

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

LETTERS

PHYSICAL PLANNING

CURRENT BUILDINGS

INFORMATION

CENTRE

Physical Planning Lighting
Structure Heating & Ventilation
Materials Questions & Answers
Acoustics & Sound Insulation

INFORMATION SHEET

SOCIETIES & INSTITUTIONS

PRICES

Architectural Appointments
Wanted and Vacant

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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
ADA	The Aluminium Development Association, 67, Brook Street, W.1.	Mayfair 7501/8
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. 9, Conduit 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.	Abbey 5422-3
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
CDA	Copper Development Association, Kendals Hall, Radlett, Herts.	Radlett 5616
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. 9, Conduit Street, W.1.	Mayfair 0477
DOT	Department of Overseas Trade. 35, Old Queen Street, S.W.1.	Victoria 9040
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	MARS Group (English Branch of CIAM). 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
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
SAC	Scientific Advisory Committee, Ministry of Works, Lambeth Bridge House, Albert Embankment, S.E.1.	Reliance 1450
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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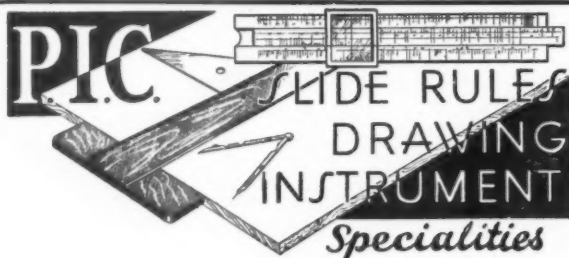
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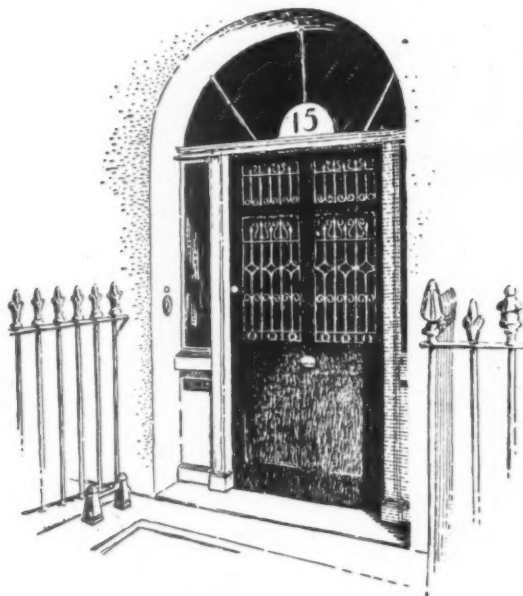
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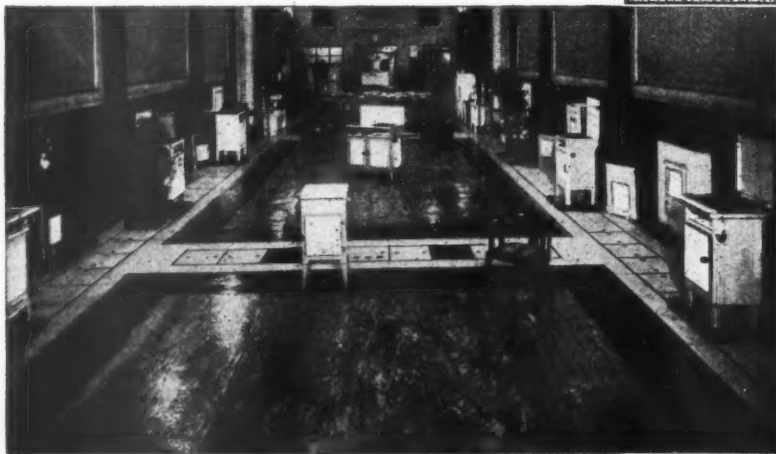


AGRICULTURAL BUILDINGS

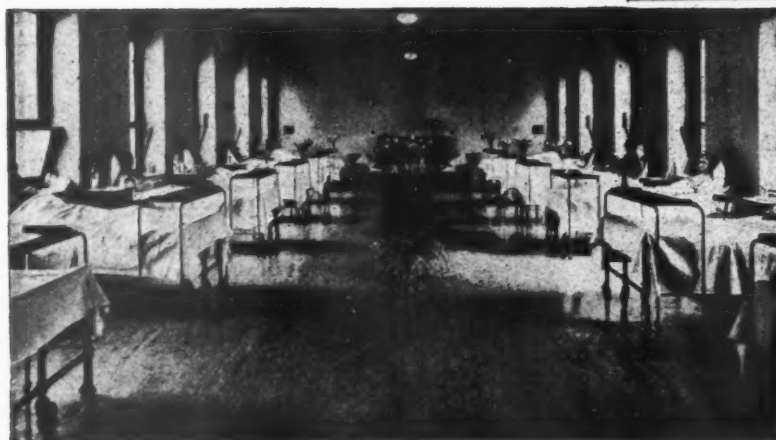
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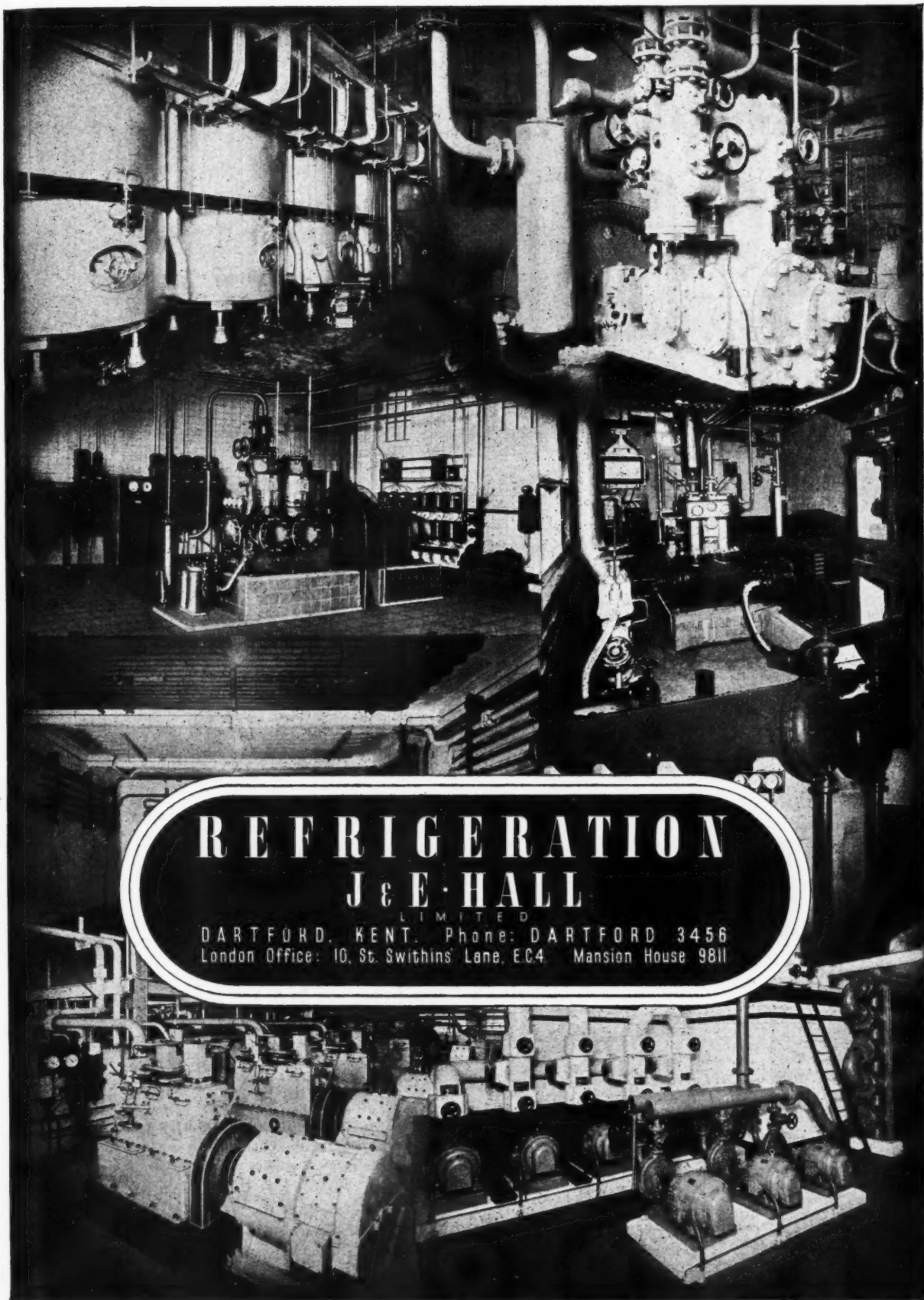


