

# THE ARCHITECTS' JOURNAL



## 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 H one week, I 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	Arts Council of Great Britain, 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association, 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction, 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association, 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, 28, Sackville Street, W.1.	Regent 3613
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, 25, Victoria Street, S.W.1.	Abbey 5422-3
BEDA	British Electrical Development Association, 2, Savoy Hill, W.C.2.	Temple Bar 9434
BGC	British Gas Council, 1, Grosvenor Place, S.W.1.	Sloane 4554
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	British Steelwork Association, Eggington House, Buckingham Gate, S.W.1.	Victoria 7301-2-3
BSA	Building Societies Association, 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution, 28, Victoria Street, S.W.1.	Abbey 3333
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 7070
CPRE	Council for the Preservation of Rural England, 4, Hobart Place, S.W.	Sloane 4280
CUJC	Coal Utilization Joint Council, 54, Victoria Street, S.W.1.	Victoria 9851
DIA	Design and Industries Association, 9, Conduit Street, W.1.	Mayfair 5432
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
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	Flush Door Manufacturers Association, Stapleford Road, Trowell, Nottingham.	Ilkeston 623/4/5
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

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[VOL. 107

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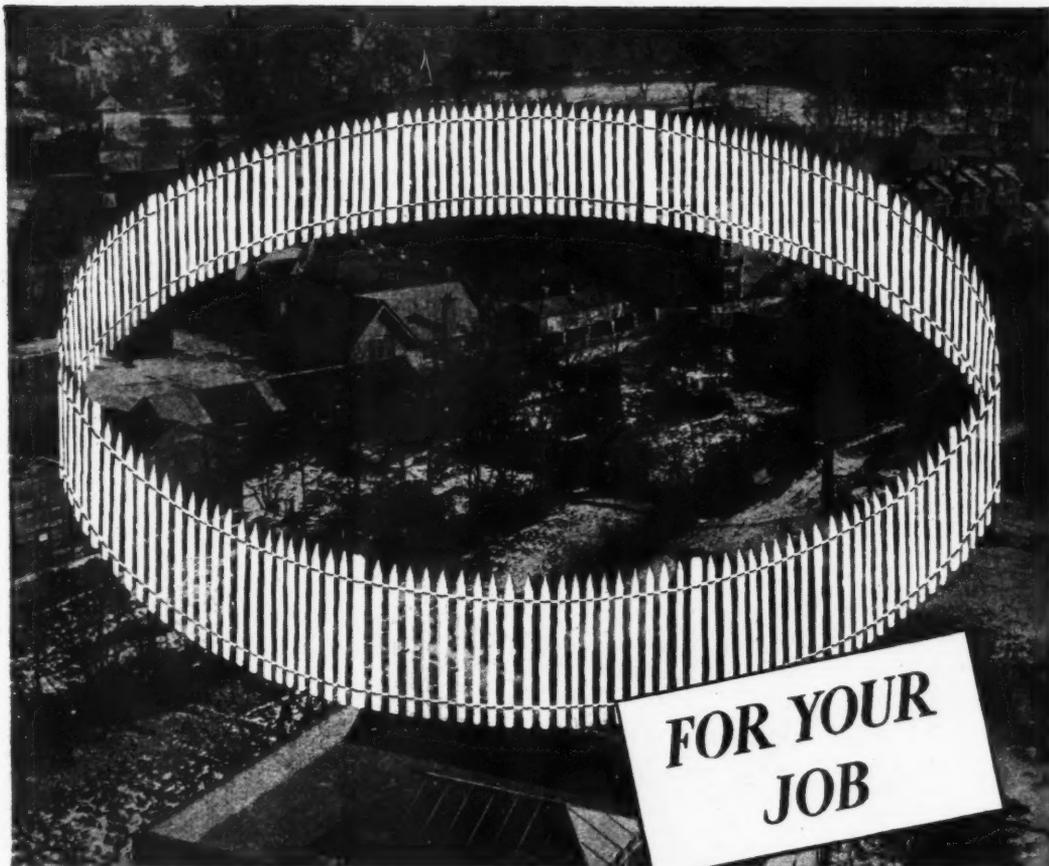
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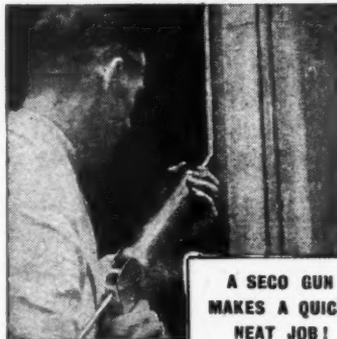
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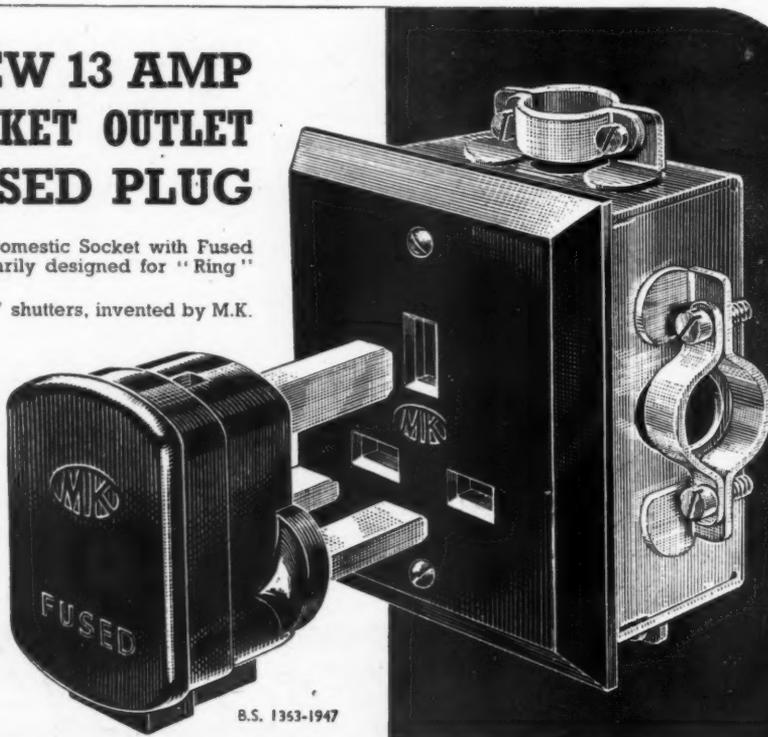
Here is the new 13 ampere Domestic Socket with Fused Plug, which has been primarily designed for "Ring" A.C. circuits. B.S. 1363-1947.

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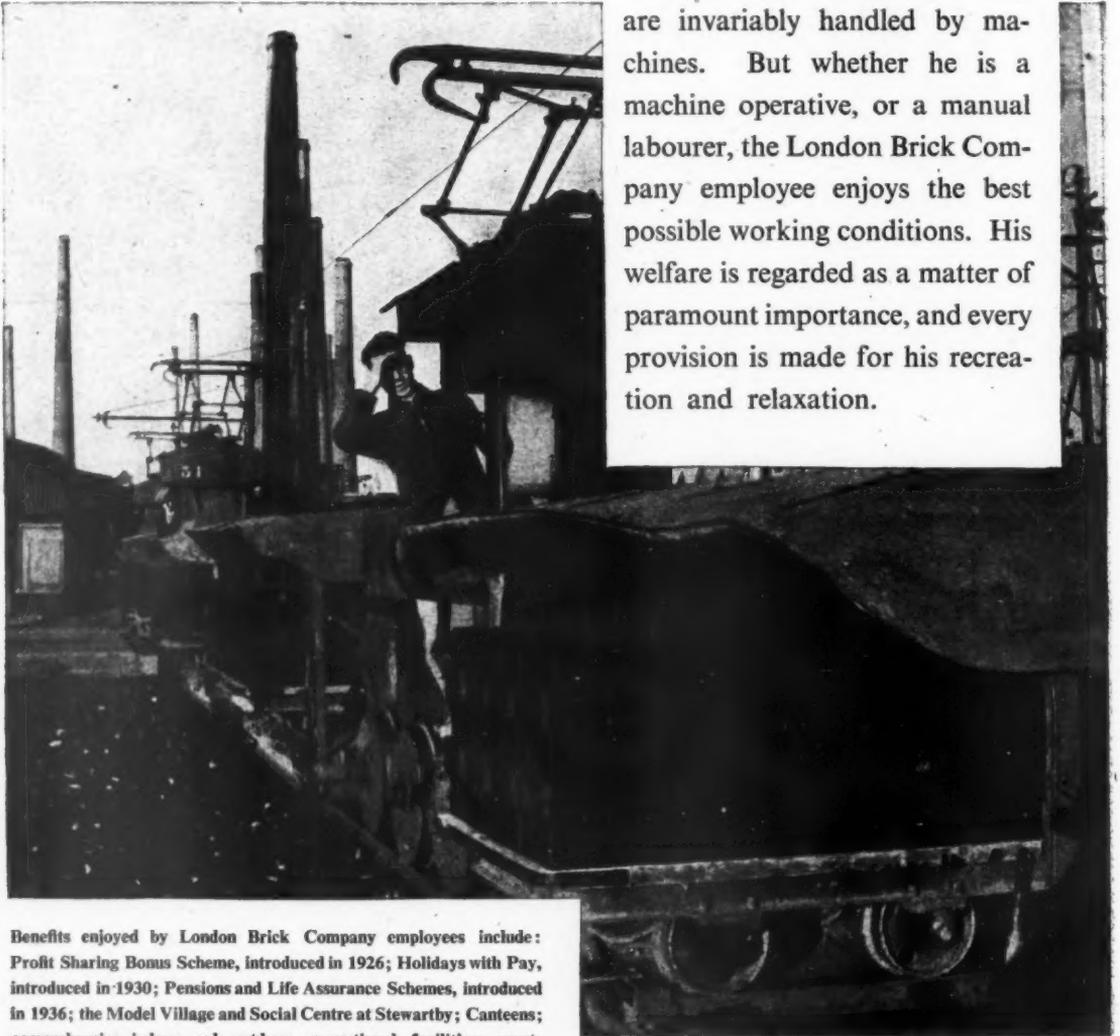
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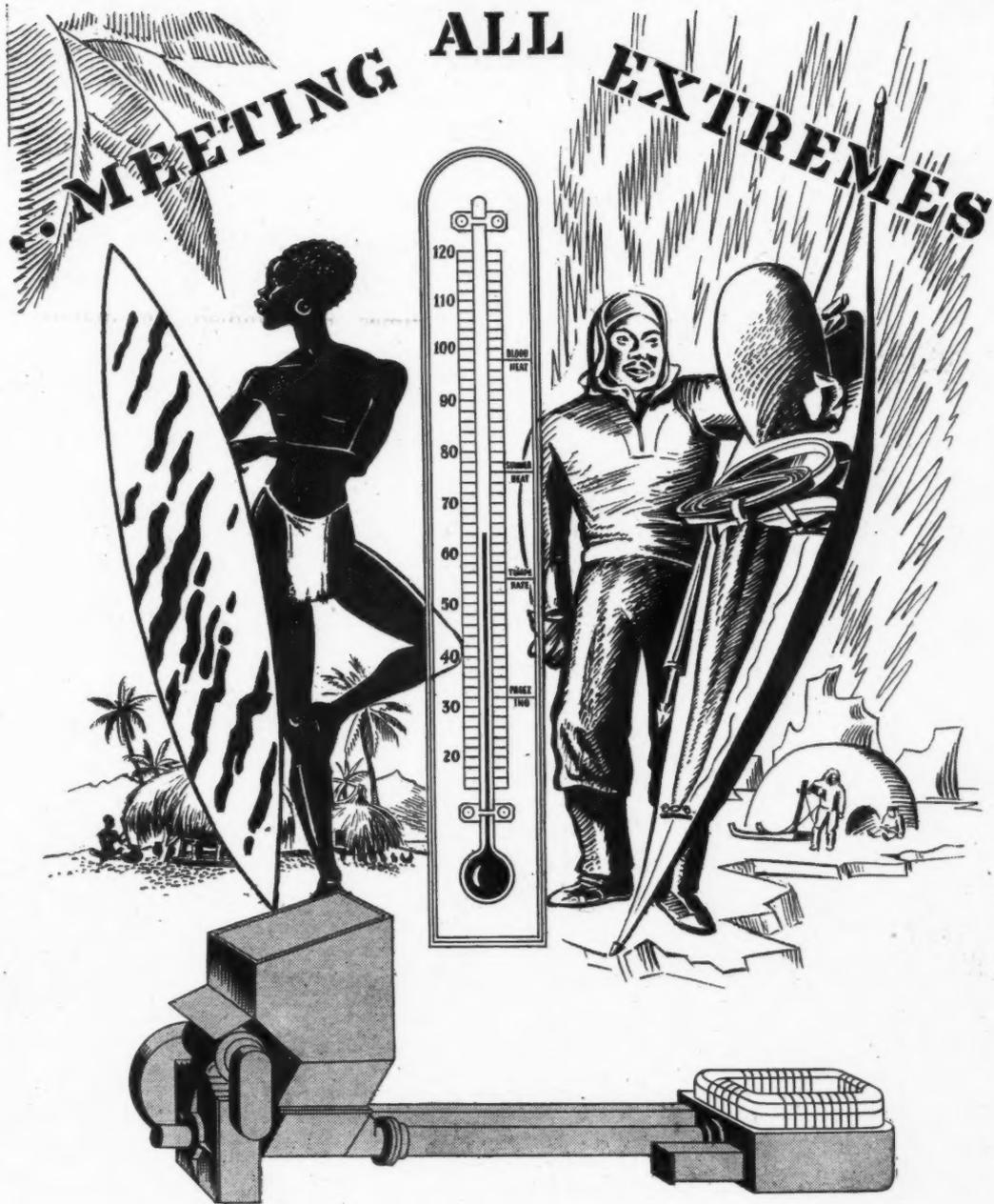


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L.B. 38

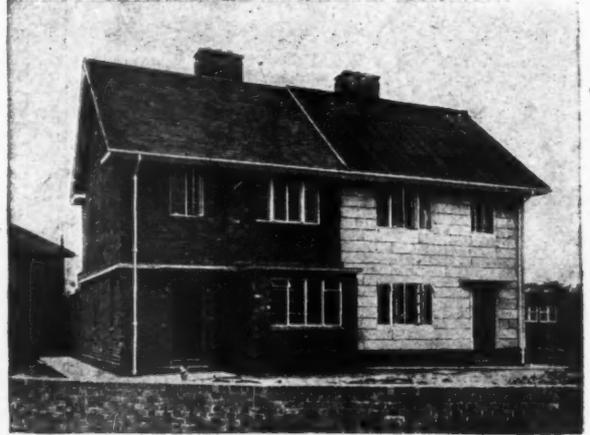
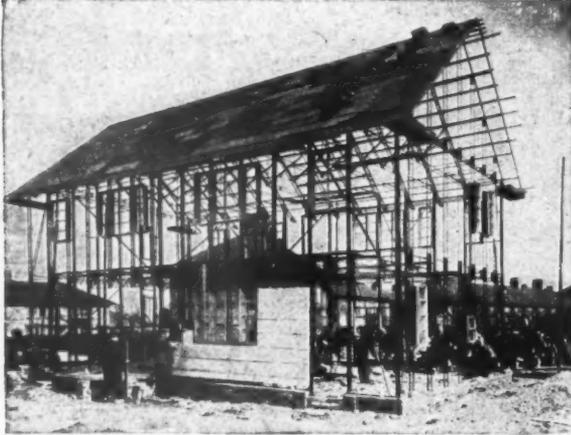


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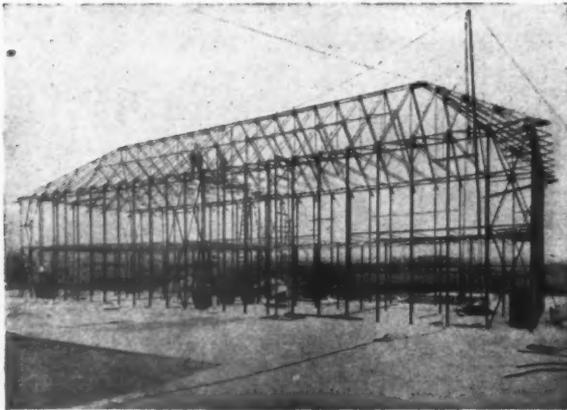


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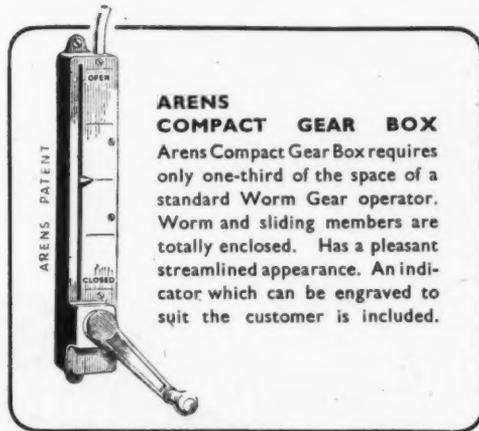
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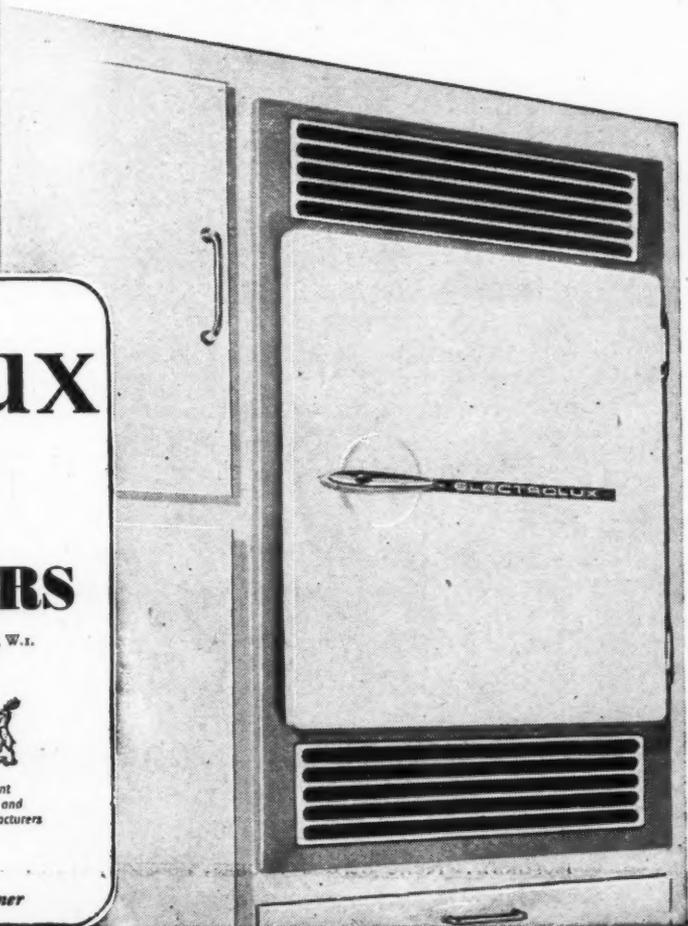
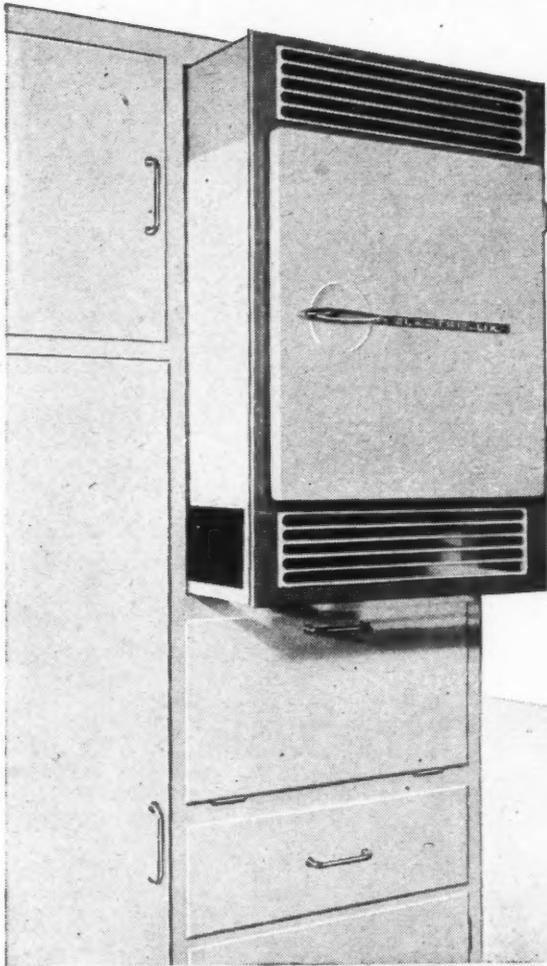
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**h**  
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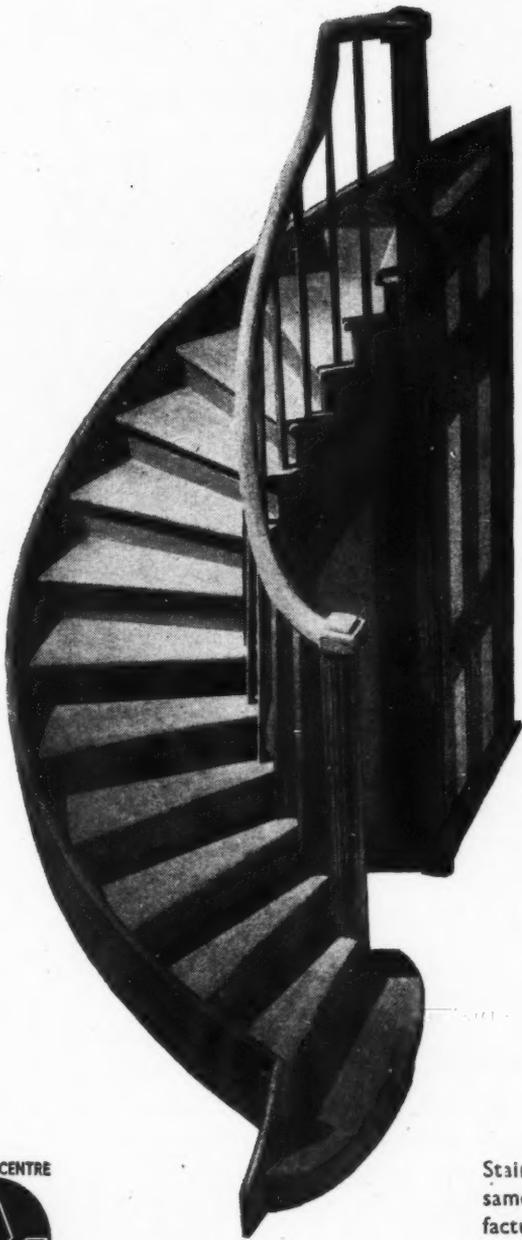
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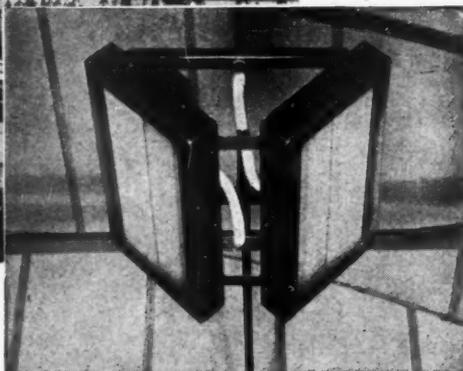
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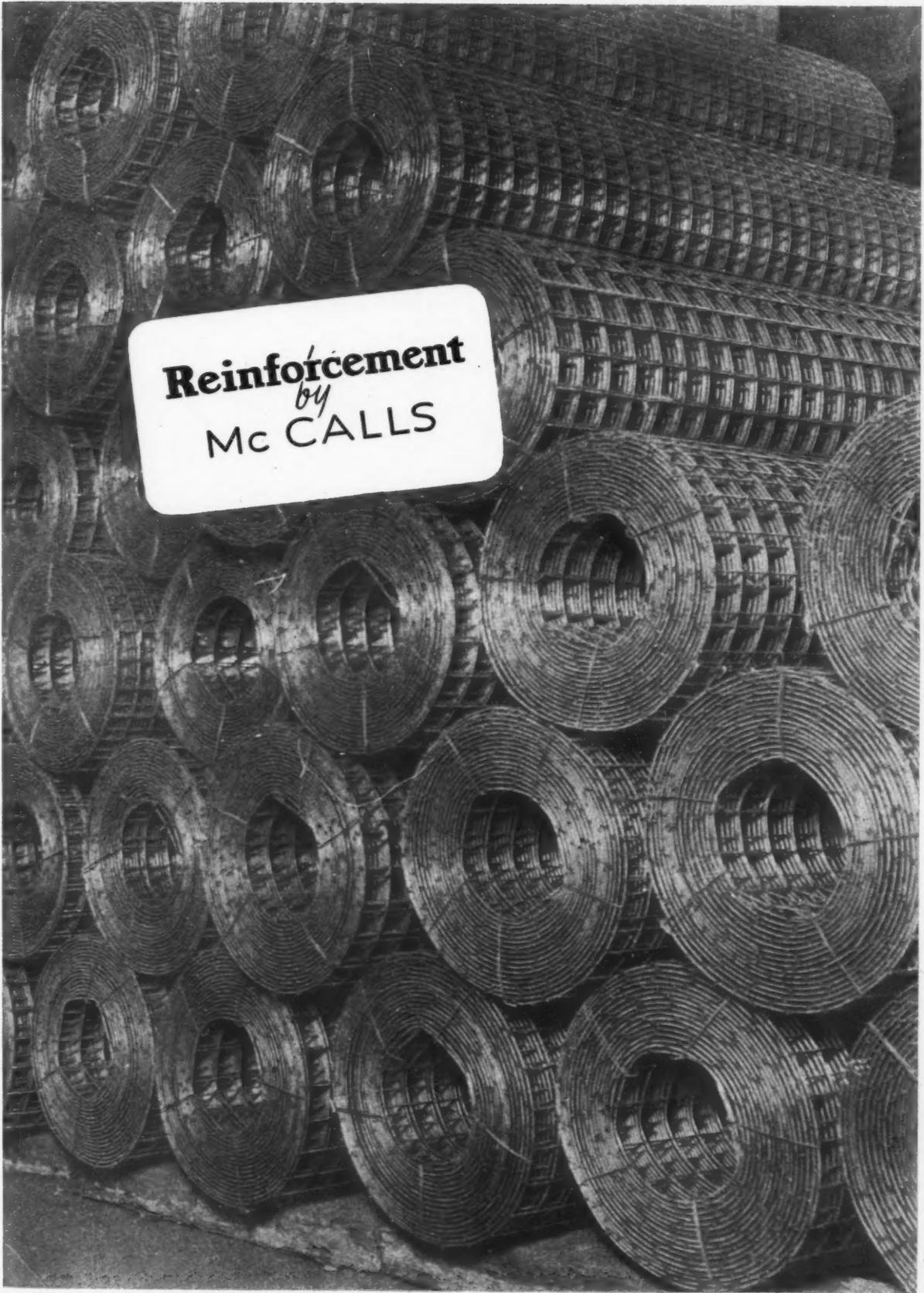
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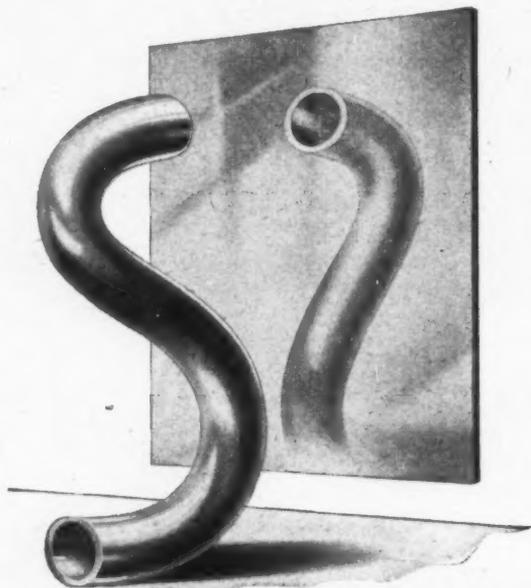


