giving details of age, experience and qualifications, and accompanied by copies of three recent testimonials, must be received by the undersigned not later than Friday, the 18th November, 1949.

The post will be subject to the provisions of the Local Government Superannuation Act, 1937, and to one month's notice on either side at any time.

Canvassing will be deemed a disqualification, and candidates must disclose any relationship to members or chief officers of the above Council.

JOHN P. ROBERTS.

Clerk to the Council.

Council Offices, Penkridge, Stafford.

1st November, 1949.

2604

**CITY OF MANCHESTER EDUCATION
COMMITTEE.
EXTENSION TO THE MUNICIPAL COLLEGE
OF TECHNOLOGY.
CLERK OF WORKS.**

Applications are invited for the position of Clerk of Works, to supervise, under the direction of the Architects, Messrs. Bradshaw, Gass & Hope, F.F.R.I.B.A., the erection of extensions to the Municipal College of Technology, Whitworth Street, Manchester, which have already been partly completed. The remaining work is expected to occupy about four years.

The building will be of steel frame and fire-proof construction throughout, and faced with brickwork with terra cotta dressings.

Previous experience as Clerk of Works on important buildings is essential.

Salary £14 per week. After six months' service the holder of the post will be subject to the provisions of the Manchester Corporation Superannuation Acts.

Applications, which should state age and full particulars of previous experience, and should be accompanied by copies of not more than three testimonials of recent date, must be endorsed "Clerk of Works, Extensions to the Municipal College of Technology," and should be received by the Chief Education Officer, Deansgate, Manchester, 3, not later than 21st November, 1949.

Canvassing, either directly or indirectly, will disqualify.

2581

**WEST AFRICAN BUILDING RESEARCH
ORGANIZATION.**

VACANCY FOR DIRECTOR.

Applications are invited for the post of Director of the above Organization, which is to be established to serve the needs of the four British West African territories (Nigeria, Gold Coast, Sierra Leone and the Gambia). The Organization, which will cover all fields of building research, will probably have its Headquarters in the Takoradi area, Gold Coast, and its scope will, in the first instance, be confined to building questions (as opposed to engineering).

(2) The first duty of the Director, on appointment, will be to draw up, in consultation with the four Governments, a scheme for the establishment and future work of the Organization, including estimates on which future expenditure will be based.

(3) Candidates, who must hold a good honours degree in science or civil engineering, or equivalent qualifications, must possess considerable experience in research and have held a post which would qualify them to initiate, direct and supervise investigations into building problems with which the Organization will be called upon to deal.

(4) The appointment will, in the first instance, be on agreement for three years (two tours of 18 months each, including leave). Salary £1,200 per annum, plus expatriation allowance of £400 per annum. Income tax is payable at low West African rates. If Government quarters are provided a rental of £150 per annum would be charged. When the Colonial Research Service is established, absorption into that Service may be offered. Free first-class passages provided for successful applicant and wife on appointment and on leave. Leave in accordance with local regulations. Outfit allowance payable on first appointment. Existing F.S.S.U. policies will be maintained (if possible) on usual basis; otherwise a gratuity equal to 15 per cent. of basic salary drawn will be payable on satisfactory completion of contract.

(5) Forms of application obtainable from Under-Secretary of State, Colonial Office (Research Department), Sanctuary Buildings, Great Smith Street, London, S.W.1.

2603

CITY OF CARDIFF.

ARCHITECTURAL ASSISTANTS (GENERAL).

Applications are invited from experienced Architectural Assistants for the following appointments:—

(a) ARCHITECTURAL ASSISTANT, A.P.T., Grade VI. Salary £596 per annum, rising by two annual increments of £20 and one of £25 to a maximum of £660 per annum.

(b) ARCHITECTURAL ASSISTANT, A.P.T., Grade V. Salary £520 per annum, rising by two annual increments of £15 and one of £20 to a maximum of £570 per annum.

The Council will assist in finding housing accommodation for successful applicants who are married and have children.

Details of the Conditions and Duties may be obtained from the City Surveyor, City Hall, Cardiff.

Applications, endorsed "Architectural Assistant, Grade — (General)," as the case may be, accompanied by the names and addresses of three persons to whom reference can be made, should be delivered to the undersigned not later than 10 a.m., Monday, the 21st November, 1949.

S. TAPPER-JONES.

Town Clerk.

The City Hall, Cardiff.

21st October, 1949.

2583

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

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT, at a salary on the General Division or A.P.T. I, scale, according to experience.

i.e., General Division, £220 per annum at age 21, rising to £385 per annum at age 32 (for males), and £178 per annum at age 21, rising to £306 per annum at age 32 (for females).

A.P.T. I, £390, rising to £435 per annum. The appropriate London weighting will be paid in addition to the above salaries.

Terms and conditions of the appointment and form of application may be obtained from the Borough Architect, Town Hall, Barking, and must be received by the undersigned not later than Tuesday, 22nd November, 1949.

E. R. FARR.

Town Clerk.

Town Hall, Barking.

2580

**METROPOLITAN BOROUGH OF
WANDSWORTH.**

ARCHITECTURAL ASSISTANT.

Applications are invited for the Established appointment of Architectural Assistant, in the Borough Architect's Department, at a salary in accordance with Grade A.P.T. IV, viz., £210-£555 per annum inclusive.

Candidates should have had good professional training and experience in housing design and general architectural work. Preference will be given to candidates who have passed an examination of the Royal Institute of British Architects.

Forms of application may be obtained from the Borough Architect, and must be returned to the undersigned not later than 28th November, 1949.

R. H. JERMAN.

Town Clerk.

Municipal Buildings, Wandsworth, S.W.18.

2nd November, 1949.

2547

**COUNTY COUNCIL OF THE WEST RIDING
OF YORKSHIRE.**

COUNTY PLANNING DEPARTMENT.

Applications are invited for the following permanent appointments to the Staff of the County Planning Department, the salary in each case being within the scale applicable to the post, according to the experience and qualifications of the successful candidates:—

(a) CHIEF PLANNING ASSISTANTS (TWO). Salary scale £685×£25-£750 per annum.

(b) SENIOR PLANNING ASSISTANTS (FOUR). Salary scale £595×£25-£710 per annum.

(c) PLANNING ASSISTANTS (TWO). Salary scale £450×£20-£570 per annum.

(d) JUNIOR PLANNING ASSISTANTS (SEVEN). Salary scale £390×£15-£465 per annum.

The successful candidates for appointment (a) will be attached to the Headquarters of the Department at Wakefield. Applicants should have had experience in Town and Country Planning and possess a knowledge of current planning practice and legislation or of associated subjects. They should be Corporate Members of the Town Planning Institute and/or possess a recognized qualification in Civil Engineering, Surveying, or Architecture.

Applicants for appointments (b) should be Corporate Members of the Town Planning Institute or possess a recognized qualification in Civil Engineering, Surveying, or Architecture, and have considerable experience in a planning or associated office. Successful candidates will be designed for duty at the Skipton, Huddersfield, Pontefract and Barnsley Area Offices, and applicants may express a preference for any of those offices.

Applicants for appointments (c) should have received training in Town Planning and have had previous planning experience. They should preferably be Corporate Members of one of the appropriate Institutions of the professions of Town Planning, Civil Engineering, Surveying, or Architecture. Preference may be expressed for either of the two vacancies, which are at Headquarters and at the Harrogate Area Office.

One of the appointments (d) will be to the Research Section of Headquarters, and applicants should have had experience in the collection and presentation of statistics and data required for town and country planning. A University degree in Economics or Geography is desirable, and a knowledge of the general work of a planning department will be an advantage. Applicants for the remaining appointments in this grade, which are to the Staffs of the Skipton, Huddersfield, Pontefract, Barnsley and Doncaster Area Offices, should have passed the Intermediate Examination of one of the recognized Professional Institutions, and have had training in Engineering, Surveying or Architecture. Preference will be given to candidates having a knowledge of Town and Country Planning.

