

# THE ARCHITECTS' JOURNAL



## standard contents

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

## DIARY NEWS

from AN ARCHITECT'S  
Commonplace Book

## ASTRAGAL

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## CENTRE

Physical Planning      Lighting  
Structure      Heating & Ventilation  
Materials      Questions & Answers  
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## INFORMATION SHEET

## SOCIETIES & INSTITUTIONS

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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, is given below. 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
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 9, Belgrave Square, S.W.1.	Sloane 0421
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
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
BC	Building Centre. 23, Maddox Street, W.1.	Mayfair 2128
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 25, Victoria Street, S.W.1.	
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
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. Egginton House, Buckingham Gate, S.W.1.	Victoria 7301-2-3
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W. Sloane 4280	
CSI	Chartered Surveyors' Institution. 12, Great George Street, S.W.1.	Whitehall 5322
DIA	Design and Industries Association. 2, Stratford Place, W.1.	Mayfair 5432
DOT	Department of Overseas Trade. Dolphin Square, S.W.1.	Victoria 4477
EJMA	English Joinery Manufacturers Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
FMB	Federation of Master Builders. 23, Compton Terrace, Upper Street, N.1.	Canonbury 2041
FS (Eng.)	Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
GG	Georgian Group. 4, Hobart 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
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128-29
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3767
MARS	Modern Architectural Research. 46, Sheffield Terrace, W.8.	Park 7678
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Belgrave Square, S.W.1.	Sloane 4522
MOH	Ministry of Health. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service. St. James's Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Abbey 7711
MOTCP	Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.	Whitehall 8411
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94, Petty France, S.W.1.	Abbey 1010
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Kensington 7070
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041
NFBTO	National Federation of Building Trades Operatives. 9, Rugby Chambers, Rugby Street, W.C.1.	Holborn 2770
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 2881/2/3
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211/2
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
PWB	Post War Building, Directorate of. Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
RCA	Reinforced Concrete Association. 91, Petty France, S.W.1.	Whitehall 9936
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Welbeck 5721
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Temple Bar 8274
SFMA	School Furniture Manufacturers' Association. 13, New Square, Lincoln's Inn, W.C.	Chancery 5313
SIA	Society of Industrial Artists. 20, Wellfield Avenue, N.10.	Tudor 7027
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 75, Cannon Street, E.C.4.	City 6147
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815

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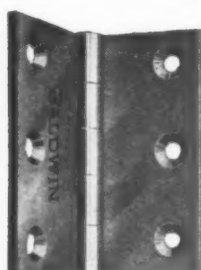
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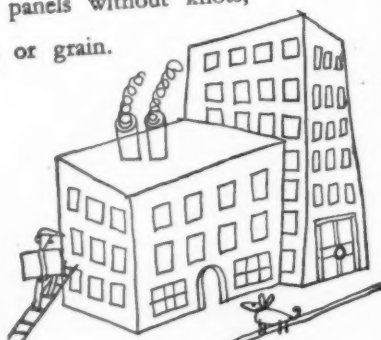
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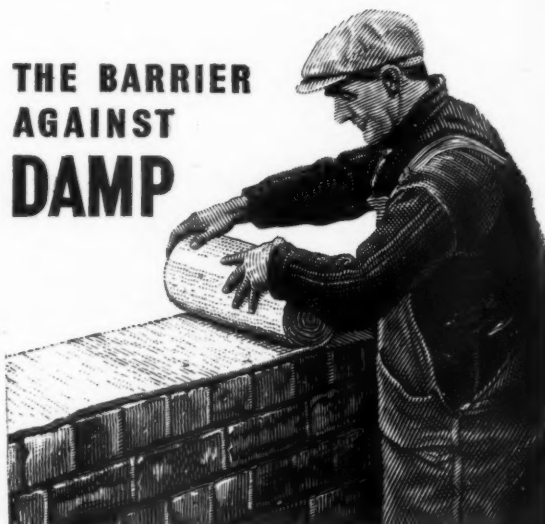


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# THROUGHOUT WARS and PEACE to 1945...

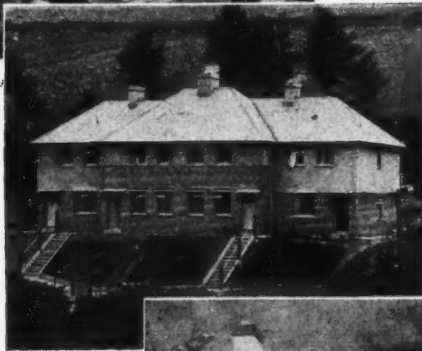
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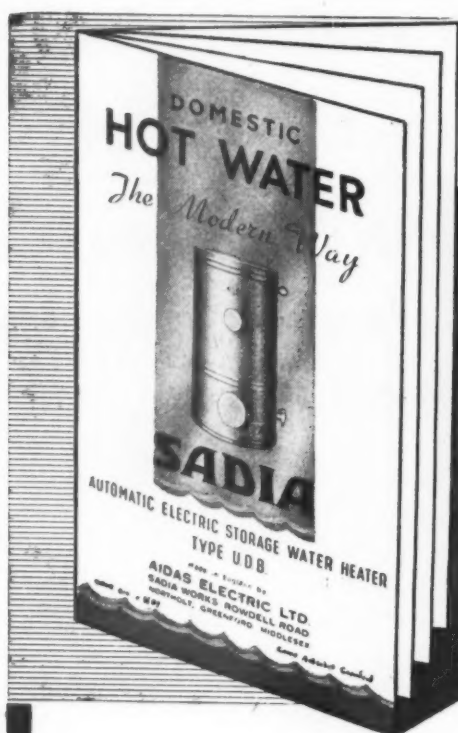
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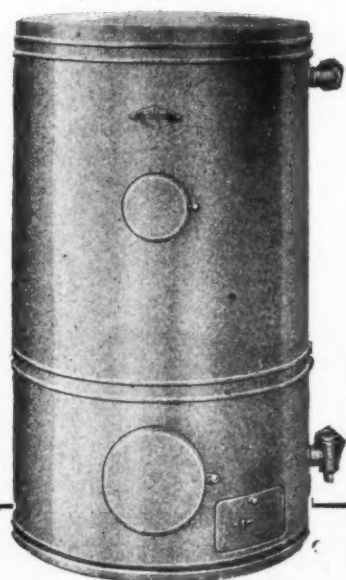
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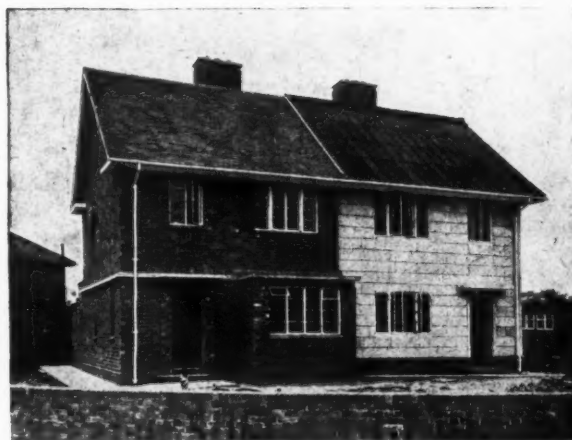
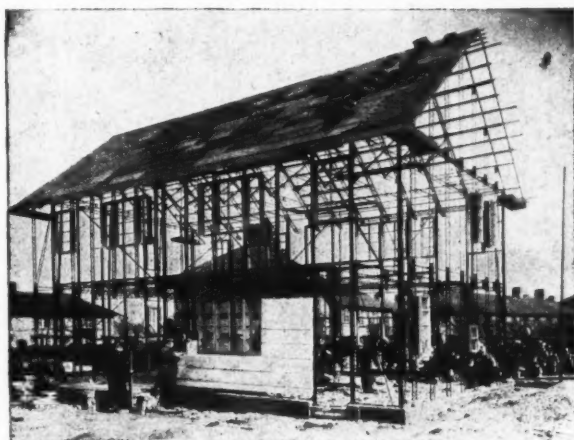
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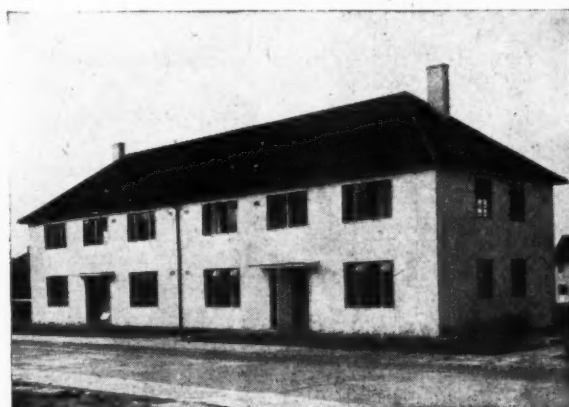
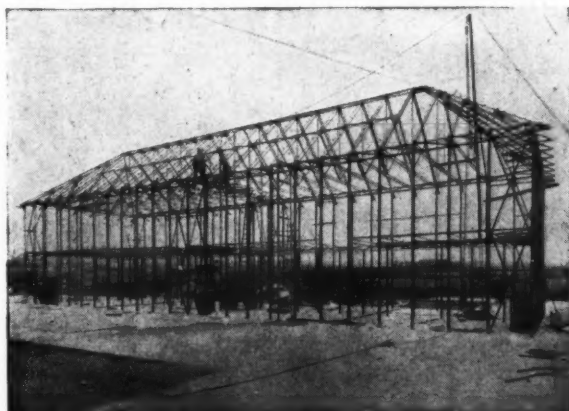


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# From Experiment to Achievement

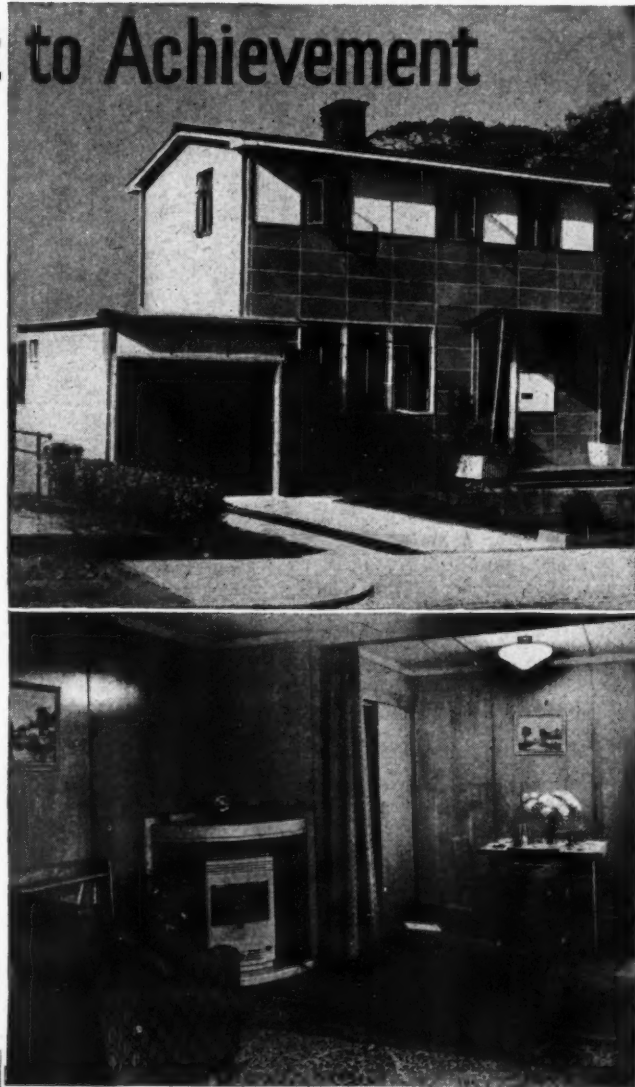
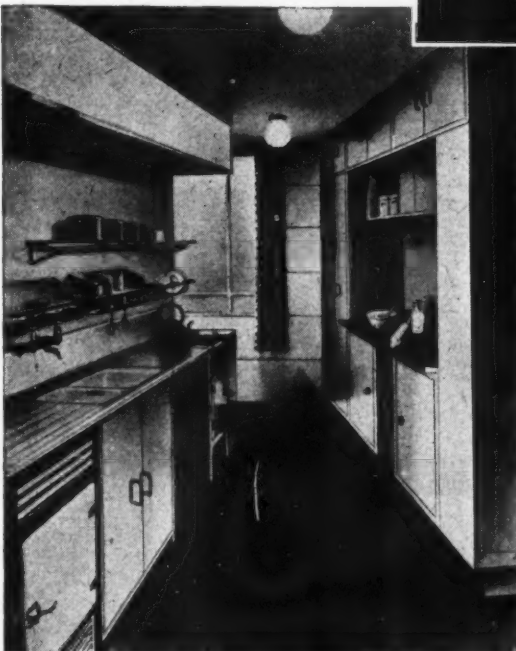
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*Architects and Builders are invited to inspect this House, which is easily reached from the centre of Coventry. For appointment to visit, please contact Radiation House, Aston, Birmingham, 6.*

*The Radiation Kitchen*



*Above: The completed house.*

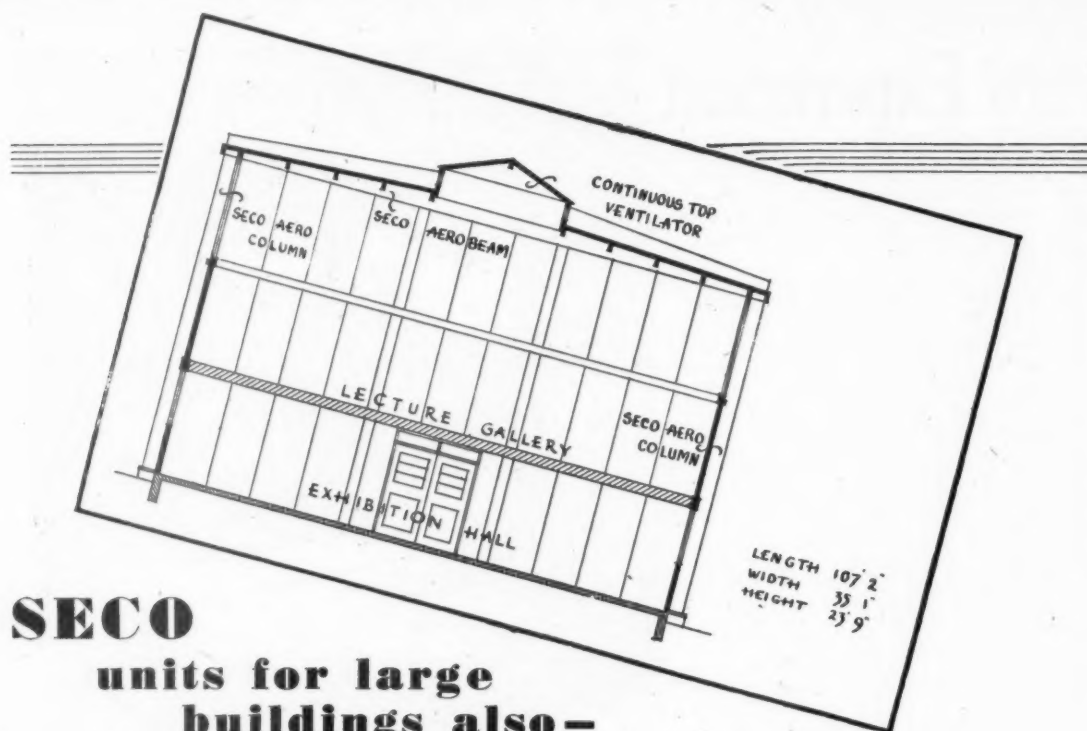
*Below: The lounge with contained dining section and Radiation slow-combustion stove.*

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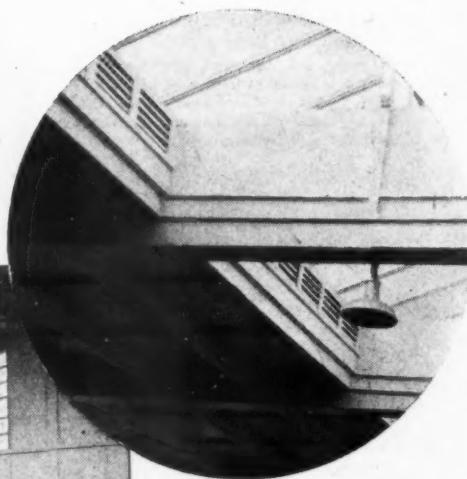
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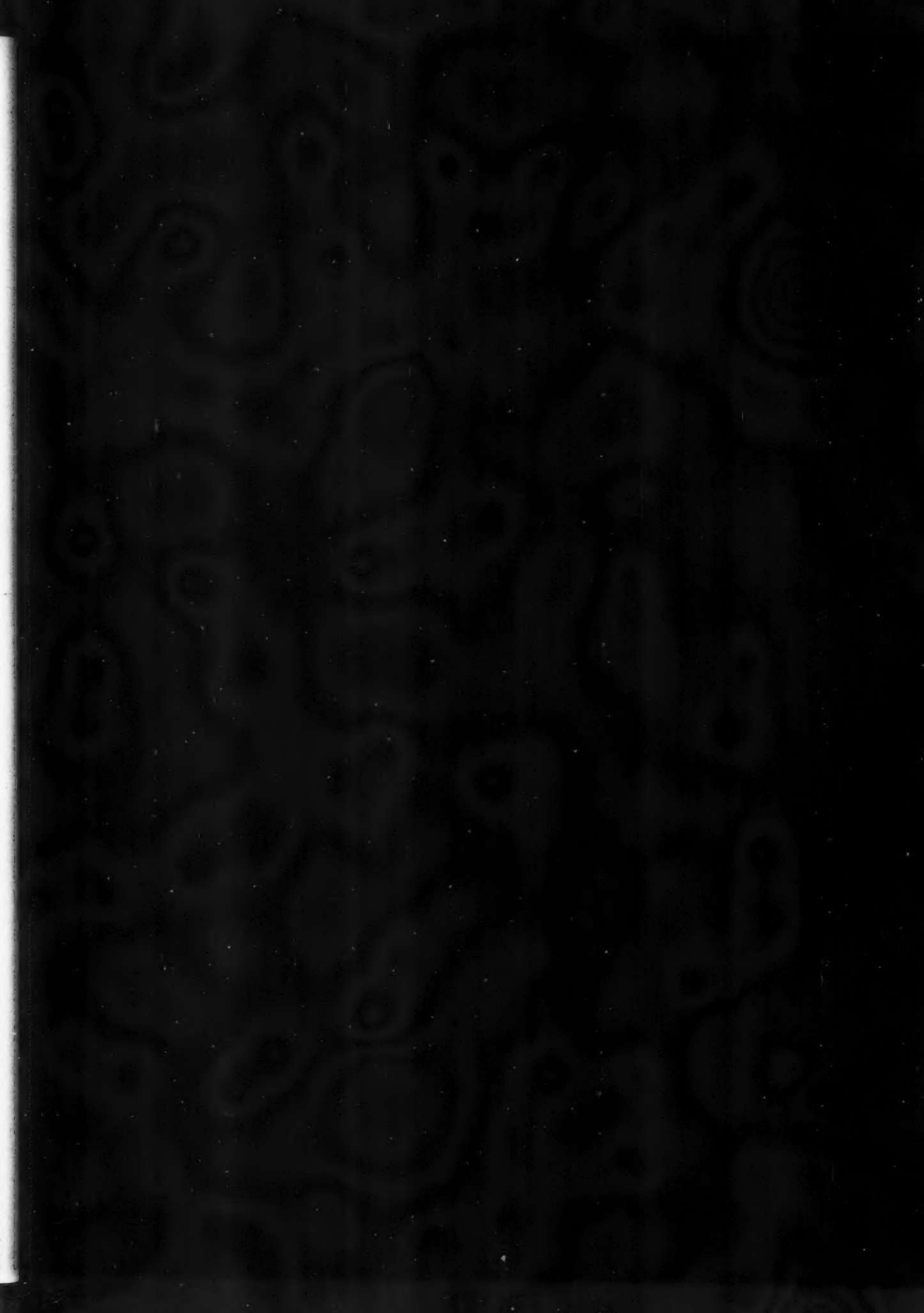
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ABOVE:  
Detail showing Seco Aero Beam  
and continuous roof-light.

LEFT: (taken from Lecture Gallery).  
The main hall, approximately  
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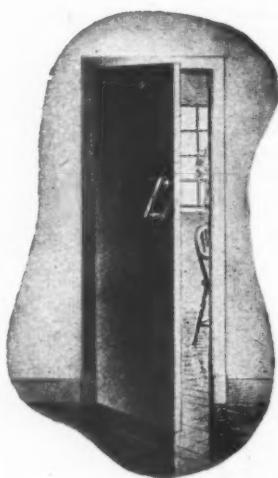
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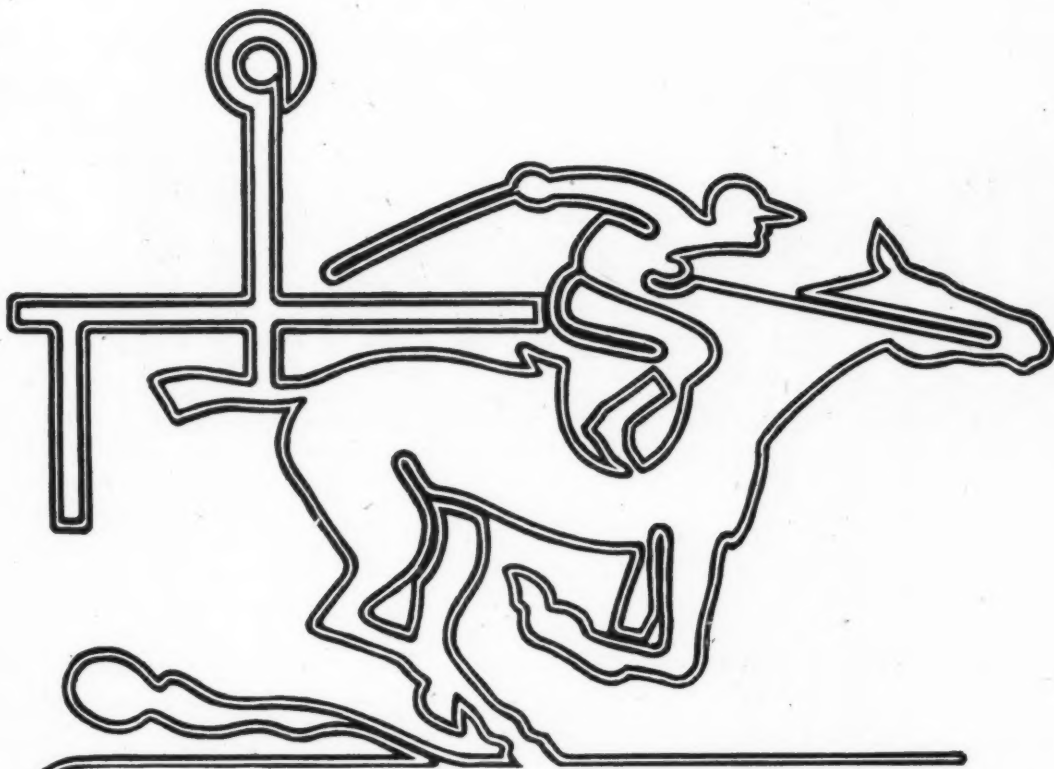
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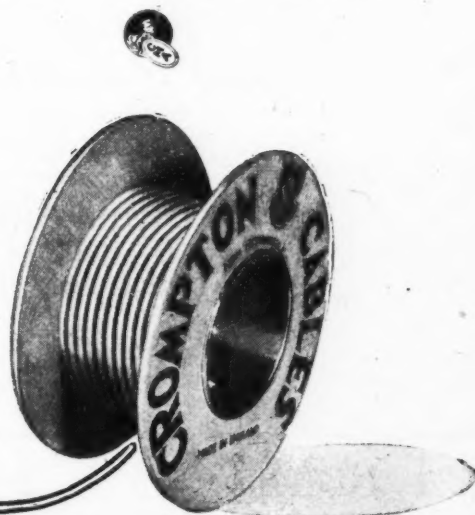
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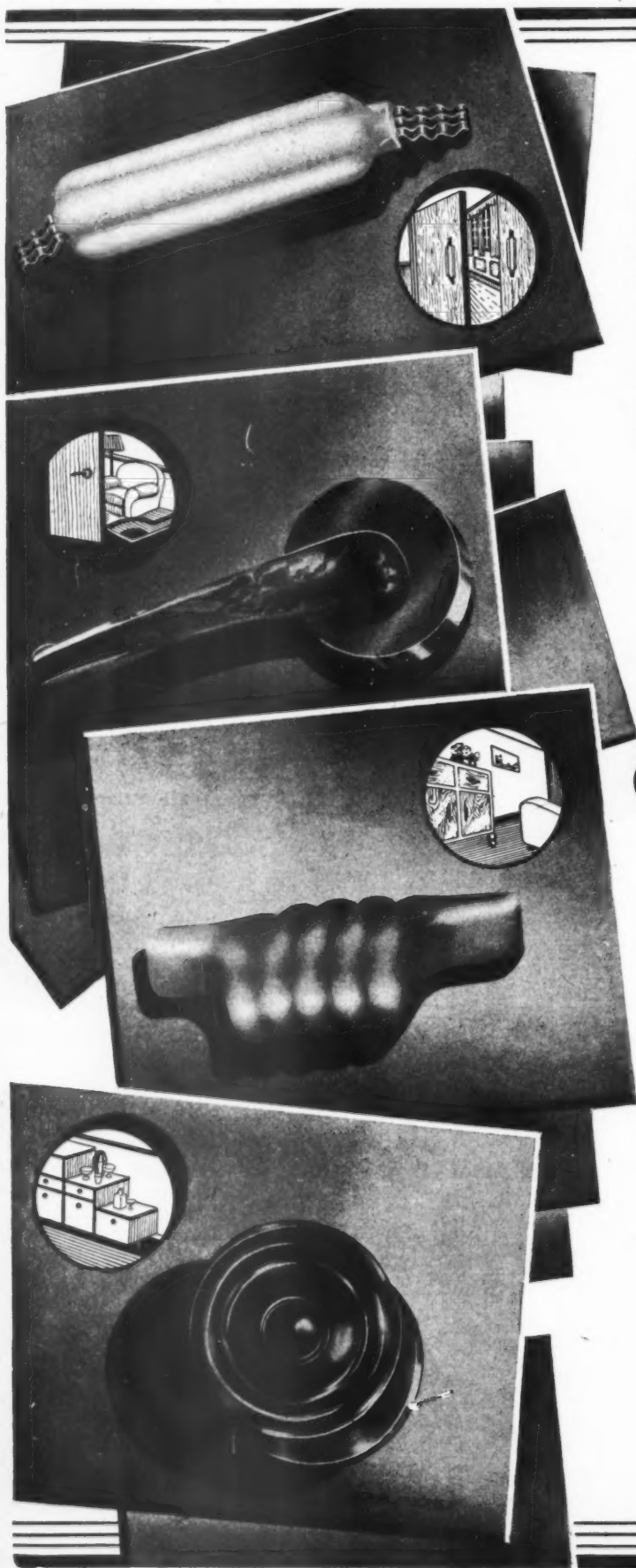


