

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 I 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. Dolderal, 7, Zurich, Switzerland	
CID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPC	Codes of Practice Committee. MOW, 42, Onslow Gardens, S.W.7.	Kensington 8161
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CUJC	Coal Utilization Joint Council. 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
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 3158
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
ICW	Institute of Clayworkers. 4, Vernon Place, W.C.1.	Chancery 6258

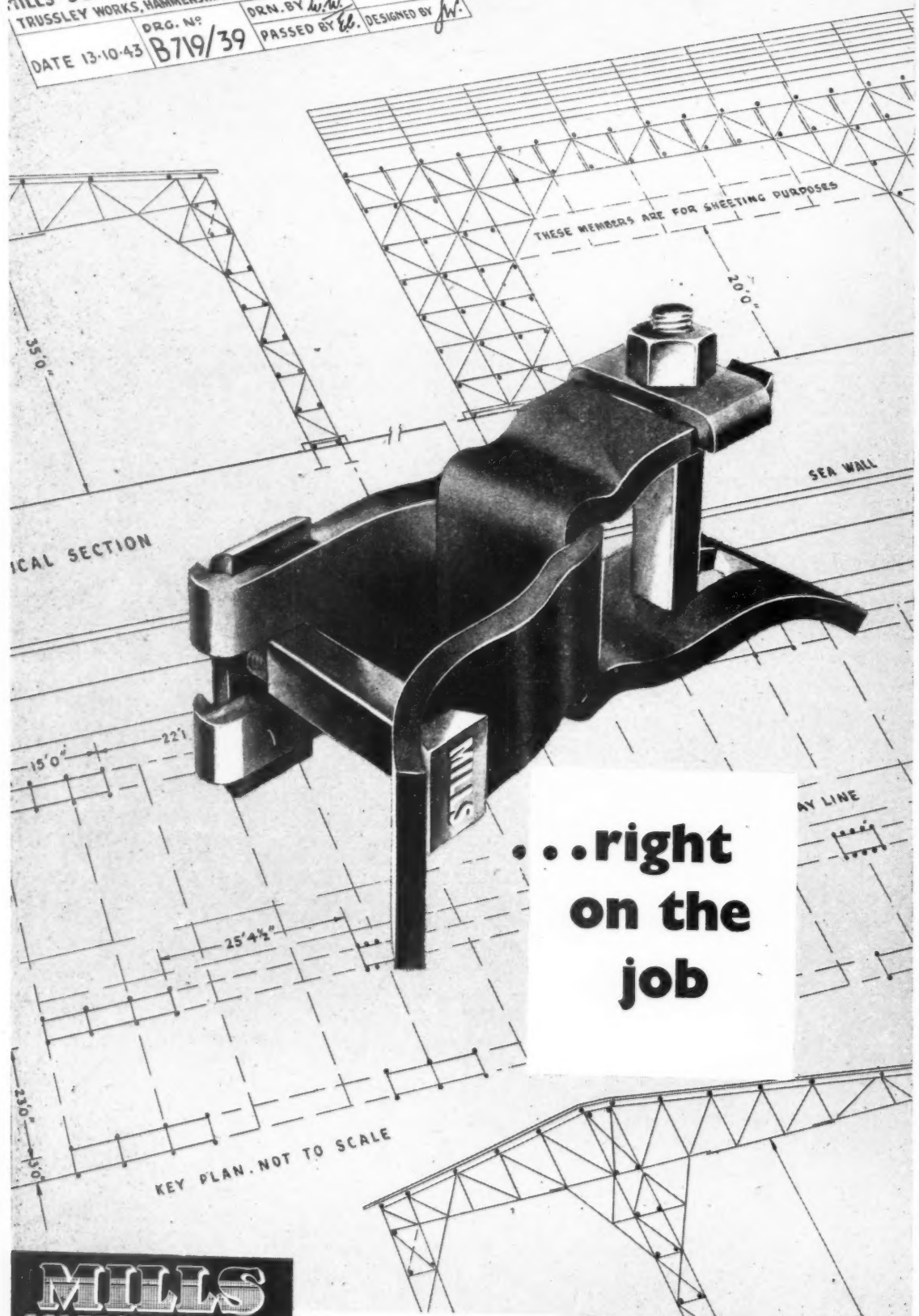
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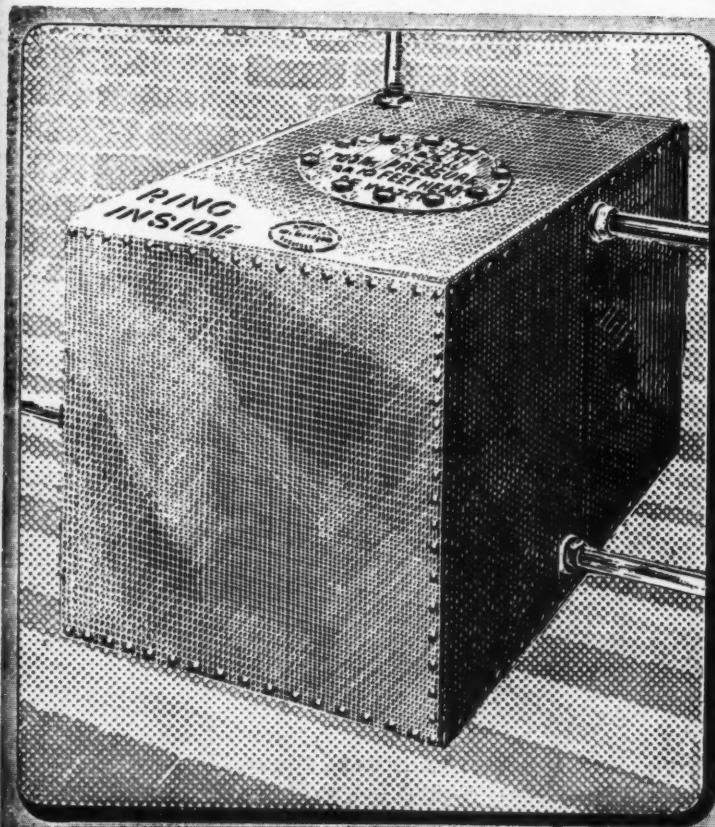
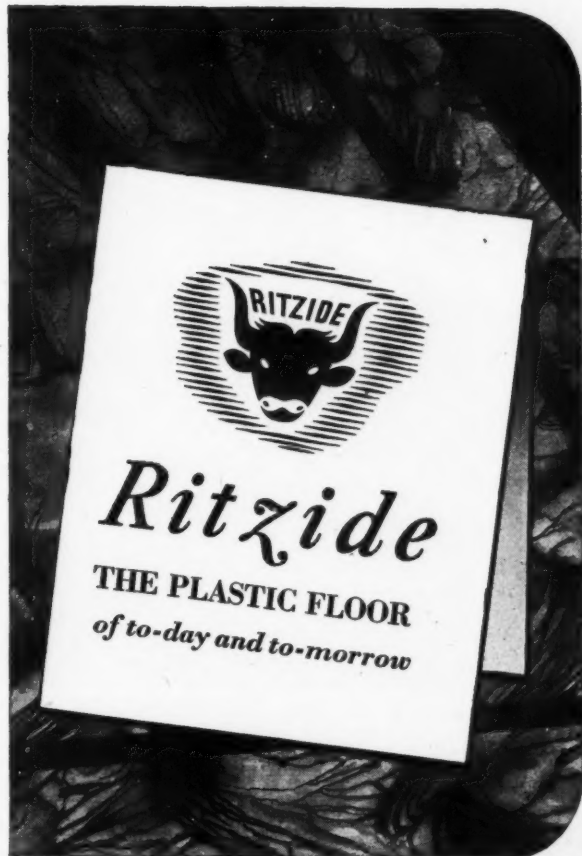
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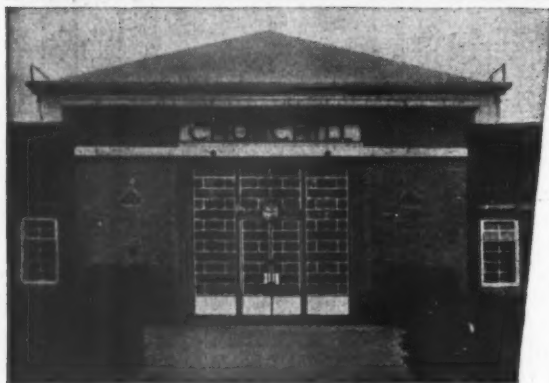
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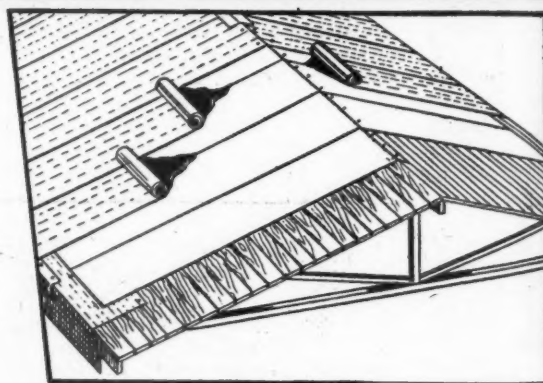
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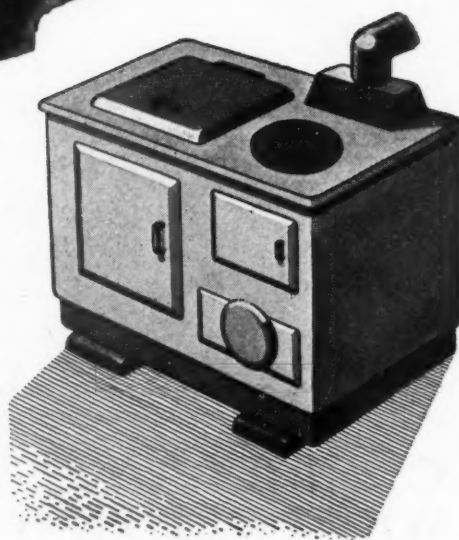
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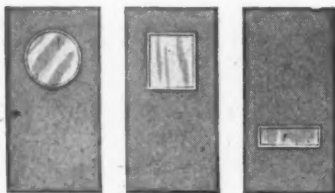
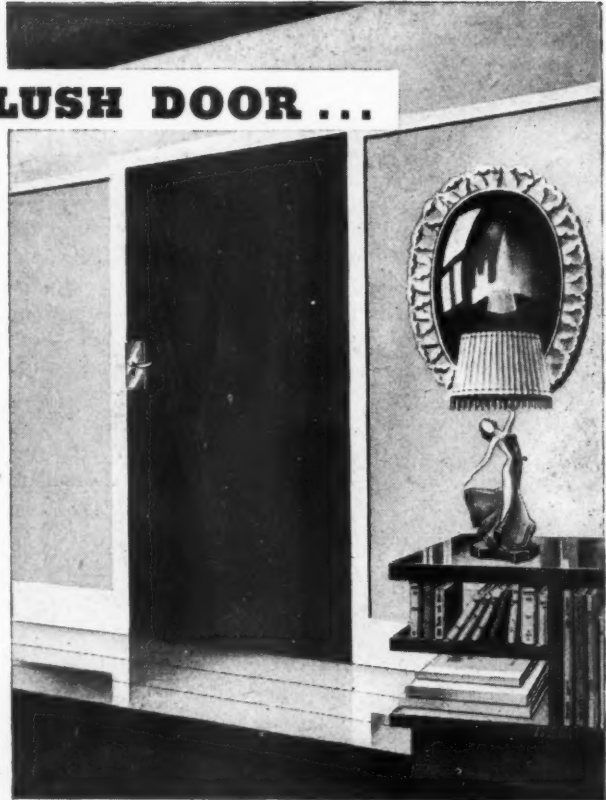
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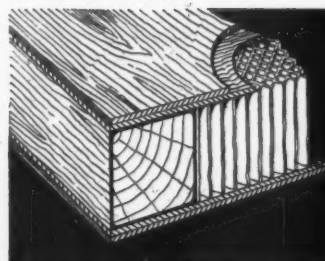
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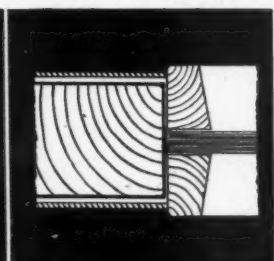
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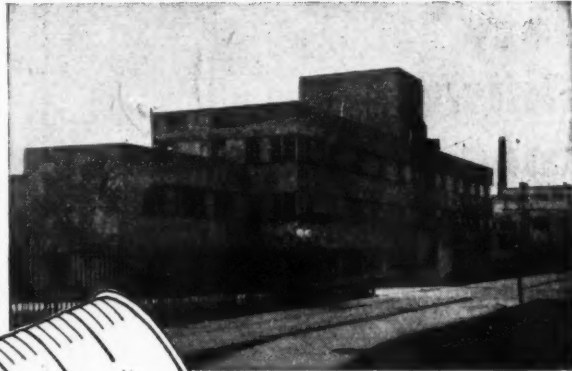
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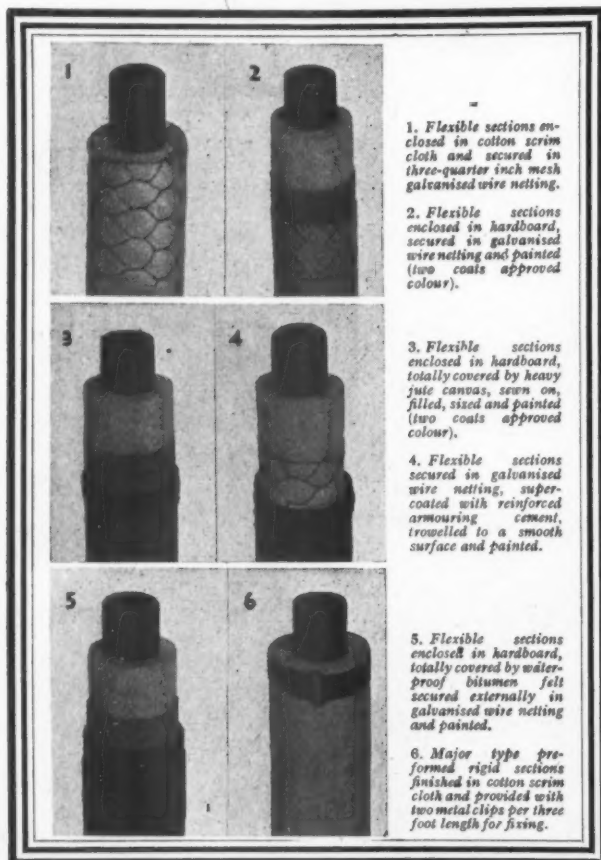
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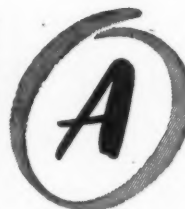
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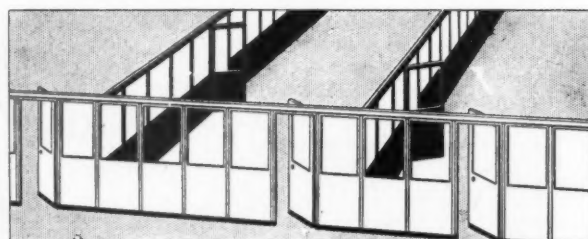
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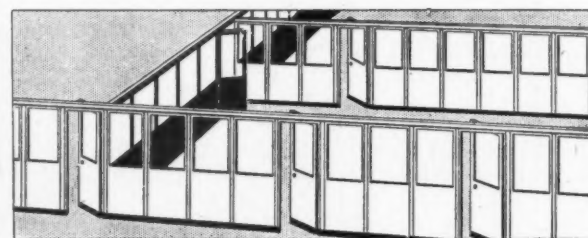
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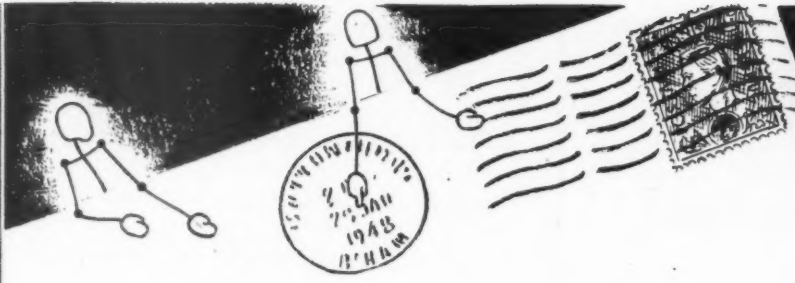
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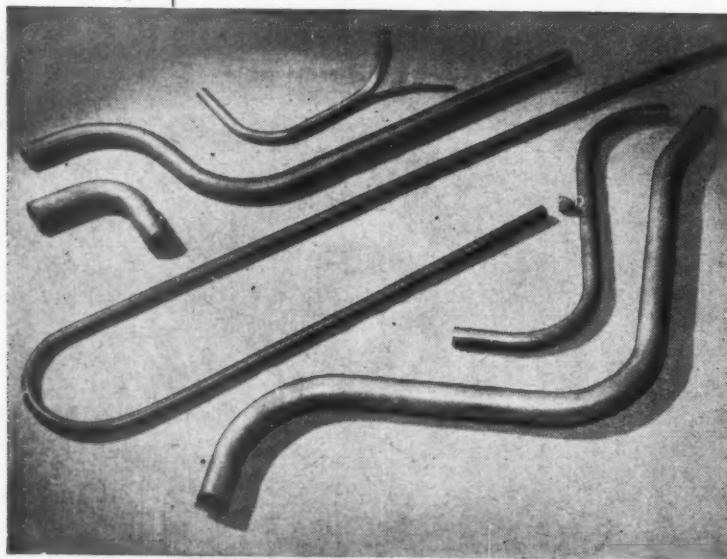
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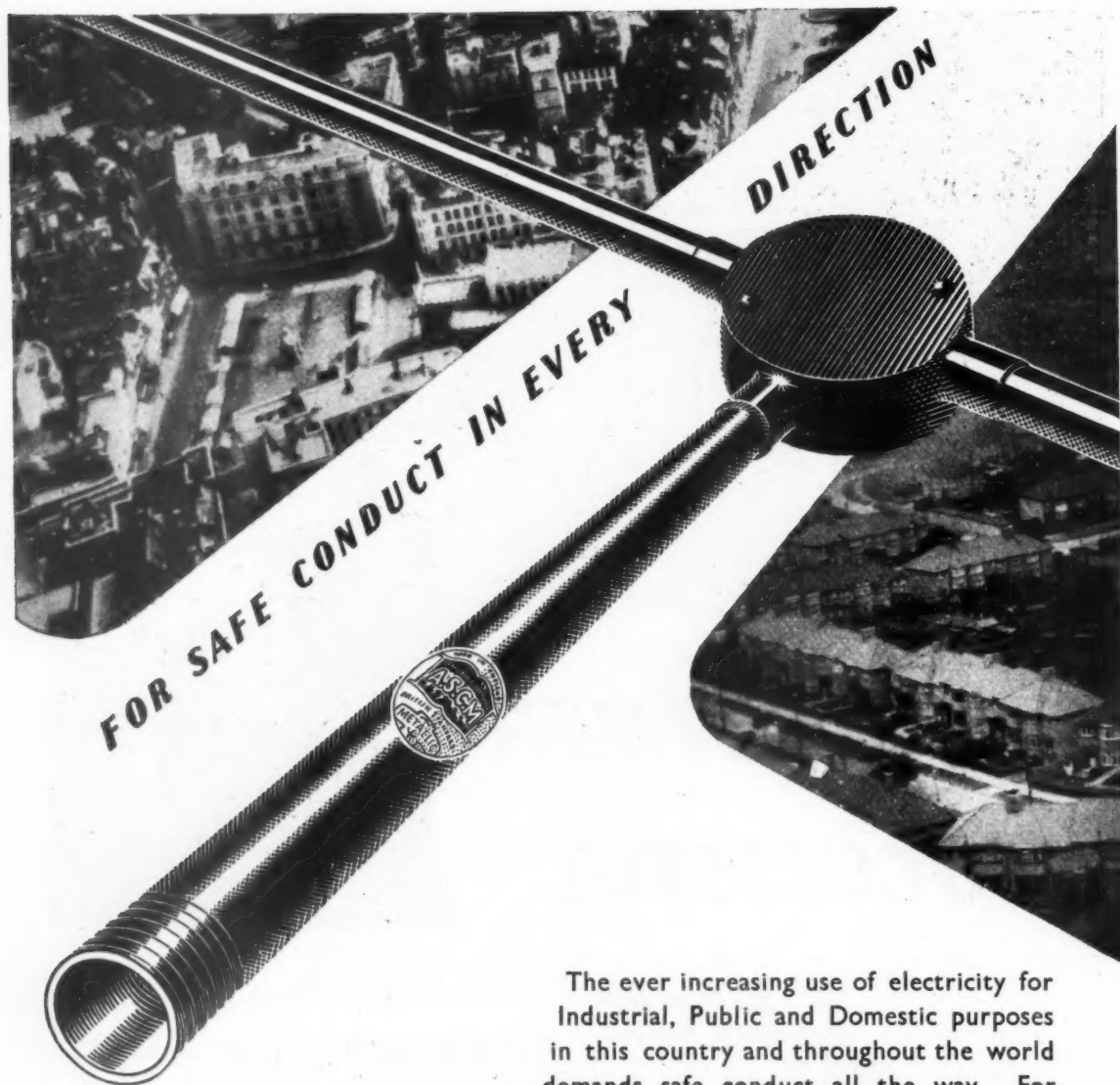
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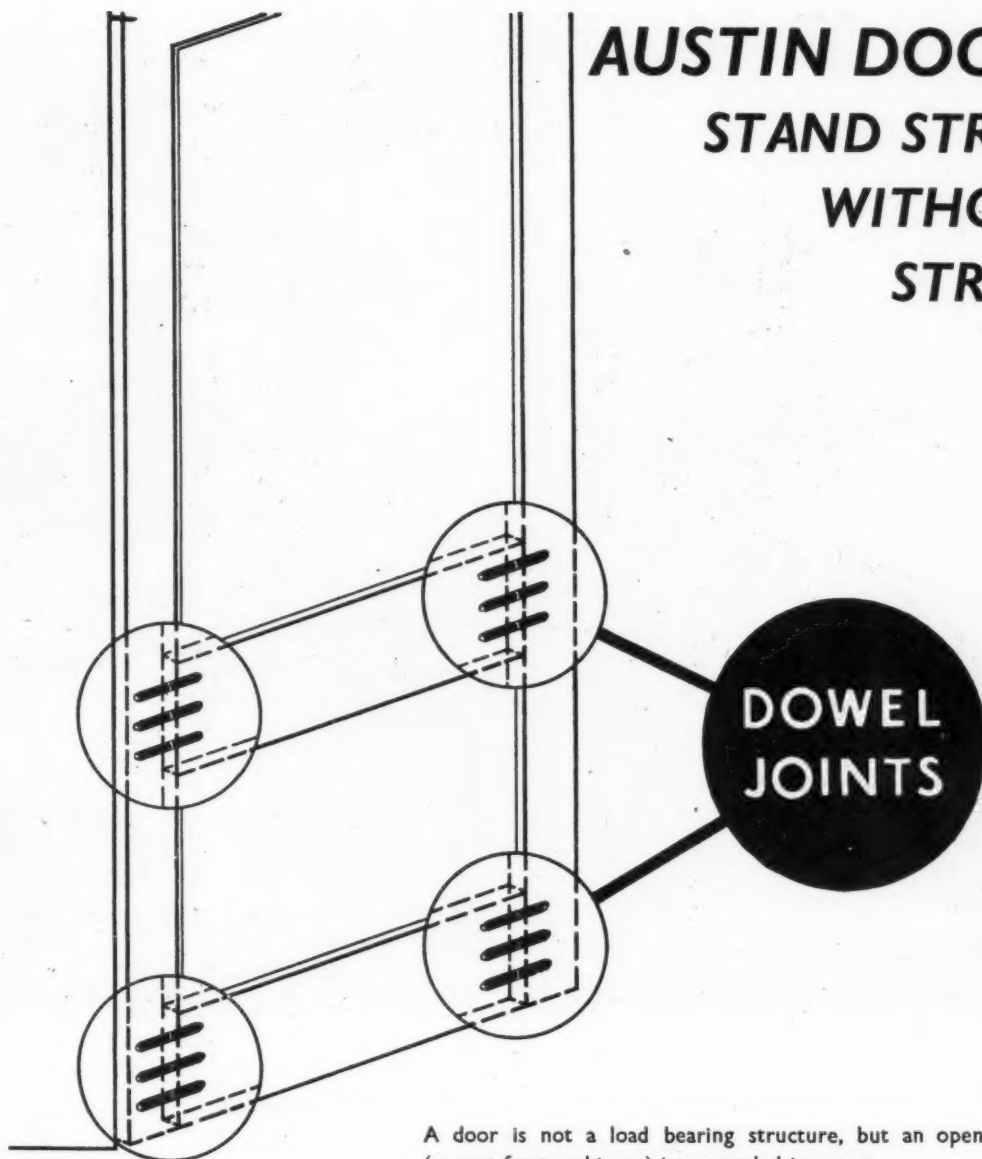
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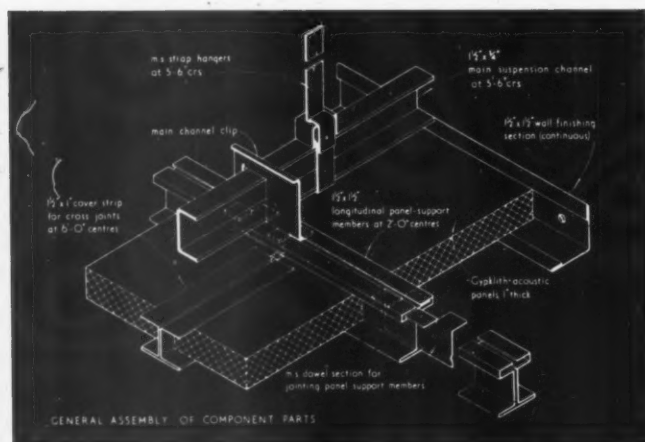
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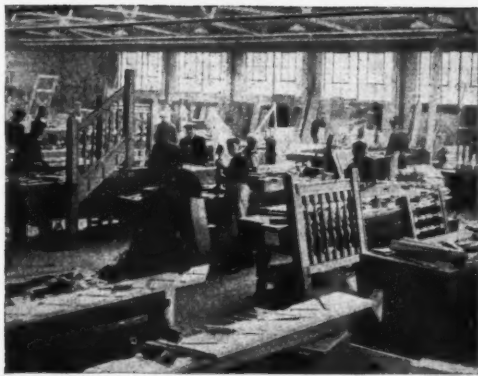
BUILDING CONTRACTORS