All the appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, as amended by the West Riding County Council (General Powers Act, 1948), and successful applicants will be required to pass a medical examination.

Applications, stating age, qualifications and experience, and accompanied by copies of two recent testimonials, should be received by the undersigned not later than 26th November, 1949.

ARTHUR BATES.

County Planning Officer.

County Planning Office, 7, Bond Street,

Wakefield.

2600

CORPORATION OF LONDON.

CLERK OF WORKS required for War Damage repairs and general rehabilitation of the main towers of Tower Bridge, London. Salary offered is £12 per week. Applications should be forwarded to George Holliday, F.R.I.C.S., City Surveyor, Corporation of London, 55-61, Moorgate, London, E.C.2.

2591

**ESSEX EDUCATION COMMITTEE.
SOUTH-WEST ESSEX TECHNICAL COLLEGE
AND SCHOOL OF ART, FOREST ROAD,
WALTHAMSTOW, E.17.**

Required permanent full-time STUDIO MASTER AND LECTURER IN ARCHITECTURE. The post is one of special responsibility in the Department of Architecture and Building, primarily for assisting full-time day and evening courses for the Intermediate and Final Examinations of the Royal Institute of British Architects. Previous teaching experience is not essential, but the candidate should be experienced in contemporary design. Ability to take classes in "Colour" will be an advantage.

Salary scale: £300×£15-£555, plus London allowance £36 or £48, according to age, plus allowances up to £45 for recognized full-time training and £39 for graduate qualifications. In fixing the basic salary, up to twelve increments may be allowed for suitable professional and industrial experience. In addition the allowance in respect of special responsibility may be up to £150 per annum.

Applications (no forms), giving full particulars of training, qualifications, and experience, should be submitted to the Clerk of the Governors, at the College, within two weeks of the appearance of this advertisement.

D. N. BUNGEY.

Acting Chief Education Officer.

County Offices, Chelmsford.

2590

CHESHIRE COUNTY COUNCIL. COUNTY PLANNING DEPARTMENT. APPOINTMENT OF PLANNING STAFF.

Applications are invited for the following appointments, which are on the permanent establishment of my department.

The posts are subject to the Local Government Superannuation Act, 1937, and the successful applicants will be required to act under the direction of the County Planning Officer and, in the case of area appointments, under the direction of the Area Planning Officer in the preparation of a development plan for the Town and Country Planning Act, 1947.

The successful applicants will be stationed at Chester or Stockport, and applications should indicate the applicant's preference:—

(a) SENIOR PLANNING ASSISTANT. Salary A.P.T. V-VI (£520-£660).

Applicants for this position should be Corporate Members of the Town Planning Institute. They must have had considerable experience in all aspects of statutory planning, development control and planning procedure.

(b) PLANNING ASSISTANT. Salary A.P.T. III-IV (£460-£525).

Applicants for this position should have obtained the Intermediate Examination (or equivalent) of one of the recognized professional institutes, and preference will be given to candidates who are experienced in Town and Country Planning. In the case of the Headquarters (Chester) appointment, training in architecture will be an advantage.

The commencing salary for appointment (a) will be £520 p.a. and for appointment (b) £460 p.a.

Forms of application, together with details of the duties and conditions attaching to the appointments, may be obtained from me on receipt of a stamped and addressed foolscap envelope.

The last date for the receipt of completed applications is Wednesday, the 30th November, 1949.

KENNETH O. MALE,
County Planning Officer.

Bridgegate House,
Lower Bridge Street, Chester. 2539

GLAMORGAN COUNTY COUNCIL.

Applications are invited for the following appointments on the Permanent Establishment of the County Architect's Department:—

(a) PRINCIPAL QUANTITY SURVEYOR. Commencing salary £810, rising by annual increments of £25 to a maximum of £910 per annum.

(b) SENIOR ASSISTANT QUANTITY SURVEYOR. A.P. and T. Grade VIII (£685-£760).

(c) ASSISTANT QUANTITY SURVEYOR. A.P. and T. Grade VI (£595-£660).

(d) ASSISTANT QUANTITY SURVEYORS. A.P. and T. Grade IV (£480-£525).

(e) ASSISTANT ARCHITECTS. A.P. and T. Grade VI (£595-£660).

(f) ASSISTANT ARCHITECTS. A.P. and T. Grade V (£520-£570).

(g) ASSISTANT ARCHITECTS. A.P. and T. Grade IV (£480-£525).

(h) ESTIMATING ASSISTANT. A.P. and T. Grade VI (£595-£660).

Application forms, together with particulars of all the above-mentioned appointments, and conditions of service, may be obtained direct from L. R. Gower, F.R.I.B.A., County Architect, County Hall, Cardiff, to whom applications must be returned in sealed envelopes appropriately endorsed, not later than Saturday, 19th November, 1949.

Canvassing, either directly or indirectly, will disqualify.

Officers maintaining a home elsewhere, who are unable to obtain suitable accommodation, may be granted a lodging allowance of £75 per annum for a period not exceeding six months.

D. J. PARRY,
Clerk of the County Council.

Glamorgan County Hall, Cardiff. 2536

GLAMORGAN COUNTY COUNCIL.

COUNTY PLANNING DEPARTMENT.

Applications are invited for the appointment of two GENERAL PLANNING ASSISTANTS, to be stationed at Cardiff and Neath respectively, at a salary in accordance with A.P.T., Grade IV (£480-£525 per annum).

Applicants must be University graduates or have completed indentured articles or recognized training with a Civil Engineer or Chartered Surveyor, and must have passed the Final Examination of the Institution of Civil Engineers, Institution of Municipal Engineers, the Institution of Chartered Surveyors, or the Town Planning Institution. Applicants who have passed the Intermediate Examination only of these bodies will also be considered, but the salary payable in such cases will not exceed A.P.T., Grade III (£460-£495 per annum).

The appointments are permanent and subject to the National Scheme of Conditions of Service, to the staffing conditions of the County Council from time to time in force, and to the provisions of the Local Government Superannuation Act, 1937. The successful candidates will be required to pass a medical examination.

Applications, stating age, training, qualifications, experience, and present salary, and accompanied by one testimonial, should be sent to the County Planning Officer, Mr. E. John Powell, M.I.C.E., at this address, and received not later than 21st November, 1949.

A. CLIFFORD WALTER,
Deputy Clerk of the County Council.

Glamorgan County Hall, Cardiff. 2535

HUYTON-WITH-ROBY URBAN DISTRICT COUNCIL.

Applications are invited for the following permanent appointments in the Engineer and Surveyor's Department:—

(a) QUANTITY SURVEYOR (A.P.T. Division, Grade II).

(b) GENERAL ENGINEERING ASSISTANT (A.P.T. Division, Grade III).

Applicants should be Graduate Assistants with an engineering degree, with at least one or more years' practical experience in a Municipal Engineer's office, or should have completed professional training and have passed the Intermediate or equivalent examination of the appropriate professional body. A knowledge of reinforced concrete design and structural steel work will be an advantage.

(c) JUNIOR ARCHITECTURAL ASSISTANT (A.P.T. Division, Grade I).

Applicants should have served their articles, or be probationers of the R.I.B.A., and have had experience of housing design. Preference will be given to applicants with Municipal experience.

(d) JUNIOR ENGINEERING ASSISTANT (A.P.T. Division, Grade I).

Applicants should be Graduate Assistants with an engineering degree, or Junior Assistants who have completed their articles or pupillage.

The appointments will be subject to:—

(1) The National Scheme of Conditions of Service;

(2) the provisions of the Local Government Superannuation Act, 1937;

(3) the passing satisfactorily of a medical examination; and

(4) one month's written notice on either side.