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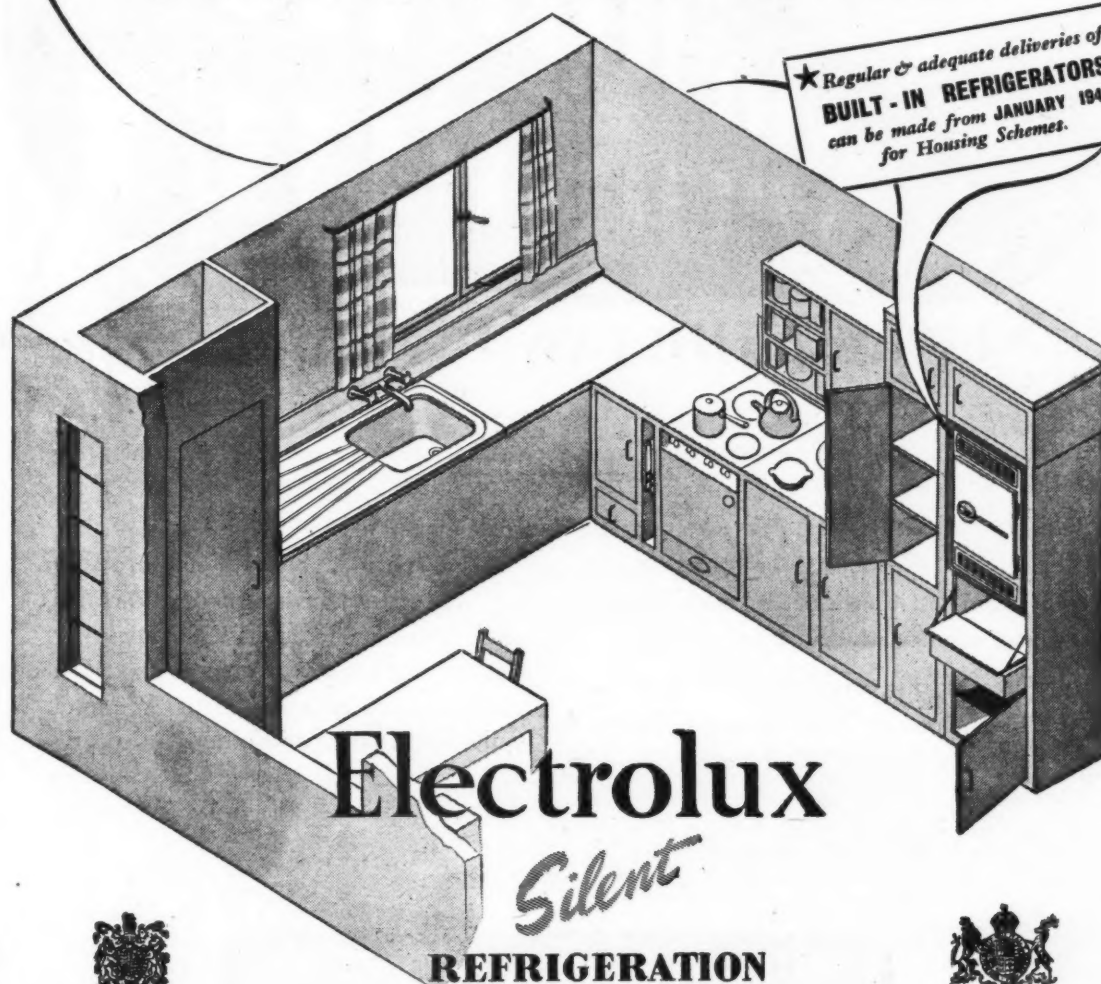
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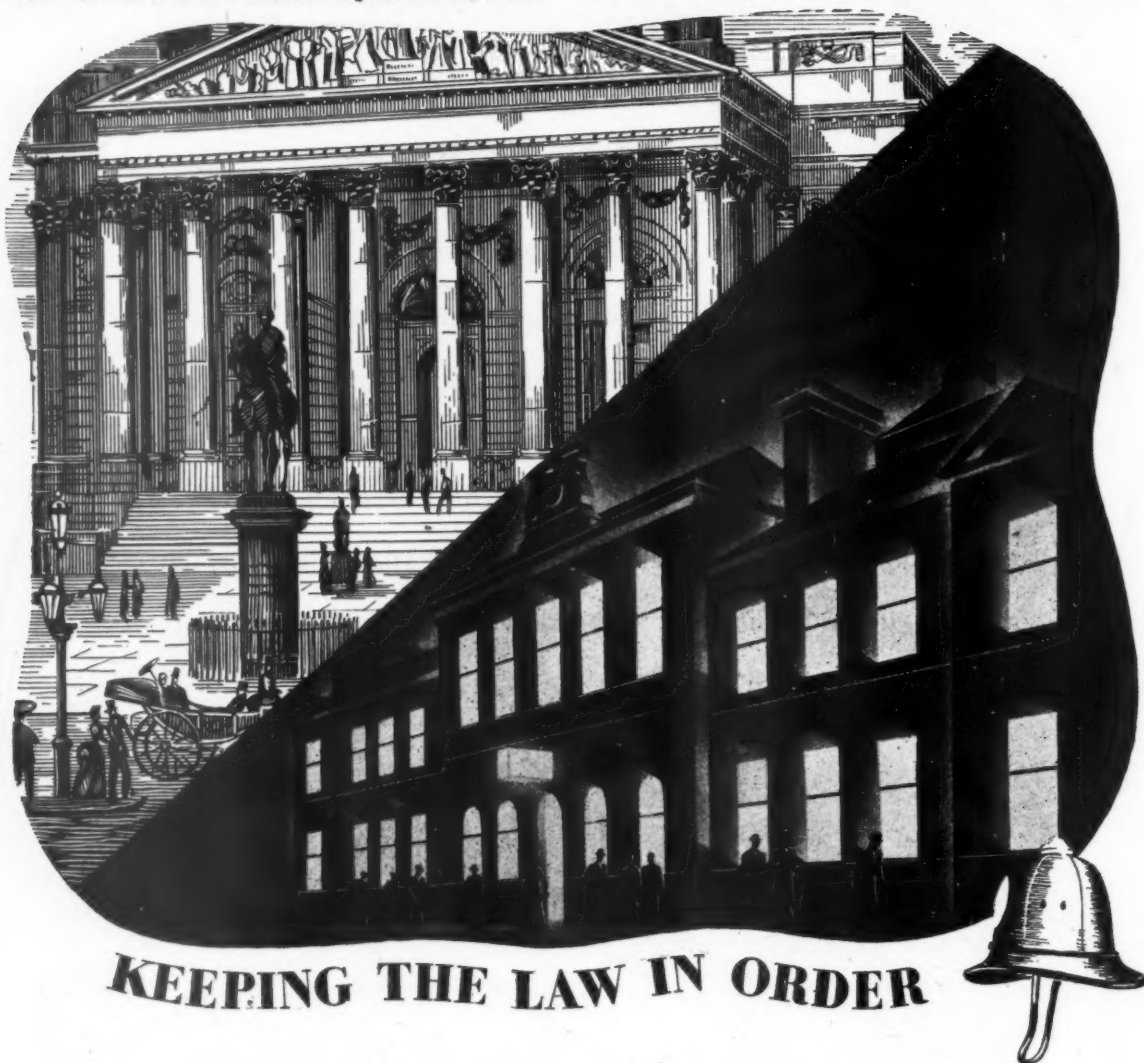
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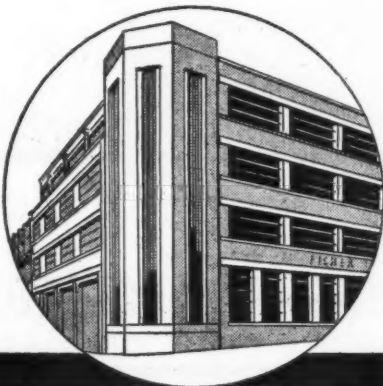
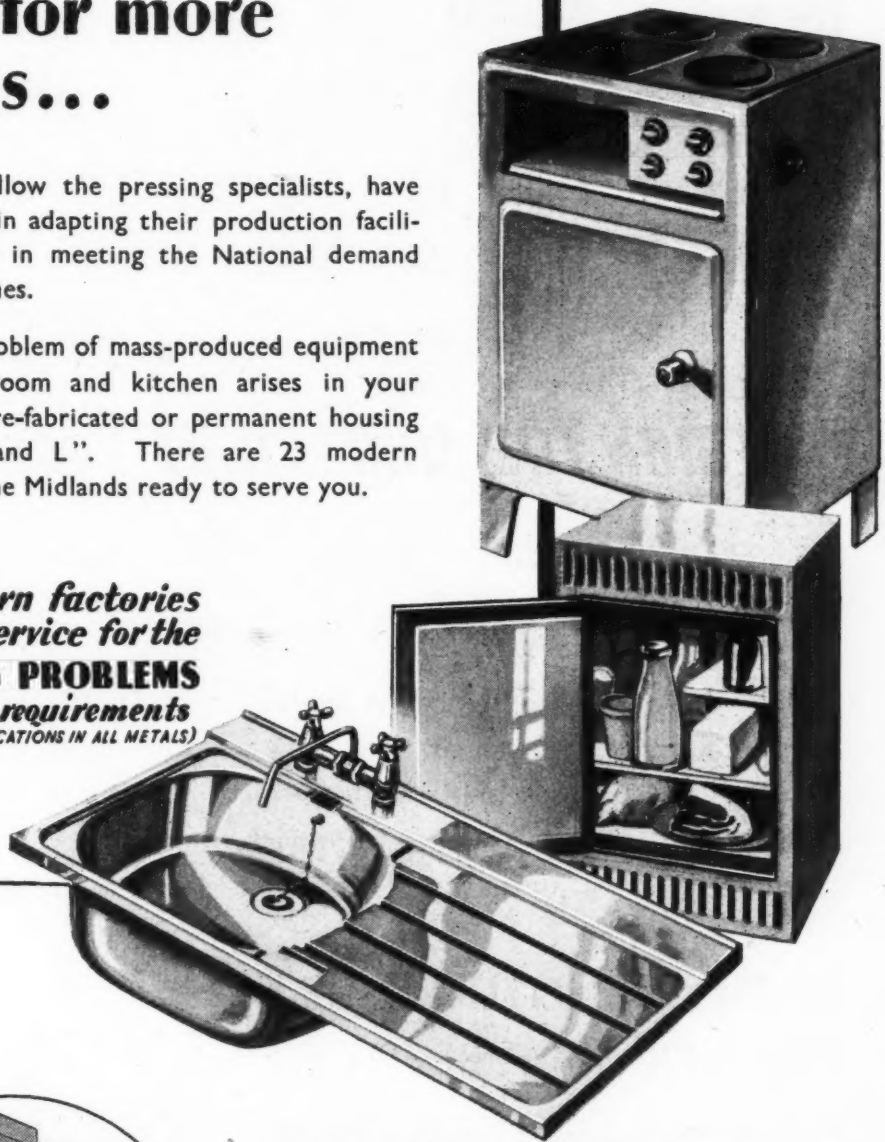
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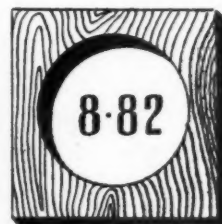


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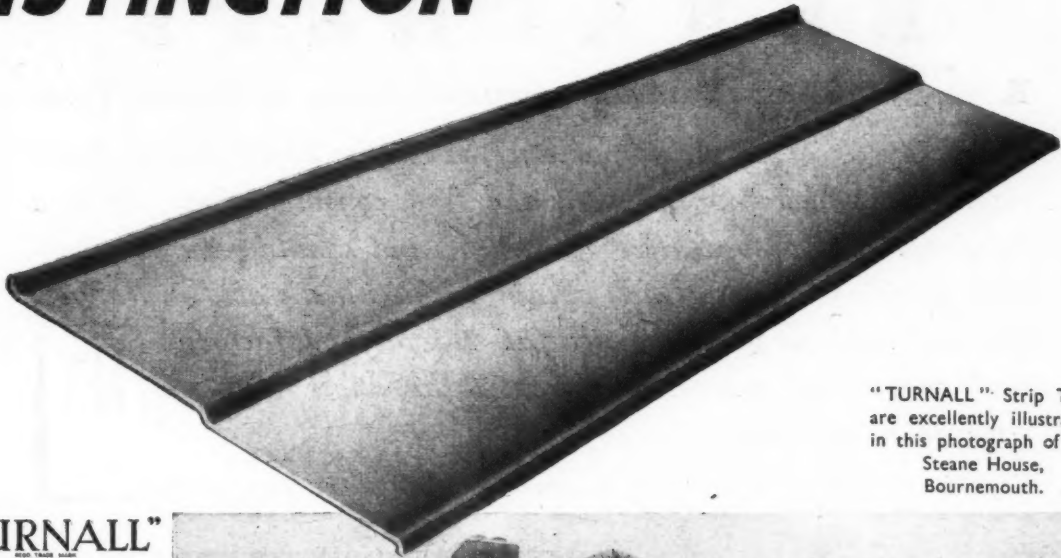
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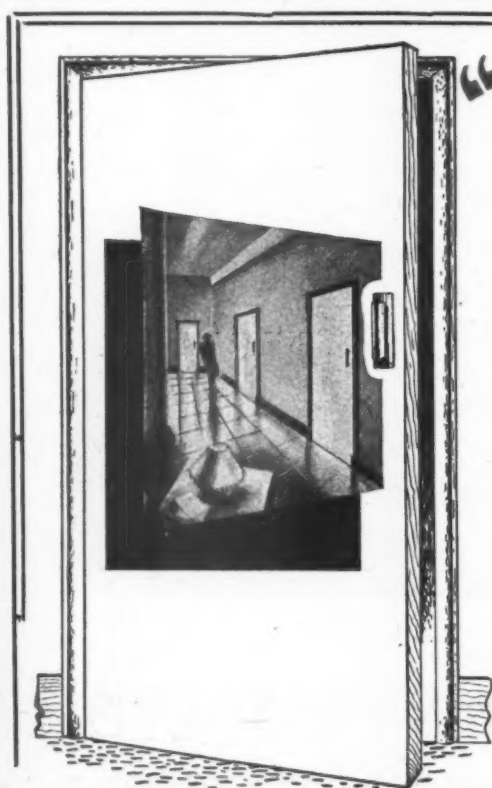
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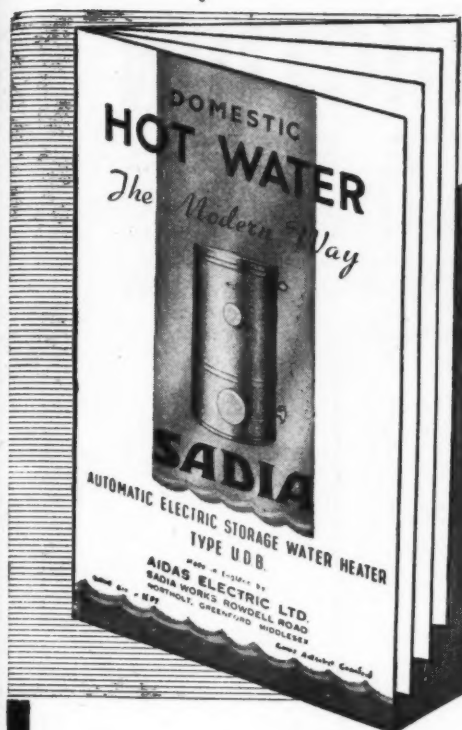
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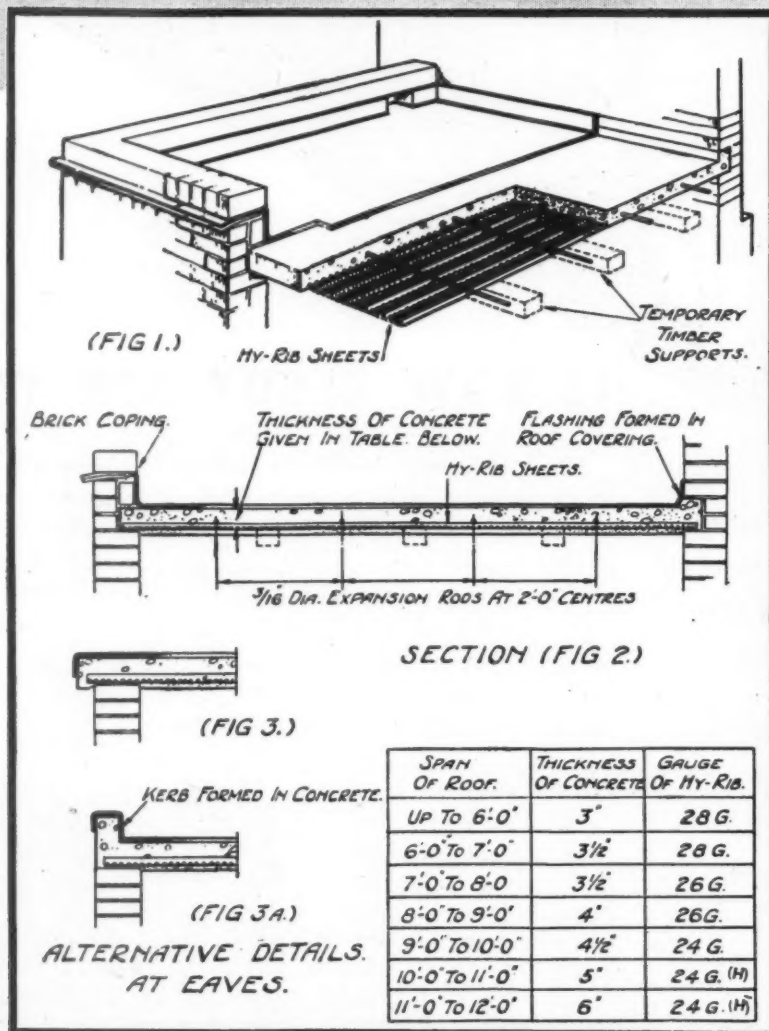