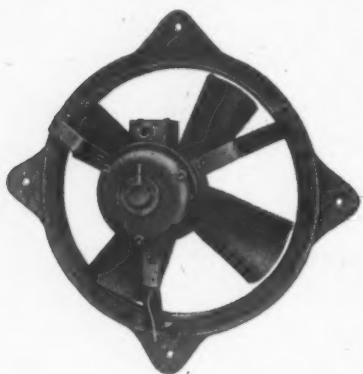
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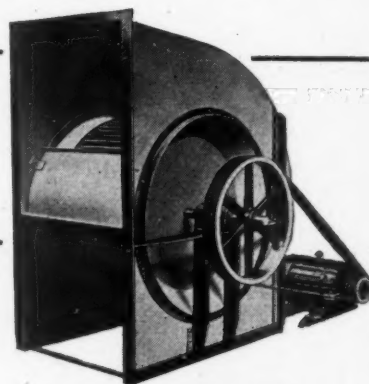
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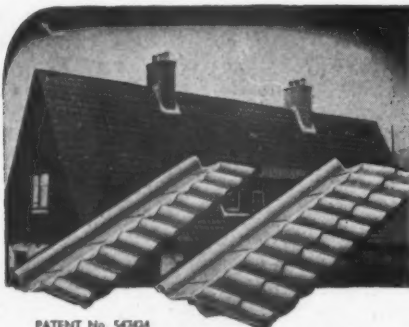
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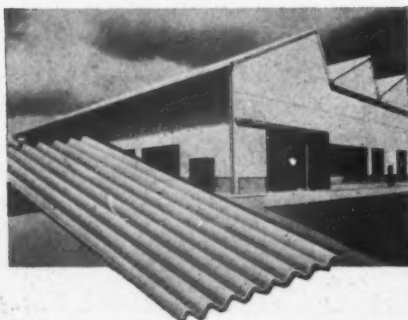
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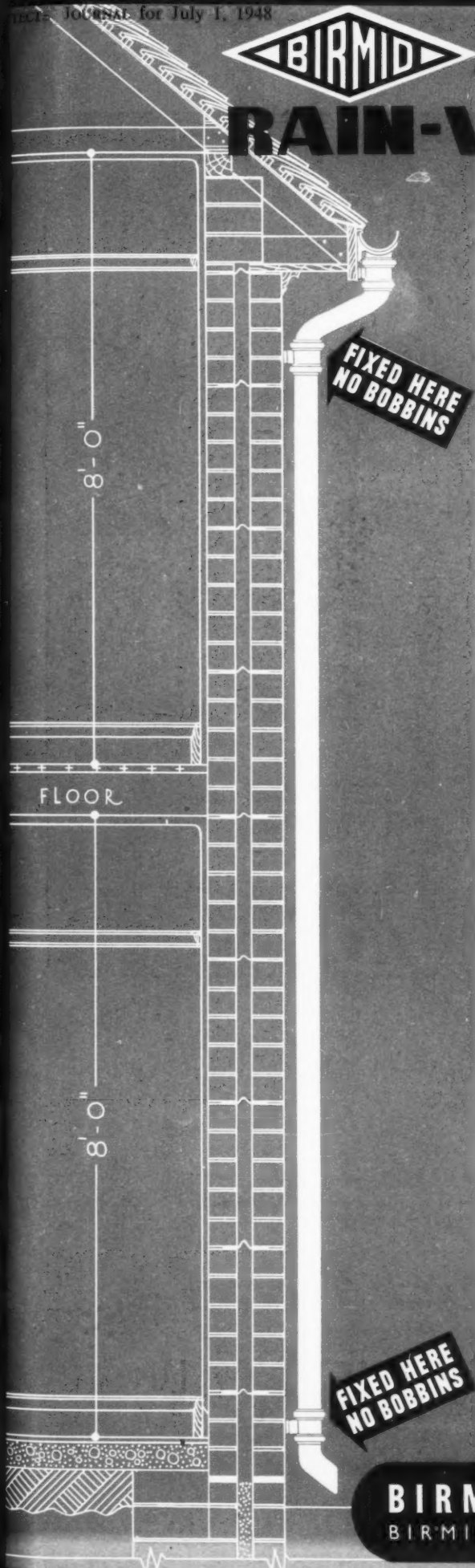
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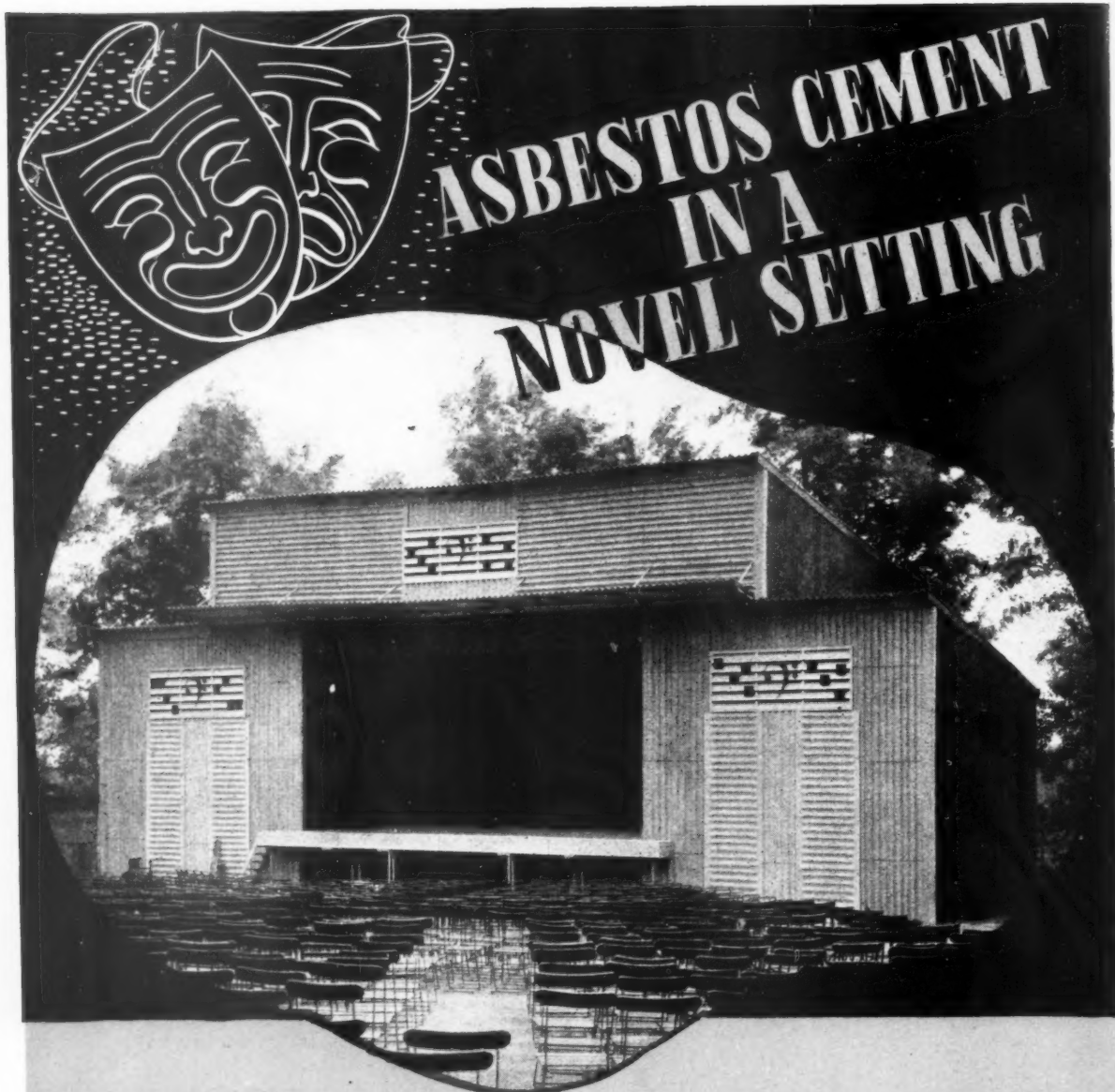
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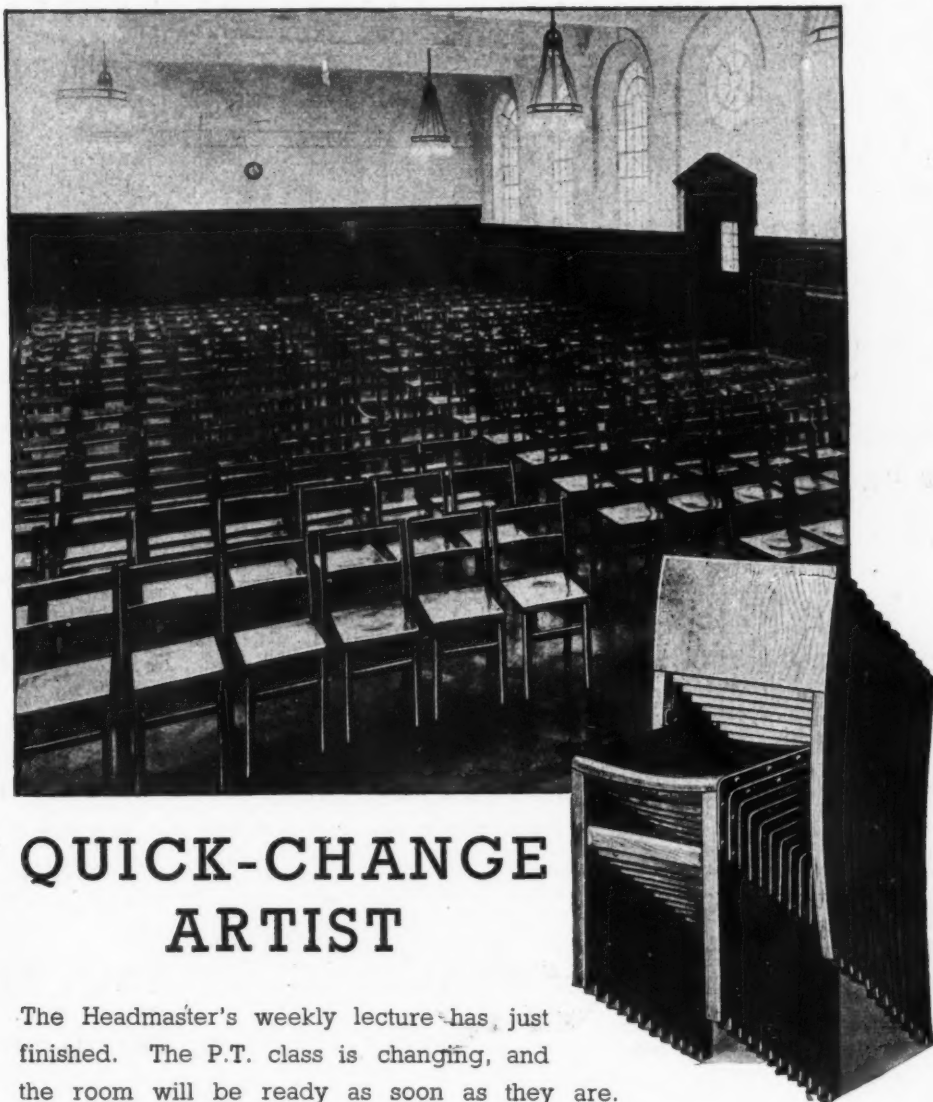
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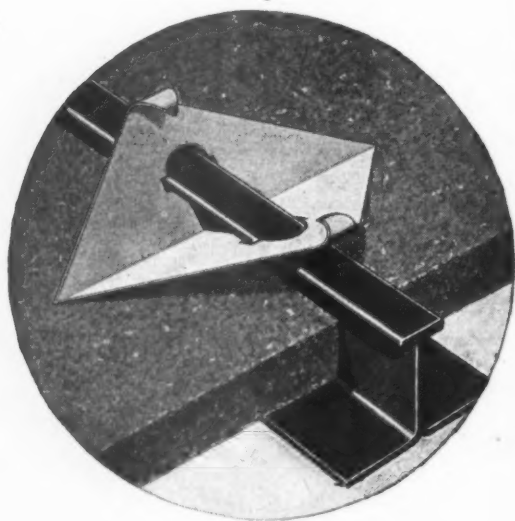
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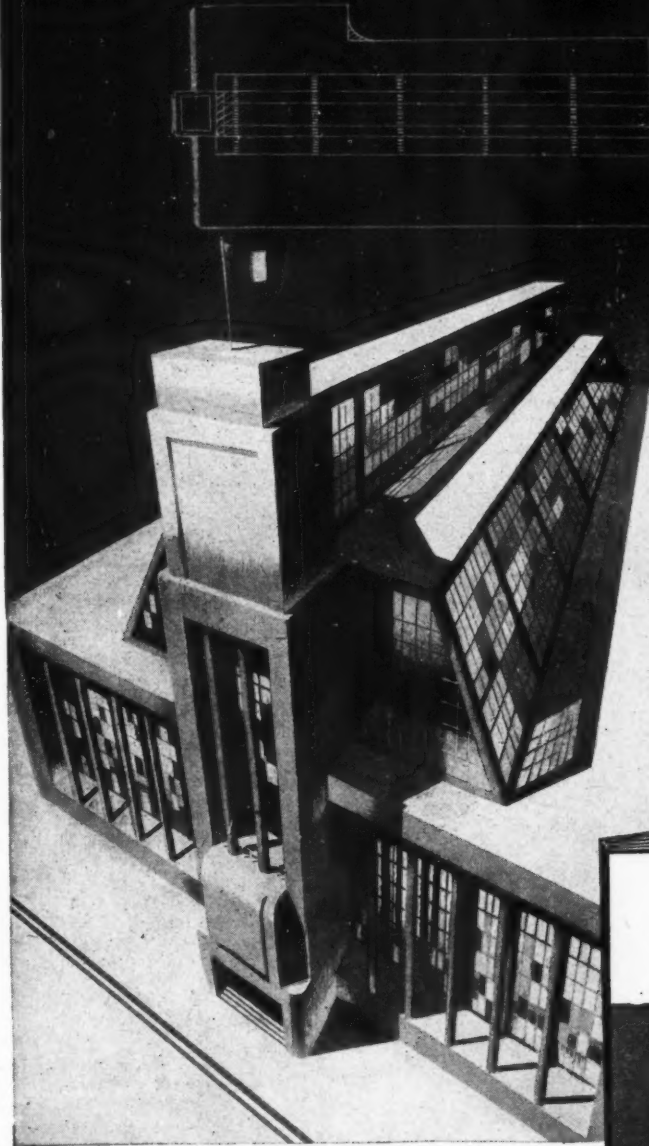
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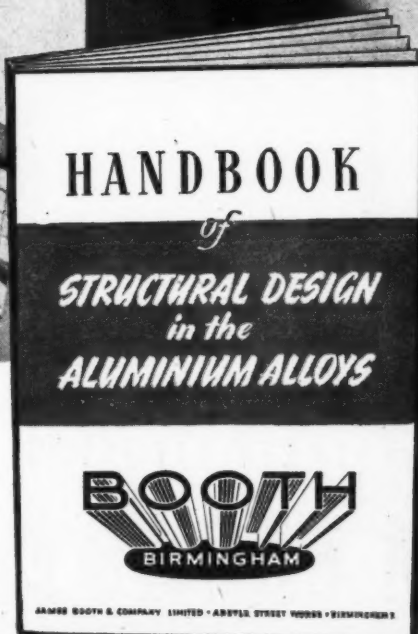
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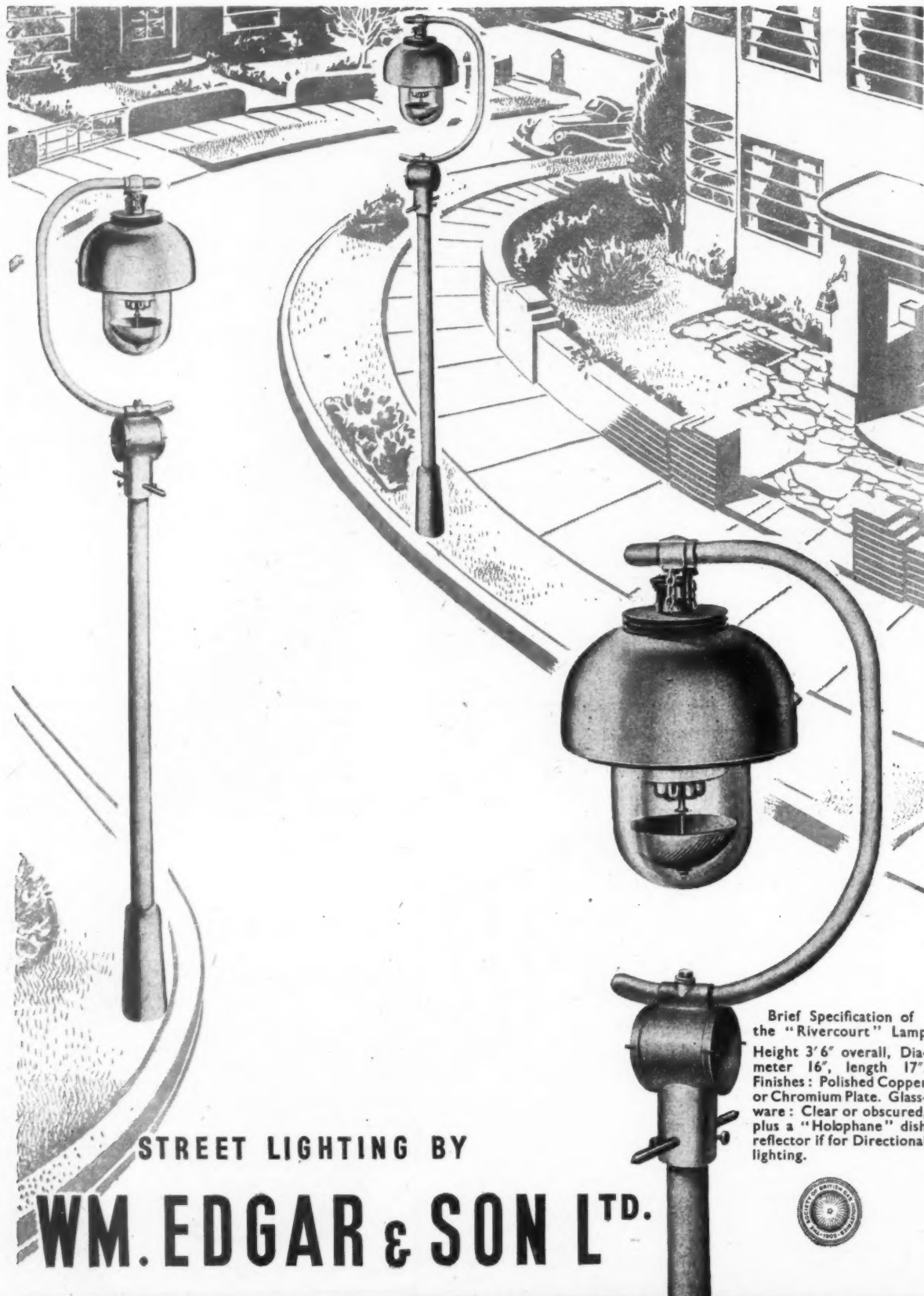


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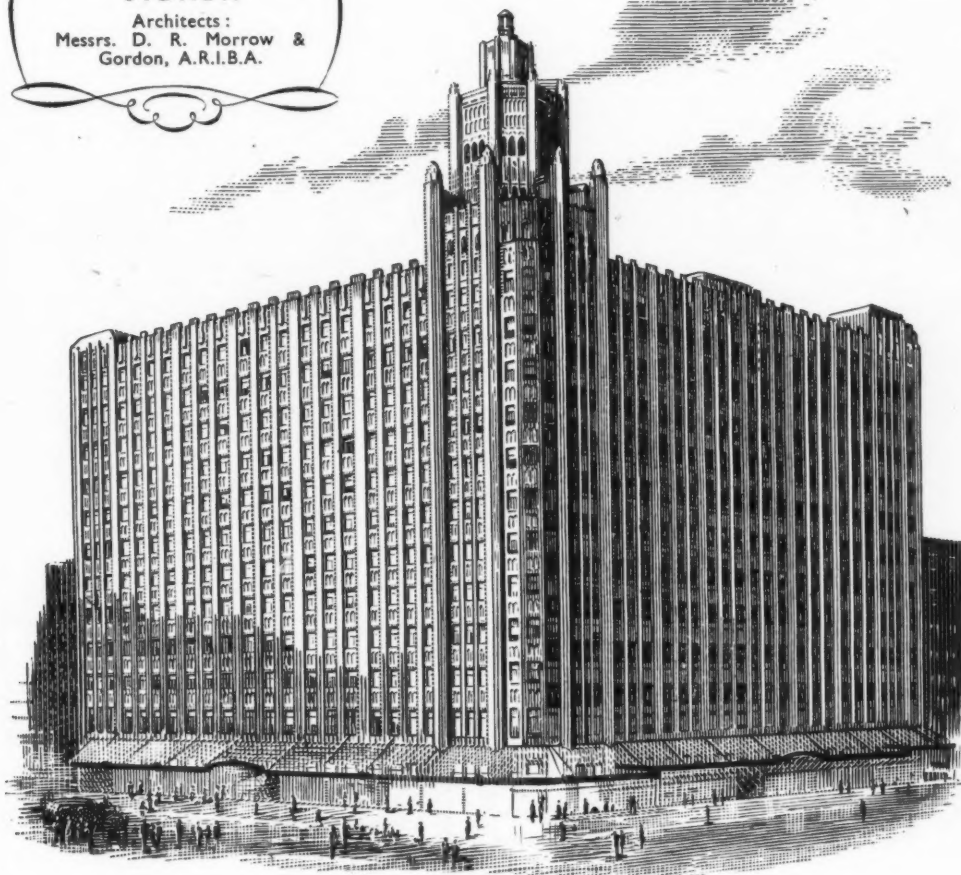
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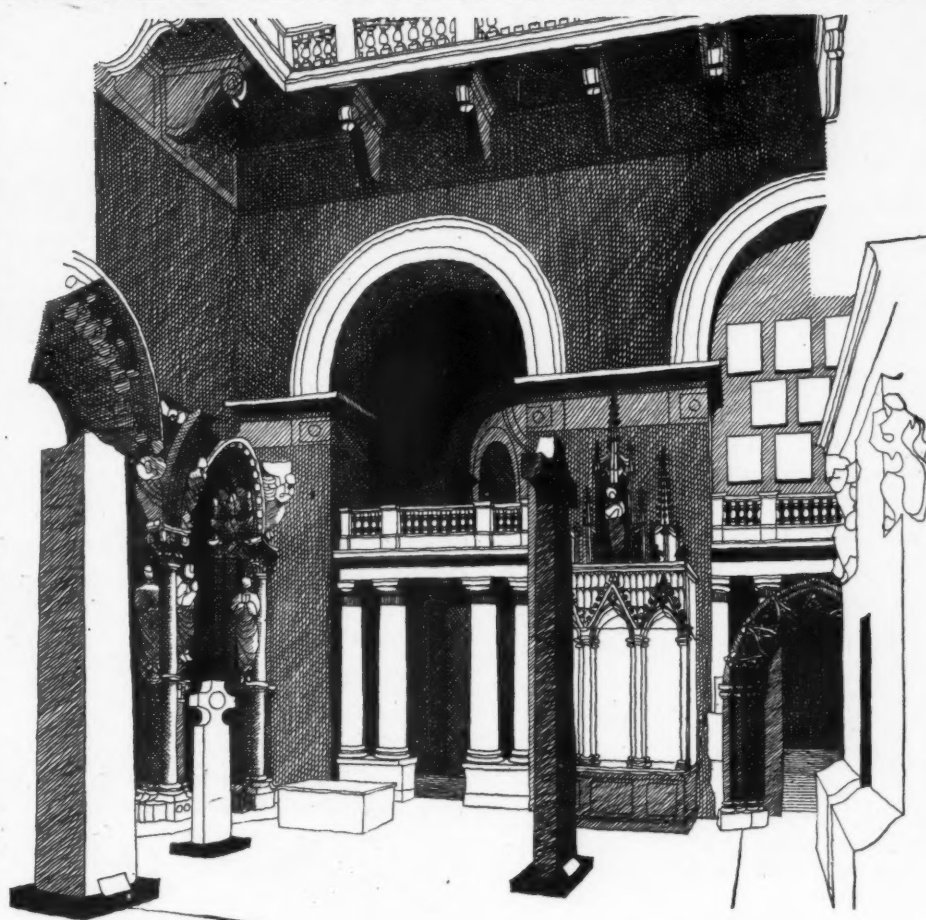
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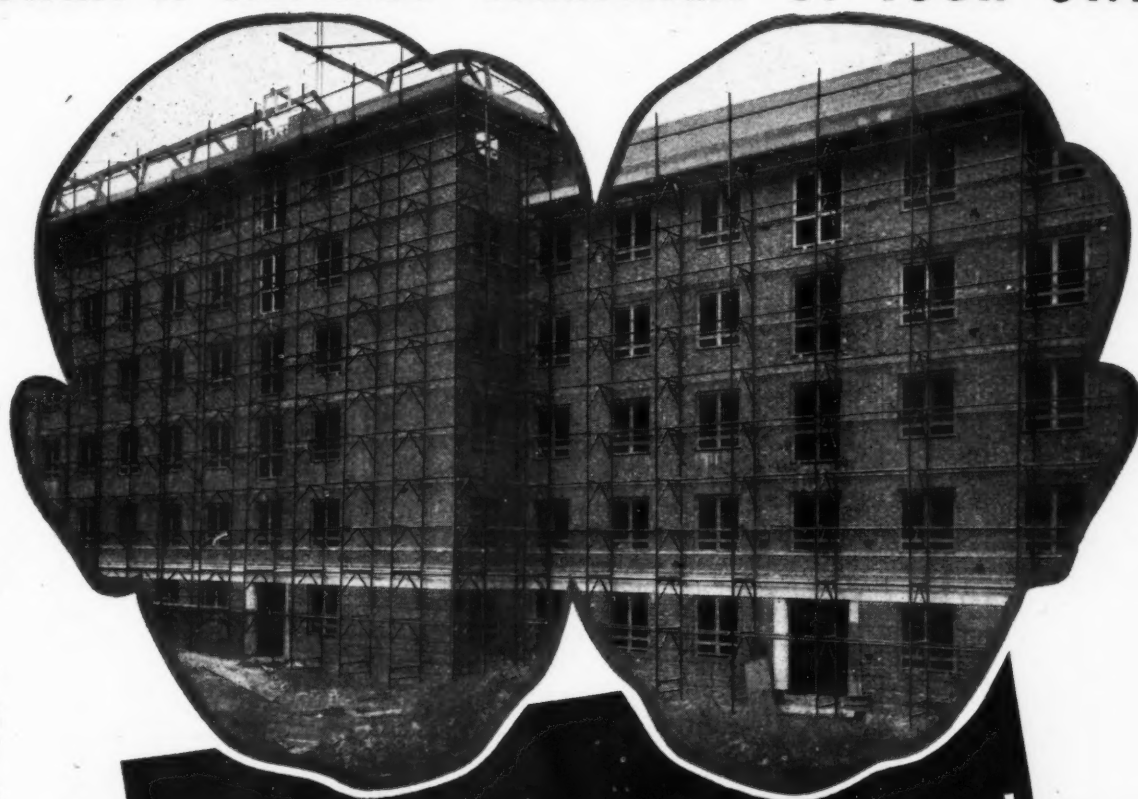
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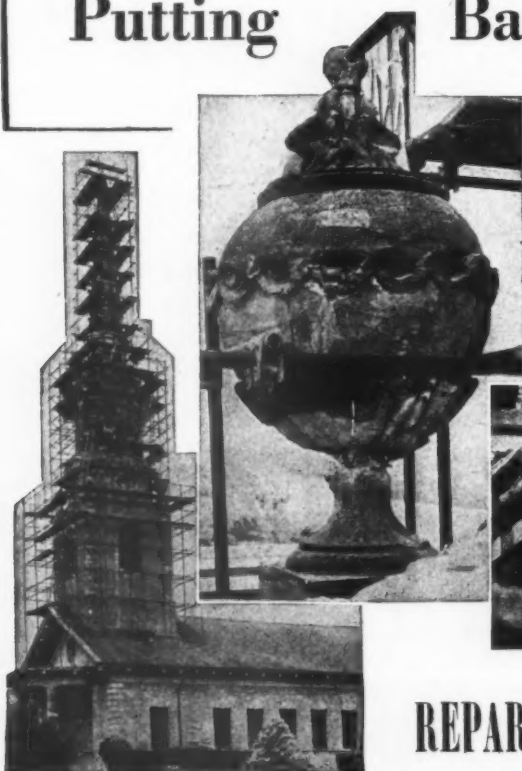
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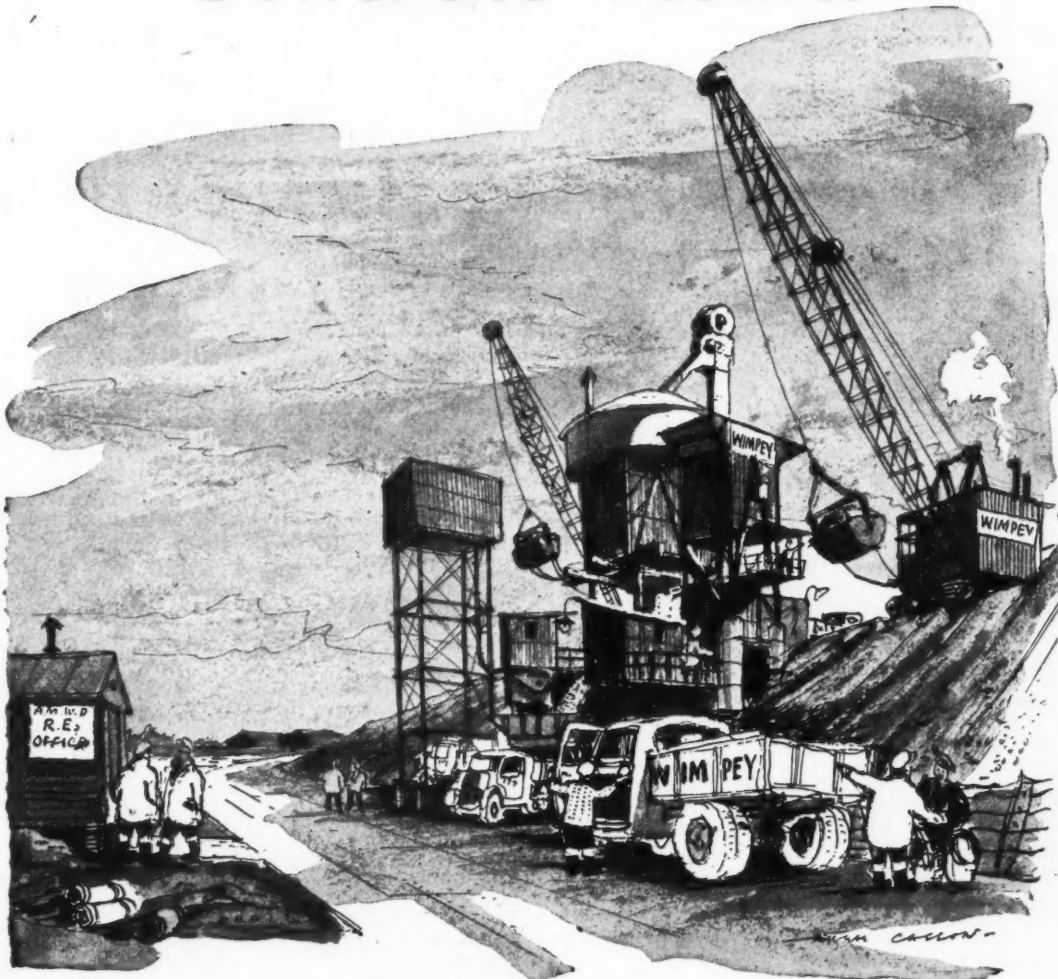
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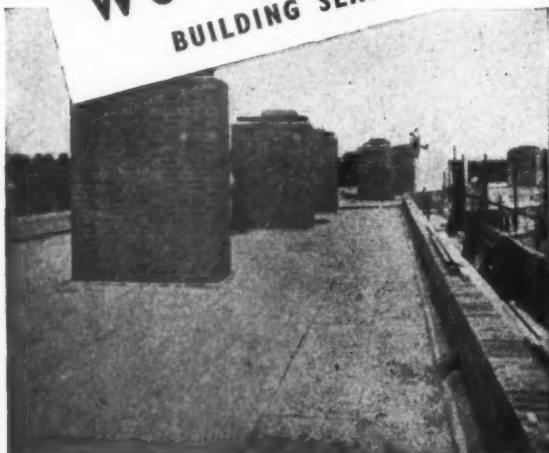
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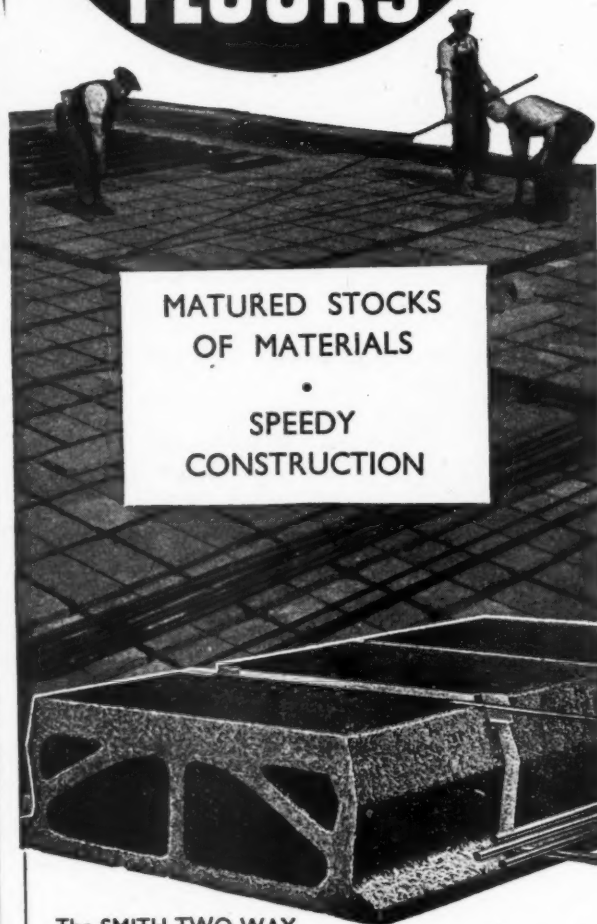
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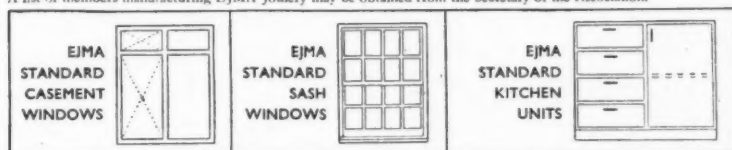


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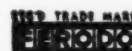
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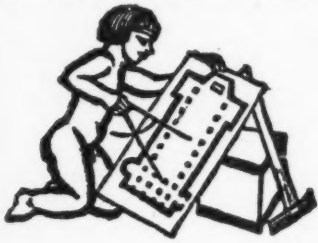
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In common with every other periodical, this JOURNAL is rationed to a small part of its pre-war consumption of paper. Circulation is therefore temporarily restricted but would-be subscribers are advised to have their names put on the waiting-list. Their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



DIARY FOR JULY AUGUST AND SEPTEMBER

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

BRIGHTON. *A Regency Exhibition.* In the Royal Pavilion, Brighton. (Sponsor, County Borough of Brighton.) FROM JULY 15

CHATHAM. *Visit to Fort Luton School.* (Sponsor, S.E. Society of Architects, Maidstone Group.) JULY 10

HULL. *One-Day School on the Town and Country Planning Act, 1947.* W. A. Wood of MOTCP will lecture on (1) *Compensation and Development Charges*, (2) *The Planning Machine*, (3) *Land Purchase*. At the Council Chambers, Guildhall, Hull. (Sponsor, TCPA.) 10.30 a.m. JULY 3

LAUSANNE. *First Congress of the International Union of Architects.* At Lausanne. (Sponsor for British Section, RIBA.) Until July 1. The Congress will be followed by a series of excursions in Switzerland from July 2-10. UNTIL JULY 10

LEICESTER. W. A. Ireland. *Seasoning—the Reason Why.* For the National Employers' Association of Vehicle Builders. 7 p.m. JULY 6

LONDON. *Darkness into Daylight Exhibition.* At the Science Museum, South Kensington. (Sponsor, Science Museum.) UNTIL SEPTEMBER 30

J. F. Adburgham. *Report on the 19th International Congress for Housing and Town Planning.* At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, HC.) Buffet lunch 12.45-1.15 p.m., 2s. 6d. Lecture, 1.15-2.15 p.m., 6d. JULY 6

Arthur Ling. *Planning and Reconstruction in Poland.* In Committee Room 140, County Hall, S.E.1. (Sponsor, LCC Staff Branch of ABT.) 5.30 p.m. JULY 12

TPI General Meeting. Address by Lewis Silkin. At the Livingstone Hall, Broadway, Westminster, S.W.1. (Sponsor, TPI.) 6 p.m. JULY 8

Opening of the Annual Exhibition of Work of the AA School of Architecture. At the AA, 34/6, Bedford Square, W.C.1. (Sponsor, AA.) JULY 9

Mechanical Handling Exhibition. At Olympia. The exhibits will include aerial ropeways, conveyors and elevators; coal, coke and ash-handling plant; cranes, gears and chains, hoists, stackers, pulley blocks and lifting gear; hand-trucks, power-driven industrial trucks, runways, wagon-tippers, pneumatic handling plant and all types of accessories. (Sponsor, "Mechanical Handling.") JULY 12-21

Annual Prize-giving of the AA School of Architecture. At the AA, 34/6, Bedford Square, W.C.1. (Sponsor, AA.) 3.30 p.m. JULY 9

Mrs. Peter Tennant. *Rural Housing.* At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, HC.) Buffet lunch 12.45-1.15 p.m., 2s. 6d. Lecture 1.15-2.15 p.m., 6d. JULY 13

International Conference on Noise and Sound Transmission. At the RIBA, 66, Portland Place, W.1. (Sponsors, Acoustics Group of the Physical Society and the RIBA.) JULY 14-16

Sport in Art Exhibition. At the Victoria and Albert Museum. (Sponsor, Olympic Games Exhibition Committee.) JULY 15-AUG. 14

Conference on Civil Engineering Problems. Papers on subjects of importance in Colonial development will be read and discussed. At the ICE, Great George Street, Westminster, S.W.1. (Sponsor, ICE.) JULY 19-23

F. Webster. *Substitutes for Timber.* At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, HC.) Buffet lunch 12.45-1.15 p.m., 2s. 6d. Lecture 1.15-2.15 p.m., 6d. JULY 20

BSI Annual General Meeting. At the IEE, Savoy Place, Victoria Embankment, W.C.2. (Sponsor, BSI.) 3 p.m. JULY 21

Reception of World Study Tour on European Reconstruction and Community Planning. At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, HC.) JULY 27

COMPETITIONS

RIBA Prizes for Public and Secondary Schools: A total of 10 guineas in prizes is offered for: 1, The best original illustrated essay dealing with a building or group of buildings with which the competitor is personally acquainted; 2, the best sketches or scale drawings of a building or part of a building in pencil, ink or colour, maximum size 30 in. by 22 in. Assessors: H. T. Cadbury Brown, Hugh Casson, E. R. Jarrett. Further information from the Secretary, RIBA, 66, Portland Place, London, W.1. Entries by October 7.