Housing accommodation, if required, will be available to the successful applicants for posts (a) and (b).

The salary grades referred to are as follows:—

Grade 1, £390-£435 per annum.

Grade 2, £420-£465 per annum.

Grade 3, £450-£495 per annum.

Grade 4, £480-£525 per annum.

Applications, stating age, whether married or single, qualifications, and experience, and accompanied by the name and addresses of two referees, must be received by me not later than the 23rd November, 1949. Canvassing will disqualify.

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

Council Offices, Huyton. 2535

METROPOLITAN BOROUGH OF FULHAM. HOUSING AND PUBLIC BUILDINGS DEPARTMENT.

Applications are invited for appointments in the Architectural and Quantity Surveying Sections.

(a) PRINCIPAL ASSISTANT ARCHITECT. A.P.T. Grade VII (£665-£725-£740 per annum, including London weighting).

(b) SENIOR ASSISTANT ARCHITECT. A.P.T. Grade VI (£625-£680 (2)-£725 (1)-£690 per annum, including London weighting).

(c) ASSISTANT QUANTITY SURVEYOR. A.P.T. Grade VII.

(d) ASSISTANT QUANTITY SURVEYOR. A.P.T. Grade VI.

Applicants for posts (a) and (b) should be Registered Architects, experienced in the design and erection of large schemes of flats. For (c) and (d) they must be experienced in "taking off," preferably for similar schemes.

Applications, on forms obtainable from me, should be returned with copies of not more than three testimonials not later than 21st November, 1949.

CYRIL F. THATCHER,
Town Clerk.

Town Hall, Fulham, S.W.6. 2534

CORPORATION OF THE CITY OF LONDON.

Applications are invited for the following vacancies in the City Planning Office:—

1ST CLASS PLANNING ASSISTANT, at a salary of £600 by £25 to £750. Applicants should be A.R.I.B.A. or A.M.T.P.I., and should have had experience in the detailed planning of central areas. A sensitive design ability and experience in the control of external appearance of buildings will be an advantage.

3RD CLASS PLANNING ASSISTANT, at a salary of £400 by £25 to £625.

JUNIOR PLANNING ASSISTANT, at a salary according to age, with a minimum of £125 for age 15, plus £30 for each additional year of age up to seven and thereafter, plus £20 for each further additional year with a maximum of £475.

Applicants for these two posts should have experience in draughtsmanship and colouring. The successful applicants will be required for general drawing office duties, with particular reference to assistance in making planning surveys and the preparation and colouring of maps.

The successful applicants will be required to pass a medical examination, to contribute to the Corporation's Superannuation Scheme, and to comply with the Corporation's Conditions of Service.

Applications, giving details of age, experience and qualifications, accompanied by copies of three recent testimonials, are to be submitted not later than the 18th November, to the City Planning Officer, Corporation of London, 55/61, Moorgate, E.C.2.

PICKFORD.

2530

BIRMINGHAM REGIONAL HOSPITAL BOARD.

Applications are invited for the appointment of JUNIOR ENGINEERING ASSISTANT. Salary scale A.P.T. I or II (£390 to £465), according to experience and qualifications.

Applicants should have experience in the preparation of plans, design and calculations for Heating, Hot Water Supply and Steam Installations. Preference will be given to candidates who have passed or are preparing for the A.M.I.H. and V.E. examination or its equivalent. The appointment is subject to the National Health Service (Superannuation) Regulations, 1947-1949, and is terminable by one month's notice by either side.

Applications, stating age, qualifications, experience, and present appointment, together with the names of two referees, should be submitted to the Secretary, Birmingham Regional Hospital Board, 10, Augustus Road, Edgbaston, Birmingham, 15, not later than ten days after the publication of this advertisement. 2602

METROPOLITAN WATER BOARD.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

The Metropolitan Water Board invite applications for the position of Architectural Assistant, in the Surveyor's department, at a salary not exceeding £560 per annum, plus a cost-of-living bonus at the rate of £80 per annum. The appointment in the first instance will be temporary. The commencing salary will be determined by the successful candidate's age and experience.

Candidates should be experienced in the preparation of working and detail drawings, specifications and quantities for houses and offices. The appointment will be terminable by one month's notice in writing on either side and will be subject to the Board's conditions of service for the time being in force. The provision of housing accommodation will be considered in the case of a provincial applicant.

Applications, stating candidate's age, present position and salary and qualifications with full particulars of experience, must be delivered to the undersigned, endorsed "Architectural Assistant," not later than 10 a.m. on 2nd December, 1949.

Canvassing, directly or indirectly, will be held to be a disqualification, and candidates should state in their applications whether, in their knowledge, they are related to any member of, or the holder of any office under the Board.

C. W. STOKER,
Clerk of the Board.

Offices of the Board, New River Head, Rosebery Avenue, London, E.C.1. 2549

COUNTY OF WARWICK.

ARCHITECT'S DEPARTMENT.

JUNIOR QUANTITY SURVEYING ASSISTANT (A.P.T. I).

Applications are invited for the above-mentioned post, salary £390-£415 to £435 per annum. The duties would include assisting in preparation and checking of schedules of increased costs of labour and materials, and working up approximate estimates and final accounts.

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

Application forms can be obtained from C. H. Elkins, F.R.I.B.A., A.R.I.C.S., County Architect, Shire Hall, Warwick, within 14 days of the appearance of this advertisement.

L. EDGAR STEPHENS,
Clerk of the Council.

Shire Hall, Warwick. 2599

NOTTINGHAMSHIRE COUNTY COUNCIL.

COUNTY PLANNING DEPARTMENT.

Applications are invited for the following appointments, namely:—

DEVELOPMENT CONTROL SECTION: (a) TWO SENIOR PLANNING ASSISTANTS—one at Nottingham, one at Mansfield Area Office. Salary £595 to £660 per annum. Applicants should have had considerable experience in the control of development and the general administrative work connected with a Local Authority Planning Office. The successful candidates will each be required to provide a motor car for which an allowance will be payable.

(b) PLANNING ASSISTANT—at Nottingham Office. Salary £520 to £570 per annum. Applicants should have had experience in the control of development and the preparation of planning proposals for Urban and Rural areas and the design and layout of housing estates.

(c) SURVEY AND DEVELOPMENT PLAN SECTION—PLANNING ASSISTANT at Nottingham Office. Salary £520 to £570 per annum. Applicants should have had experience in the execution of Factual Surveys, design and layout and work required in connection with the preparation of a County Development Plan.

Applicants for the above posts should hold the qualification of Corporate Member of the Town Planning Institute. An additional qualification in engineering, surveying or architecture would be an advantage.

Further particulars are obtainable from the County Director of Planning, Shire Hall, Nottingham, by whom completed applications must be received not later than 18th November, 1949.

K. TWEEDALE MEABY,
Clerk of the County Council.

2597

**COUNTY BOROUGH OF SWANSEA.
BOROUGH ARCHITECT'S DEPARTMENT.**

Applications are invited for the established staff appointment of:—

BUILDING WORKS MANAGER.
to take charge, under the Borough Architect, of all Direct Labour building, at a salary of £685 per annum, rising to £760 per annum.

Candidates must be under 45 years of age, unless in Local Government Service. The appointment will be subject to the Local Government Superannuation Act, 1937, and to medical examination.

A statement of the duties and a Form of Application may be obtained from the Borough Architect, Guildhall, Swansea, and must be returned to the undersigned by the 28th November, 1949.

T. B. BOWEN,
Town Clerk.

Guildhall, Swansea.
3rd November, 1949. 2543

**COUNTY OF LINCOLN—PARTS OF
KESTEVEN.
APPOINTMENT OF CLERK OF WORKS—
SMALL HOLDINGS.**

Applications are invited for the above appointment in the County Land Agent's Department.