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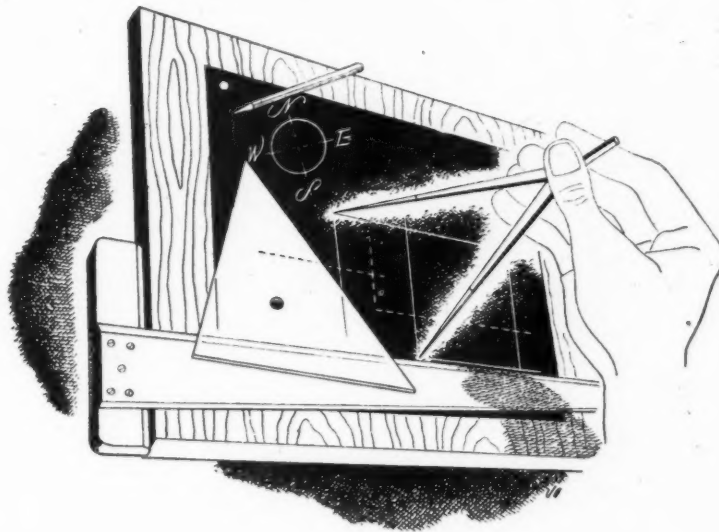
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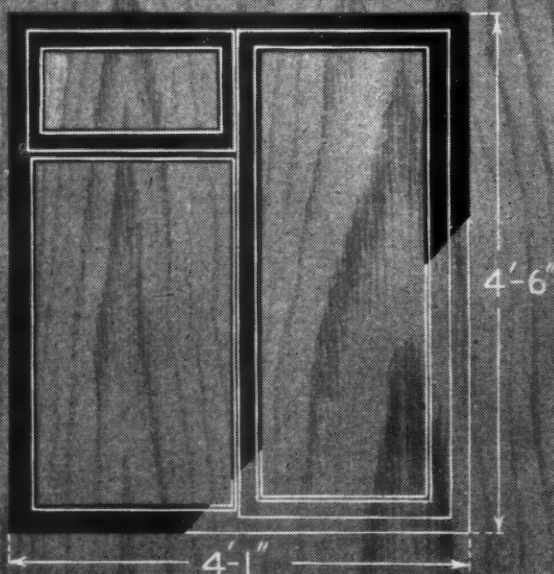
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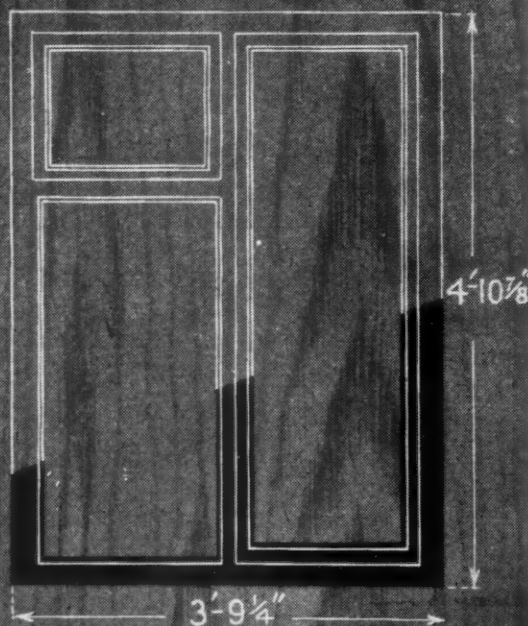
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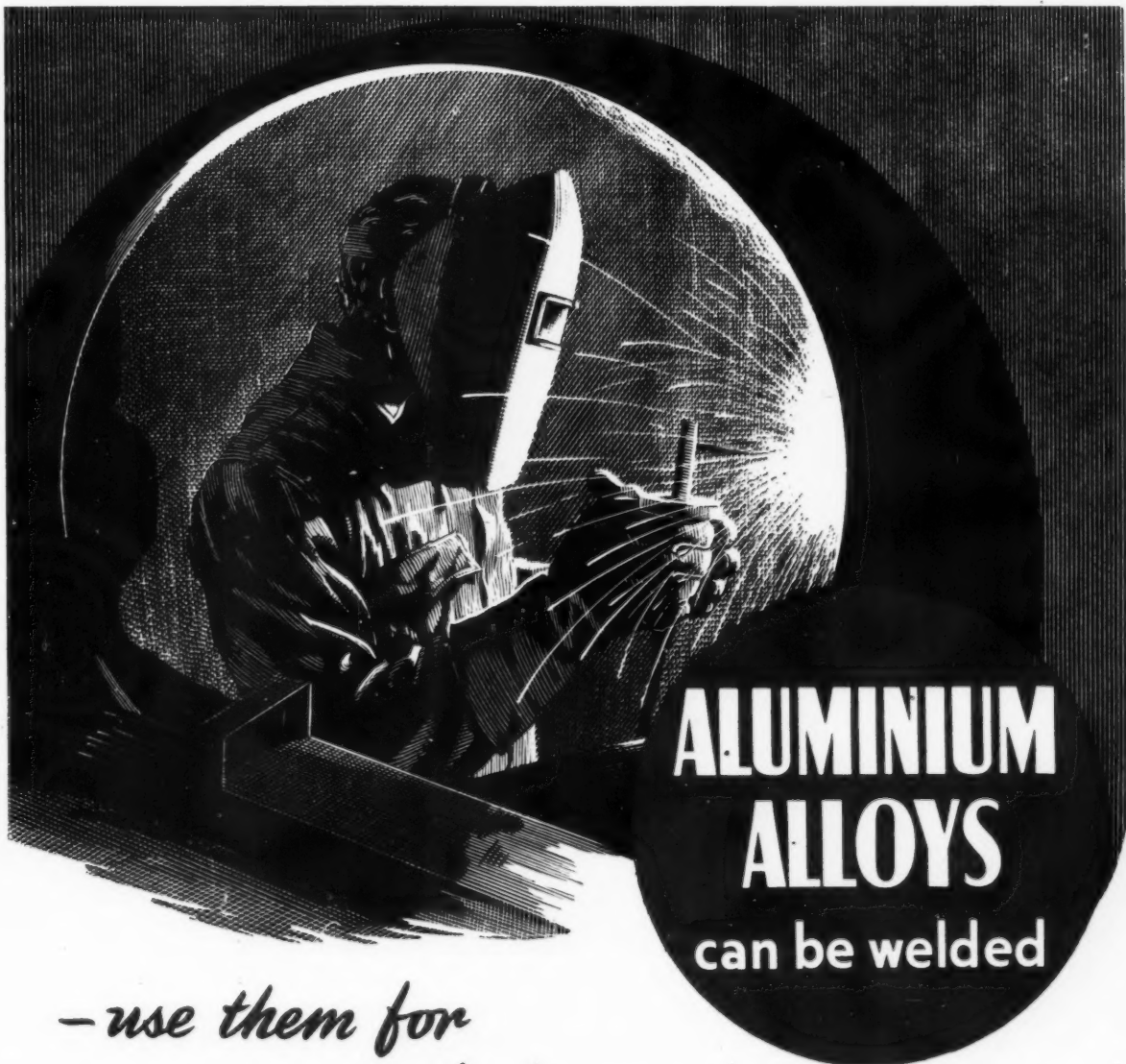
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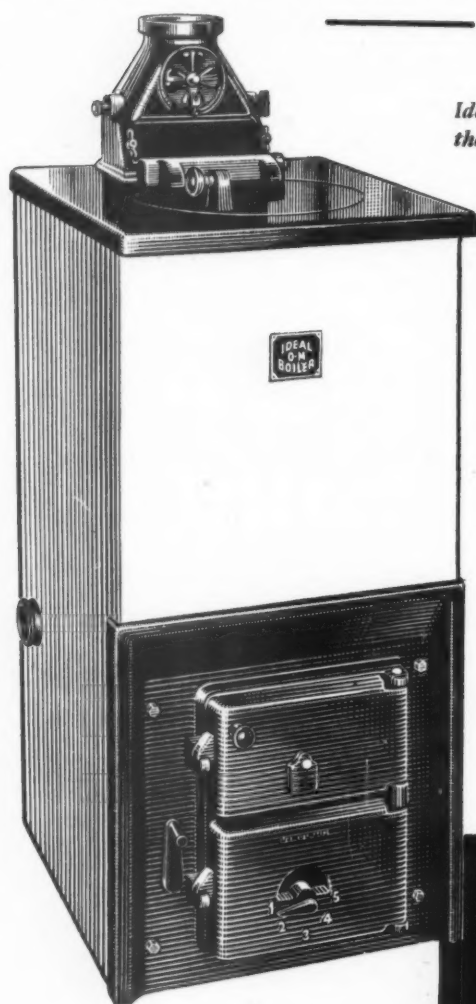


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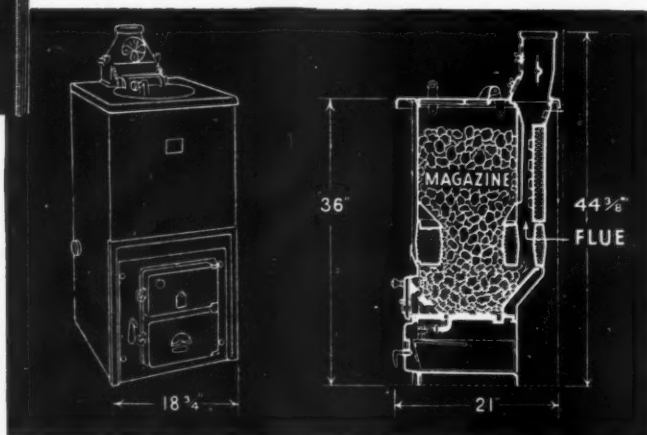
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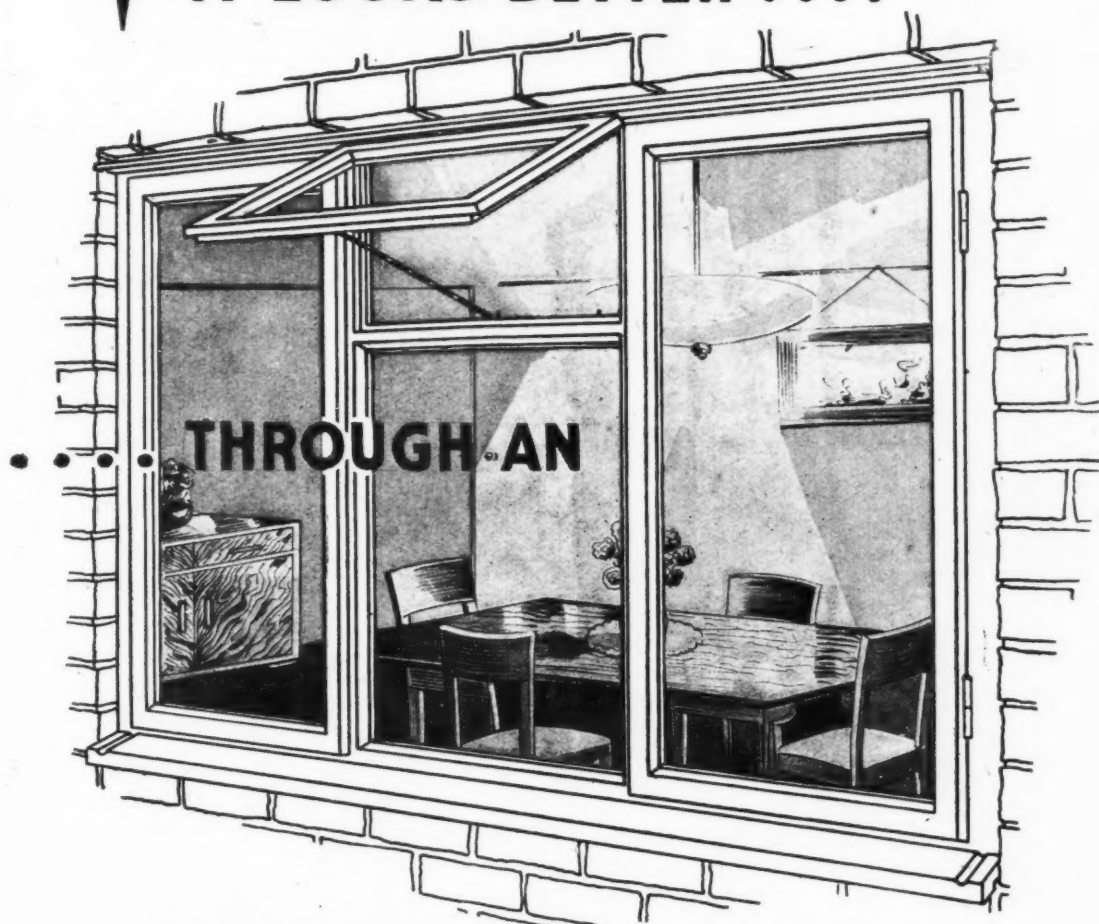


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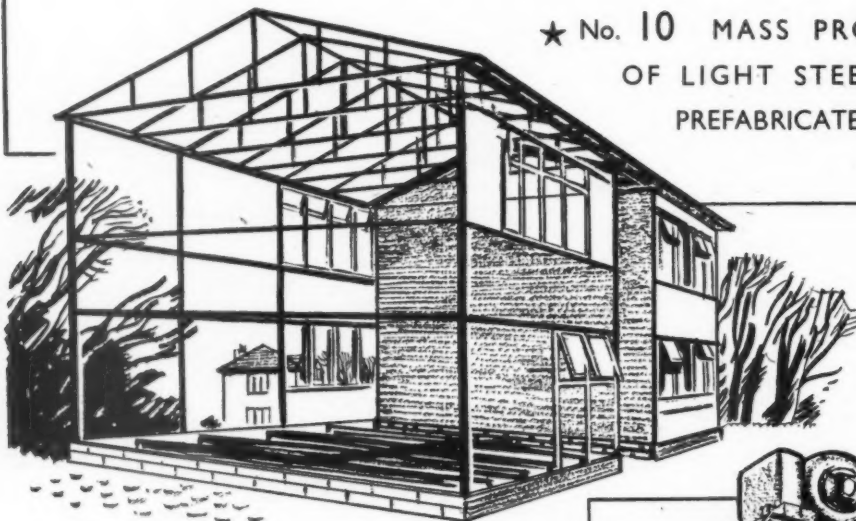
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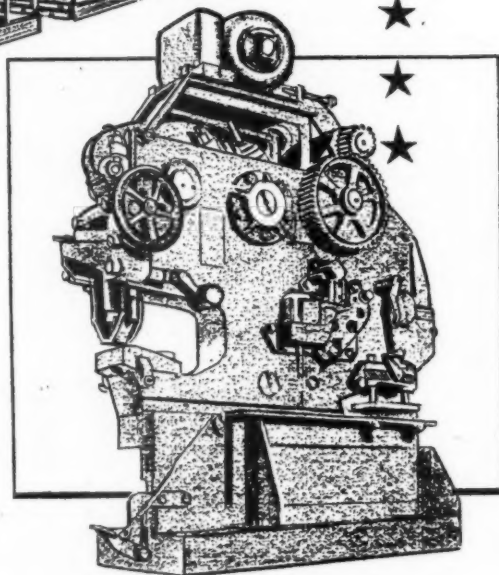
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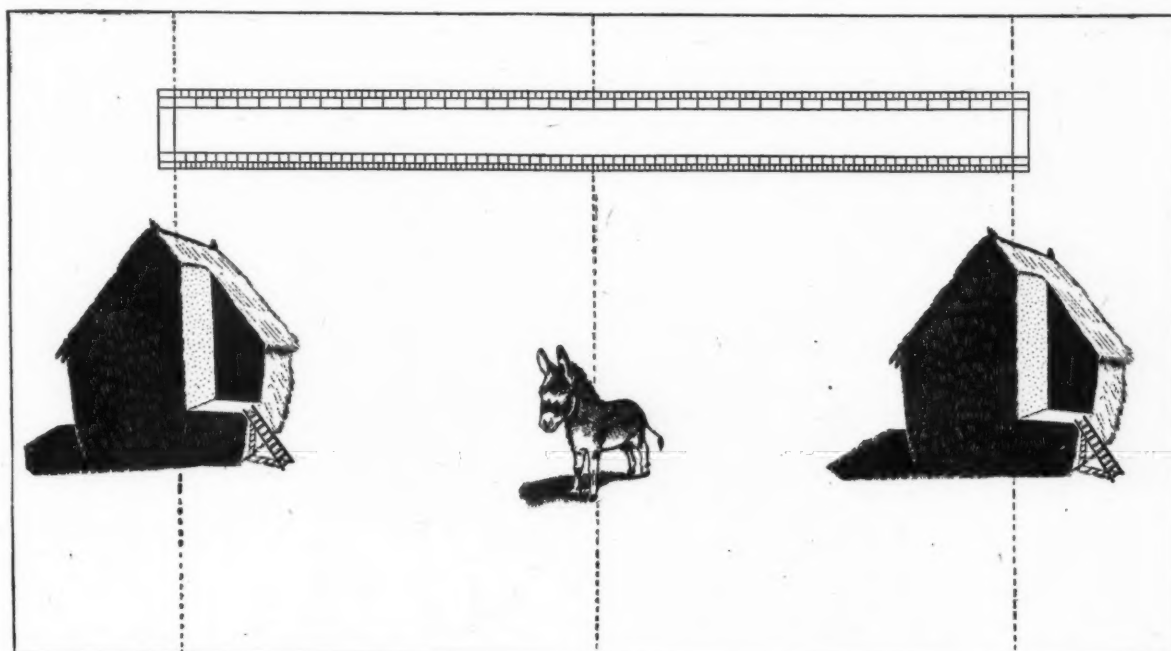
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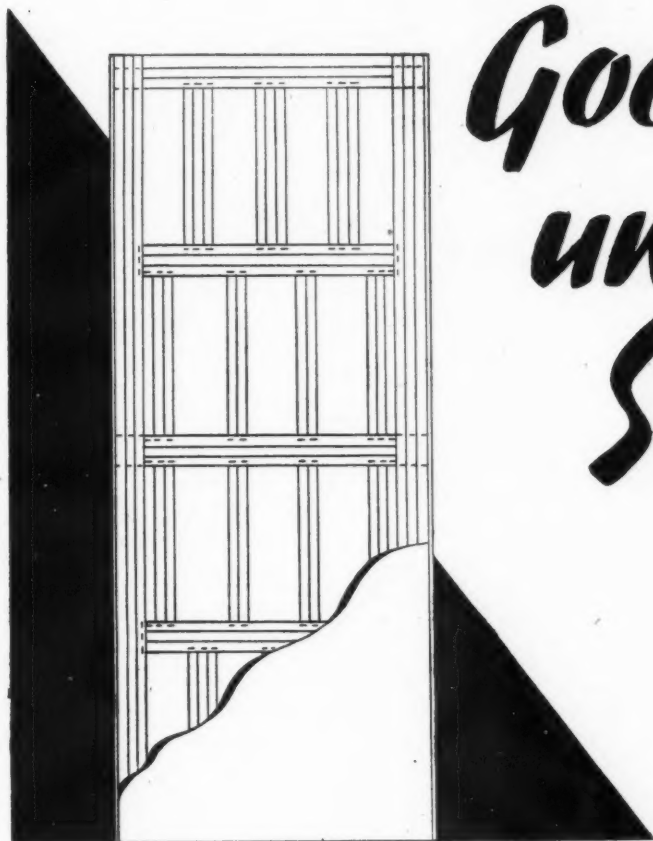


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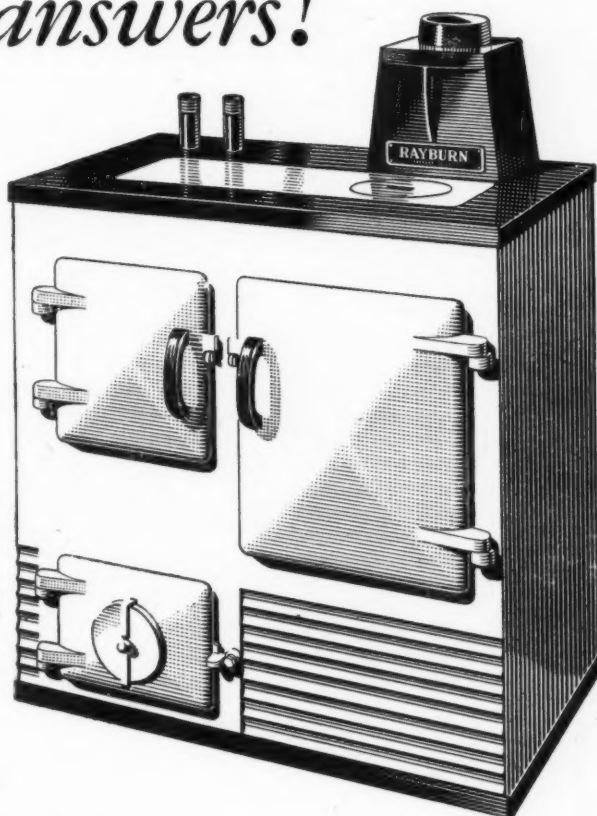
Here is *the* new insulated solid fuel cooker for the British home. It meets every requirement of the planning authority, and for the housewife to use it spells sheer contentment.

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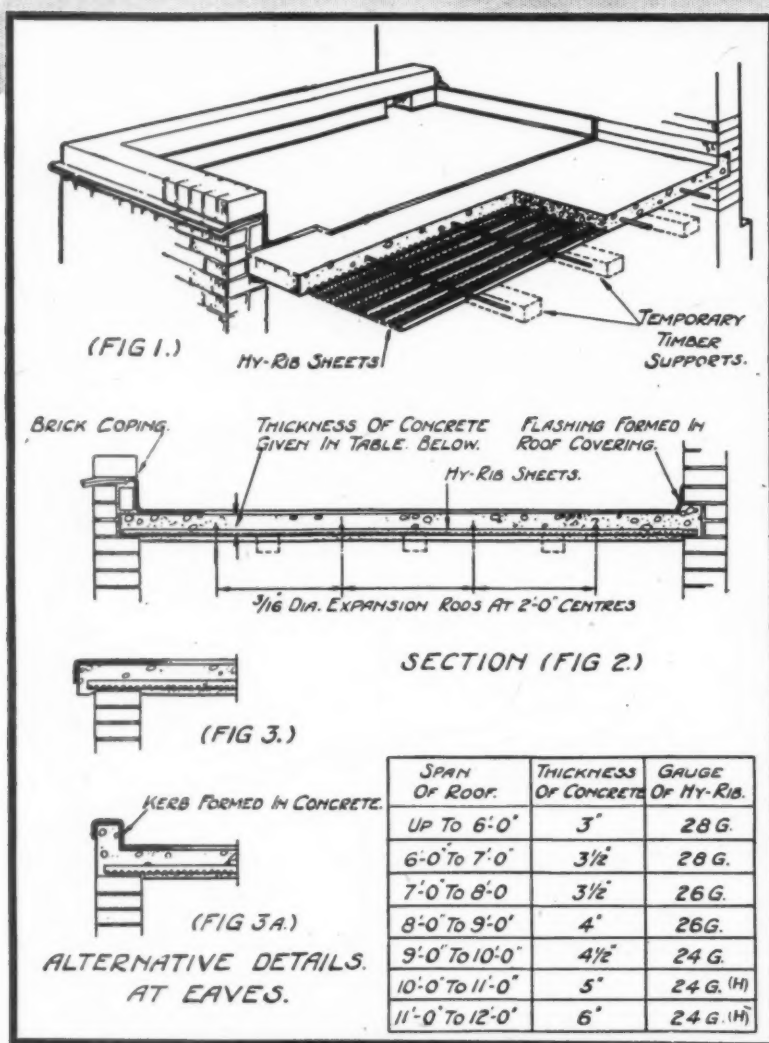


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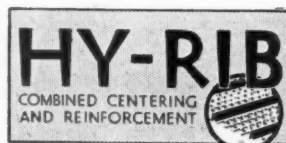
General details of concrete flat roofs in Hy-Rib construction

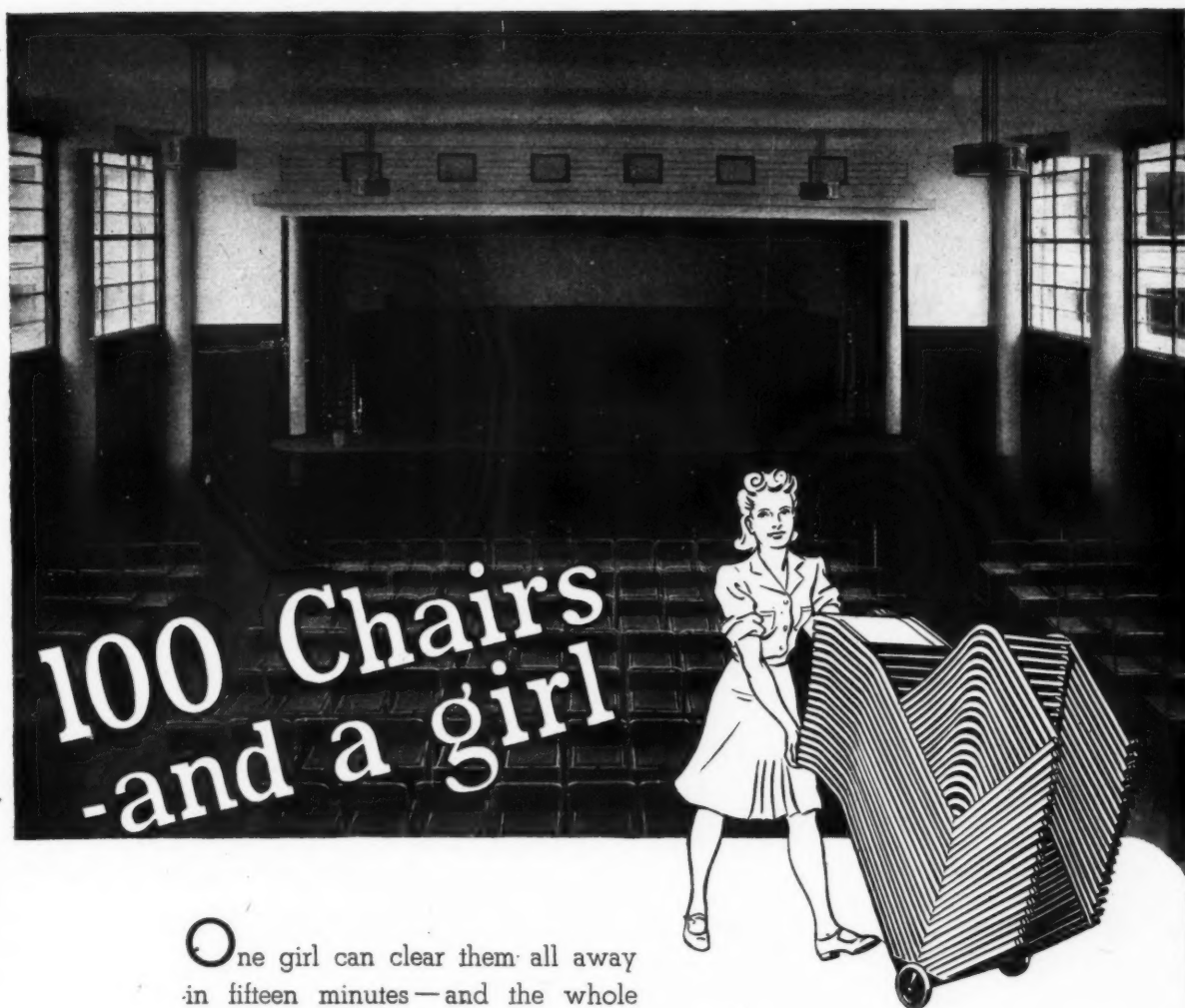
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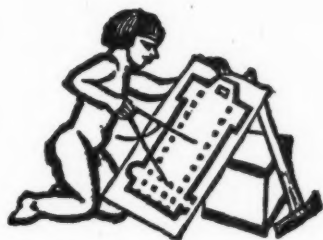
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In common with every other periodical this JOURNAL is rationed to a small part of its pre-war needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the JOURNAL. Newsagents now cannot supply the JOURNAL except to a "firm order." Subscription rates: by post in the U.K. or abroad, £1 15s. od. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage 1s. extra. Goods advertised in the JOURNAL and made of raw materials now in short supply, are not necessarily available for export.