RSI Prize Competitions: John Edward Worth Prize (£40) for an essay on *Practical Improvements of Appliances or Inventions in or about Dwelling-Houses*, and John S. Owens Prize (£15) for an essay on *Atmospheric Pollution*. Apply Secretary, Royal Sanitary Institute, 90, Buckingham Palace Road, London, S.W.1, for general conditions. Entries by December 31.

NEWS

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

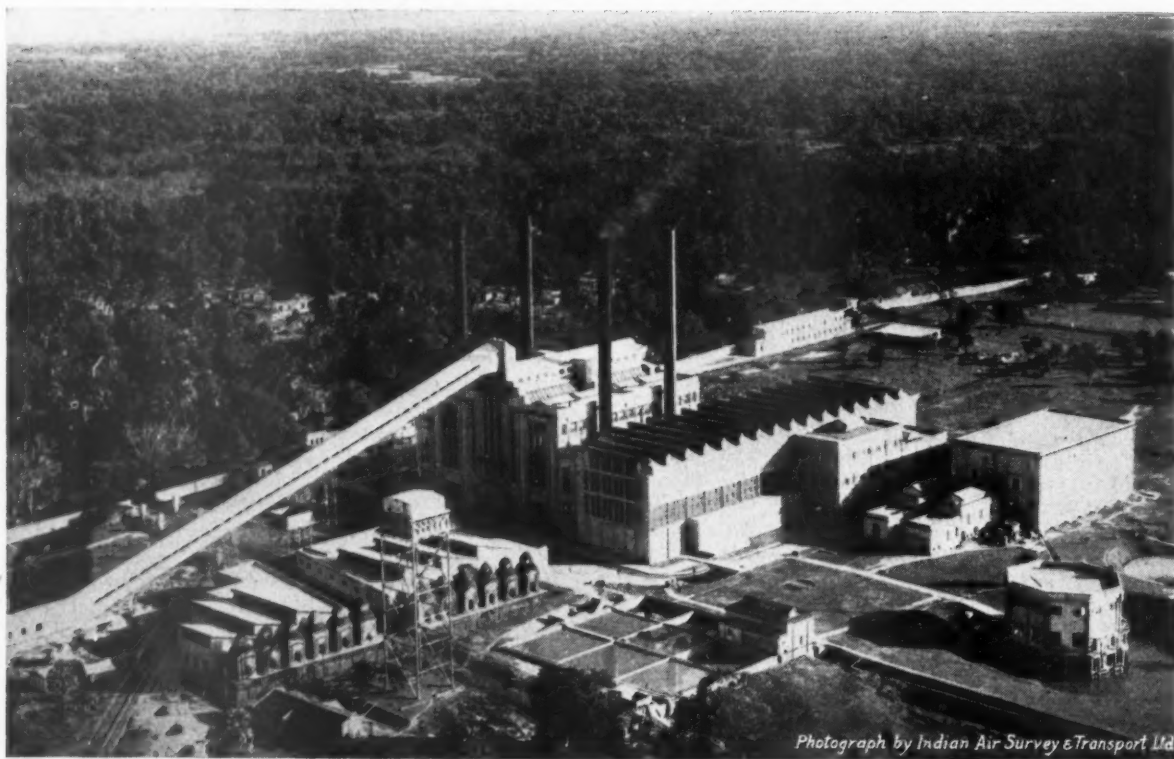
★ means spare a second for this, it will probably be worth it.

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

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

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Mr. S. A. W. JOHNSON-MARSHALL, Deputy County Architect to the Hertfordshire County Council, has been appointed CHIEF ARCHITECT TO THE MINISTRY OF EDUCATION in place of Mr. F. Jackman who has retired.

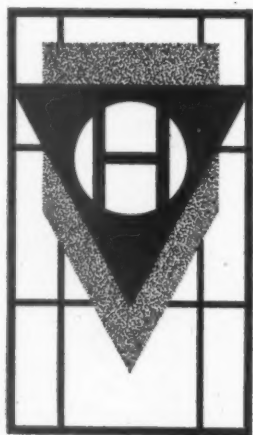
It is expected that Mr. Johnson-Marshall will take up his appointment on August 1. Mr. Johnson-Marshall, who is 35, is a B.A.R.C.H. (1st Class Hons.), Liverpool, an A.R.I.B.A., and holds the Certificate of Town Planning with Distinction. During the war he assisted in establishing a Deception Development organization in India and, in this country, developed dummy LCT's for the invasion. In 1945 he was sent to U.S.A. to advise US forces and industrial firms on British deceptive technique.



Photograph by Indian Air Survey & Transport Ltd

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From AN ARCHITECT'S Commonplace Book

ROMAN LONDON. [*From Britain under the Romans, by S. E. Winbolt (Penguin Books).*] The chessboard plan probably did not apply with much regularity to London, partly because it was seriously interfered with by some earlier lines of roads, such as Watling Street to Verulam, and by the Walbrook and other streams. London's wall is its best preserved and recorded antiquity. From a base $8\frac{1}{2}$ ft. thick it rose to a height of 20 ft., with the battlements additional: the fosse outside, separated from the wall by a 60 ft. bema, was 10 ft. wide and 5 ft. deep, and later, outside this, as at Silchester, a second fosse was dug. The wall had a core of rough stone and white lime mortar, and was faced with regular courses of smallish dressed stones, bonded at intervals of about 3 ft. with two or three layers of red tiles carried right through the thickness. There were six gates, of which Newgate alone has given distinct traces. Later were added to the walls bastions of semi-circular or horse-shoe shape, not bonded into the wall. The still later south wall, along the river, was of another construction: founded on piles, over which were transversely laid timber balks, the wall was of ragstone and flint, with alternate layers of red and yellow tiles.

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Changes have been made in the regulations governing BUILDING WORK WITHOUT LICENCE and the building of PRIVATE HOUSES.

Under the Control of Building Operations (No. 11) Order, which comes into force today, the amount of work which may be carried out without licence on any property during the period July 1, 1948, to June 30, 1949, has been fixed at £100. As a result of the change to the £100 limit, local authorities will no longer be concerned with applications for licences for work other than housing, and all such applications should be referred to the Ministry of Works. No relaxation will be allowed for the time being on the use of controlled materials. It has been decided that the professional fees of architects may, in appropriate cases, be excluded from the licensed costs. This will not apply to the salary paid to an architect who is a member of the staff of the contractor carrying out the work. It has also been announced that local authorities may now issue licences again for the building of private houses up to one-fifth of the allocation of new housing made to each authority. These houses are to be primarily for owner-occupiers and licences will be issued not to the builder but to the prospective owner. The former limitation on the size of private houses is being raised to 1,500 superficial feet, and the maximum selling price, hitherto limited to £1,400 in London, and £1,300 elsewhere, is to be flexible, and will be fixed by local authorities on the basis of the cost of similar houses built by them.

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The CIAM POSTGRADUATE SUMMER SCHOOL of Architecture has been POSTPONED.

The MARS Group regrets to have to announce that the Postgraduate Summer School of Architecture, which was being organized by the Group on behalf of CIAM (Les Congrès Internationaux d'Architecture Moderne), has had to be postponed until another year because, owing to travel and exchange difficulties, a very small number of students would have been able to attend. An announcement about plans for the future of the Summer School will be made in due course.

The opinion of Scottish firms on the proposal to hold an INDUSTRIAL FAIR IN SCOTLAND IN 1949 is being sought by the Scottish Council (Development and Industry).

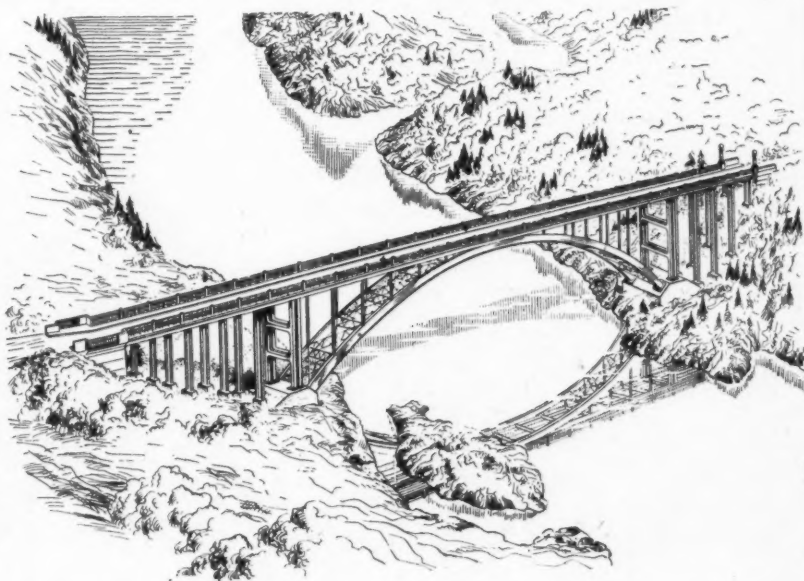
A questionnaire has been prepared for issue to manufacturers throughout Scotland to acquire some idea of the number of firms

likely to take part, the space they would require, and the most suitable venue. Firms are also asked whether they participate in the BIF. The engineering section of the BIF, it may be recalled, started in Glasgow, but as buyers would not come North it had to be taken to Birmingham. Since then there have been occasional suggestions that a section of the BIF should be located in Scotland, but these have never borne fruit. In a letter to accompany the questionnaire the Scottish Council say:—"While it is obviously desirable that Scottish industries should exhibit prominently in major national exhibitions such as the BIF, and in established Continental exhibitions, it is felt that a Scottish Industries Fair would serve a useful purpose, not only in attracting foreign buyers and in making Scottish products better known both at home and abroad, but also in promoting inter-trading between Scottish firms."

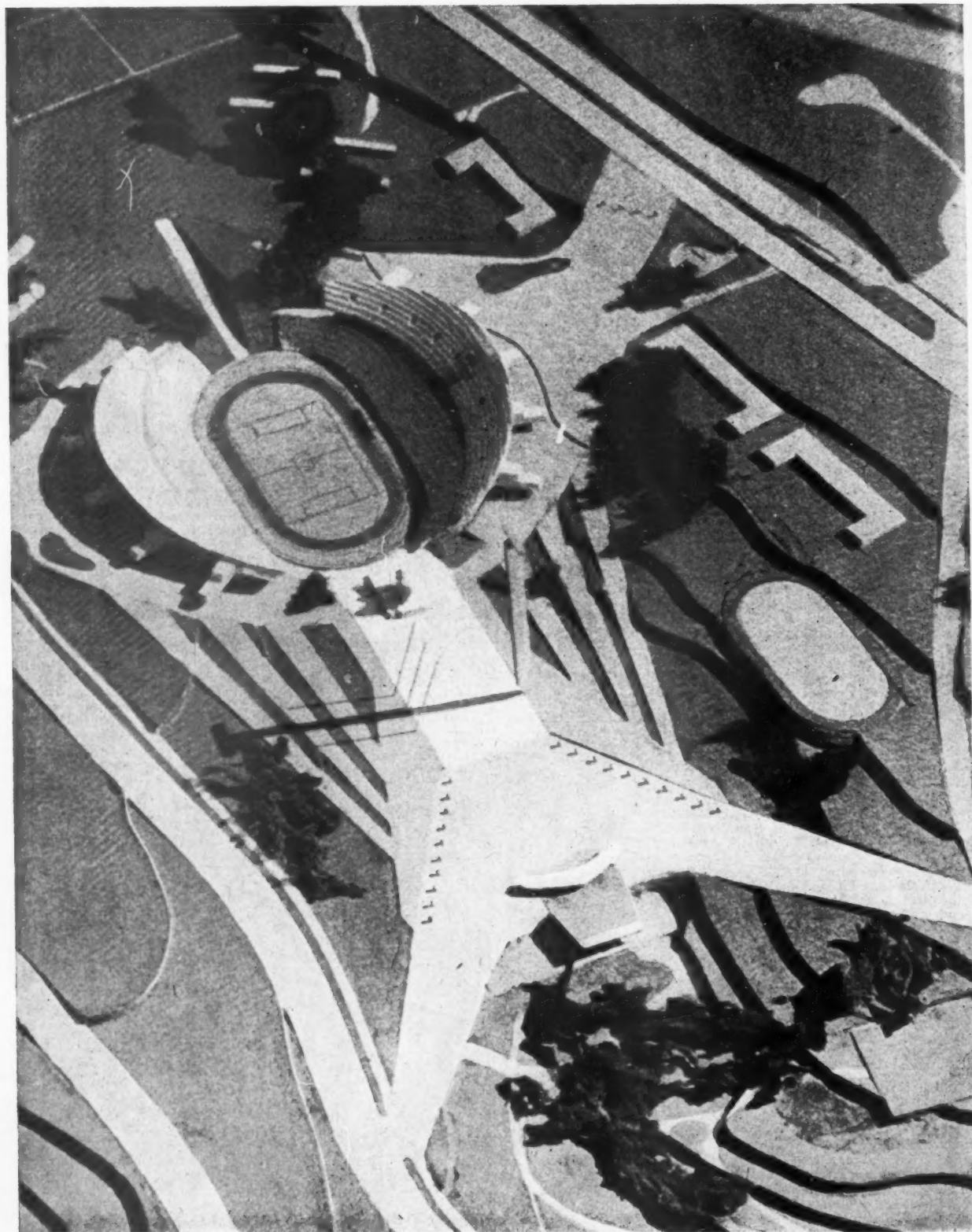
The Council of the Architectural Association announces the award of the following SCHOLAR-

SHIPS at the AA SCHOOL.

The Minter Open Entrance Scholarship (value £100): Mr. G. W. Ripley, of Bedford (Bryanston School). *The Sir Walter Lawrence Open Entrance Scholarship* (value £100): Miss K. Cholerton, of Leicester (Badminton School, Bristol). *The Metal Window Scholarship* (value £75), presented by The British Metal Windows Manufacturers' Association, Ltd.; Mr. M. Cain, of London, S.W.1 (Emanuel School). *The Natural Asphalte Council Scholarship* (value £50), presented by the Natural Asphalte Mine-owners and Manufacturers' Council: Mr. C. E. Bagwell-Purefoy, of Walton-on-Thames (Bradfield College). *The Northern Aluminium Scholarship* (value £50), presented by the Northern Aluminium Company: Mr. R. A. Maguire, of Queen's Park, London (Bancroft's School). *The Patent Glazing Scholarship* (value £50), presented by the Patent Glazing Conference: Mr. R. G. Talbot Kelly, of Rugby (Rugby School). *The Metal Window Senior Scholarship* (value £50), presented by the British Metal Window Manufacturers' Association, Ltd.: Mr. D. J. Dupree, of West Wickham, Kent (Northern Polytechnic School of Architecture).



In the last issue of the JOURNAL a photograph was published on this page of the first pre-stressed concrete cast in situ highway bridge to be built in this country. The drawing above shows the proposed new highway bridge across the Sarguenay River, at Alvida, Quebec, which will be the first all-aluminum bridge of its kind in the world, with an overall length of 504 ft. and a total weight of 400,000 lb.—half that of a similar steel structure. The consulting engineers are Surveyer, Nenniger and Chenevert, of Montreal, and the aluminum fabricators are the Dominion Bridge Company, Ltd., of Lachine, Quebec.



Design for Sport

The entries for the Sport in Art Competition in connection with the Olympic Games will be exhibited at the Victoria and Albert Museum, London, between July 15 and August 14. The photograph above is of one of the exhibits in the Architecture and Town Planning Section of the competition, which is limited to designs for build-

ings and planning lay-outs for use in sport. It shows a general view of the model for the Big Stadium at Belgrade which was designed last year by Turina Vladimir, Boltar Dragan and Neihardt Franzo in collaboration with Bregovac Zdravko and Radić Zvonimir. More photographs of models in the exhibition are on pages 13 and 14.

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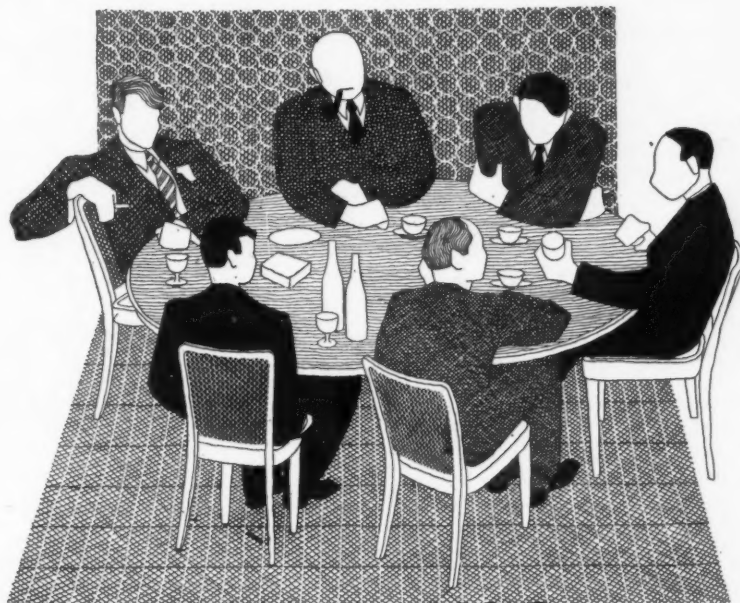
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CHARLES D. MAGINNIS, of Boston, Mass., has received the **GOLD MEDAL** award of the **AMERICAN INSTITUTE OF ARCHITECTS**.

The Medal, which is the highest honour the AIA can confer, was presented to Mr. Maginnis by Douglas W. Orr, of New Haven, Conn., President of the AIA, at the annual dinner of the organization, which is holding its 80th convention at Salt Lake City. Mr. Maginnis designed some of the major buildings on campuses of Catholic colleges and universities throughout the country, and is also responsible for such religious structures as the National Shrine of the Immaculate Conception in Washington, DC. The academic buildings he designed include five dormitories, the biology and law buildings, and the Rockne Memorial at Notre Dame University; the faculty, science, recitation and library buildings at Boston College; the chapel, dormitories, the library and refectory at Holy Cross; and the chapel and refectory at Trinity College in Washington, DC.

A native of Londonderry, Ireland, where he was born in 1867, Mr. Maginnis has been practising architecture in the USA since 1886. He is a Fellow of the AIA, and served as its president from 1937 to 1940. He attended school at Cusack's Academy in Dublin, and won the Queen's Prix in mathematics at South Kensington, London, in 1883. He first came to the USA in 1885. He served as a member of the Municipal Art Commission in Boston from 1909 to 1917; was a member of the Massachusetts State Art Commission from 1911 to 1920, and was chairman during the last four years of his term. He is a trustee of the Boston Museum of Fine Arts. He has been a member of the Visiting Committee in the School of Architecture at Harvard since 1935. In recognition of his services to architecture, he was appointed President of the International Congress of Architects by President Roosevelt.

ROUND THE TABLE



LAST week appeared the first of a series of round table discussions which are being held under the chairmanship of F. R. Yerbury (now a member of the JOURNAL'S editorial board). They are temporarily replacing the JOURNAL'S leading article, with the object of bringing together architects, engineers, contractors and others to exchange views on various urgent topics that confront the architectural profession and the building industry. It has often been said that the contracting system is in need of reform and its future is the subject of the second of the series, printed below.

Capital estimates presented to the London County Council at a recent meeting included a VOTE FOR HOUSING PURPOSES OF £17m.

This is the largest amount for housing ever proposed to the council. Last year's estimate for housing was £13 m. Mr. C. W. Gibson, chairman of the Housing Committee, said that the estimates were justified by the needs of the people. He did not foresee any serious delay in the supply of material this year; even the supply of timber was improving.

★

The RIBA COUNCIL ELECTION RESULTS have been announced. The new members of the Council for the session 1948-9 are as follows:

President:—Mr. Michael Waterhouse, M.C. (unopposed). *Past Presidents:*—Mr. H. S. Goodhart-Rendel, Sir Lancelot Keay, K.B.E., M.A.R.C.H.(LVPL.) (Liverpool); both unopposed. *Members of Council:*—Mr. C. G. Stillman (1,804 votes); Mr. T. Cecil Howitt, D.S.O. (Nottingham) (1,381 votes); Mr. Victor Bain (Leeds) (1,284 votes); Mr. John Swarbrick (1,109 votes); Mr. C. H. Aslin (Hertford) (1,502 votes); Mr. A. B. Knapp-Fisher, F.S.A. (1,024 votes). *Associate Members of Council:*—Professor J. S. Allen (Newcastle-upon-Tyne) (1,398 votes); Mr. Colin Penn (1,263 votes); Mr. R. A. H. Livett, O.B.E. (Leeds) (924 votes). *Licentiate Member of Council:*—Mr. Bernard H. Cox (Cardiff) (1,237 votes).

2. The Future of the Building Contractor

F. R. YERBURY: chairman.

V. E. VINCENT: building contractor (vice-chairman of Bovis, Ltd.).

T. G. BOWLER: sub-contractor (James Walker, Ltd.).

A. J. WALLIS: building contractor (director of Miskin and Sons, Ltd.)

L. De SYLLAS, A.R.I.B.A.: architect (member of Architects' Co-operative Partnership).

JOSEPH EMBERTON, F.R.I.B.A.: architect in private practice.

W. J. HOAD: building contractor (of Horsham, Surrey).

S. F. MILL, A.R.I.C.S.: quantity surveyor (of Davis, Belfield and Everest).

Chairman: Well, gentlemen, we have here three general contractors and builders, a sub-contractor, a quantity surveyor and two architects. Mr. Vincent has, I believe, very strong views on the future of contractors.

Vincent: I think that what I have to say should be divided into two parts. First, I would like to discuss the build-

ing industry as it is now. Over a period of time we seem to have bred architects, builders, sub-contractors—a whole lot of people—into a number of antagonists instead of people working for a common end. Added to that you have the pernicious system whereby the whole industry is governed by “the lowest price.” Quality of work isn’t taken into consideration. Perhaps many of you round this table have never considered whether one builder produces a better job than another. My own view is that there is just as much distinction between builders’ work as between one make of motor-car and another. Strangely enough, it doesn’t matter that two different builders employ the same class of man. The men seem to have an instinctive idea what their governors want them to produce, and they produce it, so that you can say that a given builder will produce a given type or quality of work. Usually he will accompany it with comparative service, good, bad or indifferent.

Yet in the tendering system all builders are lumped together. You just say, “Give me the lowest price.” The result of that must obviously be, in course of time, a tendency to bring everybody down to the lowest level. Apart from all this, a builder tenders for only a small proportion of the contract. The bulk of the work is covered by p.c. sums and other items over which he has no financial control whatsoever. The architect chooses firms on whom he can rely for these p.c. items. Often they are chosen without competition—I am not blaming the architect for this; indeed, to a great extent I agree with him. But with the prices of all the materials needed by the contractor fixed, the builder in effect is tendering only on the output of labour and organization. Since these parts may represent only 10 per cent. of the job, a successful tenderer would have to carry out his section of the work for half the sum of an unsuccessful tenderer to beat him by a margin of 5 per cent. on the whole contract sum, and if no other considerations are taken into account, two builders of equal standing with similar organizations would, allowing for overheads and a reasonable profit, produce prices so nearly the same as to make no matter. When I come to my second point I hope I shall be allowed to discuss some of the possible remedies.

Chairman: I wonder if the sub-contractor likes the position you have described.

Bowler: I think the contractor, to some degree, has brought a large number of these troubles on himself. Don’t think I am antagonistic to the general contractor, but I do not agree with Mr. Vincent when he says that today there is a lack of team spirit. The nominated sub-contractor on a job is a help to

the builder, insofar as he does something more than see a particular job through for a particular architect. A specialist doesn’t make a fortune any more than a contractor does, but he often gives more than what he is paid for because his goodwill with the architect depends on his reputation. I might add, to justify the nominated sub-contractor’s status, that buildings have altered so much in the last 30 years, and there are so many more things to consider, that few general contractors have a comprehensive staff on their pay-roll to carry out such contracts without the help of specialists.

Vincent: I did not mean to imply that there was a lack of team spirit on the job itself. I was trying to indicate that there was no sort of identity of interest between the owner, the builder and the architect.

Wallis: May I just say that what we ought to establish is what class of building we are talking of.

Vincent: It does not matter what class. Take any normal building job and you can safely say that there is no common interest between the builder, the architect and the owner. I make that statement categorically.

Wallis: I think the trouble about co-operation on the job, so far as the sub-contractor is concerned, lies in the way the contract goes out to tender. The architect gets a quotation from the sub-contractor, and the builder doesn’t enter into it until he receives a letter: “Accept so-and-so.” There are good sub-contractors and very indifferent sub-contractors. In my view, once a contract is signed, the general contractor should be brought in to discuss with the architect exactly what sub-contractors should be invited.

De Syllas: He is given some say in the matter, though, is he not? It should appear in the preliminary section of his contract that he can submit estimates for the sub-contracts.

Wallis: But he cannot put forward names of outside firms. He should be able to come forward and say that so-and-so are the best people to do the job.

Bowler: Wait a minute, sir. There is another side to it, too. If there is a good judge of a contractor it is a good sub-contractor. There are some contractors to whom a specialist could afford, if he were permitted, to give quite a fair cash discount. There are others about whom you might have to say to the architect: “I really ought to have a little more because of the contractor you have appointed.”

Chairman: Of course the sub-contractors blame the architect. What do you say, Emberton?

Emberton: When I was told we were meeting to discuss the future rôle of

the builder in relation to architects and architecture, I assumed we should be considering changes occurring in the building industry as a result of conditions since the war. Mr. Vincent seems to be most concerned with quality, but I think that how to lower the present fantastic costs and how to increase production are the principal problems facing us today.

I don’t see how the traditional chain of responsibility where the building owner gives his instructions to, and receives advice from, the architect, who translates them into technical terms and conveys them to the builder, can be improved upon. Usually the building owner knows very little about the technicalities or cost of building, and I think nothing but trouble would arise by short-circuiting the architect in the way suggested. If the builder has useful advice to offer, he should give it to the architect, who is more competent to appreciate its implications.

The architect must rely on his specification to ensure the quality of the work and, as I see it, the builder’s job is to produce the work to the specified standard at a minimum cost and in the shortest time. The measure of his success must inevitably be on a cost basis, and the relative success of two contractors can only be established in the same way. The architect nowadays looks upon the main contractor as an organizer and relies for craftsmanship on the specialist sub-contractor. Of course if a main contractor has specialist organizations in his employ, he should be allowed to tender for any work for which p.c. sums are provided.

Chairman: You are agreed then that to some extent the job of the contractor is changing? Mr. Vincent has said that the contractor is now merely an organizer; he is the banker for all sorts of people, and he carries the baby all the way through. Now you are suggesting, too, that under the new conditions he has really got a new job?

Emberton: I do not know why Mr. Vincent should say “merely” an organizer; surely the organization of a building contract under modern conditions is a full-time job! It certainly can have considerable effect in increasing production and lowering cost. It is the newest craft of all and offers infinite opportunity for skill and ability. If the builder wants to be a craftsman in the older sense there is no reason why he should not own joinery works, plumbing organizations, or carry on other specialized trades for which p.c. sums are provided. In seeking a main contractor, the architect is looking for an organizer. If a contractor doesn’t carry on any of the specialized trades, his chances of obtaining the job shouldn’t be prejudiced. Hence the p.c. sums. As standardization and mass production, which are among the principal means of reducing costs,

become more general, the factory will replace the workshop. I think that the sub-contractor whose men are constantly employed on the same kind of work is more favourably situated than the main contractor to exploit the new incentive which is now permissible in the building trade—payment by results.

De Syllas : That is moving towards some form of direct labour, in which the architect and the contractor—as big organizers of the job—become almost the same person. The problem we seem to be up against is that more and more they find themselves both working in an administrative capacity. The craftsmanship side of building is so disappearing that the contractor doesn't know whether he is a professional man or a craftsman.

Chairman : It all comes back to the same thing: what is to be the position of the contractor in the future? May I suggest that Mr. Hoad, who is a country builder, should say something on this?

Hoad : I have several ideas about the matter. First of all, I should like to take up my architect friend on one point. He suggests that an architect employs a sub-contractor because he knows the quality of the work he may obtain from him. Now, it would be interesting to know if he gets competitive prices for that work.

Emberton : Always.

Hoad : There are a lot of architects who do not, I can assure you; and a further point is that if it is sauce for the goose it ought to be sauce for the gander, the gander being the builder. I would suggest opening the way for quite a new idea for the placing of a contract. If a builder is to get a job on his reputation, as we have just been told the sub-contractors do, then what we need is quality registration of builders—that is, a quality examination before a man would be allowed to be a builder—just as now a man cannot be an architect without some sort of an examination.

Wallis : What would his qualifications be?

Hoad : He would be examined on his ability to do his job.

Wallis : What is his job? That is what we are talking about.

Hoad : Generally to carry out the architect's design as disclosed by drawings and specification; draw up a time and progress schedule; provide plant, machinery, equipment and supervisory staffs; assemble labour, purchase materials and obtain tenders from sub-contractors, and ensure adequate flow of labour and material; direct and control all sub-contractors and administer joint agreements and statutes governing the working conditions. Now, I regard the four people that matter in

the industry as the architect, the quantity surveyor, the builder and the operative. Under ideal conditions they should all have a qualitative status, and this is not impossible for building contractors; in fact, registration of builders has started, and it would be very simple to make it so that nobody except a qualified man could be a builder. We also have our apprenticeship scheme, which is a way of ensuring quality in the operatives as well. The time may come when neither the operative—by the operative I mean the craftsman—nor the builder, nor the quantity surveyor, nor the architect will be allowed to work without a qualitative qualification. I think the first thing to do after that—the thing that will logically follow—will be to scrap the existing form of contract, the RIBA contract, which is a foolish sort of thing. It is a master and servant contract instead of a buyer and seller contract. The four branches of the industry should get together with that ideal, to obtain a qualitative output from everyone.

Chairman : Do you think that would get over Mr. Vincent's first difficulty? I think we have got to get back to his suggestion, which is—as I said just now—that builders are becoming just bankers and organizers of the industry, with no real say in the choice of sub-contractors, and they get very little profit. I think that is roughly what he said. Now, it may be that that is the right way of looking at it. It may nowadays be his job to be simply a good organizer; someone who takes all sides of the work into consideration and makes certain that everyone employs the right people. But I do not think that sufficiently answers the problems raised. The quantity surveyor hasn't been given a chance to say anything yet.