Applicants must have a thorough knowledge of all building trades, and experience in the maintenance and repair of farm buildings, preparation of schedules, estimates, etc.

Salary will be in accordance with A.P.T. Division, Grade II, of the National Scales, i.e., £420, rising by annual increments of £15 to a maximum of £465 per annum. Commencing salary will be in accordance with experience. Car and subsistence allowances will be paid on the National Scales.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, to a satisfactory medical certificate, and to one month's notice in writing on either side.

Applications, giving full details of age, experience, qualifications, with the names and addresses of two referees, should reach the undersigned not later than the 26th November, 1949.

J. E. BLOW,
Clerk of the County Council.

County Offices, Sleaford, Lincs.
2nd November, 1949. 2544

**WEST SUFFOLK COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.**

Applications are invited for the following appointments in the County Architect's Department. Salaries as indicated in accordance with the National Joint Council Salary Scales, position on scales according to qualifications and experience, viz.:

- (a) QUANTITY SURVEYOR. A.P.T., Grade VI-VII (£565-£710).
- (b) ASSISTANT ARCHITECT. A.P.T., Grade VI (£595-£660).
- (c) ASSISTANT ARCHITECT. A.P.T., Grade V-Va (£520-£610).

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

Candidates in respect of appointments (b) and (c) should have a sound knowledge of architectural design and construction, be quick and accurate draughtsmen, capable of preparing sketch plans, working drawings and specifications in respect of new school, police, health and other building work normally undertaken by a Local Authority.

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

Forms of application may be obtained from the undersigned, by whom applications, together with the names of two referees, should be received not later than 14 days after the date of this advertisement.

L. G. H. MUNSEY,
Clerk of the County Council.

Shire Hall, Bury St. Edmunds.
28th October, 1949. 2591

COUNTY BOROUGH OF BURY.

Applications are invited for the under-mentioned appointments in the Borough Engineer's Department:—

THREE ARCHITECTURAL ASSISTANTS, at salaries up to A.P.T., V (£520-£570), according to qualifications and experience.

QUANTITY SURVEYOR, at a salary up to A.P.T., V (£520-£570), according to qualifications and experience.

The appointments are subject to the Local Government Superannuation Act, 1937, and medical examination.

Applications, stating age, details of training, qualifications and experience, together with copies of two recent testimonials, must be forwarded to me not later than the 16th November, 1949.

EDWARD S. SMITH,
Town Clerk.

Municipal Offices, Bank Street, Bury.
27th October, 1949. 2590

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

Applications are invited for the appointment of an ASSISTANT ARCHITECT, Grade VI at a commencing salary of £595, rising by annual increments of £20/£25 to a maximum of £660 per annum, plus London allowance of £30 per annum.

Applicants must be Associate Members of the Royal Institute of British Architects.

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

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-upon-Thames, not later than the 26th November, 1949.

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. 2546

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

Applications are invited for the appointment of CLERKS OF WORKS, at a salary of £8 8s. per week, to supervise the erection of School buildings in the Wellington and Bridgnorth/Much Wenlock districts. The appointments will be temporary but, in the first instance, will be for a minimum period of eighteen months with a possibility of extension.

Candidates must have had practical experience of building work, and preference will be given to those who have supervised the erection of new schools or other public buildings.

The appointments will be subject for their termination to one month's notice in writing on either side.

Forms of application may be obtained from Mr. A. G. Chant, F.R.I.B.A., County Architect, Column House, London Road, Shrewsbury, to whom they must be returned accompanied by copies of two recent testimonials not later than Tuesday, 22nd November, 1949.

G. C. GODBER,
Clerk of the Council.

Shirehall, Shrewsbury.
October, 1949. 2592

**COUNTY BOROUGH OF MIDDLESBROUGH.
EDUCATION COMMITTEE.
ARCHITECT'S DEPARTMENT.**

Applications are invited for the following appointments on the permanent establishment:—

- (a) ONE ASSISTANT ARCHITECT. A.P.T. Division, VI (salary £595-£660 per annum).
- (b) TWO ASSISTANT ARCHITECTS. A.P.T. Division, V (salary £520-£570 per annum).

In respect of appointment (a) housing accommodation is being made available, and can, if necessary, be provided by the Authority for the successful applicant.

Applicants for appointment (a) must be Associates of the Royal Institute of British Architects, with experience in the design and construction of school buildings, and capable of carrying out large contracts.

Applicants for appointment (b) should preferably be fully qualified Architects, with experience in the design and construction of School buildings.

Forms of application (which should be returned not later than 9 a.m. on Friday, 25th November, 1949) and conditions of service may be obtained from the Director of Education, Education Offices, Woodlands Road, Middlesbrough.

E. C. PARR,
Town Clerk.

**COUNTY BOROUGH OF MERTHYR TYDFIL.
APPOINTMENT OF ARCHITECTS AND
ENGINEER.**

Applications are invited for the following appointments in the Borough Engineer's Department:—

- (a) CHIEF ARCHITECTURAL ASSISTANT. Salary A.P.T., Grade VIII.
- (b) SENIOR ENGINEERING ASSISTANT. Salary A.P.T., Grade VI.
- (c) JUNIOR ARCHITECTURAL ASSISTANT. Salary A.P.T., Grade IV.

Candidates for (a) must be Associate Members of the R.I.B.A. and have had considerable Architectural experience, preferably in a Municipal office.

Candidates for (b) must be Associate Members of the I.Mun.E. or have equivalent qualifications, and have had good Municipal Engineering experience. Preference will be given to candidates who have had Private Street Works experience.

Candidates for (c) must have passed the Intermediate R.I.B.A. examination and have had at least two years' experience after attaining that qualification.

APPOINTMENT OF PLANNING ASSISTANTS:
Applications are invited for the following vacancies in the Town Planning Section of the Borough Engineer's Department:—

- (a) TWO SENIOR PLANNING ASSISTANTS. Salary A.P.T., Grade VI.
- (b) ONE JUNIOR PLANNING ASSISTANT. Salary A.P.T., Grade II.

Candidates for (a) should be Associate Members of the T.P.I. and have had good experience in a Town Planning Office.

Candidates for (b) should have passed the Intermediate examination of the T.P.I. and have had some experience in a Town Planning Office.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and to medical examination.

Applications, stating age, qualifications and experience, together with copies of three recent testimonials, should be delivered to the undersigned not later than Wednesday, the 23rd November, 1949.

Canvassing in any form will be deemed a disqualification, and applicants must disclose in writing whether they are related to any member or senior officer of the Council.

EDWARD ROBERTS,
Town Clerk.

Town Hall, Merthyr Tydfil.
28th October, 1949. 2597

**BOROUGH OF BRENTFORD AND CHISWICK.
JUNIOR ARCHITECTURAL DRAUGHTSMAN.**

Applications are invited for the above-mentioned temporary appointment in the Borough Engineer and Surveyor's Department at a salary commencing on the first year of Misc. Division, Grade I (£315-£360), of the National Scheme of Conditions of Service (plus appropriate London weighting).

Applicants should be well experienced in the tracing and colouring of architectural and engineering drawings, a working knowledge of building construction, and Municipal engineering being an advantage.

Applications to be made on the prescribed forms (which contain particulars of conditions of appointment), obtainable from the undersigned, by whom applications must be received not later than 23rd November, 1949.

W. F. J. CHURCH,
Town Clerk.

Town Hall, Chiswick, W.4.
November, 1949. 2596

**DEVON COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.**

Applications are invited for the following appointments:—

- (i) SENIOR ASSISTANT (PLANNING), in the Central Office at Exeter.
- (ii) PLANNING ASSISTANT, in the Central Office at Exeter.
- (iii) PLANNING ASSISTANT, in the Northern Divisional Office at Barnstaple.