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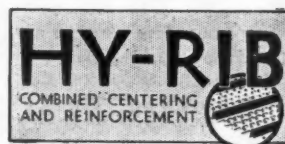
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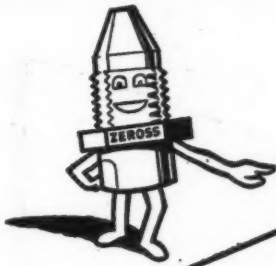
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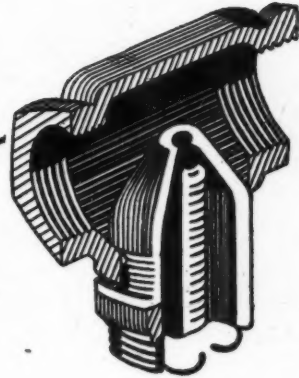
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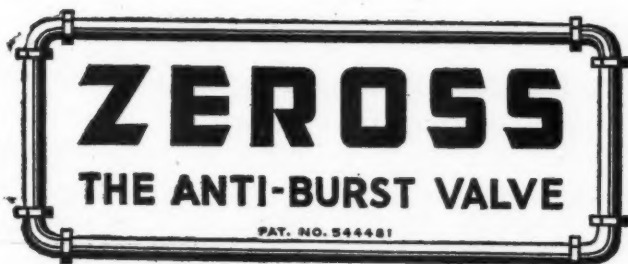
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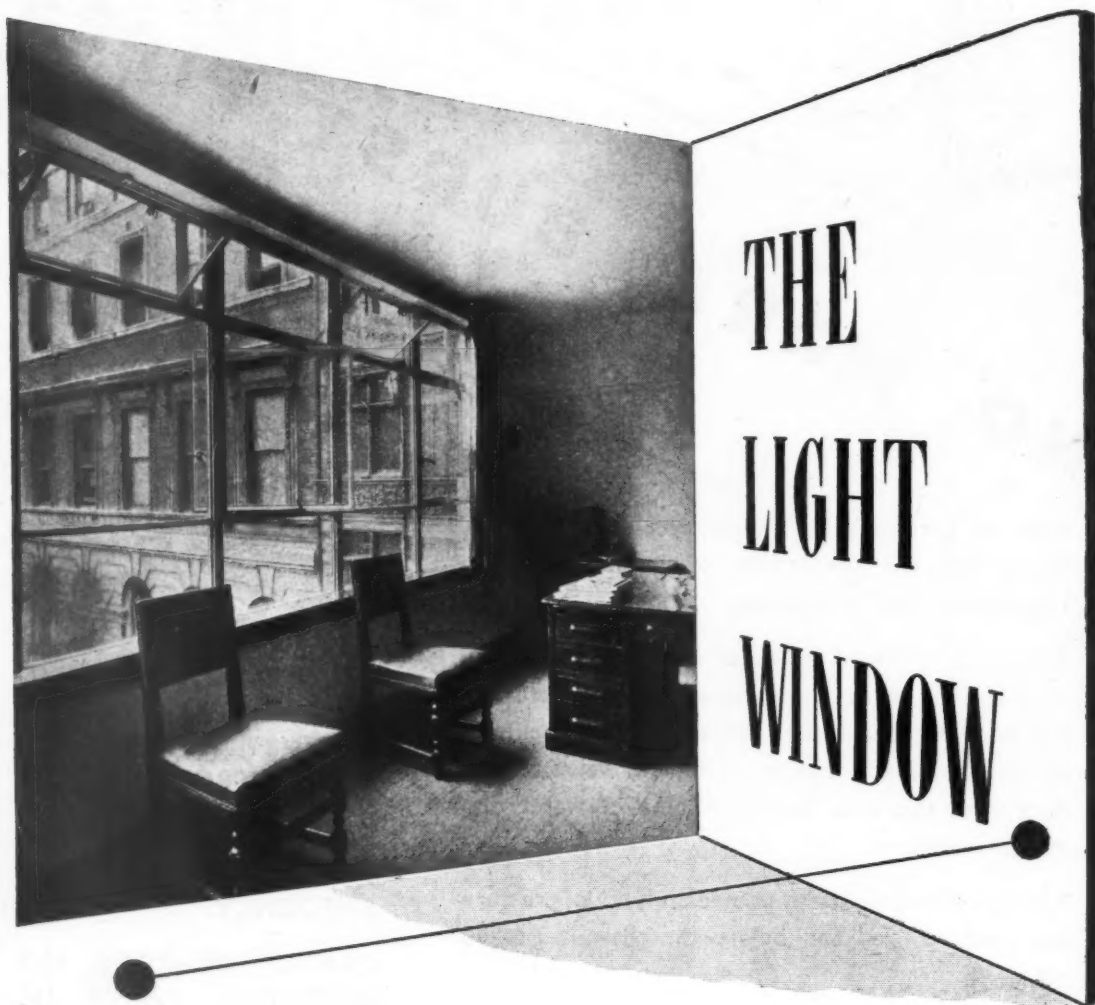
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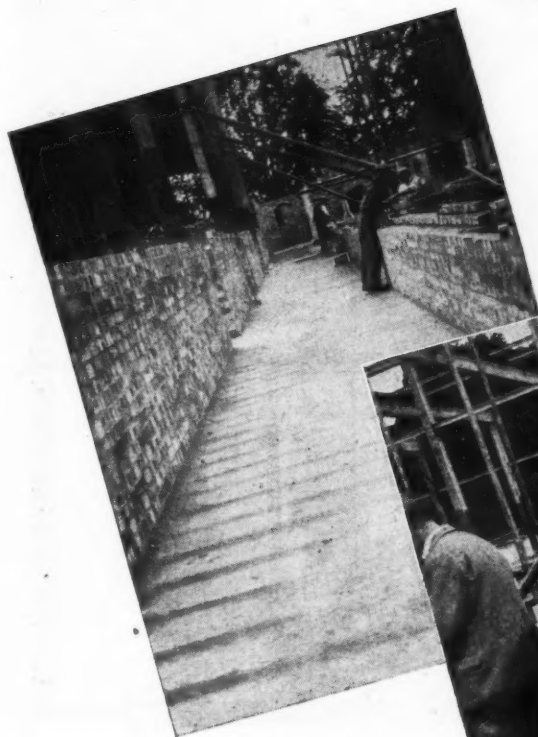
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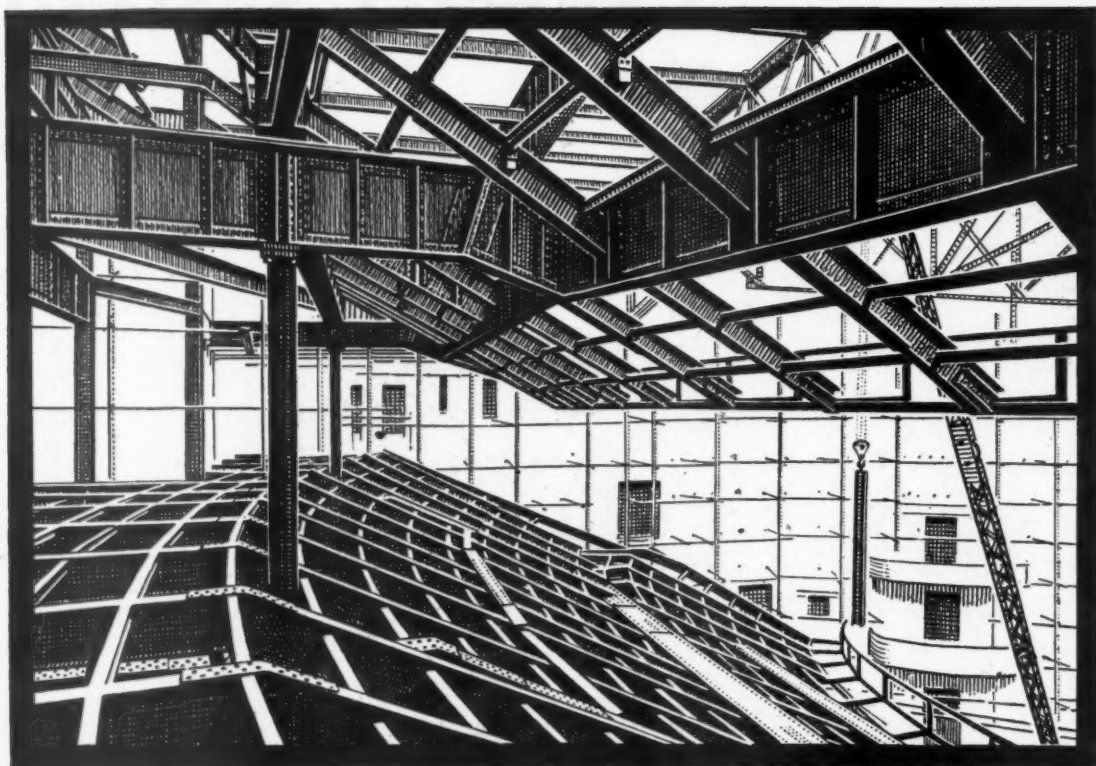
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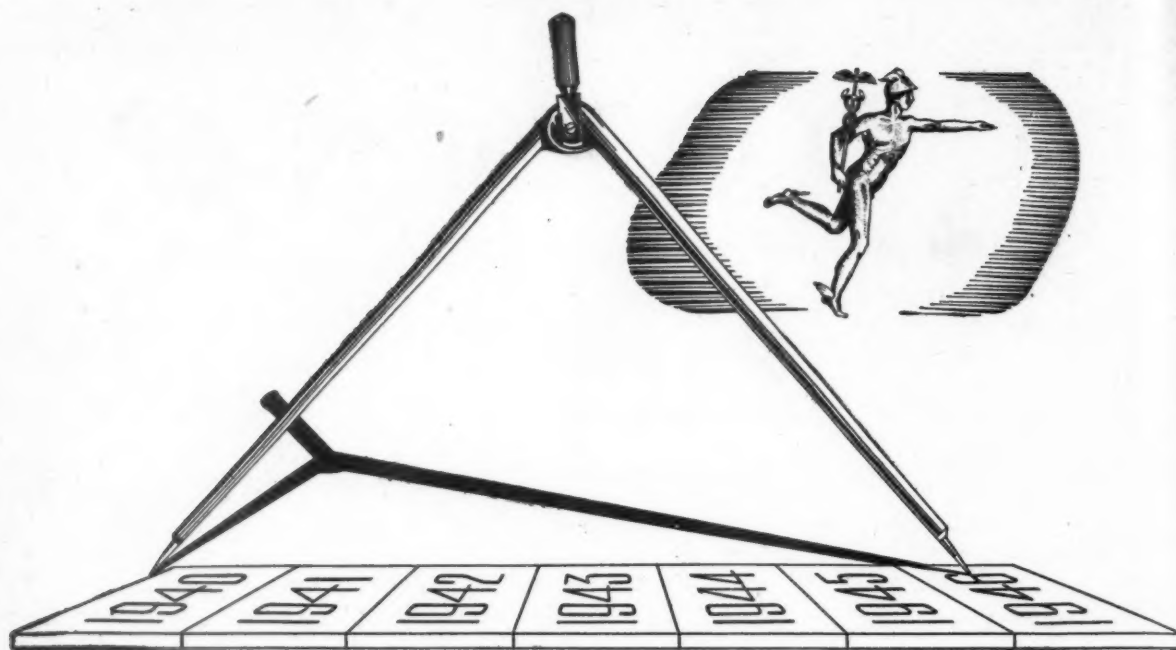
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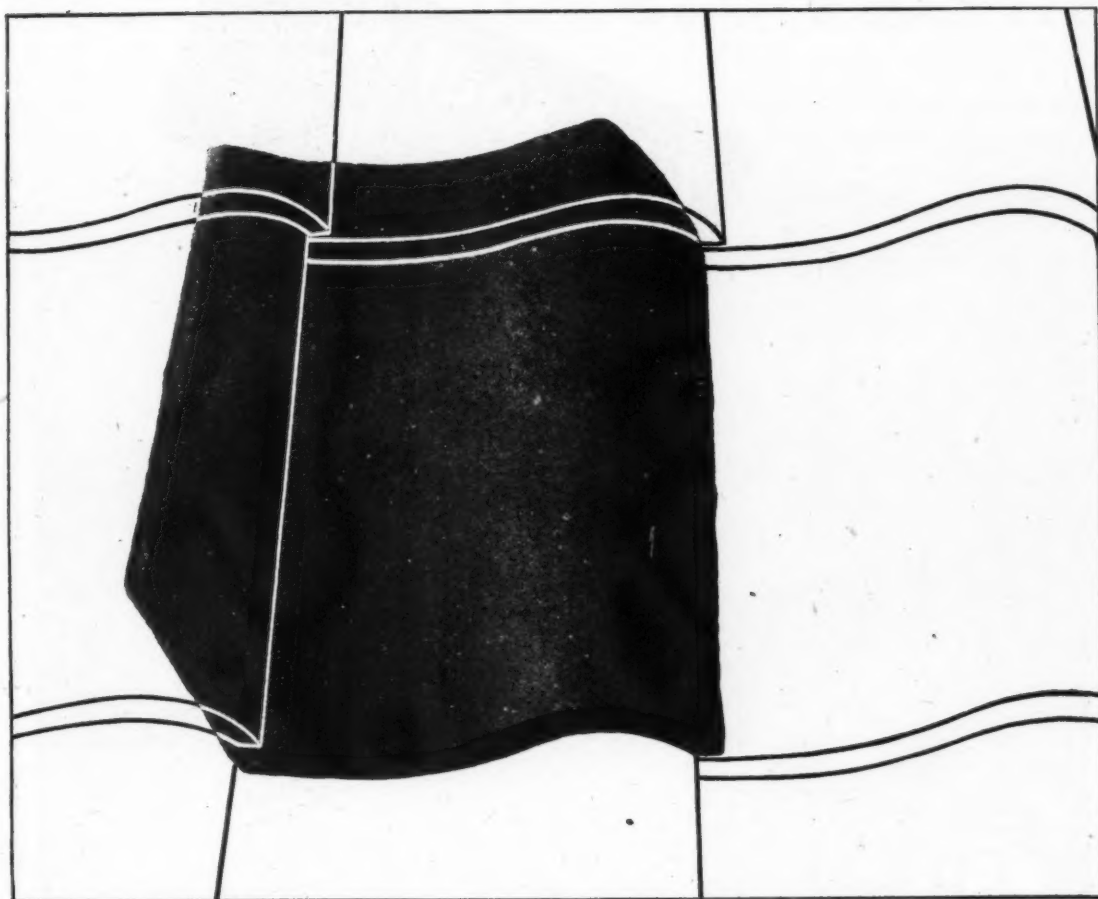
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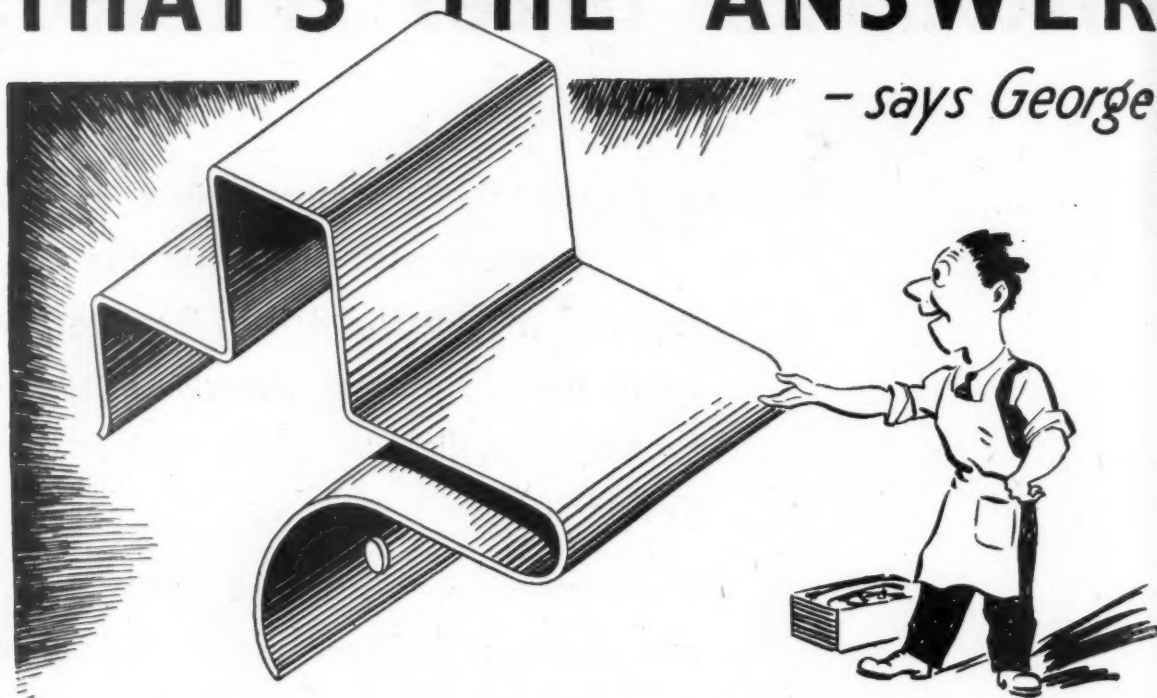
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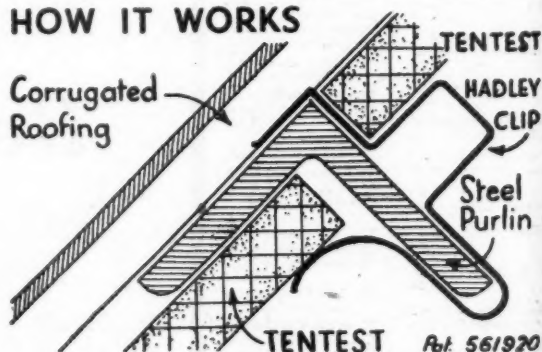
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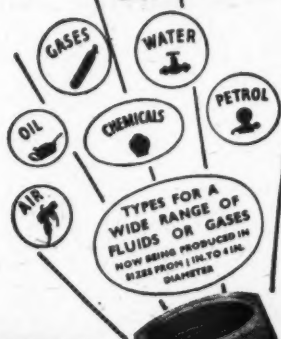
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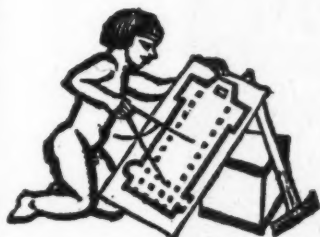
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DIARY FOR SEPTEMBER OCTOBER AND NOVEMBER