## DIARY FOR APRIL MAY AND JUNE

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

**L** EICESTER. Frederick Gibberd. *Contemporary Architecture*. At the College of Art. (Sponsor, Leicester Society of Architects in association with the Leicester School of Architecture.) 6.15 p.m.

APRIL 4

*Criticism of Designs submitted in the Nesbit Competition*. At the College of Art. (Sponsor, Leicester Society of Architects in association with the Leicester School of Architecture.) 5 p.m.

APRIL 11

**L** OONDON. *Planning Problems of the Countryside*. Conference at the Queen Mary Hall, YWCA, Great Russell Street, W.C.1. (Sponsor, TCPA.)

APRIL 4-5

*Rural Planning*. Town and Country Planning Association Conference. At the Queen Mary Hall, YWCA, Great Russell Street, W.C.1. To be opened by the Minister of Agriculture, the Rt. Hon. Tom Williams, M.P. Speakers will include A. C. Richmond, Professor A. W. Ashby, Donald McCulloch, Lord Portsmouth and Geoffrey Clark. (Sponsor TCPA.)

APRIL 4-5

*Conference on the Planning and Equipment of Special Libraries*. At the RIBA, 66, Portland Place, W.C.1. Conference open to members of the Association of Special Libraries and Information Bureaux and the RIBA at a fee of 10s., non members £1, including buffet luncheon. Applications for tickets to the Association of Special Libraries and Information Bureaux, 52, Bloomsbury Street, W.C.1.

APRIL 6

Mrs. Lovat Fraser. *The Future Use of Plastics*. At the International Arts Centre, 3, Orme Square, Bayswater Road, W.2. (Sponsor, IAC.) 8 p.m.

APRIL 9

L. H. Keay. *Post-War Housing*. At the RIBA, 66, Portland Place, W.1. (Sponsor, RIBA.) 6 p.m.

APRIL 9

D. Winston Aldred, Head of the Department of Architecture and Building, South west Essex Technical College and School of Art. *The New Building Science*. Bossom Gift Lecture. At the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W.1. 2.30 p.m.

APRIL 9

*Training of Planning Personnel*. Town and Country Planning Association Conference. At Alliance Hall, Palmer Street, S.W.1. (Sponsor, TCPA.)

APRIL 12-13

Mrs. M. Harrison, Acting Curator of the Geoffrey Museum. *Helping Children to See*. Last of five illustrated lectures on *Design in Daily Life*. At the London County Hall,

S.E.1. Chairman, Lord Sempill. Admission free. (Sponsor DIA.) 6 p.m.

APRIL 4

J. G. Pearce, Director of the British Cast Iron Research Association. *Cast Iron in Contemporary Building and Engineering*. At the Royal Society of Arts, John Adam Street, Adelphi, W.C.2. Chairman, W. R. Blair, Chairman of the British Ironfounders Association. (Sponsor, RSA.) 1.45 p.m.

APRIL 10

J. H. Forshaw. *County of London Plan: Reconstruction Programmes*. At the Livingstone Hall, Broadway, Westminster, S.W.1. (Sponsor, TPL.) 6 p.m.

APRIL 25

AA Film Evening: *Nomination of Officers and Council for Session 1946-47*. At the AA, 34-36, Bedford Square, W.C.1. (Sponsor, AA.) 5 p.m.

APRIL 30

*Office Organisation*. First of a series of lectures at the RIBA, 66, Portland Place, W.1. Chairman, J. Murray Easton. (Sponsor, RIBA.) 6.30 p.m.

APRIL 30

Frank Scarlett. *The Relationship of Air Photographs to Architecture and Town Planning*. At the RIBA, 66, Portland Place, W.1. (Sponsor, RIBA.) 5.45 p.m.

MAY 1

H. Berry, M.P. *Town Planning and Water Supply*. At the Town and Country Planning Association, 28, King Street, Covent Garden, W.C.2. Chairman, Major T. F. Thomson. (Sponsor, TCPA.) 1.15 p.m.

MAY 2

R. H. Mattocks. *A Plan for a Development Area*. At the Livingstone Hall, Broadway, Westminster, S.W.1. (Sponsor, TPL.) 6 p.m.

MAY 16

R. Fitzmaurice, Deputy Chief Scientific Adviser, Ministry of Works. *Materials and Methods of Construction for Housing*. Announcement of result of AA Election of Officers and Council for Session 1946-7. At the AA, 34-36, Bedford Square, W.C.1. (Sponsor, AA.) 6 p.m.

MAY 28

**RICKMANSWORTH**. *Building and Allied Trades Golfing Association First Post-War Spring Meeting*. At Moor Park. Singles (medal play) and four ball Foursomes (4 handicap) against Bogey will be played. Prizes for each event including a scratch prize for the singles. Members returning the best 20 net scores will qualify for the second half of the Dyke Cup Competition in the autumn meeting. Cheque for £1, which includes green fee, lunch and annual subscription to Hubert H. Hill, W. G. Hill and Son, Monument Station Buildings, King William Street, London, E.C.4, before April 23.

MAY 8

# N E W S

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No. 2671 Vol. 103

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Though no feature in the JOURNAL is without value for someone, there are often good reasons why certain news calls for special emphasis. The JOURNAL's starring system is designed to give this emphasis, but without prejudice to the unstarred items which are often no less important.

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

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

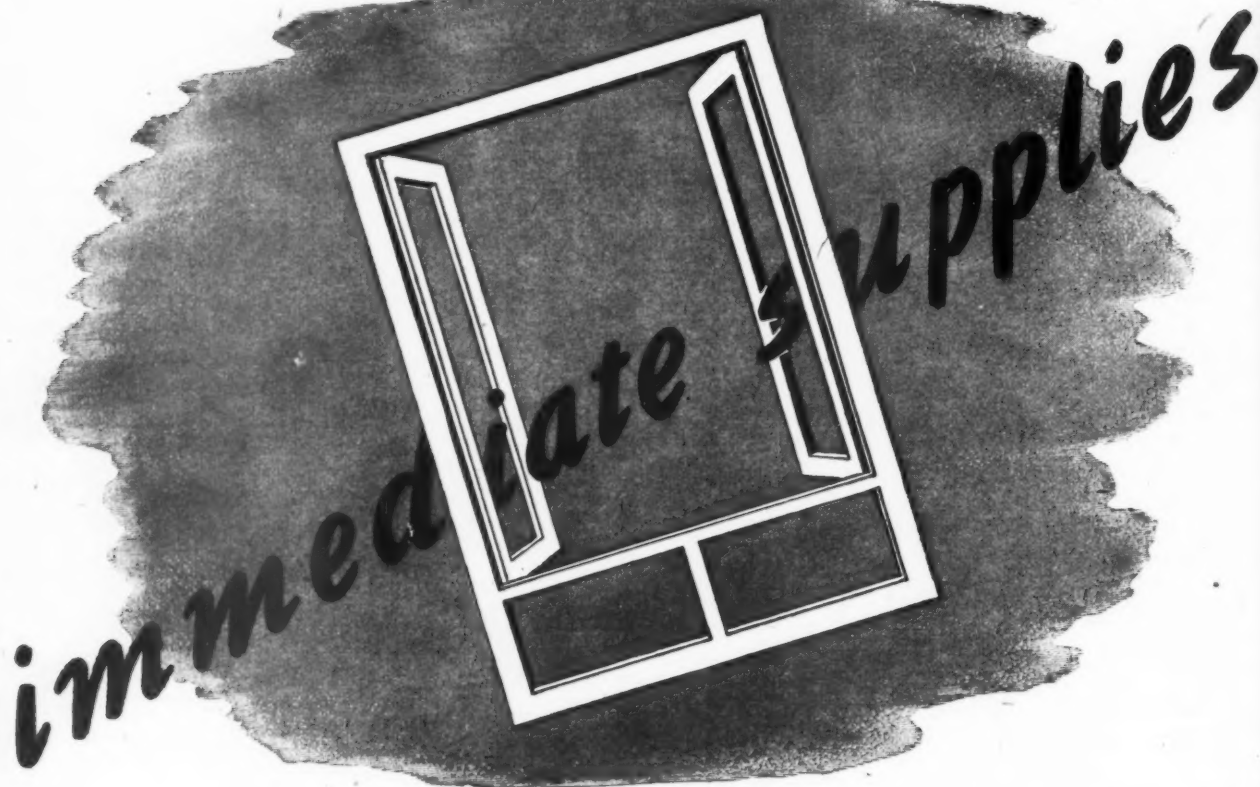
Any feature marked with more than two stars is very big building news indeed.

### ★ Mr. Allan W. Vincent has been APPOINTED BOROUGH ARCHITECT and Planning Officer of Harwich.

Following the death of the Borough Engineer, the Harwich, Essex, Council decided to separate the whole of the housing planning and architectural work from the new borough engineer's department and appoint a Borough Architect and Planning Officer wholly responsible to the Local Authority. Mr. Vincent, who has been appointed to the new position of borough architect and planning officer, is a Registered Architect and an A.M.I.M. and C.E., an A.M. Institution of Sanitary Engineers and a member of the Chartered Surveyors' Institution. He is Technical representative on the Technical Sub-Committee of the North East Essex Joint Planning Committee.

### Architects and building schemes in Cardiff have been VISITED BY TWO GREEK ARCHITECTS.

In the course of a stay in Cardiff, two Greek architects, Mr. R. Koutsouris and Mr. T. Valentis, visiting this country under the auspices of the British Council, had discussions with Sir Percy Thomas, President of the RIBA, Mr. A. Steel, Architectural Principal to Cardiff Corporation, and Mr. Lewis John, Principal of the Welsh School of Architecture. They were shown over Llandough Hospital by Mr. Morgan Willmott, its architect, saw the Ministry of Labour Building Apprenticeship Scheme in operation at Tremorfa, and visited the Treforest Trading Estate.



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## From AN ARCHITECT'S Commonplace Book

**HOW PALLADIANISM CAME AND STAYED.** [*From Georgian London, by John Summerson (Pleiades Books).*] The freshness, the stark novelty, of Jones's work in Jacobean London cannot be overstressed. Here was a city built by generations of closely organized carpenters and masons, a city of gables, mullioned windows, carved barge-boards, corner-posts and brackets, a city in which architectural novelty consisted in exceptional feats of carpentry, in curious enrichment or in extravagant use of stone . . . To put up a pure Italian building in such a setting was sensational—almost like realizing a stage set in permanent materials . . . It is not exaggerating to say that Jones's influence did not really take hold of English architecture till nearly a century after his most important works were finished . . . From the eclectic half-Baroque of Wren, taste veered for a time to the whole Baroque of Vanbrugh and Hawksmoor and Archer. Then came the reaction, led by Burlington and his group, distressed by Baroque deviations and extremely critical of Wren, they used every device of persuasion and performance to fix a standard of architectural taste conforming exactly to that exhibited by Palladio and Jones. They succeeded. Under George II, Palladianism conquered not only the high places of architecture—the great patrons, the government offices—but, through the medium of prints and books, the whole of the vernacular finding its way ultimately into the workshop of the humblest carpenter and bricklayer. Palladian taste represents a norm to which classical architecture in this country returned over and over again . . . Neither Adam nor Soane, nor the Greek men, nor the early Gothic men ever dislodged, nor attempted to dislodge, the Palladian dogma. Adam might ridicule the heavy handling of the Burlington school; Wyatt might advertize the Gothic, Wilkins the Greek. But entirely to supersede the traditional basis provided by the books and buildings of the 16th century Vicentine probably occurred to none of them; and Palladianism still coloured Barry's Italian revival of the 'forties.

### ★ **Orders in Council amending the Defence Regulations relating to Building Licensing and Registration of Contractors provide for INCREASED PENALTIES FOR BLACK MARKET BUILDING.**

Experience has shown, says the Ministry of Works, that the penalties laid down for contraventions of the building licensing regulation are inadequate in the present critical situation (the regulation makes it necessary to obtain a licence before work to the value of more than £10 [plus £2 a month on a non-cumulative basis] is started on any property between February 1 and July 31, 1946), and the changes that have now been made not only increase the maximum penalties that may be imposed for these offences, but include for the first time minimum penalties and the possibility of expulsion from the Register of Contractors. The new penalties are:

	Minimum.	Maximum.	Imprisonment (Maximum).
On summary conviction	£50 or the cost of the work, whichever is the less.	£500 or the cost of the work, whichever is the greater.	1 year.
On indictment.	£500 or the cost of the work, whichever is the less.	£5,000 or three times the cost of the work, whichever is the greater.	Penal Servitude for 7 years.

In addition, a certificate of registration issued under Defence Regulation 56AB, without which no one may undertake to do any building or civil engineering work, may now be revoked or suspended if the holder is convicted of an offence against the licensing Regulation, and the Court recommends the Minister to exercise his power to revoke or suspend a Certificate. The control over admission to the register of building and civil engineering contractors has now been discontinued, and in future no application for a certificate of registration

will be refused, except where a certificate previously granted has had to be revoked or where the applicant has been convicted of an offence against the licensing Regulation and the Court has recommended the Minister of Works to refuse the application. It is still necessary for a person who wishes to set up in business as a builder or a civil engineering contractor to be registered with the Ministry of Works.

### **As far as possible LONDON BUILDERS' HOLIDAYS WITH PAY scheme will be fixed between July 13 and August 17.**

There is to be no particular holiday week for the building industry in London this year, but as far as possible the holiday week under the Holidays-With-Pay Scheme should be fixed between July 13 and August 17. This is the decision of the London Regional Joint Committee, the official body composed of representatives of the London Master Builders' Association on the one side (together with representatives of the Associated Master Plumbers and the London and Southern Counties National Federation of Roofing Contractors) and the National Federation of Building Trades Operatives

(London Region) on the other. The full terms of its resolution on the subject are as follows: "Under the Holidays-With-Pay Scheme Agreement it is laid down that the Employer shall, after consultation with the Operatives, decide at what time between the stated dates the holiday shall be granted and whether such holiday shall be taken by all Operatives at a particular works or site at the same time or whether it shall be spread over the defined period or part thereof. The London Regional Joint Committee has given careful consideration to this matter in respect of the holiday period for 1946. The Committee suggests that wherever practicable the terms of the Agreement shall be implemented by the closing of works or jobs for a complete week, arrangements being made for dealing with any emergency that may arise within that week. In order to mitigate the dislocation caused by this holiday it is suggested that the holiday week shall, wherever possible, be fixed between July 13 and August 17. The London Regional Joint Committee will at an early date give consideration to the fixing of a definite holiday week, say the last week in July, for the London Area in the year 1947." At the last meeting of the Regional Joint Committee Mr. H. B. Kerr, former President of LMB, and Mr. E. H. Bryen were elected Chairman and Vice-Chairman respectively, and Mr. W. J. Rudderham and Mr. V. T. Sulston Joint Secretaries.



Four semi detached Swedish timber houses now completed by the Ministry of Works for experimental purposes at Abbots Langley.





## *County Architect of Kent*

Mr. Sidney Harold Loweth, F.R.I.B.A., the newly appointed County Architect to the Kent County Council, has been acting County Architect since 1941. Previously he was Deputy County Architect from 1930, and a member of the LCC Architects' Staff from 1911 to 1930. He served three years at W. E. Trent, F.R.I.B.A., and five years at the Royal Academy Architectural Schools. In addition to being a Fellow of the RIBA, he is a Fellow of the Society of Antiquaries, and the Royal Society of Arts, is a Silver Medallist and prize winner in Architecture Design at the Royal Academy Schools; Vice-President of the South Eastern Society of Architects, Chairman of the Tunbridge Wells Chapter, and Chairman of the Education Committee of the South-Eastern Society of Architects. He is a member of the Executive of the County Architects' Society, the Salaried Members Committee of the RIBA, of three Committees of the Ministry of Works (Schools Section), Kent

Archæological Society, past member of the RIBA Science Standing Committee, and member of the RIBA Unification Committee, and Modern Construction Group (Professor W. R. Lethaby). He was also an RIBA representative on three Committees of the British Standards Institution, and is Honorary Educational Adviser on Architectural and Building subjects to HM Prison, Maidstone. He is a past member of the Boards of Examiners in Architecture and Building Subjects of Middlesex, Surrey, and Kent, Lecturer (1920-1932) at various London and Provincial Polytechnics and Schools of Art, has exhibited at the Royal Academy in collaboration with Charles Sims, R.A. (Keeper of the Royal Academy) in the design of a public building, and has written numerous articles in English and foreign journals on reinforced concrete structures and uses of new materials, as well as articles in USA journals for the Ministry of Information on post-war building problems in England.

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*At South-West Essex Technical College and School of Art Department of Architecture and Building Mr. John J. Clarke, is to give a course of LECTURES ON HOUSING AND PLANNING LAW.*

A summer course of nine weekly lectures will be held on Wednesday evenings, from May 1 until June 26 inclusive, in the above Department of the College, on *Contemporary Housing and Planning Law*. The course of lectures will be given by Mr. John J. Clarke, M.A., F.S.S., Barrister-at-Law, Legal Member of the Town Planning Institute, an authority of many standard works on the law of housing and planning. The lectures are intended in general, for all interested in contemporary legislation in the fields of housing and town and country planning, and in particular for the planning and clerks' staffs of local authorities. The lectures have also been designed to cover much of the syllabuses for the law papers of the forthcoming examinations of the Town Planning Institute. Full particulars, including a synopsis of the lectures, can be obtained free of charge, on application, to the Head of the Department: Mr. D. Winston Aldred, F.R.I.B.A., A.M.T.P.I., at the College, Forest Road, Walthamstow.

*The National Trust has agreed to accept from Lord Newton his offer of LYME HALL and park of 1,323 acres, provided that arrangements can be made to lease the property to Stockport Corporation upon terms satisfactory to Lord Newton and the Trust.*

These terms involve the maintenance of the park as an open space and the preservation of the house, of which certain rooms will be made available for public view. The Stockport Corporation has appointed a special committee to deal with the question. It is thought that the house might in the first place be used temporarily as a teachers' training college and subsequently as a convalescent home. The park is a valuable strip of open country between the growing industrial areas of Manchester and Stockport and the Peak District, of which it is literally the western border.

*At 5.30 p.m. on April 11 at the Association for Planning and Regional Reconstruction, 34 Gordon Square, W.C.1., Major William Tatton Brown, M.A., A.R.I.B.A., is to give a lecture on PLANNING IN BURMA.*

*The British Council is making a photographic record of the work of the LIVERPOOL UNIVERSITY SCHOOL OF ARCHITECTURE. The pictures will be included in the Council's general overseas distribution and will, in particular, be used in a film strip.*

## GETTING WARMER

**A** GLANCE back over events of the past two years shows that something approaching a revolution has been occurring in the field of house heating. There has been a Government Committee on the Heating of Post-War Buildings, which has recently issued a voluminous report devoted almost entirely to house heating. Following from this there is the Draft Code of Practice. There was also the Burt Committee Report on House Construction, which gave considerable emphasis to certain aspects of house heating, in particular to the value of proper insulation. Apart from these governmental efforts there has been a number of reports by the various fuel interests and by independent organizations. It is clear that the makers of heating appliances have been aware of this revival of interest and many improved appliances are now being exhibited.

This is excellent, and the efforts thus made to improve our admittedly poor standards are very welcome. But is all this activity taking a sufficiently wide view of the whole problem? On the whole, probably not. It is, therefore, particularly gratifying to find that one firm of appliance manufacturers has had the foresight and courage to arrange for an American expert to visit this country to study our problems and give his views as to the best methods of heating applicable to our conditions. An outsider can often see things from a fresh viewpoint. Mr. Robert K. Thulman, of the Federal Housing Administration, after spending five weeks in this country, recently addressed the Institution of Heating and Ventilating Engineers and if we interpret his remarks correctly he has given us just the necessary jolt required to make us sit back and reconsider whether the flood of new ideas and appliances are really on the right lines. His paper to the IHVE is reported elsewhere in this journal but we refer here to only one or two of the points he raised. First, Mr. Thulman suggested that "group" heating plants serving a small number of houses might be a good thing. Secondly—and most important—he stressed that whether from a group plant or as an individual house system, central heating does not mean that full heating of every room must be used throughout the day and night. He pointed out that in any central heating installation controls are always included, and that our new conception of background heat plus topping up could perfectly well be provided in this way. Thirdly, he disposed of the idea that Americans do not like open fires by saying that anyone who could afford one would always do so but that it is regarded as a luxury and is therefore omitted from the lowest priced houses. He was not in favour of omitting some form of open fire from British houses.

In his paper, Mr. Thulman referred several times to a Government mission from this country which visited the USA last year to study small house heating. He said that he had seen a draft of the report of that mission and understood that it

was to be published soon. He indicated that he was in agreement with the conclusions reached and thought that the report would be of real value.

We feel that the exchange of ideas obtained from visits of this kind are bound to be most valuable and we join with Mr. Thulman in hoping that the report will be published very soon and that further exchanges of views will follow. In particular, we hope that his suggestion for a further mission to the USA to study District Heating and Group Heating will be noted and that Government action will result. On a matter of such importance it is not sufficient to leave everything to the initiative of individuals or manufacturers.



*The Architects' Journal*

War Address: 45, The Avenue, Chesham, Surrey

Telephone: Vigilant 0087-9

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#### DESIGN AT DORLAND HALL

At its Modern Homes exhibition at Dorland Hall, the *Daily Herald* has again organized a design quiz. In their show at Dorland Hall last July the interest in the quiz, Mr. Katz, the chief designer for the exhibition, tells me, astounded the organizers. As many as 25 per cent. of the visitors filled in the forms, supplies of which were continually running out. The final result of the quiz? By far the greater part of the 25 per cent. chose the better designs—which must have surprised a lot of people.

One is probably not justified in taking this result as typical of the population as a whole. Nevertheless, perhaps when the "great sowbug public" has a choice of two standards set clearly

before its eyes, it really does show better taste and better sense than it is usually accredited with by the aesthetes and the intellectuals.

If this is so, what will Mr. and Mrs. Everyman think of the new Utility furniture which is shown at Dorland Hall? With nothing to compare it with on the spot perhaps they will like it better than I did, with my shining memories of the art paper pages of Svenska Slöjdföreningen's *Form*. Better than Mr. and Mrs. E. have been accustomed to in the past, no doubt (there are one or two quite presentable pieces, especially in M. Jacques Groag's one room flat designed for the CID), but on the whole with form and texture that has not even the vitality of the vulgar. If furniture must be bureaucratized, you should do better in the future, BOT.

It is a pity that not more of the individual exhibits at Dorland Hall are up to the design standard of the exhibition as a whole, for which the designers must be congratulated. Especially well carried out is the main hall, containing models of some of the permanent prefabs accepted by the Government. Here one's interest is at once aroused by the distorted models, which have borrowed a technique from the film industry.

Of the houses shown, that of the LCC is undoubtedly the dullest; it is in fact quite dead. The British Steel House designed by Frederick Gibberd is probably the most alive—partly because those seemingly inevitable semi-detached blocks are here linked

together by walls, and also because the gable roof ends of the houses when placed in a row tend to carry the ridge and eaves lines through. It's a gallant attempt to attain the visual unity of the terrace.

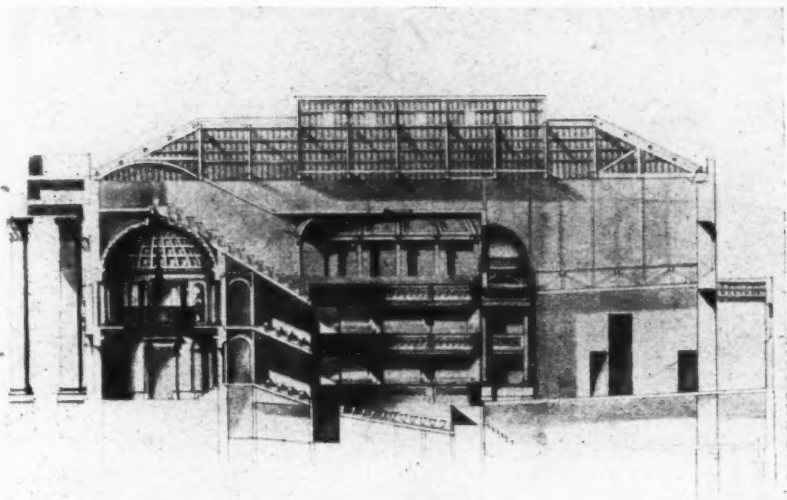
By the way, why so little heard these days about the terrace house? Speak up, architects, before the new roadways become as irretrievably disjointed as a Pacific pig when the atom bomb has dropped.

#### GOTHIC LEAVES

We have something admirably informative in Nicholas Pevsner's book on the leaf carvings of Southwell Minster (*The Leaves of Southwell*, King Penguin series, 2s. 0d.). It is not mere description, nor are we deluged by historical conclusions of questionable validity; on the contrary the author does two valuable things, he makes comparisons with Continental usage, and he includes a study of the background, that is, the philosophic principles of the 13th century, and the methods of the great masonic Magistri at the time. Nothing surely is more important for an understanding and appreciation of Gothic than to know what the builders were trying to do, and how they set about it.

With great skill an immense amount of erudition is packed within a short and readable compass. There are, of course, points which can be questioned, otherwise where would be the fun? Possibly the timber roof of York chapter house is fashion rather than fright. There seems to be an epidemic of timber in England about 1290—the wooden Lantern of Ely, and the snappy little vault at St. Alban's come to mind at once; also the odd business of the Coronation Chair, first cast in bronze and then made in wood. Then it is a little difficult to accept the 15th century origin of linear perspective in Italy. The wall paintings of St. Stephen's Chapel (c. 1360) show very resolute attempts at perspective. The matter needs expert study *ad hoc*.