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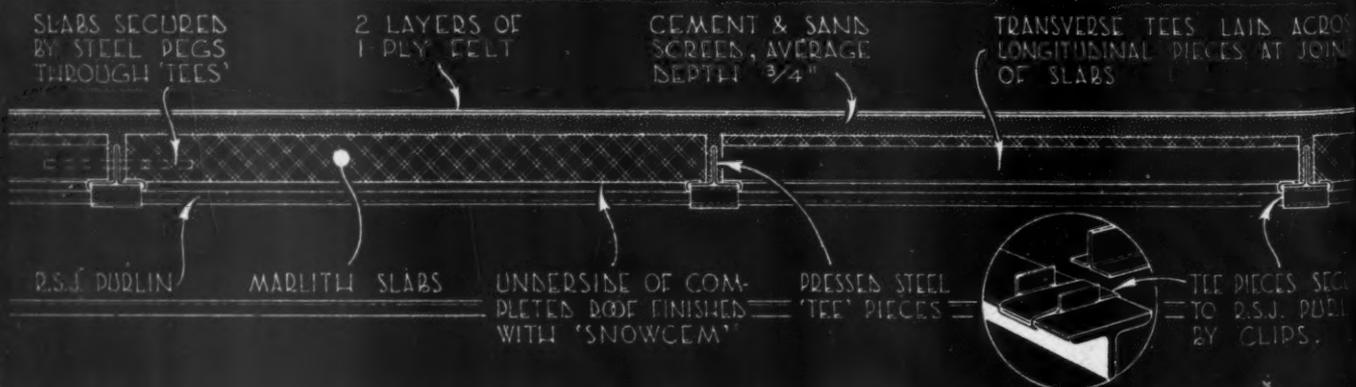




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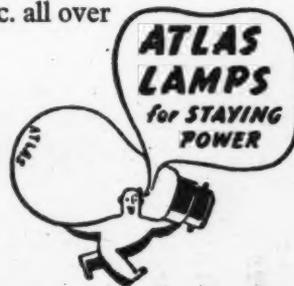
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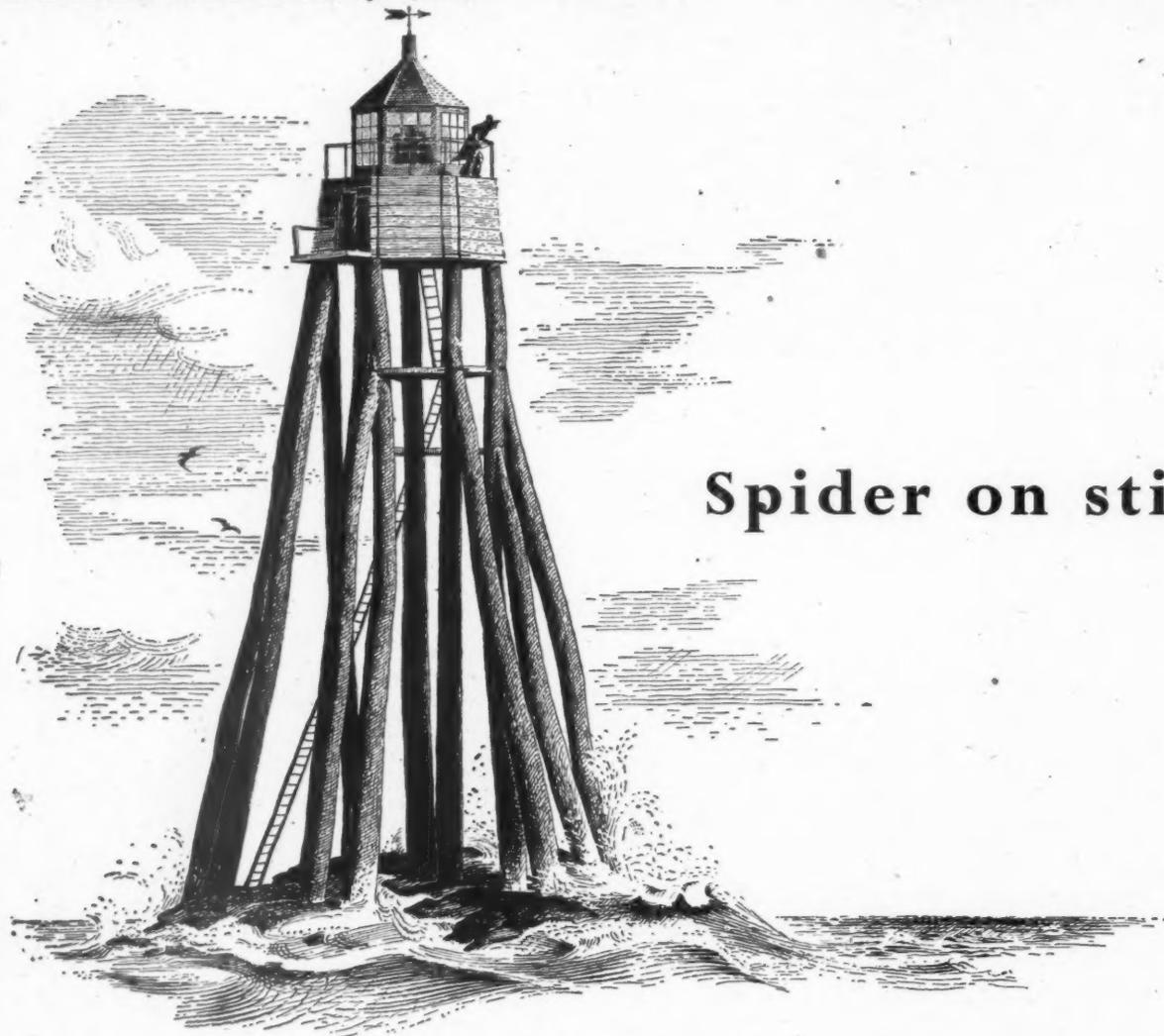
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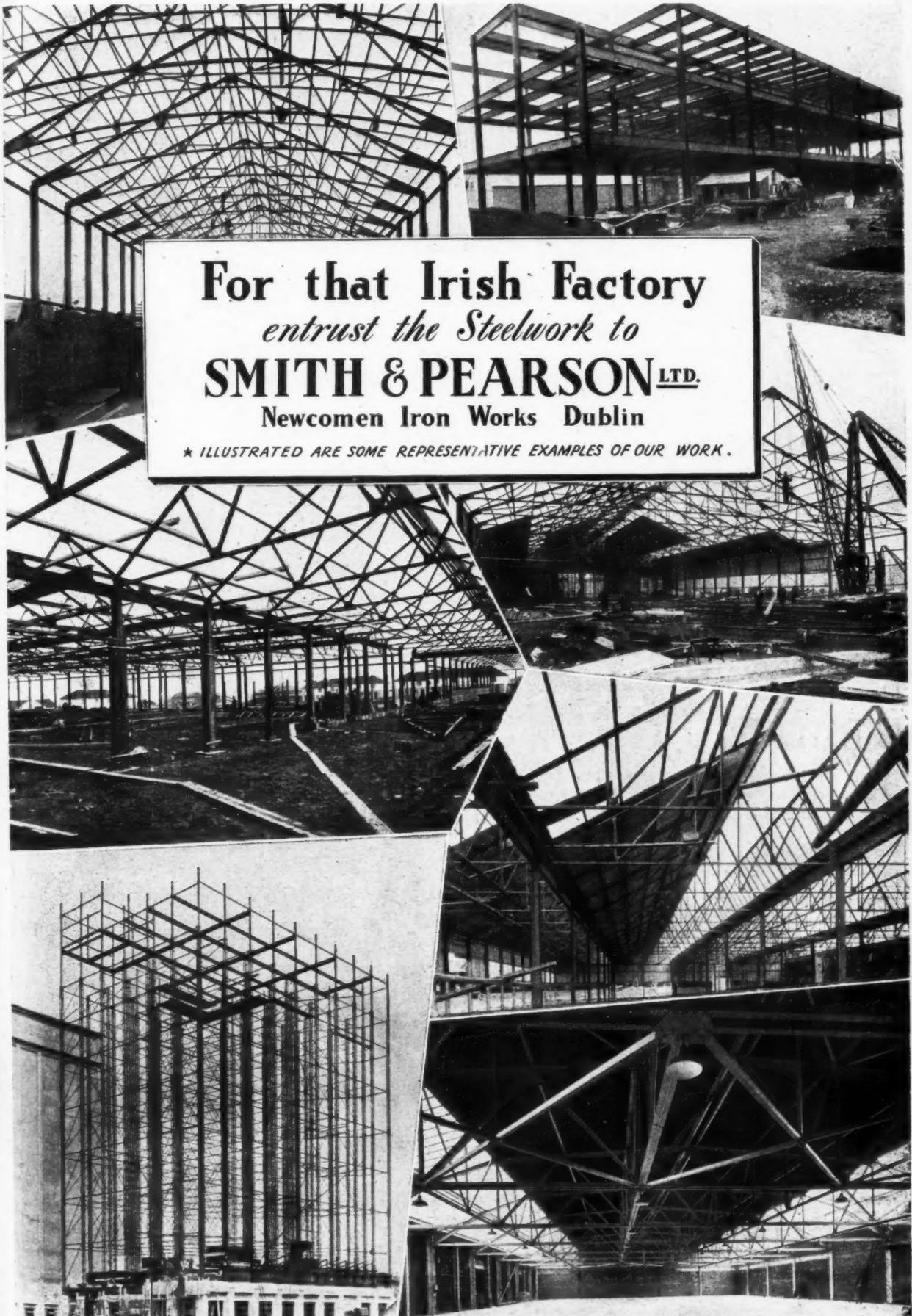
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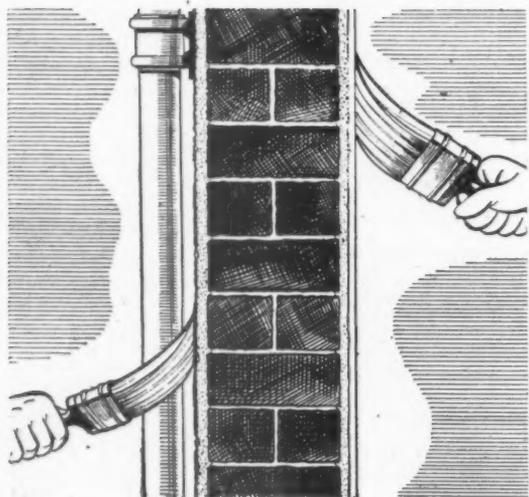
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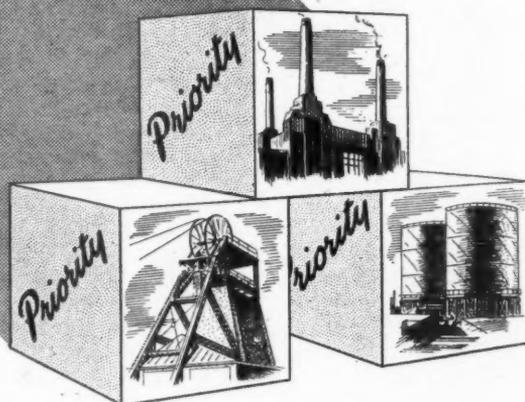
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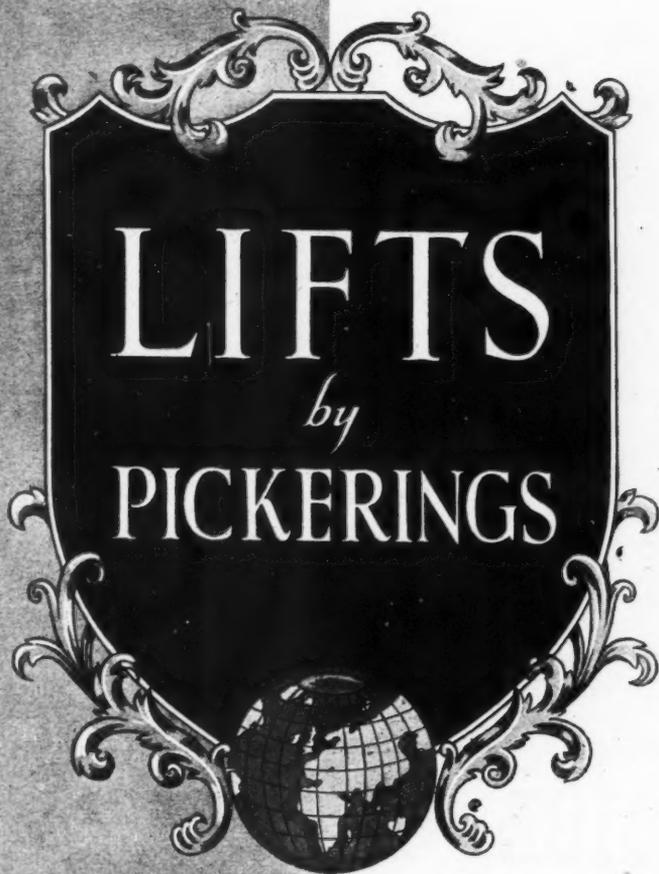
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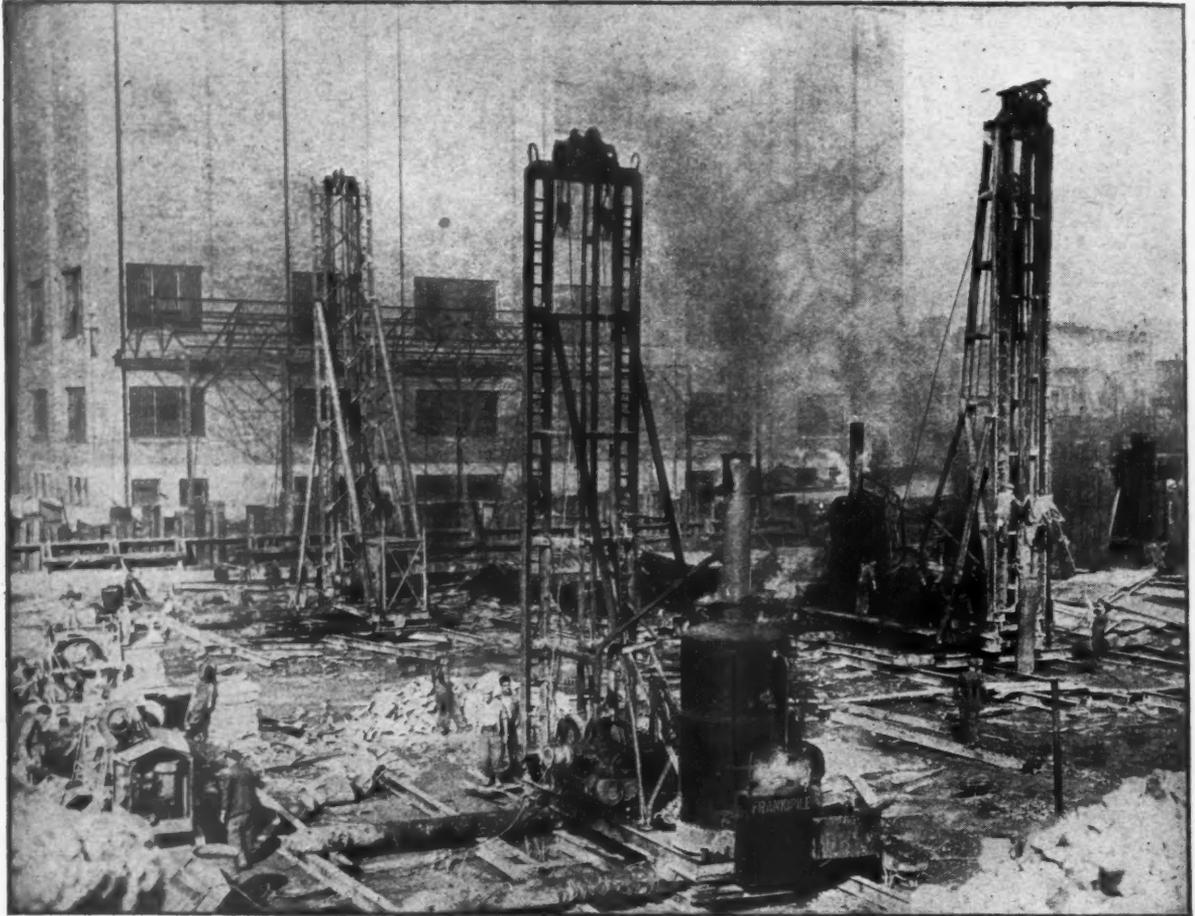
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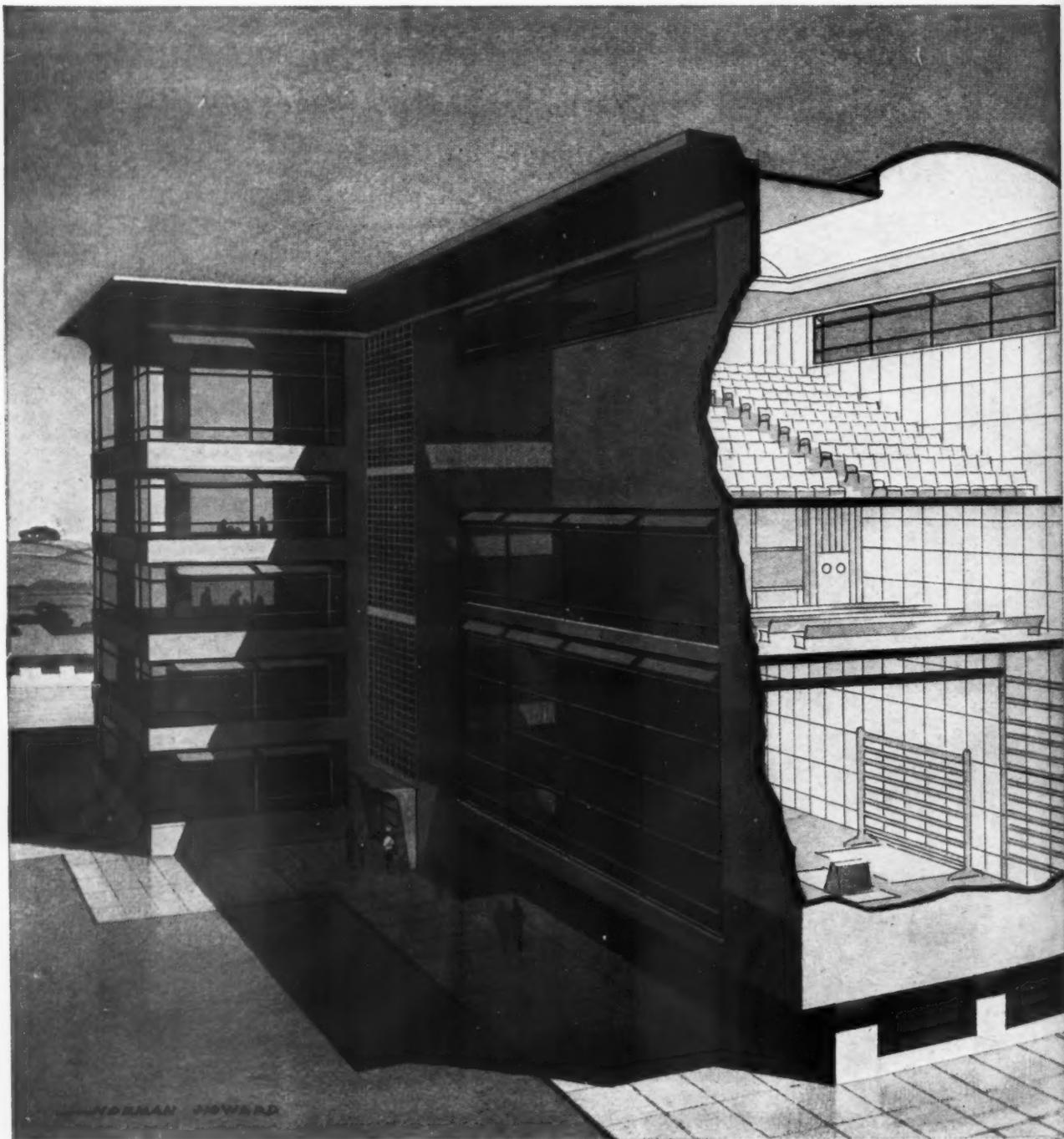
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# NEWS

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## DIARY FOR JANUARY FEBRUARY AND MARCH

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 as given in the glossary of abbreviations on the front cover.

**BIRMINGHAM.** *Architects' Dance.* At the Botanical Gardens, (Sponsor, Birmingham and Five Counties Architectural Association.) 8 p.m.-1 a.m. FEB. 3

**GLASGOW.** *Exhibition of Plans submitted by the Students of the Glasgow School of Architecture for the Development of the Lanarkshire Sixth District Area.* At the Scottish Building Centre, 425, Sauchiehall Street, Glasgow, C.2. (Sponsor, Lanarkshire Sixth District Development Association.) UNTIL JAN. 27

**LONDON.** *Exhibition of Soviet Architecture.* At the RIBA, 66, Portland Place, W.1. (Sponsor, The Society for Cultural Relations with the USSR.) MAR. 3

*Exhibition of Art, Chiefly from the Dominions of India and Pakistan.* At the Royal Academy Galleries, Piccadilly. An exhibition of sculpture, painting, textiles, jewellery, furniture. 10-7. Sundays 2-7. Admission 1s. 6d. UNTIL FEB. 29

*Building Contractors' Plant. The Problems Associated with Its Use.* A course of lecture discussions. Jan. 28, Sir George M. Burt, *The Contractor's View* (i). Feb. 4, W. Barker, *The Plant Manager's View* (i). Feb. 11, A. G. Raven, *The General Foreman's View* (i). Feb. 18, Howard V. Lobb, *The Architect's View*. Feb. 25, Norman E. Wates, *The Contractor's View* (ii). March 3, H. E. Hodgson, *The Plant Manager's View* (ii). March 10, A. G. Buck, *The General Foreman's View* (ii). At the LCC Brixton School of Building, Ferndale Road, S.W.4. 7.0 p.m. Wednesday evenings. UNTIL MAR. 10

Dr. K. W. Mantner. *The Design of Structures in Areas Subjected to Mining Subsidence.* At 11, Upper Belgrave Street, S.W.1. (Sponsor, ISE.) 6.0 p.m. JAN. 22

MOH Exhibition. *Housing Design and Layout.* Much of the material displayed at the Building Trades Exhibition at Olympia by MOH will be on view, including the plan for high density development. At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, MOH.) JAN. 26-FEB. 14

Sir Frank Stockdale. *Recent Planning Developments in the Colonies. Detailed Description of West Indian Schemes,* by R. J. Gardner-Medwin. At the RIBA, 66, Portland Place, W.1. (Sponsor, RIBA.) 6 p.m. JAN. 27

F. B. Botham. *Municipal Industries.* At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, HC.) Buffet lunch, 12.45 p.m.-1.15 p.m., 2s. 6d. Talk, 1.15 p.m.-2.15 p.m. JAN. 27

Arthur Ling. *Planning Developments Abroad—USSR.* At the Planning Centre, 28, King Street, W.C.2. (Sponsor, TCPA.) 6.15 p.m. JAN. 28

Edward Newnham. *The Internal Planning of the Home.* At the Planning Centre, 28, King Street, W.C.2. (Sponsor, TCPA.) Buffet lunch, 12.45-1.15. Lecture, 1.15 p.m. JAN. 29

Exhibition. *Publicity Parade.* At Gas Industry House, 1, Grosvenor Place, S.W.1. (Sponsor, BGC.) UNTIL JAN. 31

Arthur Capewell. *Practical Aspects of the Town and Country Planning Act, 1947.* At the Institution of Civil Engineers, Great George Street, S.W.1. (Sponsor, RICS.) 5.30 p.m. FEB. 2

H. C. Goddard. *Effect of Services on Planning and Design.* At the RIBA, 66, Portland Place, W.1. (Sponsor, ASB.) 6 p.m. FEB. 3

Miss D. M. Elliott. *National Institute of House Workers.* At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, HC.) Buffet lunch, 12.45 p.m.-1.15 p.m., 2s. 6d. Talk, 1.15 p.m.-2.15 p.m. FEB. 3

F. D. Silvester. *Wood Construction.* At the Hammersmith School of Building. (Sponsor, TDA.) 8 p.m. FEB. 4

**MANCHESTER.** *Exhibition of Painting and Lettering.* By John Stanley. At the Municipal School of Art. UNTIL JAN. 24

**SWANSEA.** *Swansea Building Employers Association Annual Dinner.* At the Langland Bay Hotel, Swansea. (Sponsor, Swansea BEA.) 6.30 p.m. JAN. 23

**COMPETITIONS**  
*Royal National Eisteddfod of Wales Architectural Competitions, 1948.* Competition 192 for a county college. Competition 193 for a neighbourhood unit layout. Assessors: C. F. Bates and T. Alwyn Lloyd. Premiums: £50 in each case. Conditions and entry forms from Rev. W. J. Samuel, General Secretary, 38, Dunraven Place, Bridgend. Entries to be submitted between June 5 and 14. JUNE 5-14