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.

LONDON. *Summer Exhibition of French and English Paintings, Drawings, Prints.* At Redfern Gallery, 20, Cork Street, Burlington Gardens, W.1. SEPT. 19-28

Exhibition by three artists: Irene Foord-Kelcey, Darsie Rawlins, R. Russell. At 25, Ebury Street, London, S.W.1. 9.30 a.m. to 6.0 p.m. Saturdays 9.30 a.m. to 1.0 p.m. (Sponsor, Church Artists Agency.) SEPT. 19-31

Recent Paintings by Keith Baynes, Quentin Bell and Sven Berlin. At The Lefevre Gallery, 131-134, New Bond Street, W.1. 10 a.m. to 5.30 p.m., Saturdays 10 a.m. to 1 p.m. SEPT. 19-28

Paintings by Terry McGlynn. At Foyles Art Gallery, Trefoil House, Charing Cross Road, W.C.2, 9 a.m. to 6 p.m., including Saturdays. SEPT. 19-28

Swiss Planning and Building Exhibition. At the RIBA, 66, Portland Place, W.1. Organized with the co-operation of the foremost architects and associations in Switzerland. Building for work, building for recreation, housing, town and country planning, schools and hospitals are among the subjects covered. Other features are the preservation of old and historic buildings and the countryside, and the re-planning of winter sports resorts, for which an extensive programme has already been started. How Switzerland makes the most of her landscape is shown in a series of photographs. SEPT. 19-OCT. 26

Royal Photographic Society of Great Britain Exhibition. At the Science Museum, Exhibition Road, S.W.7. Ninety-first annual exhibition of photographs, which contains some 900 photographs from 21 countries of various kinds such as pictorial, technical, colour, miniature camera, cinematography. (Sponsor, Royal Photographic Society.) SEPT. 19-OCT. 26

New Homes for Old. Exhibition of House Conversion at the Tea Centre, 22, Lower Regent Street, S.W.1. 10.30 a.m.-5.30 p.m. Saturdays, 10.30 a.m.-4.30 p.m. Admission 1s. (Sponsor, HC.) SEPT. 20-Nov. 9

English Joinery Manufacturers' Association Dinner. At the Savoy Hotel, Strand, W.C.2. Guest of honour, George Tomlinson, M.P., Minister of Works. (Sponsor, EJMA.) 7.15 p.m. for 8 p.m. SEPT. 24