But this is by the way. This is the kind of book about architecture which needs writing; full of sound conclusions based on stated evidence, and containing a perception of larger issues, i.e.,



Section through Theatre Royal, Newcastle-upon-Tyne from Theatre Notebook, on which Astragal comments this week.

the correlation between the subject and the general body of Western thought at the time. The photography is excellent and there is plenty of it. The detail of the carvings can be well seen. Incidentally the author remarks on the "mask-like lifelessness" of the carved face on Capital C.31, and suggests an inability to render the human form. But an alternative explanation is possible. We have here surely the wodewose, woodhouse or Green Man, that strange pagan survival.

There is no space here to enlarge, but those interested may turn to Chambers *Medieval Stage*. The face is in fact a dead face, and if the authorities are to be believed, records the practice of hanging a man "clothed all in green (leaves)" in order to ensure the return of Spring. The Church might stop the practice but not the idea. We still do likewise at the approach of winter, but an effigy is substituted, called Guy Fawkes and associated with the Gunpowder Plot. Thus the real meaning is decently obscured, and our consciences unsullied.

#### THEATRE NOTEBOOK

Some of you who heard Mr. Summerson's recent broadcast on the Architecture of Concert Halls may share my wish that he gives a second one on the architecture of theatres, for these buildings are badly in need of keen analysis. Actors are notoriously inarticulate on any subject but themselves, but their almost universal condemnation of all theatres built in

Britain during the last twenty years indicates that modern theatrical architecture is failing to please a high proportion of those it is designed to serve; while as for the public—well, we are at least spared in the modern theatre the privilege of paying eighteen shillings to sit behind a column, but what we gain in comfort and safety in case of fire we usually lose heavily in gaiety and theatre atmosphere.

Welcome, then, to *Theatre Notebook*, a new quarterly of notes and research, edited by experts and designed to fill the gaps in our knowledge of theatrical matters. One of its most valuable contributions is the full iconography which it is preparing for the British Playhouse, London and provincial, from earliest times to the present day. [Widest gaps in records occur apparently between 1880-1920.]

The drawing reproduced above is from the January issue, and is a section through the Theatre Royal, Newcastle, designed in 1836-7 by Benjamin Green, an associate of the famous Newcastle Nash, Richard Grainger. Note the pit is still surrounded by the circle of boxes, a plan soon to be superseded by the deeper pit with dress circle above. The Theatre Royal, like many others, was burned out in the last century, but its original exterior remains. Long may it stay so.

ASTRAGAL



## LETTERS

G. B. J. Athoe,  
(Secretary, Incorporated Association  
of Architects and Surveyors)

Erno Goldfinger, D.P.L.G.

B. R. Davis,  
(Publicity Committee, Arch. S.A.)

### Christopher Columbus Memorial

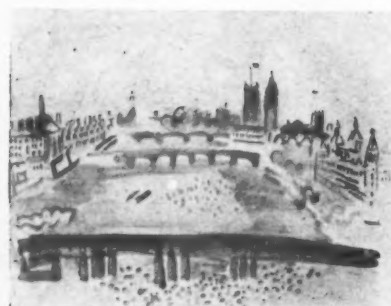
SIR.—There has been a correspondence, which I originated, in the lay Press on the subject of the architectural memorial to Christopher Columbus, a model of which was lately on view in London. I pointed out that the "discovery" of America by



Statue to Leifur Eiricsson, presented to Iceland by the USA. See letter on Christopher Columbus Memorial.



## FRENCH ARTISTS IN LONDON



Paintings from the exhibition, London Seen by French Painters of the 19th and 20th Centuries, now open at the Institut Français. Top, a water colour by Eugene-Louis Lami painted in 1841. Centre, another water colour by Lami painted in 1865. Below, left, a water colour of Westminster by Raoul Dufy. Below, right, Life Guards, an oil by Yves Brayer painted in 1939. As Raymond Mortimer writes in the exhibition catalogue: "From Delacroix and Gericault, through the agreeable Lami, the great impressionists and the witty Dufy, to painters such as Oberle, Pascal and Van Moppes who shared our agitated life beneath the bombs, the development of French painting, through over a hundred years is here represented. . . . I hope only that the Home Secretary will give himself the pleasure of visiting the exhibition, for this may persuade him to restore to French artists that liberty of access to London of which we see here the so auspicious fruits." The exhibition closes on April 13.

Columbus was anticipated by an Icander by some 4 or 5 centuries. I have now been favoured by the Iceland Legation in London with a photograph of the statue to Leifr Eiricsson presented to Iceland by the United States, and it may of interest at a time when architectural and sculptural memorials are being much discussed. The idea underlying the base of the piece is noteworthy. The base is emblematic of a Viking ship's bow—complete with ram and timbers. The photograph does not show it, but the base is hollowed out in the form of a ship. It occurs to me that some such emblematic design would enhance the effect of various other potential memorials. Its inclusion would avoid that regrettable sameness which characterizes so many of our architectural and sculptural memorials.

G. B. J. ATHOE,  
Secretary,

Incorporated Association of Architects  
and Surveyors.  
London

## Manufacturers' Catalogues

SIR,—May I intrude on your precious space to voice a general opinion amongst architects.

One of our most helpful sources of information are contractors' and manufacturers' catalogues. These suffer from two regrettable disabilities:—

1. They contain a lot of irrelevant material, such as superb illustrations of buildings in which the advertised product is incorporated.

2. The catalogues are all of different size. Both these points cause a considerable waste of space. May I suggest to contractors and manufacturers to standardize the size of their printed matter, for instance to the size of the information sheets of THE ARCHITECTS' JOURNAL (8½ in. by 11½ in.).

This, of course, has been the general practice in the United States for many decades.

With regard to irrelevant subject matter, could this not be omitted and replaced by factual information, physical and chemical properties, sizes, and in some cases plans, sections and elevations to a convenient scale (say, ½ in., ¼ in., ⅛ in. to the foot, as the case may be)?

London

ERNO GOLDFINGER

## Polish School

SIR,—ASTRAGAL'S review of the Book of the Polish School contains remarks which are unfair to British architectural students.

We share his admiration of the Poles' work, and we welcome his suggestion that their methods should be studied by the Heads of the British schools; but there are facts whose omission gives an incomplete picture.

One: The Polish students are handpicked from the whole of the Polish Forces. Would not an equivalent selection of British students have been as good?

Two: These students were released from their War Service to carry on with their studies, a privilege denied to most British students, who are therefore either extremely young or several years out of date.

Three: The book is a selection of the Poles' best work.

It is agreed that the lack of a living tradition is probably one of our greatest handicaps, and also that of our training could be improved; but we do deplore ASTRAGAL'S reflection upon us as students. May I add that this represents the views of a majority of this Committee, though not necessarily of all members of Arch.S.A.

B. R. DAVIS,

for Publicity Committee,  
Arch.S.A.

Liverpool





*The Headmaster's House, Phillips Academy, Andover, Mass. A frame house built in 1811, and designed by Bullfinch (1763-1844). The lower wings have lapped boarding exterior, but the main block has a close boarded covering, with filled joints.*

## GEORGIAN ARCHITECTURE IN AMERICA

The accompanying illustrations come from the exhibition called *American Colonial Architecture*, which has been on view at the Victoria and Albert Museum and is now to tour the country. Presented by the Georgian Group, the cost of assembling the material for the exhibition has been met by a grant from the Arts Council of Great Britain.

The exhibition consists of a varied collection of technically brilliant photographs of examples of that particular style which developed during the eighteenth and early nineteenth centuries in the colonies of Virginia, Massachusetts, the Carolinas, Pennsylvania, Delaware,

New York and New Jersey. Strictly speaking, the true American Colonial style was earlier than most of the examples shown and the exhibition is indeed Georgian architecture with an American accent—an accent resulting from the use of wood rather than English brick and stone, white painted and carved with classic detail adapted with great charm and elegance from the English copy books of the period. Climate affected it and brought the typical Southern porch with its slender columns running the full height of the house, or, as often found in South Carolina, porches built on each storey one above the other.

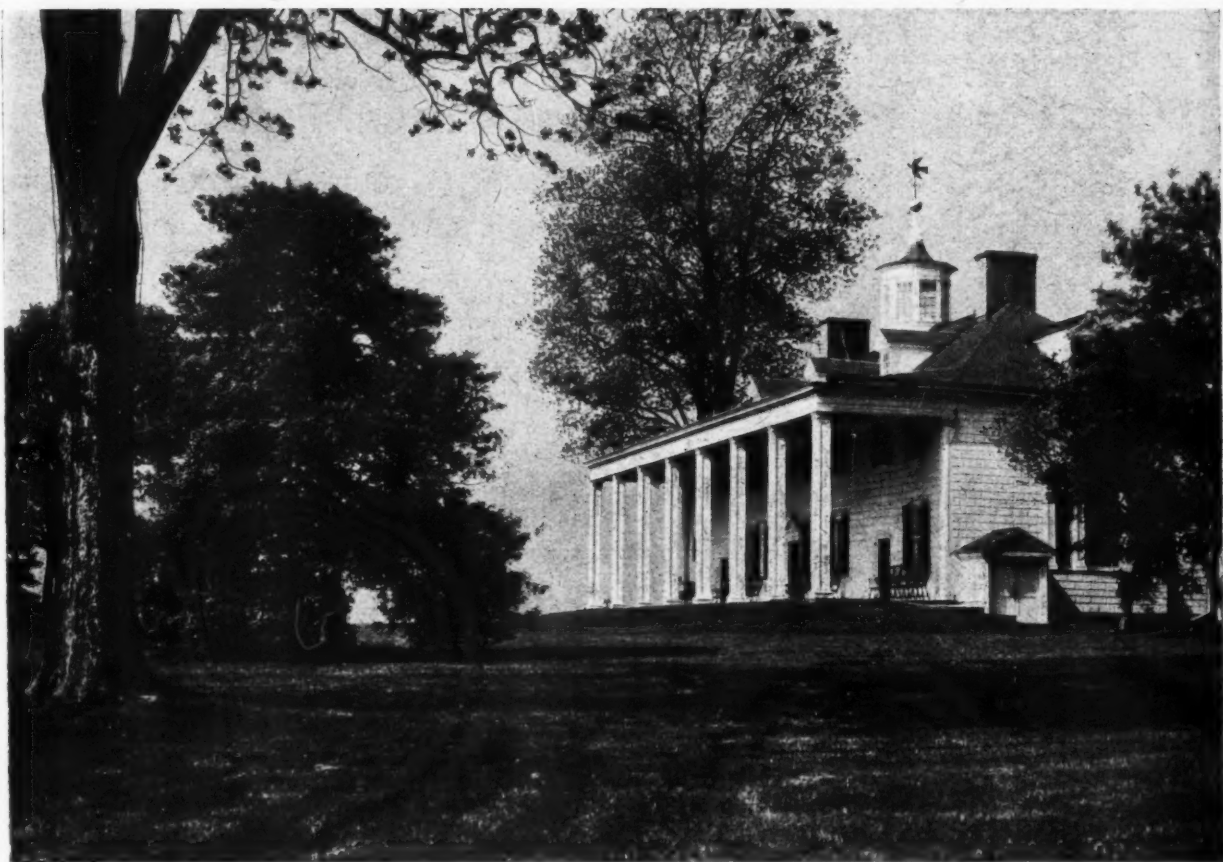
The Georgian Group's exhibition shows many fascinating examples, but it can be criticised for not having been sufficiently backed by scholarship, and true information. Drawings and plans, too, would have added greatly to the value of the exhibition. For example, the interest of Jefferson's University of Virginia is remarkable, less for its bold elevations than for its unique quadrangular lay-out which is not shown.

It is to be hoped that the present exhibition is merely a forerunner to a larger, and more informative one to come, for the subject is a fascinating one to which full justice should be done.



*This doorway to the Porter House, Hadley, Mass., can more strictly be termed American Colonial, being built in 1713. This design in wood has more of a Carolean flavour than a Georgian but is of a Baroque character that would rarely, if ever, be found in England. At the time the house was built, the exterior would have either been painted a rich, dark colour or left unpainted. The window panes have, of course, been changed, and the shutters were probably added later. An interesting feature is the slight overhang above the ground floor windows—a mediaeval retention.*

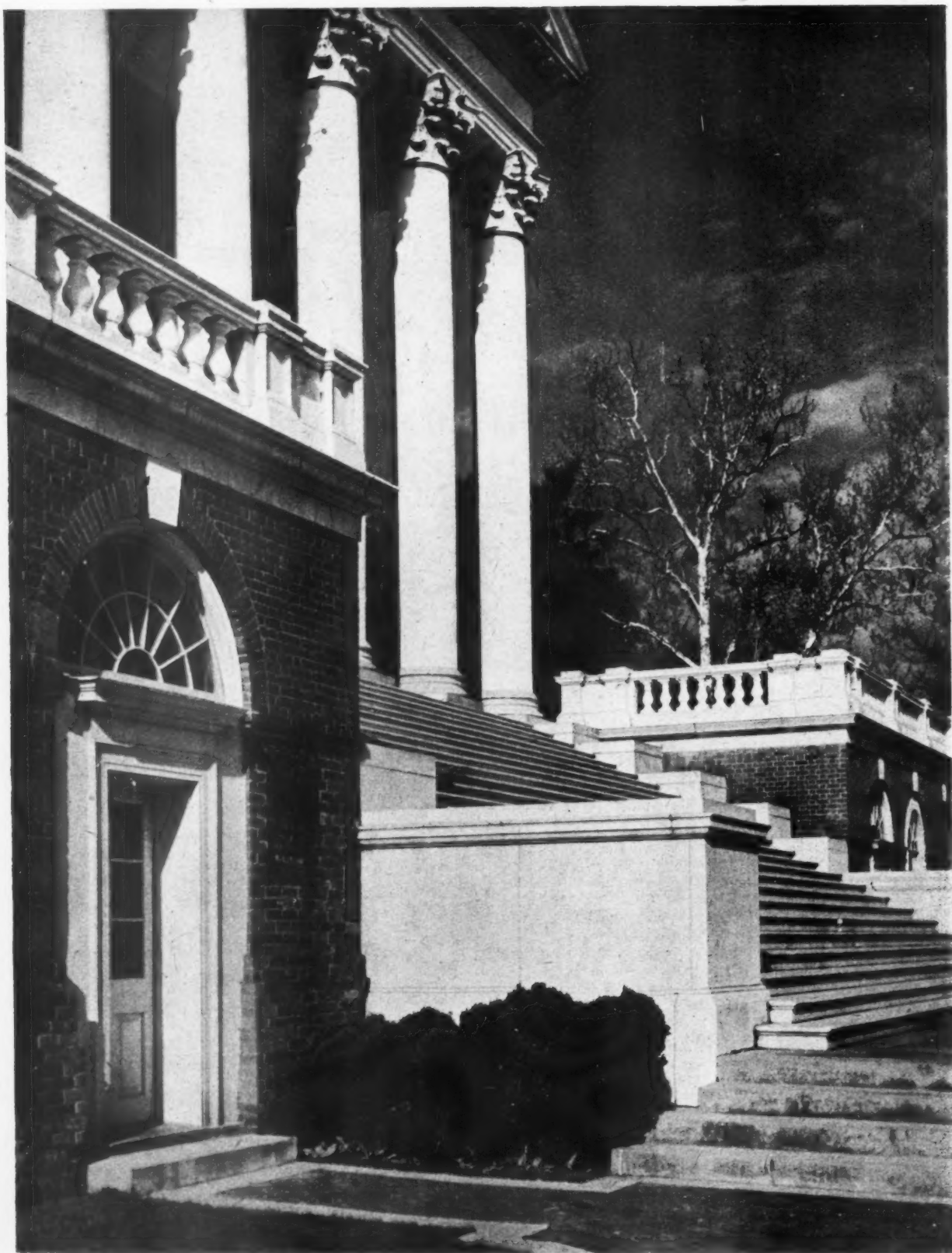
## GEORGIAN ARCHITECTURE IN AMERICA



Above, Mount Vernon, Virginia, which, built in 1745, is famous as the home of George Washington, and here the first President of the United States lies buried. The house was built at various periods, and Washington himself added the two-storey portico. An interesting feature is the use of exterior wooden boarding looking like rusticated stone. Right, the Pirate House, Charleston, S. Carolina (c. 1700) which has a distinctly English provincial character. Below, left, the Elisha Morgan House (1810), which originally stood between Albany and Ithaca, but was restored and re-erected at Cortland, N.Y., a few years ago; the Adam vernacular was no doubt adapted from the English handbooks of the period. Below, right, the John Mead Howells House, Charleston, which has the double balcony typical of that town.







*The Library steps of the University of Virginia, Charlottesville, Va. Thomas Jefferson (1743-1826), who regarded the foundation of the University as one of his three titles to fame, was its architect. The design of the University quadrangle represents Jefferson's major achievement as an American Lord Burlington. The present Library is actually a reconstruction of the original building, which was severely damaged by fire.*

## GEORGIAN ARCHITECTURE IN AMERICA





*An all gas kitchen designed by Sir Percy Thomas, President of the RIBA. It has standard size fittings and is planned to cut out unnecessary movements through correct working sequence. The sink is of stainless steel. A refrigerator is incorporated on the right at eye level. Hot water is provided by a back boiler installed with the living-room gas-ignited coke fire, supplemented by a gas water heater for summer use.*

## BRITISH GAS COUNCIL'S EXHIBITION OF KITCHENS

The British Gas Council has organized an exhibition of kitchens for new and reconditioned houses which will shortly be open to the public at Manchester and other provincial towns. The purpose of the exhibition is to demonstrate the Gas Industry's contribution to the Government's housing schemes. Every piece of equipment and appliance on view is now in production.

An exhibit of particular interest is a kitchen planned round the new prefabricated unit developed by the Ministry of Works. This unit is supplied in three sections and is two storeys high. Another in-

teresting feature is a model kitchen designed by Sir Percy Thomas, President of the RIBA (illustrated above).

The kitchens have been designed for several different types of home—the small flat, the converted house and the medium-sized family house in town or country.

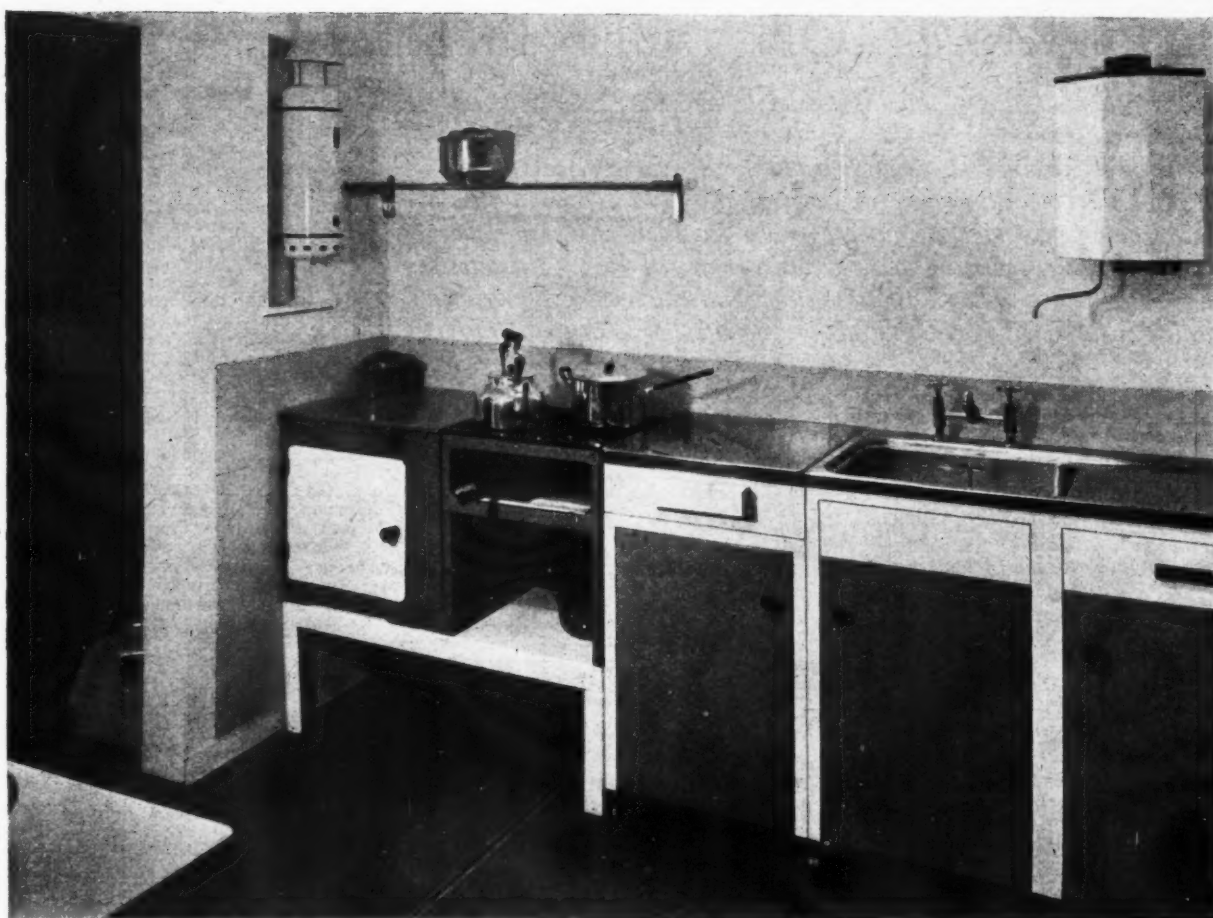
The fittings have all been designed to standard sizes as laid down by the British Standards Institution, and can be combined in different ways to suit different sizes of kitchen.

Among the appliances which will be shown is an innovation in the form of a gas-heated sink made of

plastic and aluminium. The sink is fitted with gas burners so that, as well as functioning as a sink, it can be used as a boiler for laundering, bottling fruit, etc. It has a close-fitting lid and an extractor to prevent steam from escaping into the kitchen. The sink itself is made of stainless steel, insulated so that the housewife cannot be burned, and has double draining boards of aluminium. A wringer fits into a wall recess behind the left-hand draining board, the sink lid being used as a covering panel. Knobs on all the fittings are recessed to avoid accidents to clothes.



*Above, another of the gas operated kitchens designed for Government houses. The fittings are standard size, as they are in the design on the right. Here the sink has a garbage bin below it; the storage cupboard is conveniently over the working surface.*



*Top, a design incorporating a horizontal gas cooker combined with standard size cupboards and equipment. Over the cooker is a gas circulator which heats the hot water tank during the summer; a gas sink heater is also provided to give instantaneous hot water for washing up. Below, another view of the same kitchen with working surface and refrigerator at eye level.*



BRITISH GAS  
COUNCIL'S EXHIBITION  
OF KITCHENS



# INFORMATION CENTRE

*The function of this feature is to supply an index and a digest of all current developments in planning and building technique throughout the world as recorded in technical publications, and statements of every kind whether official, private or commercial. Items are written by specialists of the highest authority who are not on the permanent staff of the Journal and views expressed are disinterested and objective. The Editors welcome information on all developments from any source, including manufacturers and contractors.*

## PHYSICAL PLANNING

2468

Roads

**ROADS AND ROAD TRANSPORT: RECONSTRUCTION OF ROADS AND DEVELOPMENT OF ROAD TRANSPORT. A Report (British Road Federation, 1944, 1s. 0d.)** Background of reconstruction policy. Principles of road transport development. Planning, construction, and maintenance of roads. Statements by various authorities, including Sir Charles Bressey.

The development of roads and road transport should form a most important part of the Government's reconstruction policy. It will enable industry to expand, assist the better geographical distribution of population and employment, promote a prosperous tourist industry and reduce transport costs. Road transport is necessary as a feeder for railways, airports, inland waterways and sea-ports, and offers industry a more flexible service than any other form of transport.

In certain directions a policy of nationalization and Government control may be necessary in order to keep all sections of the road interests in line with a national policy. But it is argued that the characteristic flexibility of road transport as well as industrial initiative and enterprise would suffer from being unduly regimented, and that no compensating advantages would be gained. Measures of control of all moving units are, however, necessary as regards for instance: safety, wages and conditions of service, and the enforcement of a reasonable standard of service and scale of charges.

Steps should be taken to establish an adequate system of consultation between the Government and representatives of the transport services and of transport users. Encouragement should be given to standardizing and stabilizing many of the factors in the road transport of goods. Legislative action should aim at the creation of conditions under which closer working between the different forms of transport can be developed.

The present level of taxation levied on motor vehicles and their fuel is unjustifiably high, and even after a considerable reduction the share of road costs directly attributable to the use of motor vehicles would still be more than covered.

The modernization and improvement of the national road system should be an integral part of any general reconstruction scheme. The fundamentals of a good road system should be:—

1. Visibility.
2. Simplicity and standardization of all signals, signposts, crossings, and roadside information to motorists.
3. Segregation of traffic.
4. Avoidance of congestion.
5. Aesthetic beauty.

The construction of a limited number of new motor roads along the main traffic arteries is recommended. The Government should prepare plans at once for a pro-

gramme of road construction and improvement and make the necessary arrangements for the acquisition of land. In deciding where new roads should be built, regard must be had to the needs of industry and agriculture, to the location of other public services, and to the needs of the people.

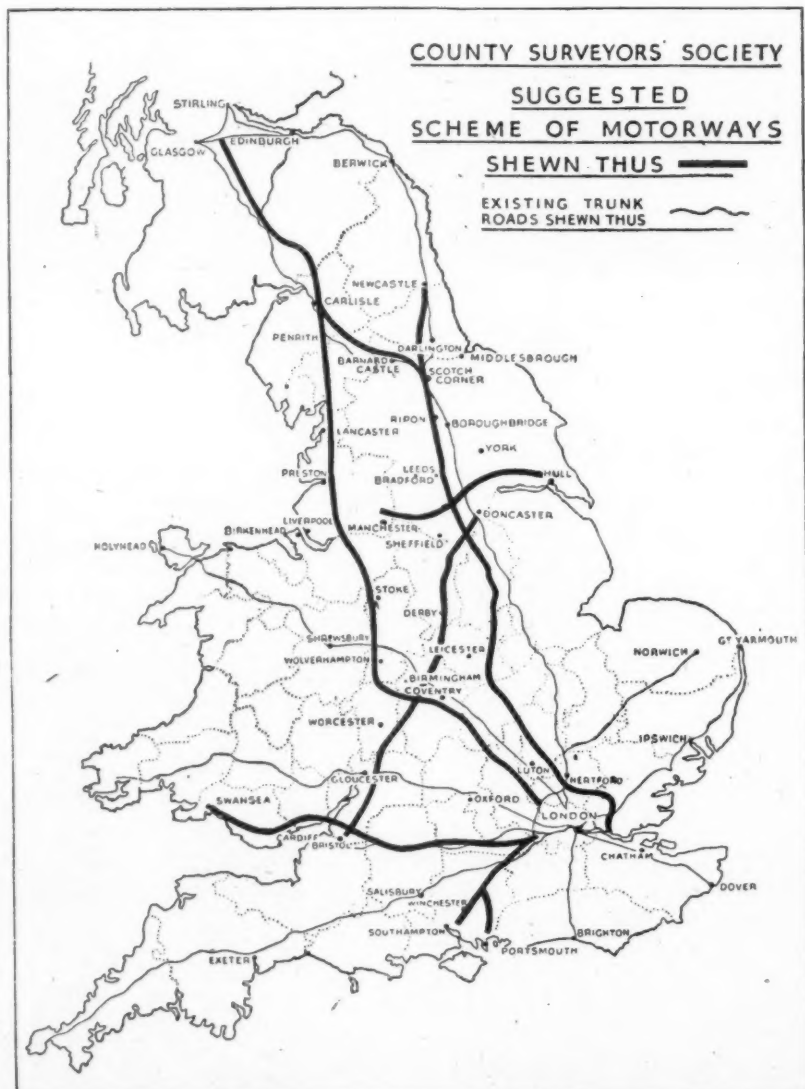
In respect of Highway Administration, the ultimate control of road policy must lie with the Government, but the detailed administration and operation of the road system might be organized on a regional basis. The establishment of a national

Roads Board should be considered to advise the Government on matters of road policy. Propaganda and research are necessary in the interest of road safety.