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Development and Welfare in the West Indies. New Buildings Designed by the Development and Welfare Housing and Planning Staff. . . . .	83
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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. The JOURNAL's starring system is designed to give this emphasis, but without prejudice to the unstarred items which are often no less important.*

★ 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.*

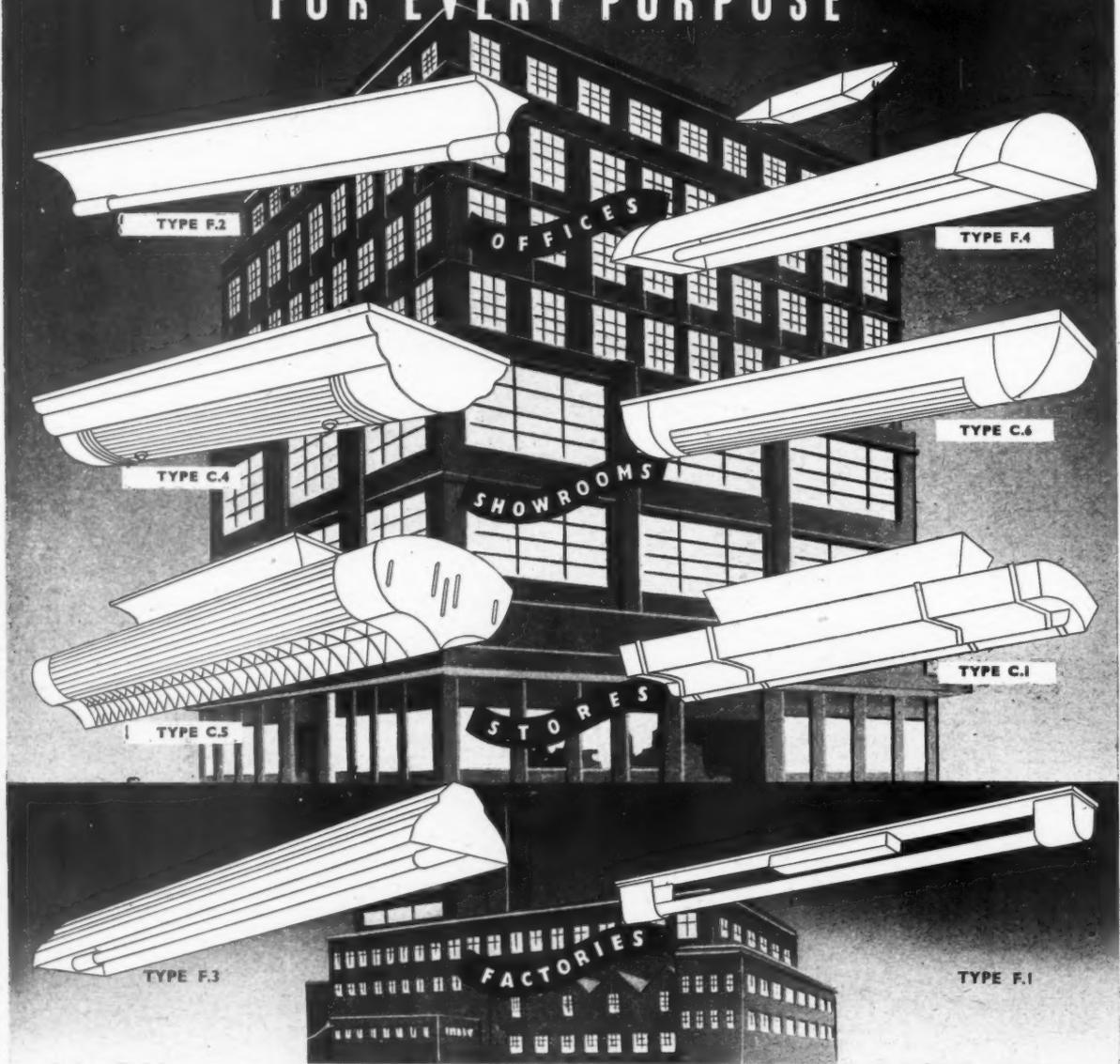
*The Union of South Africa has started to build a TOWN FOR 2,000 NATIVE FAMILIES. This is an entirely new departure in South African town planning.*  
The 900-acre site is three miles north-east of Kingwilliamstown in Eastern Cape Province. It is planned to give the natives all the amenities of modern urban life. A textile factory is being erected near by as an integral part of the scheme to provide employment. The native population of this province has increased so rapidly during the last seventy years that their land is overcrowded and overstocked. Among other steps necessary to improve conditions is the finding of homes for natives who cannot be absorbed in agriculture. The plan provides churches, schools, health centre, and other amenities. Rents are reasonable, £1 a month for a four-roomed house, and it is intended to allow approved families to buy their own houses. A native council will administer the town, under the direction of a European Administrative Officer. In due course, when the inhabitants are considered capable of undertaking the duties involved, full control will be handed over to them. If this scheme proves a success it will lead to the planning of similar towns and a new era of development for natives throughout South Africa.



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## From AN ARCHITECT'S Commonplace Book

**WINDING ROADS AND STRAIGHT ROADS.** [From *The City of To-morrow*, by *Le Corbusier* (Architectural Press).] Twenty or thirty years ago Camillo Sitte explained to us that the straight road was a stupid thing, and the winding road the ideal. The straight road, he said, was really the longest path between two points, the winding road the shortest; his demonstration, which was based on the maze-like cities of the Middle Ages, was ingenious but specious. He forgot that the cities he quoted were little more than half a mile long and that their charm was the result of something quite apart from town planning. He put forward and brilliantly sustained his paradoxical argument and the fashion was set. Munich, Berlin and many other cities began to build these mazes in the very towns themselves. The English and the Germans went on planning their garden cities on the principle of the winding road and the experiment seemed successful enough at a time when conditions were less exacting. In France we have arrived at the winding road just twenty years later and it all looks very nice on the charmingly tinted plans of the landscape architect. In fact, winding roads in the town planner's schemes are almost a symbol in themselves of the Garden City.

★★

*The directors of Welwyn Garden City, Limited, have served NOTICE OF OPPOSITION to the proposal of the Minister of Town and Country Planning for the formation of a Development Corporation for Welwyn Garden City.*

An extraordinary general meeting of the shareholders is to be held on February 6 to consider five resolutions put forward by the directors. In a notice to shareholders, Sir Theodore Chambers, the chairman, states that from August 13, 1947, the directors made repeated attempts to obtain an interview with the Minister, but it was not until after the issuing of the Draft Designation Order on January 7, 1948, that the directors were invited to a preliminary meeting with officers of the Ministry, which took place on January 9.

*AA School of Architecture offers the following SCHOLARSHIPS in Architecture during 1948.*

*Entrance Scholarships:* Leverhulme Scholarship, value £200 per annum; Minter Open Entrance Scholarship, £90; Sir Walter Lawrence Open Entrance Scholarship, £90; Metal Window Scholarship (presented by the British Metal Window Manufacturers' Assoc., Ltd.), £75 per annum; Natural Asphalt Council Scholarship (presented by the Natural Asphalt Mine-Owners and Manufacturers' Council), £50 per annum; Northern Aluminium Scholarship (presented by the Northern Aluminium Company), £50 per annum; Patent Glazing Scholarship (presented by the Patent Glazing Conference), £50 per annum. These scholarships, which are tenable for five years at the AA School of Architecture, will be available to students of British nationality. They will be awarded for one year, with the intention that they shall be renewed from year to year until the student has completed the course; renewal being subject to a satisfactory report of the student's progress, and to proof of the continued need for such assistance. *Senior Entrance Scholarship:*

Metal Window Senior Scholarship (presented by the British Metal Window Manufacturers' Assoc., Ltd.), £50 per annum. This Scholarship, which is tenable for two years, is open to students of British nationality, who have passed the Intermediate Examination of the RIBA, either externally, or at another recognised school of architecture, and is for entry to the fourth year of the course, and subject to satisfactory progress by the student, will be renewed for the fifth year. Full particulars and forms of application from the Secretary of the Architec-

tural Association, 36, Bedford Square, London, W.C.1, and forms of application should be received not later than April 1 for all except the Leverhulme Scholarship, the date for which is June 1.

*The Right Hon. Lord Inman has accepted the office of President of the HEALTH CONGRESS, which is to be held at Harrogate from May 24 to 28 next by the Royal Sanitary Institute.*

Eight sections have been arranged for the Congress, and these will deal with: Preventive Medicine, Engineering and Architecture, Maternal and Child Health, Veterinary Hygiene, Food and Nutrition, Housing and Town Planning, Tropical Hygiene, Hygiene in Industry. In addition, there will be conferences of medical officers of health, engineers and surveyors, sanitary inspectors and health visitors. Among the presidents of sections and conferences will be the following: Professor G. S. Wilson, Director, Public Health Laboratory Service; Professor P. A. Buxton, C.M.G., Professor of Entomology, London School of Hygiene and Tropical Medicine (University of London); Professor Andrew Topping, Professor of Preventive Medicine, University of Manchester; Professor R. E. Lane, Professor of Industrial Health, University of Manchester; Mr. J. H. Forshaw, M.C., Chief Architect and Housing Consultant, Ministry of Health; Mr. J. B. L. Thompson, M.C., President, Institution of Municipal Engineers; Mrs. M. D. Baird, Chairman, Public Health Committee, Aberdeen; Mr. H. B. Allan, Superintending Inspector, Animal Health Division for Yorkshire, Ministry of Agriculture and Fisheries; Dr. F. Hall, C.B.E., President, Society of Medical Officers of Health; and Mr. H. Priestley, M.B.E., Chief Sanitary Inspector, Blackpool. The programmes for the sections and conferences, which will contain many subjects of special interest this year, are nearing completion, and details of these will be announced later.

*The tenth report of the CENTRAL COUNCIL FOR THE CARE OF CHURCHES has been issued.*

It contains an account of the measures taken to protect Church treasures during the war. Twenty-nine lorry loads of furniture from London City churches went to St. Audries School, Somerset, valuable plate was sent to the cellar of an Exmoor farm, and the oldest London bells went to Cleve Abbey.

Canopied stalls from Lancaster Priory Church were stored in the base of the Keep of Lancaster Castle—and so on. Special attention is given to stained glass. Much of this was taken down during the war, with the result that serious losses were few, the most regrettable being the only remaining figure from the glass of Henry VII's Chapel in Westminster Abbey and windows at St. Andrew's, Holborn, Dibden (near Southampton), Basingstoke, Clyst St. George (near Exeter), and St. Martin, Coney Street, York. The work of replacing the glass taken down is in progress in many churches, and in many places it has been possible, as in York Minster, to rearrange correctly ancient glass which was previously a complete jumble.

*Real estate operators have bought one of the most valuable pieces of land in the midtown district of NEW YORK: the block between 43rd and 44th Streets facing the Avenue of the Americas, and are going to build on it a 6,000-car garage.*

*The Municipal Association of New Zealand has offered timber to panel and furnish a committee-room in the RECONSTRUCTED GUILDHALL.*

The Lord Mayor of London has laid before the Court of Common Council a letter from the Mayor of Wellington, New Zealand, offering the timber on behalf of the Municipal Association of New Zealand. The court placed on record its appreciation of the generous offer.

★

*A suggested AMENDMENT TO THE STEVENAGE TOWN PLAN to divide the proposed industrial area in two is supported by the Stevenage Urban Council.*

Instead of the whole industrial area being on one side, west of the railway line, it is proposed that part should be moved to the north-east, on the other side of the line, and that the remainder should start at the south end of Fairview Road and continue southwards. The flow of labour in two directions instead of one would ease the strain on transport and it would be possible to reduce the huge unsightly areas of concrete in the centre of the town, which would be created by embankments, flyovers, and raised roads. The proposal is to be submitted to the Development Corporation.



## *The West Indian Background*

From an aeroplane few scenes could surpass the beauty of the Grenadines strung out below in the Caribbean: the blue water shelving to green, the silvery beaches and vivid green of trees. On closer view there is the wealth of tropical plants, jagged peaks covered with vegetation, and old Colonial buildings—forts, plantation houses and harbours—as exemplified in St. George's, Grenada, above. But the real West Indies is not all so pleasant. At one time it was called the slum of the Empire. Today it is

the scene of much hard work to improve conditions both by West Indians and British working within the framework of the Development and Welfare Act. Some of the results of this work will be described by several of the architects who have recently been engaged on it at a meeting at the RIBA on January 27. Examples of the buildings already completed, together with a description of the background against which the work is being done, appear on later pages of this issue.

*The Minister of Health and Local Government for Northern Ireland, the Right Honourable WILLIAM GRANT, M.P., has been discussing the housing situation in Ireland with the Minister of Health and the Minister of Works.*

In a comparison of figures for houses completed from the end of the war until October, 1947, the Minister stated that owing to a shortage of materials, only one-third of the number of houses built in England were being built in Ireland. The Minister hoped that as a result of his visit the situation would improve.

★

*As part of the Government's plan for developing the resources of the Scottish coalfields, and for increasing Scottish coal production, a site in East Fife has been designated for the PROPOSED NEW TOWN OF GLENROTHES.*

Decline in output in the Lanarkshire coalfields, which are becoming exhausted, Mr. A. Woodburn, Secretary of State for Scotland, states in a memorandum issued today, must be made good as rapidly as possible by expansion elsewhere, mainly in the coalfields of Fife, Clackmannan, and the Lothians. "The Secretary of State," the memorandum states, "is fully conscious that this would be a serious loss of agricultural land. But this loss has to be considered in the light of the urgent need for developing a new community to accommodate the additional miners to be employed in East Fife and other persons engaged in balancing industries."

*Birkenhead's new POWER STATION AT BROMBOROUGH, now estimated to cost £8,000,000 against a pre-war figure of £2,000,000 is expected to start operating in November, 1949.*

The full station will be working to capacity before the end of 1950. Forming part of the national grid, the new station will occupy a 56-acre site on the Cheshire bank of the Mersey, immediately below the Eastham locks entrance to Manchester Ship Canal. Four steam turbine alternator sets are to be installed, and the station will be one of the first in the country to use hydrogen instead of air for cooling.

*At the conference in Harrogate of the National Housing and Town Planning Council the following RESOLUTION, forwarded to the Government, was passed:*

That this Conference, representing over 1,000 Housing Authorities in Great Britain, being apprehensive at certain announcements recently made in the name of H.M. Government, trust that all possible measures will be taken by the Government to ensure that full-scale building activities shall proceed so that the many thousands of families now living in overcrowded and otherwise unsatisfactory conditions may be speedily provided with comfortable homes. The Conference is convinced that it is vital to the welfare and economic security of the country that all sections of its people should be adequately housed.

## A NEW DEAL FOR THE WEST INDIES

A NEW era in the history of Britain's relations with the Colonial Empire began as a result of the disturbances in the West Indies in the late thirties; the West Indies Royal Commission of 1938-39 was appointed and there followed the Colonial Development and Welfare Act of 1940. It was established by the Royal Commission that the social and economic conditions of the inhabitants of the West Indies were most unsatisfactory, and that the islands themselves were unable to support the cost of the necessary improvements. The Colonial Welfare and Development Act therefore provided £5 million—with an additional half million for research—for the whole of the Colonial Empire, and in 1945 a new Act was passed which made available £120 millions over a period of ten years. Of this up to a million pounds a year could be devoted to research.

As a result of these enactments, planning, housing, education and the provision of a co-ordinated health service, all became part of a practical programme. Comprehensive development plans for the effective and balanced use of land and proposals for industrial development have now been prepared, although similar studies are still awaited in the British Isles themselves. A Comptroller of Development was appointed whose function it is to advise the West Indian Governments on all matters covered by the Welfare and Development Act. In its comprehensiveness the work done by the Comptroller and his advisers resembles that of the TVA in America. The regional approach should be noted; the execution of the work is decentralized and local participation encouraged. For the first time a feeling of unity is being engendered among the West Indian islands.

In the TVA, however, the architectural quality of the villages and community buildings has lagged behind the brilliant design of dams and power stations. In the West Indies the work of the groups of architects who put into practice in the technical field the efforts of the Comptroller has produced some most interesting and lively buildings which are illustrated in this issue of the JOURNAL. The function of the planning and architectural staff was, however, not to execute buildings, but, as the Comptroller said in his recent report,\* "the study of West Indian social requirements, climatic conditions, building materials and building practice, as a foundation for the production of type designs for schools and housing schemes." Planning and housing surveys have now been made for a number of towns, and planning schemes prepared from the surveys. The work of execution is in the hands of the individual Governments, and town-planners and architects have now been appointed by these Governments. The first group of architects, led by R. G. Gardner-Medwin, whose work is illustrated in this issue, has now been disbanded

\* Development and Welfare in the West Indies 1945-1946. H.M.S.O. Colonial 212. Price 3s. 0d.

and the Comptroller is advised only by a Building Research official.

The first stage has thus been passed and the West Indies have been given a good start to better living conditions. The success of the work depended on many factors, but important among them was the appointment of young, able and keen architects who were able to bring a new attitude to colonial housing and building problems. Though none of the team were familiar with Colonial problems, they were familiar with the contemporary attitude to research work, they were eager to get to grips with practical problems and they had no doubts about the responsibility of the architect in contemporary society. The lesson of the West Indies must not be lost on the Colonial Office, so that other colonies may be as well served.



*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

THE PLANNING OF CENTRAL AREAS

It has taken MOTCP a week or two less than five years to put its first straight talk\* to planners on the book-stalls, and, even if HMSO is not immune from publishing delays, this is long enough. But at least it can be said that after all that time there has been no dodging of the things that matter. *The Redevelopment of Central Areas* deals—indeed, grapples—with the central, toughest and most abiding problem of town planning. It does so shortly (84 quarto pages); clearly (the 97 illustrations, except perhaps for the model photos and one joke, are patterns of their kind, and should be pinned round the walls of all publishers of development plans); and, above all, realistically.

\*Ministry of Town and Country Planning.  
*The Redevelopment of Central Areas.* H.M.S.O.  
Price 12s. 6d.

The realism deserves the highest praise. One feels that the technical officers of MOTCP have become more tired than most of us—as they have had good reason to be—with perspective visions which expand central areas to twice the reasonable size and line all main streets with six- and eight-floored buildings which will never, never be built. The handbook stops all that in Chapter 2, "Survey," by asking planning authorities to measure the floor space in use in 1939 for all major purposes (and not to forget empties). It is then suggested—Chapter 3—that they should think whether in the future a little more or a little less will be needed. Having obtained a shrewd idea of the floor space that will be needed, they are asked to think of the suitable density and thus arrive at about how big the central area should be. The uses most suited to the various parts of the central area more or less suggest themselves, and so the best boundary for the new central area begins to appear. By these steps, by holding firmly to *suitable uses, amount of accommodation* and the *main street pattern*, the handbook shows planners that by tackling the main problems in the right way the best solutions will come as near to emerging automatically as any competent planner has a right to expect.

Chapters 4 and 5 deal with the details of layout and the stages of redevelopment and thus complete the story. Just because they do not convey such an underlying impression of great effort to reduce complication to simplicity they may receive less attention from reviewers than the earlier chapters, but they are not likely to escape planners. For example, the variety of plot sizes

for shops that can be obtained while still providing rear access to all premises (Illus. 71 and 72) is a fact of great importance which I have never seen illustrated before; and larger (and therefore more desirable) retailers must have freedom in this matter.

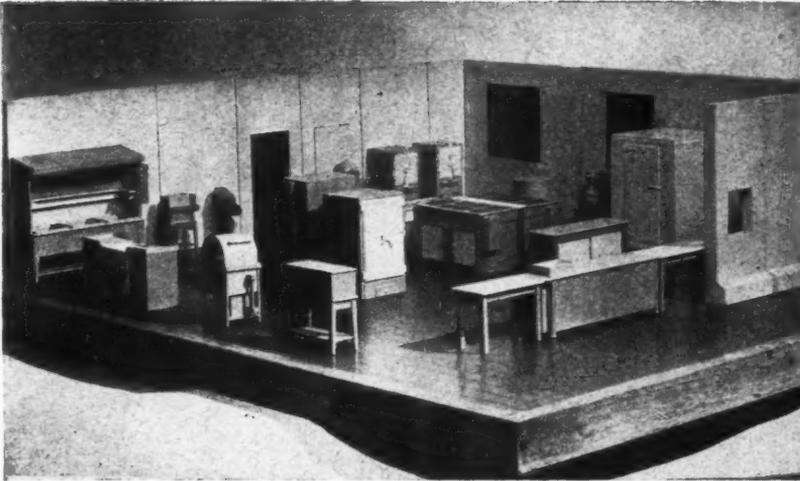
In case a first reading had aroused enthusiasm to the level where judgment suffers, I reread the handbook on the lookout for faults. I found only four candidates. The section on control of external appearance suggests in a mysterious way that the pros and the antis had fought each other to exhaustion and then someone—perhaps an administrator who had read his Ruskin and Richards—said "Leave it to me . . ." But does the result *really* do the trick? Then there's the survey that isn't physical survey. Just how do Bradford and Bournemouth survey their industrial future, and who is going to help them? Then there are those ring roads—we must be careful they are all justifiable on traffic grounds. Last, a second reading gives the impression that the floor space and use surveys, and subsequent shuffling of the data, could have been made a little simpler and shorter—fairly simple and short though they are.

The Daylight Code has not been mentioned because it is a most remarkable end to a remarkable handbook, and deserves a note to itself next week.

COUNCIL (BRITISH) AND . . .

Lighter but equally stimulating reading can be found in the British Council's newly-published annual report. To a good many people the British Council is merely an elaborate parlour-game run at the taxpayers' expense by ex-Service Blimps for the benefit of teased-out diplomats, obscure literary types, and experts in folk-dancing or gypsy folk-lore. Such people would be wise momentarily to stop reading those newspapers whose editors reach for their leader-writers whenever they hear the word "Culture," and to study instead this most encouraging record of a year's work both at home and in practically every country in the world.

Activities abroad have included the sponsoring of tours by the Vic-Wells ballet, the Old Vic and Gielgud



This model kitchen, exhibited on the BEDA stand at the Catering Exhibition at Olympia, has various sized wall units which can be arranged as desired to form a variety of kitchen plans. To ensure stability the units are magnetised and cling to the sheet-steel base of the model.



## LETTERS

*Kenneth Rae*

*(Secretary, the Joint Council of the National Theatre and the Old Vic).*

*Clifford E. Culpin, F.R.I.B.A.*

*Peter M. Bone*

### The National Theatre

SIR.—I think I must point out an inaccuracy which appears in the January 8 issue of *The Architects' Journal*.

If negotiations for the building of the National Theatre on the South Bank of the Thames have not as yet been finally concluded it is not because the Joint Council of the National Theatre and Old Vic has been unable to reach a decision. The decision does not rest with them but with the LCC, and very naturally, owing to the immense work involved in their planning of the entire South Bank, they have not as yet been able to come to a definite conclusion as to the final placing of the National Theatre between Waterloo and Charing Cross bridges.

KENNETH RAE,  
Secretary, the Joint Council of the National  
Theatre and the Old Vic.

London.

### To Professional Services

SIR.—I should like heartily to endorse the remarks of Mr. E. A. Down on the inadequacy of architects' remuneration on housing scheme work, and to add the following comments:—

(1) Architects are accustomed to calculate their fees on a percentage basis and the expression of the authorized fees as a percentage of the cost is revealing; but at a time of high and rising building prices it seems reasonable that fees should not be related to the cost of the houses. They *must*, however, be related to the architect's labour.

(2) Large schemes are likely to take a very long time to build and many changes may be necessary before the last block is complete. Therefore, not only should the figures at the top of the Scale be increased, but those below should not diminish with anything like the present rapidity.

(3) The fees for "Layout" and for "Constructional work for Roads and Sewers" do not bear a relationship proportionate to the work involved. If we take a section comprising the last 50 of a scheme of 300 houses, the fee for the Layout of that section, involving the design of the roads in plan, the arrangement of the houses and linking units, consideration of ground and floor levels, house drainage and tree planting, is £12 10s.; while the fee for the working drawings of the roads and sewers of the same section (and the road construction is fairly certain to be constant throughout the scheme) is £87 10s.

(4) No difference is made between level and sloping sites. A steeply sloping or seriously undulating site involves consider-

theatre companies, the organisation of concerts and exhibitions, and the arrangement of lectures upon subjects ranging from The British Parliamentary System to Contagious Abortion in Cattle, while at home courses have been held in such pursuits as social welfare and shipbuilding, and hundreds of distinguished visitors and students have been given help and hospitality. The Replanning Britain exhibition, which has toured Europe, the lectures by architects Gibson, Chitty, Matthew and Grey Wornum, the frequent visits here of foreign architects and, more recently, the Council's help with the AA Centenary celebrations, are some of the activities for which the architectural profession has particular reason to be grateful.

### ... COUNCIL (ARTS)

Less triumphant perhaps but no less valuable is the year's work reported by the Arts Council. The seller's market for culture in Britain ended with the war, and for the first time some of the Arts Council activities—particularly a recent theatrical venture in Yorkshire—have been losing money. But difficulties with finance are sometimes good discipline, and the Council, which has given us recently such delights as the Paul Klee and French Tapestry exhibitions, to say nothing of the Old Vic productions and many less celebrated but equally vital artistic ventures in the provinces, need not feel despondent about its achievements, and its chairman, Sir Ernest Pooley, when

opening the AA Centenary exhibition before Christmas, was right to speak with pride of its record.

### VALE VAN GOGH

One of its greatest triumphs—too late for inclusion in the report—was the Van Gogh exhibition at the Tate Gallery. This has just closed after being seen by over 150,000 people, most of whom had queued a long time to get in. Those of you who were unlucky enough to have missed this very exciting exhibition may have a second chance to see it when it visits Birmingham and Glasgow during February and March, and are strongly advised to do so.

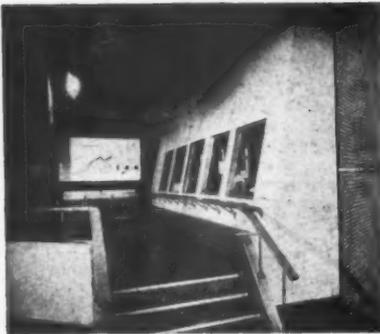
### EVERYTHING AND THE KITCHEN STOVE

Now that every factory and school has to have full-scale feeding arrangements, I suppose the Catering Exhibition (at Olympia till the end of this week) is therefore a must for all of us who are doing any work at all. More equipment than I had ever imagined to exist is there, from flooring materials to plates and cutlery, *via* all the large-scale kitchen equipment and those peculiar triple geyser affairs which somehow make coffee or tea with equal impartiality.