Candidates must be A.M.T.P.I., and preference will be given to those possessing additional appropriate professional qualifications. They must have had considerable experience in the preparation of planning proposals, and must be familiar with the regulations governing the preparation of the survey and development plan of a county. Salary in accordance with A.P.T. Grade VII, of the National Joint Council's Scales, £635-£725-£710, together with car allowance.

The person appointed will be required to take charge of the Drawing Office, and candidates must be first-class draughtsmen, preferably with considerable experience in the preparation and presentation of planning maps. Preference will be given to those holding an appropriate professional qualification. Salary on A.P.T. Grade IV (£480-£515-£525).

Candidates must be expert draughtsmen, and should have had considerable previous experience in a Planning Office. Salary on A.P.T. Grade I (£390-£415-£435).

All these appointments will be subject to the National Joint Council's Conditions of Service; to the provisions of the Local Government Superannuation Act, 1937; the passing of a medical examination, and to one month's notice on either side.

Canvassing, directly or indirectly, will disqualify, and candidates must state if they are related to any member or senior officer of the Council.

Applications, giving full details of training, qualifications and experience, together with copies of not more than three testimonials, must be forwarded to the Director of Planning, Bradninch Hall, Castle Street, Exeter, so as to reach him not later than 25th November, 1949.

Other things being equal, preference will be given to disabled persons.

The Council are unable to assist in the provision of housing accommodation.

H. A. DAVIS,
Clerk of the Council.

The Castle, Exeter. 2545

**KING'S COLLEGE HOSPITAL, DENMARK
HILL, S.E.5.**

Applications are invited for the position of ARCHITECTURAL DRAUGHTSMAN in the Architect's Department of this Hospital. Candidates should be capable of carrying out surveys quickly and accurately. Experience of hospital work would be an advantage.

The salary will be within the range of £450 to £495 per annum, according to experience, plus London weighting up to £30 per annum, according to age. The appointment will be subject to the National Health Service (Superannuation) Regulations, 1947/48, and the successful candidate will be required to pass a medical examination.

Applications, stating age, education, qualifications and full details of experience, and enclosing copies of two testimonials, to be sent to the undersigned not later than 24th November.

S. W. BARNES,
House Governor and Secretary.

2544

Candidates for (b) should have passed the Intermediate examination of the T.P.I. and have had some experience in a Town Planning Office.

The appointments will be subject to:—

- (1) Scheme of Conditions of Service of the National Joint Council.
- (2) Provision of the Local Government Superannuation Act.
- (3) The passing of a satisfactory medical examination.

(4) One month's written notice on either side. Applications, stating age, qualifications and experience, together with copies of three recent testimonials, should be delivered to the undersigned not later than Wednesday, the 23rd November, 1949.

Canvassing in any form will be deemed a disqualification, and applicants must disclose in writing whether they are related to any member or senior officer of the Council.

EDWARD ROBERTS,
Town Clerk.

Town Hall, Merthyr Tydfil.
28th October, 1949. 2597

**BOROUGH OF BRENTFORD AND CHISWICK.
JUNIOR ARCHITECTURAL DRAUGHTSMAN.**

Applications are invited for the above-mentioned temporary appointment in the Borough Engineer and Surveyor's Department at a salary commencing on the first year of Misc. Division, Grade I (£315-£360), of the National Scheme of Conditions of Service (plus appropriate London weighting).

Applicants should be well experienced in the tracing and colouring of architectural and engineering drawings, a working knowledge of building construction, and Municipal engineering being an advantage.

Applications to be made on the prescribed forms (which contain particulars of conditions of appointment), obtainable from the undersigned, by whom applications must be received not later than 23rd November, 1949.

W. F. J. CHURCH,
Town Clerk.

Town Hall, Chiswick, W.4.
November, 1949. 2596

**DEVON COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.**

Applications are invited for the following appointments:—

- (i) SENIOR ASSISTANT (PLANNING), in the Central Office at Exeter.
- (ii) PLANNING ASSISTANT, in the Central Office at Exeter.
- (iii) PLANNING ASSISTANT, in the Northern Divisional Office at Barnstaple.

Candidates must be A.M.T.P.I., and preference will be given to those possessing additional appropriate professional qualifications. They must have had considerable experience in the preparation of planning proposals, and must be familiar with the regulations governing the preparation of the survey and development plan of a county. Salary in accordance with A.P.T. Grade VII, of the National Joint Council's Scales, £635-£725-£710, together with car allowance.

The person appointed will be required to take charge of the Drawing Office, and candidates must be first-class draughtsmen, preferably with considerable experience in the preparation and presentation of planning maps. Preference will be given to those holding an appropriate professional qualification. Salary on A.P.T. Grade IV (£480-£515-£525).

Candidates must be expert draughtsmen, and should have had considerable previous experience in a Planning Office. Salary on A.P.T. Grade I (£390-£415-£435).

All these appointments will be subject to the National Joint Council's Conditions of Service; to the provisions of the Local Government Superannuation Act, 1937; the passing of a medical examination, and to one month's notice on either side.

Canvassing, directly or indirectly, will disqualify, and candidates must state if they are related to any member or senior officer of the Council.

Applications, giving full details of training, qualifications and experience, together with copies of not more than three testimonials, must be forwarded to the Director of Planning, Bradninch Hall, Castle Street, Exeter, so as to reach him not later than 25th November, 1949.

Other things being equal, preference will be given to disabled persons.

The Council are unable to assist in the provision of housing accommodation.

H. A. DAVIS,
Clerk of the Council.

The Castle, Exeter. 2545

**KING'S COLLEGE HOSPITAL, DENMARK
HILL, S.E.5.**

Applications are invited for the position of ARCHITECTURAL DRAUGHTSMAN in the Architect's Department of this Hospital. Candidates should be capable of carrying out surveys quickly and accurately. Experience of hospital work would be an advantage.

The salary will be within the range of £450 to £495 per annum, according to experience, plus London weighting up to £30 per annum, according to age. The appointment will be subject to the National Health Service (Superannuation) Regulations, 1947/48, and the successful candidate will be required to pass a medical examination.

Applications, stating age, education, qualifications and full details of experience, and enclosing copies of two testimonials, to be sent to the undersigned not later than 24th November.

S. W. BARNES,
House Governor and Secretary.

2544

COUNTY BOROUGH OF GREAT YARMOUTH. BOROUGH ENGINEER'S DEPARTMENT. APPOINTMENT OF SENIOR ASSISTANT ARCHITECT (SCHOOLS).

Applications are invited for the appointment of a Senior Assistant Architect (Schools), at a salary in accordance with A.P.T., Grade VI (£595-£660 per annum) of the National Conditions of Service. Preference will be given to Associates of the Royal Institute of British Architects, and applicants should have had previous experience in modern school design.

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

Applications, stating age, qualifications, and experience, together with the names of three persons to whom reference can be made, should reach me not later than Monday, 28th November, 1949.

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

FARRA CONWAY,

Town Clerk.

Town Hall, Great Yarmouth.

5th November, 1949.

2555

GOVERNMENT OF NORTHERN IRELAND. CIVIL SERVICE COMMISSION. CHIEF ARCHITECT'S BRANCH.

Applications are invited for ASSISTANT ARCHITECT posts in the Ministry of Finance. Subject to a probationary period of two years, the posts are permanent and pensionable.

Remuneration: The scale is £500-£525-£750. The entry point to this scale depends on age, i.e., £500 at age 26, plus or minus £25 for each year above or below that age. The upper entry point is, however, subject to a limit of £650 per annum.

Qualifications: Candidates must be Registered Architects and have passed the Final Examination of the Royal Institute of British Architects. In addition, they must have had at least two years' experience in an Architect's office or department in the preparation of working drawings for new buildings.