Mill : I think the most important point raised so far is that of man-hour production, and I do think that, as materials become more readily available, production will improve. I do not think it is at all fair to run down the operative's effort to the extent that some of you do. The next most important point that Mr. Vincent raised and nobody touched on again is the matter of co-operation. I don't think it is altogether true that there is such a lack of co-operation. On the question of p.c.'s, it is true that under the RIBA form of contract the general contractor can submit an estimate for such work if he wants to; therefore it is not much good for him to say, "Oh, well, 75 per cent. of this job is p.c. It isn't worth my doing it." Yet few general contractors do take advantage of this. It is most desirable, from the building-owner's point of view, that competitive estimates should be obtained for specialist p.c. work. What often happens is that a p.c. sum is inserted in the bill of quantities to cover

whatever will be the cost, and then the architect, in the intervening period of obtaining tenders, obtains firm quotations from several specialist firms for the p.c. work in question and chooses the most suitable.

Bowler : The specialist has one grumble against the architect. In the building trade we are asked to give a lifetime's knowledge for nothing. The architect gets a fee for advising his client and the builder or specialist doesn't get a fee for advising the architect. On a p.c. item you often find that we advise the architect what we consider the best way of doing the job, while giving him a fair estimate. We then find that he goes and gets competitive tenders on the advice that we have given him.

Chairman : That is arguable, though very interesting, but perhaps it is rather off the point.

Hoad : We have to decide whether we are going to talk about the present problem or the future problem.

Wallis : Why not the immediate future?

Chairman : Let us confine ourselves to that: the immediate future.

Wallis : What I should like to bring forward first is a suggestion that we should have a federation in the building industry like they have in the steel industry. It could get together and advise architects and contractors in the first instance, when they are getting out the specification, just exactly what is available. At the moment we carry the contract to a certain stage and then we find that certain things are not available, and I think you will find that this is causing on some contracts hundreds of deviations. It is also one of the reasons why the ordinary workman is not able to produce his maximum output. That is occurring, I think Mr. Vincent will agree, on every contract. A federation—or, if not, then the manufacturer or supplier—should give the architect and the contractor some lead apart from what we read in the papers and what the Government tells us, so as to really establish a contract that can be carried out.

De Syllas : That brings us to the point that in this circle of co-operation, where you have your architect and your client (whether in the form of a local authority or a private individual) and your quantity surveyor as three of the units that are concerned in producing buildings, in the case of the fourth unit, the builder, there is sometimes a feeling that he is working against the other three. I think that was Mr. Vincent's point, too. I am not counting the operative, because the operative has the same relation to all four units. His productivity is equally important to all of them. Now, today the first three units work together well enough in the

early stages of a job. The client knows what he wants. He asks his architect to draw it out. The architect thinks he knows how to get it on to the drawing board, and the quantity surveyor comes in, too, at this very early point; they are all pretty close together. The only person who has no say at that stage is the builder, who has ultimately got to carry the job out. You have four men with one objective, to produce a building; three set out together and the fourth one is left out of it.

Vincent : This is where I would like to put forward the second point I wanted to make. All that we have been talking about round this table today I dealt with twenty years ago. I came to the conclusion that the builder had to come in, just as you say, with the other three people and be part of the initial organization. But I also came to this conclusion: that it was quite impossible to take builders and their staff as they stood and say, "We want to alter the whole procedure"; builders had had a particular education directed towards a particular end.

In the case of a professional man, be he doctor, solicitor, architect or quantity surveyor, continuity of employment is assured so long as his service is satisfactory. In none of these instances is price competition the ruling factor. It seemed to me, therefore, that to have my ideal partnership arrangement I would have to have four pre-requisites: continuity of employment (not necessarily in the literal sense any more than one's solicitor is constantly employed, but rather if and when suitable building work is required); a client with a new outlook and approach; a specially trained building staff, who would have learnt from their initial training that the owner's point of view was paramount; and, finally, a means whereby the owner could know that, apart from the service which he could see, the cost of his building was a proper one. My object was to make everybody's interest identical. When the scheme was tried out it was a great success. It needed, however, a building school of its own, and this we got under way. My scheme necessitated my having no financial interest other than my fee.

The crux of my idea was that *all* parties should set out with honest intentions. Since the pre-requisites I have mentioned can only be present in a minority of jobs, my system obviously has limited scope, but I would have thought there was room for ten or twenty builders devoting the whole of their organization to working in this way. It means, of course, no tendering under any circumstances; the builder gets nothing but his fee, and all his staff have to understand this. Just as the architect works for the owner, in my view the builder should work for the owner. He becomes a building manager, but first, as I have

said, he must have a totally different point of view. He must acquire the professional outlook.

What I have described is an ideal and will not fit into the ordinary run of building jobs. For these I would suggest that the best method is for the architect simply to select his builder. The tender figure would be replaced by a figure agreed between the quantity surveyor and the builder. It would be a fair one, allowing sufficient for overheads and profit, and since the price would be adequate and the builder would be relying on service to get his next contract rather than on cutting the price too finely, the building owner, in the long run, should get value for his money.

If it is still felt, in spite of these arguments, that tendering is essential, then let us adopt the idea of grouping; that is, segregating builders into classes. Builders vary as much in their quality of work as sub-contractors, and the sooner this is recognized the better.

To go back to my own method, which I have already described—you may ask what would the builder actually do. I regard my functions as a builder first of all to be a builder, not a financier. My responsibility is to be able to lay a job out properly and ensure regularity of materials for my sub-contractors and myself. I have got to organize the job and run it on a timetable. All my jobs are scheduled on absolute time-tables to the day and sometimes even to the hour. My other function is to co-ordinate everything and relieve the architect of much of the business side. He can trust me to do this, since I have no ulterior financial interest.

Chairman : How do you fix the fee?

Vincent : It varies, obviously, according to the nature of the job, and is fixed before the job begins in most instances. Otherwise, it is based on the final estimated value of the work as ascertained by an independent quantity surveyor. About three-quarters of the fee is required for overhead and establishment charges and a quarter remains for actual net profit. But to my mind the important thing is not the cost but the fact that in these days, if builders learn anything from one job, it is difficult for them to apply that knowledge to another job, because they do not know when they are next going to get a similar contract.

Chairman : Would segregation of builders, so that they specialize in certain types of job, be valuable to the architect? If he was doing a type of building that was new to him, he could have the advantage of going to a builder who had done that kind of job before.

Emberton : I do not think so. If an architect has not sufficient knowledge or experience to design a particular type of building, he should call in a

consultant to help. That is common practice. It hasn't been my experience that architects and builders are always fighting in opposition, but naturally, as one is a buyer and the other a seller, I do not see how their interests can be identical. As increased production and lowering of costs is the only proper measure of the efficiency of production I know of, how are we to determine the relative efficiency of various organizers (that is, contractors) except on a competitive basis?

Vincent : I would have thought that a team working together would always produce a better result than a group composed of people with totally opposed points of view. The builder, as one of the team, would, like the architect, want to get for the owner the best job at the cheapest price. This is one of the things he is being paid for.

Emberton : But I do not see why he should be working against you. I am surprised at what you say about labour because, when I see the way labour is working on the job, I am convinced that it is costing about twice as much as it ought to. Who is going to think of new methods of erection, the employment of mechanization, and all that sort of thing, which is one of the ways of reducing building costs? The builder is an organizer; that is what we have come down to.

Vincent : I agree. What we want is a new type of builder who is a trained organizer. In this sense he is a new type of craftsman as well.

Wallis : Mr. Hoad has suggested that he ought to belong to some kind of institute. We need a counterpart of the RIBA on the contracting side, because now the contractor has got to know much more than the old-fashioned builder.

Hoad : There is one point upon which you did not touch, and that is the incentive for this super-builder. We are not all altruistic, and we want an incentive. We are assuming a fixed-price job, fixed by the quantities. I would propose: let the contractor have a part of the saving he is able to effect through his judicious organization, subject to the satisfactory carrying out of the job. That would give, I think, an incentive to the scheme as envisaged by Mr. Vincent.

Vincent : We are at cross purposes, I think. I gave you two methods. On the one method the builder gets a fixed price, just as he does today. He is simply a commercial builder, but it would not be by competition that he would get the job; he would get it by virtue of ability.

The other method I am speaking of is the method I am working myself, where I am employed entirely as a professional builder and as nothing else. If I accepted bonuses to help the

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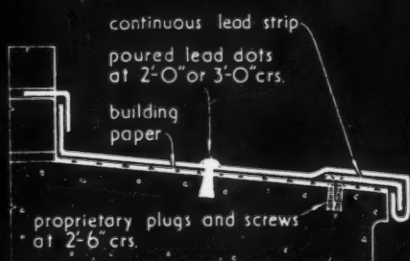
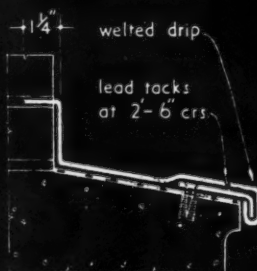
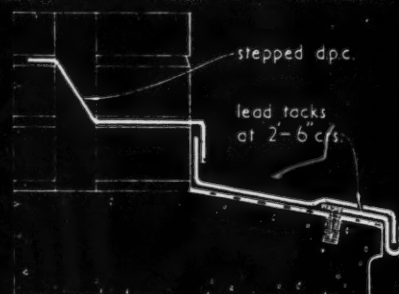
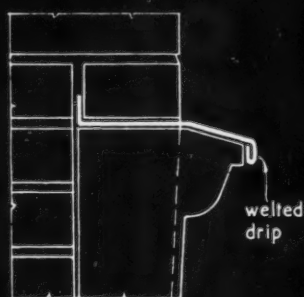
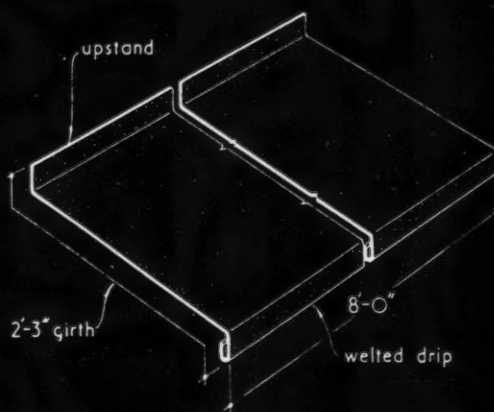
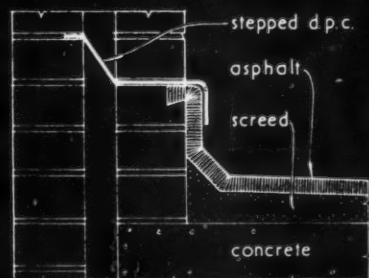
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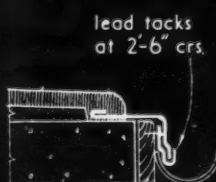
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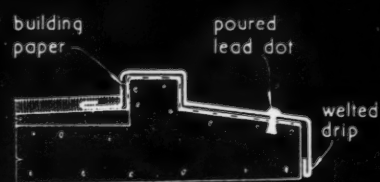
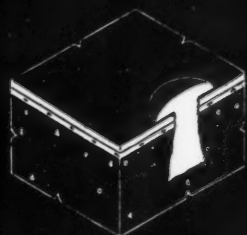
WIDE PROJECTION (OVER 1'-0")-
3-PIECE WEATHERING.NARROW PROJECTION-
1-PIECE WEATHERING.NARROW PROJECTION-
2-PIECE D.P.C. AND WEATHERING.BRICK STRING COURSE-
1-PIECE WEATHERING.BRICK KEYSTONE OFFSET-
1-PIECE WEATHERING.DIAGRAM SHOWING MAXIMUM SIZES
OF SINGLE LEAD SHEET.

weathering at wall

SECTION THRO' CONCRETE AND ASPHALT CANOPY.



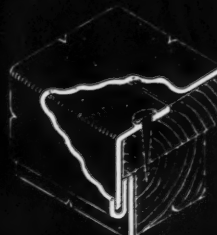
weathering at eaves gutter

alternative weathering at eaves:
gutter at back

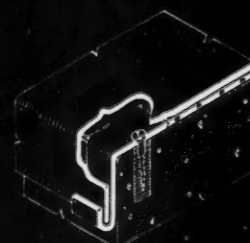
poured lead dot



double welt



continuous lead strip



lead or copper tack

FIXING DETAILS.

SHEET LEAD WEATHERINGS TO PROJECTIONS AND CANOPIES.

Compiled from information supplied by The Lead Industries Development Council.

10.G10 SHEET LEAD WEATHERINGS TO PROJECTIONS AND CANOPIES

This Sheet describes the fixing of sheet lead weatherings to concrete, stone and brick projections and canopies.

These projections, e.g., cornices, string courses and other offsets are vulnerable to moisture penetration and subsequent disintegration, particularly in corrosive atmospheres, and should be protected.

The examples illustrated are typical and show suitable treatments for wide and narrow projections, flashing at the front and back of wide asphalted and similarly covered canopies, and methods of fixing.

Wide Projections—Over 1 ft. Wide

Underlay : It is good practice to place a layer of stout building paper under the lead when it is laid over cement, concrete, stone or brick to prevent the lead being cut by any sharp projections or irregularities in the surface. The building paper will also prevent the risk of corrosion by alkali present in Portland cement during and shortly after the setting period.

Expansion joints : These should be provided in the form of welts at 7 ft. to 8 ft. intervals along the weathering. Generally the area of any one piece of lead should not exceed 18 sq. ft.

Front edges : The front edge should be held and stiffened by a continuous lead strip—screwed into plugs at 2 ft. 6 in. centres—over which the edge of the weathering is turned. Alternatively, the edge may be stiffened and held by lead tacks screwed into plugs at 2 ft. 6 in. centres.

Top surface : The top surface should be fixed with poured lead dots at 3 ft. centres under normal conditions and at 2 ft. centres where exceptionally high winds would tend to lift the weathering.

Where the front edge is held by a continuous lead strip, the dots are best placed in the centre of the weathering, but otherwise should be placed towards the front edge.

Upstands : The lead should be turned up the wall at least 3 in. or as high as possible without being visible from the ground and an over-flashing, tucked into

the masonry and held with lead wedges, carried down over the upstand. In very exposed positions the cover flashing should be held back with tacks at 2 ft. 6 in. centres.

Narrow Projections—Under 1 ft. Wide

Underlay : This should be provided similarly as in the case of wide projections.

Expansion joints : These should take the form of welts at 7 ft. to 8 ft. intervals.

Front edges : The edge should be folded and dressed back on itself and dressed close to the structure. For cornices, but not for narrow offsets, tacks should be provided. For wood fascias this treatment is preferable to the practice of close copper nailing as the nails tend to draw out with the heat of the sun.

Upstands : The upstand may be tucked into the masonry and wedged without a cover flashing.

Weight of Lead

Generally, weatherings should be 5 lb./sq. ft. with 4 lb./sq. ft. for cover flashings. Where weatherings may be walked on 6 lb. lead should be used.

Further Information

The Lead Industries Development Council maintains a Technical Information Bureau which is available to answer questions and advise on technical problems dealing with this subject generally.

Compiled from information supplied by :

The Lead Industries Development Council.

Address : Eagle House, Jermyn Street London, S.W.1.

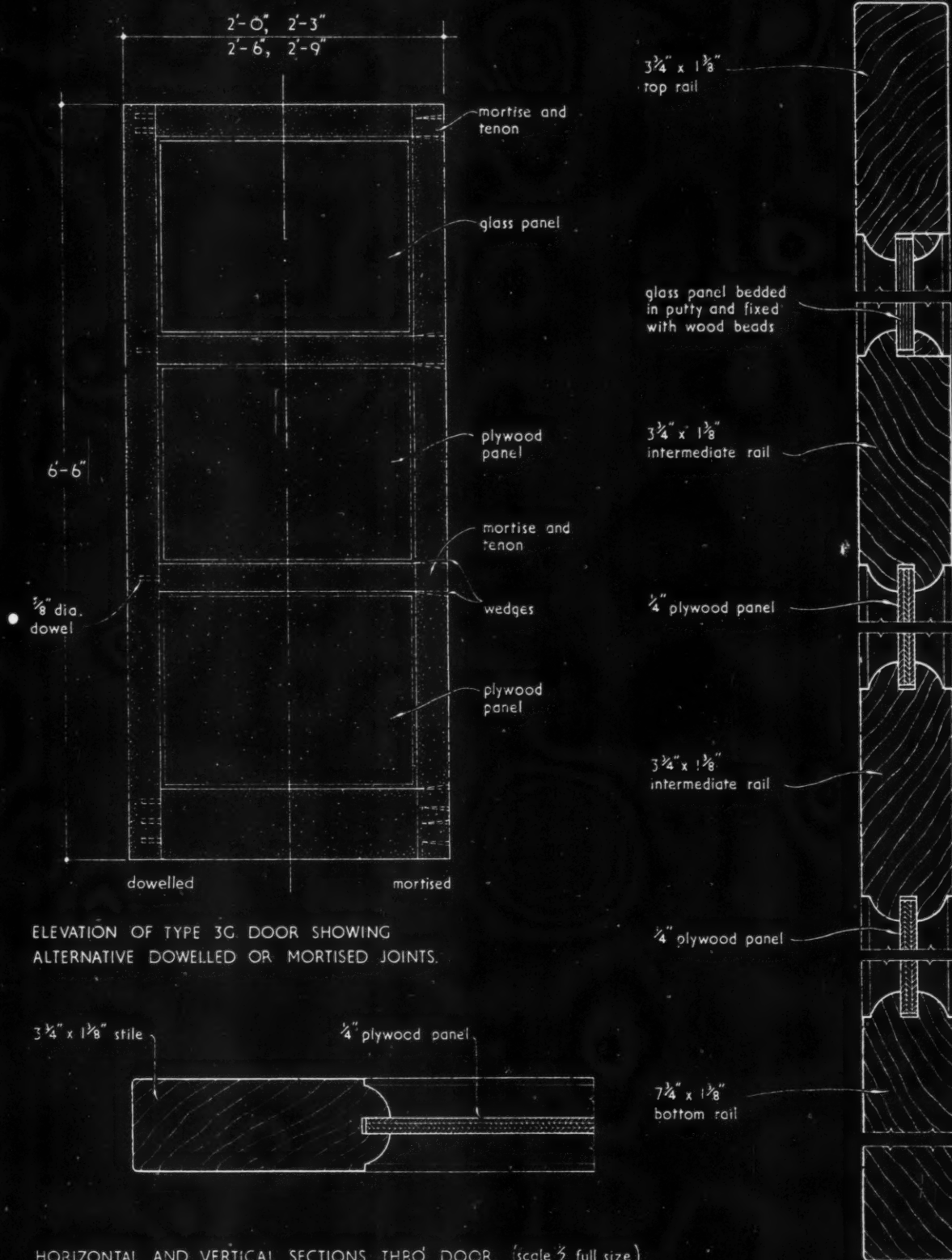
Telephone : Whitehall 7264

DOORS | TIMBER | GENERAL DATA

23.B2

23.B2

The Architects' Journal Library of Information Sheets 80. Editor: Cottrell Butler, A.R.A.B.A.



DETAILS OF TYPICAL INTERNAL PANNELLED AND GLAZED WOOD DOOR TO B.S. 459: PART 1: 1944.

Compiled from information supplied by Austins of East Ham Limited

23.B2 DETAILS OF TYPICAL INTERNAL PANELLED AND GLAZED WOOD DOOR TO B.S.459 : PART I : 1944

This Sheet is the second of a series on wood doors and gives half full size details of a typical internal panelled and glazed wood door to B.S.459. It describes the construction of both internal and external doors. Sheet 23.B1 gives a type schedule of standard internal and external panelled and glazed wood doors. Subsequent sheets give details of door frames and applications.

Construction

The timber used is in accordance with B.S.1186 : 1944—*Grading of softwood joinery.*

Joints generally : Dowel construction is superior to mortice and tenon construction and it is considerably cheaper provided large quantities are manufactured. It is therefore recommended for standard doors. For small quantities to special sizes or designs, mortice and tenon construction is recommended on economic grounds.

Dowelled joints : The minimum size of dowels is $\frac{5}{8}$ in. diameter by $4\frac{1}{2}$ in. long. The dowels are keyed for gluing and are equally spaced in adjacent members at $2\frac{1}{2}$ in. maximum centres. There are three dowels for fixing bottom and lock rails, two for top rails and one for intermediate rails.

Mortised and tenoned joints : Top and bottom rails, and at least one other rail are through mortised and tenoned, the tenons being wedged. Other intermediate rails, muntins and glazing bars are stub tenoned.

Scribes and tongues : A continuous machine scribe (and tongue where required to fill the groove) is used at the shoulders of all members. In the case of dowelled doors the tongue left between the machine

scribes is sunk to a depth of $\frac{3}{8}$ in. maximum and is $\frac{1}{8}$ in. from the bottom of the groove before jointing.

Panels : Plywood panels are framed into grooves to within $\frac{1}{8}$ in. of the full depth and the faces closely fitted to the sides of the groove.

Mouldings and beads : Mouldings to the edges of panel openings are scribed at the joints. Openings for glazing are rebated and moulded out of the solid and, except those for casement doors, provided with mitred glazing beads loosely pinned in position.

Gluing : The contact surfaces of dowels, tenons and wedges are treated, before assembly, with an adhesive conforming to the requirements of B.S.745 : 1937—*Joiners' glue.*

Weather Mouldings

These are supplied (loose) if required and the doors grooved to receive them.

Water Bar

The bottom edge of the door can be rebated full width to accommodate a water bar.

Compiled from information supplied by :

Austins of East Ham Ltd.

Address : East Ham, London, E.6.
Telephone : Grangewood 3444.
Telegrams : Austins, East Ham.

job along, my position would become quite untenable. Everybody raises this point, and sometimes people want me to accept 25 per cent. on everything I can save on the quantity surveyor's estimate. But the moment I do that I cease to be a professional man. I will have got a commercial interest in the job and be unable to offer any suggestion without the architect and owner thinking "that chap has got something in mind for himself."

Chairman: I think we have got a measure of agreement: there is room for some new kind of organization, some new kind of person and ideal. In particular, someone who is not just a financier but a professional man; a good organizer and very knowledgeable about building technique.

Bowler: And the sub-contractor has just as much interest in a job being a success as the architect and the builder and the building owner. If you have that spirit—and I think you can get it—that is the first step towards the position that Mr. Vincent is after. The architect can come to the specialist and the builder as one man to another with a problem, knowing that he will have it answered with knowledge.

Hoad: I would like to say something about the operatives, because I know they are a darn sight better than we think they are. I do not agree with the present system of incentives. We worked out a system of our own twenty or thirty years ago, when there was no one to say we were not to do it—we graded our men. If one man was worth another penny an hour—I am thinking about pre-war, when a penny meant something—we gave it to him. Then if we found he was not worth it later on—if he got stale—we reserved the right to knock off that penny. Well, that is the thing to do today. I would be very interested to know if anybody has any opinions on that, because I have been very keen on it, but I am not allowed by our working rules to do it now.

Vincent: We used to do that with bricklayers, but we gave it up. We used to call them "staff bricklayers"; we employed them by the week. We had about sixty, and we gave it up because, whilst it was quite all right when they were working alone on the job—they certainly gave much better output—the moment one mixed them with other men they dropped to the other men's speed.

Emberton: I believe most sincerely that you have got to encourage a man to achieve better conditions for himself by working harder. In other words, you have got to have payment by results. At the present moment, when we have got a sort of security for all, the incentive to work has been taken away, but

it is the operative who produces the building; it comes down to him in the end. So you have got to organize conditions such that he will work effectively.

Mill: Surely the logical development of Mr. Vincent's idea is that directly-employed labour should come into the picture. The next step, after the appearance of the professional builder, would be for the building-owner to employ labour directly in a much bigger way than at present.

Vincent: As long as you have a professional builder to organize it.

Mill: The increase in directly-employed labour would in turn inevitably mean a decrease in the number of firms of contractors in the building industry. Another small point I would like to raise is: what effect does Mr. Vincent's system have on the speed of carrying out a contract and also on the cost?

Vincent: As far as speed is concerned, it is faster than any known method of building; and as far as cost is concerned, it costs no more—it probably may cost less.

De Syllas: Mr. Mill, it seems to me, is quite right that direct labour is the natural development, but it is a development of which the result is that the builder altogether ceases to be a builder in the sense we all know. I see Mr. Vincent's builder as a highly trained specialist who is most successfully attached to an organization building large projects on a continuous programme—the sort of thing you associate with a Borough Council—a continuous programme, developing and learning from one job to another. That is where your highly-specialized type of man can benefit most. It seems to me your ultimate answer is to have your specialist attached to the architect. I myself have done all my building (not, I should say, in this country) by direct labour. I found it already used in the British Colonies and, in a very crude and, I must admit, elementary form, we did develop a system like the one suggested. We hadn't very highly trained employees, but they were as good as we could get in the circumstances. A man was attached, in this case, to my office whose job it was to run the building. He had no financial interest other than to see the building go up. In our system the five leading operatives in each craft were responsible for grading the men up and down, and every month we had a grading review meeting with the foreman in each craft and their assistants. They would say, "Well so-and-so is a good man. He has worked well and he deserves a half-penny an hour more." The system was accepted and has now become widely practised, but whether it is applicable to this country I cannot say.

Wallis: The only comment I have to make on what has been said is that we have got to start with this world as it is at present, and I suggest that the curriculum of students of architecture and quantity surveying should include twelve months' experience with any good recognized contractor, so that the student learns the practical side of the business. When we talk about the future of the architect, the future of the builder, and of the quantity surveyor, the sooner we get down to co-operation between these three and embody some sort of practical knowledge into these young chaps' minds the better it will be for the building trade.

Bowler: I agree with Mr. Wallis. The backbone of industry must be the technician. I am rather surprised at Mr. Hoad saying that he cannot work the system he describes. There is no limit on wages, so far as the legal side goes, but members of the Federation agree to adhere to wage-rates nationally negotiated. My own theory of incentive is that which we are working at present and have done for thirty-odd years with stone and wood carvers. Each man is rated according to his qualitative and quantitative ability by a joint rating committee; that is to say, a committee composed jointly of men and employers.

Chairman: In getting on to this question of incentives we are almost starting a new discussion. I think on our real subject, taking it by and large, everybody has agreed that the present system of contracting is out of date. I think we are also agreed that there is a need for some new kind of person to work with the architect and the client and the sub-contractor and the rest.

Hoad: The same person will do. It is the way he works that has become different.

Chairman: Perhaps; something has changed, anyhow. Mr. Wallis was saying that the architect and this new person, however we care to define him, should both know more; particularly that the architect should work on the job at some time. My feeling is that a young architect and a young builder—this new person, if you like—should work closely together at least for the first two years of their professional training. That would be one way of ensuring better co-operation.

EDITOR'S POSTSCRIPT

The unanimity of the view that a new kind of building contractor is needed is, as Mr. Yerbury points out, remarkable. The ultimate problem is how to ensure that the resources of

science are enabled to make their full contribution to the production of good architecture, from which it logically follows that the future rôle of the contractor, as all speakers likewise agree, must be that of a partner in the enterprise of building, so that his knowledge and experience can be fully utilized from the start. Mr. Vincent makes out a strong case for going the whole way and turning the contractor into an organizer pure and simple, with professional status. The details of how this method would work financially are less important, however, than the question whether the building industry, at the rate it is evolving, will be ready in the near future to do without the incentive to good quality work that has been provided in the past by the competitive system. For the improvement of the machinery for actually executing building work is only one stage in the process of adapting both the old craftsmanship techniques and the new ones now becoming available to contemporary needs. Another stage is the improvement of co-operation between all building interests—a need about which all the speakers seem to agree—and a third is the achievement of the old craftsman's standards of quality in the new, less personal techniques.

This was touched on in the previous discussion on the utilization of building research, but it would be useful to have architects' views on how far the new methods of organization discussed here, with their emphasis on economy of time and labour, conduce also to freedom in planning and design. Other implications of a new professional status for the contractor need further investigation, such as the suggestion that it could beneficially lead to the employment of direct labour. The proposal put forward that the new contractor-organizer or building manager might form part of the architect's office staff is interesting, too.

This conception leads logically to the subject of next week's round table discussion in which the emphasis shifts from the rôle of the contractor to the changing rôle of the architect himself. Suggestions from readers for future topics will be welcomed, as well as comments on the views expressed.



The Architects' Journal

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Phone: Whitehall 0611

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

APPOINTED DAY

Today one of the great Reform Acts of our generation comes into force throughout England and Wales. These are the days of great measures; in fact, in the last two years we have had or heard so much of them that our sense of history has become, like other things, in short supply. But this is different. We must summon up the remnants of our power to take the larger view, and realize that the coming into force of the 1947 Town and Country Planning Act will rate in the history books with the Reform, Factory, and Public Health Acts of the last century, and, in the meantime, enable this country to lead the world in town planning.

A "scheme" under the 1932 Act was very difficult to make and as difficult to change. It was bound to be negative (it could forbid but not promote), and was virtually certain to be unworkable because of the prohibitive cost of compensation if the more important restrictions were enforced. The 1947 Act has ended all this with a bang hardly muffled at all by 120 Clauses, 11 Schedules and (in the last few weeks) a hasty patter of Circulars and Statutory Orders. It gives pride of place to a plan, based on survey, and fairly easily prepared, approved and revised. All development must obtain consent. All development values (the extra amount you might get for your land if it were used for something more profitable than its existing use) are vested in the State. The local authority

can acquire compulsorily any land for a good planning reason and can promote and even carry out development of any kind.

These are tremendous powers, and if there are no bonfires blazing tonight in St. James's Square or Ashley Place, it may be because the residents are, in another planner's words, giddy with success. Although, even if they are found to be giddy just now it may not be with success; they may have been studying the Act, which is one of the most complex ever passed. The most seasoned of the new experts may blink if asked to say pat the exact difference between the use classes in the Use Classes Order and the use classes in the Use Classes for Third Schedule Purposes Order issued on the same day.

Moreover, in the year and a half since the Bill was published there has been time to think of some of the problems its working will present. One of the most pressing questions concerns the functions of the Central Land Board. The Board's activities will largely decide whether or not developers will be forthcoming to build the better-planned towns. If, as is apparently intended, the Board's operations are in close support of good planning and they raise and lower development charges at different places and times to this end, all will be well. But, until we know more of the Board's intentions and methods, the danger must remain that they may sooner or later pursue some other line, regarding themselves, for example, as hard-headed national estate dealers bound to make a profit on all deals.

MR. (MYLES) WRIGHT COMES ALONG

In spite of current difficulties in book production, Mr. Myles Wright, Editor of the just-published *Planners' Notebook*,* has succeeded in including in his book a summary of the main provisions of this 1947 Act—and this is only one of the 272 excerpts and summaries indexed in this remarkably comprehensive survey of planning information. There must be many architects who jot down in notebooks a mass of assorted information, with the idea that one day—if you can find it again—it might come in useful. Mr. Wright

*The *Planners' Notebook*, edited by H. Myles Wright. The Architectural Press. Price 30s.

has not only jotted indefatigably for the past few years, but has arranged his jottings so that they can be quickly and easily consulted. If you want to know how many tripe dealers there were in 1935 in six selected English towns, you will find it. If you wish to remind yourself of Lewis Mumford's *Basic Assumptions for Post-war Redevelopment*, there it is. If you are ignorant of some details of municipal ownership in Germany in December, 1934, Mr. Myles Wright will not disappoint you.

So when you are about to get into the train to travel for an interview as prospective planning officer, see that you slip a copy of this book into your briefcase. Dip into it on the journey (the longer the better)—and you will astonish the committee with the encyclopædic range of your knowledge of planning. You will remember that a committee has just been appointed to discuss what qualifications are desirable in a planning officer.

CAMBRIDGE'S FESTIVAL

Cambridge this month made one realize how much most towns miss by lacking the right kind of local processions and festivals. It would have been a very dull dog who did not feel better for the big flags flying in the sunshine, for the Queen and General Smuts, and for the slow trickle of scarlet and black and white as the dons dispersed down King's Parade.

In other towns there's apt to be nothing between the full solemnity of Armistice Day and the artificiality of beauty parades or the stridency of trade exhibitions. But Cambridge has managed to keep a medieval feeling about local shows, and the people there retain just about the right blend of serious and humorous appreciation, of staying to watch and of passing on. A Doctor in full rig met suddenly round a corner is guaranteed to penetrate the grey blur which stretches between suburb and desk; while the face and figure of more than one Doctor are good broad comedy. To appreciate both lifts the spirits.

After a few days, ceremony changed into festival—first the May Races, then the May Week Balls. The town no longer remained so detached.