Sir Hugh Chance. Recent Developments in Optical Glass Manufacture. At the Institution of Electrical Engineers, Savoy Place, W.C.2. (Sponsor, ICE.) 5.30 p.m. SEPT. 26

At the RIBA, 66, Portland Place, W.1. Public Lecture on *The Need for a New Monumentality* by Dr. Siegfried Giedion, of Zurich, author of *Time, Space and Architecture*. The lecture will be illustrated with lantern slides. 6.30 p.m. (Sponsor, MARS.) SEPT. 25

Annual General Meeting of the Council for the Preservation of Rural England. At the Royal Institution of Chartered Surveyors, 12, Great George Street, S.W.1. Chairman: Sir Patrick Abercrombie. The Duke of Norfolk will be installed as President of the Council and the Minister of Town and Country Planning will address the meeting. 2.45 p.m. SEPT. 26

Two-Day Conference on Industrial Design. At Central Hall, Westminster, S.W.1. This is the first of a series of conferences which the Council of Industrial Design propose to hold in association with the Britain Can Make It Exhibition. Papers to be delivered at the conference will discuss the designer's place in industry, the design of machinery, design and research, and design as an ally in exports. Delegates will include designers and industrialists. Conference arrangements are in the hands of the Conference Secretary, Council of Industrial Design, Tilbury House, Petty France, S.W.1. (Sponsors, Council of Industrial Design and the Federation of British Industries.) SEPT. 26-27

MANCHESTER. *Regional Conference of Local Authorities in Lancashire and Cheshire.* The Conference, the first of a series of Regional Housing and Planning Conferences of Local Authorities in 11 different centres of England and Wales, will discuss (1) the General Housing Situation, (2) The Housing (Financial and Miscellaneous Provisions) Act, 1946, (3) The Design of Dwellings, (4) Rural Housing, (5) Town and Country Planning Problems with especial reference to (a) the Town and Country Planning Acts, 1932-1944, (b) Interim Development and the Administration of Operative Schemes, (c) New Towns. At the Conference Hall, Town Hall, Manchester. Full particulars from the National Housing and Town Planning Council, 41, Russell Square, London, W.C.1. 11 a.m. to 1 p.m. and 2.30 p.m. to 5 p.m. (Sponsor, NHTPC.) SEPT. 26

PARIS. *International Technical Congress.* Among the delegates from Great Britain will be Sir Patrick Abercrombie, President, International Reunion of Architects, and Sir Percy Thomas. SEPT. 19-21

NEWS

THURSDAY, September 19, 1946
No. 2695 Vol. 104

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

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

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

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

The RIBA Board of Architectural Education has issued the following notice concerning RIBA PRIZES and Studentships.

The attention of intending competitors is drawn to item No. 3 of the General Conditions. In view of the difficulty of obtaining material for mounting drawings it has been decided to waive this regulation for the Prizes and Studentships offered for award this year.

New towns are the immediate practical alternative to the further building of MONSTROUS SUBURBAN EXTENSIONS.

—Mr. Gordon Stephenson. Speaking at the Town Planning Institute Summer School at Durham, Mr. Gordon Stephenson, Senior Research Officer to the Ministry of Town and Country Planning, said that, in ten years, twenty new towns might be nearing completion in England, Scotland and Wales. The new towns are not being built to satisfy some theoretical whims. They are the immediate practical alternative to the further building of monstrous suburban extensions.

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Craftsmen in Steelwork

From AN ARCHITECT'S Commonplace Book

THOUGHTS OF A 19TH-CENTURY SHARAWAG: EYE VERSUS STRAIGHTEDGE. [From *The Art of Building Cities* by Camillo Sitte; translated by Charles T. Stewart (Reinhold Publishing Corporation).] It is strange that the slightest irregularity in modern city plans upsets us, although those of ancient public squares do not have a displeasing appearance. In fact, their irregularities are such that they are seen only on paper. On the ground they escape us. The ancients did not conceive their plans on drawing boards. Their buildings rose bit by bit in *natura*. Thus they were readily governed by that which struck the eye in reality. They did not stop to correct defects in symmetry that were evident only on paper. We know how little symmetry and absolute geometrical regularity contributed to the picturesque beauty of medieval castles. In spite of their tormented structures, these old castles achieved an harmonious impression because their architecture clearly explained what was in them. Each individual structural mass has a kind of counterbalance which assures an overall equilibrium, boldly conceived and composed of patterns that were varied but not confusing. There is much of this in the art of building cities. Why should we be content with the stiff regularity, the useless symmetry, and the tiresome uniformity of modern city plans? In parts of old country houses and in the architecture of castles we perceive a certain picturesque abandon. Why must the straightedge and the compass be the all-powerful masters of city building?

Office Finance, Partnership and Profit Sharing, and Architects to Public Authorities, are the titles of three more informal lectures arranged by the RIBA on OFFICE ORGANIZATION.

The second of the informal lectures on *Office Organization* will take place at the RIBA on Tuesday, October 22, at 6.30 p.m. The subject will be *Office Finance*, and the speakers—two architects and an accountant—will deal with a wide range of problems which arise under this head. The following have agreed to take part in the talks:—Percy Burnett, F.R.I.B.A., A. M. Chitty, F.R.I.B.A., and Brian Boys (Accountant). E. D. J. Mathews, A.R.I.B.A., will take the chair, and the talks will be followed by a discussion. Light refreshments will be available at a small charge from 6.0 p.m.-6.30 p.m., and it will greatly assist the catering arrangements if those intending to be present would either send a post card or telephone the Secretary of the Lectures Committee not later than October 15 if they wish to avail themselves of the buffet arrangements. Later in the session there will be two more informal lectures at which the speakers will be as follows:—*Partnership and Profit Sharing*: Speakers: G. Grenfell Baines, A.R.I.B.A., and Raglan Squire, F.R.I.B.A. Chairman: H. V. Lobb, F.R.I.B.A. *Architects to Public Authorities*: Speakers: Hubert Bennett, F.R.I.B.A. (West Riding County Architect), Kenneth Campbell, A.R.I.B.A. (Miners' Welfare Commission), and D. E. E. Gibson, A.R.I.B.A. (City Architect of Coventry). Chairman: R. H. Matthew, A.R.I.B.A. (Architect to the LCC). Reprints of the first lecture in the series—*Office Organization in a Private Practitioner's Office*—will be available at the meeting on October 22, price 6d.

Royal Fine Art Commission: The general LAY-OUT OF REGENT'S PARK and buildings should be retained and the front and end elevations of the majority of the terraces preserved or restored.

The Commission also recommends that whatever form the reconstruction of the houses in Carlton House Terrace may take the south and end elevations and the return wings to the north should be retained. These recommendations are from the seventh report of the Royal Fine Art Commission (Stationery Office, Cmd. 6819, 4d.).

which covers the years from 1937, when its last report appeared, to 1945. The commission, of which Lord Crawford is chairman, has by a Royal Warrant issued in May been strengthened by the grant of important new powers to call witnesses and have access to documents, and by the appointment of six new commissioners. The report details the questions with which the commission has had to deal during the period covered, and shows that its advice has been sought on various matters by many Government departments and other public bodies. Among these are the more effective control of the design and appearance of buildings in post-war planning and reconstruction, the design of permanent prefabricated houses, and the siting and design of power stations, of which the commission believes that "the general standard of design... has already been greatly improved." Two town-planning schemes with which the commission has been concerned are those for Canterbury and the City of London. With regard to the London scheme, detailed criticisms were offered of

the City's suggested plan of 1944, and more recently approval has been expressed of Dr. Holden's proposals for the lay-out round St. Paul's Cathedral, emphasizing particularly the need for restricting the height of buildings round the Cathedral and for architectural harmony in their treatment.

Dr. B. Ifor Evans has been appointed VICE CHAIRMAN OF THE ARTS COUNCIL of Great Britain.

The following appointments have been made by the Arts Council of Great Britain: Dr. B. Ifor Evans, vice-chairman of the Arts Council; Miss Mary Glasgow, secretary-general to the Council. The executive committee has been reconstituted as follows:—Chairman, Sir Ernest Pooley; vice-chairman, Dr. B. Ifor Evans; Sir Kenneth Clark, Lord Esher, Sir Stanley Marchant, and Mr. W. E. Williams.



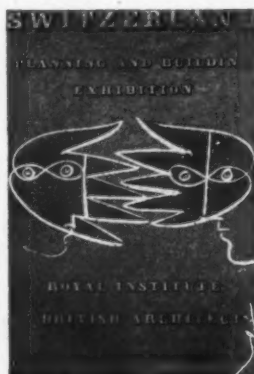
Swedish students from Stockholm, on a visit to Manchester in connection with the first architectural student exchange, arranged by the Arch. SA International Committee. Left to right: standing, P. Pernevi and F. S. Bolland; seated, I. Tukmila, O. Bylund, S. Ramel, S. Hermannsson, L. Haking, S. Vejde, J. S. Beaumont (President of the Manchester Society of Architects) and P. Percy. (Photo, Manchester Evening News.)



Swiss Co-operation

Above is a view of the Katzenbach co-operative housing estate near Zürich, built recently by the Housing Co-operative Glattal, one of the photographs to be seen at the exhibition of Swiss Planning and Building which opens to-day at the RIBA. No country is more closely identified with the exchange of international ideas than Switzerland, and the exhibition shows how her unique situation between three cultures has stimulated the attempt to solve contemporary and universal social problems. The exhibition contains the work, in the form of photographs, drawings and models, of some of the foremost Swiss architects, and is divided into sections dealing with holiday and sports resorts, community needs—churches, hospitals, sanatoria and clinics. There is also a large section covering different aspects of housing, including some of the co-operative schemes which have been a feature of Swiss planning in recent years, and of which the Katzenbach estate is a typical example. So successful have these schemes been that Local Authorities in Switzerland are relying very largely upon co-operatives for the fulfilment of the current housing programmes, and are supporting them with substantial subsidies. Part of the exhibition illustrates the work of the Association for the Protection of Natural Sites, and examples of town and

country planning projects are shown, as well as the way in which a new generation of architects is being trained. Owing to the size of the exhibition and the difficulty of finding suitable accommodation, it will probably not be possible to tour it, and for this reason it will remain on view in London until October 26 (from 10 to 6 p.m. each week day). Conrad D. Furrer, Hans Hofmann, Hermann Baur and Max Kopp are the architects responsible for preparing the exhibition. The poster on the left, which is being displayed all over London, has been designed by Hans Erni, one of the best known modern painters in Switzerland, who worked and studied in England before the war. He was responsible for all the posters for the Lucerne Festival, for the settings and costumes for the open air performances of Sophocles' *Antigone* at the Roman Amphitheatre of Avonnes in Switzerland, as well as for many of the largest mural decorations at the Swiss National Exhibition of 1939. The poster, which has already aroused controversy, clearly symbolizes the use of hand and eye for co-operative purposes. The Katzenbach and other housing estates will be fully illustrated in a later issue of the JOURNAL, as well as further examples of contemporary Swiss architecture, as shown at the RIBA Exhibition.



The LCC Brixton School of Building is holding SPECIAL COURSES OF LECTURES during the 1946-47 Session on Building Labour Management and Soil Mechanics.

The Building Labour Management courses will cover:—(i) *Foremanship* (Tuesday evenings, 7.0 p.m. to 9.0 p.m., October 8 to November 26, 1946, inclusive); (ii) *The Preparation of a Progress and Schedule Chart* (Tuesday evenings, 7.0 p.m. to 9.0 p.m., January 14 to March 4, 1947, inclusive). Lecturer: A. G. Raven, A.M.I.A. Fee: 10s. 6d. for each course. The Soil Mechanic's Course will cover:—(i) *Site Investigation and Soil Properties, Stability of Slopes, Embankment Dams* (Thursday evenings at 6.30 p.m., October 3 to November 21, 1946); (ii) *Earth Pressure, Excavations, Foundations* (Thursday evenings at 6.30 p.m., January 16 to March 6, 1947). Lecturer: A. W. Skempton, M.Sc., A.M.I.N.S.T.C.E., I.A.S. Fee: 10s. 6d. for each course. A tutorial class will be arranged in connection with the Soil Mechanic's courses. Discussion Groups of men occupying supervisory positions in the building industry will also be held at the Brixton School of Building, which will meet on Wednesdays at 7.0 p.m., commencing on October 9, 1946. Admission fee: £1. Applications for all the above should be made to the Secretary of the School (Brixton 5913).