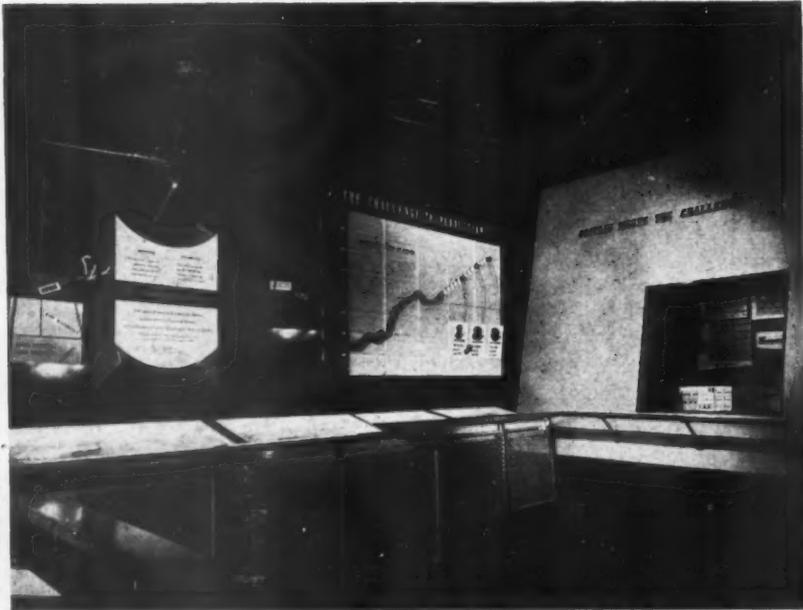
I missed the international cocktail competition, largely because I found the assessors had already been appointed.

ASTRAGAL

## "HOW GOES BRITAIN"



To present a general picture of the economic state of the country a six months' exhibition is being held at Charing Cross Underground Station. Designed and produced by Design Research Unit, this exhibition is of special interest because, to facilitate a monthly change of material, it has been so arranged that the display features can be easily removed without damaging the permanent background. Top, the wall facings of standard perforated steel sheets which are held by 2 in. by 1½ in. studs about 3 in. away from the existing walls. A possible criticism is the difficulty of reading small lettering against this background. The show cases are screwed back on to the studs through the holes in the metal. Left, a general view. The raised floor is of 1-in. boarding on standard scaffolding and is finished in cork tiles, which also form the skirting. Hardwood and chromium-plated steel tube is used for the barriers. Below, a close up, the valerium is of white string, stretched below the station ceiling, which is painted black.



able additional work if the stepping of blocks and handling of levels is to be done "architecturally." In some schemes almost every block has to be separately designed.

(5) Far more important than the effect on the purse of the conscientious architect is the adverse effect these low fees have had on the standard of housing-scheme architecture. It appears that, in an endeavour to "make it pay," many architects have limited their designs to a few types of pairs, and these are dotted along the roads in the good old housing scheme manner. Instead of these schemes being a model, to the rest of the town or village, of how dwellings can be designed and grouped to give interest and variety, yet form a harmonious whole, they justly deserve that expressive description—"Council Houses."

I think that most private architects engaged on Local Authority work would support a conference, or any other step consistent with professional decorum, that would result in reconsideration of the Scale.

London

CLIFFORD E. CULPIN,

### Filing AJ Pages

SIR,—In common, I believe, with most students, I place the information in your journal in the following order of importance:

- (1) Plans, sections and photographs of current building schemes.
- (2) Working details of the Information Sheet type.
- (3) Physical Planning Supplements.
- (4) "Information Centre" and "The Industry."

Since I file these items in the same order of priority, plans and details of current building always taking priority, you will perhaps realize the uselessness of printing "Information Centre" items on one side of the page only, to be backed by a page of information of a far more important nature.

In short, realize that some people file practically all their Journal, and their ideal magazine would be advertisement backing to every page. Even the Planning Supplements have not been sacrosanct, my bound copy being splashed with details of Dymaxion House, important papers on precast reinforced concrete, and the west wing of the Newport Civic Centre (Police Court entrance).

Thank you for an otherwise fine magazine, unequalled in value in this or any profession.

PETER M. BONE  
(Student, RIBA)

Leicester School of Architecture

[It is proposed that all Information Centre pages should be backed by advertisements as soon as paper supplies allow, but there are serious objections to all editorial pages being arranged in this way. The character of the AJ would be largely destroyed, no continuity of design being possible with every editorial page faced by an advertisement, and in particular, since in normal times the illustration of new buildings is, as our correspondent says, the most important feature of the Journal, uninterrupted spreads of two facing pages are necessary properly to display groups of plans or photographs.

When paper supplies permit, the following general pattern will be followed as closely as possible:—

- (1) All Information Centre and similar material (designed to be cut out and pasted up) will be backed by advertisements.
- (2) Plans and photographs of current buildings and Planning Supplements will be reproduced on both sides of pages, but in the form of self-contained groups, without overrunning on to the backs of pages devoted to other material.
- (3) Working details or price schedules will be printed as complete double-sided sheets, or will be backed by advertisements.—Ed. AJ.]

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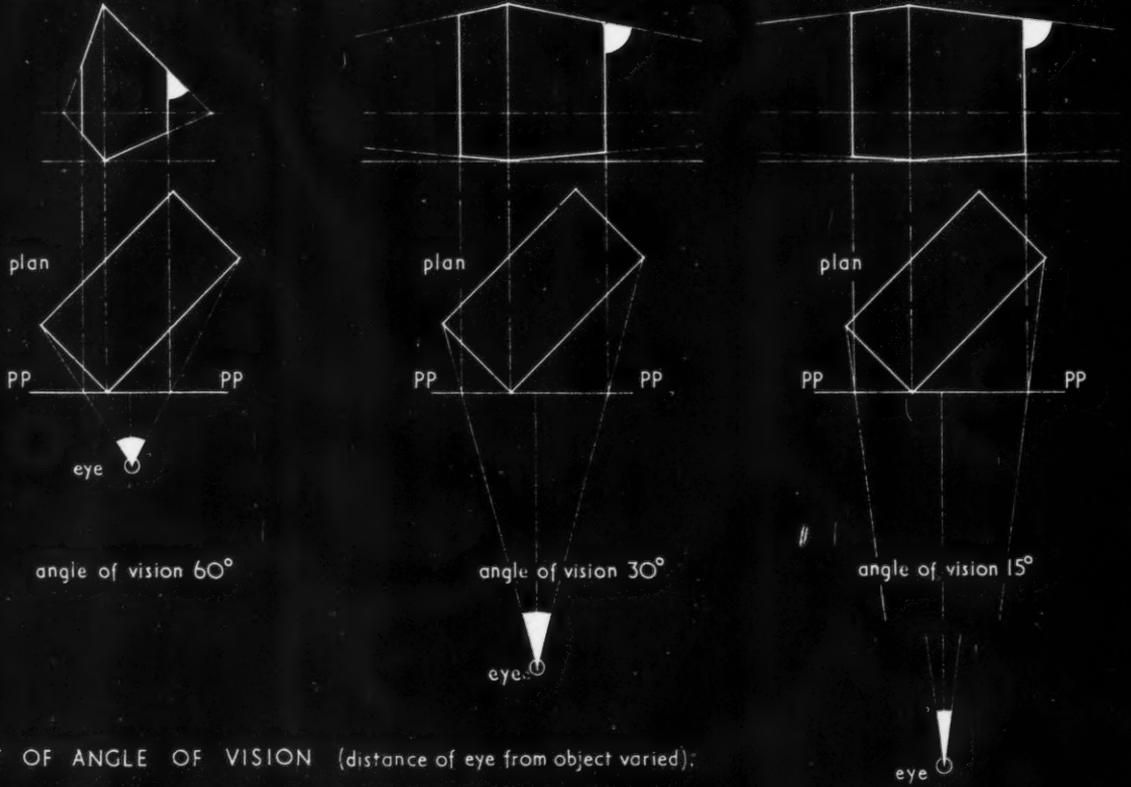
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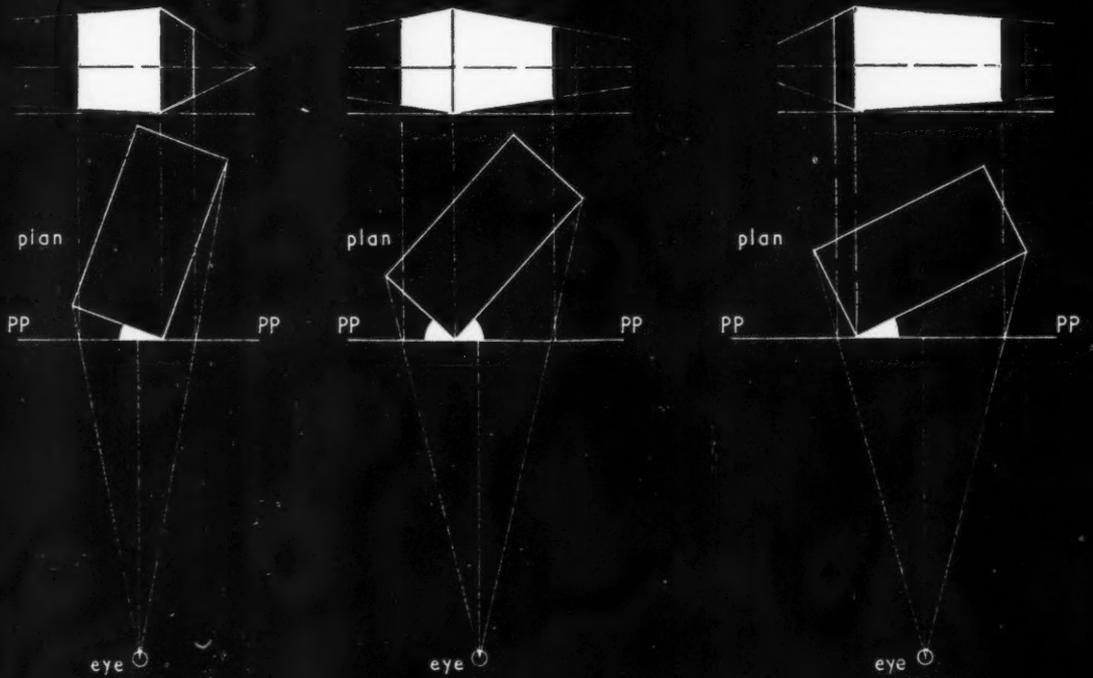
# DRAUGHTSMANSHIP | PERSPECTIVE

I.B27

The Architects' Journal Library of Information Sheets 33. Editor: Cotterell Butler, A.R.I.B.A.



EFFECT OF ANGLE OF VISION (distance of eye from object varied):



EFFECT OF EYE POSITION IN RELATION TO OBJECT (distance of eye from object constant).

## SELECTION OF EYE POSITION ON PLAN.

Compiled by Leslie A. Lee, I.C.B., and H.N. Hoskins, A.R.I.B.A. for Easby Pencil Company. (Class. Sect. 17)

## 1.B27 SELECTION OF EYE POSITION ON PLAN

This Sheet, one of the series on draughtsmanship, deals with the theory of perspective and describes the selection of eye position on plan.

### Distance from Object

In the first three examples the position of the object relative to the centre line of the cone of vision is constant, but the distance of the eye from the object is varied, resulting in different perspective views. To correspond with the normal range of vision of the eye, the angle of vision in a horizontal direction should be between the angles of 30° and 60° and in a vertical direction the angle of vision should not exceed 45°. Too close a viewpoint, *i.e.*, a large angle of vision, results in a very steep and distorted projection, while too distant a viewpoint, *i.e.*, a small angle of vision, produces a flat and uninteresting view.

The angles of vision and corresponding angles of steepness have been filled in solid in the upper diagrams.

A general rule, useful as a guide, is that three times the height of the building will give a suitable distance for the position of the eye measured from the nearest angle of the building. A subsequent Sheet in this series will deal in greater detail with the position of the eye level.

### Position of Eye in relation to Object

The three examples at the bottom of the Sheet show the eye at a constant distance from the object but with the relation to it varied. The choice of the position of the eye in relation to the object generally depends on the importance of the façades that are to be seen in the projection. The first example illustrates a suitable

viewpoint if the short façade is the more important; the second example, if both façades are of interest; the third if it is required to see the long façade to the best advantage.

The angles of inclination on plan of the more important façades and their corresponding appearance in the perspective views have been filled in solid in the lower diagrams.

The following general points should be considered: the direct line of vision should not pass through the nearest angle of the building (or a recessed angle as in an L shaped plan); the width of the façades on each side of the nearest angle (or recessed angle) of the building as seen in perspective should not be equal, as a forced symmetry usually results from such arrangements. A good view of a building with a simple rectangular plan and an important long façade is generally obtained by making the diagonal of the plan approximately parallel to the picture plane (see bottom right hand diagram).

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

*Compiled from information supplied by :*

**Eagle Pencil Company.**

Address : Ashley Road, Tottenham, London, N.17.  
Telephone : Tottenham 4435-6-7.  
Telegrams : Octennial, London.

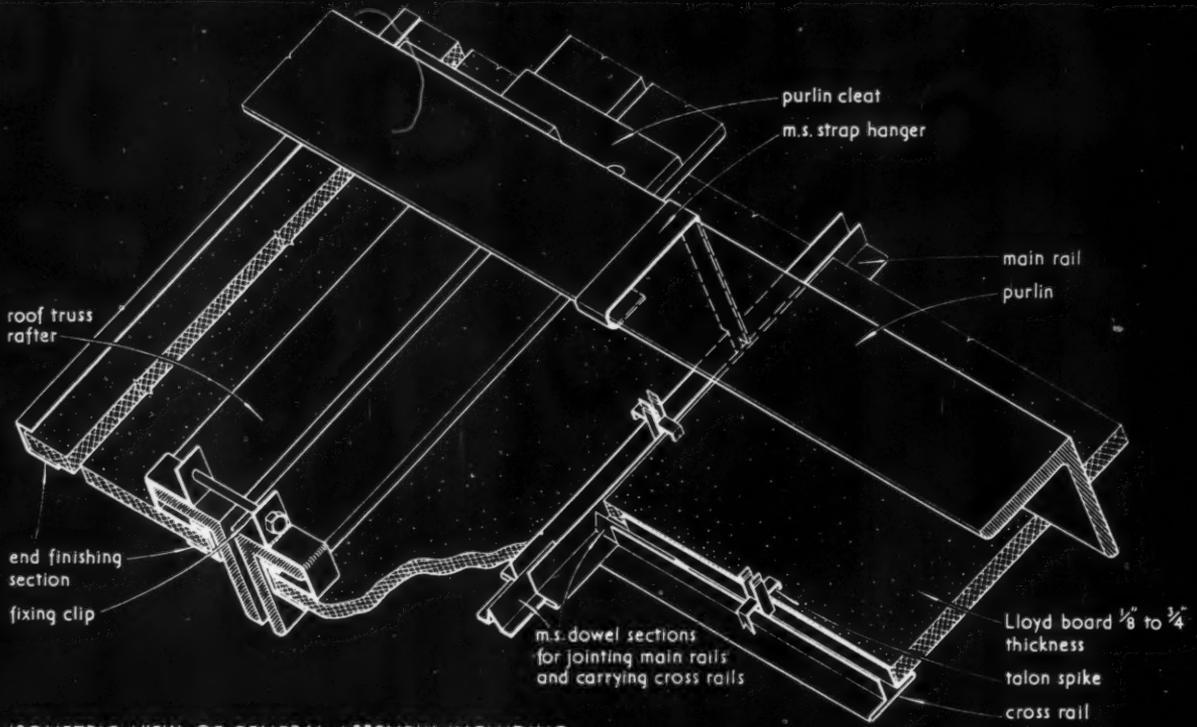




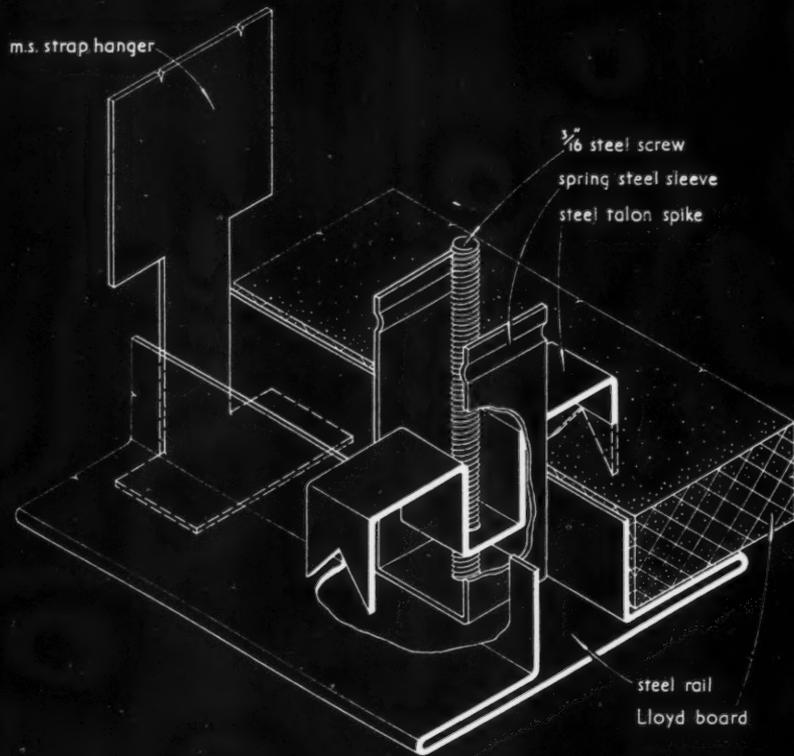
# CEILING BUILDING BOARD

22.D1

The Architects' Journal Library of Information Sheets 34. Editor: Cotterell Butler, A.R.I.B.A.



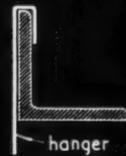
ISOMETRIC VIEW OF GENERAL ASSEMBLY INCLUDING FINISH AT RAFTER AND END OF PANEL.



DETAIL OF ASSEMBLY OF COMPONENTS.



hanger ANGLE.



hanger ANGLE.



hanger TUBE.

FIXING TO ALTERNATIVE TYPES OF SUPPORT.

## 22.D1 LLOYD TALON SYSTEM OF BOARD FIXING

This Sheet describes a system of board fixing combining the use of Lloyd standard insulation board and mild steel suspension and jointing members to provide a thermal insulation lining for all types of building. It is so designed that, without the necessity for drilling, it can be applied to standard roof or ceiling structures of steel, concrete or wood or structural members of angle, channel, tube or rectangular section. The standard components take boards from  $\frac{1}{4}$  in. to  $\frac{3}{4}$  in. thickness and all fixing points are visible and easily accessible.

The spiked talon locks the whole area covered and secures the boards against vibration, wind pressure, etc.

The only tools required for assembly are a hacksaw and a screw-driver.

### Components

**Rails:** These are seamless with rounded edges and flush fitting screw holes and are supplied in lengths of 2 ft. and 4 ft. to 16 ft. in rises of 1 ft. They are 2 in. wide with  $\frac{1}{2}$  in. upstands.

**Talons:** The talon spikes are screw mounted to the rails at 1 ft. centres to secure two boards, one on each flange. They are detachable to enable boards to be removed for roof inspection.

**Hangers:** These support the rails, are self-locking and are normally supplied 1 ft. long but can be supplied to any desired length. They are adjustable to any centres without drilling, screwing, etc., and may be folded round steel or timber roof structural members.

**Bridges:** Continuous or transverse lengths of rail are linked by means of mild steel dowel sections or bridges as shown on the face of this Sheet.

**End finishing sections:** A finish for single edges of boards as at eaves, rafters, ridge, etc., is provided by

means of a channel end finishing section. A fixing clip connects these to main structural members.

### Insulation Boards

Lloyd standard insulation boards are supplied in lengths of 6 ft. to 12 ft., in rises of 1 ft., by 2 ft. wide.

### Finish

The mild steel components are sherardised.

### Sound Absorption

$\frac{1}{2}$  in. insulation board lining has a sound absorption coefficient of 0.3 (average).

### Thermal Insulation

The thermal insulation of Lloyd insulating board lining is calculated from the conductivity value  $K = 0.35 \text{ B.Th.U./sq. ft./hr./1}^\circ \text{ F./1 in. thickness.}$

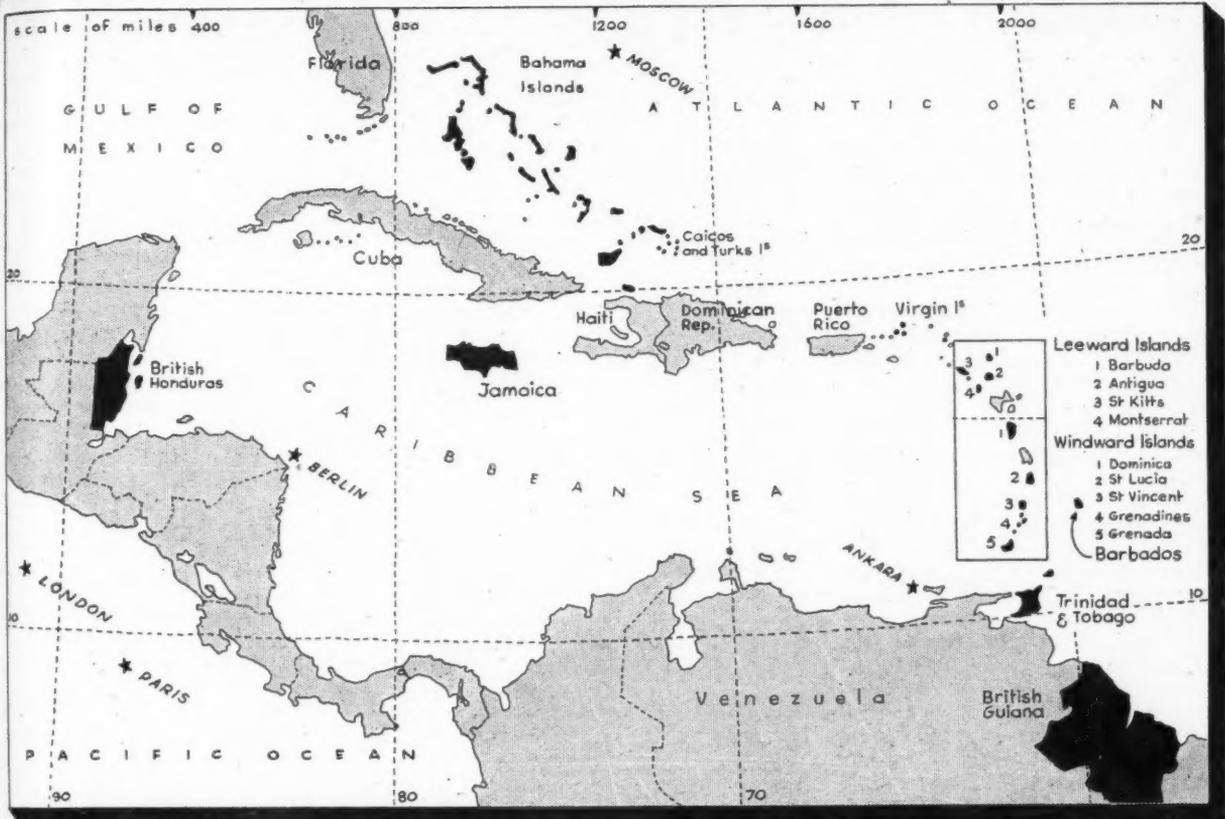
### Trade Name

This is a proprietary system manufactured under the trade mark Lloyd Talon Fixing.

Compiled from information supplied by:

Lloyds Boards Ltd.

Address: 15, Portman Street, London, W.1.  
Telephone: Welbeck 8527.



A map of the West Indies on which the capitals of Europe have been super-imposed to indicate the area covered.

# DEVELOPMENT AND WELFARE IN THE WEST INDIES

NEW BUILDINGS DESIGNED BY THE DEVELOPMENT AND WELFARE HOUSING AND PLANNING STAFF

LOOK well at the map. The round of the capitals of Europe gives some measure of the distances travelled many times a year by the Colonial Development and Welfare staff from their headquarters in Barbados to all parts of the British West Indies.\* Most of the journeys can now be made by air, but to Dominica and to some of the smaller islands of the Windward and Leeward groups one mostly has to sail by schooner. By schooner from Barbados to Dominica may take anything from two to five days; but such hazard makes that most wild and precipitous of tropical islands all the more alluring.

Notice the scattering of the British

\*There are 14 colonies with separate governments: Jamaica; British Honduras, British Guiana; Trinidad; Barbados; the Windward Islands, comprising Grenada, St. Vincent, St. Lucia and Dominica; the Leeward Islands, with a partial federation of the governments of Antigua, St. Kitts, Montserrat, and the Virgin Islands; and the Bahamas, which are outside the sphere of Development and Welfare.

island and mainland colonies. The Windwards and Leewards, with Barbados between, are fairly closely grouped, but they are interspersed with French islands. Puerto Rico, the Dominican Republic and Haiti separate this group from Jamaica by a thousand miles; and British Honduras is another seven hundred miles from Jamaica. The British West Indies cannot be said to possess a geographic entity; there are, in fact, immense differences in physical features and social characteristics. Racial origins in most of the colonies are predominantly negro with varying mixtures of white, but in British Guiana and Trinidad the descendants of the indentured Indians and Chinese outnumber the descendants of the original African slaves. In both these colonies there is a cosmopolitan professional and commercial class of British, French, Portuguese, Indian and Chinese descent. The pure

white settlers in the other colonies vary from about 7 per cent. in Barbados to less than 1 per cent. in some of the smaller islands.

Geographic isolation and inadequate sea communications have hitherto prevented the growth of a feeling of common identity, but three developments in the last seven years have contributed to the political urge for federation. These are the setting up of the Development and Welfare organisation; the growth of air services; the founding of the University of the West Indies. Most important, whatever its shortcomings, is Development and Welfare, which has focused attention on common problems of economic and social reorganisation and has provided a common meeting ground, in the absence of a central authority, for conferences of political representatives and government officials.

It is important to appreciate the varied

relation of population to area in the British colonies. Jamaica, with nearly half the total population (1,289,072 out of 2,848,947 in 1946) is about the size of Northern Ireland. British Honduras (59,149) is about the size of Wales, and contains large areas of undeveloped forest. Barbados (192,841), with an area about equal to the Isle of Wight, is the most intensively cultivated and the most seriously over-populated. British Guiana (376,146) is the largest and least populated colony, having an undeveloped and partly unexplored hinterland and an area about equal to England and Scotland.