Appendix 1 contains proposals of the County Surveyors' Society with regard to motorways put forward in August, 1938, and representing the minimum programme upon which preparatory work should be undertaken without delay. A map shows the Society's suggested scheme for new motorways in diagrammatic form, and it is stated that the British Road Federation fully endorses the County Surveyors' proposals.

Appendix 2 gives a random selection of statements on the subject of roads and road transport made by the Scott Committee, 1942, the Institution of Municipal and County Engineers, 1943, the Institution of Highway Engineers, 1943, the Ministry of War Transport, 1943, the Select Committee of the House of Lords on the Prevention of Road Accidents, 1939, Sir Charles Bressey in the Highway Development Survey, 1937, and the Royal Institute of British Architects, 1943.

Appendix 3 contains a special memorandum on roads by Sir Charles Bressey dealing with the subject under the following headings: (1) Road Communications, including improvement programmes (general, Greater London, Birmingham, and Glas-



From Roads and Road Transport. A suggested scheme of motorways. See No. 2468.



gow); rural roads; moorlands; by-passes; motorways; bridging estuaries; viaducts; (2) Road Design, including dual carriage-ways; obstructions; road materials; snow clearing, etc.; standardization; carriageway markings; road and street signs, roadside amenities; (3) Road Administration; (4) Road Safety.

Appendix 4 gives a Memorandum on the Re-Planning of Roads in Built-up Areas prepared by the British Road Federation in 1943 for submission to the Committee set up by the Minister of War Transport under the Chairmanship of Sir Frederick Cook. The following aspects were considered:—

Defects of existing highway systems in built-up areas.

Arterial ring roads or by-passes.

Sub-arterial roads.

Streets.

Pedestrian crossings.

Arterial road and local street crossings.

Traffic Control.

One-way streets.

Provision for waiting vehicles and the loading and unloading of goods vehicles.

Interchange of road and rail passenger traffic.

Public Utility Services.

Cyclists.

Island refuges.

Lighting.

Carriageway markings.

Street name-plates.

Level crossings and weak bridges.

## STRUCTURE

### 2469 Concrete Bridge Abutment

**EMERGENCY CONCRETE BLOCK ABUTMENT.** Hobart M. Mumaugh. (*Engineering News-Record*, November 29, 1945, pp. 744-5.) Bridge abutment built of precast concrete blocks forming permanent shuttering. Faster and cheaper than standard method.

In order to avoid the use of timber and for lack of suitable labour, the abutment was constructed by laying up standard 8 x 8 x 16 in. precast concrete blocks to form two 8 in. walls set 8 in. apart. The intervening 8 in. space between the blocks, and the cored holes in the blocks were filled with transit-mix concrete. Since the blocks were not very stable against the lateral pressure of the fresh concrete, they were laid up only three courses at a time. The top was covered with a 7 in. thick reinforced concrete capping cast monolithic with the last concrete pour of three courses. The height of the abutment is 9 ft. A surprisingly small amount of reinforcing steel was needed. The construction procedure adopted proved to be faster and cheaper than the standard method.

### 2470 Concrete Compacting Machine

**A VIBRATORY CONCRETE COMPACTING MACHINE.** (*The Engineer*, February 1, 1946, pp. 114-5.) Adjustable machine to compact concrete in widths between 8 ft. and 22 ft. May be adapted to maximum width of 27 ft. Applicable up to 12 in. finished thickness.

### 2471 Arcon House

**ARCON MARK V.** (*The Architect and Building News*, February 1, 1946, pp. 67-69.) Further modifications of Arcon bungalow (see No. 1709: 14/12/44) going into full scale production. Organization of production, distribution and delivery.

### 2472

#### Arrow House

**ARROW PERMANENT HOUSING.** Thomas S. Tait. (*The Builder*, January 25, 1946, pp. 94-95.) Prefabricated concrete bungalow with steel truss roof. Method of construction adaptable to larger houses.

Outer skin of external walls: slabs in reinforced concrete with toe projecting inwards, rendered externally. Inner skin and partitions: 2½ in. thick light weight concrete slabs with special finish. The slabs are 1 ft. 6 in. wide and extend from floor to roof. Roof construction: light steel trusses with steel decking, insulated with fibre board and covered with slates.

### 2473

#### Conslab House

**CONCRETE HOUSE IN CONSLAB CONSTRUCTION.** P. M. Powell and Charles Woodward. (*The Builder*, January 18, 1946, pp. 68-69.) Walls cast *in situ* between precast external and internal slabs.

The system is an invention of Major L. Shingleton. The precast slabs are 1½ in. thick of any convenient size, but not exceeding 12 sq. ft., rendered externally. They are not bedded and are held in position before concreting the filling on one side only from ordinary tubular scaffolding. A pair of houses have been erected at Canons Park, Edgware, in which the slabs have been standardized 3 ft. long by 1 ft. 9 in. deep, and were reinforced with galvanized wire mesh. The concrete filling was made with Cheecol.

The system is adaptable, but some degree of standardization is advisable on any particular housing scheme.

### 2474

#### House Foundations

**SOME FOUNDATION TROUBLES WITH SMALL HOUSES.** Paper read by L. F. Cooling at Institute of Sanitary Engineers, December 20, 1945. (*The Architect and Building News*, January 25, 1946, pp. 52-55.) Cracking of structure due to uneven settlements. Soil movements due to load or causes other than structural loads. Conditions in clay soils.

### 2475

#### Atom-Bomb Damage

**ATOMIC BOMB DAMAGE AT NAGASAKI.** (*Engineering News-Record*, December 20, 1945, pp. 834-5.) Supplement to Report by H. W. Richardson (see No. 2197: 2/11/45.)

## HEATING and Ventilation

### 2476

#### MOW Building Study

**HEATING AND VENTILATION OF DWELLINGS.** *Post-War Building Study*, No. 19. (HMSO, 1945, 2s. 6d.) Reports of Committee of Building Research Board. 106 pages main report. 110 pages appendices. Basic requirements, quantity of heat, insulation, methods of heating. Important study of all aspects of domestic heating. Much of description of basic requirements would apply equally to other types of building. Lengthy document, but one which

housing architects must read.

This is an important Report dealing as it does with all aspects of Domestic Heating. It considers both the individual's and the National interests. It stresses the poor standards of heating in this country in the past and after thorough examination makes a number of suggestions but does not make any narrow recommendations as to particular types of appliance to be used although a number of different combinations are suggested. It deals with cooking and water heating as well as space heating. Considering the variety of interests represented on the Committee a very fair measure of agreement seems to have been reached. There is too much information to give an adequate summary but the following is an outline of Chapter contents:—

1. Mainly introductory. Importance of Domestic Heating in National Fuel Policy. Comparison of fuel consumption with other countries shows how bad our heating has been. Consumer should have reasonable choice of methods of heating.

2. The basic requirements for heating and ventilation, cooking and hot water. Standards are recommended. Importance of some "background" warming of the house stressed. 250 gallons hot water per week per household suggested.

3. Factors affecting amount of heat required to satisfy standards suggested in 2. Climate and exposure, ventilation rate, insulation. Quantity of heat estimated.

4. Insulation. Its importance stressed and standards suggested.

5. Amenities. Labour saving and reduction of atmospheric pollution. Estimated that atmospheric pollution from domestic fires costs 7s. 0d. per annum per head of population.

6. Relative efficiencies of methods of using national coal resources. An interesting but rather highly technical study.

7. Choice of methods of heating. General study with particular emphasis on importance of studying running cost as well as first cost. Tables show estimated figures on various combinations of appliances.

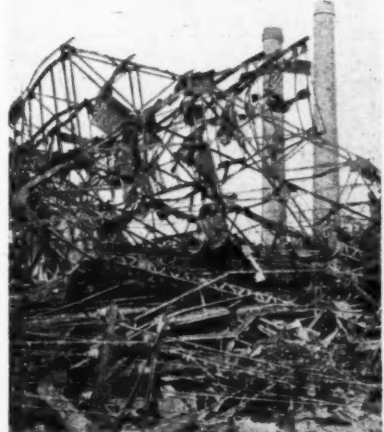
8. Ventilation. Wall ventilators apparently not efficient. Recommendations for ventilation given and sizes of flues suggested.

9. Supplementary services. Brief notes on laundry, clothes drying and airing, towel rails and refuse disposal.

10. Rural housing. Consideration of special problems.

11. Foreign practice. Rather brief review of some aspects of foreign heating.

12. Development, installation and operation of heating appliances. Review of chief points of various types of heating.



At Nagasaki rounded factory chimneys resisted atom-bomb blast while steelwork was wrecked. See No. 2475.

13. Testing, specification and standardisation of heating appliances. Stresses needed for standards of performance and adequate testing facilities.

14. Fuels and fuel distribution. Characteristics of coals, manufactured fuels, need for national balance between different fuels.

*Appendices.* These include a full report of a Survey carried out by the Wartime Social Survey and various technical appendices. Appendix 4 is a detailed study of Atmospheric Pollution, of great interest and damping in its exposure of the shortcomings of our existing conditions.

2477

**Solid Fuel Boilers**

**SMALL DOMESTIC HOT WATER SUPPLY BOILERS FOR SOLID FUEL.** *British Standard Specification 758:1945.* (British Standards Institution, 3s. 6d.) Revises three previous issues. Of considerable importance is increase in minimum fuel capacity permitted. Past experience showed smallest boilers would not always stay alight overnight. New size makes 10 hour burning certain. Other important alteration is in higher standard of control of air entering ash pit damper which should make for better control of burning rate.

2478

**Thermostatic Control**

**FUEL SAVING BY THERMOSTATIC CONTROL.** *A Leslie Longworth.* (Air Treatment Engineer, October, 1945.) Lengthy article examining the principles involved, refers to work of various other investigators. Valuable article though intended for heating engineers rather than architects.

**QUESTIONS***and Answers*

**THE** Information Centre answers any question about architecture, building, or the professions and trades within the building industry. It does so free of charge, and its help is available to any member of the industry. Answers are sent direct to enquirers as soon as they have been prepared. The service is confidential, and in no case is the identity of an enquirer disclosed to a third party. Questions should be sent to: **THE ARCHITECTS' JOURNAL**, 45, The Avenue, Cheam, Surrey.

2479

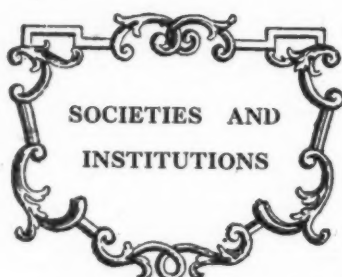
**Cost of Tennis Courts**

**Q** The site of 4 first class grass tennis courts has been badly cut up by Military Occupation. No signs of the courts now remain; we wish to have a reasonable knowledge of the cost of re-instatement involving taking up the whole of the existing turf, levelling, preparing and re-laying with first quality turf for new courts.

**A** As this is beyond the scope of normal architectural and building work, we consulted a specialist, the Shooters Construction Co., of 1175, Finchley Road, London, N.W.3, who informed us that a reasonably approximate price for reinstatement would be 9s. 0d. per yard super.

If the courts and surround are of full size (120 ft. 0 in. by 60 ft. 0 in.) this would work out at £360. 0s. 0d. per court, but grass courts are frequently not so large.

The cost of new wire enclosures and of posts and nets would be about £75. 0s. 0d. and £15. 0s. 0d. per court.



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

**IHVE****R. K. Thulman**

March 20, at the Institution of Civil Engineers, Great George Street, S.W.1. Paper read to the Institution of Heating and Ventilating Engineers, on **HEATING SMALL HOUSES—THE OPPORTUNITY FOR THE ENGINEER**, by R. K. Thulman, M.AMER.SOC.H.V.E.

**R. K. Thulman:** In December of 1944 a party of three, representing the Ministry of Fuel and Power, the Building Research Station and the Fuel Research Station, arrived in the United States for the purpose of studying American heating methods used in the heating of small individual homes and which might be applicable to the heating of similar structures to be built under the housing reconstruction programme in Britain. Since the party's objective was the study of heating methods applicable to individual homes in which the fuel was furnished by the occupant and burned in a device or system under his control, not much time was devoted to the study of housing projects served by district heating systems. The conclusions and recommendations resulting from the party's studies, together with the story leading to these conclusions and recommendations, are, I am informed, reported in *A Study of Heating, Cooking and Hot Water Supply to Small Houses in the USA and Canada*. I understand this report is to be published soon and I earnestly hope that my understanding is correct. I have had the opportunity of studying preliminary drafts of the report and believe it will be, in its published form, an admirable summary of the subject, useful not only to those of you here who may be interested, but to many in our heating engineering fraternity in America.

The conclusions and recommendations in the report were discussed with me in correspondence with the authors last year, and are summarized in a general conclusion that American standards of house heating are

higher than British and that there appears to be no good reason why this should continue. I am not raising the question of whether the American standards are higher, but, if it has been found that they are higher, I am in complete agreement that there is no good reason why this condition should continue. Among the specific conclusions and recommendations in the Report are the following:

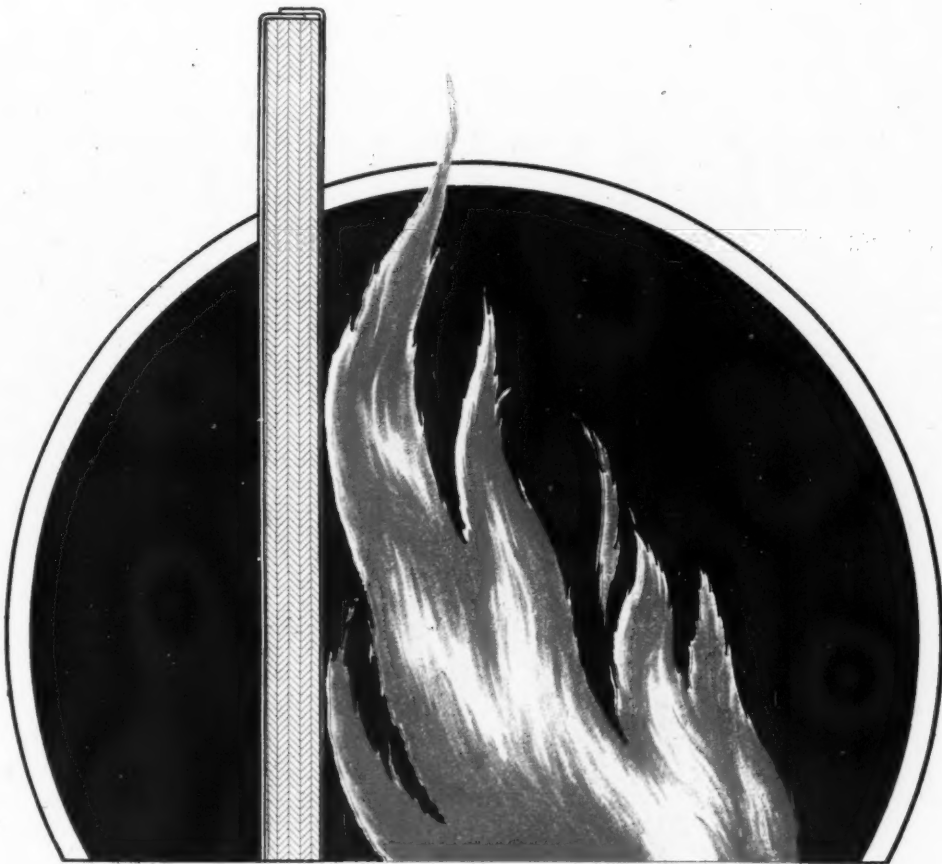
1. District heating in American housing projects, not within the scope of the party's investigation, should be made the subject of further detailed study; that recommendation is made to the Ministry of Fuel and Power.

2. The costs of providing full heating of the habitable space in a dwelling unit in America appear to be sufficiently reasonable to suggest the consideration of the present proposal of "background heating plus topping up," be regarded as a temporary transitional performance standard.

This paper is concerned with these conclusions with which, as a result of my observations during the six weeks I have been here and my study of British heating, past, present and future, I am in complete agreement. I hope that, as a result, an interest in house heating on the part of the heating engineering profession here may be stimulated and that progress can be started toward an improvement in home heating. In expressing this hope I am not unmindful of the fact that the quality of performance of many heating devices and systems in common use in America leaves much to be desired. While our "standards" may be higher than yours, the actual performance of the completed device or system does not always meet, and sometimes does not even approach, those standards. In general, the nearest approach to the standard occurs in the case of the multi-family rental project served by one form or another of district heating. The report of your joint mission, the scope of the investigation of which was restricted largely to the single family detached dwelling, points out that many American families do not have central heating systems in their houses, nor do the statistical data show the degree of satisfaction experienced by those families who do live in centrally heated homes. However, the design of heating systems installed in most new multi-family rental housing projects contemplates uniform temperature throughout each dwelling unit, maintained automatically by the project management and supplied to the tenant as part of his rent.

The observations which I have been privileged to make at first hand during the six weeks I have been here support the general conclusion in your mission's report regarding standards, and in particular support the supplementary conclusion that a higher standard can be reached. My observations indicate that the specific conclusion in the report regarding the desirability of detailed study of district heating practice in America might be quite profitable and that a first-hand study of that practice by a second mission should be well worth while. This agreement on my part with the conclusion in the report is prompted by the fact that the multi-family projects I have seen here, both old and new, are not too different in type, number of living units, construction, glass area, appearance and general layout, from those in the United States. The methods of heating these similar projects here and in the United States, with the exception of the Dundee project, are strikingly different and suggest that there may be impelling reasons for the difference.

It has been frequently stated that the British climate — relatively mild winters, cool summers, exceptionally cold spells of only a few days' duration, followed by warm periods, quite sudden diurnal temperature variations, does not justify more than the simplest form of heating device. It is generally believed here that the American climate is such that the temperature falls evenly



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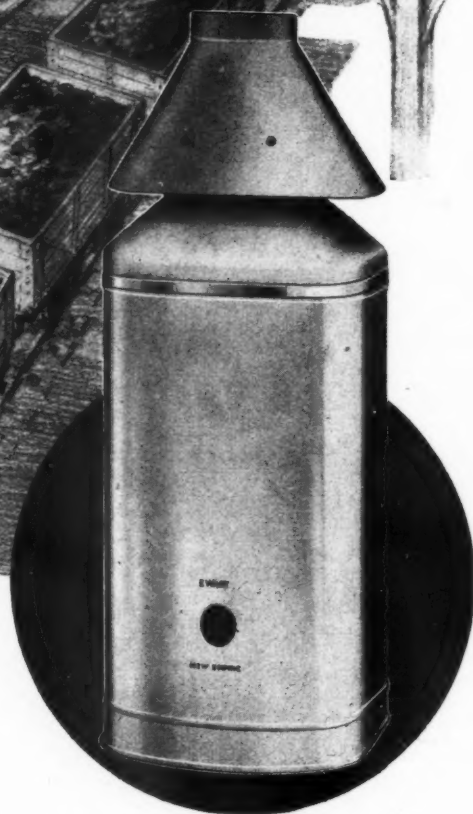
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during the autumn months, stays cold all winter, and rises uniformly in the spring. A curve describing the mean monthly temperature of Seattle, Washington, superimposed on the same sort of curve for London, shows that there is very little difference. Relative humidity curves for the two cities are likewise strikingly similar. Many similarities with respect to variations in temperature from week to week or within a day's time can be easily discovered by an examination of the meteorological data of American and British cities. The use in America of both district heating and central heating schemes is by no means confined to those areas of the country where the winter climate is severe.

There seems to be an assumption that the heating of the entire house will require the omission of the open fire and will deprive the Britisher of the satisfaction he derives from the traditional focal point. Habits and customs of long standing are not easily changed, and it is neither wise nor necessary, in my opinion, to omit the open fireplace from the new housing you are constructing and that you are now planning. The virtues of the open fire are appreciated equally by the people of both countries. The hearth is just as much a "focal point" of the living room in our country as in yours, but the open fire is not depended upon as a sole source of heat. I have not heard the fireplace in the bedroom of the British home referred to as a focal point—its purpose in the bedroom is purely utilitarian, and in this sense is essentially the same as the radiator, convector or warm air register in the bedroom of the typical American home. I believe that the whole American house, living room, dining room, and bedrooms, becomes, through full house heating, a focal point or series of focal points wherein a widely varying and large number of family activities can be carried on. The bedrooms serve other purposes in addition to the mere provision of sleeping space—space for the children to study or play, space for the housewife to sew or the husband to read or work. Independence of the fireplace as a sole source of heat widens the family circle to every habitable room in the house, and even extends it to the basement, where a workroom for hobbies, laundry facilities, and space for drying clothes on cloudy or freezing days is provided. The whole family is apt to congregate in any room where its immediate interest is centred. Even within the living room it is not restricted to a narrow, semicircle around the hearth. The cheerful open fire can be viewed from any part of the room without discomfort. By no means should the open fireplace be omitted—if its luxury can be afforded. We do not ordinarily include it in multi-family rental housing projects because of its cost.

In connection with the assumption that district or central heating means the omission of the fireplace, it has been stated that the flue provides an effective means of ventilation. There can be no doubt that, if there is a flue connecting one of the rooms to a point above the roof, and if that flue is heated, and, further, if openings in exterior walls of the structure are provided, vitiated air from the rooms will pass up the flue and be displaced by fresh air entering the opening in the walls. If the openings in the exterior walls are strategically located and if the rooms are freely interconnected by open doorways, or if the doors placed in these doorways do not fit tightly when closed, the ventilation of the whole house is quite effective. The effectiveness varies with the amount of fuel burned, the size of the flue and wall openings, and inversely as the efficiency of combustion. A large amount of effective ventilation is therefore obtained when excess fuel is burned inefficiently and the inlet openings and flue are ample in size and properly located. If these conditions are disturbed, the amount and effectiveness of ventilation fall. The performance of the ventilating system is quite unpredictable in

any case. The American system, depending as it does on natural infiltration of air through cracks around window and door openings on one side of the house and ex-filtration through similar cracks on the other, is equally unpredictable in performance and its effectiveness under varying wind conditions quite as mysterious. We are aware that an open fireplace increases the amount of air leaking into the house, and we equip the fireplace with a throat damper to be closed when the fireplace is not used, to prevent the escape of air warmed by the heating system.

The literature of both countries records the agreement that the criterion of adequate ventilation is absence of odour generated by cooking certain foods or by the body. Kitchen ventilating fans and an adequate hot water supply appear to be more direct and economical means of dealing with the problem of odour than is natural ventilation through a flue.

I have also noted the assumption here that the district or central heating system means that bedrooms must be warm at all times and therefore that they are uncomfortable to sleep in. This assumption implies a lack of control of the room heating units or registers; yet a radiator is rarely installed without a valve and an air register rarely without a conveniently controlled damper. With valves and registers and cross-ventilation, the American bedroom temperature can readily be reduced from the comfortable temperature required for undressing, to any temperature approaching that of outdoors. It might be well in this connection also to point out that it is generally agreed that cold is stimulating and that stimulation is not conducive to restful slumber; also that heavy bedclothing is likewise disturbing to healthful rest.

I have been given the opportunity to examine in detail some of the district heating plans now under consideration here. Generally there seems to be an opinion that the use of a district heating scheme can be justified only if the project is large and, in some cases, only if the heating service is a by-product of power generation. With efficient small boilers, automatic stokers and temperature control, a small plant, or in a large project, a number of small group plants can be quite as efficient as the large system in which heat is generated in a single boiler house. The several smaller group plants are usually much less costly to install and maintain. The single large plant requires a separate boiler house structure and a large and usually unsightly stack. For this reason the site planner will often locate it in an inconspicuous place as possible, and that location may be quite expensive in terms of distribution piping. The boilers of the small group plants can be housed in basement areas of the residential structures themselves and require smaller chimneys, which can often be successfully incorporated into the architectural design. The coal can be delivered to and stored in these smaller plants in special bunkers, from which it can be conveyed by automatic bin-feed stokers to the boilers without increase in expenses over that of delivery to a single large plant. Automatic stoking and automatic control reduce the labour expense to a minimum and one good maintenance crew can serve several plants. One important advantage of the group idea which may be overlooked is that it is not necessary to invest a large amount of capital in boiler and stoker equipment and separate boiler house before the housing project is beginning to produce a revenue from rents. The first part of a project, consisting, for example, of several hundred dwelling units, is usually occupied before ground is broken for the final part. The interval may be a matter of years. A single large boiler plant, completed simultaneously with the first part of such a project, may, therefore, operate so uneconomically during its first few years that the loss is never fully made up.

The pipe sizes and pump capacities used in the small group plants are much smaller and more economical to install than the large piping and pumps of the single large plant. The housing units can be distributed in groups so that the density per acre is the same as though they were distributed more evenly over the whole area, without detracting from, and usually improving the appearance of, the whole layout. The larger open spaces resulting from arrangement of the housing structures of a large project into a number of smaller groups lend themselves more readily to recreation and garden areas, and the amount of underground piping required is drastically reduced.

These advantages of district heating, in my opinion, lend added weight to the recommendations of your mission that further investigation of the subject should be undertaken at an early date. They suggest also that the other recommendation mentioned—that the "background heating plus topping up" plan might be considered as an interim standard—is logical. It should be apparent that the central plant can be designed to produce the same quality of performance in an individual detached house as that furnished by the district heating scheme in each unit of the multi-family rental project. In terms of radiator and boiler size or duct and furnace size, an individual system capable of maintaining a comfortable air temperature does not cost much more than one capable only of maintaining a slightly lesser air temperature. Radiator valves or register dampers are provided in any case, so that the control necessary to modulate room temperatures to a point below our comfort level does not involve extra cost for "topping up."

The initial cost of the single system to do the whole job would appear to be less than that of a system designed to maintain a temperature below the comfort level plus auxiliary devices to elevate the temperature to the comfort level. The operating cost of the single system will probably be not appreciably more, and may be considerably less, than that of the dual system.