The Sir John Soane Museum in Lincoln's Inn Fields, from the new descriptive leaflet. See Astragal's note.

Stretched skins and smothered yawns broke out among civil servants, architects and good-looking secretaries, thunder rolled around and around, the evening sparkled with the gay frocks, golfing umbrellas and fairy-lights, and even Astragal (whose visit was strictly professional) became involved with crab salad and South African hock.

The girls looked quite as beautiful as they did a certain number of years ago, but the men were somehow not a patch on what they used to be. Musing on this deterioration kept me awake for some time in a still night with bells very near and dance bands just at the threshold of hearing. In the morning the street seemed quite normal, and then suddenly an immense shire horse trotted by, drawing a large cart of railway delivery kind. It was driven with perfect gravity by a young man in tails, and contained as its load one young woman in a ball frock, apparently asleep. It jogged sedately out of my life down Hills Road.

MUSEUM PIECES

The illustration above is taken from *A Short Description of Sir John Soane's Museum*—a new threepenny publication prepared by the curator for the use of visitors and students. Concise, informative and beautifully printed (by the Oxford University Press) this little pamphlet is in admirable contrast with the penny leaflet recently put out, with similar purpose, by the Victoria and Albert Museum.

The V and A leaflet is not only discouraging in appearance but could hardly have been written with less feel-

ing for words or indeed for the simplest rules of grammar. Surely this sort of thing should be written by a professional (as in the Soane Museum example) and not left to somebody who may be an expert in, say, 15th century Spanish armour, but who certainly is unable to write a clearly expressed and pleasant-sounding sentence?

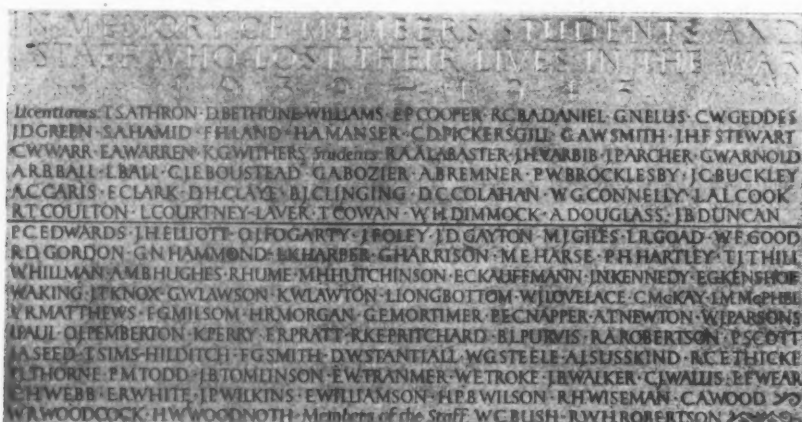
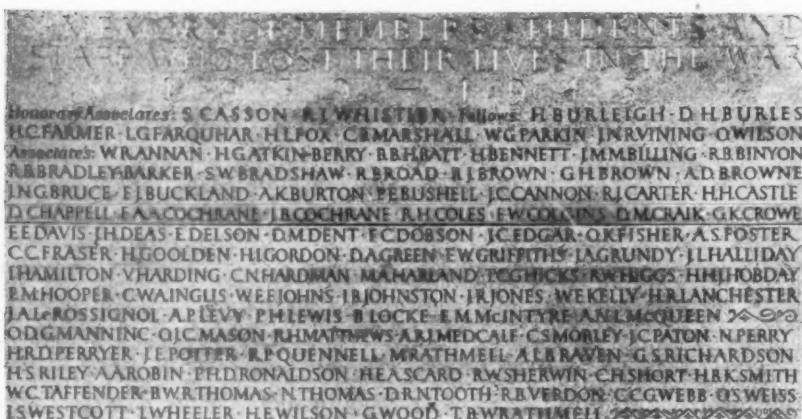
NO DESIGNS ON ANYTHING AT ALL

As I suspected (see AJ 3/6/48), the Council of Industrial Design was not consulted over the interior design and furnishing of the VIP's hotel in Park Street. Moreover, since CID is only an advisory body (see Paul Reilly's letter, page 12 this issue), it cannot give advice unless asked, nor see to it that its advice once given is taken. Clearly the present terms of reference of the CID prevent it from doing the job it was set up to do. Astragal will return to this point later.

Blame, therefore, for the undistinguished results in Park Street rests apparently with MOW. Any comments, Mr. Barker, upon this and upon MOW's responsibilities in the Olympic Games preparations? Incidentally, the first Olympic poster to appear in London—chosen, I suppose, by a posse of retired generals and ex-hurdlers—is a real shocker. The standard of poster design in this country is as high as anywhere in the world—here, at least, is a contest in which we could easily hold our own—and it is a tragedy to see Britain represented internationally by so third-rate and formless a product as this. Let us hope that it is not typical of what is to come.

ASTRAGAL

THE RIBA WAR MEMORIAL



The RIBA War Memorial to Members, Students and Staff of the Institute was unveiled by the President, Sir Lancelot Keay, on June 22. The Memorial, which was designed by Mr. G. Grey Wormun, is in the form of panels of names

incised in stone on each side of the walls at the foot of the main staircase by the entrance of the foyer. The panels are of San Stephano Roman stone and the lettering has been carved by Mr. Percy Smith.

LETTERS

Paul Reilly

C. A. Burland

H. R. Myerscough Walker

VIP's Hotel

SIR.—The Council of Industrial Design shares ASTRAGAL's view that every occasion for showing the most imaginative British designs and the best British craftsmanship should be taken. The more the Council is consulted the better, but the Council is an advisory body. It has no power to control or direct other agencies, whether public or private. Its services and advice are freely available to manufacturers, retailers, schools, voluntary organizations and Government Departments. It is only a question of making these services more widely known. ASTRAGAL's interest, however phrased, is therefore useful and welcomed.

PAUL REILLY,
London Chief Information Officer, CID

Temple Church

SIR.—The exhibition in Battersea Park and the discussions about the placing of the

Gordon statue lead one to hope that public interest in the sculptor's art is awakening. But it seems that the new interest has passed by the officials responsible for the welfare of the Temple Church. Swept up against the door I recently saw limestone fragments and dust, not fragments from the modern restoration, but bits of the original sculpture.

The stone, gone rotten from neglect, is suffering from the crystallization of salts which are flaking off the surface at an alarming rate. Unless speedy action can be taken this unique fragment of late Norman architecture will be lost to us, and our foreign friends will think we make a fuss over living artists so as to be in the fashion, while we allow our artistic past, our cultural heritage for the future, to die from sheer neglect. Surely it would not cost a great sum of money to put work in progress which will conserve both the doorway to the church and the good name of British art-lovers.

West Molesey

C. A. BURLAND

Architectural Degrees

SIR.—The collection of what a mother describes usually as "my son's letters" (during my school days) added up to A.A.DIPL., A.R.I.B.A., with a possible A.M.P.T.I., if I chose to pay a fee.

This array (automatic on the achievement of the first mentioned) struck me later as part of a monument to mediocrity. No one aspiring to any professional height could seriously add such labels to his Christian and Surname. And so I dis-

carded them. Presumably, then, I am not an architect—a Registered Architect.

Mention is made of it now because while it is one thing for a professional person to abstain from using such degrees as he may be entitled to, it is quite another matter to be told that he is not allowed to use them except under the penalty of a subscription of a few guineas a year.

A doctor is an M.D., a teacher a B.A. Such is his appendage for life, and he has earned it. Why, then, in this profession of ours does this contradiction take place: (a) that an architect to practice must have a title or degree in Law, and (b) that the said title or degree is the only professional label in this country that is dependent on an annual disbursement at the penalty of forfeiture.

It is not a title I am ever likely to use, but the veiled threat it carries in its monetary pouch is surely not approved of by many adherents to its decoration.

Midhurst

H. R. MYERSCOUGH WALKER

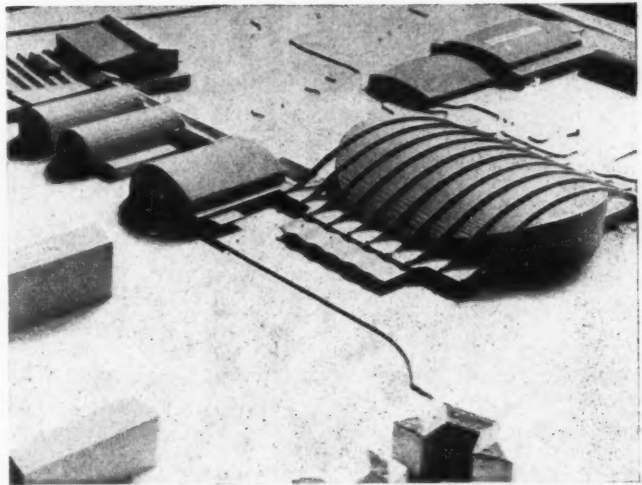
In Parliament

In spite of her own acute housing needs Britain is exporting houses of the prefabricated type, and in the House of Commons, the President of the Board of Trade, Mr. Harold Wilson, gave some account of this trade and indicated what its prospects for the future were likely to be. He said that it was the policy of the Government to encourage the export of prefabricated houses to the maximum possible extent, having regard to the supply of materials. There had been no official export negotiations between the Government and overseas governments; negotiations had been of the ordinary commercial kind between the suppliers of the different types of prefabricated houses and potential buyers abroad, whether the latter were private, municipal or central government purchasers. Mr. Wilson added that he gathered that actual bulk transactions had so far not been numerous. In a considerable number of instances, however, negotiations with both Empire and foreign buyers had reached the stage of the supply and erection of sample houses. The indications were that the export business which might accrue would vary from the export of complete houses in parts at one end of the range, to the sale of manufacturing rights and designs at the other.

Scottish Members from both sides of the House were critical at question-time about the progress of their country's housing programme, and one woman M.P. denounced the Secretary of State for Scotland, Mr. Arthur Woodburn, for lagging behind England in the task of providing accommodation. Mr. Woodburn told the House that of the 500,000 new houses estimated at the end of the war to be needed in Scotland, about 200,000 were for persons without a home of their own. A total of 51,628 temporary and permanent houses had already been provided under post-war schemes. In present circumstances it was not possible to estimate what additional number would be completed by the end of 1948 and 1949, but the Government's aim was to complete the largest number that the available resources would permit. Mrs. Jean Mann (Lab.—Coatbridge) then asked if he was aware that his counterpart in England had announced that the target of 750,000 houses, stated to be required for the homeless, would be reached by October? It looked as if Scotland would not reach its target for years, she protested. Mr. Woodburn said there was a simple explanation. Scotland started off with ten times worse housing conditions than England. Mrs. Mann: "Is Scotland to remain always and forever in a ten times worse position than England?" Mr. Woodburn: "I am pleased to say that some leeway is being made up, but it is entirely a question of materials. If they are not there, we cannot build any quicker."

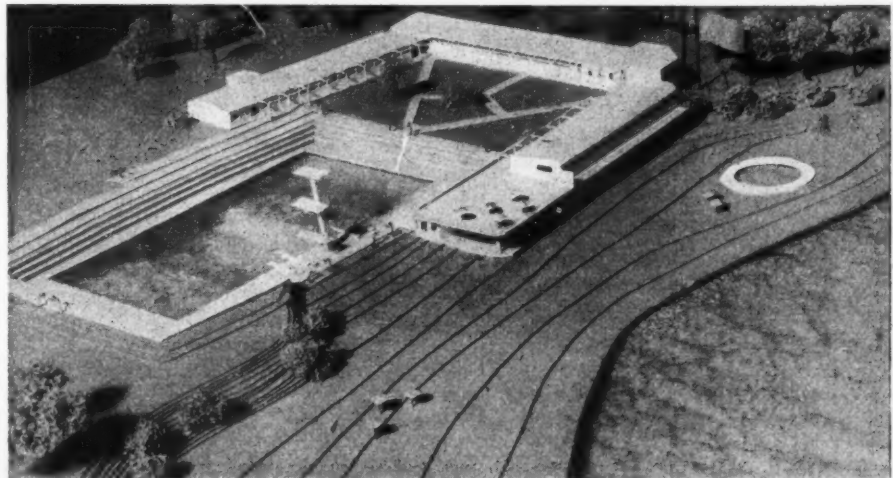
OLYMPIC GAMES COMPETITION

Among the events of the Olympic Games is the Sport in Art Competition, one section of which is devoted to architecture and town planning. An exhibition of the entries submitted will be on view at the Victoria and Albert Museum, London, between July 15 and August 14. Eligible entries were limited to designs in architecture and town planning for sports grounds and buildings for use in connection with sport. It was requested that entries should preferably be submitted in the form of models. Prize medals are to be awarded for the three best designs in each of the categories of architecture and town planning and the results will shortly be announced. The photographs on this and the following page give a preview of a selection of the models that are to be exhibited. The Olympic Games Fine Arts Committee is under the chairmanship of General Sir Ronald Adam, and the Director of Arts, who is responsible for the organization of the exhibition, is Major A.A. Longden. The jury for the

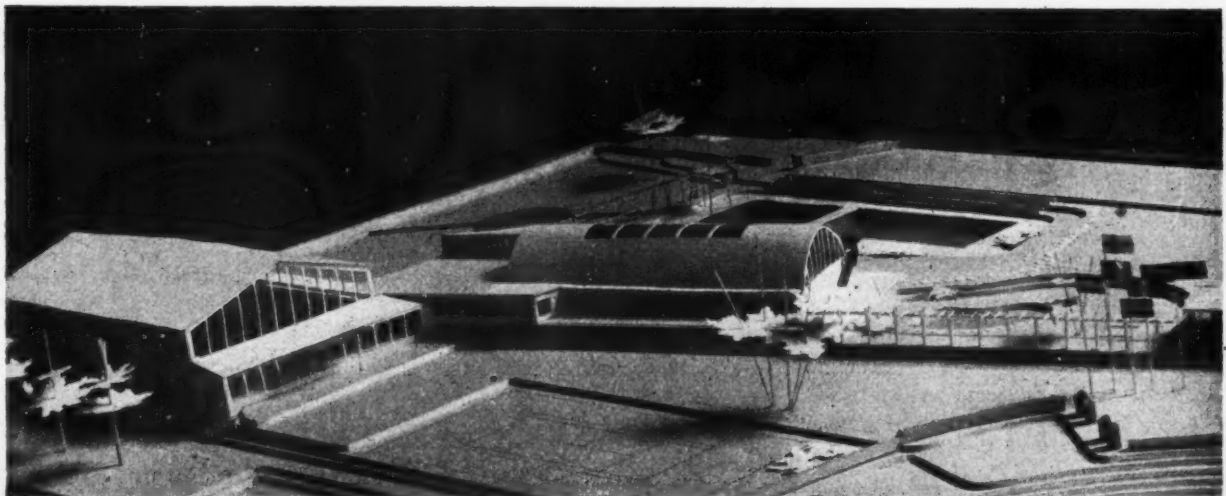


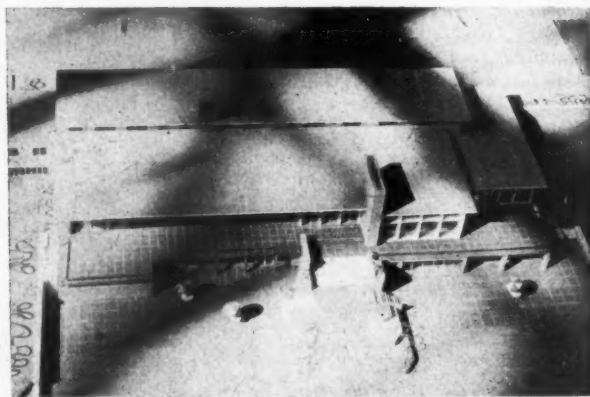
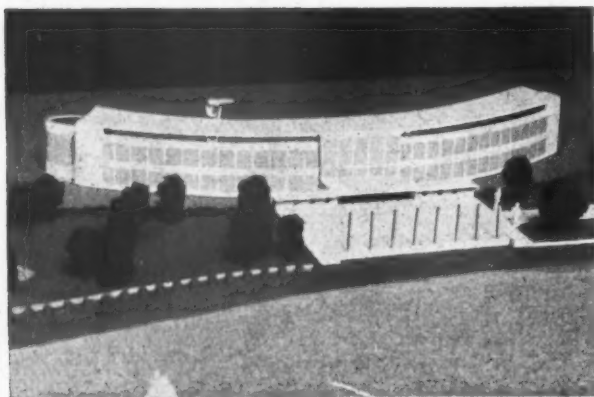
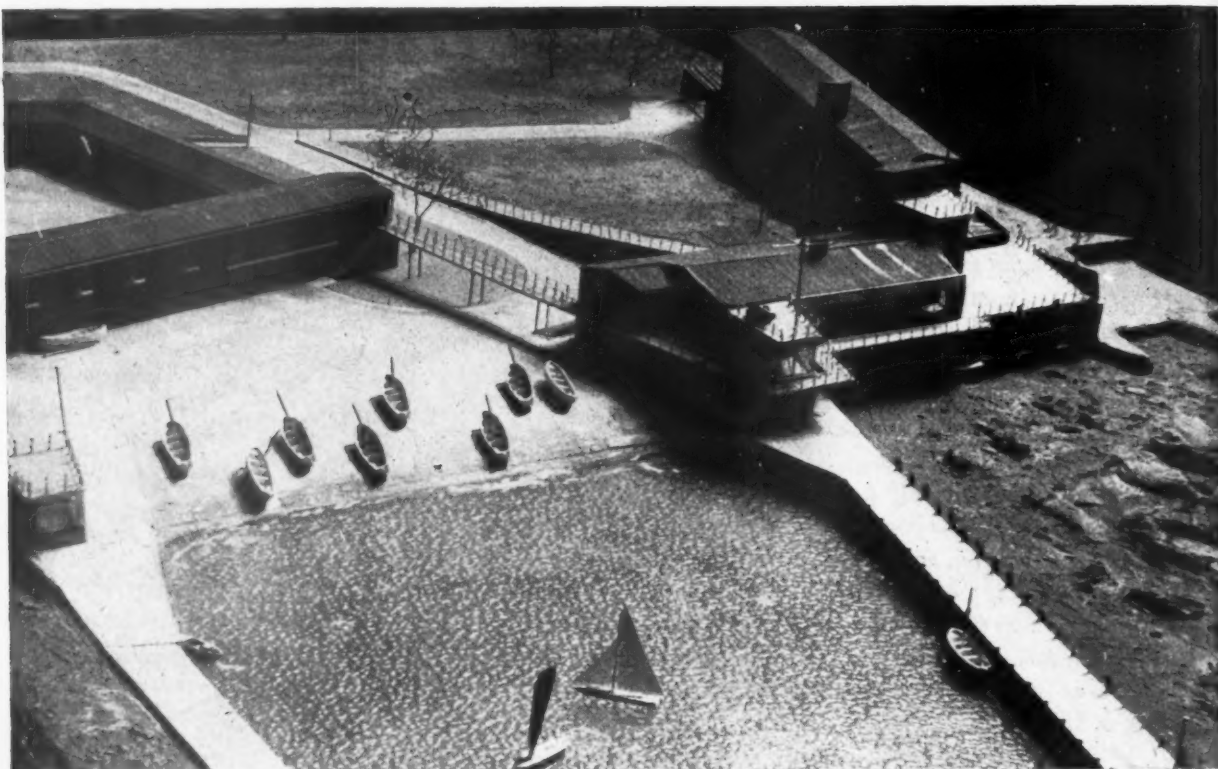
architectural and town planning section of the competition comprises Sir Percy Thomas (chairman), Mr. Robert Matthew, Professor W. G. Holford, M. Jan Wils (Holland) and Mr. C. Howard Crane (U.S.A.).

Top, Bath and Sports house at Gothenburg, Sweden, by Nils Olsson. Right, An open-air swimming pool at Upsala by Eskil Lundahl.



Below, Sports Centre for the town of Kemi in Finland by Ilmari Niemeläinen.





Top, Tuff's Hard Yacht Club at Bosham, Sussex, by Patrick Horsburgh. Centre, left, a Watersports Centre on the Wætherlee in Carinthia, Austria, by Alfred L. Rinesch. Centre, right, Golf and Country Club, Toronto, by Kaplan and Sprachnan.



Right, Swiss Federal Sports and Gymnastics Training Centre at Magglingen by Werner Schindler and R. Knupper.

OLYMPIC GAMES COMPETITION

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PHYSICAL PLANNING SUPPLEMENT

The 1947 Town and Country Planning Act comes into operation today. During the next three years, the planning authorities designated under the Act will be busily engaged in preparing a series of development plans for the areas for which they are responsible. The plan for the County of Cheshire, by Mr. Dobson Chapman, though prepared before the new Planning Act had passed into law, in many respects conforms to the requirements of the new Act, and is of particular interest for that reason. The report covers urban and rural areas, national parks, transport requirements, though in some respects the survey material may need to be elaborated to fulfil all the requirements of the Act.



A view of Hart Hill, a proposed regional park.

C O U N T Y P A L A T I N E

A PLAN FOR CHESHIRE, BY W. DOBSON CHAPMAN

The particular interest of this plan lies in the fact that it is the first county plan to be published* which, apparently, conforms almost exactly to the requirements of the new Town and Country Planning Act. The terms of the Act require that a "Development Plan shall be prepared in broad outline over a wide area to indicate the general relationship between the main purposes for which land will be allocated. It will show, for example, which towns and villages are suitable for expansion and which can best be kept to their present size; the direction in which a city will expand; the area to be preserved as an agricultural Green Belt and the area to be allotted to industry and to housing. Detail will be filled in over smaller areas when development is about to take place. It is at this latter stage that the line of minor roads, the position of the smaller open spaces and allotments, and the siting of such things as schools, churches, shopping centres, and cinemas will be indicated" (Cmd. 7006, para. 9). The two maps, redrawn for reproduction in this journal, show some of the results of the county survey and the main lines of the county plan, and it can be seen that they incorporate almost all the items listed, though full implementation of the Bill may require some of the survey material to be elaborated.

To some extent, therefore, this can be taken as a prototype of the plans that are to be prepared within three years of the "appointed day" of the new Bill, but the premises on which this particular plan was based have an individual interest of their own. Cheshire is a rich dairying county wedged between the encroaching conurbations of Merseyside, Man-

chester and the Potteries. These will inevitably occupy yet more of Cheshire's land either by continuing to push out their suburban tentacles or by establishing satellite towns within the county. To quote from the book:

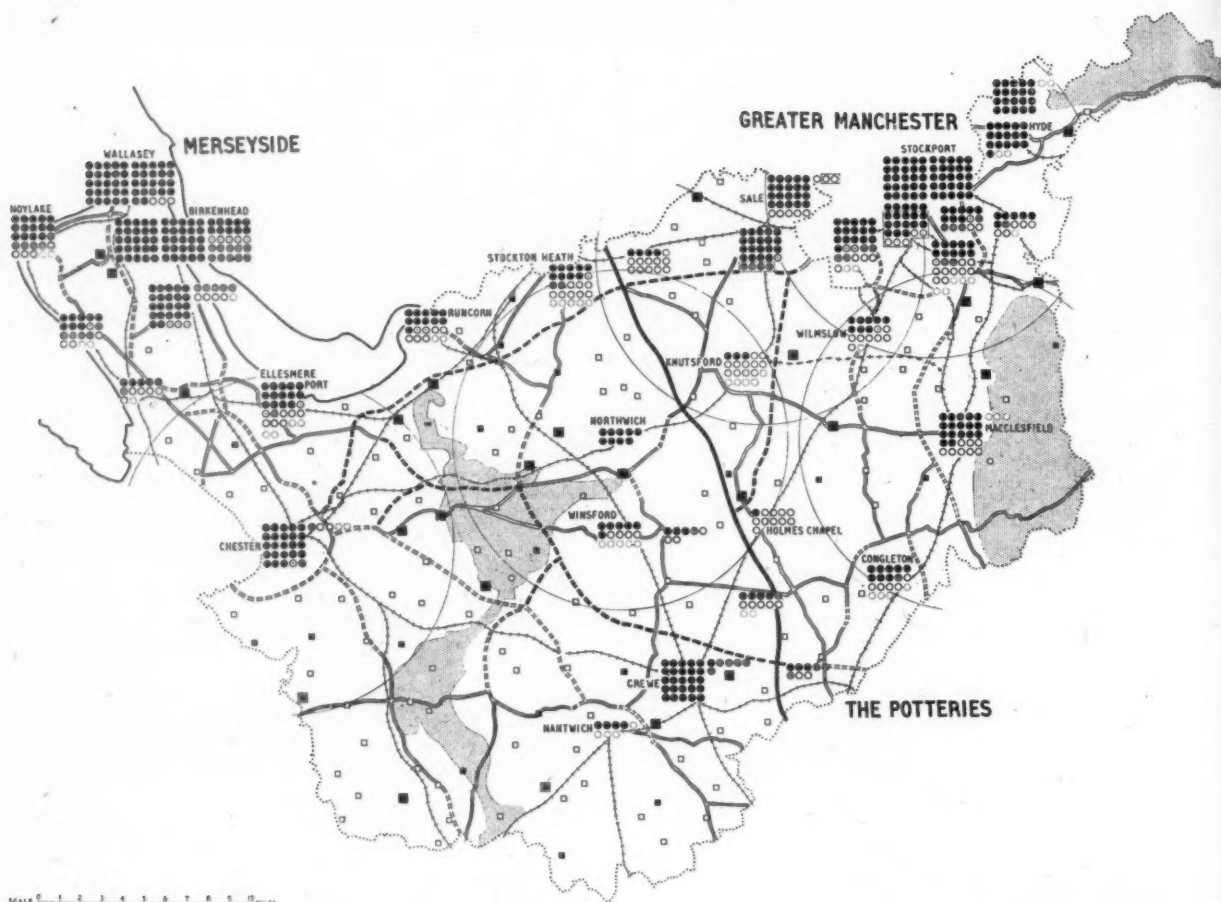
"The County Survey has clearly revealed the value of Cheshire as a reception area for industry and industrial population displaced from the overgrown urban areas, both in Lancashire and further afield, and it is one of the primary aims of the Plan to show how the controlled re-distribution of this overspill might be employed to raise the general standard of living in the county, particularly in the rural areas. The policy adopted has been based to a very large extent on the findings of the Barlow and Scott Reports, but the recommendations of both have been interpreted in the light of the findings of the County Survey. Cheshire is willing and able to accommodate and adopt the industry and industrial population displaced from those areas. Such a policy is not entirely disinterested. Cheshire can well do with further industrial growth, provided that the necessary precautions are taken to safeguard the primarily agricultural character of the County."

The Report of the Barlow Commission brought the problem of dispersal into focus but left for future examination the choice between four methods by which the population and industries moving out of the congested areas might be accommodated. Long before the Government announced its policy of New Towns these four methods had been weighed and scrutinized in relation to the needs and problems of Cheshire, and the conclusions reached may be summarized as follows:—

(a) Garden cities, attractive though they may be and right

* *County Palatine*, a plan for Cheshire, by W. Dobson Chapman, Country Life, 1 guinea.

THE DEVELOPMENT PLAN FOR CHESHIRE CO



in most of the principles they embody in their internal development, are bound to have important repercussions over a wide surrounding area. Their sites will normally be taken out of agricultural use; this in turn will create problems of supply for the population which formerly depended on the produce of the displaced farms. Roads, railways and other services, such as electricity, will be dislocated to serve an area where there was previously no demand for them. Nearby towns and villages will in some respects benefit from the new services and attract new populations and industries; in other cases they will be depopulated, being unable to compete with the up-to-date facilities provided by their new neighbours. The development of the garden city will be free from the trammels of the past; but, regarded as a community, it will lack the unifying force of tradition. Finally, it must be remembered that Cheshire is primarily an agricultural county, and the first concern of planning must be to improve living conditions and social opportunities for the country dweller. New garden cities would contribute little or nothing to this end.

(b) *Satellite Towns.*—The term "satellite," as applied to towns, has been used to cover such diverse forms of development that its meaning is very much open to question. It is significant, if not finally conclusive, that in the terms of reference of the Reith Committee, which was appointed by the Ministry of Town and Country Planning in October, 1945, after an obvious reference to the Barlow Report, it is stipulated that the new towns "should be established and develop as self-contained and balanced communities for work and living." Satellite towns on the Wythenshawe model do not come within this description, and it may be concluded that in relation to national planning policy little more will be heard of such schemes as a means of solving the problem of dispersal. So far as Cheshire is concerned, one has only to

PROPOSED NATIONAL MOTORWAY	—
PROPOSED REGIONAL MOTORWAY	—
EXISTING ARTERIAL & SUB-ARTERIAL ROADS	—
PROPOSED ARTERIAL & SUB-ARTERIAL ROADS	—
EXISTING RAILWAYS	—
PROPOSED RAILWAYS	—
PROPOSED NATIONAL & REGIONAL PARK AREAS	—
EXISTING POPULATION	●
ESTIMATED NATURAL INCREASE	●
ESTIMATED INCREASE BY NORMAL MIGRATION	●
ESTIMATED RECESSION OF OVERSPILL	●
POSSIBLE FUTURE GROWTH	●
POPULATION TO BE DECREASED	●
SMALL URBAN CENTRES: PROPOSED POPULATION 2500	■
URBAN VILLAGES GRADE III	■
VILLAGES	■
HAMLETS	■

LARGE CIRCLES SHOW RADIUS OF EIGHT MILES FROM SUB-REGIONAL CENTRES

consider the Manchester enterprise to realize that satellites are developed and managed in the sole interest of the large city which they serve and are of no benefit to the remainder of the county.

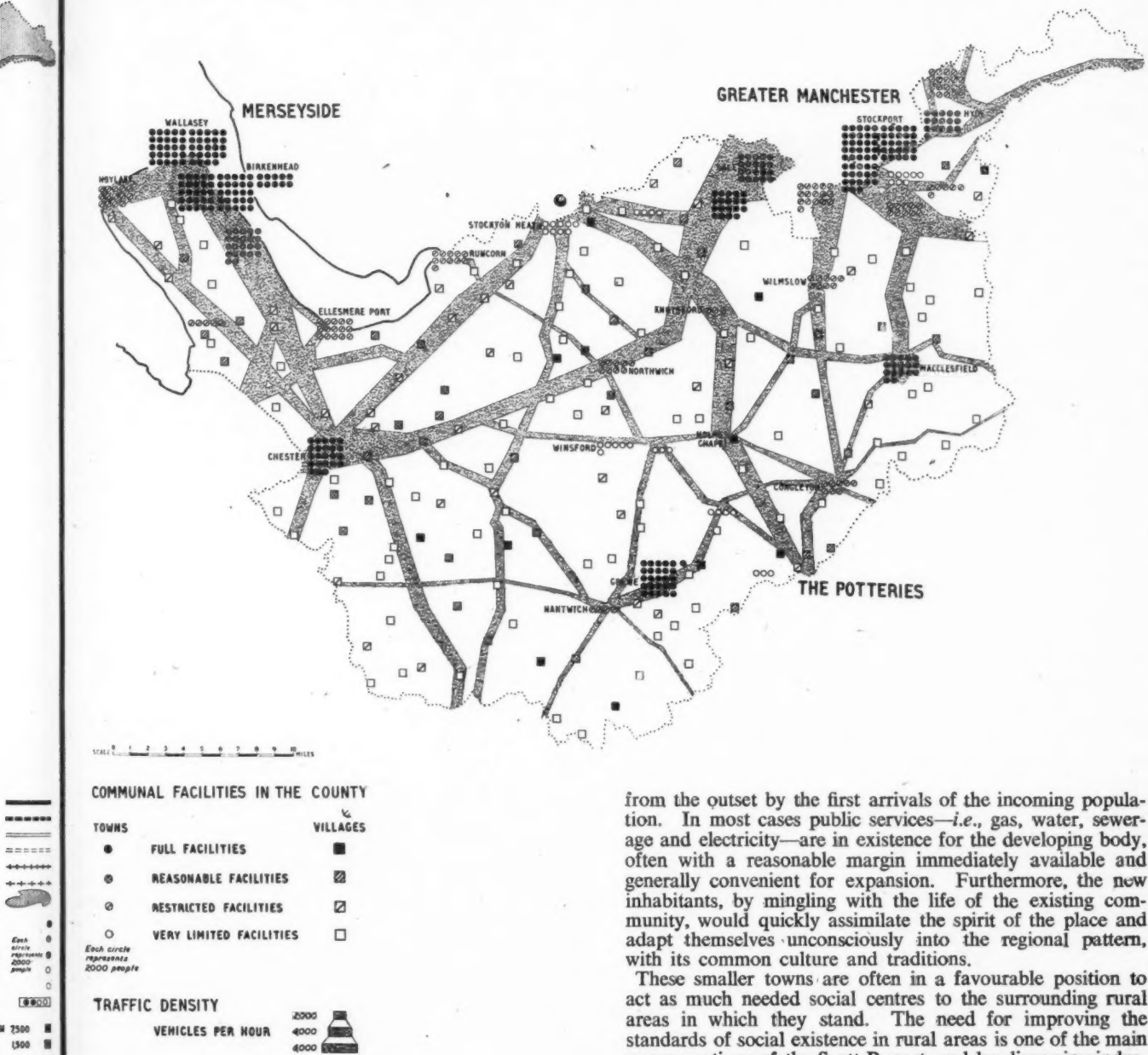
(c) *Trading estates.*

(d) *Further development of existing small towns.*

It was found that these two alternatives suggested by the Barlow Report would be best considered jointly rather than as separate items of which the merits or demerits should be assessed independently.