The main export crops of the West Indies are well known: sugar (and its important by-product, rum); bananas; citrus fruits; copra; cocoa beans; arrowroot; and, in smaller measure, vanilla, tobacco and sea-island cotton. There are important export timbers in British Honduras (mahogany and other valuable hardwoods) and in British Guiana (mainly greenheart).

Industries, other than those connected with agriculture and forestry, play a minor rôle, except in Trinidad, where the production of oil and asphalt from the famous pitch lake have produced comparative wealth, though not to the extent that the colony is independent of financial aid from Development and Welfare funds.

From the earliest colonization days, the land of the West Indies was almost wholly exploited to supply the needs of the outside world at maximum profit to the planter, and more often than not the good of the land and the welfare of the people were neglected. This was the main cause of the growing poverty which led to the disturbances of 1938 and the subsequent investigations of the Royal Commission.

The Colonial Development and Welfare Act and the establishment in 1940 of the organisation known as Development and Welfare in the West Indies (D & W henceforth) were the outcome of the Royal Commission's recommendations.\* The most important contribution which D & W has made is undoubtedly the founding of a new agricultural and forestry policy, in which the more scientific development of export crops is balanced by the production of crops for home consumption. Most important among the new home crops is grass, the growing of which has led to soil conservation and the rapid development of dairying.

\*Report of the West India Royal Commission. (Cmd. 6607, H.M. Stationery Office.)

The Royal Commission's report, which was made available to the public in 1946, should be read by all who are interested in the historic background and in an analysis of West Indian economic and social problems.

A lucid account of D & W progress is to be found in the 1945-46 report by Sir John MacPherson, the Comptroller for that period.\* The Comptroller has a staff of professional advisers in agriculture, education, public health, planning and housing, engineering, labour and social welfare.

Architects and planners will be particularly interested in the introductory part of the MacPherson report, containing an indication of the good administrative and technical teamwork of the organisation, and in the chapter on Planning and Housing. There is nothing hidden which should be brought to light, no wishful thinking, no dodging the grim facts. The report covers the three years of our work, from April, 1944, to April, 1947. Architects were almost unknown in the West Indies before we arrived and town planners were quite unknown. There had been limited schemes for housing and slum clearance, mainly in Jamaica, where there was an active housing department, and in Trinidad, where a "Planning and Housing Commission" had made good use of its housing but not its planning powers. There had been no attempt anywhere to associate housing with town and country planning. Planning legislation and building by-laws had to be produced, surveys of living conditions carried out, before we were in a position to recommend solutions. The surveys were completed for most of the main seaport towns by the end of our first year.

These were followed by general development plans, accompanied by detailed layouts for the more urgent housing schemes. Funds for housing, however, are far from adequate, and at the present rate of expenditure it will be many years, perhaps generations, before the patchwork houses of termite-ridden timber and rusting iron can be replaced by well-constructed ones.

On the building side, though we were seriously limited financially, we enjoyed a wonderful sense of experimental freedom in our attempts to design buildings to suit the climatic conditions, the social customs and the building materials of the West Indies.

The day temperature over most of the

\*Development and Welfare in the West Indies, 1945-46. (Colonial No. 212, H.M.S.O.) Price 3s.

West Indies seldom falls much below 70° or rises much above 80°. The sun is dazzling but seldom excessively hot or harmful. Sometimes there is an uncomfortable humidity, but for most of the year refreshing trade winds blow from the north-east—south-east quarter. There are sudden squalls, with heavy rain, sometimes driven almost horizontally. And for a brief season there is the threat of hurricanes. These are the main climatic features which challenge the architect, and we found that surprisingly little consideration had been given to them. Verandahs, jalousies and hoods over sash windows are common enough, but there had been few attempts—fewer recently than in the early settler days—to take account of local conditions, and particularly to observe the prevailing wind in site planning and the disposition of rooms. The problem, we found, was to woo the trade winds and yet control them; to ward off glare and yet achieve good lighting. As economy was all-important, it was essential to rely more on air movement than on expensive insulation for coolness. Other problems to be met were the bracing and anchoring of buildings against hurricanes and their protection against wood-devouring termites.

Building costs, in spite of low labour rates, are, at least, as high in the West Indies as in England, and consequently the fullest economic use of local materials was our special concern. We started a central research bureau for this purpose, and drew up a programme ranging from the improvement of peasant building methods to the scientific use of West Indian timbers and of less familiar building materials like the sparkling white Barbados coral which, with an ordinary saw, can be cut like cheese into smooth slabs. We soon learned not to depend on fineness of detail, but rather on direct structural simplicity. There is no highly organised building trade, no engineering precision to rely upon.

The buildings illustrated on the following pages are experimental attempts to find simple solutions to West Indian problems. We hope that our successors—architects and planners now posted in the island and mainland colonies—may profit from our early mistakes and difficulties, and that, with the help of the young West Indian architects now coming on the scene, a distinct Caribbean variant of the new tropical architecture will emerge.

R. J. GARDNER-MEDWIN

*The Housing and Planning staff of the organisation known as Development and Welfare in the West Indies, whose work is illustrated on these pages, consisted of R. J. Gardner-Medwin (adviser to the Comptroller), Mrs. J. Burnett, L. G. Creed, T. G. Cullen and L. M. de Syllas. The West Indian staff were P. Phillips, C. McCowan, Miss E. Sealey and C. Barrow.*

*Acknowledgments for material on these pages should be made to the foregoing and also as follows: for the flats at Port of Spain, to Charles Newbold, Chief Technical Director of the Planning and Housing Commission, Port of Spain, Trinidad; for the school at Georgetown, British Guiana, to W. Heard, of the Public Works Department, site architect; to Mr. Allen, supervisory engineer of Georgetown, who adapted drawings and was responsible for the high degree of finish in the building work. The photographs on pages 78 and 86 are by Bridgit Moss.*

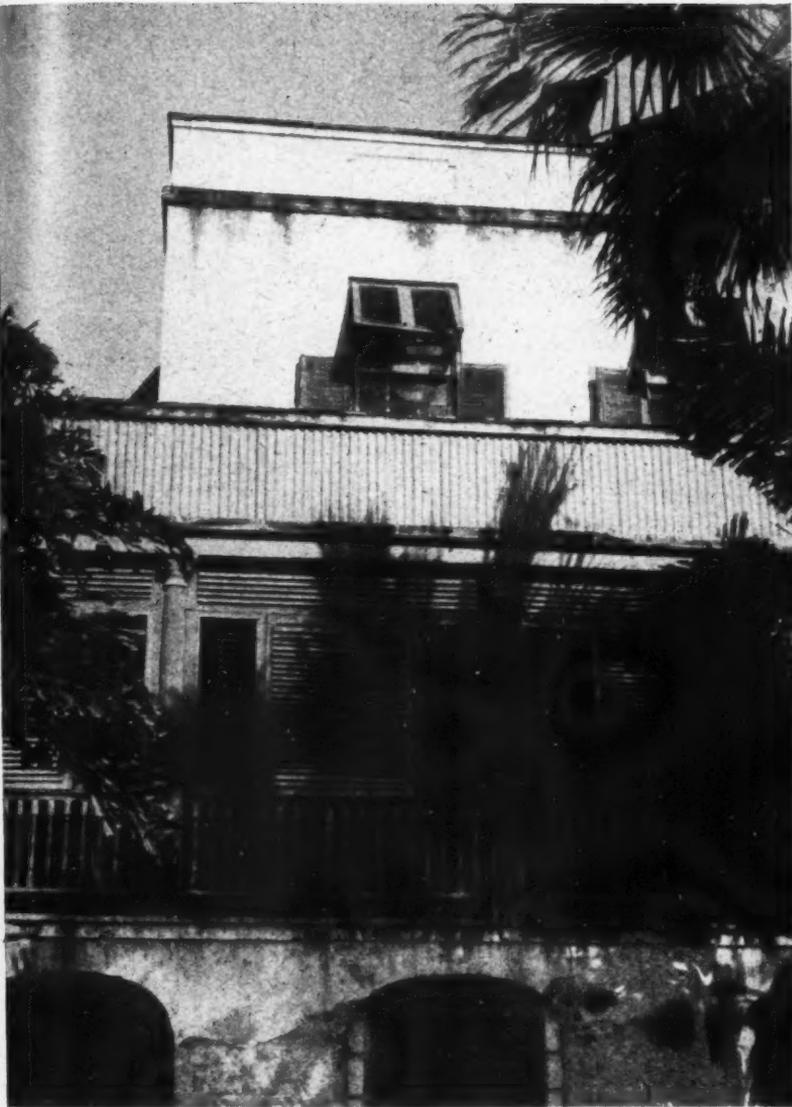
## THE ARCHITECTURAL BACKGROUND

The islands were permanently colonised in the 17th century, and early buildings show little variation from the contemporary English houses of the time, with their gables, quoins, and internally shuttered windows. Concessions (rather than adaptations) made to the West Indian climate are that the ground floor is raised a few feet and at this level the house is surrounded by a gallery or verandah, usually enclosed by louvres. Exposed windows are protected by hoods and shutters and the roof is kept low behind parapet walls. The general effect of these typical Georgian buildings is unexpectedly austere and bleak rather than lush and tropical. Colours are a delight, the popular shades being dark grey, terra-cotta, and a peculiar faded grey-purple. White-painted quoins may be plain or decorated. The smaller houses, often of timber raised on an arched stone plinth, have decorative bargeboards and cornices based on patterns to be seen in the larger houses. There is no typical style for the West Indies as a whole, since each unit has its own geological, climatical, historical, and racial background; Barbados is traditionally British, St. Lucia French, Trinidad Spanish and so on. In Grenada one may see pleasant Georgian buildings built of brick with tile roofs, since these materials were brought as ballast by sugar ships returning from England.

There are good supplies of timber (hardwood), clay, stone, coral and lime, some of which are untapped or used unscientifically. The coral stone of Barbados, for instance, has yet to be quarried by modern methods and made water-repellent. Nearly all the colonies lack a suitable roofing material which will have the advantages, but none of the disadvantages, of the universal galvanised iron. Experiments on the setting up of small brick and tile works are being carried on. For peasant housing experiments to improve the traditional *tapia* (mud, grass and wattle) of Trinidad and Spanish walling (stone and mud in rough shuttering) of Jamaica are also being undertaken.



*The West Indies architectural tradition. Top left, Erdiston House, Barbados. Bottom left, a street in Kingstown, St. Vincent. Above, a typical peasant house in Grenada.*



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NEW BUILDINGS IN THE WEST INDIES

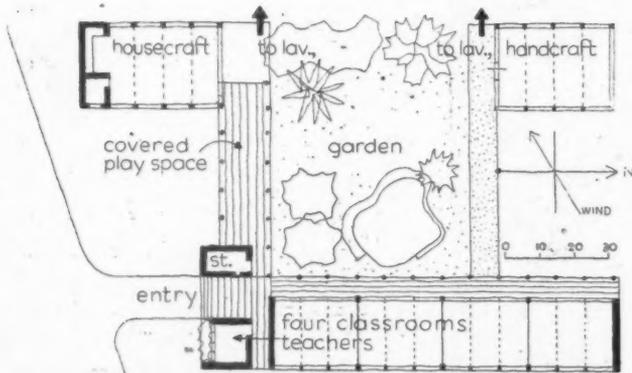
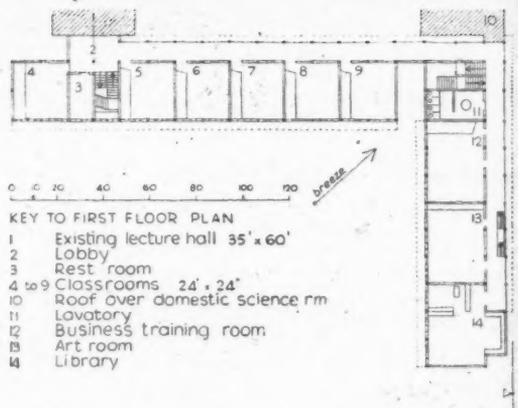
EDUCATION

All over the West Indies the usual elementary school consists of one room or hall, usually dilapidated and invariably overcrowded with children varying from 5 to 14, in spite of non-compulsory education in most of the colonies. Estimates show that the recurrent cost of an adequate educational system in new building, maintenance, and staffing is at present beyond the reach of most of the colonies, and the present experimental programme is an attempt to make such improvements as resources allow. In practice this means a system of instruction with the help of pupil teachers to supplement trained staff and the use of rustic shelters for classroom extension.

BISHOPS HIGH SCHOOL for Girls, Georgetown (for 450 pupils) was the only secondary school designed by D. and W. staff, and owing to the more ample funds available, elaborate tropical detailing was possible. The plan was orientated to receive the constant easterly prevailing wind on both arms of the L-shaped building. There are 30 pupils at 20 sq. ft. each to a class-room. With the frequent almost horizontal



Above and right, exterior and plan of Bishops High School for girls, Georgetown, British Guiana.

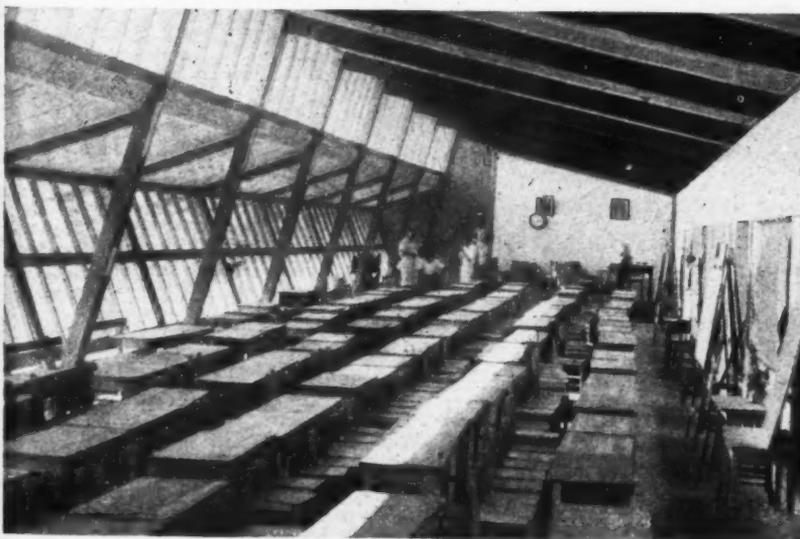


Below and left, exterior and plan of English Harbour elementary school, Antigua.





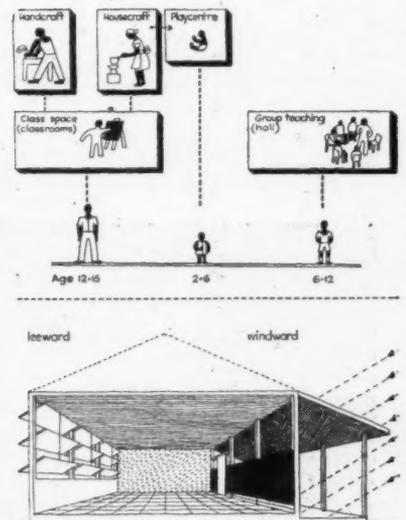
Above, school at Questelles, St. Vincent, during construction. Below, the finished interior.



driving rain it is necessary to shut all windows for short periods. At this time ventilation is admitted by means of continuous open vents, set back and protected from the rain, at classroom-ceiling level. Permanent vents are provided on the opposite wall. Projecting hardwood *brise-soleils* protect the room from direct sunshine whilst allowing the air to move freely. The building, which rests on reinforced concrete columns, is constructed of greenheart hardwood on a grid of 12 ft. by 24 ft. 6 in. Cross-sectional stability is provided by framed and braced partitions. All floor and roof joists are notched and pinned over the framing-plates.

ENGLISH HARBOUR school in Antigua may be taken as typical of the new elementary schools. Juniors are accommodated in a hall with stage at one end, and groups are separated visually by low screens. Seniors have separate classrooms and practical rooms for hand and housecraft, to which is usually attached the play centre for pre-school children; this is not a crèche but forms part of the senior girls' training. Use was made of the fine masons' and joiners' craftsmanship, a tradition from the days when Nelson's dockyard was close by. Wall construction is of simple masonry with piers in grey-green stone, large beams and asbestos roof. The concrete floor was laid in one operation with few expansion joints as the variation in temperature is slight.

QUESTELLES SCHOOL, St. Vincent, is a "shed" for 320 pupils built of rubble stone walling on the windward side with greenheart timber framing for the roof and leeward wall. The stone wall has double doors which are only closed in time of driving rain. Temperature drops in heavy rain so that the need for cross ventilation is not so great. Direct sunshine is excluded during school hours by the overhanging shades. These form part of the rigid framework which is bolted down to the wall and floor as a hurricane precaution. The roof is of corrugated asbestos lined with building board.

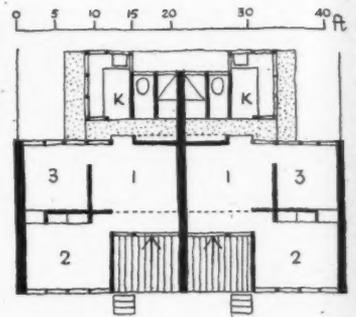
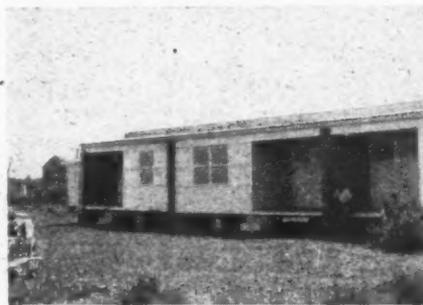
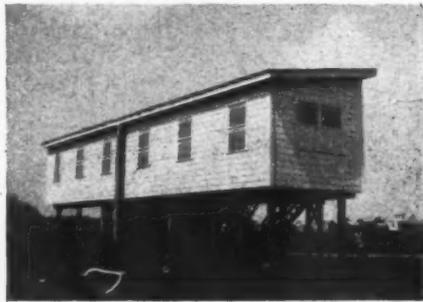


A booklet is in preparation giving guidance to West Indian Government Departments on school design. Subjects dealt with include minimum space allocation, planning, orientation, etc. Two typical studies contained in it are reproduced in miniature above.

# NEW BUILDINGS IN THE WEST INDIES HOUSING

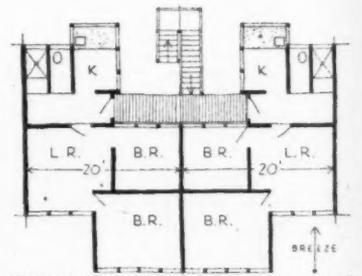
The majority of houses, particularly in rural areas, are lean-to wood shacks perched on stones, or wattle and daub with palm or cane "trash" roof. Some colonies, especially British Guiana, Trinidad and Jamaica, have notorious "barrack-ranges," long rows partitioned into compartments for several families. Many towns have seriously congested areas and sanitation generally consists of a bucket latrine and a standpipe shared by several families. Housing surveys were carried out on a standard technique under the direction of the advisers' offices in the capitals of the Leewards, Windwards, British Guiana and British Honduras. A basic study of accommodation requirements was prepared, based on a schedule of minimum space standards. While it was considered impracticable to adopt standard types of house plans and street or housing estate layouts for the whole British Caribbean area, the results of research were published, together with specimen layouts and plans, as a guide to the Colonial Governments in framing their programmes.

Owing to the local danger of flooding and termites, the house in BELIZE, British Honduras, illustrated here, is raised on stilts, the space underneath the living rooms being



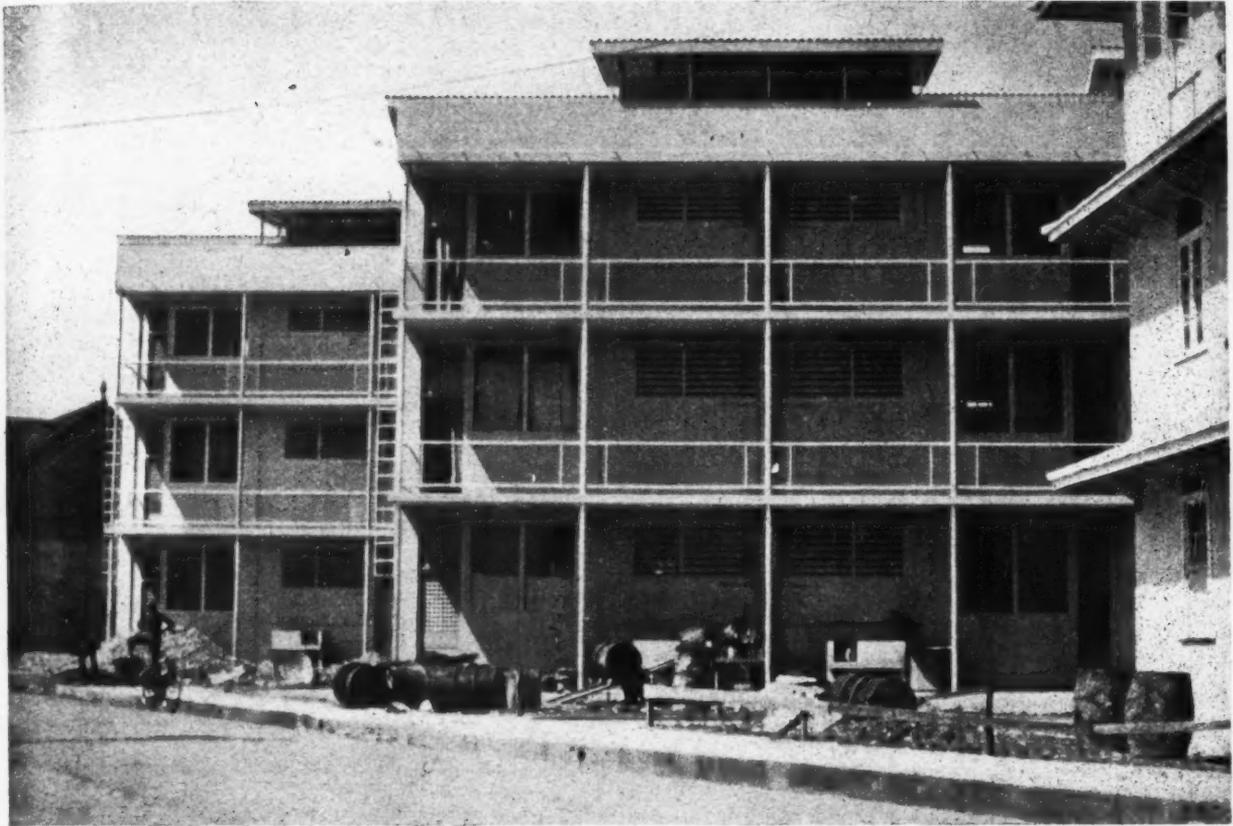
Left, house at Belize, British Honduras, raised on stilts to avoid flooding and termites, and an example of standard type three-room houses, built in rows. Plan of the latter above.

Below, exterior and plan of group of forty-eight working-class flats at Wortmanville, Georgetown, British Guiana.



Left and above, one unit and plan of experimental terrace housing in Barbados.

DESIGNED BY



Rehousing scheme at Port of Spain, Trinidad.

screened and used for cooking and ablutions. An example of the standard type of 3-room house built in rows is also illustrated. There is a general prejudice against terrace or row housing dating from the days of the old "barrack ranges." The house is shown with closed windows; the whole front can be opened with louvres in the centre and solid push-out flaps on each side.

The WORTMANVILLE Housing Estate, Georgetown, British Guiana, consists of 48 working-class flats in four two-storey blocks of twelve flats in each. The structure is of local greenheart hardwood framing with various local hardwoods used as sheathing and for doors and windows. The first floor is lined on the underside with metal sheeting to minimise fire risks and the spaces between the joists are filled with an insulating material. A continuous ventilating louver runs at skirting level along back and front of both floors, and the upper flats have high level convection ventilation openings to relieve the absorption of heat through the roof. This project was financed and carried out by the Georgetown City Council without Development and Welfare subsidy.

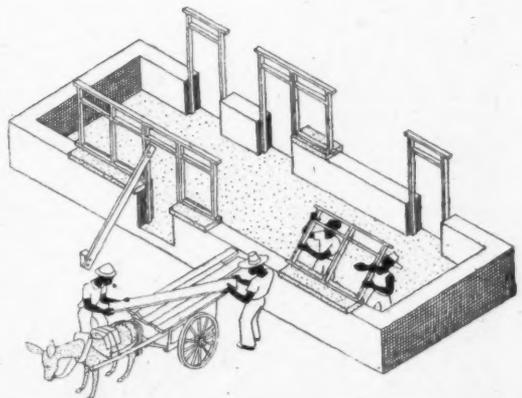
The three-room experimental terrace house at BARBADOS has a total area of 312 sq. ft., exclusive of kitchen, shower, W.C. and porches. It has 6-in. sawn coral-stone block walls, externally rendered and internally plastered. It has standardised timber window-units, and a timber-joisted roof, with building-board lining, covered externally corrugated asbestos sheeting. The hillside site necessitated a suspended joist and boarded floor and a flight of steps to the back porch. On level sites floors would be of concrete,

with boarding on a bitumen layer in the bedrooms.

It was originally planned to rehouse a very large section of the badly housed population of PORT-OF-SPAIN, Trinidad, in blocks of two-storey flats. These early proved to be uneconomical and a scheme was prepared in which three-storey blocks containing 12 flats predominated. One of these is illustrated above. The siting of the blocks broke away from the traditional arrangement parallel to the street. In some instances blocks were staggered at an angle from the road, others were formed in an open E or H shape. All

are orientated so that the living rooms receive the full benefit of the prevailing breeze. A certain proportion of the blocks are designed for elderly and single people, and have balcony access. The majority, however, are for families, and consist of three or four rooms with direct access from a staircase landing. Communal laundries and drying space are provided on the roof, and there is direct access from a tip in the kitchen to a communal rubbish shoot. Construction consists of an R.C. frame with a locally made hollow tile block as an infilling panel, plastered on the interior and exterior, with timber floors and roofs.

Right, one of a series of twelve drawings prepared by D and W for the Colonial Governments. They are issued in booklet form to owner-builders to show the step-by-step construction of a stone house.