The advantages of the district heating group scheme cannot be fully attained unless the plants are designed by competent engineers with a full knowledge of the economic and technical details of the problem. That is very important. Each project is an individual problem and must be treated as such. There are no established rules of procedure other than basically sound engineering.

In American multi-family housing projects a number of different types of heating systems serving varying numbers of dwelling units have been used, but of late there has emerged a general design that may be considered more or less "typical." A brief description of such a "typical system" is as follows:—

The heat generating unit of a group plant of this type usually consists of two portable firebox steel boilers, each with a capacity of about 60 per cent. of the total heating load. They are cross-connected and valved so that either can be shut down while the other is in operation. Each boiler is equipped with an automatic stoker of the bin-feed type. In each boiler, or attached to it, is an indirect water heating coil of sufficient capacity to supply adequate hot water to the dwellings directly or through a storage tank with a capacity of about 20 gallons per family. The water in the boiler is maintained at about 180 deg. F. by means of an aquastat connected directly to the stoker, and the boiler water may be circulated around the indirect coil if it is of the external type (called a calorifier in this country) by an automatically controlled pump. The service water may also be circulated to the storage tank from the indirect coil with a pump. From the storage tank the water is circulated by pump to the residential buildings. The whole hot water system is under city main pressure and requires no indi-

vidual tanks within the dwellings. The cold water system is likewise under city main pressure, so that no cisterns in the houses are necessary.

The pumps are in duplicate, each with a capacity sufficient to supply the radiators with enough water so that the temperature drop through the radiators is 20 deg. One pump is for standby service—two are never run simultaneously. In the supply main may be installed a three-way valve, to the third port of which a by-pass leading from the pump discharge line is connected, bypassing the boiler. This valve is controlled thermostatically by a bulb located outdoors, so that the temperature of the water in the main supply is varied inversely in a straight line relation to outdoor temperature. There are other methods of accomplishing the same result, but in effect the method meters the heat supplied to the buildings according to the weather.

The supply and return mains are carried in underground conduits between buildings and in the space below the ground floors of the buildings themselves. The domestic hot water supply and return mains are carried in the same conduits and spaces as the heating mains. Under each building connections are made to the heating mains to form a one-pipe circuit around the perimeter of each building, and the entire group is laid out on the reversed return principle to provide as great a degree of inherent balancing as possible. To the one-pipe building circuits, connections are made to supply and return risers leading directly through the ground floor to the ground floor radiators and through interior partitions and first floor construction to the first floor radiators. (The ground floor here is called the first floor in America, and the first floor here is called the second floor in America.) Radiators are located under windows and each is equipped with a valve. Radiators are painted the same colour as the background walls.

I am fully aware that competent engineers in each country can be expected to develop devices and systems best adapted to local conditions. I know that the American public has been trying, somewhat inarticulately, to tell the American heating industry that it welcomes improvement in home heating. That improvement has been slow and it may be some time before it accelerates. In the six weeks that I have been here I have observed this same condition; that the British public has been trying—also somewhat inarticulately—to tell you and the people responsible for the heating and comfort of its new homes that it, too, will welcome improvement. The opportunity to contribute importantly to a much-needed improvement in a public service lies before you.

## RIBA

### Resuming Practice

The following members have notified the RIBA that they have been released from the Services and are resuming practice and would like to receive trade catalogues, information sheets and other data, etc.:

Mason Apps (A), A.M.T.P.I., 11, Granada House, Maidstone, Kent (Maidstone 4711); Eris S. Ambrose (A), 30, Bisham Gardens, Highgate Village, N.6; A. R. F. Anderson (F), resumed practice with Major E. Forster (A) and Lt.-Col. J. W. Wilcox (L), at 9, Stone Buildings, Lincoln's Inn, W.C.2.; Lawrence K. Bond (L), 11, Elmer Street, Grantham; Philip Beard (A), City Architect's Department, Plymouth; Oswald Brakspear (A), 44a, High Street, Corsham, Wilts; Thomas Burrington (A), 22, High Street, Swindon,

Wilts; H. M. Barker (L), "Barton House," 10, King Street, Deal; Sydney P. Bush (F), Consulting Architect to Government of Burma, c/o Chief Engineer Buildings and Roads, PWD Secretariat, Rangoon, Burma (trade catalogue, etc., for materials suitable in a tropical climate); J. Gordon Berry, M.C. (A), Messrs. Joseph Berry & Sons, 5, Market Walk, Huddersfield; K. T. Cadbury-Brown (A), 17, Clarges Street, W.1 (May, 1884); J. B. S. Comper (F), 36, Sloane Court, London, S.W.3; Lt.-Col. Eric Cole (F), Dyer Street House, Cirencester; David Clarke (A), 81, Terminus Road, Eastbourne; Colin R. Crickmay (A) and Hugh W. Crickmay (A), recommencing practice at 23, St. Thomas Street, Weymouth, under the title of Crickmay & Sons; F. L. Charlton (F), Gordon Chambers, 21, Bond Street, Leeds, 1; John P. Coia (A), Messrs. Gillespie Kidd & Coia, 19, Waterlow Street, Glasgow, C.2; C. W. Coster (A), 22, The Newlands, Wallington, Surrey; Major Anthony R. Dannatt, R.E. (A), Messrs. A. R. Dannatt & Son, 43 Duke Street, Chelmsford; M. H. de l'Orme (L), in partnership with Mr. Lawrence M. Gotch, at 2, Bunhill Row, London, E.C.1; H. M. R. Drury (A), Surveyor to Dean and Chapter, Church House, The Close, Exeter; Lt.-Col. W. H. Glen Dobie, late R.E. (A), Messrs. Morter & Dobie, 11, Rumford Street, Liverpool; Major P. W. T. Elford (L), Messrs. Barron, Rooke & Partners, 17, Grimstone Terrace, Houndscombe Road, Plymouth; Major H. W. Ellis, R.E. (A), 20, Hurst Avenue, West Worthing, Sussex; P. G. Freeman (A), 96, Dorset House, Gloucester Place, London, W.1 (Welbeck 8898); Major E. M. Galloway (A), 48, The Avenue, Southampton; John L. Gaudie (A), 52, Kirk Brae, Liberton, Edinburgh; Lt.-Col. G. H. Hawkins, R.A. (A), Messrs. Matkin & Hawkins, Barclay Chambers, Fawcett Street, Sunderland; H. St. John Harrison (F), 1, Babmaes Street, London, S.W.1 (Whitehall 0295); J. Kennedy Hawkes (A), Lynton, Woodside Avenue, Esher, Surrey; W. H. Henry (L), County Architect, Town Hall, Alloa; Ivan S. Hodges (A), 10, Queen Anne Terrace, Plymouth; G. C. Hough (A), Greenloaning, West Common Close, Harpenden, Herts; Capt. J. E. Jackson (A), 149, Sandgate Road, Folkestone, Kent; A. H. H. Jenkins (A), 18, Evelyn Court, Stourcliffe Street, W.1; H. S. Jarratt (A), 4, The Drive, Hove, Sussex; James Jennings (L), Market Place, Ambleside, Westmorland; G. M. Kingsford (F), 11, Garrick Street, W.C.2; Harold A. Kay (A), Messrs. Robinson & Kay, Victoria Chambers, Stourbridge; Major R. Alan Lambourn (L), Hambleton Cottage, Bolton Abbey, Skipton, Yorks; L. C. Lomas (F), County Architect, Worcestershire County Council, 59, The Tything, Worcester; W. Lynn-Thompson (A), "The Ingles," Hawkhurst, Kent; Major J. E. Lancashire, R.E. (A), Messrs. W. H. Lancashire & Son, 54, Campo Lane, Sheffield, 1 (Sheffield 25979); Major J. W. Lee, R.E. (A), 51, Belmont Road, Portsmouth, Southampton; Hedley B. Marshall (A), Albert Chambers, 10, Derby Road, Nottingham; C. B. K. Milnes (A), c/o Messrs. Collins & Greene (FF), Regent Chambers, 15, Westover Road, Bournemouth; Major A. L. Mortimer (F), 85, Gledhow Lane, Leeds, 8; Lt.-Comdr. B. L. Moir (A), Mayroyd, Bamford, Rochdale; Capt. A. J. McLean, R.E. (F), "Brog," Clayton Avenue, Hassocks, Sussex; Lt.-Col. Guy N. Nicholls, R.E. (L), 5, Grosvenor Crescent, Hyde Park Corner, London, S.W.1; Douglas E. Nightingale (A), 107a, Queensway, W.2; Louis Osman, B.A.(ARCH.) (A), 9, Barton Street, Westminster, S.W.1; Charles E. Pearson (F), Messrs. C. B. Pearson & Son, 18, Dalton Square, Lancaster (Lancaster 582); H. Dent Priestman (A), Prince's Dock Chambers, Princes Dockside, Hull (Hull 35440); Major Ronald A. Phillips, R.E. (F), Bush House, 15, Christchurch Road, Bournemouth (Bournemouth 7120); E. A. Romnant (F), 15, Fernshaw Road, Chelsea, S.W.10; Major K. H. Saunders, R.E. (A), City Architect's Department, Portsmouth; W. R. Stenner (A), 19, Redland Park, Bristol, 6; Major H. J. Strib-

ling, R.E. (F), Rotherfield, Stoke Poges, Bucks; C. E. Scanlon (A), "Aberfoyle," Chesham Place, Bowden, Ches.; Major M. Trotter, R.E. (L), 10, Linden Grove, West Hartlepool; H. B. Towner (L), 220, High Street, Uckfield, Sussex; A. A. Tait (A), 100, High Street, Grahamstown, S. Africa; Major A. Underhill, R.E. (A), Hartley House, 105, South End Road, N.W.3, in partnership with Mr. Oswald P. Milne (F); P. E. Walker (A), P.A.S.I., Engineer's Department, Pontypriid, UDC (Chief Architectural Assistant); Ronald Ward (F), 33, St. George's Drive, Westminster, S.W.1 (Vic. 5531); John Wignall (L), 41, Hoghton Street, Southport, Lancs; Norman C. Westwood (A), Messrs. P. J. Westwood & Sons (FA), Nutfield, Heath Road, Weybridge, Surrey (Weybridge 182); Lt.-Col. J. P. M. Wright, R.E. (A), 10, Main Street, New Elgin, Moray; T. S. S. Worthington (A), Messrs. Thomas Worthington & Sons, 178, Oxford Road, Manchester; Felix Walter (L), The New Rectory, Dallington, Woodbridge, Suffolk.

## Announcements

Mr. Stuart E. Woodyear, Architect, has resumed practice at 47a, Leinster Square, Bayswater, W.2, and would like to receive trade catalogues, particularly those on housing.

Mr. Mischa Black, O.B.E., F.S.I.A., has been appointed Industrial Design Consultant to the Gas Light & Coke Company. Mr. Black will advise the company on all design problems, especially those concerned with exhibitions, showrooms, window displays, appliances, etc.

Mr. A. J. R. Potter, Registered Architect and Surveyor, has commenced his practice at Kingswood, 141, Cheriton Road, Folkestone, Kent, and will be pleased to receive trade catalogues.

Mr. Frederick Gibberd, F.R.I.B.A., A.M.T.P.I., has changed his address to 35, Gordon Square, W.C.1 (Telephone: Euston 7795).

The War Damage Commission has appointed Mr. A. Ogle Regional Manager at its Reading Office. Mr. A. E. Moody, who was originally appointed to Reading, is now in charge at the Kingston Regional Office.

The name of the Association of Manufacturers of Cement Waterproofers and Allied Products, of 376, Strand, London, W.C.2, has been changed to the Concrete Admixtures Manufacturers' Association.

Mr. Basil G. Duckett, A.R.I.B.A., having been released from the RAF, is starting private practice at No. 80, Wimpole Street, London, W.1, and will be pleased to receive trade catalogues.

The offices of the British Welding Research Association are now removed from 2, Buckingham Palace Gardens, London, S.W.1, to 29, Park Crescent, London, W.1. Telephone: Welbeck 7485-9. Communications for the Institute of Welding should, of course, be addressed to the Secretary, The Institute of Welding, 2, Buckingham Palace Gardens, London, S.W.1.

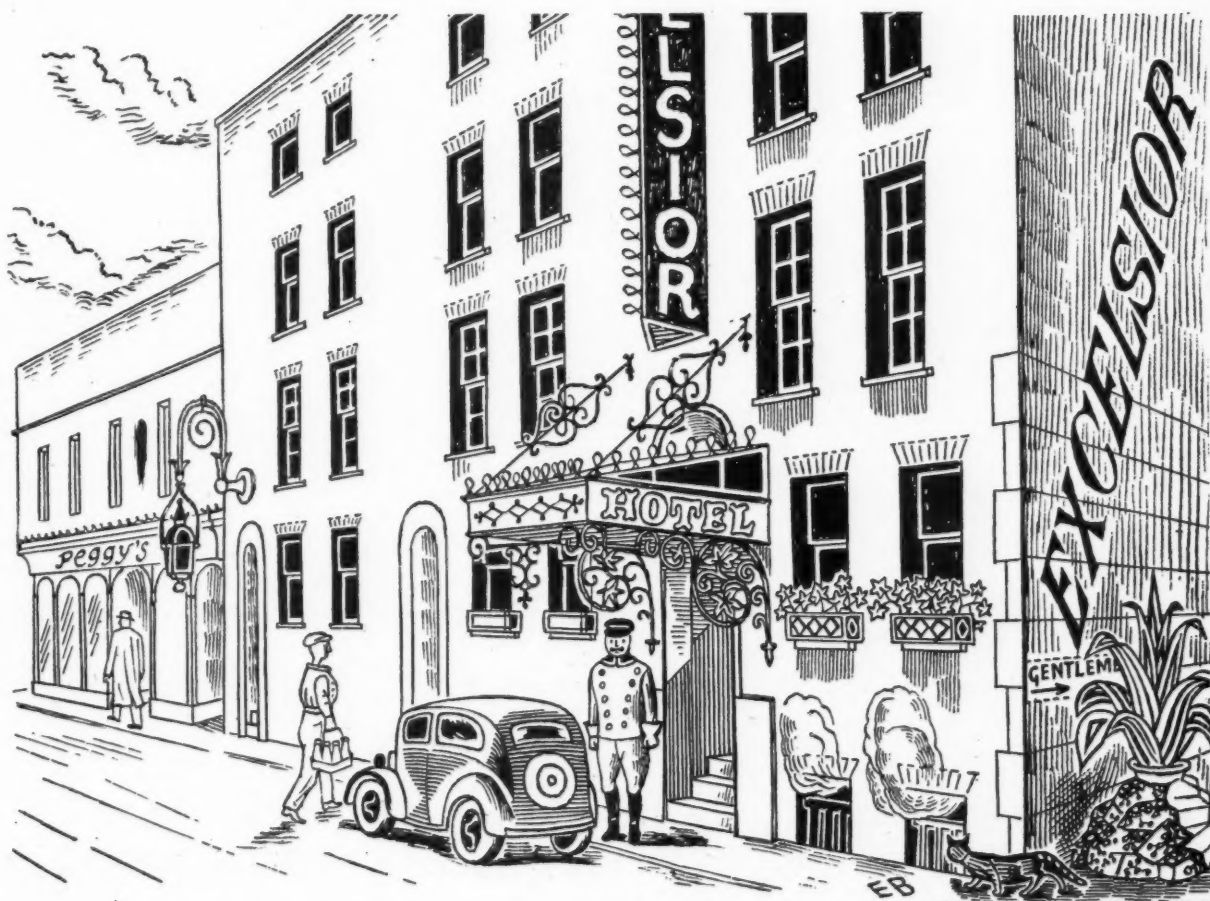
Mr. J. Preston Alton, A.I.A.A., M.INST.R.A., Registered Architect, a Lieutenant R.N.V.R., is being demobilized and is starting a temporary office at 302, Edward Road, Birmingham, 5. He would be glad to receive Trade Catalogues, etc.

The Minister of Health, Mr. Aneurin Bevan, has appointed Lord Faringdon to fill the vacancy on his Central Housing Advisory Committee caused by the resignation of Sir Felix Pole, owing to ill-health.

Messrs. S. J. Stephenson and Gillis, Architects and Surveyors, have resumed practice at 2, Saville Chambers, North Street, Newcastle-on-Tyne 1, and would be pleased to receive trade catalogues, etc.

Squadron-Leader R. Cowan, A.R.I.B.A., has been released from the RAF and will be pleased to receive trade catalogues, etc., at Gazette Office Buildings, Bridge Road, Stockton-on-Tees.

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Mr. William M. Carter, A.R.I.B.A., A.I.A.A., Chartered and Corporate Architect, Lloyds Bank Chambers, 4-5, King Street, Richmond, Surrey, would be pleased to receive trade catalogues, etc.

Lt.-Cdr. D. Adshead Grant, B.A.R.C.H., A.R.I.B.A., is now released from the Services and is in practice at 40, Norland Square, W.11, where he would be pleased to receive trade catalogues, etc.

The address of the National Building Research Institute, South Africa, formerly c/o Department of Commerce and Industries, is now as follows: National Building Research Institute, Council for Scientific and Industrial Research, Private Bag 189, Pretoria.

Mr. F. Norman James, A.R.I.B.A., has been released from the Navy and is practising at 1, St. George's Gardens, Epsom. He would be glad to receive trade catalogues.

## Trade Notes

The first post-war issue of *Pilchers Gazette* (Pilchers, Ltd., Paint Manufacturers, of 6, Chesterfield Gardens, London, W.1) is a souvenir number to mark the end of hostilities. It is edited by Mr. Cyril J. Clayton, late Employment Officer (Press), Ministry of Labour, and the Company's Advertising and Sales Promotion Manager) and is a first-class printing job. There are 28 pages. Eight pages including cover are in seven colours and depict (front cover) Georgian method of selecting paints on parchment scroll; (inside covers) their premises in Tooley Street, Bermondsey, 1770; and (colour inset) Milestones in History, giving references from the French Revolution to Victory, 1945, with thumbnail sketches, Medallions of all Monarchs on the English throne from George III to the Reigning Monarch. The remainder of the pages are in two colours and include (contents page)

the background of which is formed from the entrance to their present premises in Chesterfield Gardens. For those interested in building there is a forceful article entitled "Research—the Pre-eminent Standard of Pilchers' Success," by the firm's Technical Manager. Other interesting contributed articles include one by Samuel White (giving illustrations of the latest destroyers produced by them for HM Admiralty), Taskers, manufacturers of Aircraft Trailers 100-ft. lorries (nicknamed the land Queen Mary). Special pride of place in the *Gazette* is given to the firm's representatives by a two-page inset illustrating the Senior Sales Staff and an article by the editor stressing the essential qualities looked for in selecting the representatives. There are also articles on Home Decoration by the Principal of *Good Housekeeping* (illustrating Charles Dickens Drawing Room) and "Looking into the Future" by Myles G. Routledge. The theme running throughout the issue plays upon 175 years' trading by the company.

The works executive and the heavy mill team of the Cargo Fleet Iron Co., Ltd., Middlesbrough, have been applying themselves to the production of broad flange beams, without the colossal expenditure for new mill equipment. The result is the production in large quantities of one of the medium broad flange sections mostly in demand, namely, 10 in. x 10 in., in lengths up to 90 ft. These sections, it is claimed, are of a quality and finish strictly comparable with the best Continental and American standards, where broad flange beams, it has been stated, have largely replaced ordinary standard joists. Cargo Fleet management are now immediately proceeding to develop from the smallest range of sizes up to 20 in. x 12 in. to meet steel constructional requirements. Structural engineers will, therefore, now be able to design their buildings with a material saving in steel and cost of fabrication over the standard joist.

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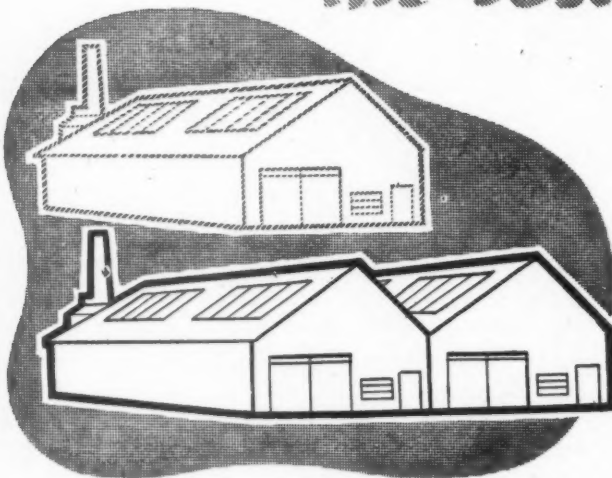


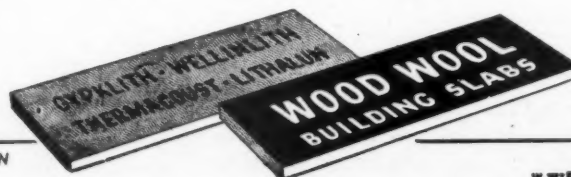
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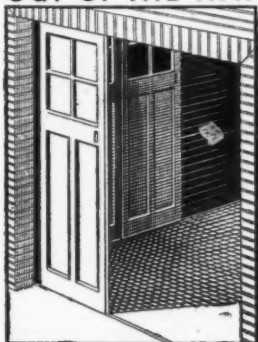


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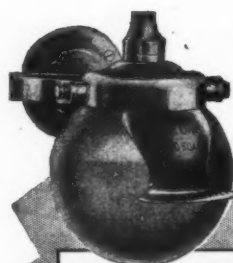
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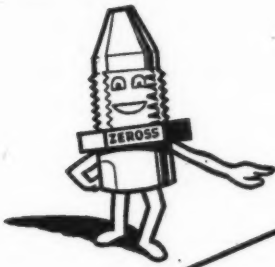


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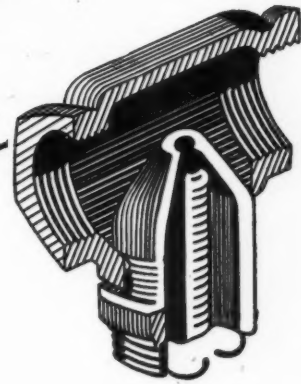
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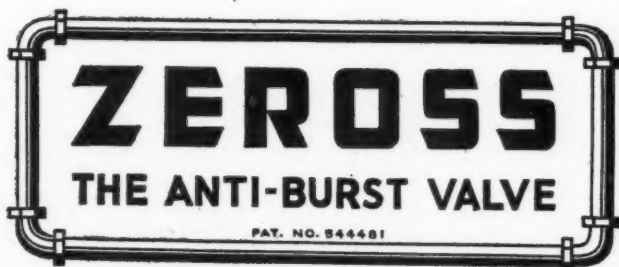
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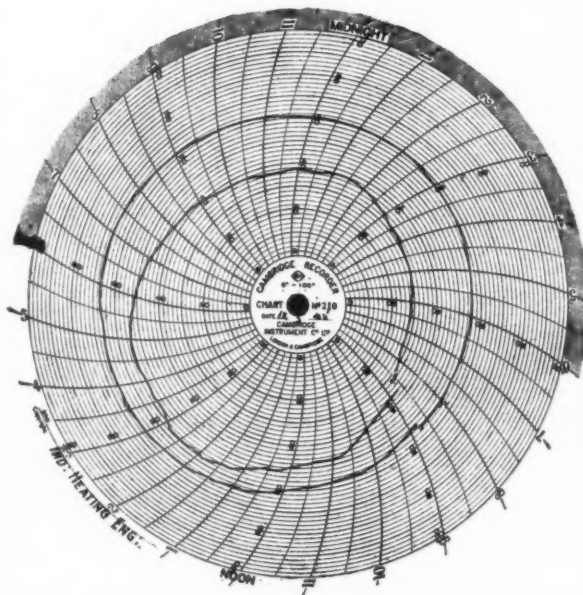
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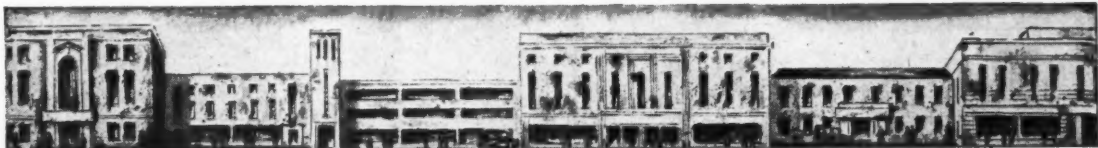
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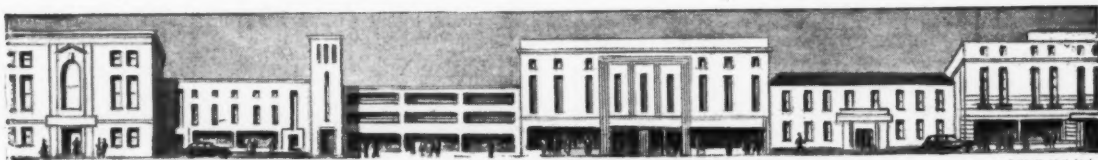
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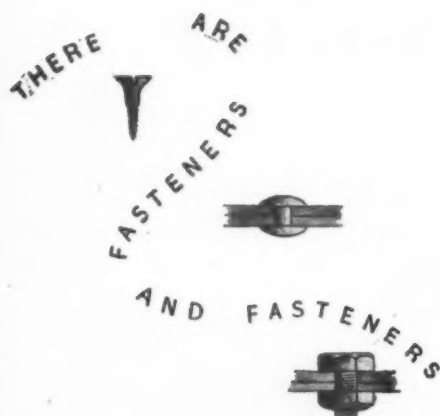
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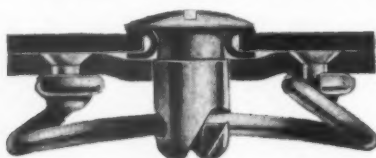
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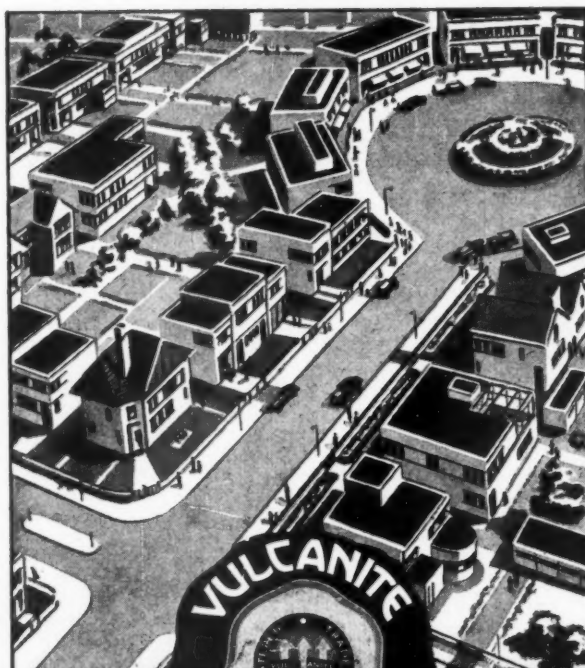
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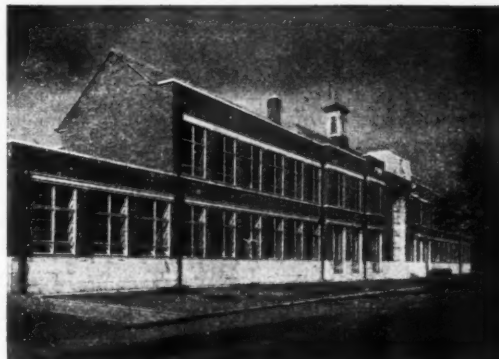
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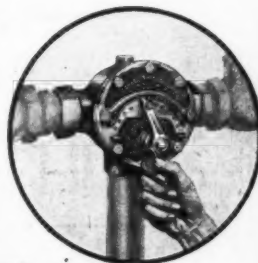