★

Ten different industries, all producing structural insulating materials, have formed a new association called THE STRUCTURAL INSULATION ASSOCIATION.

The new association has been formed to raise the standard of thermal insulation in all types of buildings and to provide a source of general information and assistance on thermal insulation materials and their availability. The ten industries represented in this Structural Insulation Association are:—Aluminium foil, asbestos, compressed felt, corkboard, eel grass, fibre building boards, foamed slag, glass silk, slag wool, mineral wool, wood wool building slabs. The temporary address of the association is 1, Grosvenor Place, London, S.W.1.

Manhattan architects have decided that there is NO PARTICULAR ADVANTAGE IN SKY-SCRAPERS and that they do not pay their way.

Twenty to thirty stories is about the limit, with perhaps an occasional exception for a forty-storey building. But nothing as big as the 102-storey Empire State Building, 1,250 ft. high, is contemplated by architects. There's no use guessing into the distant future, says Mr. William Lamb, of Shreve, Lamb and Harmon, the firm which built the Empire State Building. But for the present, very tall buildings are not being considered. Andrew Reinhard, of Reinhard and Hofmeister, commented: We're working on plans for one twelve-storey building and another at twenty. Anything taller usually gets scratched. Ralph Walker, of Voorhees, Walker and Smith, builders of the fifty-storey No. 1 Wall-street building, said he agrees with the financier who once said that no building is a going concern when it passes twenty stories. But Mr. Walker would like to see buildings going higher and higher—if somebody would pay the cost. There's only one trouble, he says. The higher you go, the thicker your steel must be at the base.

HOUSING AND ECONOMICS

IT is remarkable that anyone should claim, with some confidence, that the economics of housing is a neglected subject, yet such an argument is advanced by Miss Laura M. Kingsbury in her book of that title.* The first reaction is one of disbelief, but the more thought that is given, the more is one driven to agreement. There are many books on housing policy in general and on various aspects of it in particular. There is a considerable library on the cost of housing construction and building development. But it is very difficult to find a comprehensive study of the economics of housing ownership, either as a form of investment or as a form of economic activity.

The problem can be put in outline very shortly. It is easy to calculate the real cost of a building; there is no generally accepted formula for calculating the financial value of a house at any given time thereafter. Some portion of its real value is represented by its amenities, such as its structure, design and location. But the main ingredient to-day in the value of a house is its so-called cost, as modified not merely by its own progressive deterioration but by changing price levels. That is now common to every house. At the moment the only test of the value of a house is what it will fetch on the open market. This is not purely an academic problem. There are many ways in which the community suffers from the lack of a proper yardstick. One is the plain fact that the State is proposing to build some millions of houses, to be retained by local authorities as a capital investment, and the authorities are given no means of valuing that investment save in terms of the original financial cost. But even more important is its effect on rating. The basis of our present system of local taxation is the annual value of a dwelling house, and at the moment that value is determined by the rule-of-thumb methods of hundreds of different rating surveyors all over the country. Such a system of rating, if the word "system" is appropriate at all, is bound to be chaotic and arises from the equally chaotic methods of national cost accountancy. Sound economics are based on the statistics of real wealth production, and here there is no lack of statistics. The lack is in their proper application.

Miss Kingsbury, no doubt, wrote her book for the guidance of her fellow-countrymen and Britain could, with advantage, use many of the lessons she has illustrated for, unlike most economists, she tends to be a realist. The fundamentals of economics are simple enough provided the approach is real. There is nothing real about a financial method that, inflating or deflating, endeavours to measure costs with a piece of elastic, and so restricts the use of the resources we do, in fact, possess. The true cost of houses, or anything else, as we have claimed before, is the amount of real wealth consumed by those engaged on their production during the process of production, all other costs being fictitious. If this is realized the convenient

**The Economics of Housing*, by Laura M. Kingsbury. (King's Crown Press [Columbia University] New York Published in Britain by Geoffrey Bles. Price 16s. 6d.)

symbolism of money can be applied as a fixed and stable yardstick accurately measuring real wealth instead of as a dangerously pliable elastic band that confines and entangles our lives like a neurosis. If this is *not* realized, the people themselves will be compelled to take the law into their own hands, as they are beginning to do, and to deal directly and forcibly with the primary realities of food, warmth and shelter. But neither the present methods of financial costing nor the lawlessness of squatting can solve our problems. Both must lead inevitably to confusion and unrest.



The Architects' Journal

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

FOR GOODEN'S SAKE

"Art," a weary visitor to the Tate was recently overheard to say, "just makes my feet hot." For her—and for those many persons like myself in whom all exhibitions, however delightful and absorbing, stimulate hunger, thirst and a dull ache in the calves—I have good news. There will, after all, be a restaurant in the Britain Can Make It Exhibition. A previous, and I suggest very short-sighted, decision to omit this essential amenity has been reversed, and the Ministry of Works has been instructed to rustle up what it can during the next week.

Obviously the results will not be as ambitious as the elegant fantasies originally devised for this room by Mr. Robert Gooden [now designer of the

sports section], so for Gooden's sake don't attribute the improvisation to him. However, to the exhausted—and all visitors to all exhibitions are exhausted—a glass of wine, a loaf of bread and BU will doubtless be very welcome, however makeshift the bough beneath which they have to be consumed.

THE SOLICITORS WIN AGAIN

There is something pleasantly disconcerting about a Government Department that issues handbooks which are based on the assumption that it is impossible for the average man to know the law for which the Department is responsible. I always read the explanatory memoranda with which the Board of Inland Revenue favour us with a quickening of the heart. While they leave the mind even more confused they do something to restore a rather shattered belief in the essential humanity of the world around us.

Now the Ministry of Health must be added to that short list of Ministries with Good Intentions. It has produced a summary of *Rent Control in England and Wales* which costs three-pence at the Stationery Office. It is an interesting document and the author, or authors, deserve respect not only for their knowledge but above all for their discretion. But nevertheless the document is disappointing. The real difficulty about the Rent Acts is to understand what they mean, but one took it for granted that there must be hundreds of people, judges, lawyers, civil servants, who did follow every section with ease and appreciation. Now one doubts it, for if there is an outstanding point about this summary it is that it attempts no explanation. It is very good on what the Acts say.

It is admirable in its arrangement of their many and varied cross-references. It gives one the feeling that now the law is at one's finger-tips. The little grey cells, however, persistently deny that it is.

The little grey cells grow even more certain of themselves when they read one sentence in the foreword to the summary. It is in italics, so you can guess how important it is. It says: "*No opinion from a Government department can take the place of the advice of a solicitor.*"

MIXED BUNCH

The photograph opposite, reproduced from the *British Zone Review*, illustrates a new German house-type designed by an ex-Luftwaffe pilot. It contains two living-rooms, two bedrooms, kitchen and bathroom, and is built of hollow blocks pre-cast from crushed bricks and cement, laid dry. This is only one of the many methods devised to make use of the huge quantities of rubble which are available in Germany to-day, and which are forcing technicians to become more like soda-fountain mixers than architects.

The same issue of this excellent magazine contains an article on Kiel University which, completely homeless, has taken over a factory and four anchored ships in the harbour to house its 2,500 students.

Other publications received include the current issue of the *British Standards Review*, which deals with plywood, wedding rings and lingerie. ["The introduction of twelve standard sizes," it says, "opens up a new chapter in underwear sizing"], and *MKR's Weekly* still battling nobly with the State department over the European works of art removed to the USA "for safe keeping." Miss Riley is outspoken as usual, and warns the Museum of Modern Art—I think rightly—that Frank Lloyd Wright's new Connecticut house model* which the Museum describes as its "most important architectural acquisition for years," is, in fact, an obvious white elephant, destined for the storeroom. Congratu-

*See pages 213-4 of this issue.

lations, MKR, on reaching your first anniversary.

The annual Report of the ABS reveals to its credit that it has responded to one hundred applications for help this year, and, to our discredit, that out of 14,000 architects only 1,000 are regular subscribers. Why, one wonders, are architects of all professions so sanguine of their own success and so heedless of their colleagues in distress?

In the 1943-46 report of the Housing Centre we read that times have never been busier, what with exhibitions, conferences, lectures and publications—and answering innumerable questioners ranging from Government officials seeking technical advice to even more innocent types who just want to know where to get a house. More subscribers needed here as well please.

LIFT UP YOUR HEADS

Congratulations to Mr. Milner Gray, R.D.I., of the Design Research Unit, who has returned home from a holiday in Switzerland, gratified to find himself design consultant on presentation and packaging to the famous watch-makers, Rolex of Geneva.

Architects and designers who may be developing a sense of national inferiority on visiting the Swiss Exhibition at the RIBA, you may lift your heads again.

ARCHITECTS RE-UNITE

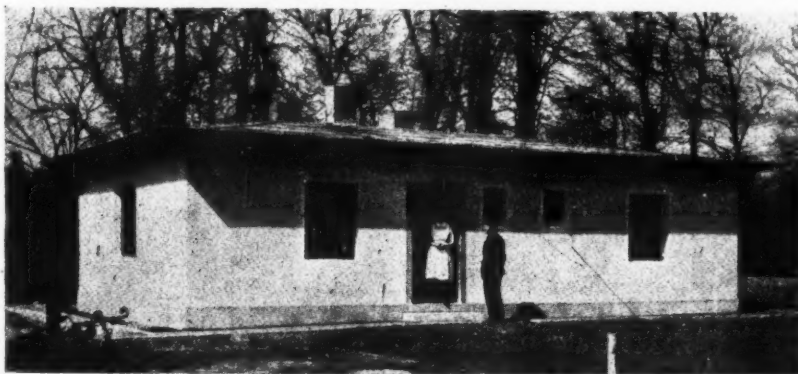
The International Reunion of Architects has called a preparatory conference together, which will meet at the RIBA for a week from September 23.

In addition to its domestic business and arrangements for a full-scale reunion in 1947, the conference is to discuss world federation. The subject is very controversial, but everyone is agreed that in the face of possible developments from UNO and UNESCO, it is well worth while for architects to compare notes and examine the position of the profession in all countries. A delegate has accordingly been invited from all the United Nations who are in a position to take part in this preliminary review.

I understand that although it will be representative of at least 16 countries, the conference will not be asked to take decisions, but rather to examine the case for or against a world federation, and report back. A number of interesting personalities will be in London for the conference, including Vago from France, van Eesteren from Holland, Giedion and Burkhardt from Switzerland, Aalto from Finland, Sven Ivar Lind from Sweden, Hansen from Norway, delegates from Czechoslovakia, Greece, Portugal, North Africa, the USA and Mexico, and an observer from the USSR.

The president of the IRA is also coming, Auguste Perret, *doyen* of French *architectes—ingenieurs*. The English president, who will be host to the conference, is Sir Patrick Abercrombie, and the organizing secretary is Erno Goldfinger. A motto for the gathering, which is to converse equally in French and English, might well be found among the many famous last words attributed to Rabelais: *Je m'en vais chercher un grand peut-être*.

ASTRAGAL



A new German house-type designed by an ex-Luftwaffe pilot, built of hollow blocks pre-cast from crushed bricks and cement laid dry. One of the many methods devised to make use of the huge quantities of rubble available in Germany to-day. See Astragal's note.