NEW BUILDINGS IN THE WEST INDIES

HEALTH

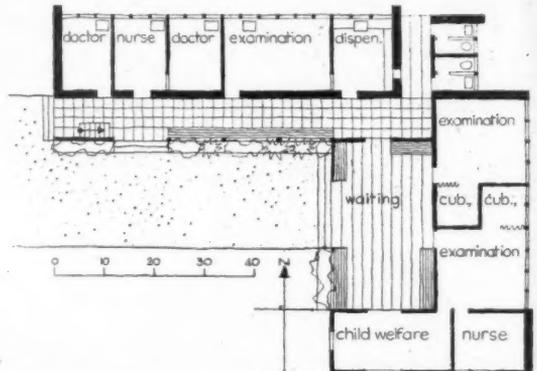
Health centres of two kinds are now being built over most of the West Indies; fully equipped centres for everyday use in the towns and rural outposts for visiting doctors and nurses.

An example of the latter is the centre at BELAIR in St. Vincent. Its inception was largely due to the vigour and determination of the local Senior Medical Officer. The accommodation consists of a lecture hall, which is used for public meetings, film shows and exhibitions, a child welfare centre, a dispensary, and a six-bed maternity hospital with houses for nurses and staff. The work has been carried out by the Public Works Department, and the opportunity was taken to experiment with tapia and other forms of indigenous construction. The buildings were built to type designs supplied by the advisers' staff.

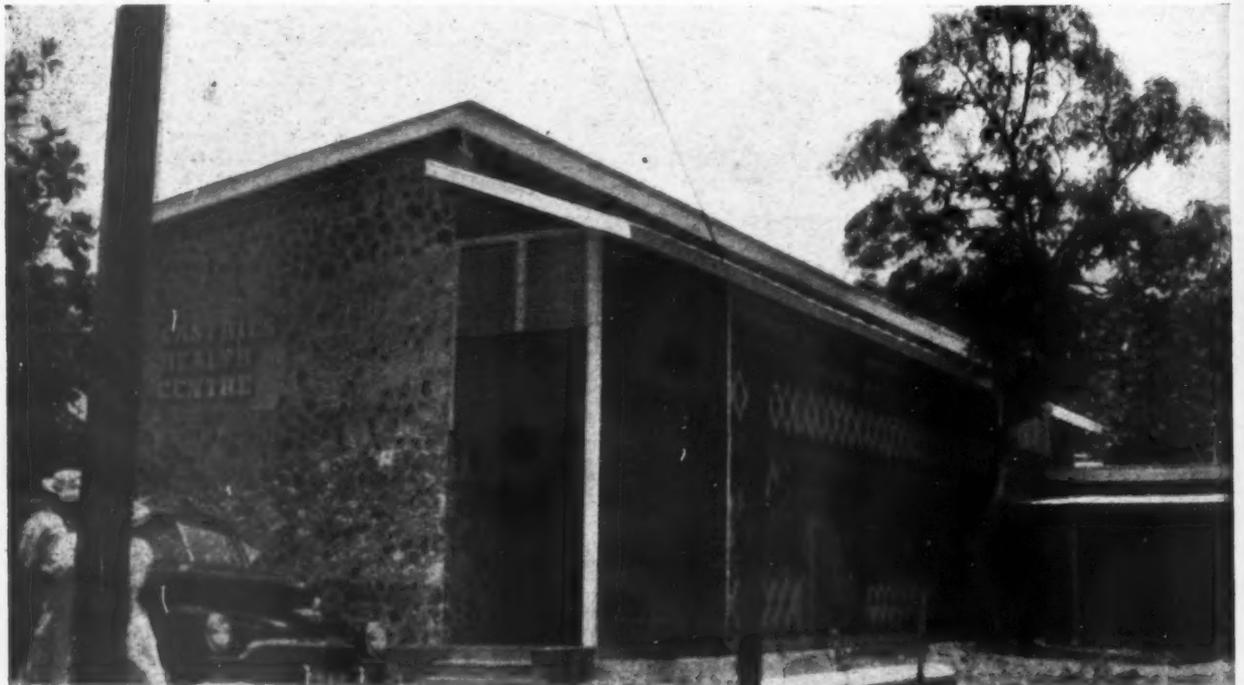
The health centre of CASTRIES, St. Lucia, is an example of a town centre. It was built on reclaimed land as part of the town improvement scheme, and surrounding derelict property was cleared to await a new housing scheme. The building comprises two wings for diagnosis and treatment. The waiting hall is used for public lectures. The first floor provides space for health officers, nurses, sanitary inspector and doctors. The building is constructed of rubble stone walling on a concrete raft (due to the nature of the ground) and has the usual louvred windows and vents.



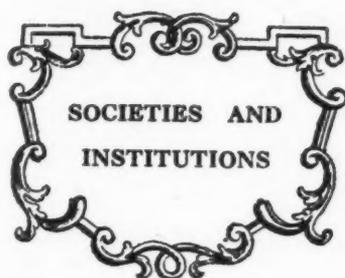
Above, health centre at Belair, St. Vincent. This building was the first of its kind in the West Indies.



Below and right, exterior and plan of town health centre at Castries, St. Lucia.



DESIGNED BY THE DEVELOPMENT AND WELFARE STAFF



*Speeches and lectures delivered before societies as well as reports of their activities, are dealt with under this title, which includes trade associations, Government departments, Parliament and professional societies. To economize space the bodies concerned are represented by their initials, but a glossary of abbreviations will be found on the front cover. Except where inverted commas are used, the reports are summaries, and not verbatim.*

## RICS

### Sir Thomas Bennett

January 5. At the RICS, 12, Great George Street, S.W.1. EVOLUTION OF A NEW TOWN. The President, Mr. R. W. Trumper, took the chair.

**Sir Thomas Bennett:** In that invaluable document the Reith Report on New Towns, the principles underlying the selection of sites is very ably discussed. A new town can consist of the substantial extension of an existing town, or it can be an entirely new town built upon land which has hitherto been exclusively agricultural.

Each type of town has its advantages and disadvantages, and each present special problems of development. Local authority witnesses preferred the extension of existing small towns. In the words of the Report, "they urged the benefit to planners of the nucleus upon which to work, the value of established tradition and character, the benefits conferred on an old town by its enlargement, the advantages of existing services and amenities, the possibility of securing resident labour, and less loss of land to agriculture."

The Report adds that local tradition and character are valuable, but a large influx of people will very rapidly alter this tradition or even cause it to be submerged; that the extension of existing communities is likely to create disturbance to local interests, which would be very considerable and involve genuine difficulties and hardship; and that existing facilities are unlikely to be sufficient to enable the development to take place without very substantial enlargement. Having weighed all the evidence the com-

mittee came to the conclusion that the balance of advantages would lie with new towns in entirely undeveloped areas.

### NEW TOWNS IN THE LONDON AREA

It is significant that all four towns which are to be developed in the London Area—Crawley and Three Bridges, Stevenage, Hemel Hempstead, and Harlow—embrace existing towns and communities and, therefore, in practice, the new town is being developed in areas which have all the advantages or disadvantages which the New Towns Report envisaged.

Dealing with Crawley and Three Bridges, there is an existing population of some 8,000 people. A considerable proportion of these people is congregated in the town of Crawley, and the neighbouring development of Three Bridges. Throughout the area there is appreciable development, mainly on the lines of communication. There is a large number of houses with substantial ground adjoining them, and in certain cases small farms which have provided an occupation of interest to individual residents, as well as farms which are normal agricultural holdings. The shopping centre is developed on small town lines, and not capable of expansion to the size required for 50,000 inhabitants.

The Reith Report also traversed the means by which the new towns should be brought into existence, and it envisaged the possibility of dealing with the creation of a town through a number of agencies, of which the public corporation was one, the substantial local authority another, and possibly some kind of private enterprise a third. The New Towns Act decided that only one of these methods should be employed, and we are, therefore, somewhat to my regret, deprived of the possibility of comparing two or three types of developing agency to see which of them could produce the best results in the most economical manner.

### RAILWAYS AND THE AIRPORT

We are informed by the Ministry of Transport and the General Manager and engineers of the Southern Railway that the railway system for the new town needs only slight adjustment, relatively speaking, from that which now exists. Ultimately, adjustments at Three Bridges will permit fast electric trains to serve the designated area through Gatwick Airport, Three Bridges, and Crawley stations, and Ifield Halt. Existing facilities enable the service to grow with the population. There is now an extensive goods yard with land adjacent awaiting extension.

Crawley is fortunate in having on its boundary Gatwick Airport. The extent to which air transport will be carried in the immediate future is difficult to foretell, but that it will be an increasing means of transport there can be no doubt whatever. Gatwick Airport has been the subject of a good deal of controversy; it still has grass runways and is said to be subject to flooding, or at least sodden surface in the ground in certain parts of the year. It is at present used by the Government.

The future of the airport is of considerable importance to the town. A town airport is good, a national airport has disadvantages. Wrapped up with the study of the airport is the question of the number of employees. If extended to its full capacity as a charter airport, it would employ about 1,000 people, and if it reached national importance it might employ 3,000 people. Nearly all of these people are specialists, and if 3,000 were housed in the town they would materially affect its general atmosphere. It seems desirable, therefore, that the fullest possible use should be made of it as a charter airport, which could also be a town airport, and that it should, in due course, be extended to have concrete or tarmac runways, and be able to fulfil all air travel conditions which might be necessary for the town.

Examination of the restrictions of height areas, and the other accompaniments of airports, were made and found not to affect the town in any serious way.

### LAND POLICY

The land policy to be pursued in developing the town is clearly of the very greatest importance in two directions, namely—

(a) the power which it gives the Corporation, and the responsibilities laid upon them by the New Towns Act; and

(b) the effect of the policy upon the existing land holders and residents in the town.

In considering the policy to be pursued, a number of factors have to pass under review:—

(a) A policy which would enable the Corporation to carry out the obligations, rights and duties laid down by the New Towns Act.

(b) The economic and financial aspect of that policy.

(c) The sociological effect of the dealings of the Corporation upon the existing freeholds, leaseholds and tenancies.

(d) The time factor.

(e) Machinery by which the policy is to be carried out.

In the case of Crawley, the Corporation appointed a leading member of the Royal Institution of Chartered Surveyors to report upon the probable results of actions of various kinds. This Report has been a most comprehensive and valuable document.

The Corporation need land for three reasons:—

(a) to secure uniformity of control and use;

(b) to reserve or secure the benefit to the community of any increase in land value; and

(c) to acquire properties and land necessary for the Corporation's activities.

It is clear that as the town is developed, the Corporation will become the owners of very large amounts of property. They will, therefore, need an estate management department which will be able to carry out all the functions of property management. It will need standard leases, forms of conveyance for different classes of property, standard clauses, and the maximum amount of uniformity in carrying out its requirements. It is important in a large-scale operation of this kind, affecting a great many members of the public, that they should know as soon as possible, and as clearly as possible, conditions under which the Corporation will enable them to operate, and within those limits they should be as free to operate, control and manage their own property and land, as they are with any other system of land tenure in this country. In other words, it must be the aim of the Corporation to allow both its existing and future inhabitants that priceless possession of the Englishman, freedom of action within the confines of his own home or his own property, limited only by his duty as a good citizen and neighbour.

It is important to realise the substantial time that is needed for the preparation of projects of this magnitude. After ten months we are only now ready to commence work. Many more months will be needed before surveys and details can be available to proceed upon a large scale. No large-scale construction will be possible in 1949 or after, unless essentials are commenced now, and the Government has allowed us to proceed on this basis.

### INDUSTRIAL POLICY

The new towns are intended to be self-supporting units. In order to bring this about, I think it is desirable that the first area to be developed should be the industrial area. This is rendered possible by the fact that at Crawley we already possess a first class railway system and a very good

road system, and, therefore, for a considerable period the people could live in their present houses and travel to the factories to work. All would have a wide choice of country in which to find a home, without having an unduly long or arduous journey.

In choosing the kind of factory which is to be erected, a number of factors must be borne in mind. It is important that we should not make a One Industry Town, with its known risk of serious booms and slumps. But with a completely diverse series of factories, skilled workers who are discharged, fall foul of the management, or of their colleagues, cannot secure similar employment elsewhere. Also, if the industries are too diverse they will fail to build up any local traditions, or to gain the immense benefit which they ought to secure by trade discussions with their competitors and neighbours.

On the other hand, factories of different kinds employ different proportions of workers. Some include a large number of scientific, medical, and management staff, and a relatively small number of operatives. These help to balance the community and create the right kind of atmosphere for culture, entertainment, and intercourse. It is also important to secure the right balance of employment between men, women and juveniles, and, therefore, wise direction of an industrial policy will involve attention to these diverse factors, coupled with which must, at the moment, be the need that the factory is engaged in a considerable amount of export.

In a short time, however, it will be equally important that factories manufacturing for the home market should be able to sell their products at the lowest possible price, and a properly thought-out policy will include choice of suitable trades in suitable variety, choice of industries which employ a proper cross-section of the local population, and the choice of those industries which together will produce a balanced community.

I do not think that the new town would necessarily rule out the more noisy or disagreeable industries, because if such were the case, the employees of such industries would be compelled always to live in dirty, crowded, or unsatisfactory areas. It should be left for modern science to deal with noise, smell, or any other potentially objectionable feature and to make it innocuous, and I am sure that, with proper siting and direction, this can be done.

With the establishment of industry on a proper scale will follow the development of neighbourhood units, each with its focus of shops and community centres, and its infant and baby schools.

over £3,000 a year. The results of the various competitions are as follows:—

**Title Prize: A Certificate and £35 for the Study of Italian Architecture.** Subject, "A Papal Reception Hall." Awarded to "COLEBANK," Peter George Beresford (Student RIBA) (Birmingham School of Architecture). Certificates of Honourable Mention: "BAROQUE," Richard De'Ath (Student RIBA) (Glasgow School of Architecture), and "ERGO," James Daniel Shearer (Probationer RIBA) (School of Architecture, Edinburgh College of Art).

**Soane Medallion and £120 for Architectural Study Abroad.** Subject: "An Undercliff Foreshore and Pavilion." Awarded to "ESQUIRE," John Ewing Murray, A.R.I.B.A. (Glasgow School of Architecture). Certificate of Honourable Mention: "BROAD-SIDER," Mr. William Frederick Muilins (Student RIBA) (AA School of Architecture).

**Pugin Studentship: A Silver Medal and £100 for the Study of Mediaeval Architecture in Great Britain and Ireland.** Awarded to Geoffrey Martin Harper (Student RIBA) (Birmingham School of Architecture).

**Owen Jones Studentship: A Certificate and £100.** For the improvement and cultivation of knowledge of the successful application of colour as a means of architectural expression. Awarded to "RAJAH," Peter Hatton (Student RIBA) (Bartlett School of Architecture, University of London).

**Grissell Gold Medal and £35: for the Encouragement of the Study of Construction.** Subject: "A Covered Swimming Pool in a Seaside Town." Awarded to "LARBAX," Harry Anthony Wheeler (Student RIBA) (Glasgow School of Architecture).

**Andrew N. Prentice Bequest: A Certificate and £150 for the Study of Spanish Architecture.** Awarded to Miss Norah Rosalie Glover, A.R.I.B.A. (School of Architecture, The Polytechnic, Regent Street, London).

**Royal Institute Silver Medal and £50 for an Essay.** Not awarded.

**Banister Fletcher Silver Medal and £26 5s. for the Study of History of Architecture.** Subject, "The Art of the Baroque." Awarded to "GIAN," Peter Silsby (Student RIBA) (Department of Architecture, The Northern Polytechnic, Holloway, London).

**Alfred Bossom Research Fellowships and £250 for Post Graduate Research.** Awarded to Cecil Charles Handiside, A.A.DIPLOMA, A.R.I.B.A. (AA School of Architecture).

**Godwin and Wimperis Bursary: A Silver Medal and £250 for the Study of Works of Modern Architecture Abroad.** Awarded to Hubert Bennett, F.R.I.B.A. (School of Architecture, The University of Manchester).

**Henry Saxon Snell Prize and Theakston Bequest: £125.** (Offered jointly by the RIBA and the Architectural Association for the study of the improved design and construction of hospitals, convalescent homes and asylums for the aged and infirm poor.) Awarded to Donald Albert Go'dfinch, F.R.I.B.A. (School of Architecture, Royal West of England Academy, Bristol).

**Hunt Bursary: £75 for the Encouragement of the Study of Housing and Town Planning.** Awarded to Reginald Brandrick Turner, DIP.ARCH., DIP. T.P. (MANCR.), A.M.T.P.I., A.R.I.B.A. (School of Architecture, the University of Manchester).

**Athens Bursary: £125 for Study at the British School at Athens.** Awarded to John Stanley Walkden, M.T.P.I., F.R.I.B.A. (School of Architecture, the Polytechnic, Regent Street, London).

**Henry L. Florence Bursary: A Certificate and £350 for the Study of Greek, Hellenistic and Byzantine Architecture of the Mediterranean Basin.** Awarded to William Arthur Eden, M.A. (L'POOL), A.R.I.B.A. (Liverpool School of Architecture, University of Liverpool).

**Ashpitel Prize.** Name to be announced later.

**Rome Scholarship in Architecture, 1947: £250 per annum for two or three years' study and research at the British School at Rome.**

Offered by the RIBA and awarded by the Faculty of Architecture at the British School at Rome. Awarded to Richard Fraser, A.R.I.B.A. (School of Architecture, Edinburgh College of Art).

**RIBA Silver Medal and £5 in Books for Students of Schools of Architecture Recognised for Exemption from the Final Examination, 1947.** Awarded to Miss Mary Kate Wade Reader (Student RIBA) (AA School of Architecture).

**RIBA Bronze Medal and £5 in Books for Students of Schools of Architecture Recognised for Exemption from the Intermediate Examination, 1947.** Awarded to Clifford Harry Barnett (Student RIBA) (Liverpool School of Architecture, University of Liverpool).

**Archibald Dawnay Scholarships, 1947: Five Scholarships of the Value of £65 each for the Advanced Study of Construction.** Scholarships awarded to:—(1) Gilbert Percival Howes (Student RIBA) (School of Architecture, City of Oxford Schools of Technology, Art and Commerce); (2) Ian Hutton Smith (Student RIBA) (School of Architecture, City of Oxford Schools of Technology, Art and Commerce); (3) Donald Punyer Whitehorn (Student RIBA) (School of Architecture, Robert Gordon's Technical College, Aberdeen); (4) Roger Booth (Student RIBA) (Leeds School of Architecture); (5) George Clayton Smith (Student RIBA) (Leeds School of Architecture).

**RIBA Henry Jarvis Studentship at the School of Architecture, The Architectural Association, 1947: £50.** Awarded to Michael George Francis Ventris (Student RIBA).

**RIBA Howard Colls Travelling Studentship at the Architectural Association, 1947: £15 15s.** Awarded to Ralph Ewart Wilkinson (Probationer RIBA).

**RIBA Donaldson Medal at the Bartlett School of Architecture, University of London, 1947.** Awarded to Miss Jane Lloyd (Student RIBA).

**RIBA Prize for Art Schools and Technical Institutions with Facilities for the Instruction of Intending Architects (£5 in Books), 1947.** Awarded to Ian Donald Elliott (Probationer RIBA) (School of Architecture, City of Canterbury College of Art and Crafts).

**RIBA Prizes for Public and Secondary Schools.** These Prizes are of a total value of £10 10s. They are offered for an essay of not more than 1,000 words or for sketches or scale drawings of a building or part of a building. The Prizes are offered for competition between boys and girls in Public and Secondary Schools. The Prizes were awarded as follows: (a) Essays: A Prize of £4 4s. to G. Little, The Grammar School, Batley, for his essay on Riddlesden Hall, and a Prize of £1 1s. to T. W. Whipp, Scarborough High School, for his essay on The Scarborough High School for Boys. (b) Sketches: A Prize of £2 12s. 6d. to A. J. Walmsley, Northampton Grammar School, for his drawings of Whiston Church, Northants; and a Prize of £2 12s. 6d. to Dennis Wrigley, Manchester Grammar School, for his drawings of Moberley Parish Church.

The Competition drawings (with the exception of those submitted in competition for the Godwin and Wimperis Bursary, the Hunt Bursary, the Anrew N. Prentice Bequest, the Alfred Bossom Research Fellowships, the Henry Saxon Snell Prize and Theakston Bequest, the Rome Scholarship, the RIBA Prize for Art Schools and Technical Institutions and the Archibald Dawnay Scholarships) will be on exhibition at the RIBA, 66, Portland Place, London, W.1, from January 22 to February 11, 1948, inclusive, between the hours of 10 a.m. and 7 p.m., Saturdays 10 a.m. and 5 p.m. (Sundays excluded).

The President, Sir Lancelot Keay, K.B.E., will present the Medals and Prizes for 1948 at a General Meeting to be held at 66, Portland Place, London, W.1, on Tuesday, February 10, 1948, at 6 p.m., when Professor Lionel B. Budden, M.A. (L'POOL) (F) will deliver an Address to Students.

## RIBA

# 1948 Prizes

At a General Meeting of the Royal Institute of British Architects, held on January 13, the Council's Deed of Award giving the results of the competitions for the Annual Prizes and Studentships awarded by the RIBA was read, and a criticism of the work submitted was given by Mr. Ralph Tubbs, A.R.I.B.A. There were in all 441 competitors. The total value of the prizes and scholarships offered by the RIBA is



*This cabinet was designed and made by Messrs. Beresford & Hicks. It contains a set of English cut glass bearing the cipher "E" surmounted by a crown. The interior is lined throughout with mirror glass, with the Princess's cipher on the back panel.*



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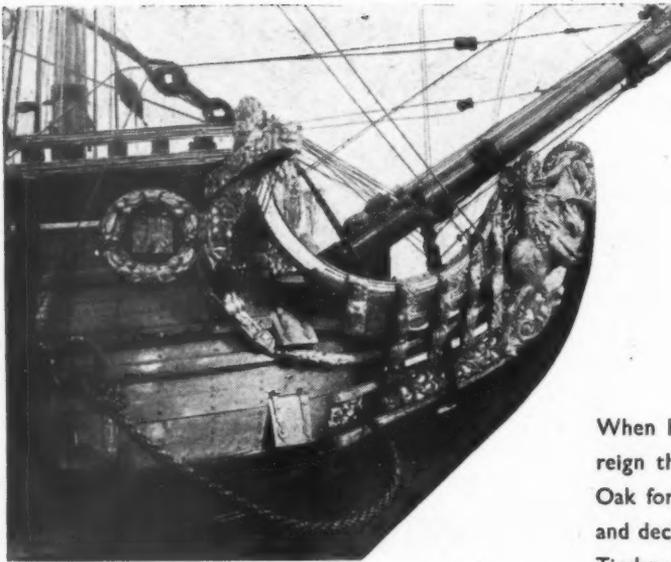
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Above. Sycamore panelling with marquetry decoration by George Raman, in the cocktail bar of the Queen Elizabeth. Courtesy Cunard-White Star Ltd.

Left. Figurehead of H.M.S. Prince, from a model in the Science Museum. Crown Copyright.

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

## TECHNICAL SECTION

*A digest of current information prepared by independent specialists; printed on one side of the paper only, to allow readers to cut out the items for filing and paste them up in classified order. Headings below.*

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

#### 2.25 planning: general NEIGHBOURHOOD UNITS

*The Neighbourhood Unit Plan: Its Spread and Acceptance: A Selected Bibliography with Interpretative Comments.* J. Dahir. (Russell Sage Foundation, New York, 1947. \$1.)

Excellent up-to-date bibliographical study tracing extent of acceptance of neighbourhood unit idea since C. A. Perry's first comprehensive statement of it in 1929.

Over 200 selected and classified references accompanied by concise explanatory comments on essential contributions contained in various publications. Information arranged in seven main sections covering causes and responsibility for growth and decay of cities; social background to neighbourhood unit idea and first studies formulating aims; initial translation of idea into plans; community planning and public's attitude towards it; American plans and projects; neighbourhood unit planning in other countries and additional reading references under headings of social factors in city planning, changing city patterns and action for cities, including British and other items.

#### 4.28 planning: urban and rural PLANNING: SWITZERLAND

*Planning Developments in Switzerland.* H. Jackson. (Town and Country Planning Association, 1947.)

Recent lecture discussing social and economic background to planning and relevant developments in Switzerland.

#### 6.17 planning: social and recreational FOOTPATHS

*Footpaths and Access to the Countryside.* Report of the Special Committee, Ministry of Town and Country Planning. (HMSO, Cmd. 7202, 1947. 1s. 3d.)

Important and informative Report by Special Committee under Sir Arthur Hobhouse, appointed by National Parks Committee in July, 1946. Preservation, maintenance and extension of public footpaths. Simplification of existing law and procedure concerning rights of way. Access to uncultivated land. No illustrations.

The Report begins with a chapter on the history and present law of footpaths, discussing different kinds of rights of way.

There is no comprehensive record in existence of rights of way in England and Wales, and it is suggested that a complete survey should be put in hand forthwith. The central authority to ensure the carrying out of this survey should be the Minister of Town and Country Planning.

Many recommendations are put forward with regard to the simplification of the existing law and procedure concerning rights of way, covering such aspects as maintenance and repair, protection and convenience of the public, applications for closure or diversion of rights of way, and proposals for the creation of new rights.

The Report recommends that the proposals of the Committee on National Parks and Conservation Areas (H.M.S.O., Cmd. 7121, 1947) regarding long-distance footpaths should be carried out.

Much attention is devoted to the question of access to uncultivated land, and detailed suggestions for new legislation are submitted. Local planning authorities should be enabled to designate as access land all uncultivated land, whether mountain, moor, heath, down, cliff, beach or shore, and in certain cases stretches of inland water.

Where land is designated for access conflicts may arise between the interests of the rambling public and of other persons or bodies owning, occupying, or making use of the land, and the Committee discusses the various claims of agriculture, forestry, water undertakings, service departments, and sporting interests, suggesting a number of remedies.

Lastly, it is recommended that in view of the special importance of the coast to the public all beach and shore should be designated as access land.

Appendix B describes the principal long-distance footpaths recommended by the Committee, and covers the Pennine Way, a path from the Chilterns to the Devon coast, the Pilgrims Way, a path from the South-downs to Salisbury Plain, the Offa's Dyke, and the towpaths along the Thames from Teddington to Cricklade.

Appendix C contains two tables giving the mileage of coastal footpaths in those National Parks and Conservation Areas which adjoin the coast, under headings of appr. lengths of existing footpaths, of additional footpaths required to complete, and of appr. total length of a complete coastal footpath in each area.

#### 13.17 materials: timber PROPERTIES OF TIMBER

*Timber. Its Structure and Properties.* H. E. Desch. Second edition, 1947. (Macmillan & Co. Ltd. 18s.)

Authoritative and comprehensive enlarged

edition of well-known work on the properties of timber.