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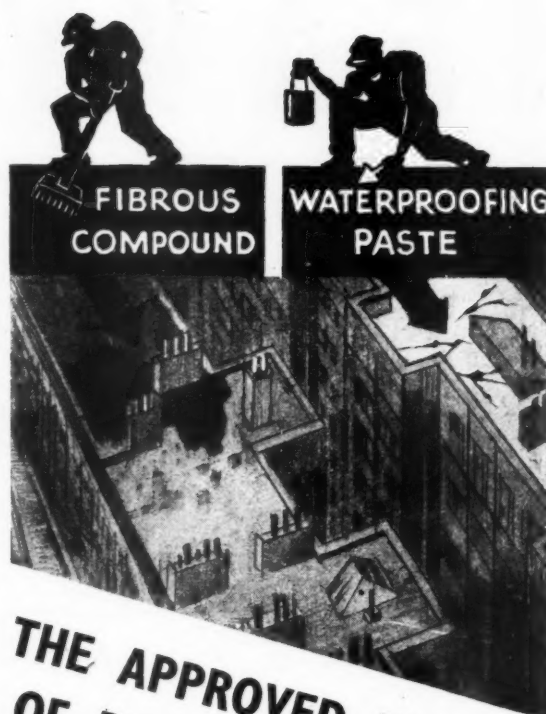
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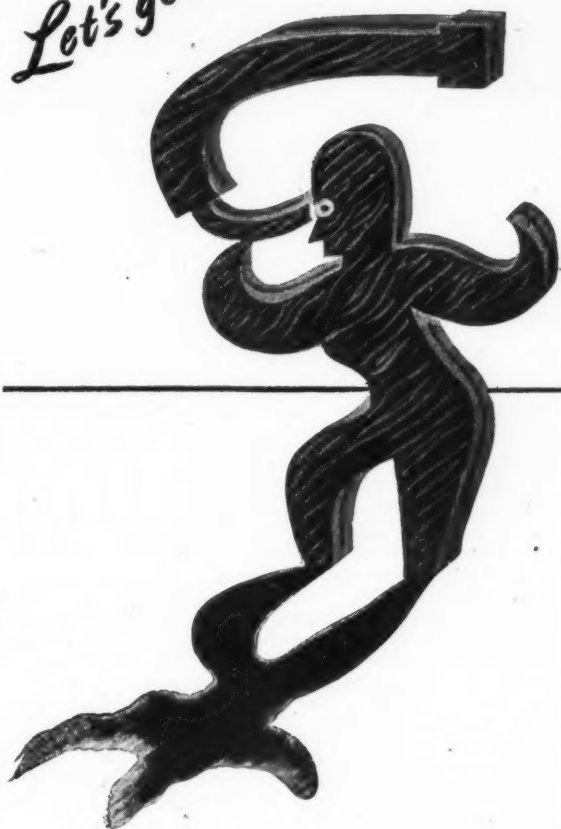
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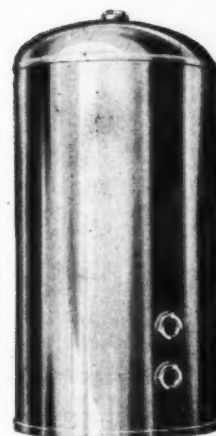
  
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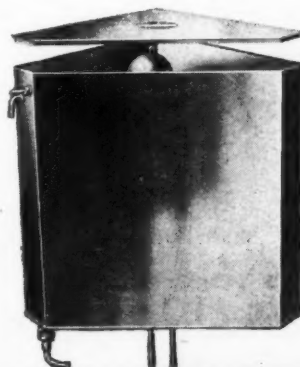
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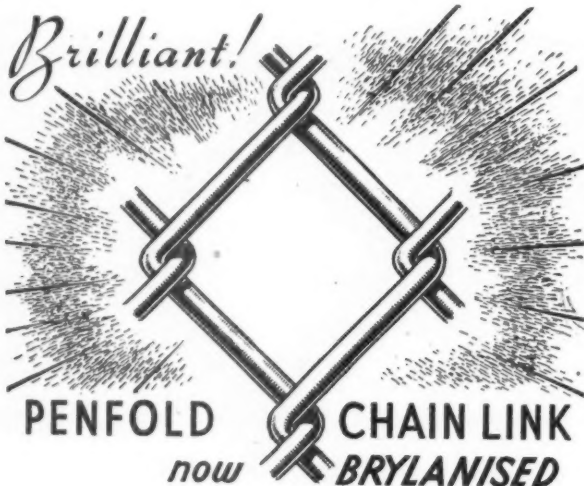
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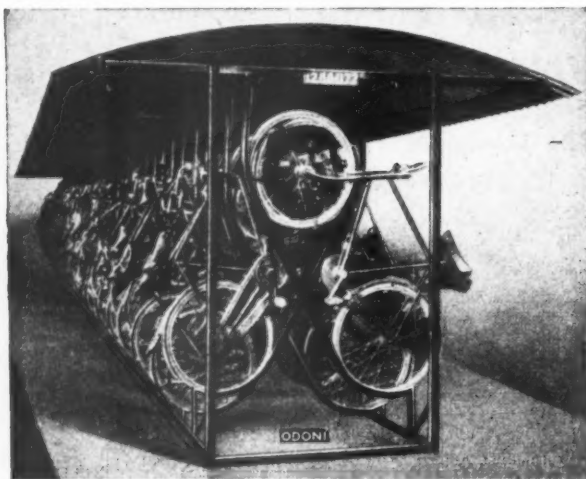
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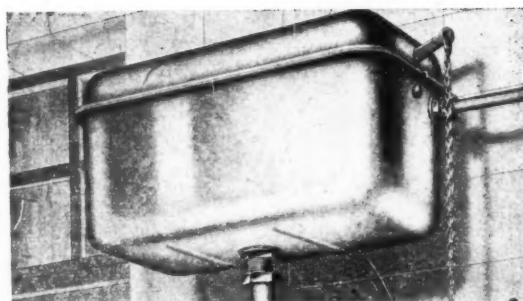
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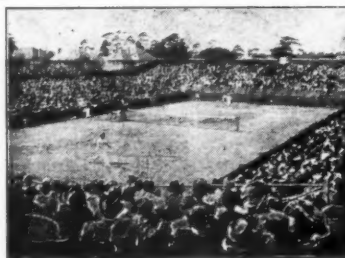


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We are now in a position to undertake the construction of a limited number of "EN-TOUT-CAS" Courts, but controls are still in operation and there are also difficulties with unskilled labour.

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Although we have received many orders for new Courts, Recreation Grounds, Public Parks, etc., also a great number of orders for blitzed and neglected Hard Courts, we suggest that you allow us to put your name down on our Rotation List and then we can give your enquiry prompt attention as soon as conditions permit. Bulk levelling with latest type Mechanical Tools can be promptly undertaken.

We fear that the construction of Squash Courts, Swimming Pools, etc., will be delayed for some time as yet, owing to the whole of our building operatives being fully employed on the making and erection of Prefabricated Houses and Factories, as our production of units for Prefabricated Houses is now at the rate of 70 houses per week. We specialise in Grass Seeds for all types of grounds, can analyse soils and supply both suitable seeds and fertilisers for same.

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## CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," War Address: 45 The Avenue, Cheam, Surrey, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," War Address: 45 The Avenue, Cheam, Surrey.

## Public and Official Announcements

Six 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: 75, BARN PLACE, LONDON, S.W.1. TEL.: SLOANE 5615. 991

### BOROUGH OF KING'S LYNN.

#### CHIEF PLANNING AND ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Chief Planning and Architectural Assistant, in the Borough Engineer's Department, at a salary (in accordance with Grade IV of the New National Joint Council scales) commencing at £420 per annum, and rising by annual increments of £15 to £465 per annum, plus war bonus, at the present rate of £59 16s. per annum.

Candidates must be Associate Members of the Town Planning Institute, or hold an equivalent qualification, and also a recognised architectural qualification.

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

Candidates when making applications must disclose in writing whether to his knowledge he is related to any member of the Local Authority or to a holder of any senior office under the Authority.

Applications, endorsed "Chief Planning Assistant," stating age, qualifications, present and previous appointments and experience, accompanied by copies of two recent testimonials, must be delivered to the Borough Engineer, Town Hall, King's Lynn, not later than 9th April, 1946.

Canvassing, directly or indirectly, will disqualify.

FRANK G. REEVES,

Town Clerk.

Town Hall, King's Lynn.

15th March, 1946.

915

### COUNTY OF DEVON.

Applications are invited for the position of ASSISTANT ARCHITECT, at a commencing salary of £700, rising by three annual increments of £50 to a maximum of £850, plus cost-of-living bonus, at present £59 16s. per annum.

Candidates should have had considerable experience in the design and supervision of public buildings, and should possess a sound knowledge of the organisation and administration of a large architectural department.

Applicants in H.M. Forces who are serving abroad are requested to cable the date of the despatch of their applications.

Applications, stating age, qualifications, and experience, accompanied by not more than three recent testimonials, should be sent to the County Architect, 97, Heavitree Road, Exeter, not later than Friday, the 12th April, 1946.

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

A. J. WITTHCOMBE,

Clerk of the County Council.

The Castle, Exeter.

18th March, 1946.

910

### METROPOLITAN BOROUGH OF FULHAM.

TEMPORARY ARCHITECTURAL ASSISTANT. Applications are invited from Registered Architects, with housing experience, for a position as temporary Architectural Assistant, in the War Damage Department of the Council. Candidates should be Associates of the Royal Institute of British Architects or hold equivalent qualifications.

The salary scale is £400×£15—£450 per annum, plus cost-of-living bonus, which at present is £59 16s. per annum. The commencing salary will be fixed within the scale, according to the qualifications and experience of the person appointed. Further particulars and a form of application can be obtained from me. Applications must reach me not later than 15th April, 1946.

CYRIL P. THATCHER,

Town Clerk.

Town Hall, Fulham, S.W.6.

21st March, 1946.

947

### EAST GLAMORGAN JOINT PLANNING COMMITTEE.

Applications are invited for the appointment of a Grade 1 PLANNING ASSISTANT, at a salary on the scale £300 × £20 to £400 per annum, plus war bonus in accordance with the Whitley Scale. The commencing salary will be determined by the experience and qualifications of the successful candidate.

Applicants must possess recognised planning, architectural, engineering or surveying qualifications, and preference will be given to candidates with experience in the preparation of planning schemes, estate development layouts, and perspective drawing. The appointment will be superannuable, and the successful candidate will be required to pass a medical examination.

Applications must state age, qualifications, and experience, and be delivered, together with copies of two recent testimonials or the names and addresses of two persons to whom reference may be made, to the undersigned not later than the first post on the 12th April, 1946.

(Sgd.) BERNARD M. MURPHY,

Clerk of the Committee.

Town Hall, Mountain Ash, Glam.

19th March, 1946.

925

### DERBYSHIRE COUNTY COUNCIL.

#### COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of CHIEF ASSISTANT ARCHITECT, at a salary of £625 per annum, rising by annual increments of £25 to £700 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

Applicants must be fully qualified and hold a degree or diploma in architecture obtained at a recognised school of architecture.

The person appointed will be a contributory employee under the provisions of the Local Government Superannuation Acts, and will be required to pass a medical examination.

The appointment will be terminable by one month's notice on either side.

Applications, stating age, present salary and position, qualifications and previous experience, accompanied by copies of three recent testimonials, should reach the undersigned not later than 12th April, 1946, in an envelope endorsed "Chief Assistant Architect."

F. HAMER CROSSLEY,

County Architect.

County Offices, Derby.

28th March, 1946.

927

### BATTERSEA BOROUGH COUNCIL.

#### APPOINTMENT OF TECHNICAL ASSISTANT.

Applications are invited for the appointment of Technical Assistant in the department of the Borough Engineer and Surveyor.

The appointment is temporary, and subject to one month's notice on either side. Candidates should have practical experience of building work and estimating, and preferably be Professional Associates of the Surveyors' Institute.

The salary to be paid will be according to qualifications and experience, but will not exceed £3 per week, plus cost-of-living bonus (at present 25s. per week).

Forms of application may be obtained from the Borough Engineer and Surveyor, Town Hall, Battersea, S.W.11, and should be returned to him, together with copies of not more than three recent testimonials, not later than Friday, 12th April, 1946.

R. G. BERRY,

Town Clerk.

Town Hall, Battersea, S.W.11.

948

### URBAN DISTRICT COUNCIL OF BILLERICAY.

#### SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointments:—

(1) ARCHITECTURAL AND PLANNING ASSISTANT (Established), at a commencing salary of £390 per annum, rising by annual increments of £15 to £435 per annum. Applicants must at least have passed the Intermediate Examination of the R.I.B.A. or equivalent, and have had experience in housing layouts, house design, and construction and town planning.

(2) QUANTITY SURVEYING ASSISTANT (Temporary), at a commencing salary of £460 per annum, rising by two annual increments of £15 and one of £20 to £510 per annum. Applicants must have had considerable experience, and must be members by examination of the Chartered Surveyors' Institution (Quantities Section). This appointment is expected to last for at least two years.

In each case the above salaries also carry cost-of-living bonus, at present £59 16s. per annum.

Applications, on forms to be obtained from the Surveyor, Council Offices, Billericay, together with copies of three recent testimonials, to be forwarded to the undersigned by not later than 15th April, 1946, and be endorsed appropriately.

Canvassing, directly or indirectly, will disqualify.

A. HATT,

Clerk of the Council.

Council Offices, Billericay.

March, 1946.

946

### NORTHERN IRELAND HOUSING TRUST.

#### APPOINTMENT OF ARCHITECTS.

Applications are invited for the following posts from Fellows or Associates of the Royal Institute of British Architects having a good knowledge of housing:—

(a) Salary scale, £640×£25—£890.

(b) Salary scale, £428×£20—£628.

In each case the entry point on the salary scale will be fixed according to the experience and qualifications of the successful applicant.

The Northern Ireland Housing Trust is a Statutory Body set up by Parliament, and has an immediate building programme of several thousand houses.

The Chief Technical Officer of the Trust is E. E. Ferris, Esq., B.Arch., A.R.I.B.A., A.M.T.P.I. The appointments will be full-time, and a successful candidate will be required to carry out such work in connection with the design, construction, and supervision of housing schemes from the layout stage to the completion of the houses as may be assigned to him.

Candidates should apply by letter to the address given below, stating the date and place of birth, qualifications and experience, the date when able to commence duties, and for which post they are applying, and giving the names of two referees. Applications will be received up to 23rd April, 1946.

GENERAL MANAGER,

Northern Ireland Housing Trust.

5, Donegall Square South, Belfast. 954

### EDINBURGH CORPORATION.

#### CITY ARCHITECT.

Applications are invited for the appointment of City Architect. The salary scale is £1,320, rising to £1,870 per annum by annual increments of £50, plus war increase (at present £120). Placing may be given on scale according to experience. The appointment will be whole-time, and will be subject to the Corporation's superannuation scheme. Applicants must not be over the age of 55 years at 1st January, 1947, and must be registered architects and members of the Royal Institute of British Architects.

Further particulars and conditions of appointment may be obtained from the undersigned, with whom applications, stating age, qualifications, and experience must be lodged not later than 1st June, 1946.

J. STORRAR,

Town Clerk.

City Chambers, Edinburgh.

953

### BOROUGH OF SURBITON.

#### BOROUGH SURVEYOR'S DEPARTMENT—APPOINTMENTS OF:—

- (1) BUILDING INSPECTOR.
- (2) ENGINEERING ASSISTANT.
- (3) TOWN PLANNING ASSISTANT.

Applications are invited for the above appointments, in each case at a salary in accordance with Grade APT/I of the National Scheme of Conditions of Service, namely £350 per annum, rising by annual increments of £15 to a maximum of £395 per annum, plus bonus, which is at present at the rate of £59 16s. per annum.

Applicants should hold the following qualifications:—

(a) Building Inspector.—Building Inspector's Certificate of the Institution of Municipal and County Engineers or the Final Examination (Building Section) of the Chartered Surveyors' Institution, or the Building Surveyors' Diploma of the Royal Institute of British Architects or similar qualification.

(b) Engineering Assistant.—Associate Membership Examination of the Institution of Civil Engineers and/or the Testamur of the Institution of Municipal and County Engineers.

(c) Town Planning Assistant.—Membership or Associate Membership of the Town Planning Institution or similar qualifications.

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

Applications on forms to be obtained from the undersigned must be delivered not later than 22nd April, 1946.

Canvassing, either directly or indirectly, will disqualify.

R. H. WRIGHT,

Town Clerk.

Council Offices, Surbiton.

958

### COUNTY BOROUGH OF CROYDON.

#### QUANTITY SURVEYING ASSISTANT.

Applications are invited from qualified persons for the position of Quantity Surveying Assistant, at a salary of £380, rising to £425 per annum, plus bonus, at present £59 16s.

Applicants must be able to prepare bills of quantities, and be experienced in working up quantities and measuring for final accounts.

Form of application may be obtained from the Borough Engineer, Town Hall, Croydon, and should be returned to him not later than 20th April, 1946.

E. TABERNER,

Town Clerk.

955

CITY OF MANCHESTER.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the permanent staff:—  
**ONE CHIEF ASSISTANT ARCHITECT (EDUCATION).** Basic salary, £710-£800 per annum, plus cost-of-living bonus, at present £80 per annum.

Candidates should be Fellows or Associates of the Royal Institute of British Architects, and must be competent designers, preferably trained at a School of Architecture, and have had wide experience in the design and construction of educational buildings and be familiar with statutory requirements and the Building Regulations. The person selected will be required to take charge of the Education Architects' Section of the City Architect's Department.

**(2) TWO ASSISTANT ARCHITECTS.** Basic salary, £400-£425 per annum, plus cost-of-living bonus, at present £60 per annum.

Candidates should be Associates of the Royal Institute of British Architects, and must have had a thorough training in architectural design, preferably at a School of Architecture, and should have had experience in modern educational building design and construction.

**(3) ONE ASSISTANT HEATING AND VENTILATION ENGINEER.** Basic salary, £400-£425 per annum, plus cost-of-living bonus, at present £60 per annum.

Candidates should be Associate Members of the Institute of Heating and Ventilating Engineers, experienced in the design and supervision of heating, hot water and ventilation systems in all types of local authority buildings, and should have knowledge of mechanical equipment connected therewith.

The salary scales applicable to appointments (2) and (3) may be reviewed in the event of the Corporation adopting national salary scales.

The applicants selected will be required to pass a medical examination before the appointment is confirmed, to contribute to the Corporation's Superannuation Fund, and to execute the Corporation's Deed of Service.

Applications must be made on the appropriate forms, which can be obtained at my office, and must be returned (together with copies of not more than three recent testimonials) to me—not to any member of the Council—by 10 a.m. on Monday, 15th April, 1946, endorsed "Chief Assistant Architect (Education)"; "Assistant Architect"; or "Assistant Heating and Ventilation Engineer," as may be appropriate.

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

PHILIP B. DINGLE,

Town Clerk.

Town Hall, Manchester.

March, 1946.

943

BOROUGH OF WEDNESBURY.

BOROUGH ARCHITECT/ENGINEER'S DEPARTMENT.

ARCHITECTURAL ASSISTANT.

Applications are invited for the permanent appointment in the Borough Architect/Engineer's Department of an Architectural Assistant, at a salary of £450-£465, plus war bonus (at present £59 16s. per annum).

Preference will be given to candidates trained in a recognised Architectural School and who are A.R.I.B.A.

The successful candidate will be required to pass a medical examination for the purpose of the Local Government Superannuation Act, 1937.

Applications, endorsed "Architectural Assistant," stating age, qualifications, experience, and present position, and accompanied by copies of not more than two recent testimonials, to be sent to the undersigned not later than Monday, 15th April, 1946.

ARTHUR BOOTH, F.R.I.B.A.,

Borough Architect/Engineer.

Town Hall, Wednesbury.

29th March, 1946.

968

LONDON COUNTY COUNCIL.

Required at Brixton School of Building, Fendale Road, S.W.4, as soon as possible. LECTURERS for full-time senior courses in: (i) Architecture; applicants should be Fellows or Associates of the Royal Institution of British Architects. (ii) Surveying; applicants should be Fellows or Professional Associates of the Surveyors' Institution. (iii) Structural Engineering; applicants should be graduates in engineering or corporate members of either the Institution of Civil Engineers or of Structural Engineers. Experience of practice necessary for all posts. Teaching experience a recommendation. Burnham scale, salary £300-£15-£225, plus London allowance (minimum £36), and additions for qualifications and training (up to £45) a year as applicable. Commencing salary based on professional (up to 10 years) and teaching experience (£15 increments for each year). Application forms from Education Officer (T.1), County Hall, S.E.1 (stamped addressed envelope necessary), returnable by 6th May, 1946. H.M. Forces personnel abroad should apply by letter.

955

COUNTY BOROUGH OF EAST HAM.

APPOINTMENT OF TEMPORARY ARCHITECTURAL ASSISTANT.

Applications are invited from qualified persons for the temporary appointment of one Architectural Assistant (Grade C), in the Borough Engineer and Surveyor's Department.

Candidates must be Associate Members of the Royal Institute of British Architects, or hold an equivalent qualification, and have general knowledge and experience of architectural work in the service of a local authority.

The salary will be in accordance with Grade C of the Council's Grading Scheme for official staff, i.e., £420 per annum, rising by annual increments of £15 to a maximum of £465 per annum, plus war bonus, at present £59 16s. per annum, but the commencing salary may be increased according to the qualifications and experience of the person appointed.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, to the Council's conditions of service for temporary official staff in force from time to time, and the successful candidate will be required to pass a medical examination.

Application forms are obtainable from the Town Clerk's office, and must be delivered to the undersigned, together with copies of three recent testimonials, and endorsed "Architectural Assistant," not later than 25th April, 1946.

Canvassing in any form will be a disqualification.

H. A. EDWARDS,

Town Clerk.

Town Hall, East Ham, E.6.

5th April, 1946.

966

BOROUGH OF TAUNTON.

SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, at a salary within the scale £365-£410 per annum, plus cost-of-living bonus, at present £59 19s. 3d. per annum.

Candidates should possess an up-to-date knowledge of building construction and materials, and be competent and expeditious draughtsmen.

Preference will be given to candidates who possess good experience in connection with large housing schemes.

Applications, stating age, qualifications, and full records of experience, together with copies of testimonials, should be sent to the undersigned by not later than Friday, 12th April, 1946.

MAJOR A. G. JURY, A.R.I.B.A.,

Architect to the Council.

Architect's Dept., 2, Baldwin Road.

Taunton.

940

COUNTY BOROUGH OF SOUTHAMPTON.

BOROUGH ARCHITECT'S DEPARTMENT.

APPOINTMENT OF QUANTITY SURVEYORS.

Applications are invited for the following appointments:—

(a) Senior Assistants (2). Salary £535, rising to £600 per annum.

(b) Assistants (4). Salary £450, rising to £510 per annum.

(c) Junior Assistant (1). Salary £330 per annum.

The salary in each case is subject to addition of war bonus, at present amounting to £59 16s. per annum.

Candidates must have had experience in the preparation of bills of quantities, specifications, estimates, and the settlement of final accounts on building contracts. Preference will be given to Professional Associates of the Chartered Surveyor's Institution.

Applications, endorsed "Quantity Surveyor," and stating age, qualifications and experience, should be sent to Denis Winston, M.A., B.Arch., A.R.I.B.A., A.M.T.P.I., Borough Architect, Civic Centre, Southampton, to arrive not later than Wednesday, 10th April, 1946.

R. RONALD H. MEGGESON,

Town Clerk.

Civic Centre, Southampton.

26th March, 1946.

944

BATTERSEA BOROUGH COUNCIL.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Architectural Assistant in the department of the Borough Engineer and Surveyor.

The appointment is temporary, and subject to one month's notice on either side. Candidates should have experience in housing and general architectural design. The salary to be paid will be according to qualifications and experience, but will not exceed £8 per week, plus cost-of-living bonus (at present 25s. per week).

Forms of application may be obtained from the Borough Engineer and Surveyor, Town Hall, Battersea, S.W.11, and should be returned to him, together with copies of not more than three recent testimonials, not later than Thursday, 18th April, 1946.

R. G. BERRY,

Town Clerk.

Town Hall, Battersea, S.W.11.

960

CITY OF NOTTINGHAM EDUCATION COMMITTEE.

COLLEGE OF ART AND CRAFTS.

Principal: ALFRED H. RODWAY, A.R.C.A.

Applications are invited from persons holding recognized qualifications in Architecture, preferably the degree or diploma of a recognised school, for the full-time post of **STUDIO INSTRUCTOR**, to teach Architectural Design and Construction in the School of Architecture of the College. The School is recognized for purposes of exemption from the R.I.B.A. Intermediate and Final Examinations, and in the Department of Town and Country Planning from the Final Examination of the Town Planning Institute. Salary in accordance with the Burnham Scales, 1945, viz.: £300-£15-£225 to the minimum, and in certain cases to the maximum, of which may be added, where appropriate, additional allowances for (a) training, (b) graduate status, (c) full-time professional experience after age 21, and (d) increments in respect of previous recognised full-time teaching service. Subject to the conditions governing full-time teaching service, the successful candidate will be given such opportunities as may be practicable to maintain his/her professional practice. The person appointed will be required to commence duty as soon as possible. Application forms are obtainable by sending stamped foolscap envelopes to the Principal, College of Art and Crafts, Waverley Street, Nottingham, to whom the completed forms, together with copies of two recent testimonials, should be returned within fourteen days of the publication of this advertisement.

F. STEPHENSON,

Director of Education.

Education Office, South Parade, Nottingham. 941

COUNTY BOROUGH OF LONDONDERRY.

NORTHERN IRELAND.

APPOINTMENT OF PLANNING OFFICER.

Applications are invited for the post of Planning Officer for the completion of a Planning Scheme for the County Borough of Londonderry.

Candidates for the post should be members or associated members of the Town Planning Institute or hold other equivalent qualifications, and must have had considerable practical experience in the preparation and administration of statutory planning schemes. The post, which will be temporary, will be terminable by three months' notice, in writing, on either side.

The salary offered is £750 per annum, plus war bonus on Whitley Scale, which is at present £59 16s. per annum.

Selected candidates may be required to attend for interview, for which vouched travelling expenses will be paid.

Preference will be given to ex-Service candidates possessing the required qualifications, provided the Council is satisfied that such candidates can, or within a reasonable time will be able to, fill the vacant post efficiently.