LETTERS

G. V. Downer,

Managing Director, GVD Illuminators

Tore Munthe

Designing with Fluorescent Lighting

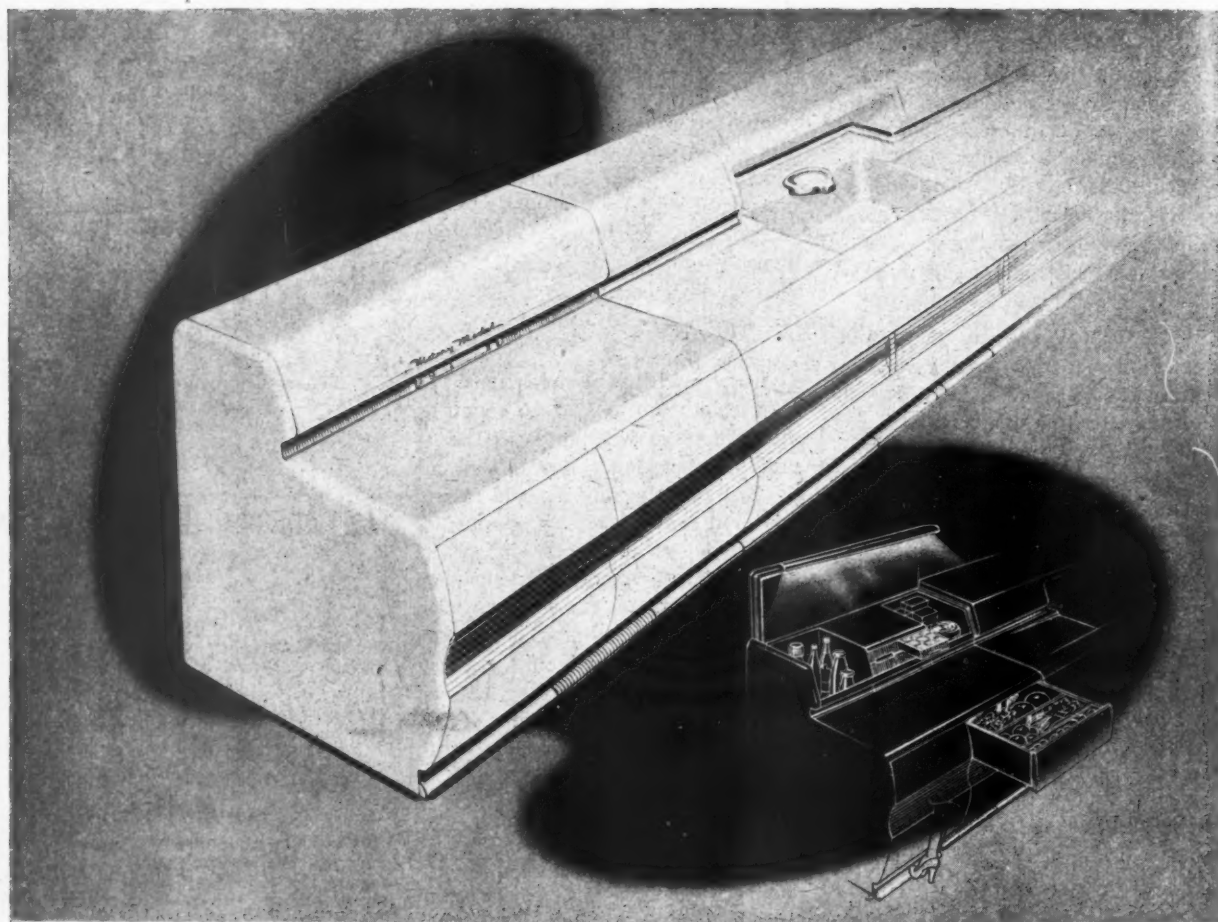
SIR,—While going through recent issues of your valuable journal, I notice in the Information Centre of your issue of June 13 a digest of an article on *Designing with Fluorescent Lighting*, by M. Luckiesh, published in the *Architectural Record*, on which I should like to make one or two comments.

In summarising the main factors of good lighting, the author's second point is said to be that "intensity of light at the eyes of the worker should be only a fraction of that on his work." It is difficult to see what is intended by this, for the worker can only see his work by the light which it reflects into his eyes, which, of course, will necessarily be "only a fraction of" that falling on the work; but surely the bigger this fraction is, the lighter and more easily visible will the work be, whereas the statement quoted appears to be advocating the use of dark objects and materials to work with. On the other hand, if by "the light at the eyes of the worker" is meant direct light from the source or from the surroundings (other than the work), this in the case of general lighting is bound to be of the same order as the light falling on the work, and therefore the statement may be intended to advocate local lighting only. In that case, there might be very little extraneous light "at the eyes of the worker" in the absence of any general lighting, but there would still be the light reflected from the work itself and by which the worker sees it, and surely this should be as big a fraction as possible of the light on the work.

I am glad to note that the author admits that fluorescent lamps may cause considerable glare, but I do not think that the reduction of contrasts by means of light floors and ceiling will go very far to avoid such glare, whereas it can be wholly avoided by means of indirect lighting.

In Part 2, the author apparently advocates localised lighting in addition to general lighting where critical seeing is required for long periods, whereas, if the general light-

USA HORIZONTAL REFRIGERATOR



This horizontal type of refrigerator created by the American industrial designers, Sundberg and Ferar, is claimed to overcome many of the disadvantages of the upright refrigerator. The unit is designed so that the top is a counter which ties in with other specially designed kitchen units. The carcase is either of steel or plastic, and is divided into two parts, the upper lifting up and providing easy access to frozen foods, i.e., cube trays and to the space provided for tall bottles. Four drawers are provided in the lower or counter part of the refrigerator and each food is relegated to the drawer at the proper temperature and humidity for its best preservation. The drawer arrangement makes for easy accessibility. Drawers open by means of foot control bars, and are on inclined tracks so that when released by the foot control they move slowly forward by gravity. The machine compartment is at the bottom of the cabinet in the back of the lower drawer.

ing is adequate for short periods, it should certainly not be supplemented for long periods, for needlessly high intensities cause much more damage to the eye when long continued, as the iris is kept closed up and tense and may lose the power to relax and open fully when required. Hence the longer the period, the lower should be the intensities, so long as it is adequate for seeing clearly. Again, if localised lighting is used in conjunction with general fluorescent lighting, the local lighting will presumably be of a different kind, namely, from ordinary filament lamps, and as much higher intensities can be so easily obtained by local lighting with the latter, what is the point of the expensive general lighting by fluorescent tubes?

I note that the author says that with supplementary local lighting, intensities of 100-500 foot-candles "are now easily obtained," but surely there is no point in using higher intensities than we need, just because they can be easily obtained; in fact, to do so is to put an unnecessary strain on the eyes as well as on the pocket of the user, owing to the unnatural quality of all artificial light and particularly of fluorescent lighting.

I notice that, in speaking of drawing offices, the author says that an intensity of 80-100

foot-candles is "moderate," but, to my mind, such a figure is grossly immoderate. Our fathers and grandfathers used candles and oil lamps giving intensities of, perhaps, 1 foot-candle, and often did fine drawings and other equally fine work without difficulty and without resorting to spectacles, and, personally, I have never found any difficulty in reading blue-prints, fine drawings or small print in my office, where the intensity has never exceeded 3 foot-candles of artificial light. I contend, therefore, that anyone with normal eyesight, which has not already been ruined by high intensity artificial lighting, will find 5 foot-candles ample for blue-prints.

It is rather noticeable that in America, where the highest intensities of artificial light are used, an even higher proportion of the population than in this country wear spectacles.

London

G. V. DOWNER

Timber Prefabrication

SIR,—I was interested to read Astragal's description of a Swedish prefabricated house erected in Scotland in 1937. Here is a photograph of a timber house built of Scandinavian Redwood by a relative of Mr. W. Goodfellow, Managing Director of the

well-known New Zealand firm, Amalgamated Dairies, some 90 years ago.

The house, which contains 13 rooms, was first erected in Britain, dismantled and shipped out to New Zealand for re-erection. It now stands on Ponui Island, near Auckland, where the family uses it as a country house. Matchlined throughout, it is still in excellent condition and is good for many years to come, says Mr. Goodfellow.

It might be taken as an example of British enterprise in prefabrication nearly a century ago.

London

TORRE MUNTHE



A timber prefab. in New Zealand. See letter from Mr. Munthe.

HOUSING STATISTICS

A MONTHLY COMMENTARY ON THE OFFICIAL RETURNS—7

by

Ian Bowen

By the end of July there were in Great Britain 20,027 Permanent and 40,425 Temporary houses completed. In addition, space for about 119,740 family units was found by repair of unoccupied war-damaged houses, by conversions and adaptations, and by the building of emergency huts. (The official statistics do not reveal how many other family units found accommodation for themselves by "squatting.") Since the end of June there was an increase of 5,109 Permanent and 5,286 Temporary houses completed, and for 4,033 more family units (as compared with 7,202 in the previous month) space was otherwise provided, according to the official returns.

Completions have proceeded at the following rates:—

TABLE I

Monthly Rate of Provision of New Housing in Great Britain

	Six months to Jan., 1946 (average)	Feb.	March to May (average)	June	July
Permanent Housing—					
Local Authority schemes	208	151	625	1,120	1,471
Private enterprise	186	494	1,366	2,091	2,966
War-damaged houses re- built	74	158	330	326	672
Total permanent housing	468	803	2,321	3,537	5,109
Temporary housing	1,839	3,967	4,640	4,502	5,286
Total (permanent and temporary)	2,307	4,770	6,961	8,039	10,395

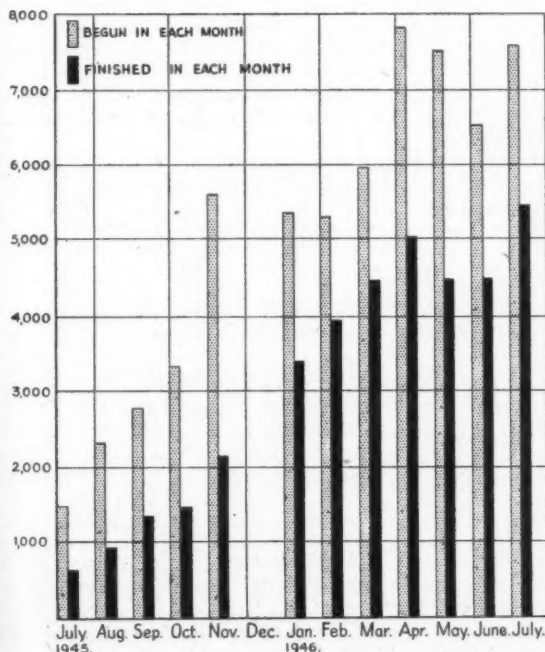


Diagram showing the progress of the Temporary House programme.

The total new housing provided in a month thus showed a marked increase in July. Moreover, Permanent houses completed in a month very nearly equalled in number Temporary houses completed. In Table I a comparison is made between the monthly rates of completion for different periods since the end of open hostilities, and the remarkable quickening of the rate of completion is clearly demonstrated.

The period March to May, 1946, was a doldrum period for completions. In July more than double the permanent houses were finished, 5,109 compared with an average monthly rate of 2,321 for March to May. In both the Local Authorities' and Private Enterprise schemes, the rate of completion more than doubled, and so did the re-building of war-damaged houses. Over the same period, the Temporary house completions showed a relatively slight improvement, rising to 5,286 in July against a March-May average of 4,640—a disappointing increase.

HOUSES UNDER CONSTRUCTION AND BEGUN

At the end of July, there were 116,400 Permanent houses under construction in England and Wales, and over 18,200 in Scotland, about 135,000 in all. This was some 17,000 more than were under construction at the end of June, and, since 5,109 were finished in July, about 22,000 must have been begun in that month. In addition, 7,600 Temporary houses were begun in July. The figures for Houses begun in each month may be set out as follows:—

TABLE II

Houses on which Work Began, April-July, 1946. (Figures to nearest 100.)