The first edition of this book achieved a very considerable reputation. This edition is an enlarged version and includes a number of revisions made necessary by the considerable advance in knowledge achieved in recent years. As a comprehensive study of the properties of timber it forms a valuable reference for architects, who will find the chapters dealing with factors influencing the use of wood particularly useful. In the past the use of timber in building has not been very scientific or economical. A better knowledge of recent advances should make possible a more useful employment of the small quantities at present available and give a surer foundation for wider uses when supplies again become more generous. This book provides much of the fundamental information. It is well illustrated by diagrams and by 55 pages of photographs ranging from greatly magnified pictures of cross sections of various timbers to illustrate the ring connectors and methods of using them.

#### 18.12 construction: theory RC. STRUCTURES: SWITZERLAND

*Versuche und Erfahrungen an ausgeführten Eisenbeton-Bauwerken in der Schweiz. (Experiments and Experience on Completed Reinforced Concrete Structures in Switzerland.)* Report No. 99. Fourth Supplement 1943-1945. (Eidgenössische Materialprüfungs- und Versuchsanstalt für Industrie, Bauwesen und Gewerbe, Zürich.)

Observations and measurements on arched and girder bridges, a north light shell roof, a dome composed of cylindrical shells, diagonal floors and roofs, and other special types of construction.

The well illustrated report contains a vast amount of information on structures which are difficult to analyse in the ordinary way. It refers to 11 new structures of different types, and also to 6 older bridges included in previous reports on which further observations were made.

Measurements on important reinforced concrete structures have been systematically

### INFORMATION CENTRE INDEX

An alphabetical index covering items published during the twelve months ended December 31, 1947, is being prepared. Readers who wish to have a copy—it is free of charge—should complete the form below and post it to the Technical Editor, THE ARCHITECTS' JOURNAL, not later than February 19, 1948.

Please send me the Information Centre Index for 1947:-

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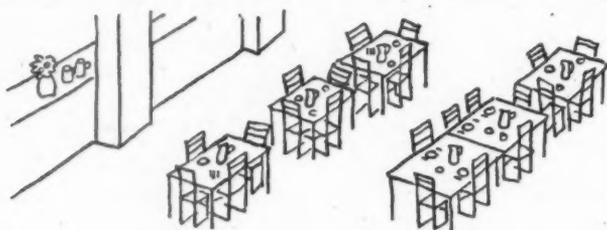
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carried out in Switzerland since 1924, and the results obtained supply most valuable guidance to designers who are faced with problems not covered in textbooks. Two roofs referred to in the present supplement are of particular interest, both composed of thin shells. One is a north light factory roof at Biel, covering an area of 8,800 sq. yds. It consists of 22 bays of 23 ft. width and 157 ft. length, subdivided into three spans of 49 + 59 + 49 ft. The other is a dome over the yard of the post office at Winterthur. The plan is a pentagon of 680 sq. yds., with a lantern in the centre of 120 sq. yds.

In both buildings several combinations of loadings were applied and the strains and deflections measured at characteristic points. The numerous diagrams published give a good idea of the deformation of the whole structure and of the distribution of stresses due to snow, point loads, etc.

The results should enable designers to adopt with confidence shell construction in structures of larger spans and of even more complicated shapes.

### 20.50 complete structures PRE-STRESSED RC HANGAR

*Pre-stressed Reinforced Concrete Hangar at the Civil Airport of Karachi.* C. G. Sexton. (J. Institution of Civil Engineers, December, 1947, pp. 109-130.)

Details of design and construction of a hangar 396 ft. by 130 ft. clear area, 35 ft. clear height, in pre-stressed concrete shell.

The first successful application of pre-stressed concrete shell construction in India was over a garage at Meerut in 1940-41 (see No. 2650:8.8.46). The same principles of design and method of construction were adopted in the hangar at Karachi, which has a slightly increased span. The roof spans over 130 ft. and rests on the rear on a row of 12 reinforced concrete columns at 35 ft. centres. At the front end it is carried over the 190 ft. clear door openings by two independent pre-stressed reinforced concrete beams. The structure of the roof consists of two units, each of 5 continuous pre-stressed cylindrical shells. Each barrel has a width of 35 ft., a radius of 31 ft. 6 in., a rise of 6 ft., and a thickness of 2½ in.

Special arrangements have been provided to allow for expansion or contraction of the roof in both directions.

The edge beams below the barrels are 7 ft. 1 in. deep overall and 9 in. wide. The pre-stressing of these beams was carried out by 5 cables, each made up of 32 wires of 1/5 in. dia. The tested breaking strength of the wires was 100 ton/sq. in. The

cables were pre-stressed to 62 tons/sq. in., but only 52 tons/sq. in. were taken into account as effective pre-stress, allowing 10 tons/sq. in. for losses due to shrinkage and creep.

The main beams over the hangar door of 190 ft. clear span have an I section; they are 22 ft. deep in the middle of the span and 16 ft. at the supports. The pre-stressed reinforcement consists of 28 cables of the same type as in the edge beams.

Pre-stressing was designed to be carried out after the concrete had matured for 28 days and had developed a compressive strength of not less than 4,000 lb./sq. in. Each cable was completely enclosed by a galvanised iron sheet throughout its length to prevent leakage of liquid cement to the cable during concreting. The exterior surfaces of the cables inside the sheath are well greased to offset friction. Precast anchorage blocks (two to each cable) were erected together with the cables and fixed firmly to the beam casing.

The article also describes some of the practical difficulties during the pre-stressing of the main beams. The job was completed to the full satisfaction of the engineers responsible. The maximum deflection under dead load of the second main beam was only ¼ in., i.e., appr. 1/3600 of the span.

### 21.16 construction: miscellaneous RECONSTRUCTION OF RC BRIDGE

*Umbau der Landquartbrücke der Rätischen Bahn in Klosters. (Reconstruction of the Railway Bridge over the River Landquart at Klosters.)* C. Mohr, R. Haefeli, Fr. Waltz, W. Schaad. (Sweizerische Bauzeitung, Switzerland. Nos. 1 to 3, 1947.)

Arched railway bridge of 100 ft. span in reinforced concrete erected in 1930, endangered by movements of foundation, saved by ingenious reconstruction.

### 24.57 lighting PRINCIPLES OF SHOP LIGHTING

*Advanced Store Lighting Technique.* (Illumination [USA], Vol. 6, No. 1, p. 21.)

Principles of lighting; brightness ratios; comparison of sources; intensities; different types of merchandise. Good review, illus. 32 photos.

This is a good general note of principles. The first is that the object should have high contrasts, with shadow and highlight. Then the immediate background of the object should be not less than 1/5 the brightness of the object, but of course no greater. The brightness of the background should

be not less than 1/10th of the object.

Fluorescent and incandescent light mixed are essential. The former for general lighting, the latter for highlight and shadow. The value of good lighting is mentioned. It is noted that more light increases speed of vision, so that items catch the eye of the passer-by more readily.

There is a short note of intensities desirable, and it is stated that 50-60 foot candles is not now uncommon in American shops.

There is a general classification of light sources which is quite useful. Hot and cold cathode are compared, and it is remarked that ballasts and controls are now being made so attractive that they can be left exposed.

Daylight is definitely regarded as more trouble than it is worth, and it is said that "more goods can be sold by artificial than by natural light."

General light is by itself said to be suitable for general stores, groceries, chemist shops, and so on. In special shops, such as jewellers and clothing stores, direct light for highlight and emphasis is required.

### 26.17 services and equipment: GAS FLUES

*Flues for Gas Appliances.* (BS C. of P. 331.104: 1947. (British Standards Institution, 2s.)

Flues for removal of products of combustion and flues for this and ventilation. Does not include industrial appliances.

Gives general guidance upon where flues are required and refers to various British standard types. Positioning of flues should have regard to the disadvantages attached to rapid cooling. Flues for buildings over five storeys high require special consideration. Flue terminal position is important. Some diagrams included. Illustrations of precast concrete flue blocks insufficiently detailed to be really useful.

### 26.18 services and equipment: miscellaneous GAS COOKING

*Gas Cooking Installations. Single Family Dwellings.* BS C. of P. 332.401: 1947. (British Standards Institution. 2s.)

Types, overall sizes, and brief notes on installation.

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

## QUESTIONS AND ANSWERS

### 2926 LIME KILNS

**Q** Is an inner skin of 9 in. fire brick and an outer skin of ordinary facers, as permanent shuttering to a reinforced concrete load-bearing structure, suitable for kilns for burning agricultural lime?

Is ordinary reinforced concrete suitable, or is it necessary to use a special cement or aggregate or both?

**A** It is quite in order to use ordinary reinforced concrete between two thicknesses of brickwork, but the horizontal reinforcement should be strong enough to counteract any expansion which might occur, due to the pressure from the lime when heated.



Pre-stressed RC hangar at Karachi. See 20.50.

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

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## Announcements

The demand for space at the 1948 British Industries Fair has been exceptionally heavy and both the London and Birmingham Sections now have a waiting list of late applicants. There will be over 3,000 exhibitors representing at least 87 United Kingdom industries. The Fair will be held simultaneously in London and Birmingham from May 3 to May 14.

The final total attendance figure at the Building Exhibition which closed at Olympia on December 4, was 162,399. The attendance never previously exceeded 100,000.

At a meeting of the Council of the National Federation of Building Trades Employers, Mr. F. M. Sleeman of Exeter was nominated as President for the ensuing year.

The address of the Institution of Heating and Ventilating Engineers has changed to 75, Eaton Place, London, S.W.1.

The Board of Trade invites the urgent attention of manufacturers concerned who are not at present engaged in production for export, to the importance of reviving and if possible expanding the pre-war export trade in manufactures of wood, e.g. architectural woodwork and specialised types of plywood, if their present limit of output is to be maintained in spite of the reduction which has been announced in timber imports this year. Applications for licences to acquire or consume timber in the production of goods to fulfil export orders will receive favourable consideration, more especially where the goods are for export to hard currency areas or where the export value is considerable in relation to costs of production. The Export Promotion Department, 35, Old Queen Street, London, S.W.1, will be prepared to answer enquiries.

Applications for timber licences should be made direct to the Board of Trade, Priorities Department, Timber Section, I.C. House, Millbank, S.W.1.

The Gold Coast Government has informed timber exporters in the Gold Coast that shippers are now free to ship logs, sawn timber and veneers to any destination. In the case of United Kingdom, shipments must be made to or on behalf of the Timber Control. In view of the currency situation, shippers are requested to give preference to supplies for hard currency countries in respect of new contracts. Timber Control, United Kingdom, is prepared to consider requests for revision of existing contracts, including substitution of increased proportion of species other than mahogany and extension of period for delivery. Rail space for 2,500 tons per month will be placed at the disposal of the Timber Control with effect from January 1.

The firms of W. H. Woodroffe & Son, and Buchanan & Coulter, both of 5, Bedford Row, W.C.1, have been merged as from January 1, from which date the name of Woodroffe, Buchanan & Coulter, Architects and Surveyors, has been adopted. The address remains 5, Bedford Row, W.C.1 (Telephone: Chancery 7881-2).

## Obituary

We regret to record the death of Mr. James Hogan, art director of James Powell and Sons (Whitefriars) and designer of stained glass windows. Among the windows he designed for cathedrals were two for the great central space of Liverpool, and others at Hereford, Exeter, Rochester, Carlisle and Winchester, as well as at Perth, Australia, and Dunedin, New Zealand.

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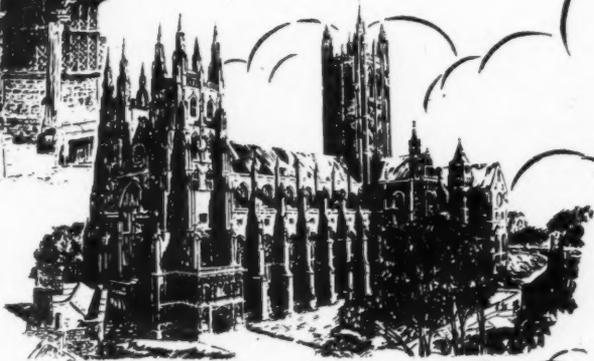
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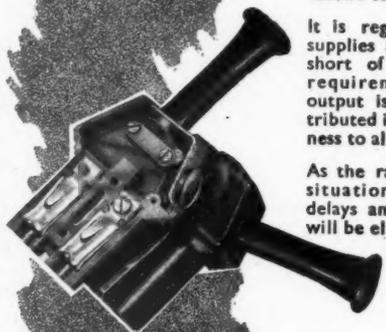
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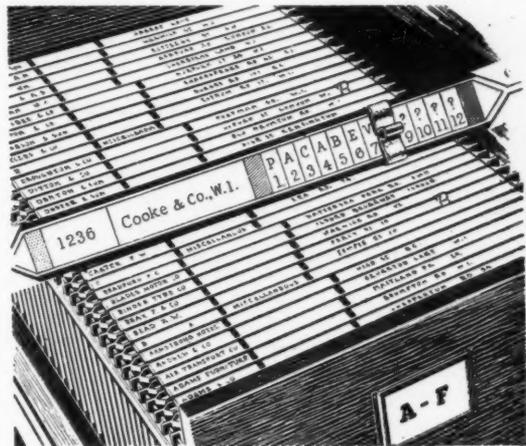
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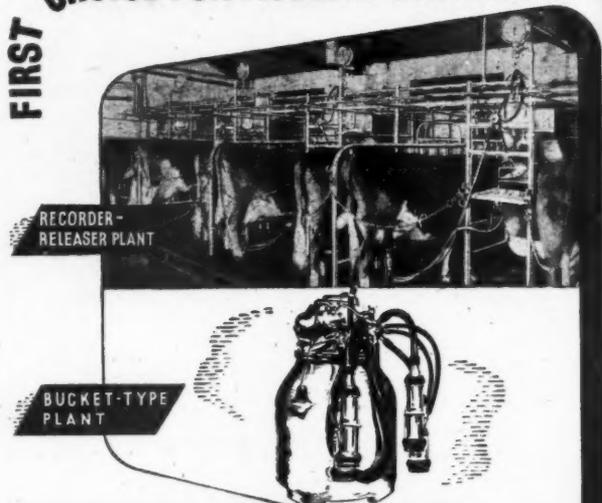
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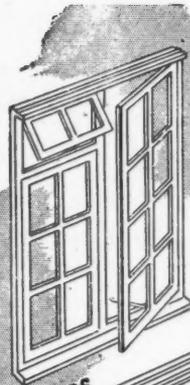


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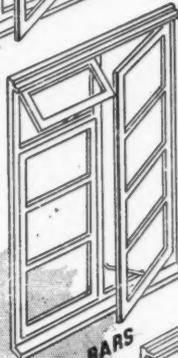
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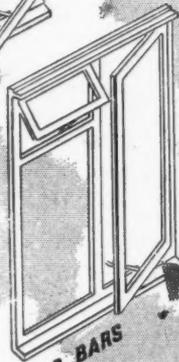
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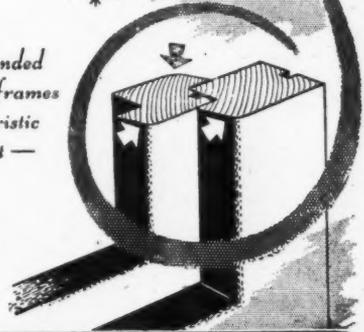
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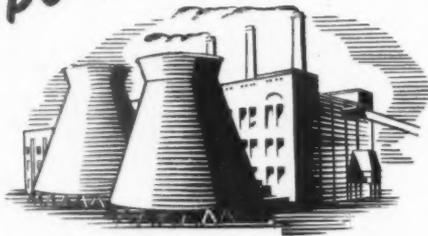
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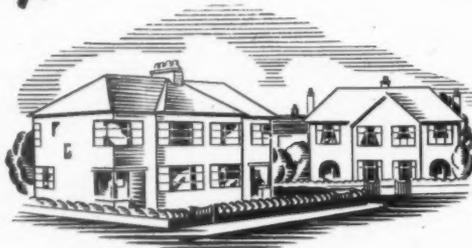
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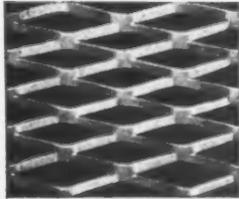
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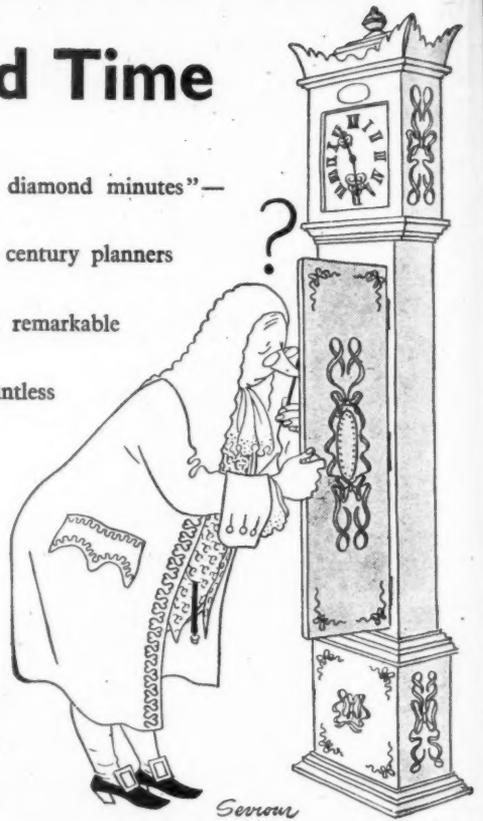
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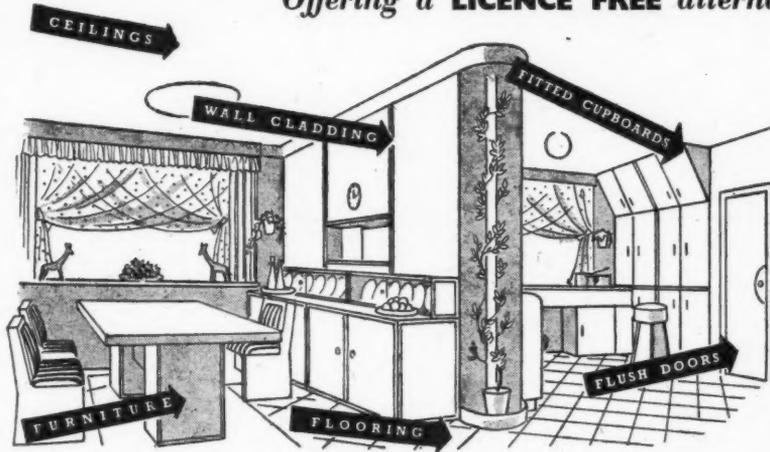
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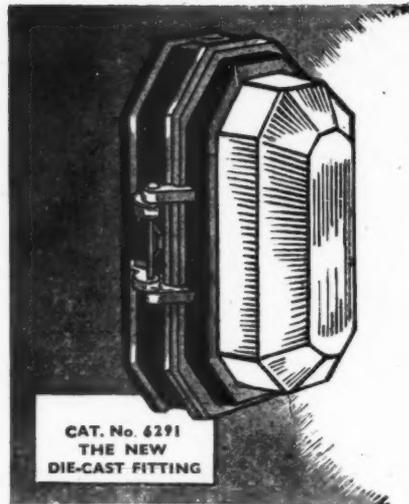
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None of the vacancies in these columns relates to a man between the age of 18 and 50, inclusive, or a woman between the age of 18 and 40, inclusive, unless he or she is excepted from the provisions of the Control of Engagement Order, 1947, or the vacancy is for employment excepted from the provisions of that Order.

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Persons appointed to the posts numbered 2 above will be stationed in the vicinity of the following towns:—Blackburn, Bury, Liverpool, Manchester, Preston and Wigan. Some of the persons appointed to those posts numbered 3, 4 and 7 will be required in the vicinity of Blackburn, Bury, Fylde, Lancaster, Manchester, Merseyside, Preston, Ulverston and Wigan. Other appointments will be to Headquarters of the County Planning Officer's staff at Preston.

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Testimonials are not required, but applicants should give the names of two persons who can testify to their character and ability.

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R. H. ADCOCK,  
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Form of application is obtainable from the Council's Architect, Mr. W. Cecil Evans, Municipal Buildings, Pontypridd, Glam., and should be obtained by intending applicants.

Applications in form required, together with copies of three recent testimonials, must be delivered, appropriately endorsed, to the undersigned, not later than Monday, the 9th day of February, 1948.

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Applicants should be neat and accurate draughtsmen, with experience in the layout and design of heating, ventilating, hot water and electrical services of large buildings, and should be in possession of the National or Higher National Certificate in Mechanical Engineering.

The appointments will be subject to the provisions of the Local Government Act, 1937, and the successful applicants 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 31st January, 1948.

It is desirable that applications should be accompanied by a small example of the applicant's work.

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

The Council will be unable to provide any housing accommodation, and the successful applicants will be expected to make their own arrangements in this direction.

DUDDLEY AUKLAND,  
Clerk of the Council.

County Hall, Kingston-upon-Thames. 717

**COUNTY BOROUGH OF HUDDERSFIELD.**

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

(a) SENIOR TOWN PLANNING ASSISTANT (Grades VI-VII), £535-£650. Candidates must have had considerable experience in all aspects of statutory planning, interim development control and planning procedure in general, and should be Associate Members of the Town Planning Institute, additional qualifications in Architecture or Engineering or Surveying will be an advantage.

(b) TOWN PLANNING ASSISTANT (Grade V), £460-£510. Preference will be given to candidates who are Associate Members of the Town Planning Institute and Planning Office experience is essential.

(c) TOWN PLANNING ASSISTANT (Grade I), £330-£375. Applicants should have had interim development experience in a Planning Office, and preference will be given to candidates who are Students of the Town Planning Institute.

For each of the posts, in addition to the salary, a bonus, at present £59 16s. per annum, will be payable.

Houses now nearing completion are being reserved and will be made available for renting by the successful candidates.

Conditions of service are those formulated by the National Joint Council, and the appointments are subject to the provisions of the Local Government Superannuation Act, 1937. The successful candidates will be required to pass a medical examination.

Applications, appropriately endorsed, together with not more than three recent testimonials, should be delivered to the Borough Architect, High Street Buildings, Huddersfield, not later than the 31st January, 1948.

Canvassing of members of the Council, either directly or indirectly, will be a disqualification.

HARRY BANN,  
Town Clerk.

The Town Hall, Huddersfield. 754

**COUNTY BOROUGH OF HUDDERSFIELD.**

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

(a) ASSISTANT QUANTITY SURVEYOR (Grade V), Salary £450-£510.

(b) ASSISTANT QUANTITY SURVEYOR (Grade IV), Salary £420-£465.

For each of the posts, in addition to the salary, a bonus, at present £59 16s. per annum, will be payable.

Houses now nearing completion are being reserved, and will be made available for renting by the successful candidates.

Applicants must have experience in the preparation of bills of quantities, specifications, estimates, and the settlement of final accounts, and preference will be given to Associates of the Royal Institute of Chartered Surveyors.

Conditions of service are those formulated by the National Joint Council, and the appointments are subject to the provisions of the Local Government Superannuation Act, 1937. The successful candidates will be required to pass a medical examination.

Applications, endorsed "Assistant Quantity Surveyor, Grade V" (or "Grade IV"), together with not more than three recent testimonials, should be delivered to the Borough Architect, High Street Buildings, Huddersfield, not later than the 31st January, 1948.

Canvassing of members of the Council, either directly or indirectly, will be a disqualification.

HARRY BANN,  
Town Clerk.

The Town Hall, Huddersfield. 753

**LLWCHWR URBAN DISTRICT COUNCIL. APPOINTMENT OF ARCHITECT.**

Applications are invited from duly qualified persons for the whole-time appointment of Architect to the Council, at a salary in accordance with Grade A.P.T. VII of the National Scheme of Conditions of Service (£575 to £650 per annum), plus cost-of-living bonus (at present 59 16s. per annum). The person appointed will be in charge of the Architect's Department, which is now being established by the Council, and his duties will be such as the Council may from time to time decide.

Applicants must be Registered Architects, and have had good experience on general architectural work, including Local Authority housing. The possession of an appropriate professional qualification will also be of advantage.

The appointment will be terminated by three months' notice in writing on either side, and subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination. The Council will also require the successful applicant to reside in the urban district.

Subject to the foregoing, the conditions of appointment will be those contained in the National Scheme of Conditions of Service.

Applications, stating age, qualifications and experience, must be delivered, with copies of two recent testimonials, to the undersigned, not later than 3rd February, 1948.

Dated this 9th day of January, 1948.

E. A. GRIFFITHS,  
Clerk of the Council.

Council Offices, West Street, Gorseinon, Swansea. 752

**CITY OF LEICESTER.**

**CITY ARCHITECT'S DEPARTMENT.**

Applications are invited for the appointments of the following staff:—

(a) ASSISTANT ARCHITECT (A.P.T., V., £460-£510). Candidates should preferably be qualified by examination, with experience in the design of educational buildings.

(b) ASSISTANT QUANTITY SURVEYOR (A.P.T., IV, £420-£465). Preference will be given to members of, or those studying for, the examination of the Royal Institute of Chartered Surveyors (Quantities Sub-Division III) or other appropriate Institutions, who understand the Northern system of preparing Bills of Quantities. Applications should be made in candidate's own handwriting.

Salaries for both appointments are exclusive of cost-of-living bonus, at present £59 16s. per annum.

The appointments are subject to the Local Government Superannuation Act, 1937, and the Corporation's Conditions of Service.

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

Canvassing will be a disqualification. The appointments will be subject to one month's notice by either side.

Applications should state age, qualifications, previous and present appointments with present salary, full details of experience, etc., together with copies of two recent testimonials, and should be sent to the undersigned, not later than 30th January, 1948.

J. H. LLOYD OWEN, B.Arch., A.R.I.B.A.,  
City Architect.

7, Newarke Street, Leicester.  
16th January, 1948. 775

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

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

(a) SENIOR ARCHITECTURAL ASSISTANT. Grade VI, £535, rising to £600 per annum.

(b) SENIOR ARCHITECTURAL ASSISTANT. Grade V, £460, rising to £510 per annum.

(c) ASSISTANT BUILDING INSPECTOR. Grade II, £360, rising to £405 per annum.

(d) JUNIOR ARCHITECTURAL ASSISTANT, in Grades I and II of the Miscellaneous Division, £255, rising to £360 per annum.

The appropriate cost-of-living bonus, at present £59 16s. per annum, is payable in addition, and all appointments will be subject to the Local Government Superannuation Act, 1937, and the successful candidates will be required to pass a medical examination.