Preference will be given to candidates who have served in H.M. Forces in wartime, provided that such candidates can, or within a reasonable time will be able to, fill the posts efficiently.

Closing date for receipt of applications: Applications must be made on the prescribed form, which may be obtained from the Secretary, Civil Service Commission, Stormont, Belfast, and must be returned, duly completed, with copies of two recent testimonials, so as to reach him not later than the 5th December, 1949.

2551

MINISTRY OF WORKS. VACANCIES FOR ARCHITECTURAL ASSISTANTS AT RISLEY (WARRINGTON).

Applications are invited to fill the above vacancies. Candidates should have had a recognized Architectural training and fair experience, and be of British nationality. Salary: Architectural Assistants, £283 to £495 per annum. Leading Architectural Assistants, £490 to £595 per annum.

Starting pay will be assessed according to age, qualifications and experience. Although these are not established posts, some of them have long term possibilities, and competitors are held periodically to fill established vacancies.

Hostel accommodation at reasonable cost is available. Apply in writing, stating age, and full details of experience, to Chief Architect, W.G.10/A.J., Ministry of Works, Abell House, John Islip Street, London, S.W.1.

2556

LONDON COUNTY COUNCIL. QUANTITY SURVEYORS.

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

Duties will include:—

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

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

Forms of application may be obtained from the Director of Housing and Valuer, The County Hall, Westminster Bridge, S.E.1 (a stamped addressed foolscap envelope required), quoting Q.S.1.

Canvassing disqualifies. (2140)

752

NATIONAL COAL BOARD. SOUTH-WESTERN DIVISION.

Applications are invited for the following posts in the Divisional Architect's Branch, Cardiff:—

(a) SENIOR ARCHITECT.

Salary: £850-£935-£1,150 per annum (male); £700-£785-£1,000 per annum (female).

Applicants should be Corporate Members of the Royal Institute of British Architects, with extensive administrative and supervisory experience and be capable of taking charge of a section of Architectural work.

(b) ARCHITECTS, Grade II.

Salary: £450-£525-£700 per annum (male); £425-£515-£675 per annum (female).

Applicants should be Associate Members of the Royal Institute of British Architects and have had considerable experience in the preparation of sketch plans, working drawings, and specifications for large works.

(c) ARCHITECTURAL ASSISTANTS, Grade I.

Salary: £410-£520-£550 per annum (male); £340-£415-£445 per annum (female).

Applicants should have passed the Intermediate Examination of the Royal Institute of British Architects, and have had at least 5 years' office experience and be able to prepare sketch plans and working drawings.

(d) ARCHITECTURAL ASSISTANTS, Grade II.

Salary: £300-£320-£440 per annum (male); £247-£315-£352 per annum (female).

Applicants should have passed or be studying for the Intermediate Examination of the Royal Institute of British Architects, and should possess a sound knowledge of construction, and be able to assist in the preparation of sketch plans and working drawings.

The appointments are subject to the provisions of the Board's Superannuation Scheme.

The point of entry into the relevant salary scale will depend on the qualifications and experience of the successful applicants.

Applications in writing, stating age, education, qualifications, experience, present appointment and salary and submitting the names of two architect referees, should be sent to the Divisional Establishment Officer, National Coal Board, South-Western Division, Cambrian Buildings, Mount Stuart Square, Cardiff, not later than the 2nd December, 1949.

Applicants should state clearly the appointment for which application is made.

2552

Tenders for Contracts

PEMBROKESHIRE COUNTY COUNCIL. EDUCATION COMMITTEE.

Building Contractors, desirous of TENDERING for the ERECTION of either or both of the following SCHOOLS are requested to submit their applications to Walter Barrett, M.B.E., A.R.I.B.A., County Architect, County Offices, Haverfordwest, Pembrokeshire, not later than Monday, 21st November, 1949.

(a) SAGESTON COUNTY PRIMARY SCHOOL (60 Pupils), which is to have an ORLIT superstructure.

(b) MILFORD HAVEN NEW INFANTS' SCHOOL (150 Pupils), which is of traditional construction.

General Conditions and Bills of Quantities will be supplied on receipt of £5 ss. deposit, returnable upon receipt of a bona-fide Tender or Tenders. Drawings, etc., can be inspected at the Office of the County Architect during the usual working hours.

No Tender will be considered unless submitted in the endorsed envelope provided for the purpose, and the Council does not bind itself to accept the lowest or any Tender received.

Contractors will be required to provide proof that they are in a position to provide the necessary labour to carry out the works.

Last day for receipt of Tenders is first post, Tuesday, 6th December, 1949.

Clerk to the Education Committee.

County Offices, Haverfordwest.

31st October, 1949.

2538

Partnership and Financial

6 lines or under, 10s.; each additional line, 1s. 6d.

6 lines or under, 10s.; each additional line, 1s. 6d.

ARCHITECT, with unique connections in

Norfolk and with capital available, seeks

Partnership; Norwich area preferred.

2540

Architectural Appointments Vacant

4 lines or under, 5s.; each additional line, 1s. 6d.

ARCHITECTURAL ASSISTANTS required

immediately for interesting and varied work

on Schools, Hospitals, University Buildings,

Housing, etc.; salary dependent on experience and

qualifications. Apply personally by telephone or

in writing, to The Son & Fairweather, Chartered

Architects, 6, Queen Anne's Gate, Westminster,

S.W.1. Whitehall 5376.

1869

ARCHITECTURAL ASSISTANT and also

ARCHITECTURAL DRAUGHTSMAN required

in established practice, mainly business

premises over whole country; pleasant conditions;

permanent and good prospects. Apply with all

particulars to North & Partners, Queen Street

Chambers, Maidenhead.

2192

ARCHITECTS' ASSISTANTS required in the

Architects' Dept., F. W. Woolworth & Co.,

Ltd., head office, 1/5, New Bond Street, London,

W.1. Applicants should write in giving full details

of training, qualifications, experience, and salary

required, to H. Winbourne, F.R.I.B.A., Architect.

2408

ARCHITECTURAL ASSISTANT required, by Gollins, Melvin & Partners, A./A.R.I.B.A.; capable working drawings; salary £450-£550, according to experience; 5-day week; permanent situation. Telephone Museum 0883 for appointment.

2461

EAST MIDLANDS.—ASSISTANT, Inter. Final standard, required at once for private Architect's office; work mainly domestic. Box 2453.

SENIOR ARCHITECTURAL ASSISTANTS required immediately; good salary and prospects; 5-day week. Write J. M. Sheppard & Partners, 38, Bedford Place, W.C.1, giving particulars of age, qualifications, experience, and salary required.

2487

JUNIOR ARCHITECTURAL ASSISTANT wanted urgently. Apply, stating age, qualifications, experience, salary required, etc., with testimonials, to Buttrick & Buttrick, F./A.R.I.B.A., 43, Oswald Road, Scunthorpe, Lincolnshire.

2472

EXPERIENCED GENERAL ASSISTANT wanted in commercial Architect's office in Guildford for preparing working and detailed drawings; good draughtsmanship and knowledge of construction essential; interesting and varied work in many parts of the country; salary £450-£500, according to experience and ability.

2484

SOUTHAMPTON.—W. H. Saunders & Son have a vacancy in their Head Office for a medium grade ARCHITECTURAL ASSISTANT; permanent progressive post; interesting and varied work. Applications, with full particulars, to 1, Carlton Crescent, Southampton.

2512

LONDON Firm of Chartered Architects require immediately an ARCHITECTURAL ASSISTANT, age approximately 25-30 years, in connection with permanent Council Housing, Shops, Factories, etc.; salary in accordance with qualifications and experience; opportunity for responsible man. Apply, giving full details, to Lawrence Farman & Partners, 252, Upper Richmond Road, Barnes, S.W.14.