Before the trading estate can be a success it must be properly related to some existing centre of population. Failure to appreciate this point has detracted very considerably from the value of one at least of these experiments already carried out. On the other hand, the advantages of limited industrial grouping are undeniable. There is no

COMMUNAL FACILITIES AND TRAFFIC DENSITY



from the outset by the first arrivals of the incoming population. In most cases public services—i.e., gas, water, sewerage and electricity—are in existence for the developing body, often with a reasonable margin immediately available and generally convenient for expansion. Furthermore, the new inhabitants, by mingling with the life of the existing community, would quickly assimilate the spirit of the place and adapt themselves unconsciously into the regional pattern, with its common culture and traditions.

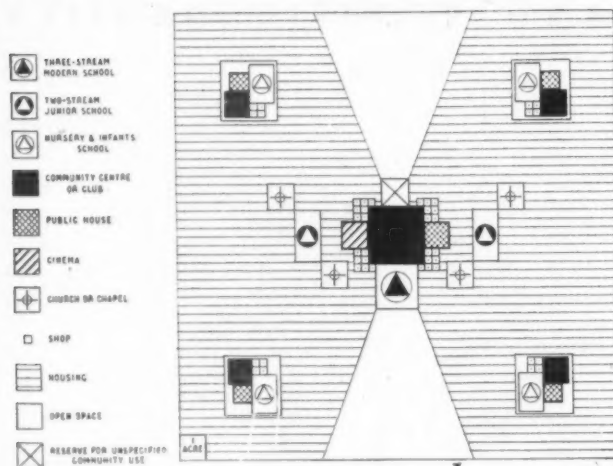
These smaller towns are often in a favourable position to act as much needed social centres to the surrounding rural areas in which they stand. The need for improving the standards of social existence in rural areas is one of the main preoccupations of the Scott Report, and by dispersing industries to selected small towns and so raising their population figures, it would be possible to put some of the more specialized social and recreational services within easier reach of many rural areas."

Having established the principle of building up existing small towns that were in a position to form useful industrial centres, it was agreed with the authorities of the Liverpool and Manchester conurbations that the limit of distance that population might be removed or persuaded to go from their place of origin was 20 miles. As, however, the county of Cheshire is not much over 40 miles from east to west and only half this from north to south, little "no man's land" remains, and that is absorbed by a regional park. The considerations that determine whether a site is suitable or not to receive dispersed industry and population are described as follows:—

"Generally speaking, modern industry demands a full complement of public services, such as an ample water supply, public sewerage, electricity and gas, and these are only an economic proposition in urban units where a number of indus-

question that, given proper siting and efficient planning, the trading estate, or what might be better called the small industrial estate, would be a considerable asset to many small towns whose strategic positions, in so far as the mobile industries are concerned, are as good as those of the oversized towns.

The fact that a town of sorts already exists is in itself a considerable asset, since it provides the social and administrative framework upon which to build and is endowed with the necessary historical associations. These, although intangible, nevertheless play a vital part in the welding together of a community. The siting of an existing nucleus is seldom, if ever, accidental. Existing towns are often nodal points in the local system of communications and always bear relation to the land uses of the region. Seldom are these centres surrounded by land unsuitable for building development. The existing nucleus usually has a core of amenities and service institutions—i.e., market, church, inn, hall, transport services, etc.—of which advantage could be taken

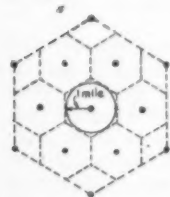


A diagram giving the space layout for a neighbourhood unit with a population of 7,500 persons. The diagram illustrates the proposals in the report for the provision of space for community, open space and housing needs.

tries and a moderately large population are located. There are other factors which call for grouping on a sufficiently large scale to permit some elasticity in the supply of workers and a balanced diversification of seasonal trades to secure uniform employment. Obvious advantages to be secured are the presence of an adequate shopping centre, more specialized road and rail services, goods yards, and all the various commercial, professional and technical services (head post offices, hotels, service garages, churches, sports clubs, etc.) which are only available on an adequate scale in a fair-sized urban unit with a minimum of 15/20,000 population (including any villages and farms in the immediate vicinity of the town). Above this figure, up to about 50,000, increasingly good service can generally be secured in proportion. Such services and institutions will also provide the incoming industrial population with their accustomed surroundings.

"The tendency towards dispersal, which was so obviously manifest in the years immediately preceding the war and which was accelerated by the war itself, would have been even more marked if suitable housing accommodation for the workers had been available outside the larger centres. Houses to rent, rather than to buy, are essential to the working class, and, if means can be devised for overcoming this handicap in the smaller towns and other places indicated as reception areas, there is every certainty of achieving the desired end."

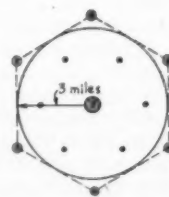
The methods used for determining the development of rural settlements closely resemble those worked out by Christaller in Germany in the '30s and carried on by R. E. Dickenson in his study of East Anglia, though no acknowledgment is made to either. The system is based on the following diagram:—



GRADE I SETTLEMENT
The basic pattern of grade I settlements, each with an approximate population of 200 persons at intervals of about 2 miles and having a service area of approximately 3½ sq. miles.



GRADE II SETTLEMENT
Certain grade I settlements are selected to provide additional services. These become grade II settlements with an approximate population of 500 at intervals of approximately 3½ miles and each having a service area of about 10½ sq. miles.



GRADE III SETTLEMENT
The Central grade II unit has to provide still further services and becomes a grade III settlement of about 1,500 population serving a total area of approximately 31 sq. miles and being 6 miles away from the next grade III unit.

COMPOSITION OF A NEIGHBOURHOOD UNIT OF 7,500 POPULATION

I. COMMUNITY PROVISIONS

A. Each Residential Unit

1 Nursery and Infants School	1.60	acres
1 Club	1.00	"
1 Small Public House	0.50	"
4 Shops	0.286	"

3.386

13.544 acres

B. Inter-Unit Provision

2 Two-stream Junior Schools	4.00	acres
4 Churches and Chapels	5.60	"

9.60

9.600 "

C—Neighbourhood Centre

1 Three-stream Modern School	3.00	"
1 Community Centre	5.00	"
1 Public House	1.00	"
1 Cinema	1.25	"
20 Shops	2.80	"

13.05

13.050 "

D. Reserve for unspecified Community use

1.306

1.306 "

Total Community Provisions

37.500 "

II. OPEN SPACE PROVISION

A. Each Residential Unit

4 Residential Units	10.00	"
---------------------	-------	---

10.00 "

B. General Provision

	47.00	"
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47.00 "

Total Public Open Space

57.00 "

III. HOUSING

205.50 "

Total Unit Area

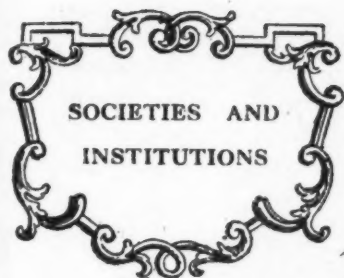
300.00 "

The plan shows 27 towns of over 20,000 instead of the present 15, and the division between the areas of influence of the two of the three conurbations is presumably marked by the suggested national and regional park area that crosses the county just east of Chester. This looks rather too "tidy" to be true, but may prove to be satisfactory.

"County Palatine" appears to incorporate (though this source is not acknowledged) much of the valuable material assembled in 1946 by the group of architects working under the ægis of the *News Chronicle* on the expansion of Knutsford as a New Town. In particular, the elaborate description of the principles of development of neighbourhood units clearly owes a great deal to the work of Judith Ledebor. The redrawn diagram above of the suggested space divisions gives the main recommendations for a unit of 7,500 people.

In conclusion it can be said that this is a most interesting and well-reasoned forerunner of the new type of County Plan. It shows clearly the main lines of change and development envisaged for the whole area and produces considerable survey material to support these decisions. The scheme remains, however, reasonably flexible, and even if, as is probable, some of the surveys do not bear quite the same interpretation when reinforced by new information made available under the terms of the new Act, it is improbable that any major alterations in the plan would be required. The major survey defect, apart from the very weak draughtsmanship of the maps in the published plan, relates to the population and sociological aspects of the areas.

The method of calculating figures of population trends, though elaborately and painstakingly worked out, contain several statistical fallacies and again show the need for central guidance on this major item of information. Once the general figures have been soundly calculated, the disposition of new settlements, etc., can be reasonably left to the responsible planning officials, though here again—as has been amply proved in the Knutsford subsidence controversy—amplified expert information must be forthcoming from appropriate Government Departments.



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

RSA

A. E. Richardson

June 2. At the Royal Society of Arts, 6-8, John Adam Street, W.C.2. THE SPIRIT OF BRITISH CRAFTSMANSHIP. Mr. Gordon Russell was in the chair.

Professor Richardson: Some prophets opine that a new art will spring up which will bring a re-orientation of the crafts. My own idea is that out of nothing, nothing will come. Others, to whom town planning is a fetish, shirk the problem of social amenities by urging that the whole of the remaining countryside should be industrialised. If it were possible to buy dollars in this way, this would be sanctioned by Act of Parliament. There still remains the task of sustaining the flickering spirit of British craftsmanship. We must not imagine that everybody in these enchanted islands is craft minded; neither should we pin our faith on the superior wisdom of theorists. Carlyle prognosticated similar conditions to those we know more than a century ago; William Morris was even more practical because he attempted to check matters with his own hands. He failed because he was right. Curiously enough the Swedes adopted his doctrines and now we admire modern Swedish art and craft as something exceptional. The origin of Swedish art was in England in the late "eighties" when we were slumbering on the filthy straw of Victorian opulence. The Sphinx riddle to be answered now is how can British craftsmanship be strengthened and maintained? We do not seek to oppose the machine but we need handwork for the sake of the machine. Putting aside the mechanical crafts such as scientific instrument making, the manufacture of components in bulk, and the production of metal accessories for all the trades; there is urgent need to concentrate on improving the crafts which are germane to everyday things. It will be urged that this is done already by various bodies. Well, my answer to that is, why not allow a little more freedom to the individual; why

dictate so emphatically? We live in an age when most things can be obtained at will from a multiple store. There is a crude standardization, but there is nothing of more than momentary value. Even in circles a little more dignified it is rare to find things shaped to elevate taste and improve manners. We have passed from one phase of fashion to another, a more recent one. There is no real change. I have noticed the same monotony of form, the same fleshy materials and the same boring statements. Everything appears to be so streamlined, so smooth, so practical and so commercial, that the spirit of art seems ironed out. The fact is, the tendency up to the present has been to extol heresy at the expense of truth. You will find proof of this in the low grade productions which capture popular favour. It is left to the few to revolt against such tyranny and seek for better things. The realm of art can be divided into two groups: the contrivers and the recipients. The first group is comparatively small, the second group is legion. There is the thrill of giving and the thrill of receiving graciously; but the giver is required to make sacrifices, the receiver to receive with gratitude. This can only apply to an ideal world.

POPULAR TASTE

From this we gather the usefulness of patronage for encouraging the arts and crafts, but we have the additional task of civilizing the recipients. The aim should be to raise the cult of living by offering to provide beautiful things, not their sordid opposites. The ordinary man is not at present in a position to cultivate the simple pleasures of life; these have to be suggested to him by precept and exemplar. This should not discourage hope of gracious settings on home life. Since the middle of the nineteenth century, when the crafts became fatigued, all sorts of artificial aids have been tried to jerk them into action; alas, without permanent reaction. You will agree that the first principle in craftsmanship is that the object should be well made; the second principle is that it should be good to look upon. If the craftsman is not the designer, then he shares the responsibility of giving pleasure to the recipient of his work. It is also obvious that both designer and craftworker should be in accord; there is still the condition that the public should share in the general motivating ideal. If the latter is national then all is well; if it is merely fashionable then the result will be yet another contribution to a transient art phase. Apparently the taste of a whole people is of great importance to the vitality of the crafts. At one time there was the medieval spirit, at another time the renaissance spirit; these ideals or images did not stultify art endeavour, they were part of the common belief, and the arts and crafts flourished in this belief. It is agreed that an ideal should have a contagious effect. Yes, perhaps so, but we are still faced with the need for an idea suited to the conditions of today. You cannot call forth an ideal at will; it either exists or it is naught. The classic grew out of the pre-classic, which grew out of the primitive. Gothic, on the other hand, grew out of classic. Renaissance art derived from Romanesque and classic. Well, what is the next move? I suggest that if we analyse the character of the arts and crafts in this country through the centuries, we shall recognise that we have an ideal in embryo; the fact that we are accepting our own national standard of achievement for an ideal would inspire respect in all breasts. It is not an unworthy ideal; the alternative is to take an art ideal from some other country.

TOWARDS AN ENDEMIC CRAFTSMANSHIP

From the middle-ages to the present day craftsmanship in this country has achieved some very notable successes. We should be bold and we should acknowledge these

triumphs. Study and suitable exposition would reveal to the mass of the public the existence of a national manner in the crafts. We should form incipient interest and watch it flame like a beacon. The animating spirit for the extension of this national ideal would be the emulation of qualities of craftsmanship rather than sedulous imitation of old forms. It would soon be understood by the clear-minded people, that continuity of endeavour was of great value, and did not, moreover, preclude variation from where originality might succeed. The acceptance of an ideal based on the renaissance of the English character in the arts and crafts would be better than modernism or the new look, super ultraism or any other yearning spasm. The furtherance of such an ambitious enterprise would need the greatest skill, for the minds of all men are different; intellects vary so profoundly; taste is so unequal. Besides, there is no disputing about taste and men and women are impatient of advice. Well, be that as it may, let us suppose that such an ideal as the one suggested could be indicated; the next step would be to encourage its acceptance as a policy in the Schools of Arts and Crafts.

IMAGINATION AND REASON

Those who desire beauty can possess it by using their eyes. Taste can be developed but there are no rules, only certain principles which are useful. Here are the main principles:—(a) The material of which the object is constructed and its intended use must determine the form; (b) the structure of the object must encompass the design; (c) the ornament or decoration, carved or painted, should do nothing more than emphasize the structural form; (d) all ornaments should be conventional.

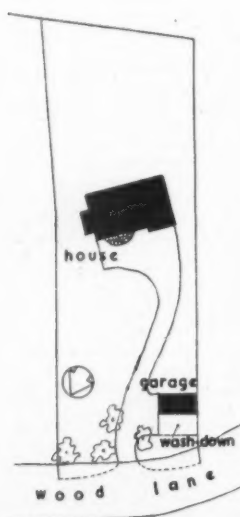
Now if we take the furniture and fittings of say an eighteenth century house we shall find these principles very closely observed. The fact is the old craftsmen were very clear headed; they introduced their own character into the work upon which they were engaged. They did this in an impersonal, disinterested way I am equally certain. When the craftsman became self conscious and sophisticated he developed an inferiority complex with disastrous results. For example, architects discovered they could not design chairs and tables. Regarding the spirit of British craftsmanship, that is the best of it, irrespective of period, style or make, I can say that it is naturalness which makes the greatest impression. The appeal is made to the plastic power of the eye which stimulates the senses, but the appeal emanates in the first instance from the spiritual character of the work or object. The presence of this abstract element is the main secret of every outstanding example of craftsmanship. And what is the essence we name the spiritual other than the manifestation of intuitive reason or discipline. This also explains the sense of equipoise in fine craftsmanship, a sort of nervous tension on the part of the worker which is imparted to the material. This may be due to the desire of the craftsman to be thought progressive, or it may be part of the natural wish in everyone to achieve something fine. When we consider the impelling spirit of the crafts we also encounter the limitations of the skilled hand. We begin to question the origins of form and to wonder. The answer is, the highest is ever constant in the soul of man, forms in fact, a centre from which quality radiates. Craftsmanship is the expression of the imagination and the heart; it is directly related to pleasure, hence the thrill it conveys to those attuned to its merits. It speaks directly to all men; for if it did not it would fail in its chief purpose. It is a very serious accomplishment, not the trifling recreation of idle hours. It has absorbed myriads of human minds through the ages. Its mission is to impart finesse to trivialities and to teach men how to reason.



The entrance front.

HOUSE AT STANMORE, MIDDLESEX

DESIGNED BY RICHARD BETHAM



SITE PLAN

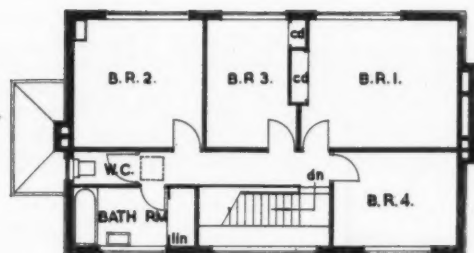
SITE.—The front part of the site slopes steeply from the road. The site is part of a kitchen garden belonging to another house, and had, therefore, the advantage of existing high brick walls and grown trees.

CONSTRUCTION.—The external walls on the ground floor have 11 in. cavity brickwork, and on the first floor 9 in. rat-trap bond faced with Canadian western red cedar shiplap. The front oversail is carried on twin rolled steel joists and cantilever beams. The roof is of grey-green Westmorland slate in graduated courses. The internal partitions are of 4½ in. brick and 2 in. breeze blocks. The floors are deal boards with 8 in. by 2 in. joists to first floor. Ground floor boards are laid on a soft pitch and nailed to breeze screeding on oversite concrete. The ceilings are

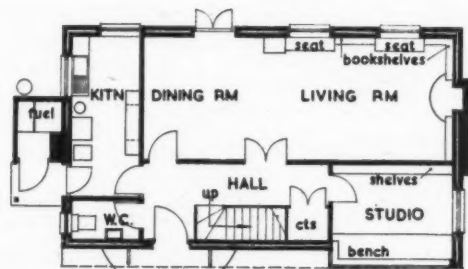
of skim coat of plaster on fibre insulation board.

ELEVATIONAL TREATMENT. The informal elevation towards the road, and the emphasis on texture in the roof and upper part of the external walls were adopted because of the downward approach from the road. The western red cedar shiplap is unpainted and has weathered well. Windows and external doors were purposely made in wood and painted. Brickwork is in Dutch facings of soft multi-colours.

INTERNAL FINISH.—Walls and ceilings are of smooth plaster. Stair and landing balustrades are in oak with Georgian wired plate glass panels. Built-in furniture and fireplace surround in the living room are in African whitewood

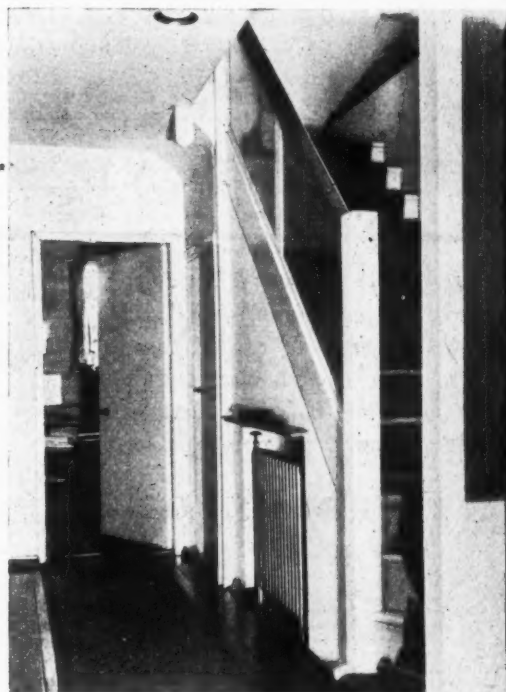


FIRST FLOOR



GROUND FLOOR

[Scale: $\frac{1}{8}" = 1'0"$]



Above, the staircase;
below, the rear elevation.

(Obeche) with cast plaster decorated panels. Other built-in furniture in the studio, kitchen and bedrooms is in painted deal. Walls and ceilings are distempered. The general contractors were Messrs. Rowlands Ltd. For sub-contractors see page 26.



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.

INFORMATION CENTRE

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.

2.38 planning: general 1947 ACT: SUMMARY

Planning Britain's Land: A Summary of Town and Country Planning Act, 1947. (TCPA, 1947. 1s.)

Pamphlet providing concise and accurate information for laymen on pre-war planning Acts, and on planning progress under new Act.

Functions of local planning authorities. Development plan and control. Powers for development of land. Finance of local authorities. Location of industry. Development charges. Short planning bibliography.

7.12 practice BUSINESS ORGANIZATION

Business Methods and Organization for House Builders and Contractors. A. W. Hopkins. (Ken-Pax Publishing Co. Ltd. June 1, 1948. 2nd Ed. 12s. 6d.)

An informative book covering the raising of capital, estimating, office organization, records, costing, materials and their control, and taxation. 60 pages. Illustrated.

In a difficult period such as this, every Master Builder must be particularly concerned with finance—obtaining loans, making proper allowances for his overheads and similar factors in estimates, organizing his office efficiently and so as to achieve an effective check upon job costs and his financial position as a whole, dealing with and allowing for taxation, etc. These are the principal subjects upon which the author offers guidance.

A fair amount of new material has been added, in this edition, including a supplement dealing with "plans, procedures and building licences, etc." It is well written, contains a surprising amount of useful information in a short space, and provides an

effective link between the standard text books on building and accountancy.

7.13 practice COSTING

Costing for Builders. W. Townsend and L. Townsend. (E. & F. N. Spon, Ltd., May 21, 1948. 7s. 6d.)

A system of costing which can be used equally well by a small or large firm. 76 pages and 18 illustrations of cost sheets, order forms, accounts, etc.

The authors consider accurate costing to be sufficiently important to warrant some time and trouble being spent on it by even the smallest firm. For this reason they have not differentiated between firms of various size but have set out what, in their opinion, is the least complicated system to give all the desired results.

Although it is probably difficult to reconcile the attitude of very large and very small firms, the authors have succeeded in producing a clear and practical handbook, amply illustrated with specimen sheets and well indexed. Although the book contains no very revolutionary ideas it should be useful to many practising firms as well as students.

9.6 designs: general BUILDING RESEARCH

Building Research in South Africa. J. E. Jennings. (Building Digest, May, 1948. pp. 185-191.)

General description of recently organized Government Building Research in South Africa under the National Building Research Institute of the Council for Scientific and Industrial Research.

11.7 materials: general NEW BUILDING MATERIALS

New Building Materials. C. Wise (Key-stone, Apr., 1948. pp. 83-84.)

Notes in the form of a general survey of many new types of building material from a lecture given to the Manchester A.B.T.

12.16 materials: miscellaneous LIMESTONE

Limestones of Wales. J. E. Thomas. (Clerks of Works Journal, Apr., 1948.)

Article about lias limestone, silurian limestone and carboniferous limestone, giving the sources of supply and historical notes of interest about the mining and supply of the stone.

The article is a short excerpt from "Wales," Vol. III, published in 1896, and shows an intimate knowledge of the places from which the stone comes. Of interest chiefly to the stone specialist.

12.17 materials: metal COPPER: SOIL CORROSION

Copper Underground: Its Resistance to Soil Corrosion. (Copper Development Ass. Pub. No. 40. 1947.)

Data from laboratory and field tests, and

from practical experience of the behaviour of buried copper tube. Booklet, superseding previous publication *The Resistance of Copper to Soil Corrosion*, has 50 pages, and includes tables showing comparative data of the behaviour of different metals in different soils, several photographic illustrations and a bibliography.

Whereas the information is of value to architects, it is primarily of significance to public utility undertakings whose regulations govern the choice of material for use in underground services.

15.23 materials: applied finishes and treatments FAILURE OF WATER PAINTS

Why Water Paint Flakes. (The Decorator, May, 1948.)

Causes of the breakdown of washable distemper on previously coated and on new walls, and suggestions for minimising the risk of failure.

A clear concise article dealing with the different qualities of pigment and binder, the disadvantages of re-coating without stripping, the action which takes place when the water paint dries and the importance of a good key. The various causes of disintegration are discussed and suggestions are made for the use of sealing coats and for the consistency which the paint should have when it is applied.

15.24 materials: applied finishes and treatments PAINTS AND PAINTING

Painting from A to Z. J. Laurance. (Sutherland Pub. Co. Ltd. 3rd Ed., dated 1947, pub. 1948. 25s.)

A comprehensive guide to paint and painting. 346 pp. with good index. A useful reference book.

The earlier editions of this book should be fairly well known to architects. Since the second edition, published shortly before the war, there has appeared the Post-war Study Committee Report on Painting and the Codes of Practice. These give much of the day-to-day information which the architect requires on the subject, and to that extent perhaps provide a simpler source of reference than this book, which now has as its chief value a completeness which these other treatments of the subject cannot give in their shorter form.

The new edition is not greatly different from the old, but there are a few additions and some small alterations. Architects will find the chapters dealing with paint failures of considerable interest and a useful guide to the solving of their own apparently mysterious paint troubles.

THE LIBRARY OF INFORMATION SHEETS

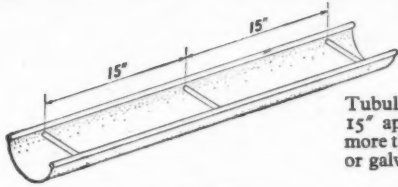


23.B1 REFERENCE BACK

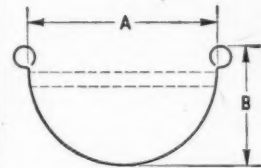
Readers are asked to note the following amendment and to correct their copy of the Information Sheet in question:

In the bottom right-hand drawing the dimension 5 ft. 9 in., establishing the position of the lower hinge, should read to the bottom of the hinge and not to the top of the hinge.

DATA SHEET FOR ARCHITECTS No. 1 HALF ROUND ZINC GUTTERS



Tubular zinc stays are spaced at not more than 15" apart. Gutters are supported at centres not more than 2' 6" apart by galvanized steel brackets or galvanized screws fixed through stays.

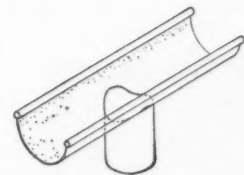


Gutters are made in standard lengths of 6', 7' and 8' and in four sizes as follows:—

A	3"	4"	4½"	5"
B	1½"	2½"	2½"	3"



Alternative beads — half-round gutters are sometimes finished at the back with a simple welt and not a bead.



Outlets — the nozzle should fit at least 2" into the top of the rainwater pipe. At least one outlet is needed for every 30' length of gutter. Gutters should have a fall at least ¼" in 30'.



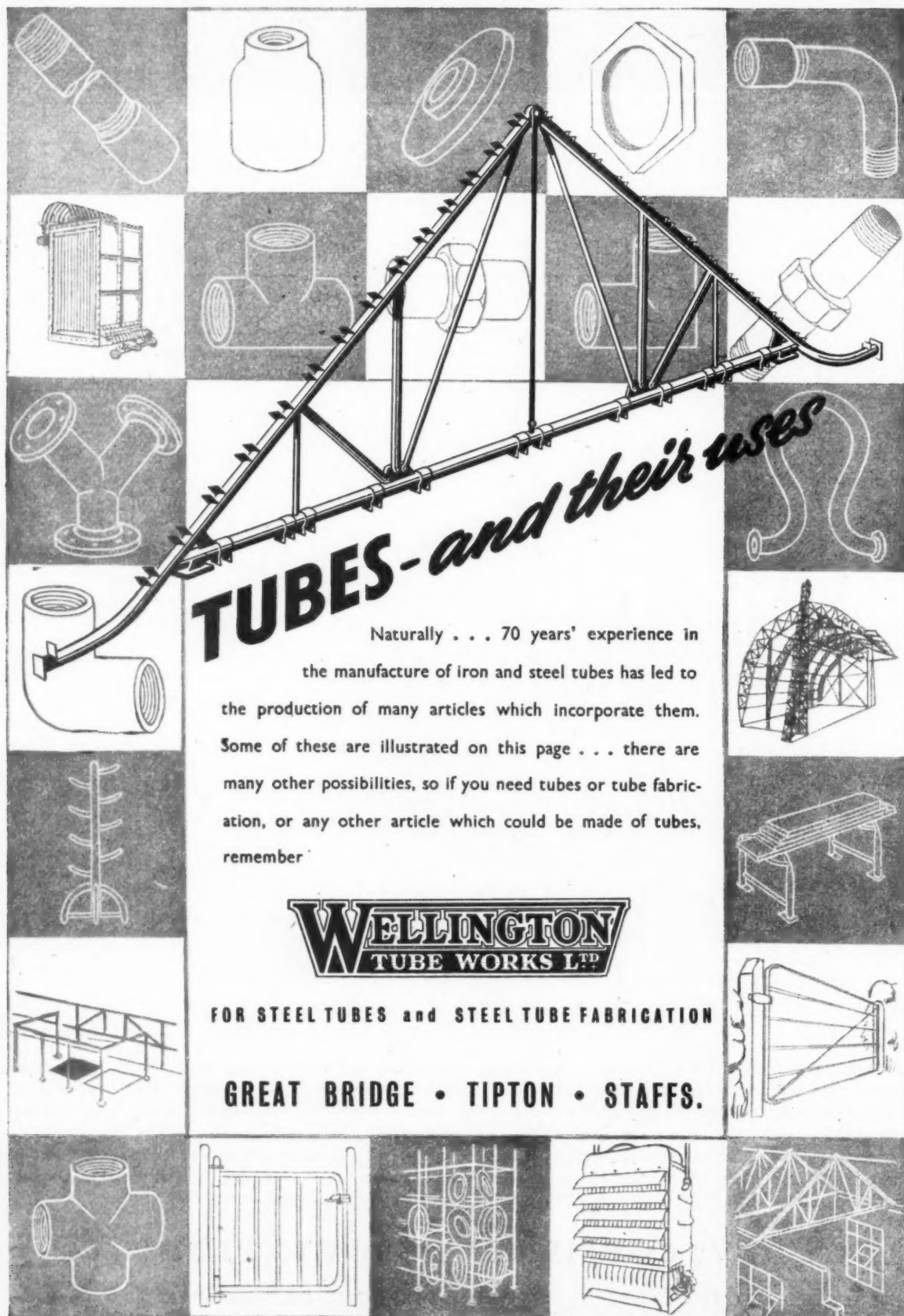
Zinc gutters are suitable for draining all but copper roofs. They are light and easy to handle; and if made of sheet not thinner than No. 12 zinc gauge (23 I.S.W.G.) they are strong and have a maintenance free life of at least 40 years, or for ever, if painted. Various patterns are used and this sheet shows a half-round gutter of standard dimensions conforming to British Standard 1431:1948. Stop-ends,

outlets, mitred corners, etc., can be bought ready made but are better when specially made on the site or in a workshop. Ogee and rectangular gutters of standard dimensions can also be had. Further information on gutters and rainwater pipes and on other uses of zinc in building can be had from the Association together with a list of publications on request.

ZINC DEVELOPMENT ASSOCIATION


LINCOLN HOUSE, TURL STREET, OXFORD TELEPHONE OXFORD 47988





TUBES - and their uses

Naturally . . . 70 years' experience in the manufacture of iron and steel tubes has led to the production of many articles which incorporate them. Some of these are illustrated on this page . . . there are many other possibilities, so if you need tubes or tube fabrication, or any other article which could be made of tubes, remember



WELLINGTON
TUBE WORKS LTD.

FOR STEEL TUBES and STEEL TUBE FABRICATION

GREAT BRIDGE • TIPTON • STAFFS.