The successful candidate will be expected to take up duty as soon as possible.

Applications, in writing, giving full particulars of age, qualifications and experience, accompanied by three recent testimonials and details of service in H.M. Forces, if any, will be received by the undersigned in an envelope marked "Planning Officer" not later than 22nd April, 1946.

J. THOMPSON,

Acting Town Clerk.

The Guildhall, Londonderry.

21st March, 1946.

COUNTY BOROUGH OF WEST HAM.

BOROUGH ARCHITECT AND PLANNING OFFICER'S DEPARTMENT.

Applications are invited for the following appointments:—

(a) ARCHITECTURAL ASSISTANT (HOUSING), Grade "G."

(b) ARCHITECTURAL ASSISTANT (HOUSING), Grade "E."

The salary for post (a) is £245 p.a., rising by annual increments of £25 and £30 (subject to approved service) to a maximum of £500 p.a., plus war bonus, at present £59 19s. 3d. p.a.

Applicants should be Associates of the R.I.B.A., and have had considerable experience in housing work.

The salary for post (b) is £375 p.a., rising by one annual increment of £25 (subject to approved service) to a maximum of £400 p.a., plus war bonus, at present £59 19s. 3d. p.a.

Applicants should have had experience in housing work.

The appointments are whole time, terminable by one month's notice in writing on either side, and subject to the Local Government Superannuation Acts, 1937/1939. Successful candidates will be required to pass a medical examination.

Application forms can be obtained from Thomas E. North, F.R.I.B.A., Borough Architect and Planning Officer, 100, West Ham Lane, E.15, and applicants must state clearly the post for which they are applying. Forms to be returned to him not later than Tuesday, 23rd April, 1946.

Canvassing members of the Council is prohibited and will disqualify.

E. E. KING,

Town Clerk.

Town Hall, West Ham, E.15.

964



HOLLAND (Lincs) COUNTY COUNCIL.  
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of TWO ARCHITECTURAL ASSISTANTS, at a salary of £375 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

Experience in education and general county work is desirable.

Appointments are subject to the provision of the Local Government Superannuation Act, 1937, to the candidates passing a medical examination by the Council's Medical Officer of Health, and to the termination of the appointments by one month's notice in writing on either side.

Applications, giving age, particulars of training and experience, with copies of not more than three recent testimonials, to be sent to the undersigned not later than 19th April, 1946.

H. C. MARRIS,

Clerk of the County Council.

County Hall, Boston, Lincs. 949

DERBYSHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following vacancies—

(a) SENIOR ASSISTANT ARCHITECT. Salary £535, rising by two annual increments of £20 and one £25 to a maximum of £600 per annum.

Applicants should be fully qualified, and have had good training and adequate experience in the design and construction of modern buildings.

(b) THREE ASSISTANT ARCHITECTS. Salary £450, rising by two annual increments of £15 and one £20 to a maximum of £500 per annum. Applicants should be fully qualified.

(c) THREE SENIOR QUANTITY SURVEYORS. Salary £450, rising by two annual increments of £15 and one £20 to a maximum of £500 per annum. Applicants should be fully qualified and have had experience in taking off quantities for all trades, measuring up, and preparing final accounts.

(d) TWO ASSISTANT QUANTITY SURVEYORS. Salary £350, rising by annual increments of £15 to £375 per annum. Applicants should have had experience in assisting with taking off quantities, measuring up, and preparing final accounts.

In addition to the salaries stated above a cost-of-living bonus, at present £59 16s. per annum, is payable in each case.

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

The successful candidates will be required to pass a medical examination. Applications, stating age, present position and salary, qualifications and previous experience, accompanied by copies of three recent testimonials, should reach the undersigned not later than 19th April, 1946.

Envelopes must be endorsed stating clearly the vacancy for which the application is made.

F. HAMER CROSSLEY, Dipl. Arch., A.R.I.B.A.,

County Architect.

County Offices, St. Mary's Gate, Derby.  
4th April, 1946. 965

Tenders

Sizelines or under 10s.; each additional line, 1s. 6d.  
CITY OF PORTSMOUTH.

NEW CENTRAL DEPOT.

REPLACEMENT OF BOILERS 1, 2 and 3.

Tenders are invited for the replacement of the existing low pressure Steam Boilers, approximately 1,200,000 B.T.U.'s per hour each, at the Corporation's Central Depot, Eastern Road, Portsmouth.

A copy of the Drawing, General Conditions of Contract and Specification can be obtained from Mr. Joseph Parkin, O.B.E., M.Inst.C.E., City Engineer, Municipal Offices, Royal Beach Hotel, Southsea, on the payment of one guinea, which will be returned on the receipt of a bona fide tender or the return of the documents within seven days.

Tenders are to be submitted to me not later than noon, on Friday, the 26th April, 1946.

The Corporation do not bind themselves to accept the lowest or any tender.

FREDERICK SPARKS,

Town Clerk.

Municipal Offices, Royal Beach Hotel,  
Southsea.  
22nd March, 1946. 967

Architectural Appointments Vacant

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

Wherever possible prospective employers are urged to give in their advertisements full information about the duty and responsibilities involved, the location of the office, and the salary offered. The inclusion of the Advertiser's name in lieu of a box number is welcomed.

ARCHITECT in Fife requires Qualified Chief Assistant; salary according to qualifications; good prospects. Apply, with full particulars, to Box 936.

ARCHITECTURAL ASSISTANT required for Industrial, Housing, and General Work; able to prepare sketch plans, working drawings and surveys, with knowledge of quantities. Write, stating salary and when available, to Alan Sunderland, Architect and Surveyor, Manor Buildings, Bradford, or 6, Lord Street, Keighley, Yorks. 888

ARCHITECTURAL DRAUGHTSMAN required in Drawing Office of important industrial Company in Maidstone district; position offers good prospects for suitable applicant. Write, stating age, experience, and salary required, to Box 872.

QUANTITY SURVEYORS (Senior and Junior), experienced in preparation of estimates, contract documents and bills, also measurement of work, required by Main Line Railway Co.; engagement on temporary basis at from £7 7s. to £10 10s. per week, plus war advance (at present 22s. per week), according to qualifications and experience. Applications, stating age, experience, etc., with copies of recent testimonials, to Box 879.

QUALIFIED ARCHITECTURAL ASSISTANT required by East Midlands brewery; experience of licensed premises design, alterations, maintenance and general drawing office routine essential; must be neat and quick draughtsman; salary £450 to £550 per annum, according to experience; please state if married, age, qualifications, and when available, and enclose copies of testimonials. Box 874.

ASSISTANT ARCHITECTS (Senior and Junior), experienced in the design of modern buildings, required by Main Line Railway Co.; engagement on temporary basis at from £7 7s. to £10 10s. per week, plus war advance (at present 22s. per week), according to qualifications and experience. Applications, stating age, experience, etc., with copies of recent testimonials, to Box 880.

ARCHITECTURAL ASSISTANT wanted in about 6 weeks (age 24 to 30), for a country town 100 miles from London, with a view to Partnership (varied practice); good and quick draughtsman and tracer; knowledge of quantities an advantage; with full particulars. Box 902.

REQUIRED, immediately, capable Senior Assistant, for country office; Cotswold district; one able to take responsibility, supervise, etc.; some knowledge and experience of housing essential; state salary required. Box 920.

ARCHITECT'S ASSISTANTS required immediately. Newcastle-upon-Tyne; trained and experienced for commercial, shop, and factory work, surveys, sketch plans, working drawings, etc. Apply, stating experience, salary, etc., to Box 928.

SENIOR ARCHITECTURAL ASSISTANT required in small City office; able to take charge of office and work on own initiative. 'Phone Monarch 2850, or write Andrews & Winton-Lewis, A.R.I.B.A., 12, City Road, London, E.C.1. 923

NORTH WALES Firm of Architects, with branch offices, requires keen competent draughtsman to execute working and detail drawings; future prospects good for suitable candidate. Box 930.

QUALIFIED Chartered Quantity Surveyor required to manage department in busy East Anglian Architect's Office; salary £2000 per annum, rising according to ability. Box 932.

DRAUGHTSMAN as Assistant to Architectural Department; age about 25; experienced in building construction and control of building operatives. Apply Austin Motor Co., Ltd., Birmingham. 931

ARCHITECT'S ASSISTANTS.—One qualified Senior and one experienced Junior required immediately. Apply, by letter only in first instance (no interviews), stating age, experience, and salary required, to J. Gordon McBeath, F.R.I.B.A., 2, Montague Road, Sale, Manchester. 933

ASSISTANT ARCHITECT required by Firm in West London suburb; must be good draughtsman, with knowledge of general construction, specifications, war damage claims, etc.; fully qualified not essential; good prospects. Write, stating age, experience, and salary required. Box 934.

ARCHITECTURAL ASSISTANTS urgently required in Nottingham; salaries £5 to £8 10s. per week, according to ability and experience. Apply, briefly stating experience, to Box 971.

LEWIS'S, LTD., Liverpool, require the services of a first-class Architectural Draughtsman; must be registered, and had experience in planning and design. Apply to the Store Equipment Controller, Lewis's, Ltd., Ranelagh Street, Liverpool. 937

DRAUGHTSMAN wanted by London flooring specialists; experience of reinforced concrete essential, with good knowledge of general building construction. Full particulars of age, qualifications, and experience and salary required to Box 938.

GLASGOW.—Assistant Architect required immediately in City office; must be well trained and capable. Apply, stating age, experience and salary to Box 951.

H. M. DOUGHTY & PARTNERS, Quantity Surveyors, 55, Pall Mall, Westminster, S.W.1, have vacancies for experienced Measuring Surveyors and Assistants. Apply, with full particulars of experience, and state when free, salary required, etc. 952

ARCHITECTURAL ASSISTANT for General Practice in Folkestone; must be expert draughtsman, with good knowledge of construction, surveys, supervision of works; commencing salary £260, and advancement dependent on applicant. Box 953

EFFICIENT Junior Architectural Assistant, also Assistant Quantity Surveyor, required. In either case state age, experience, when available, and salary required, to Alan W. Ruddle, F.R.I.B.A., Long Causeway Chambers, Peterborough. 956

ASSISTANT ARCHITECTS required by leading Midland Engineering Firm; must be keen, energetic, and first-class draughtsmen, with a good knowledge of building construction. Write, stating age, experience and salary required to Box 957.

ARCHITECTURAL ASSISTANT required for expanding Survey Dept. in S.E. London firm; design of small buildings, surveys, etc. Box 959.

ARCHITECTURAL ASSISTANT required for private office in Dublin; small practice, offering wide range of experience for qualified man with a few years' practical training. Box 972.

SENIOR ARCHITECTURAL ASSISTANTS required for Midlands office; A.R.I.B.A., experienced in design and preparation of all drawings for wide range of buildings; special consideration given to candidates experienced in housing, licensed premises, theatre or industrial work. State age, experience, and salary required to Box 969.

JUNIOR ARCHITECTURAL ASSISTANTS required for Midlands office; intermediate R.I.B.A. standard; capable of executing working drawings and details from sketch schemes, and experienced in all forms of construction. State age, experience, and salary required, to Box 970.

Architectural Appointments Wanted

Advertisements from Architectural Assistants and Students seeking positions in Architects' offices will be printed in "The Architects' Journal" free of charge until further notice.

A. R.I.B.A. (Dip.Arch.), 24, with good general office experience, first-class draughtsmanship, accurate measured surveys, town planning; London district. Box 333.

A. R.I.B.A., Dip.Arch. (Public School) (25) desires London area post; general experience, measured surveys, conscientious worker, good draughtsmanship; special consideration given for an opportunity where the results of study of period and ecclesiastical architecture would give an advantage. Box 331.

ARCHITECT and PLANNER, A.R.I.B.A., A.M.T.P.I., with 18 years' general experience, including housing and layouts, wishes permanent post with a Local Authority or private firm in the West of Scotland area. Box 332.

ARCHITECTURAL DRAUGHTSMAN, neat, accurate worker, requires spare-time drawing and tracing work; work speedily executed. Box 334.

QUALIFIED ARCHITECT (35) requires spare-time work in London; general experience; accurate work; working drawings from sketch plans; details, specifications, war damage repairs and re-builds. Replies to Box 336.

ASSISTANT, with 20 years' experience, seeks three days' work per week; in London, Essex, or Suffolk; plans, details, surveys; salary, or fees by arrangement. Reply to Box 337.

ARCHITECT (A.R.I.B.A.), 36, desires position with Architectural Firm affording scope, with view to Partnership; 1st class draughtsman; excellent experience and references; London or home counties preferred. Box 339.

ARCHITECT, very experienced in housing, prefabrication, modern building methods, furniture for mass production, organisation, statutory legislation 4 years with central authority in London, own experimental builder's licence, best recommendations, three languages, seeks part time work or collaboration. Box 341.

DRAUGHTSMAN (Arch. and Eng.) offers spare-time assistance in South London; experience in tracings for trade catalogues, etc., a speciality. Replies to Box 338.

ARCHITECTURAL ASSISTANT, 13 years' experience, is prepared to take evening work; London area. Box 340.

LADY ARCHITECT requires work as Assistant; London or within 50 miles. Box 342.

EXPERIENCED Architectural Assistant desires spare-time evening or week-end work; home or office, as required; London area. Box 344.

A. R.I.B.A. requires spare-time work; wide experience, housing, working drawings, details, specifications, etc. Box 343.



**ARCHITECT'S ASSISTANT (31)** requires position; 6 years' office experience in houses, flats, and licensed premises, etc. Box 345.

**ARCHITECT, Dip. Arch., Edin., A.R.I.B.A.,** age 34, desires permanent appointment as Senior Assistant, with view to Junior Partnership; 10 years' all-round experience prior to war; South-West England preferred. Write McMorland, 1, Coates Place, Edinburgh. 346

**YOUNG ARCHITECT, A.R.I.B.A.,** married, 12 years' continuous experience, at present in charge of large drawing office, supervision, and administration, desires progressive appointment; own car. Box 348.

**F.R.I.B.A.,** very widely experienced, energetic, quick worker, wishes engagement with busy Architect in South Coast town; specialist in war damage, housing; preferably Devon, Dorset, or Somerset; low salary for suitable appointment. Box 349.

**EXPERIENCED Architect** offers his services as part-time Assistant in planning or as Teacher in a Technical College; London district only. Box 350.

**ARCHITECT, Dip. Arch., A.R.I.B.A.,** sound knowledge of design and construction, 4 years' experience in housing, shops, business and hotel design, seeks Partnership or Senior Appointment with a well-established Firm of Architects. Box 351.

**JUNIOR ARCHITECTURAL DRAUGHTSMAN** requires progressive post; 12 months' surveying and drawing experience, also 3 years' ex-school of building; London area only. Box 352.

**JUNIOR (17)** seeks position in Architect's office; London district; secondary education; have completed 1st year architectural training; good draughtsman. R. Chellis, 89, Globe Road, Woodford Green, Essex. 353

**JUNIOR ARCHITECTURAL ASSISTANT** seeks position in London area; age 20; probationer, R.I.B.A.; good draughtsman and knowledge of house construction; some surveying experience. J. F. Bellamy, 65, Churchill Avenue, Kenton, Harrow, Middx. 354

**ARCHITECTURAL DRAUGHTSMAN,** single, seeks work in large North or Midlands town; experienced hotel work, housing, reconditioning work, shops, factories, etc.; capable draughtsman, able to prepare working drawings, details, etc., from sketch plans; undertake survey of sites and buildings, and supervision of building work; salary £6 per week. Box 355.

**CAMBRIDGE Architectural Draughtsman,** working at home, would like to make designs and drawings, especially housing. Write Box 355.

**ASSOCIATE R.I.B.A.,** at present in provinces, would like Senior post in or near London; over 20 years' experience high-class work; qualified town planner and travelling scholarship winner; particularly interested in design, and would consider teaching post. Box 357.

**TWO** second year Architectural Students require position in Architect's office during Easter holidays; London area. Box 358.

### Other Appointments Vacant

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

**LIGHTING Fittings and Illuminations,** Commercial and Technical Work.—Large Electrical Manufacturers require for London office a well-educated British subject, with electrical and illumination training and commercial experience; varied work, sales correspondence, lighting schemes, etc.; permanent and progressive post. Particulars and salary required to Box 318.

**DESIGNER of Commercial and Industrial Lighting Fittings, for Fluorescent, Discharge and Tungsten Lamps,** required for London by large electrical manufacturers; British national, with electrical and illumination training and practical experience. State salary required and full particulars to Box 788.

### For Sale

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

**ELECTRICITY FOR COUNTRY HOUSE.**—Complete equipment for sale, including h.p. Oil Engine, Electric Generator and Booster Set, Switchboard, Battery and Motors, 200 volts supply; in good running order; inspection.—Apply Bally, Grundy & Barrett, Ltd., Electrical Engineers, Cambridge. 685

### Miscellaneous

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

**J. BINNS, LTD.,** specialists in the supply and fixing of all types of fencing, tubular guard rail, factory partitions and gates. 53, Gt. Marlborough St., W.1. Gerrard 4223-4224-4225.

**J. BAYNES, LTD.,** established over 100 years. Heating, Ventilating and Sanitary Engineers, 99/107, St. Paul's Road, N.1. Canonbury 2061-3. 584

**FENCING AND GATES** of every type, supplied and erected. Specialists in chain link. Boulton & Paul, Limited, Norwich. 662

**BUILDING ESTATE DEVELOPMENT.**—Ample funds available; liberal advance on cost of land; then building finance; then up to 50 per cent. long term mortgages to owner-occupiers, free of brokerage; low interest rates and charges. Chas. B. Buxton, Ltd., Local Authorities Loans Brokers, 9, Clements Lane, Lombard Street, E.C.4. 588

**SYNDICATE,** specialising in the design and detail of reinforced concrete and steel structures for industrial and building work, is now in a position to undertake further commissions. Competitive designs for foundations; floors; water towers; bunkers; silos; retaining walls; chimneys; framed buildings; factories, including plant layout, etc.; quantities abstracted; specifications prepared; plans submitted, with calculations where required; approximate estimates free. Write in confidence, Box 895.

**WANTED.**—One set of "Arts Et Matiers Graphiques." Please reply to Box 5.

**INVESTMENT TRUST** wishes to purchase PROPERTY LET to good tenants. Details of Houses, Flats or Shops to John Swait & Sons, Surveyors, The Mall, W.5. EAL. 2866 804

**ACCOMMODATION REQUIRED.**—R.I.B.A., commencing practice, requires office accommodation in central London; willing to share with another Architect or Surveyor; can give part-time assistance by arrangement. Box 904.

**"CAN I HELP YOU?"**—I have on my staff Architectural and Civil Engineering Draughtsmen, Building, Estimating, Land, Measuring and Quantity Surveyors. Write C. F. Rumble, 29/31, Whitehall, S.W.1. Tel.: Whitehall 8514. 916

**WANTED** to purchase copies or bound volumes of "The Architectural Review" from 1940 to 1945, complete. Box 347.

**MAYFAIR OFFICE** to Let; light front basement; suit Architect or Surveyor, who can occasionally assist busy Surveyor. Box 945.

**FENCING FOR ALL PURPOSES.**—Supplied and erected; established 100 years. Parker, Winder & Achurch, Ltd., 80, Broad Street, Birmingham, 1.

**DRAWING OFFICE SUPPLIES.**—"Classic" Tee-squares, made from well-seasoned Honduras mahogany: 12 in., 3s. 9d.; 18 in., 5s.; 24 in., 6s. 6d.; 34 in., 10s. 6d.; 42 in., 13s. (all post free). "Classic" Set-squares, made from stout celluloid: 45 deg.—4 in., 1s.; 5 in., 1s. 2d.; 6 in., 1s. 6d.; 8 in., 2s. 4d.; 10 in., 2s. 10d.; 12 in., 3s. 3d.; 15 in., 3s. 9d.; 60 deg.—5 in., 1s.; 6 in., 1s. 2d.; 8 in., 1s. 6d.; 10 in., 2s. 4d.; 12 in., 2s. 10d.; 15 in., 3s. 3d.; 18 in., 3s. 9d. Brass Drawing Pins, with screwed steel points, bevelled tops, milled edge, packed three dozen to the box: Per box, 2 in., 6s. 9d.; 2 in., 7s. 7d.; 3 in., 8s. 6d.; 1 in., 11s. Stobart & Son, 316, Ivydale Road, London, S.E.15. 950

**ARCHITECTURAL DRAUGHTSMAN** requires part-time drawing work, tracings, etc.; experienced perspective artist; any medium. Apply Box 961.

**THE SCHOOL OF ARCHITECTURE,** King's College, Newcastle-upon-Tyne, 1.—Technical pamphlets, brochures and samples are required from manufacturers of Building Materials and Equipment for reference by students. 939

**STUDENT** requires old copies of "Architects' Journal," "Builder," or similar periodicals, English or foreign, for clippings and references. Please write K. G. Gold, 41, Victoria Avenue, Surbiton, Surrey. 963

**MODELS** for Architects, Town Planners; quick, efficient, model maker. A. Grunseid, 9, Rose Crescent, Richmond, Yorks. 962

### Educational Announcements

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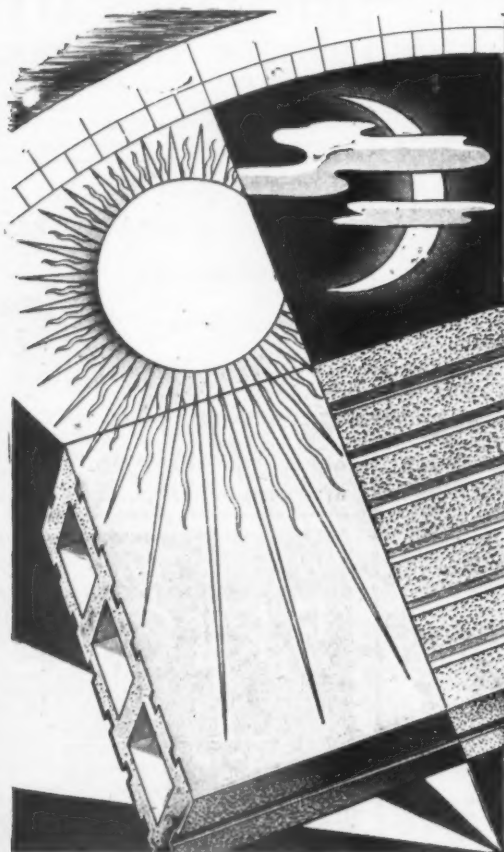
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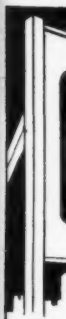
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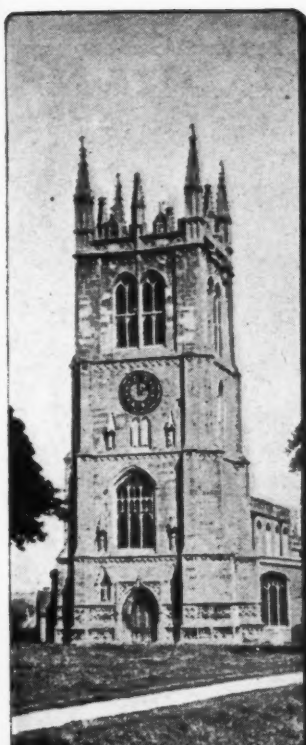


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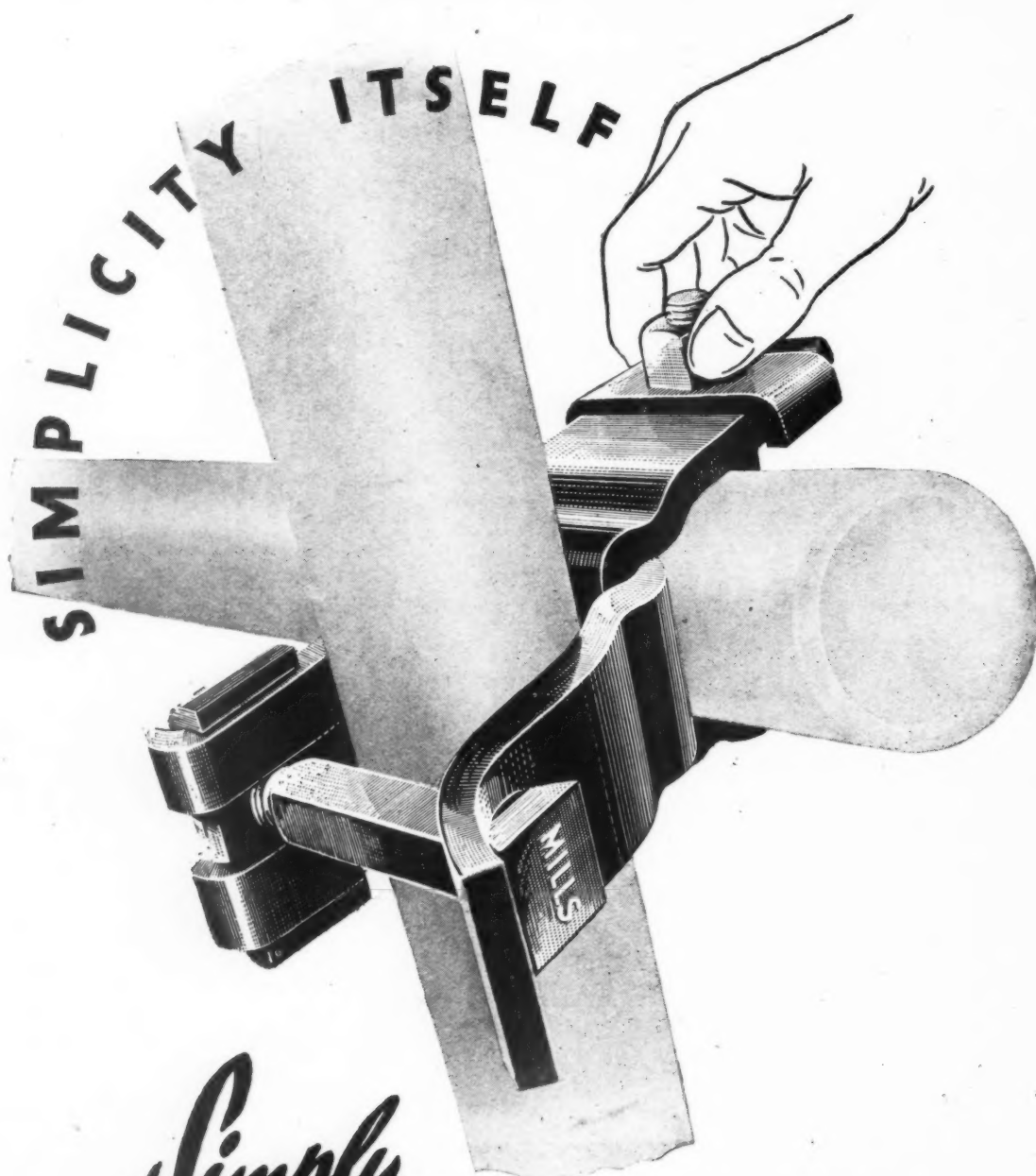
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