2489

ARCHITECTURAL ASSISTANT required in small London office; R.I.B.A. Intermediate standard; salary according to experience. Write, giving particulars, to Box 2513.

WANTED, by old-established firm of Civil Engineering Contractors operating principally in Midlands, CIVIL ENGINEER or ARCHITECT experienced in Reinforced Concrete Construction, also with experience in compiling estimates; salary will be in accordance with experience of the applicant and for the right man above the four figure mark; a splendid opportunity for a progressive position with a firm of standing. Box 2543.

SCHERRER & HICKS, M.A., F.F.R.I.B.A., 19, Cavendish Square, W.1 (Museum 1105) require TWO ASSISTANTS; 2nd or 3rd year evening school standard; salary according to ability.

2514

ARCHITECTURAL ASSISTANTS, of Intermediate Examination or higher standard, are required to work with qualified Architects on interesting industrial and commercial projects at home and abroad, under the direction of J. W. Wilson, F.R.I.B.A., A.M.T.P.I., Company Architect, Bep'y, quoting age and experience, to Personnel Dept. Dunlop Rubber Co., Ltd., Erdington, Birmingham, 24.

2553

ARCHITECTURAL ASSISTANTS required for Chief Architect's Department at Havering; applicants should have reached Intermediate standard of R.I.B.A. be good draughtsmen and possess a sound knowledge of building construction; canteen facilities available. Apply in writing, stating age, qualifications and experience, to Chief Staff Architect, Ilford, Ltd., Romford, Essex.

2557

ARCHITECTURAL ASSISTANT or SURVEYOR required immediately to work S.W. London area; able to prepare Schedules, Specifications, War Damage, Supervision of Contract Work. Write, stating age, experience and salary required, to Box 2550.

ARCHITECTURAL DRAUGHTSMAN for Display and Exhibition; Inter. R.I.B.A. standard; capable of producing accurate working details and coloured perspectives. Write, stating age, experience and salary required, to Charles Kenrick, Ltd., 15, Berners Street, W.1.

2568

ARCHITECT'S experienced ASSISTANT required; capable working drawings and detailing; various large projects; permanency and good prospects for right man. Write J. W. Beaumont & Sons, Chartered Architects, 13, Collegate Crescent, Sheffield, 10.

2541

NORTHERN POLYTECHNIC, HOLLOWAY, LONDON, N.7.

THE Governing Body invite applications for appointment as STUDIO MASTERS in ARCHITECTURAL DESIGN AND WORKING DRAWINGS. The applicants should be Associates of the Royal Institute of British Architects, and preferably have been trained in a Recognized School. Previous teaching is an advantage, but is not an essential qualification. The salary is in accordance with the Burnham Scale; members of the staff are afforded reasonable facilities for private practice. Forms of application, together with full particulars, will be forwarded on receipt of a stamped addressed foolscap envelope.

R. H. CURRELL,

Clerk.

2542

ARCHITECTURAL ASSISTANT required; with at least 5 years' office experience and R.I.B.A. Intermediate standard. Welch & Lander, F.R.I.B.A., 38, Gloucester Place, W.1. Welbeck 6551. 2549

SCOTTISH SPECIAL HOUSING ASSOCIATION, LTD., invite applications for the appointment of Architect, Grade II, £450-£675. The post is superannuable. No bonus is payable in addition to the salary stated. Forms of application with full particulars can be obtained from the Secretary, 15/21, Palmerston Place, Edinburgh, 12, and all applications must be submitted within 14 days of the appearance of this advertisement. Canvassing will be a disqualification. 2548

ARCHITECTURAL DRAUGHTSMEN, up to Inter. R.I.B.A. standard; required; London area. Write, stating experience and salary, to Box 2551.

ARCHITECTURAL ASSISTANT required in Company Architect's office in London; must be good draughtsman; salary commencing £400 to £600, according to experience. Applicants should state age, training, and experience, etc., to Box 2553.

ARCHITECTURAL ASSISTANT, with previous office experience, required in busy Architects' and Surveyor's office in South-West Essex; good opportunity for keen man taking an interest in his work, with a comprehensive knowledge of construction and first-class draughtsmanship. Please give full particulars to Box 2588.

ARCHITECTURAL ASSISTANTS required, Inter. Final standard; also **QUANTITY SURVEYING ASSISTANT** (Worker-up); salaries up to £500 p.a. Reply, stating age, experience, and salary required, to Ruddle & Wilkinson, F./L.R.I.B.A., Long Causeway Chambers, Peterborough. Telephone 2166. 2589

CIVIL SERVICE.
QUANTITY SURVEYORS AND ASSISTANT throughout the United Kingdom by the Ministry of Works, Admiralty, War Department, Air Ministry, and occasionally overseas by the Admiralty, Air Ministry and War Department. Although these are not established posts some of them have long term possibilities, and competitions are held periodically to fill established vacancies.

Salaries for these professional posts in London for officers over 26 years of age range from £500 per annum, they are slightly lower in the provinces. Salary on entry will be in accordance with age, qualifications, and experience.

Vacancies also exist for **Quantity Surveying Assistants** and others having some experience in a quantity surveyor's office, at salaries ranging from £300 p.a. upwards.

Applicants should write quoting ref. J.Q.S./CB, to Room 377, Ministry of Labour and National Service, Technical and Scientific Register, York House, Kingsway, W.C.2. 2532

JUNIOR ASSISTANT required for general practice; housing, shops, factories, etc. Full details and salary to Fredk. E. Wilkins, "Prudhoe House," 808, High Road, Tottenham, N.17. 2594

ASSISTANT ARCHITECT required; should be capable of working up schemes and have had considerable experience in the planning, designing, and supervision of all types of building; salary £600 per annum. Apply, stating age, qualifications and experience, to Box 2595.

SENIOR ASSISTANT required in a Bank's Architect's office; good previous experience in the design and maintenance of office buildings essential; age 35-40; preferably an Associate of R.I.B.A.; permanency, with pension, for suitable applicant. Box 2610.

VACANCY will shortly occur in Architect's office in Central London for an **ASSISTANT**, to be responsible for contracts, supervision of jobs in progress, negotiations with sub-contractors and general administrative work; the post is suitable either for an inexperienced Assistant, who is interested and prepared to learn, or for an Assistant with experience in handling building contracts; qualified Architect preferred, but formal qualifications not of first importance; salary by arrangement and commensurate with qualifications and experience. Write Box 2601.

ARCHITECT'S ASSISTANT required immediately; must have experience of building surveys, be neat, quick and accurate draughtsman, with good knowledge of construction, detail and working drawings; required for work on commercial, industrial and Municipal projects now in course of construction or in planning stages; must be capable of working up from sketch designs and be interested in contemporary design; commencing salary £450 per annum. Apply personally, with examples of work, to E. R. Collister, A.R.I.B.A., A.A.Dipl., 19, London Road, Chelmsford. Tel.: Chelmsford 4555. 2508

LONDON ELECTRICITY BOARD.
APPLICATIONS are invited for appointments as **DRAUGHTSMEN** in the Architect's Section of the Chief Engineer's Department in Central London.

The commencing salary will be from £350 per annum, dependent upon ability and experience. The salary is provisional; the salary and conditions of employment will be in accordance with those laid down from time to time by the appropriate negotiating body.

Applicants should be neat draughtsmen, and preferably have had several years' experience in an Architect's office. Successful candidates will be required to contribute to a superannuation scheme and may be required to pass a medical examination.

Application forms, on receipt of an addressed foolscap envelope, obtainable from the Establishments Officer, London Electricity Board, 46/47, New Broad Street, E.C.2, to be returned duly completed not later than 30th November, 1949, quoting reference EST/V/363/A. 2506

Other Appointments Vacant

4 lines or under, 5s.; each additional line, 1s. 6d.