The appointments are terminable by one month's notice on either side.

Applications, stating age, qualifications, experience, and date on which duties could be commenced if appointed, together with copies of three testimonials, should be sent to Mr. T. H. Longstaff, M.Inst.C.E., F.R.I.B.A., M.T.P.I., County Architect, Guild House, Huntingdon, by not later than Tuesday, 19th February, 1948.

J. B. KELLY,  
Clerk of the County Council.

County Buildings, Huntingdon. 782

**CITY OF NOTTINGHAM**

**CITY ENGINEER'S DEPARTMENT.**

Applications are invited for the under-mentioned posts:—

SENIOR ARCHITECTURAL ASSISTANTS. Salary according to National Scale, A.P.T., VI, £535 to £600 (plus cost-of-living bonus, at present £59 16s. per annum). Candidates must have passed examinations for A.R.I.B.A., and have a thorough knowledge of School work.

JUNIOR ARCHITECTURAL ASSISTANT. Salary according to National Scale, A.P.T., IV, £420 to £465 (plus cost-of-living bonus, at present £59 16s. per annum). Candidates must have a thorough knowledge of the preparation of working drawings and surveys, and to have passed the intermediate R.I.B.A. or equivalent examination.

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

Applications are to be on forms to be obtained from Mr. R. M. Finch, O.B.E., M.I.C.E., City Engineer and Surveyor, Guildhall, Nottingham, and are to be returned to him not later than Monday, 9th February, 1948.

J. E. RICHARDS,  
Town Clerk.

The Guildhall, Nottingham.  
14th January, 1948. 773

**CUMBERLAND COUNTY COUNCIL.**

Applications are invited for the appointment of a CLERK OF WORKS, to supervise the erection of a new Secondary School at Wigton.

The inclusive wage will be £8 8s. per week.

Applicants should have good practical knowledge of all trades and experience in the erection of steel frame buildings, and should be able to measure up work.

The appointment will be temporary, and will be subject to four weeks' notice on either side.

Applications, stating age, present employment, qualifications and experience, together with copies of three recent testimonials, should be delivered to John H. Houghan, F.R.I.B.A., County Architect, 4, Alfred Street North, Carlisle, not later than Wednesday, 4th February, 1948.

G. N. C. SWIFT,  
Clerk of the County Council.

7th January, 1948 763

**CITY OF CARDIFF EDUCATION COMMITTEE.**

**THE TECHNICAL COLLEGE.**

Principal: A. HARVEY, Ph.D., B.Sc., F.Inst.P.  
THE WELSH SCHOOL OF ARCHITECTURE.

Applications are invited for a full-time post as LECTURER AND STUDIO INSTRUCTOR, in the School of Architecture. Candidates should have been trained in a Recognised School of Architecture and be Associates of the R.I.B.A.

Salary in accordance with the Burnham (Technical) Scale. War service and professional experience will be counted towards teaching service in fixing a commencing salary.

Application forms, together with further particulars, may be obtained from the undersigned on receipt of a stamped addressed foolscap envelope, and should be returned within a fortnight of the appearance of this advertisement.

W. J. WILLIAMS,  
Director of Education.

City Hall, Cardiff.  
January, 1948. 768

**SOMERSET COUNTY COUNCIL.**

**COUNTY ARCHITECT'S DEPARTMENT.**

Note.—None of the vacancies appearing hereunder relates to a man between the ages of 18 and 50, inclusive, or a woman between the ages of 18 and 40, inclusive, unless he or she is excepted from the provisions of the Control of Engagement Order, 1947, or the vacancy is for employment excepted from the provisions of that Order.

Applications are invited for the following appointments in the above-named Department:—

ARCHITECTURAL ASSISTANT. £420-£415-£465 (A.P. and T., Grade IV).

Applicants must be A.R.I.B.A., with good experience in Architectural Design.

ARCHITECTURAL ASSISTANT. £330-£15-£375 (A.P. and T., Grade I).

Applicants must have passed the Intermediate examination of the R.I.B.A.

QUANTITY SURVEYOR. £420-£15-£465 (A.P. and T., Grade IV).

Applicants must be P.A.S.I. (Quantity Surveying Division).

The salary scales quoted are basic, and subject to a cost-of-living bonus in accordance with the County Council's Scale (at present at the rate of £59 19s. per annum at 21 years of age or over).

All the above-mentioned appointments will be subject to the regulations and rules of the County Council from time to time in force, the provisions of the Local Government Superannuation Acts 1937 and 1939, and to the passing satisfactorily of a medical examination by the Council's Medical Officer of Health.

Applications, stating age, training, experience and qualifications, together with copies of three recent testimonials, should be sent to the undersigned not later than Saturday, the 31st instant.

Canvassing of any form will be a disqualification, and every candidate should disclose whether to his knowledge he is related to any Member of the County Council or to a holder of any senior office under the Council.

R. O. HARRIS, F.R.I.B.A.,  
County Architect.

Park Street, Taunton.  
14th January, 1948. 789

**CITY OF PETERBOROUGH.**  
**APPOINTMENT OF CHIEF ARCHITECTURAL ASSISTANT.**

**CITY ENGINEER AND SURVEYOR'S DEPARTMENT.**

Applications are invited for the established appointment of Chief Architectural Assistant, in the City Engineer and Surveyor's Department, at a salary in accordance with Grade VI of the A.P.T. Division of the National Scale of Salaries, i.e., commencing at £535 and rising by annual increments of £20, £20, £25 to £600 per annum, plus a cost-of-living bonus, at present £59 16s. per annum. At the moment £1 per week is paid in respect of the use of this officer's private car for official purposes.

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

Applicants, who should not be more than 40 years of age, should be Registered Architects, preferably Associates R.I.B.A., and the successful applicant will be responsible to the City Engineer for administering, with the minimum of supervision, the Architectural Section of the Department consisting of architects, quantity surveyors, clerks of works, etc. In addition, candidates must be good designers, familiar with modern practice in relation to housing, school and general Municipal work.

Applications, stating age, details of qualifications, and experience, together with copies of three recent testimonials, should be delivered to the undersigned in a sealed envelope, and endorsed "Chief Architectural Assistant," not later than 31st January, 1948. Canvassing, directly or indirectly, will be a disqualification, and candidates must disclose whether they are related to any member or senior officer of the Council.

ARTHUR J. REEVES,  
Town Clerk.

Town Hall, Peterborough.  
January, 1948. 772

**METROPOLITAN BOROUGH OF HACKNEY.**  
**BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.**

**APPOINTMENT OF TOWN PLANNING ASSISTANT.**

Applications are invited for the appointment on the permanent establishment of a Town Planning Assistant, at a salary in accordance with Grade VI, A.P. and T. Division (£535 p.a., rising to £600 p.a.) of, and subject to, the Scheme of Conditions of Service of the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services, plus £20 p.a. London weighting allowance and current cost-of-living bonus.

Applicants must be qualified Town Planners and Members of the Town Planning Institution, and Corporate Members of the Institution of Civil Engineers, the Municipal and County Engineers, or the Royal Institute of British Architects. Applicants must have had a wide experience in Town Planning.

Applicants are advised that the Council is unable to provide any housing accommodation for the successful candidate.

The appointment will be subject to the provisions of the Council's Superannuation Acts, to the successful candidate passing a medical examination, to the Council's regulations relating to staff appointments, and to termination by one month's notice on either side.

Applications in writing, on forms to be obtained from the undersigned upon the receipt of a stamped addressed envelope, must be received not later than first post on 31st January, 1948, endorsed "Town Planning Assistant—Borough Engineer and Surveyor's Department."

DUDLEY SORRELL,  
Town Clerk.

Town Hall, Hackney, E.8.  
8th January, 1948. 769

**DORKING URBAN DISTRICT COUNCIL.**  
**TECHNICAL ASSISTANT—SURVEYOR'S DEPARTMENT.**

Applications are invited for this appointment, at a salary in accordance with Grade II, A.P.T. Division, plus bonus.

Duties will include:—  
(a) Examination of all plans submitted under Bye-laws and for Planning purposes and supervision of the works under construction.  
(b) Examination of applications for Building Licences and report thereon to the Engineer and Surveyor.  
(c) Supervision of any building works carried out by direct or contract labour (other than housing schemes) for the Council.

Preference will be given to applicants who have had considerable experience in a Municipal Engineer's office and who hold the Testamur of the Institute of Municipal Engineers or the R.I.B.A.

The appointment will be subject to the Local Government Superannuation Acts, to the passing of a medical examination, and to the Conditions of the National Scheme of Conditions of Service. It will be terminable by one month's notice on either side. Applications, endorsed "Technical Assistant," stating age, experience and qualifications, accompanied by three recent testimonials, should be received by the undersigned not later than the 26th January, 1948.

Canvassing, either directly or indirectly, will disqualify.

H. D. JEFFRIES,  
Clerk of the Council.

Pippbrook, Dorking. 725



**COUNTY BOROUGH OF CROYDON.  
ARCHITECTS' SECTIONS.**

Applications are invited for the following appointments from candidates, preferably with Local Government experience:—

**BOROUGH ENGINEER'S DEPARTMENT:**

Experienced in general architectural work, and especially in Housing.

(a) **TWO ARCHITECTURAL ASSISTANTS.** Salary, Grade A.P.T., IV (£440×£15—£485 per annum, plus bonus, £59 16s. per annum (men)).

(b) **TWO ARCHITECTURAL ASSISTANTS.** Salary, Grade A.P.T., II (£380×£15—£425 per annum, plus bonus).

**EDUCATION DEPARTMENT:**

Experienced in preparing schedules, specifications, and in estimating and quantities.

**SURVEYING ASSISTANT.** Salary, Grade A.P.T., II (£440×£15—£485 per annum, plus bonus).

The appointments are permanent, and superannuable, subject to medical examination.

Application forms, to be obtained from the respective Departments, Katharine Street, Croydon, to be returned there not later than Thursday, 5th February, 1948.

Canvassing will disqualify.

**E. TABERNER,**

*Town Clerk.*

Town Hall, Croydon.  
January, 1948.

791

**WEST SUSSEX COUNTY COUNCIL.  
COUNTY PLANNING DEPARTMENT.**

Applications are invited for the following appointments, in the County Planning Department:—

(a) **ONE TECHNICAL PLANNING ASSISTANT,** A.P. and T. Division, Grade IV, salary £420 p.a., rising by annual increments of £15 to £465.

(b) **PLANNING ASSISTANT (DRAUGHTSMAN),** A.P. and T. Division, Grade I, salary £315 p.a., rising by annual increments of £15 to £360.

In addition to the above-mentioned salaries a cost-of-living bonus, at present amounting to £59 16s. per annum, will be payable.

The appointments will be subject to the Local Government Superannuation Act, and the successful applicants passing a medical examination.

Applicants for post (a) should have had a practical experience in Town and Country Planning for urban and rural areas, including control of new development, and should have passed the intermediate examination of the Town Planning Institute, or possess other suitable professional qualifications. Applicants for post (b) should be experienced draughtsmen, and should

be capable of making surveys and have had experience of ordnance sheet revision. Planning experience, though desirable, is not essential.

Applications, stating age, education, qualifications, experience, present employment and salary, together with the names of three persons to whom reference could be made, must be sent in sealed envelopes, and addressed to The County Planning Officer, County Hall, Chichester, Sussex, to reach him by Monday, the 22nd February, 1948.

Applicants must state if to their knowledge they are related to any member of the County Council or to any senior official of the Council.

Canvassing will disqualify.

**T. C. HAYWARD,**

*Clerk of the County Council.*

County Hall, Chichester.  
14th January, 1948.

790

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

Applications are invited for the following appointments:—

(a) **ASSISTANT ARCHITECT** (Grade VI), £535-£600.

(b) **TWO ARCHITECTURAL ASSISTANTS** (Grade III), £390-£435.

Form of application, together with full particulars, may be obtained from F. A. C. Maunder, County Architect, County Offices, Aylesbury, and must be returned to him by 9th February, 1948.

**GUY R. CROUCH,**

*Clerk of the County Council.*

County Hall, Aylesbury.  
12th January, 1948.

771

**CORPORATION OF GLASGOW—HOUSING  
DEPARTMENT.**

Applications are invited for appointments as QUANTITY SURVEYORS.

Applicants should have experience in taking-off quantities from plans, preparing schedules and specifications, making up payments, probable costs and valuations, measuring up and adjusting final measurements for all trades, and for all classes of work, and should have some knowledge of the analysis of builders' prices.

The appointments are permanent, and the successful applicants will require to pass a medical examination for admission to the Corporation Superannuation Scheme.

The salary scales for Technical Assistants in the Corporation are covered by A.P.T., Grades I to VI. of the National Scheme of Salaries, and the persons appointed will be placed within these Grades according to qualifications, age, and experience. The Minimum salary for A.P.T., Grade

I, is £330 per annum, and the maximum salary for A.P.T., Grade VI, is £600 per annum (in both cases plus war increase of £50 per annum).

Applications, stating age, particulars of training, experience and qualifications, should be addressed to the undersigned, and should be received within 14 days of the publication of this advertisement.

**RONALD BRADBURY,**

*Director of Housing.*

Housing Department, 20, Trongate,  
Glasgow, C.1.

793

**Partnerships and Financial**

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

**CHARTERED CIVIL ENGINEER** (33) desires appointment with established Architect in London or Home Counties area, with a future view to Partnership, at present in own small practice in London; over 10 years' experience in office and constructional work, in a responsible position, also experience in dilapidations, surveys, etc.; ample initiative and good connections. Apply Box 751.

**Architectural Appointments Vacant**

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

**SEELY & PAGET, F./L.R.I.B.A.**, require fully qualified ASSISTANT; must be experienced working drawings and specifications, with sound knowledge of all normal methods of construction; licensed work now in hand includes many important Ecclesiastical commissions. Apply by letter, giving usual details, to 41, Cloth Fair, B.C.1. 648

**JOHNSON & CRABTREE, F.F.R.I.B.A.**, 20, Priory Place, Doncaster, require ASSISTANT ARCHITECTS, for interesting work on industrial architecture. Write, with particulars of age, experience, and salary required, or telephone Doncaster 3445. 685

**LONDON PASSENGER TRANSPORT  
BOARDS.**—Applications are invited for appointments on the temporary staff of the Architect as follows: Assistant Architects, Architectural Assistants, Structural Engineering Designers; commencing salary from £300 to £600 per annum, according to ability, qualifications and experience. Applications, which should give a brief outline of training and experience, to be sent to the Staff Officer, BR/E451, London Passenger Transport Board, 65, Broadway, S.W.1. 923

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DIV/2

**COMPETENT** qualified ARCHITECTURAL ASSISTANT required, to work under Chief Assistant in extensive Norfolk practice; must be car driver and single for preference; salary £400 to £500 per annum, according to ability. Apply Box 776.

**SENIOR ASSISTANT** wanted in busy practice in county town; expert in all matters concerning Housing important; own car, or able to drive; partnership would be considered. Also JUNIOR ASSISTANT; must be good draughtsman. Box 777.

**APPLICATIONS** are invited for SENIOR ASSISTANT ARCHITECT, in London Architect's Dept.; commercial and industrial work; salary £550 to £650, according to capabilities; qualified applicants preferred; replies should state training, experience, and previous positions held; permanent appointment; contributory pension scheme after period of satisfactory service. Box 779.

**ASSISTANT ARCHITECT** in Architect's dept. of London company; applicants should have the ability to control drawing office staff and take charge in the absence of the architect; industrial and commercial experience an advantage. Applicants should state, in confidence, age, training, experience, war service, salary required, and position now held, to Box 780.

**ARCHITECTURAL ASSISTANT** required immediately; London; knowledge hospital work preferable but not essential; able write detailed specifications; salary £400-£500.—Write Box 2058, c/o Charles Barker & Sons, Ltd., 31, Budge Row, London, E.C.4. 770

**SENIOR ASSISTANT** and competent DRAUGHTSMAN required immediately for industrial and domestic work. Particulars of experience and salary required to Nightingale & Ambrose, F.F.R.I.B.A., 27, John Adam Street, W.C.2. 767

**AN** expanding Oil Company urgently requires for their London office an ARCHITECTURAL ASSISTANT, to assist Architect in the design of Municipal Buildings and to negotiate with outside Architects and deal with the ordering of materials and preparation of progress charts; must have passed Inter. R.I.B.A. and be a Registered Architect; should have had at least 7 years' experience, with emphasis on Municipal work, both in designing and supervising Public Buildings; education not below matriculation standard; salary £400 to £600 per annum, depending on age and experience; age 25-35. Write for application form, giving brief summary of experience, and age, to Box "K.Z.", c/o J. W. Vickers & Co., Ltd., 7/8, Great Winchester Street, London, E.C.2. 766

**ARCHITECTURAL ASSISTANT** required in busy office in Croydon; must be capable of preparing working drawings and details; good draughtsman essential. Write, with full particulars of previous training and experience and salary required, to Box 786.

**SENIOR ASSISTANT** required in London office; should have had good experience, and capable of taking charge. Write, with full details and salary required, to Box 787.

**SENIOR ASSISTANT** required by Architect at Croydon. Write, with full particulars of training and experience, stating age and date available and salary required, to Box 788.

**SENIOR ASSISTANT** required, with interest in contemporary design; office near Hampton Court (½ hr. Waterloo). Apply Eric Lyons & Townsend, Mill House, Bridge Road, East Molesey. 784

**ARCHITECTURAL ASSISTANT**, for London office, with experience of exhibition stand construction, designing and detailing. Box 792.

**Architectural Appointments Wanted**

**JUNIOR ARCHITECTURAL ASSISTANT**; ex-Public School; exempt military service; 18 months' experience; matriculation. Box 25.

**A. R.I.B.A.**, 15 years' experience, domestic, industrial, hospitals, town planning, requires senior position, with responsibility; has own office in central London and small practice; salary by arrangement. Box 23.

**A. R.I.B.A.** (27), married, requires position as Assistant in South Africa; experience includes surveys, specifications, design and construction. Box 24.

**ASSOCIATE R.I.B.A.**, age 23, just released from R.A.F., desires employment in London area. D. H. Eastaugh, 20, Oakwood Avenue, Beckenham, Kent. 27

**ARCHITECT'S ASSISTANT**, Intermediate standard, about to take final, requires position in Liverpool or Chester area. Box 26.

**Other Appointments Vacant**

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

**AN ESTIMATING and COSTING SURVEYOR or ENGINEER** is required by old-established Civil Engineering and Building Contractors in the Essex/London area, engaged mainly on factory construction, extension and maintenance; experience is required in estimating for Civil Engineering, as well as building work, but management of the contracts is not one of the duties; salary about £900, depending on experience and ability; the appointment is pensionable, and assistance will be given, if required, in obtaining a house. Applicants should write, giving details of their age, education, qualifications and experience, to Box 2044, c/o Charles Barker & Sons, Ltd., 31, Budge Row, London, E.C.4. 720

**PRODUCTION MANAGER** required for factory, 20 miles north of London, manufacturing Plastics-limber-metal Assemblies for the Furniture and Building Industries; exceptional opportunity for suitable man having experience in shop-fitting or similar manufacturing concern; must be capable organiser and a keen worker, anxious to progress; applicants should state details of their experience and qualifications, age, and salary required. Box 778.

**SECRETARY/SHORTHAND-TYPIST** for Staff Architect to large London company; salary £325 p.a. Reply, giving experience and appointments held, to Box 783.

**SECRETARY/SHORTHAND TYPIST** required by busy firm of Architects, Bloomsbury area; five-day week; applicant with experience in architect's office preferred. Write, stating age, experience, and salary required, Box 397, c/o 7, Coptic Street, W.C.1. 764

**ASSISTANT QUANTITY SURVEYOR**; able to take-off and bill sub trades and measure up work; salary up to £325 per annum, according to qualifications (plus war bonus of £84 10s.), with good prospects of promotion; successful candidate will be required to pass a medical examination for entry into compulsory Superannuation Scheme. Applications, stating age, qualifications, and experience, to be addressed to C.W.S., Ltd., Architect's Department, 1, Balloon Street, Manchester, 4. 762

**ESTIMATOR and SURVEYOR**.—Building and contracting Firm in North have vacancy for experienced Estimator and qualified Quantity Surveyor; only first-class man need apply, stating age, experience, enclosing copies of two references; remuneration would be on salary and commission basis; excellent prospects.—Box 785.

**Services Offered**

4 lines or under, 2s. 6d.; each additional line, 1s.

**EXPERT TYPIST** requires work at home; efficient and prompt service. Apply Box 718.

**SENIOR DRAUGHTSMAN** would like to contact Architects, Surveyors, etc., with the view to carrying out spare-time work immediately or in the near future; expert knowledge of industrial and domestic work; advertiser would be prepared to carry out complete land or structural surveys, fully detailed, levelled, etc., ready for future schemes; available daily in London area; very moderate fees. Write Box 746.

**SENIOR ARCHITECTURAL ASSISTANT** offers part-time Services to Birmingham Architects. Box 745.

**QUALIFIED ARCHITECT** (38) offers part-time Assistance, London, in order to carry on with own small practice. Box 781.

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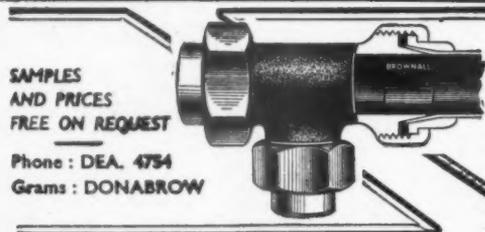
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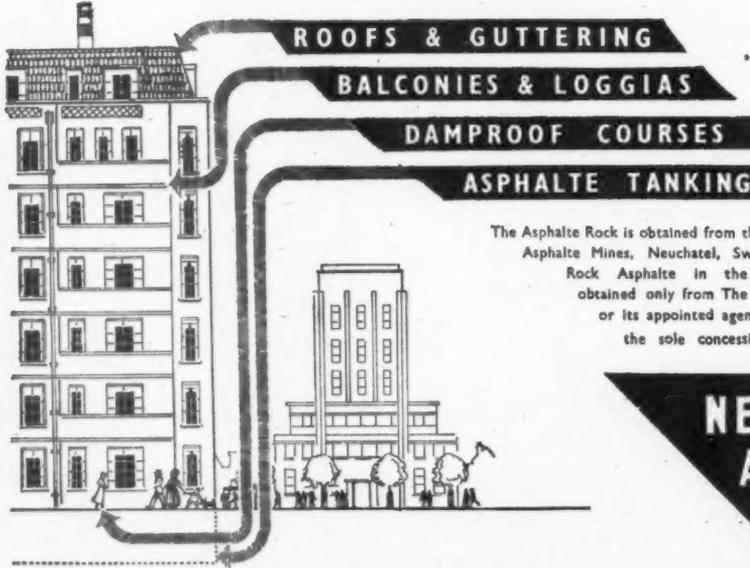
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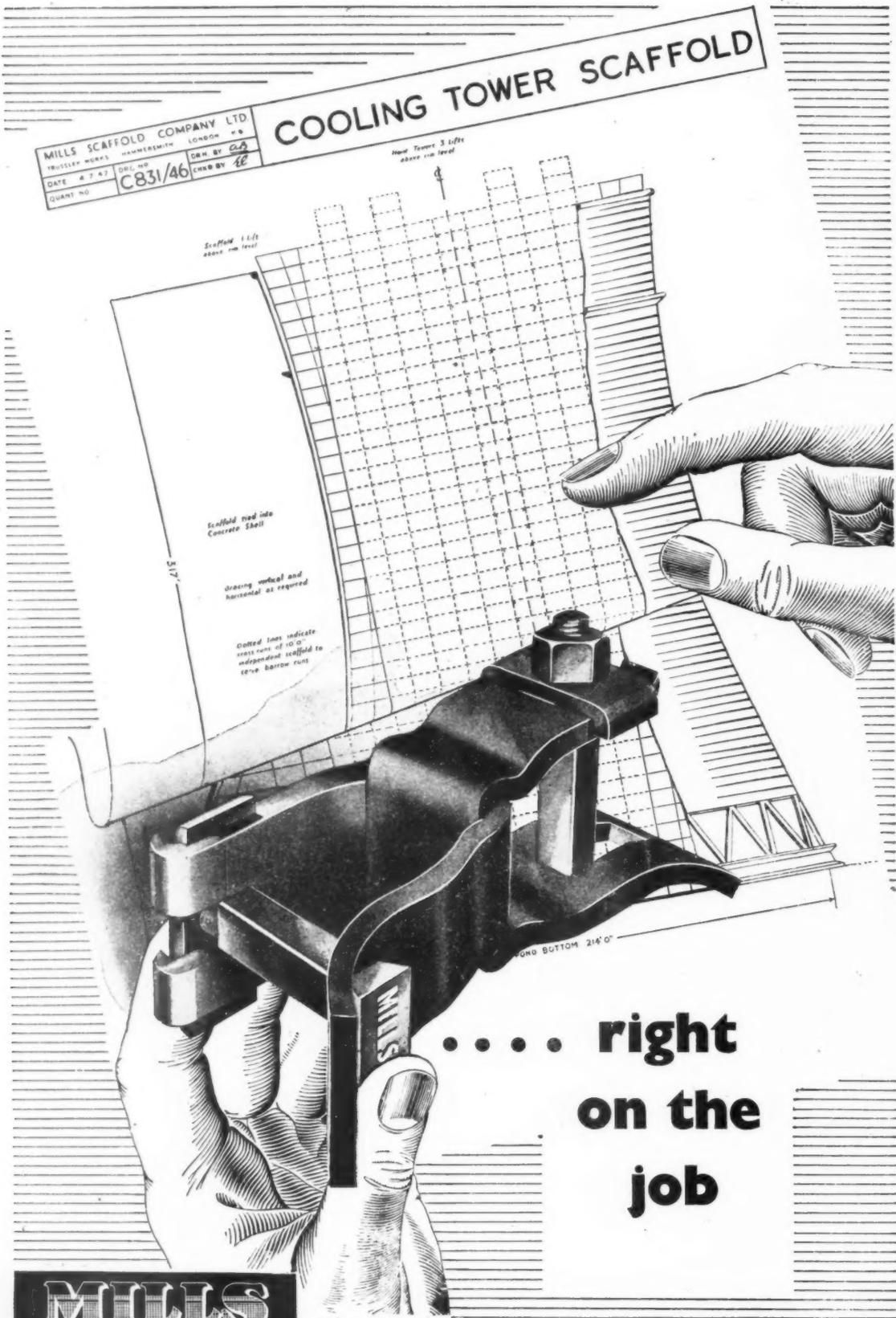
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