19.42 construction: details TIMBER CONNECTORS

Timber Connectors. P. O. Reece. (The Struc. Eng., May, 1948, pp. 275-317.)

Various types of jointing. Modern connectors. Research. Factors affecting the strength of joints. Statistical theory.

One of the most significant advances in modern timber engineering is the development of efficient shear resisting joints. The article deals mainly with connectors consisting of rings or discs which, embedded partly in each of two adjacent members, transmit load from one to the other. More than 60 different types of connectors have been patented in Europe and America. The most important types such as split-ring, toothed ring, bulldog, claw-plate, shear-plate and spike-grid connectors are described and illustrated. Very few data regarding the strength of such connectors are available in this country, so that the Interim Code of Practice for the Structural Use of Timber in Buildings (see No. 18.11) had to be based almost entirely on information obtained from foreign sources. It was therefore desirable to provide independent data by research.

Conditions in the use of timber are rather different in this country from those abroad. The bulk of the constructional work is in housing and single-storey sheds of limited span with light loading. Further, it is unlikely that foundries could satisfy an increased demand for light castings. Consideration of these factors had led to the conclusion that connectors having working loads up to about one ton would meet the requirements. This, in conjunction with the availability of fly-presses and strip-steel, pointed to the bulldog connector as the most fruitful line of investigation to be carried out by the Forest Products Research Laboratory at Princes Risborough.

The article contains preliminary test results on bulldog connectors of 2 and 3 in. diameter with bolts of $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ diameters respectively and variable direction of loading, and their interpretation in the light of statistical theory.

19.43 construction: details PRESTRESSED R.C. IN GERMANY

The Use of Prestressed Concrete in Germany. BIOS Final Report No. 1,721. Item No. 22. (HMSO, 15s. net.)

Description of three main systems of prestressing illustrated by examples.

Although the development in prestressing, both from the point of view of experimental and practical work, was more important in France, Belgium and Switzerland than in Germany during the war, it is worth while studying the widespread use of prestressed concrete in Germany and in countries dominated by the Germans. This report describes the three main systems of prestressing which have been in use in Germany. These are:—

- (1) The Freyssinet system as exemplified by the work of Wayss and Freytag.
- (2) The Hoyer system as exemplified by the work of E. Hoyer and Co.
- (3) The Finsterwalder and Dischinger system, as exemplified by the work of Dyckerhoff and Widmann.

Nearly all the prestressed construction during the war was used for military purposes. In addition, sleepers, pipes and light trusses were also manufactured.

The characteristic feature of the Freyssinet system, as the term is used in this report, is that the wires are fixed by end anchorage devices, whereas the Hoyer system relies on bond alone using small diameter wires. The characteristics of the Finsterwalder and Dischinger systems cannot be explained without diagrams; they are mainly applicable to large span structures.

A tremendous volume of work was carried out by Wayss and Freytag during the war, amounting to nearly 1,500 miles of girders varying in span from 27 to 96 ft. They were used as permanent shuttering for heavy defence work, such as U-boat shelters, where thicknesses of concrete up to 23 ft. 6 in. for the roof were employed. Hoyer manufactured large quantities of beams for use in the Atlantic Wall.

The report deals also with peacetime applications such as bridges, wall, floor and roof slabs, trusses, etc. It comes to the conclusion that prestressing leads to a great economy in materials, but requires high quality materials and highly skilled labour. At present the cost of prestressed concrete is approximately the same as that of ordinary reinforced concrete. With an expanding high strength steel industry, the cost of steel should decrease, and a large demand for the finished product would certainly bring the costs below that of normal construction. It is felt that prestressing has much to offer in the field of housing, provided that production can be undertaken on a large scale.

23.61 heating and ventilation CENTRAL HEATING

Recent Developments in Residence Heating. Part II: Advances in Boiler-Type Heating. W. S. Harris. (Arch. Rec. [USA], Mar., 1948, pp. 145-8.)

House specially built for test purposes, with results of tests and recommendations. Photographs and diagrams.

House at Illinois University built for heating experiments; useful recommendations about size and placing of radiators, especially radiant baseboards, i.e., skirting, about 6 in. x 2 in. running right round the room giving uniform distribution and low temperature gradient.

23.62 heating and ventilation PANEL HEATING

Radiant Heating. R. W. Shoemaker (McGraw-Hill Pub. Co. Ltd., 1948. 24s.)

Primarily for engineers but useful as general reference to architects specially interested in radiant heating. Many illustrations both of pipework and of controls and plant generally. Detailed descriptions of various design methods.

This book is a curious mixture. For 70 pages there is a rather elementary exposition of the virtues of panel heating. This is profusely illustrated by photographs, including some which are not clear enough to explain their meaning and some of the exteriors of panel heated buildings which are of no value at all.

This is followed by detailed descriptions of boilers, control plant and piping which, while primarily useful to engineers, would give architects a very useful background of knowledge and if absorbed would put them in a position to discuss panel heating systems in some detail with their engineers. There follow explanations and samples of various methods of calculation which are too detailed to be of interest to most architects but which should be valuable to engineers.

A book which might usefully be read by architects for general background information.

26.30 services and equipment ELECTRIC GENERATORS

Private Electric Generating Plant. BS C. of P. 323:1948. (British Standards Institution. 2s.)

Covers plant not exceeding 250 kw. and up to 650 volts. General points on selection and installation. Housing the plant, including foundations, choice of system, possi-

bilities of extension or supercession by mains supply, automatic operation and economy of operation.

27.8 furniture and fittings FURNITURE DESIGN

Furniture from Machines. G. Logie. (G. Allen & Unwin, Ltd., 21s.)

Intelligent survey of considerations governing the design of furniture for machine production. Sections on techniques for wood, metals and plastics. Introduction by John Gloag. Bibliography, illustrated. 150 pp.

The references to the actual machines developed or modified for furniture production help considerably to assist understanding of the possibilities of modern methods of production. More space could have been devoted to the diagrams illustrating the operations performed by the machines and less to photographs of the machines themselves.

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

2948 PLAYING FIELDS

Q I am preparing a scheme for a village sports ground and playing field which will involve a considerable amount of levelling to the site. The levelling will be roughly over the area of a full size football pitch and average size cricket ground. The football pitch will overlap the outfield on one side, and the depth of excavation will vary from 3 ft. to nothing, with some parts being made up. What would an approximate cost per yd. cube, using (a) modern machinery or (b) less elaborate methods?

A If the site is normal agricultural land the work should be carried out in four operations, as follows:—

1. Remove vegetable soil from the parts to be excavated and the parts to be filled up and wheel and deposit in temporary spoil heaps.
2. Excavate subsoil as necessary and wheel, spread, level and consolidate elsewhere.
3. Remove vegetable soil from temporary spoil heaps and spread and level over site.
4. Preparing and seeding.

If, as you suggest, there will be a fair depth of excavation over the area of a football pitch and cricket ground, it would be quite uneconomical to do the work other than by mechanical means. The cost of this would depend a great deal upon the total volume of work, the locality of the site and the existence, or otherwise, of a local contractor with plant available, but average prices are as follows:—

Operation 1 as above (including wheeling a distance not exceeding 100 yards), 3s. per yd. cube.

Operation 2 as above, 3s. per yd. cube.
Operation 3 as above (including wheeling as before), 2s. 6d. per yd. cube.

As regards operation 4—preparing and seeding—it would probably be most economical for a local farmer to do the harrowing and seeding. It is difficult to lay down an "average" price, and you would be advised to get a quotation.

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

THE INDUSTRY

COOKER DESIGN

In these notes a reference was made (May 13) to the C49 cooker produced by British National Electrics. The oven of this cooker has a drop down door, and it was suggested that features of this type need careful design, owing to the heavy load on the hinges. B.N.E. write pointing out that the door of their cooker is an aluminium casting and that even with a pre-war joint (should such a thing ever appear again) the hinges are strong enough to carry the load. The other point, that the door is liable to be used as a step, they deal with as follows, "... the two front domed feet have been stepped back from the front of the cooker. As a result of this, immediately a person's weight is applied to the door the cooker will tilt forward. This occurs before the balance of the foot remaining on the floor is lost, and the forward tilt of the cooker is arrested by the front edge of the base ... thus proving to the user that the cooker cannot be used as a step and removing the possibility of an accident." (British National Electrics, Ltd., Newarthill, Motherwell, Scotland.)

AUTOMATIC GATES

The self-opening gate or door, actuated by a photo-electric cell or some other automatic device, is no new thing, but in the past the various installed examples have been more in the nature of an amusing toy

than a piece of practical equipment for everyday use. It is interesting, therefore, to find that the Bolton Gate Co., who have for years been making collapsible gates and doors of all kinds, have introduced a more or less standardized control gear for electrically operated gates, the illustration on this page showing a typical factory installation.

In this instance the photo-electric cells are mounted on floor pedestals (4), though they could, of course, equally well be on a wall if the gate were in a passage way. Any vehicle passing between the pedestals cuts the light ray and starts the motor (6) via the starter switch (1). This opens the gate so that the vehicle can pass through, after which the gate is closed by a time relay switch (2) which can be adjusted to a suitable interval. As an alternative the door can be closed by a further photo-electric unit on the far side. A limit switch (3) shuts off the motor as soon as the door has closed, and there is a hand operated clutch (5) for disengaging the motor gear so that the door can be used in the ordinary way in the event of a current failure.

At first glance it may seem that all this is an unnecessary complication for such a simple thing as a door, but there are numerous occasions in factory work where doors must be kept closed for production reasons, or to keep out unwanted cold air when the door opens on to a factory road. In these days of mechanised internal transport it is too much to expect truck drivers to dismount twice to open the door and then close it behind them; anyone who has motored along a gate ridden country lane will sympathise with this outlook. The standard technique is to open the door and then give it a hopeful push on the way through, with the result that it is left half shut and the next driver either thinks there is room enough to go through the gap or that the door can be pushed open with the front of the truck. Either way the door soon becomes unserviceable, and an installation of this kind, although it is bound to be comparatively expensive in first cost, should be able to pay for itself by the saving in maintenance and factory time.

(The Bolton Gate Co. Ltd., Waterloo Street, Bolton, Lancs.)

DATA ON PLASTICS

The plastics industry has so many trade names and technical terms of its own that the basic facts tend to be somewhat obscure. In a praiseworthy attempt to provide a simple outline of the essential plastic compounds, Celanese have recently issued an *Introduction to Plastics* which is "designed to interest senior students in secondary schools." This claim is far too modest, for in 70 pocket size pages there is a great deal of information which, although it is certainly not beyond secondary school intelligence, none the less makes an admirable introduction. There is naturally a brief historical note, and this leads to an outline of the main thermosetting and thermoplastic groups. The raw materials which go to make the resins, and the manufacturing processes, are discussed, and this leads on to a description of the various methods by which the finished article can be produced. Finally, we come to an appendix dealing with the chemistry of plastics. This is a fairly formidable subject for those whose school chemistry got no further than the inorganic compounds with simple and comparatively intelligible formulae and equations. Organic chemists, on the other hand, draw conventionally formalised pictures with symbols to indicate the molecular structure of the product. It would be absurd to suggest that the subject can be covered in twelve small pages, but one is at least able to gain a glimmer of understanding, particularly as there is a glossary to explain the many words one has forgotten. An admirable piece of prestige publicity which every architect and student could with advantage read at least once.

The same firm has also produced a similar booklet, *Man-Made Fibres*, which deals with the production processes and colour printing and weaving methods of the rayon industry. An excellent outline, but of less interest to architects. (The Educational Publicity Department, Celanese House, Hanover Square, London, W.1.)

COTSWOLD DALE STONE

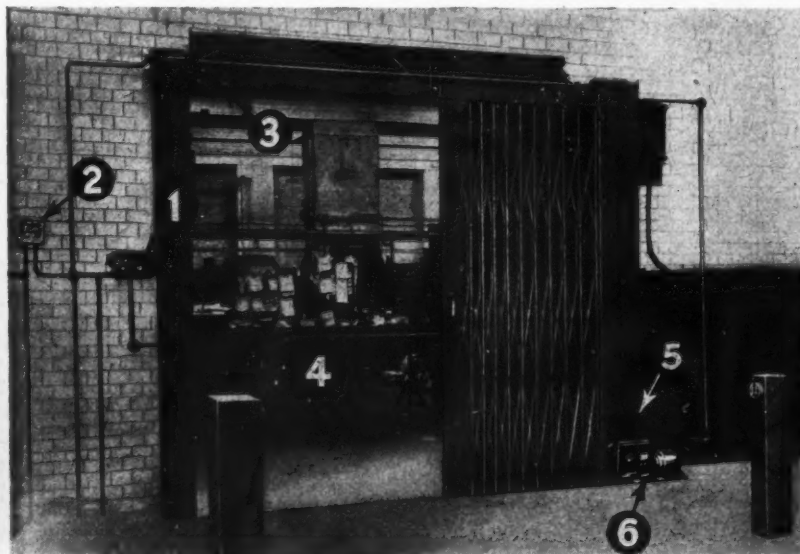
Most architects give a very real shudder when looking through any catalogue of standard fireplaces, but a recent effort by the Cotswold Dale Stone Company has a number of designs which are a long way ahead of the horrors one sees at the average exhibition. The company now has some 20 standard designs, but they wisely add, "although we are always glad to work to architect's own details, as they usually prefer."

Cotswold Dale stone is a comparatively hard oolite, quarried only in the Tetbury district. It is a warm cream in colour, though it can if necessary be toned down to a dark cream, or even stone grey.

The history behind these fireplaces is interesting. The firm managed to keep a great number of their skilled banker masons during the war years and have a number of young apprentices. But the dearth of high-class masonry work since the war forced them last year either to close down altogether or to find a new outlet. Rather than let their skilled masons become bricklayers they have embarked on these standard fireplaces as a stop-gap "until better times arrive." Good luck to them; skilled masons are too valuable and too rare to be allowed to drift away into other employment. (The Cotswold Dale Stone Company, Market Place, Tetbury, Glos.)

PLASTIC TILES

Injection moulded polystyrene wall tiles are now being produced in various sizes and colours. They are light in weight, moisture absorption is so low as to be negligible, and are made with a chamfered edge so that the joint is almost invisible. Colours so far



Self-opening gate actuated by photo-electric cell control. In this typical factory installation the photo-electric cells are mounted on floor pedestals (4). Any vehicle passing between the pedestals cuts the light ray and starts the motor (6) via the starter switch (1). This opens the gate so that the vehicle can pass through, after which the gate is closed by a time relay switch (2). A limit switch (3) shuts off the motor as soon as the door has closed and there is a hand operated clutch (5) for disengaging the motor gear so that the door can be used in the ordinary way.

are white, cream, pink and black, with some pastel shades and various mottled effects; the colours are permanent, and go right through the material. Sizes so far are 4 in. by 4 in., 6 in. by 6 in. and 6 in. by 3 in., with sundry strip and internal and external radius tiles. Price is 22s. 9d. a square yard, not including fixing. (*Don Tyles, Ltd., Thorne, Doncaster.*)

Corrigenda

Schools Costs

A.J., for June 10, page 540. The cost per place quoted (£150) is applicable to Junior and Infants Schools only. Secondary Schools cost much the same per ft. cube or per ft. sup., but much more per place, owing to the greater amount of accommodation required per pupil, etc. For this very reason, pricing "per place" should be left to the expert, as suggested in the article.

Bibliography

A.J. for June 10. Page 541, column 3: Section beginning *Nursery Schools: Some Planning Principles based on Child Psychology* and ending with *Community Centres* should be inserted after last item on page 543. Page 543, column 2: Section beginning *Higher Technical Education: Report* and ending with *Community Centres and Community Associations in New Town Developments* should be inserted at end of column 2, page 541.

Rye Cinema

In our issue for June 17 it should have been stated that the roof of Rye Cinema was designed and constructed in aluminium alloys by Messrs. Structural & Mechanical Development Engineers, Ltd., of Slough.

Announcements

Mr. F. E. Wilkins, L.R.I.B.A., has removed his office to Prudhoe House, 808, High Road, Tottenham, N.17 (TOT. 7318), where trade catalogues and price lists will be welcomed.

Mr. F. R. Davis Crockett, L.R.I.B.A., has acquired the practice of Mr. C. C. G. Osborne, A.R.I.B.A., who is taking up an appointment abroad, and will be pleased to receive trade catalogues, etc., at Portland Chambers, West Street, Fareham, Hampshire (Fareham 2187).

Mr. N. S. Sutherland, F.I.A.A. & S., who has been appointed Burgh Architect and Town Planning Officer, Kilmarnock, Ayrshire, would be pleased to receive trade catalogues, etc.

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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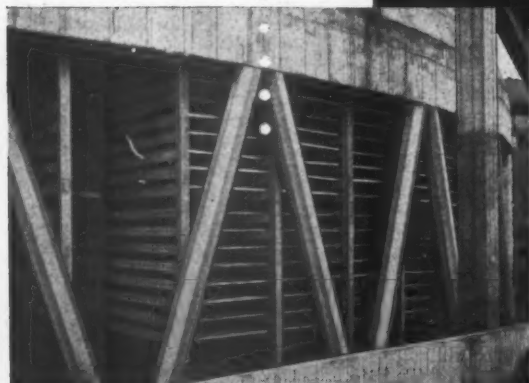
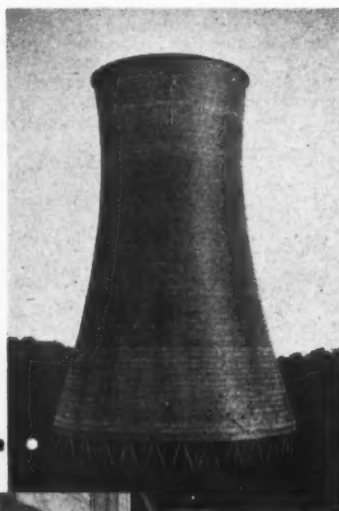
A.J. 1.7.48

Buildings Illustrated

House at Wood Lane, Stanmore. (Pages 20-21). Architect, Richard Betham, A.R.I.B.A. General Contractors, Messrs. Rowlands, Ltd. Sub-contractors: Structural steel, T. C. Jones & Co. Ltd.; Slates, Westmorland Green Slate Quarry; Radiators and Boiler, Crane, Limited; Sanitary Fittings, W. N. Froy, Ltd.; Door Furniture, Nettlefold & Sons, Ltd.; Marble, Anselm Odling & Sons, Ltd.; Built-in Furniture, William Woodland.

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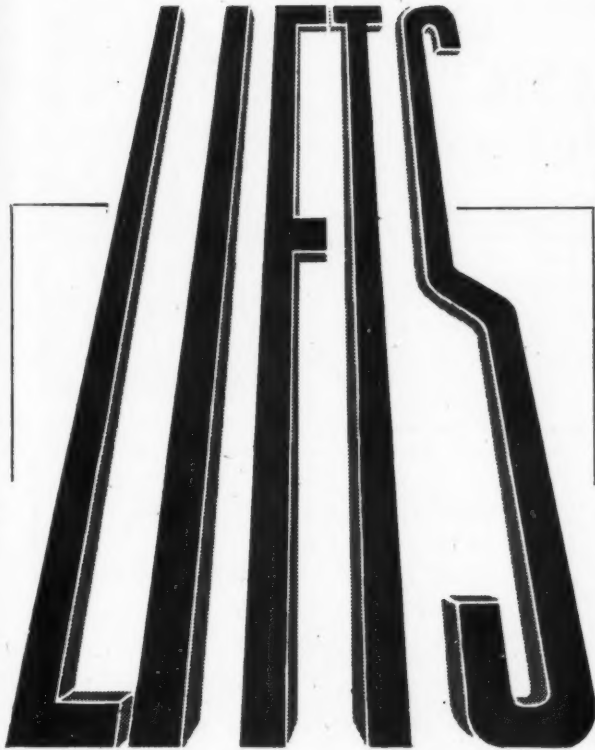
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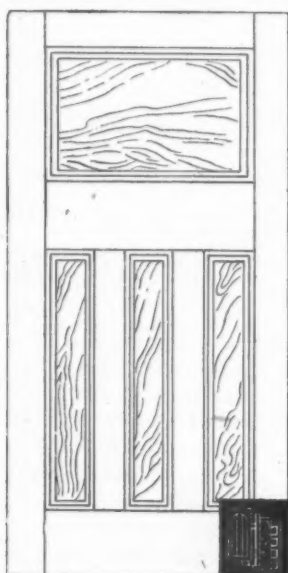
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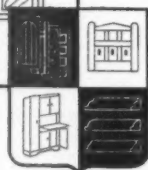
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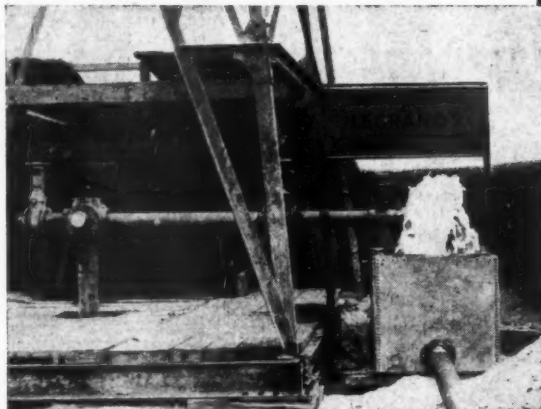


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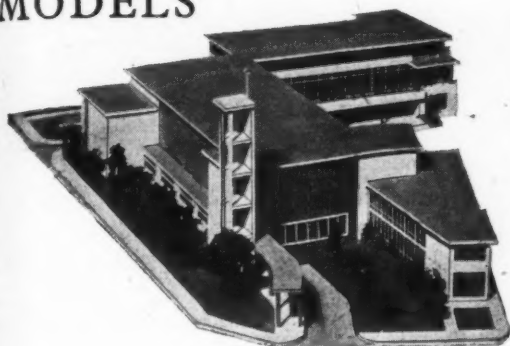
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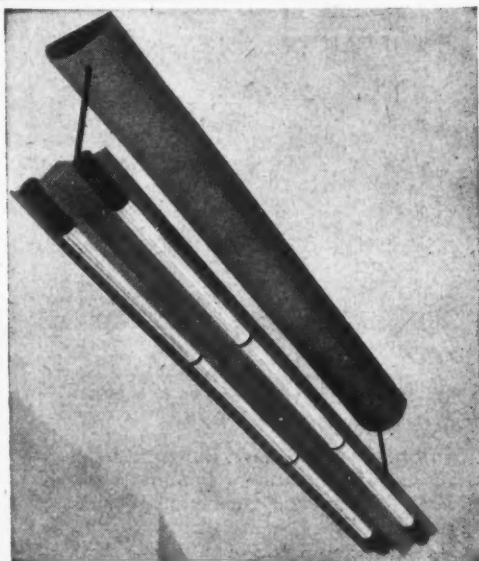
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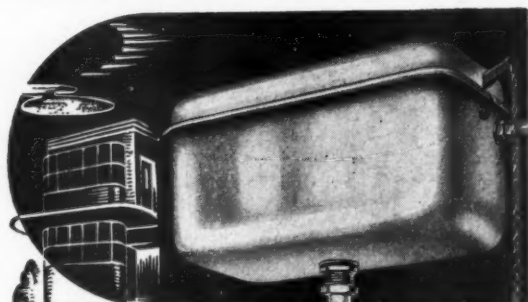
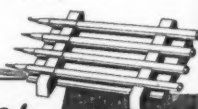
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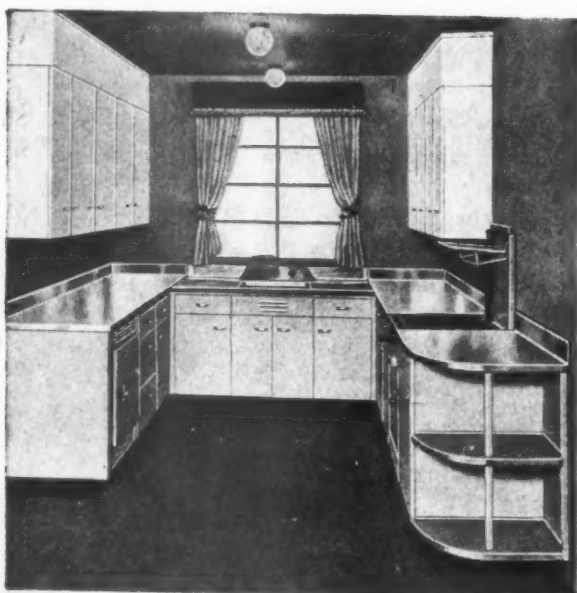
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None of the vacancies in these columns relates to a man between the age of 18 and 50, inclusive, or a woman between the age of 15 and 40, inclusive, unless he or she is excepted from the provisions of the Control of Engagement Order, 1947, or the vacancy is for employment excepted from the provisions of that Order.

Public and Official Announcements

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

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

LONDON COUNTY COUNCIL.

HOUSING AND VALUATION DEPARTMENT.
ARCHITECTURAL ASSISTANTS. Applications are invited for positions of Architectural Assistant, at salaries of up to £580 a year. Commencing salaries will be determined according to qualifications and experience, and qualified candidates will be eligible for appointment to the permanent staff of the Department on the occurrence of vacancies. Engagement will involve Superannuation contributions at the rate of 5 per cent. of salary.

Successful candidates will be required to undertake the design, layout, and preparation of working drawings for housing schemes (cottages and multi-storey flats), and will be employed in the Housing Architect's division.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed foolscap envelope required). Canvassing disqualifies. (870) 1132

WARWICKSHIRE COUNTY COUNCIL.

COUNTY PLANNING DEPARTMENT.

Applications are invited to fill the following vacancies:

(a) SENIOR PLANNING ASSISTANT. A.P.T. Grade VII (£635-£710 per annum).

(b) PLANNING ASSISTANT (RESEARCH). A.P.T. Grades VA/VI (£550-£660 per annum).

(c) THREE PLANNING ASSISTANTS. A.P.T. Grade II (£420-£465 per annum).

The appointments will be subject to the National Scheme of Conditions of Service and to the provisions of the Local Government Superannuation Act, 1937. Successful candidates will be required to submit a satisfactory medical certificate on an approved form.

The successful applicant for appointment (a) will be in charge of the work in connection with the preparation of the Development Plan for one part of the County and will be stationed at Warwick. He should be a Corporate Member of the Town Planning Institute and should have had planning experience with a County Council or a Joint Planning Committee.

Applicants for appointment (b) should have experience in the collection of survey material and research work as applied to planning.

Applicants for post (c) should have had experience in a planning office.

Applications, endorsed "Planning Assistant (a), (b) or (c)," stating age, qualifications, technical experience and training, should be accompanied by copies of two recent testimonials, and should be delivered to J. J. Brooks, M.T.P.I., M.I.Mun.E., County Planning Officer, Shire Hall, Warwick, not later than Monday, 12th July, 1948.

L. EDGAR STEPHENS,

Clerk of the Council.

Shire Hall, Warwick.

1111

COUNTY BOROUGH OF HUDDERSFIELD.

BOROUGH ARCHITECT'S DEPARTMENT.

ARCHITECTURAL ASSISTANT (GRADE I).

Applications are invited for the appointment of an Architectural Assistant, at a salary in accordance with Grade A.P.T., I, of the National Scales of Salaries. Salary £390 per annum, rising by annual increments of £15 to £435 per annum.

Applicants should have received a recognized training, and be neat and expeditious draughtsmen, with a sound knowledge of construction.

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

Applications, endorsed "Architectural Assistant," accompanied by copies of not more than three recent testimonials, must reach the Borough Architect, High Street Buildings, Huddersfield, not later than Saturday, the 24th July, 1948.

Canvassing, directly or indirectly, will disqualify.

HARRY BANN,

Town Clerk.

Town Hall, Huddersfield.

June, 1948.

1143

CAMBRIDGESHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:

(a) ASSISTANT ARCHITECT (Permanent). Grade V, A.P.T. Division. Consolidated salary, £520-£570.

(b) TWO ASSISTANT ARCHITECTS (Temporary). Grade VI, A.P.T. Division. Consolidated salary, £596-£660.

(c) ENGINEERING ASSISTANT (Temporary). Grade VI, A.P.T. Division. Consolidated salary, £596-£660.

(d) TWO TECHNICAL ASSISTANTS. Miscellaneous, Division I. Consolidated salary, £315-£360.

Candidates for (a) and (b) should be fully qualified Architects and members of the Royal Institute of British Architects, and have had experience in design and construction of all types of public buildings.

Candidates for (c) should be fully qualified Heating, Ventilating and Electrical Engineers, and have had experience in the preparation of schemes, including writing specifications and preparing estimates of costs.

Candidates for (d) should be Student Members of the Royal Institute of British Architects, and should be able to prepare drawings from preliminary sketches and have a good knowledge of construction.

Applications, stating age, qualifications and experience, accompanied by one recent testimonial and the names and addresses of two referees, should be sent to the Clerk of the County Council, Shire Hall, Cambridge, not later than the 8th July, 1948.

The appointments will be subject to one month's notice on either side, and the selected candidates will be required to pass a medical examination.

CHARLES PHYTHIAN,

Clerk of the County Council.

Shire Hall, Cambridge.

1140

LANCASHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

APPOINTMENT OF DEPUTY COUNTY ARCHITECT.

Present salary scale, £1,335-£75 to £1,560.

Under review for higher grading.

Applications are invited for the above appointment from Members of the Royal Institute of British Architects, who have had experience of the administration of a large Local Government Department and are able designers.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937: to a satisfactory medical examination, and to the termination of each appointment by three months' notice in writing by either party. Applications should be made on forms to be obtained from G. Noel Hill, F.R.I.B.A., M.T.P.I., County Architect, County Office, Preston, to whom they should be returned, accompanied by copies of three recent testimonials, to arrive not later than Saturday, 10th July, 1948.

R. H. ADCOCK,

Clerk of the County Council.

County Offices, Preston.

17th June, 1948.

1139

LONDON COUNTY COUNCIL.

QUANTITY SURVEYORS.

Vacancies exist for Quantity Surveyors, in the Housing and Valuation Department, for work in connection with the development of cottage estates and the construction of multi-storey dwellings, at consolidated salaries of up to £580 a year, the commencing salary in each case being determined according to qualifications and experience. Successful candidates will be required to contribute to the Council's Superannuation and Provident Fund, and will be eligible for appointment to the Council's permanent staff and for advancement on the occurrence of vacancies.

Duties will include:—

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

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

Forms of application may be obtained from the Director of Housing and Valuer, The County Hall, Westminster Bridge, S.E.1 (a stamped addressed foolscap envelope required). Completed forms must be returned not later than seven days after the appearance of this notice. Canvassing disqualifies. (632) 997

LONDON COUNTY COUNCIL.

VACANCIES FOR TECHNICAL ASSISTANTS

IN THE ARCHITECT'S DEPARTMENT.

Applications are invited for positions of Technical Assistant in the Architect's Department. Salary: Section (a), £440-£230-£580 a year; Section (b), 55s. to 167. 6d. a week. Required for the preparation of drawings, specifications, and estimates for works at schools and other buildings.

Successful candidates may be required to contribute to the Council's Superannuation and Provident Fund, and be eligible for permanent appointment and for advancement to higher positions according to merit.

Application forms may be obtained from the Architect to the Council (A), County Hall, Westminster Bridge, London, S.E.1, enclosing stamped addressed foolscap envelope. Canvassing disqualifies. (1376) 993

LANCASHIRE COUNTY COUNCIL.

COUNTY PLANNING DEPARTMENT.

Applications are invited for SENIOR PLANNING ASSISTANTS, A.P.T. Grade VIII (consolidated salary, £685-£25 to £760 per annum), in the Lancaster, Accrington and Manchester offices of the County Planning Department.

The successful candidates will act as Deputies to the Senior Divisional Planning Officers, who are responsible for planning work in their respective areas. Candidates must, therefore, have had a wide practical experience in the preparation and administration of planning schemes and possess a sound knowledge of the various Acts and Orders dealing with Town and Country Planning.

Preference will be given to candidates possessing one or more of the following qualifications:—University Degree in Civil Engineering or Architecture, A.M.T.P.I., A.M.I.C.E., A.R.I.B.A., A.M.I.Mun.E., P.A.S.I.

The appointments will be subject to the National Joint Council's Scheme of Conditions of Service, and to the Local Government Superannuation Act, 1937.