ESTIMATORS required; used to Architectural Metalwork. Apply personally or by letter to Morris Singer Co., Ferry Lane Works, Forest Road, Walthamstow, E.17. 2142

ESTIMATORS wanted; used to Brakepress work. Apply personally or by letter to Morris Singer Co., Ferry Lane Works, Forest Road, Walthamstow, E.17. 2143

DRAUGHTSMEN wanted; used to Metal Windows and Brakepress work. Apply Morris Singer Co., Ferry Lane Works, Forest Road, Walthamstow, E.17. 2141

LADY SECRETARY/SHORTHAND TYPIST required immediately in Architect's office, Ipswich, Suffolk. Apply, giving full particulars, to Box 2478.

QUALIFIED Architectural DRAUGHTSMAN required by large Firm of Textile Manufacturers in Manchester area industrial experience an advantage. Reply, stating full details of experience and salary required, in confidence, to Box 2467.

ARCHITECTURAL IRON MONGERY.—**REPRESENTATIVE** required, with sound knowledge of the trade; existing connections an advantage. Write, giving full particulars and salary required; all replies treated in strict confidence. A. J. Binns, Ltd., Harvest Works, 99/107, St. Pauls Road, London, N.1. 2517

QUANTITY SURVEYOR'S ASSISTANT required by Persian Gulf Oil Company to assist in Contracts Section; should have 7 to 10 years' Quantity Surveyor's office experience, and be capable of taking off, abstracting, billing, preparing estimates from drawings, measuring work on site, settling accounts, preparing small sub-contracts, and writing specifications; candidates with Army experience as Warrant Officer's Surveyor's Clerk would be suitable; age under 35; salary starting £230 p.a., tax free; messing and accommodation free; kit allowance. Write, giving brief details age, experience, etc., and quoting K.1000, to Box "W.T." c/o J. W. Vickers & Co., Ltd., 7/8, Great Winchester Street, London, E.C.2. 2593

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

PLANT DRAUGHTSMEN required, with experience in one or more of the following trades: general building and structural steelwork, boiler and power station plant and auxiliaries; sheet metal ductwork, staff refuse exhausting, heating and ventilating; staff pension scheme; 5-day week; salary A.E.S.D. scale and upwards, in accordance with experience. Applicants should write, with full particulars, to the Chief Engineer, Harris Lebus, Ltd., Finsbury Works, Tottenham, N.17. 2540

SHORTHAND TYPIST required, full time, in Westminster Architects' office. Box 2596.

Architectural Appointments Wanted

A. R.I.B.A., studying Town Planning, seeks progressive position with London Architect and Town Planner. Box 409.

QUALIFIED ARCHITECT is desirous of obtaining position in or very near to Brighton, preferably with view to future Partnership; salary £650 p.a.; at present in employ of County Council. I am prepared to take a position in a Borough Surveyor's or other Local Authority's office provided there is a progressive and intelligent spirit and absence of bureaucracy. Box 408.

ASSOCIATE (31), awaiting results of the T.P.I. examination, at present responsible from notification of project to completion, desires similar responsible position; any area considered, U.K. or overseas; accommodation imperative, as at present in tied house; position leading to Associateship or Partnership considered, or minimum salary near £700. Box 407.

ARCHITECTURAL ASSISTANT requires position; private practice; good experience; salary £360. Box 413.

ARCHITECT'S ASSISTANT (33) Final standard, requires progressive position, with permanency; Surrey preferred. Box 414.

ARCHITECTURAL ASSISTANT SURVEYOR (28), married, seeks responsible position; car driver; 6 years' Architect Surveyor's office; 3 in., 2 in., 2 in. and F.S. details, surveying, levelling, specifications, quantities, building law and superintendence, easements, costing, estimating, contracts, etc.; anywhere considered with housing accommodation, otherwise Leeds area. 412

ARCHITECTURAL ASSISTANT (30), married, near Final standard, seeks position in coastal town; private practice; accommodation necessary. Box 411.

ARCHITECTURAL ASSISTANT (26), 5 years' experience in Architect's office, requires change; used to working on own initiative; seeks responsible position in Architect's office or office where experience and knowledge gained can be used to full advantage; preferably London area; minimum salary required £450 p.a. Box 415.

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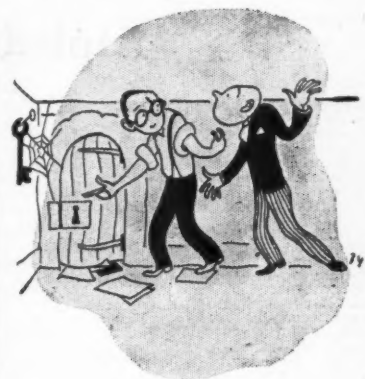
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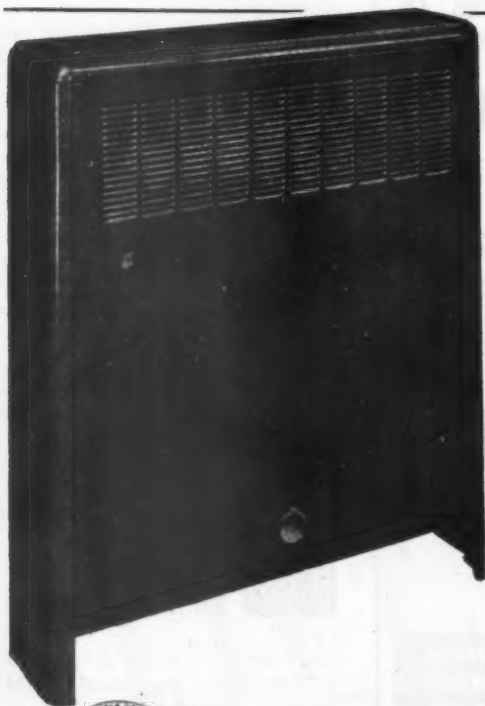
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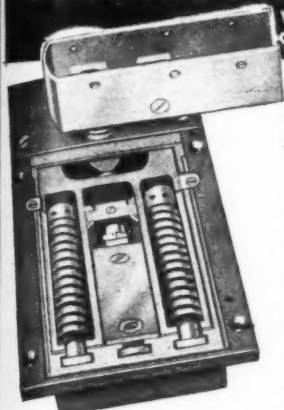
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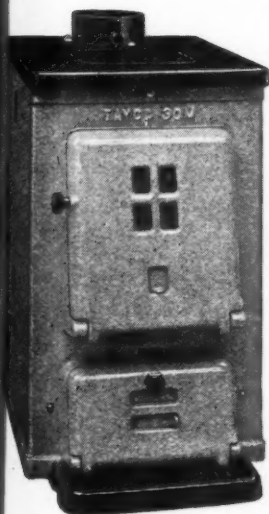
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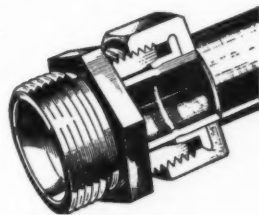
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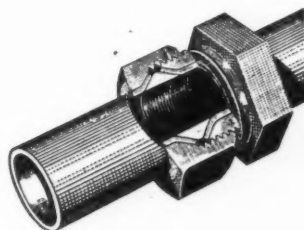
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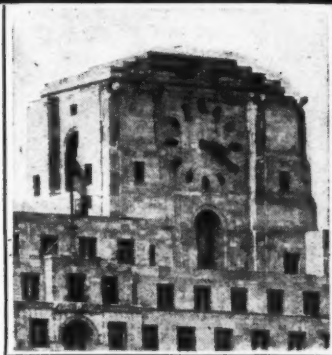
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