Testimonials are not required, but applicants should give the names of two persons to whom reference may be made.

Applications, stating age, qualifications and experience, should be received by the undersigned not later than Saturday, the 17th July, 1948.

R. H. ADCOCK,

Clerk of the County Council.

County Offices, Preston.

June, 1948.

1156

COUNTY BOROUGH OF DERBY.

BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointment on the permanent staff, in accordance with the National Scale of Salaries:—

ONE JUNIOR ARCHITECT, Grade I. Salary £390-£435 per annum.

Applicants should have passed the Preliminary Examination of the R.I.B.A. and have had experience in general architectural work.

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

Forms of application may be obtained from Thos. W. East, F.R.I.B.A., Borough Architect, The Council House, Corporation Street, Derby, and should be returned when completed, together with copies of two recent testimonials, to arrive not later than Saturday, 10th July, 1948.

Canvassing, directly or indirectly, will be a disqualification.

C. ASHTON,

Town Clerk.

Market Place, Derby.

1153

LONDON COUNTY COUNCIL.

VISITING TEACHERS. are required from time to time at Brixton School of Building, Ferndale Road, S.W.4, in the following subjects:—Building Construction, Building Science, Building Geometry, Mathematics, Land Surveying, Quantity Surveying, Valuations, Architectural Design, Draughtsmanship, Builders' Accountancy, Builders' Estimating, Structural Engineering Subjects (including Structural Theory, Specifications, Steelwork Design and Details, Reinforced Concrete Design and Details). Persons who hold appropriate professional qualifications and have had responsible experience in practice and wish to be considered for approval, should write for an application form to the Principal at the School, enclosing a stamped addressed foolscap envelope. (1575) 1151

COMMONWEALTH OF AUSTRALIA.

ARCHITECTS.

The Australian Department of Labour and National Service is seeking fully qualified ARCHITECTS for positions of Architect (Research), in the Factory Standards and Design Branch of the Department in Melbourne, Sydney, Adelaide and Brisbane. The work of the Branch includes: investigations and research into technical problems of factory design in relation to physical working conditions (e.g., ventilation, heating, insulation, natural and artificial lighting, amenities); collaboration with industrial undertakings in experiments and demonstrations; provision of a technical information service to industry, professions, and Government Departments on aspects of factory design affecting physical working conditions.

Salary Ranges: Grade III, £756-£823 p.a. Grade II, £598-£733 p.a. Grade I, £598-£688 p.a. Commencing salaries within the ranges fixed according to qualifications and experience.

Qualifications: Degree, diploma or registration as an architect by examination; experience in design of industrial buildings, some knowledge of requirements of lighting and mechanical services for industrial buildings; preferably aptitude for or experience in research and preparation of technical information for publications.

Terms of Engagement: Guarantee of two years' employment, subject to satisfactory service.

Further Particulars: Further particulars will be sent to applicants with suitable qualifications and arrangements made for an interview.

Applications: Giving full name and address, date and place of birth, nationality, war service, and full details of professional qualifications and experience, should be sent, as soon as possible, to Mr. T. C. Graham, Australia House, Strand, London, W.C.2.

1169

**UXBRIDGE URBAN DISTRICT COUNCIL.
ENGINEER AND SURVEYOR'S
DEPARTMENT.**

APPOINTMENT OF PLANNING ASSISTANT.

Applications are invited for the appointment of Planning Assistant, on the permanent establishment of the Department of the Engineer and Surveyor, on Grades IV and V of the Administrative, Professional and Technical Division of the National Scale (£250, rising, subject to satisfactory service, to a maximum of £600 per annum). The commencing salary will be fixed according to the qualifications and experience of the successful applicant.

Applicants must be fully experienced in the preparation and administration of planning schemes, including interim development control, and preference will be given to those possessing a recognized planning certificate.

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

Applications, stating age, whether married or single, examination qualifications and experience, and giving the names of three persons from whom references may be obtained, should be addressed to the undersigned in a sealed envelope endorsed "Planning Assistant," and delivered not later than Saturday, 10th July, 1948. Canvassing, either directly or indirectly, will disqualify.

JOHN POOLE,
Clerk of the Council.

Council Offices, 265, High Street,
Uxbridge, Middlesex. 1164

METROPOLITAN BOROUGH OF POPLAR.

Appointment of:—

(a) **ARCHITECTURAL ASSISTANT (A.P.T., IV).**

(b) **TECHNICAL ASSISTANT (Direct Labour Building Section), A.P.T. III.**

Applications are invited from suitably qualified persons for the above-mentioned appointments, on the permanent establishment of the Works Department.

Full details of the appointments and forms of application may be obtained from the Borough Engineer and Surveyor, Poplar Town Hall, Bow Road, E.3, to whom completed applications must be delivered not later than first post on Monday, 19th July, 1948. 1163

HEREFORDSHIRE COUNTY COUNCIL.

Applications are invited for the following appointment, on the permanent staff of the County Architect's Department:—

CHIEF ASSISTANT ARCHITECT. At a salary according to qualifications and experience within the limits of Grade A.P.T. VII, of National Salary Scales, i.e., £635 to £710 per annum. Candidates must be Fellows or Associates of the R.I.B.A., and proficient in the design and construction of such public buildings as are usually undertaken by a Local Authority. In addition, previous experience in the control of staff, together with a sound knowledge of Local Government procedure, is essential. The successful candidate will be required to pass a medical examination and will be required to provide a car, for which a travelling allowance will be paid in accordance with the scales adopted by the Council.

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

Forms of application may be obtained from the County Architect, W. Usher, A.R.I.B.A., County Offices, Bath Street, Hereford. Completed applications must reach the County Architect by not later than 21st July, 1948. 1182

HIS MAJESTY'S COLONIAL SERVICE.

Applications are invited for the post of ARCHITECT to the Government of Mauritius. The appointment is on contract for a period of three years in the first instance, with the prospect of subsequent transfer to the permanent establishment.

Salary Rs14,000 per annum (one rupee=1s. 6d.). A cost-of-living allowance of Rs.650 per annum is payable in addition to the salary and is subject to revision at any time, and a travelling allowance at rates provided under the local regulations. Outfit allowance of £30 on first appointment. Free quarters are not provided. The selected Officer will be in charge of the newly created Architectural branch of the Development and Welfare Organization, and will be responsible for all architectural work undertaken by the Government. Candidates must be Associates of the R.I.B.A. or possess an equivalent qualification and, in addition, must hold the degree or diploma of a recognized School of Architecture. Previous experience in the architectural department of a public authority would be an advantage, but is not essential. Preference will be given to candidates with Town Planning experience.

The terms of service include free passages for the Officer and, if married, for his wife, once each way each tour, and for the Officer's children, up to a maximum of three, on first appointment and on termination of the period of contract, free medical attention, and home leave on full pay after tours of three years at the rate of four days for each month of resident service. A gratuity is payable on satisfactory completion of the period of contract if the Officer is not selected for transfer to the permanent establishment.

Applicants should write at once to the Director of Recruitment (Colonial Service), Colonial Office, 15, Victoria Street, London, S.W.1, stating age, professional qualifications and experience. 1180

**THE STATE OF VICTORIA.
RECRUITMENT OF SURVEY PERSONNEL IN
GREAT BRITAIN.**

Applications are invited from qualified persons in Great Britain for appointments as SURVEY DRAUGHTSMEN. Topographers and Cartographic Assistants in the Public Service of the State of Victoria.

SURVEY DRAUGHTSMEN (Grade I). Qualifications: A degree held from a recognized British University in a school of studies, including subjects pertaining to surveying, plus three years' post-graduate experience in some branch of surveying or to have been a commissioned survey officer of the Royal Engineers, and to have had at least five years' experience of mapping. Qualifications equivalent to the above will be considered. Salary range: (Australian currency), £501, rising by two annual increments of £26 to £553, plus cost-of-living allowance, at present £60.

SURVEY DRAUGHTSMEN (Grade II). Qualifications: As Surveyor (Trigonometrical), Class I or II(a) or II(b), Royal Engineers, or a similar qualification of the British Ordnance Survey, plus 5 years' experience in mapping; or to be a thoroughly trained geodetic computer, with actual field experience in trigonometrical survey. Qualifications equivalent to the above will be considered. Salary range: (Australian currency), £436, rising by one increment of £26 and one of £13 to £475, plus cost-of-living allowance, at present £60.

SURVEY DRAUGHTSMEN (Grade III). Qualifications: To have passed a public examination in Algebra, Geometry and Trigonometry, equivalent to the School Certificate examination in these subjects, to be a capable penman and to have had at least 4 years' experience in some branch of surveying; or to be a capable penman and plane surveying computer, and to have had at least 10 years' experience in some branch of surveying. Salary range: (Australian currency), £364, rising by one annual increment of £26, one of £20 and one of £13 to £423, plus cost-of-living allowance, at present £60.

TOPOGRAPHERS (Grade III). Qualification: As Surveyor (Topographical), Class I, Royal Engineers. Equivalent qualifications to this will be considered. Salary range: (Australian currency), £364, rising by one annual increment of £26, one of £20, and one of £13 to £423, plus cost-of-living allowance, at present £60.

CARTOGRAPHIC ASSISTANTS. Qualification: To be a first-class penman, with experience in drawing maps and plans for reproduction (note: specimens of penmanship should accompany applications for these positions). Salary range: (Australian currency), £364, rising by two annual increments of £26 to £416.

Note.—All above salary figures are in Australian currency. Present rate of exchange, £1 sterling = £1 5s. Australian.

Applications should be made, in the first place, to: The Agent-General for Victoria, Victoria House, Melbourne Place, Strand, London, W.C.2. 1178

**COUNTY COUNCIL OF DURHAM.
APPOINTMENT OF DEPUTY COUNTY
PLANNING OFFICER.**

Applications are invited from persons who have had considerable experience in planning work for the appointment of Deputy County Planning Officer for the County of Durham, at a salary of £600 per annum, rising annually, subject to satisfactory service, by £30 to £750 per annum, plus the appropriate cost-of-living bonus.

Applicants must be at least Associates or Members of the Town Planning Institute. Applications, setting out in detail particulars as to age, married or single, education, qualifications, present and previous appointments held, must be forwarded to me at the address given below, so as to reach me on or before the 24th day of July, 1948. Applicants should state the names of two or more persons to whom reference may be made.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination by the Council's Medical Officer. The appointment will be terminable by three calendar months' notice on either side.

Canvassing, either directly or indirectly, will disqualify, and applicants must disclose in writing whether to their knowledge they are related to any member of the Council or to the holder of any senior office under the Council.

J. K. HOPE,
Clerk of the County Council.

Shire Hall, Durham,
24th June, 1948. 1184

**THE RURAL DISTRICT COUNCIL OF
GODSTONE.
ENGINEER AND SURVEYOR'S
DEPARTMENT.**

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT. Salary, A.P.T., Grade III, £450—£15—£495, and travelling allowance according to the National Scale.

Preference will be given to those applicants who have obtained the qualification of the R.I.B.A.

Applications, stating age, qualifications and experience, together with copies of not more than two testimonials, should be delivered immediately.

A flat is available (if required) for the successful applicant.

F. W. WALPOLE,
Clerk.

Council Offices, Oxted, Surrey.
22nd June, 1948. 1167

**COUNTY BOROUGH OF WEST HAM.
BOROUGH ARCHITECT AND PLANNING
OFFICER'S DEPARTMENT.**

Applications are invited for the permanent post of:—

(a) **SECTIONAL CHIEF** (Public Buildings and General Works).

(b) **SECTIONAL CHIEF** (Statutory Planning).

(c) **ASSISTANT ARCHITECT** (Education).

(d) **ARCHITECTURAL ASSISTANT** (General).

(e) **ARCHITECTURAL ASSISTANT** (General).

Salaries for posts (a) and (b), Grade A.P.T. VIII, £685 × £25—£760; post (c), Grade A.P.T. IV, 480 × £15—£525; post (d), Grade A.P.T. II, £420 × £15—£465, and post (e), Grade A.P.T. I, £390 × £15—£435, plus London allowance.

Application forms and particulars obtainable from the Borough Architect and Planning Officer, 100, West Ham Lane, E.15, and applicants must state clearly post for which they apply.

Forms to be returned by 17th July, 1948. 1162

**COMMONWEALTH OF AUSTRALIA.
ARCHITECTS OR ENGINEERS.**

The Australian Department of Labour and National Service invites applications from British subjects, with qualifications in Architecture or Engineering, for appointment to the position of OFFICER-IN-CHARGE, Factory Standards and Design Branch, in Adelaide and Brisbane. The work of the Branch includes investigations and research into technical problems of factory design and equipment in relation to physical working conditions (e.g., ventilation, heating, insulation, lighting, safety, amenities, etc.); collaboration with industrial undertakings in experiments and demonstrations; provision of a technical information service to industry, professions and Government Departments on aspects of industrial design affecting physical working conditions.

Salary: £778-£876 p.a. Commencing salary within the range fixed according to qualifications and experience.

Duties: Responsible for organization and direction of the Branch in the State, direction and co-ordination of research, conduct of technical information service.

Qualifications: Degree or diploma in architecture or engineering, experience of industrial work; administrative ability; ability to collaborate with industrial and professional organizations; preferably some experience in research.

Terms of Engagement: Guarantee of two years' employment, subject to satisfactory service.

Further particulars will be supplied to applicants possessing suitable qualifications and arrangements made for an interview.

Applications, giving full name and address, date and place of birth, nationality, war service and details of professional qualifications and experience, should be sent, as soon as possible, to Mr. T. C. Graham, Australia House, Strand, London, W.C.2. 1179

**BOROUGH OF BRENTFORD AND
CHISWICK.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.**

ARCHITECTURAL ASSISTANT.

Applications are invited for the above-mentioned appointment, at a consolidated salary according to the A.P.T. Division, Grade V, of the National Scheme, commencing 1st year, plus revised London weighting according to age. Preference will be given to applicants who are Associate Members of the Royal Institute of British Architects (or who hold a similar qualification), but consideration will also be given to applications from persons intending shortly to take the Associate examination. Applicants should have had experience in general architectural work, school and house planning and design, including the preparation of working drawings, specifications and setting out.

Applications for the appointment must be made on the prescribed forms (which contains the particulars and conditions of appointment), obtainable from the undersigned, by whom applications must be received not later than the 21st July, 1948.

W. F. J. CHURCH.

Town Hall, Chiswick, W.4.
22nd June, 1948. 1171

**LEEDS REGIONAL HOSPITAL BOARD.
Applications are invited for the following appointments on the Headquarter Staff of the Board:—**

(1) **PRINCIPAL ASSISTANT ARCHITECT.** Candidates, who must be Registered Architects and possess recognized architectural qualifications, must have had considerable experience in hospital design, possess administrative ability, and be capable of deputising for the Regional Architect. Salary £800 per annum, rising by annual increments of £30 to £950 per annum.

(2) **SENIOR SURVEYOR.** Candidates must be qualified Quantity Surveyors, possessing considerable experience and capable of preparing estimates, bills of quantities, and checking final accounts. Salary in accordance with Grade VIII of the A.P.T. scales, i.e., £635 per annum, rising by annual increments of £25 to £760 per annum.

(3) **ARCHITECTURAL ASSISTANT.** Candidates must have experience of preparing details, working drawings and surveying buildings. Salary, Grade III or IV, of the A.P.T. scales, i.e., £450 per annum, rising by annual increments of £15 to £525 per annum.

Applications, stating age, qualifications, experience, etc., and giving the names of three referees, should be sent by not later than 15th July, 1948, to the Secretary to the Board, 29/31, Eastgate, Leeds, 2. 1173

HAM.
ANNING
Applications from qualified candidates are invited for the following post:—
QUANTITY SURVEYOR required by Iraqi State Railways for three years in first instance. Salary I.D.90 a month, plus cost-of-living allowance I.D.24 (Iraqi Dinar 1 equals £1). Free passages. Provident Fund. Candidates should be experienced Quantity Surveyors, and be competent to undertake all operations up to final preparation of Bills of Quantities. Apply at once by letter, stating age, whether married or single, and full particulars of qualifications and experience, and mentioning this paper, to the Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting M/N/17612/3D on both letter and envelope. 1189

NORTHERN IRELAND HOSPITALS AUTHORITY

APPOINTMENT OF ARCHITECT.
Applications are invited from Fellows or Associates of the Royal Institute of British Architects for appointment as Architect to the Authority. The person appointed will be required to advise the Authority and the Secretary on architectural matters relating to hospitals to be administered by the Authority, and to carry out such related professional, administrative, and executive duties as may be required.

Applicants must have had considerable experience of architectural practice, and should be fully conversant with the latest developments in hospital design and construction.

The salary for the post will be £1,250 per annum, rising by annual increments of £50 to a maximum of £1,500 per annum. Subject to a probationary period, the appointment will be permanent and pensionable. The salary will be subject to deductions under a contributory superannuation scheme, to be made as provided in Section 61 of the Health Services Act (Northern Ireland), 1948.

Preference will be given to suitably qualified candidates who served with H.M. Forces during the 1914-18 or during the 1939-45 war. Canvassing, either directly or indirectly, will disqualify. Any approach to a member of the Authority, in writing or otherwise, by or on behalf of any person who is an applicant for this post, will be treated as canvassing.

Applications should give (1) date and place of birth, (2) particulars of education and experience, (3) the names and addresses of two referees to whom the Authority may apply for confidential testimonials, and (4) particulars of service with H.M. Forces. They should be sent, with copies of recent testimonials, so as to ensure delivery before 31st July, 1948, to:—The Secretary, Northern Ireland Hospitals Authority, Friends' Provident Building, 56, Howard Street, Belfast. 1195

COUNTY BOROUGH OF SOUTHPORT. EDUCATION COMMITTEE.

Applications are invited for the appointment of an ASSISTANT Architect. Candidates should be Registered Architects, have passed the Intermediate examination of the Royal Institute of British Architects, have had experience in School design and construction, and be capable of preparing working drawings and details from sketch plans; a knowledge of Quantities is desirable.

Salary will be in accordance within the A.P. and T. Grade, IV (£240 to £255 per annum). The appointment will be subject to the Local Government Superannuation Act, 1937.

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

Applications, endorsed "Assistant Architect," stating age, qualifications and previous experience, with three copies of recent testimonials, should reach the Chief Education Officer, Education Office, 1, Eastbank School, Southport, not later than Saturday, 17th July, 1948.

Canvassing will be a disqualification.
R. EDGAR PERRINS, Town Clerk. 1194

CITY OF WAKEFIELD. CITY ENGINEER'S DEPARTMENT. APPOINTMENT OF ARCHITECTURAL ASSISTANT (GRADE IV).

Applications are invited for the appointment of Architectural Assistant, in the City Engineer's Department, at a salary in accordance with Grade IV (£480-£525), and commencing at £510 per annum.

Preference will be given to candidates who are Associates of the Royal Institute of British Architects and who have had experience in school design and construction.

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

Applications, endorsed "Architectural Assistant," stating age, qualifications, present and previous appointments and experience, and accompanied by copies of two recent testimonials, should reach the undersigned not later than Saturday, 17th July, 1948.

Candidates should state in writing whether to their knowledge they are related to any member or senior official of the Corporation. Canvassing will be a disqualification.

W. S. DES FORGES, Town Clerk. 1193

Town Hall, Wakefield.
2nd June, 1948.

BOROUGH OF EDMONTON. ARCHITECTURAL ASSISTANT required (Grade A.P.T., VI), £265×£20 (2) and £25 (1) to £690 per annum.

Candidates should be Associates of the R.I.B.A. or equivalent, and have had experience in Housing and General Building Work.

Full particulars, forms of application and conditions of service from the undersigned, to whom completed applications must be returned not later than 23rd July, 1948.

H. BACKHOUSE, Town Clerk. 1192

Town Hall, Edmonton.

HELPER RURAL DISTRICT COUNCIL. APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Architectural Assistant, at a salary in accordance with Grade III, A.P.T. Division, National Scale, together with a motor car allowance in accordance with the National Scale.

Applicants must have architectural qualifications, and have had experience in the design and preparation of house and layout plans, specifications, bills of quantities, roadworks and sewers in connection with housing schemes.

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

Applications, stating age, qualifications and experience, with the names and addresses of two persons to whom the Council may refer, must reach the undersigned not later than the 23rd July, 1948.

H. H. CREASER, Clerk of the Council. 1191

Council Offices, Derby Road, Belper, Derbyshire.

BOROUGH OF MORLEY. HOUSING COMMITTEE.

Applications are invited for the following appointments on the permanent staff of the Housing Department:—

ONE ARCHITECTURAL ASSISTANT. Grade II, A.P.T. Division.

ONE JUNIOR TECHNICAL (ARCHITECTURAL) ASSISTANT. Male or female. General Grade.

The salaries are in accordance with the National Scales. Both appointments will be subject to the Local Government Superannuation Act, and the selected candidates will be required to pass a medical examination.

Applications, stating age, experience, qualifications, and when at liberty to commence duties, together with copies of two recent testimonials, to be made to the undersigned not later than the first post on Monday, 19th July, 1948.

E. V. FINNIGAN, Town Clerk. 1183

Morley.
June, 1948.

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

Applications are invited for the appointment on the staff of the City Engineer and Surveyor of an ARCHITECTURAL ASSISTANT, Grade II, A.P.T., i.e., consolidated salary of £240 per annum, rising by annual increments to £465.

Applicants should be good draughtsmen, possess a sound knowledge of building construction, and be capable of preparing working drawings under supervision.

The City Council have adopted the National Scheme of Conditions of Service. The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination. Applications, stating age, qualifications and experience, accompanied by copies of not more than three recent testimonials, and endorsed "Architectural Assistant, Grade II," must be delivered to the undersigned not later than Saturday, 10th July, 1948.

Applicants must disclose whether they are related to any Senior Official or Member of the Authority. Canvassing, either directly or indirectly, will be deemed a disqualification.

ARTHUR J. REEVES, Town Clerk. 1168

Town Hall, Peterborough.
June, 1948.

BOROUGH OF WATFORD. BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the permanent appointment of an Assistant Architect, in the Borough Engineer and Surveyor's Department.

Salary on Grade III of the National Scale, £450 per annum, rising, subject to satisfactory service, to £495 per annum.

Preference will be given to those holding an appropriate professional qualification, and applicants must have had good experience in architectural design and construction.

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

Applications on the prescribed form must be returned to me, together with the names of two references, not later than Friday, 16th July, 1948, endorsed "Assistant Architect."

F. C. SAGE, Assoc. M.Inst.C.E., M.I.Mun.E., Registered Architect, Borough Engineer and Surveyor. 1190

Town Hall, Watford.
June, 1948.

ESSEX EDUCATION COMMITTEE. SOUTH-WEST ESSEX TECHNICAL COLLEGE AND SCHOOL OF ART, FOREST ROAD, WALTHAMSTOW. DEPARTMENT OF ARCHITECTURE AND BUILDING.

The Governors invite applications from suitably qualified persons for the permanent full-time post of STUDIO MASTER AND LECTURER IN ARCHITECTURAL DESIGN. Ability to take classes in Town and Country Planning subjects will be an advantage. The post involves studio and lecture work in connection with the full-time courses of study in the Department of Architecture and Building of the College for the Intermediate and Final examinations of the Royal Institute of British Architects, for which examinations the College is approved as an R.I.B.A. Listed School for Full-time preparation.

The new salary scale, applicable from the 1st April, 1948, is £300×£15-£555, with the addition of a London allowance of £36 or £48, according to age, and allowance for full-time training up to £45 and an increase for graduate qualifications of £30. In fixing the basic salary up to twelve increments may be allowed for suitable professional experience.

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

B. E. LAWRENCE, Chief Education Officer. 1188

County Offices, Chelmsford.

COUNTY OF ESSEX. COUNTY ARCHITECT'S DEPARTMENT.

APPOINTMENT OF ASSISTANT ARCHITECTS.
The Essex County Council invite applications for the following appointments on the established staff of the County Architect's Department, at salaries within the grades indicated of the A.P.T. Division in the Scheme of Conditions of Service of the National Joint Council.

(a) ASSISTANT ARCHITECTS. Grade VI, £595-£660.

(b) ASSISTANT ARCHITECTS. Grade V, £520-£570.

(c) ASSISTANT ARCHITECTS. Grade II, £420-£465.

(d) ASSISTANT ARCHITECTS. Grade I, £390-£435.

Candidates for posts (a) and (b) should preferably be members of the Royal Institute of British Architects, and should have had experience in the planning, designing and construction of public buildings and schools.

In fixing the commencing salary in each case, regard will be had to the experience and qualifications of the successful candidates.

Canvassing, either directly or indirectly, is forbidden.

Applications (on a form obtainable from the County Architect—please state post for which required) should be forwarded in a sealed envelope, endorsed with the title of the post for which application is made, to reach the County Architect, Mr. H. Connolly, F.R.I.B.A., at the address stated below, not later than 17th July, 1948.

JOHN E. LIGHTBURN, Clerk of the County Council. 1187

County Hall, Chelmsford, Essex.
25th June, 1948.

LEEDS REGIONAL HOSPITAL BOARD.

Applications are invited for the appointment of SENIOR CLERK, in the Architect's Section of the Headquarter Staff. Applicants must have considerable experience of office administration, and experience of work in the Architectural Department of a Local Authority will be considered an advantage.

Salary, according to age and experience, on Grade VI-VII of the A.P.T. Scales (£595, rising by annual increments of £20-£25 to a maximum of £710). Applications, stating age, together with the names and addresses of three referees, should be forwarded by not later than the 24th July, 1948, to the Secretary to the Board, 29/31, Eastgate, Leeds, 2. 1196

Partnerships and Financial

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

LONDON Architect requires Junior Partner; no capital necessary; must be qualified. Submit full details in writing to Box 1174.

Architectural Appointments Vacant

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ARCHITECTURAL DRAUGHTSMAN, Inter-standard, required in private office; capable of working drawings, surveys, specifications, etc. Apply Clark, 44, Great Russell Street, W.C.1. Phone: MUS. 4400 & 0500. 787

ARCHITECTURAL ASSISTANT required; preferably experienced in the design, alteration and maintenance of industrial buildings, and capable of preparing surveys, working drawings, details and specifications; knowledge of quantities an advantage; the appointment would be permanent and pensionable, salary according to experience and qualifications. Applications, stating age, experience and qualifications, should be sent to the Staff Controller, The Gas Light & Coke Company, 30, Kensington Church Street, W.8. 1122

SAMUEL WILLIAMS & SONS, LTD., invite applications for the position of **ASSISTANT ARCHITECT**, preferably from Associates or Licentiates of the R.I.B.A., but are prepared to consider candidates approaching their final examination for Associate R.I.B.A.; candidates should be first-class draughtsmen, with sound knowledge of the design and construction of industrial and commercial buildings, and with experience of writing specifications; the appointment will be superannuable; salary will be according to age, qualifications and experience, and applicants should write in the first place to the Personnel Manager, Samuel Williams & Sons, Ltd., Dagenham Dock Industrial Estate, Dagenham Dock, Essex. 1181

SURVEYOR required by Specialists; capable in taking off for R.C. in situ and precast floor, roof and staircase construction and coverings, site measurement, variations, invoicing, etc.; permanent position. Write, stating age, experience, and salary required, to Box 128, Allardye Palmer, Ltd., 109, Kingsway, W.C.2. 1128

ARCHITECTURAL ASSISTANT, A.R.I.B.A. preferred, required for old-established British private firm in Hong Kong; age 25/30; capable and trained in general practice. Write, with copies of testimonials, to Box PS.203, Deacons Advertising, 35, Leadenhall Street, E.C.3. 1112

REQUIRED in West End Architects' office, **ONE SENIOR ASSISTANT, A.R.I.B.A.**, and **ONE JUNIOR ASSISTANT**, of intermediate standard; previous office experience essential; salary according to ability. Box 1142.

ASSISTANT required, busy Architect's office, Eastbourne; sound knowledge of construction and detail essential for preparation of working drawings from sketches; good draughtsmanship necessary; please give age, experience, and salary. Box 1146.

LONDON Firm of Architects requires **TWO ASSISTANTS**, of intermediate or higher standard, for their Manchester office; previous office experience desirable; salary by arrangement. Box 1136.

ARCHITECTURAL ASSISTANTS required immediately for private practice in N. Kent (20 miles London), engaged on wide variety of work; salaries £350-£500, according to ability. Apply Box 1165.

ARCHITECTURAL ASSISTANT required at Head Office; salary £400-£500 per annum, according to experience. Write, giving full details, to Messrs. George Wimpey & Co., Ltd., Tilehouse Lane, Denham, near Uxbridge, Middlesex. 1172

SENIOR ARCHITECTURAL ASSISTANT required for general architectural practice. Reply, giving experience and salary required, to Thomas Worthington & Sons, 178, Oxford Road, Manchester, 13. 1177

ARCHITECT'S CHIEF ASSISTANT AND MANAGER wanted; able to take charge small office considerable periods; must be practical man; £700 p.a., plus rent free house. Towndrow & Ransom, 96, Victoria Street, S.W.1. 1179

THE GAS LIGHT & COKE COMPANY. QUALIFIED ARCHITECTURAL ASSISTANT required. Preferably experienced in the design, alteration and maintenance of industrial buildings, and capable of preparing surveys, working drawings, details and specifications. Knowledge of quantities an advantage.

The appointment would be permanent and pensionable, salary according to experience and qualifications.

Applications, stating age, experience and qualifications, should be sent to the Staff Controller, The Gas Light & Coke Company, 30, Kensington Church Street, W.8. 1181

ASSISTANT wanted, to take charge of busy country practice in Leicestershire, with view to partnership for suitable applicant. Reply in confidence to Box 1197.

ARCHITECTURAL ASSISTANT, with 2-3 years' office experience, required by busy Edinburgh office. Apply stating age, qualifications and salary expected, and give details of experience. Box 1200.

Architectural Appointments Wanted

FOREIGN Architect, age 40, with experience abroad and in this country, now sitting for final exam. (P.U.C.) in London, desires position as **ARCHITECTURAL ASSISTANT** in progressive office. Box 126.

ASSISTANT, Final standard, experienced in domestic work, field and house surveys, industrial, etc., wants position, South or London. Box 136.

JUNIOR ARCHITECTURAL ASSISTANT, 3 years' office experience, seeks position in Central London office from August 3 to September 25. Box 138.

ARCHITECTURAL ASSISTANT requires job in Sussex, Surrey or London; age 32; 6 years' experience and 6 years in Royal Engineers; approx. Inter-final standard; please give details of work being done. Box 139.

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Other Appointments Vacant

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A VACANCY is offered to a Man of suitable appearance and qualifications to represent us in calling principally on Architects, Surveyors, etc., in the London area; salary, plus commission, would be paid, and the position could be a permanent one. Apply, giving full particulars as to age, previous experience, qualifications, etc., to Wm. Mallinson & Sons, Ltd., 130/150, Hackney Road, E.2.

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ARCHITECT'S ASSISTANT OR INDUSTRIAL DESIGNER needed to assist architect, working on international furniture competition. Progressive outlook and first class draughtsmanship are essentials. Can be spare time work or temporary junior partnership basis. State training and experience. Box 1198.

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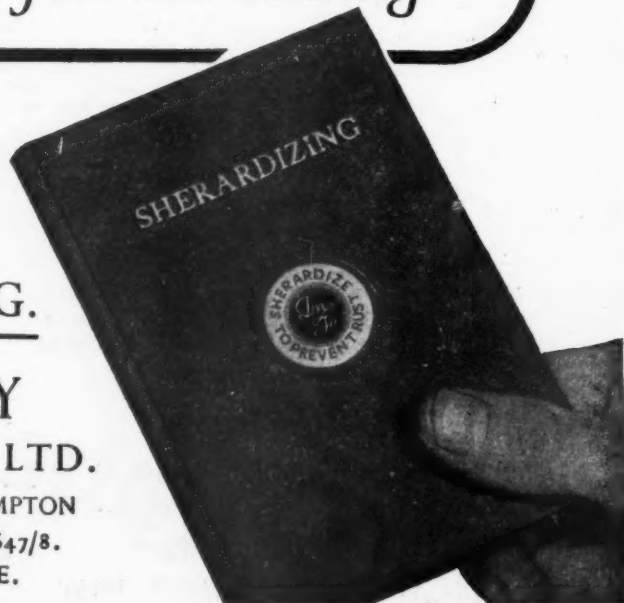
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