	April	May	June	July
Permanent Housing—				
Local Authority schemes	12,200	14,100	12,600	15,000
Private enterprise	5,300	6,500	4,700	4,700
Re-building of war-damaged	1,900	2,100	1,300	2,400
Total permanents begun	19,400	22,700	18,600	22,100
Temporary Housing	7,800	7,500	6,600	7,600
Total	27,200	30,200	25,200	29,600

The 22,100 Permanent houses begun in July thus compares with 18,600 begun in June and 22,700 begun in May. The Local Authorities had a much larger share of the total begun, 15,000 odd, against 4,700 begun by Private Enterprise. The re-building of war-damaged houses was increasing, work on no less than 2,400 such houses being started in July.

The balance of the programme was thus shifting strongly in favour of the Local Authorities' permanent housing schemes.

TEMPORARY HOUSE PROGRAMME

The diagram shows, for the Temporary House programme, figures of houses begun and finished since July, 1945. July, 1946, clearly saw the resumption of active progress in this programme. Still, the significant point is that only 40,000 out of the 150,000 total programme have been finished, and yet the scheme was supposed to be out of the way by the end of 1946. Some realistic re-statement of the programme seems to be due.

In England and Wales, the labour on Temporary Housing rose slightly, to 32,300 from 31,500 at the end of June. There were 23,620 temporary houses under construction at the end of July, so the manning of jobs in England and Wales was in the proportion of 1.37 men to each temporary house being built; but, as there were 14,723 house-sites on which slabbing work was also being done, the over-all average was .84 men to a house under erection or house-site being slabbed—84 men to 100 houses.

In Scotland, the labour on Temporary Housing actually fell to 5,300 at the end of July, as compared with 7,700 a month previously. These 5,300 men were working on 5,012 Temporary Houses under erection, and 1,551 house-sites being slabbed, an over-all average of 81 men to every 100 houses or house-sites; but, since this average is based on such a very small scale proportion of house-sites being slabbed, it surely indicates an inadequate labour force for erection work.

Of course, weather conditions and other local difficulties may account for the low man-power on temporary housing in Scotland. This raises the question whether, in some areas of the country, erection of temporary or even permanent houses might not proceed faster, in the winter months especially, under canvas, or some light type of screening.

PERMANENT HOUSE PROGRAMME

The monthly completions of the Local Authorities' schemes are still low in relation to the numbers begun in earlier months. This situation must impose a strain on the building up of a balanced labour force by contractors (or building departments) doing the work for local authorities, since a differently composed labour force is needed for the earlier than the later stages of house erection. Can a rising number of houses continue to be put in hand each month? If so, will this be at the expense of securing rapid progress in completion? The figures certainly suggest that it might be worth while counting the chickens to be hatched, and not the eggs that are being put so profusely into this particular incubator.

This is not a criticism of local authority building as such, but of the present distribution of effort between different parts of it. If figures of the numbers of houses passing the different stages of completion were published, it would be easier to see where the bottlenecks in progress were arising. The present figures show only that there must be delays in progress somewhere.

Private enterprise schemes have not fallen below their June "low" of 4,700 houses begun, and still contribute the most to "houses completed." They are in better balance, as between houses beginning and finishing, and no doubt private contractors are able, for this reason, to move balanced teams of workers from site to site more easily. But this situation would not continue if private enterprise housing were to be progressively restricted.

Altogether, licences issued in July were slightly more than in June, and, if the present policy is continued, private enterprise will be able to begin and finish some 4,000 to 5,000 houses a month, and possibly more when materials are easier.

July's figures must, taken as a whole, provide quite a tonic for the Minister of Health. His claim to bring in the private enterprise builder at a high level of activity is shown to be justified. His local authorities are beginning large numbers of houses. Every month the total of houses completed is rising, and is now almost bound to continue to rise. These monthly statistics, it might be said, appear now to have been Mr. Bevan's secret weapon.

The only sound or constructive criticism must be of the rate of progress of schemes actually begun. The questions of productivity in the building industry, and of costs, loom over the prospect of a more than oratorical triumph. Certainly there has been very solid achievement.

LABOUR SUPPLY

What are the true figures of distribution of building and civil engineering labour in Great Britain? In each month, from February to July, 1946, there were, according to Table 73 of the Monthly Digest of Statistics, 101,000 (not 1,000 more nor less) on the work of conversions and adaptations "to houses, etc." The constancy of the figure does not add to its credibility. Anyway, where are the results of these men's output, over so long a period? How many houses have been converted and adapted over the same six months? Something like 13,446 according to some incomplete figures from Table 75.* Thus some 50,000 man-years have resulted in 13,446 converted and adapted dwelling places, if these records are indeed comparable.

But doubt is unfortunately not confined to one column only of Table 73; other columns too show a consistency that is too great to be believable. Even more dubious are the estimates, published in the Health Department's returns, for such items as "repair and maintenance to houses." In short, the labour

position is far more obscure than the official figures suggest at a first inspection.

This is no doubt due to technical difficulties in collecting up-to-date census returns of any degree of accuracy. But so much doubt as to the true distribution of labour must be highly confusing to administrators and to Ministers; an investigation of the possibility of using statistical sampling technique might well prove to be worth while.

Until the labour figures are on a firmer basis it is not very useful to comment on them in detail. In England and Wales, at the end of July, on these 116,380 permanent houses under construction there were 127,300 men, or 1.1 men to a house; in Scotland on 16,745 permanent houses (excluding private enterprise) there were 13,700 men employed, or only 0.82 men to a house.

Men are still entering the industry at 23,000 a month, while the numbers on permanent housing are building up at 12,000 a month. This would seem to be too low a proportion of the influx, to put on new housing.

WAR DAMAGE REPAIR TO HOUSES

The repair, or restoration of war-damaged houses is covered by three categories of the building programme: Repair of occupied premises, of which there were 620,000 completed (in England and Wales) from April, 1945, to the end of July, 1946; repair of unoccupied premises, of which 92,882 are recorded as completed in the same period (England and Wales only); and re-building of war-destroyed houses, which amounted to 2,586 in Great Britain for approximately the same period. The war-damage repair figures for Scotland, where given, are so small as to be negligible.*

Comparing the first two items with labour employed, the 712,882 dwellings made available were produced by a labour force which was well over 200,000 in 1945, and has now been reduced to 157,000. The average works out at about 195,000 men employed over 16 months, or say 260,000 man-years. Over the whole programme each man has produced 2.74 houses repaired for a year of employment, on this calculation.

The 157,000 men now on this programme still exceed the number on the construction of new permanent houses. They produced some 27,142 houses repaired in July, i.e., still at the rate of nearly 2.25 houses repaired per man-year of employment.

These figures provide the justification for finishing off the war-damage programme. They do not of course prove anything about productivity on this part of the programme, but they show that houses are made habitable at a reasonably high rate in relation to the labour employed as compared with the results that could be secured by using the labour elsewhere.

It is not to the war-damage programme but to the other uses of the labour force that we must look for the possibility of finding labour to complete more rapidly than now seems likely the houses in hand by the local authorities.

BUILDING MATERIALS

The output of building bricks continues to improve. On a weekly basis it has changed as follows:—

Weekly Output of Building Bricks.

	Millions.			
1946, April	50
May	62
June	69
July	76

Roofing tiles, gas and electric cookers, and cement are also being produced in much greater quantities than last year. Slates and asbestos cement sheets do not yet show any corresponding improvement. Figures for stocks and requirements of materials are still missing.

* Figures for houses converted or adapted by private builders are included only from April, 1946, but there were only 743 in July so the omission cannot alter the picture.

* There were only 600 men on war damage repairs to houses, in Scotland, in July, 1945, and 750 in July, 1946.

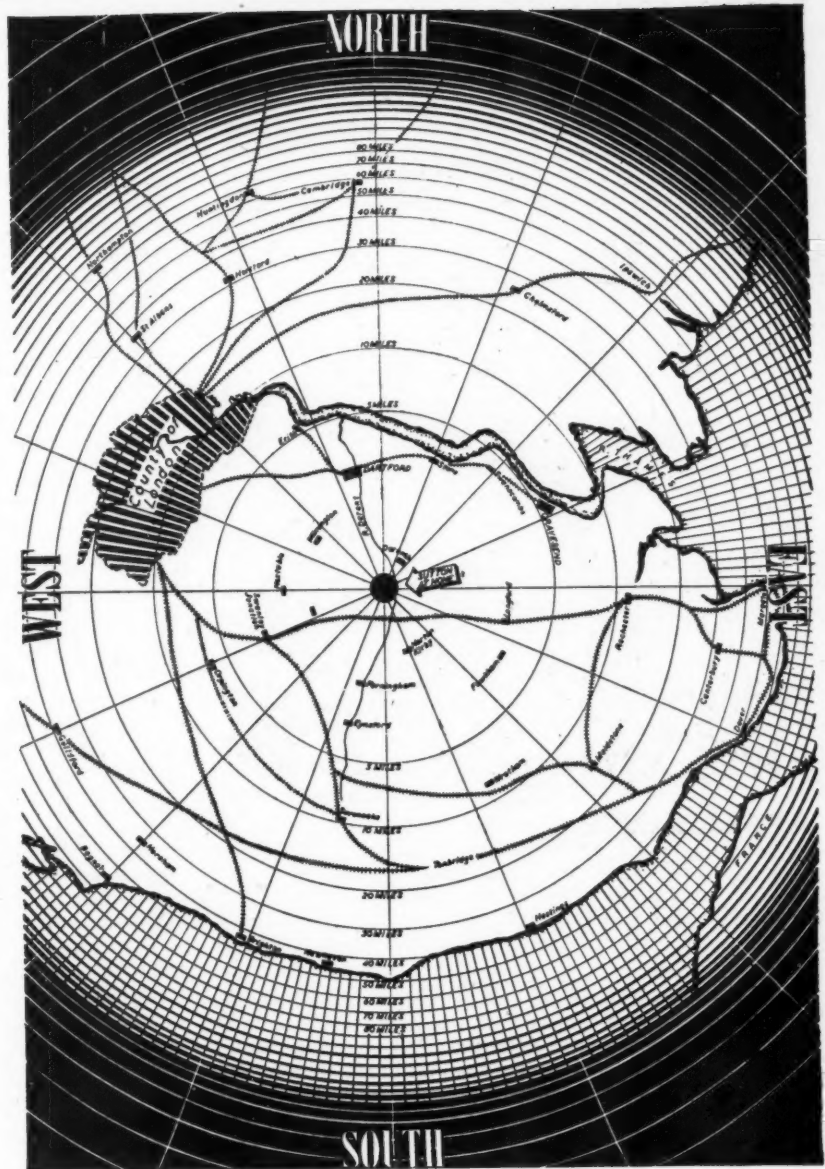
PHYSICAL PLANNING SUPPLEMENT

VILLAGE SURVEY

In September, 1945, the Leverhulme Fellowship Trust Committee awarded a grant to Cecil Stewart for "the study of an English village and the preparation of a practical plan for the guidance of those responsible for—or who might in any way be able to contribute to—the better maintenance and improvement of such communities." The idea of such a study was first put forward by Sir Stephen Tallents, who recognised the serious gap that existed in present-day planning literature. There was no particular significance in the choice of the village of Sutton-at-Hone. It was chosen because it appeared, from a preliminary reconnaissance, to be an ordinary village, free from the peculiar problems of the picturesque or tourist-ridden village or of the purely agricultural, mining or fishing community. The survey was undertaken with the object of producing a model of its kind for the guidance of those concerned with planning in rural areas. It was recognised that no hard and fast rules could be laid down, but it was hoped that the completed study would at least provide a guide to the method of survey of a rural community. The survey will be exhibited at the Housing Centre from September 26 to October 12, 1946, and will be opened by C. S. Orwin, M.A., D.Litt., Fellow and Estates Bursar of Balliol, on September 25.

LOCATION

This is a study from the point of view of the village and its people. The village is the focus, and instead of seeing Sutton-at-Hone as a spot on the map 17 miles to the south-east of London, here it is shown as the centre of a world in which London is 17 miles to the north-west. The villages and towns round about take their places in true orientation, but on a diminishing scale of distance.

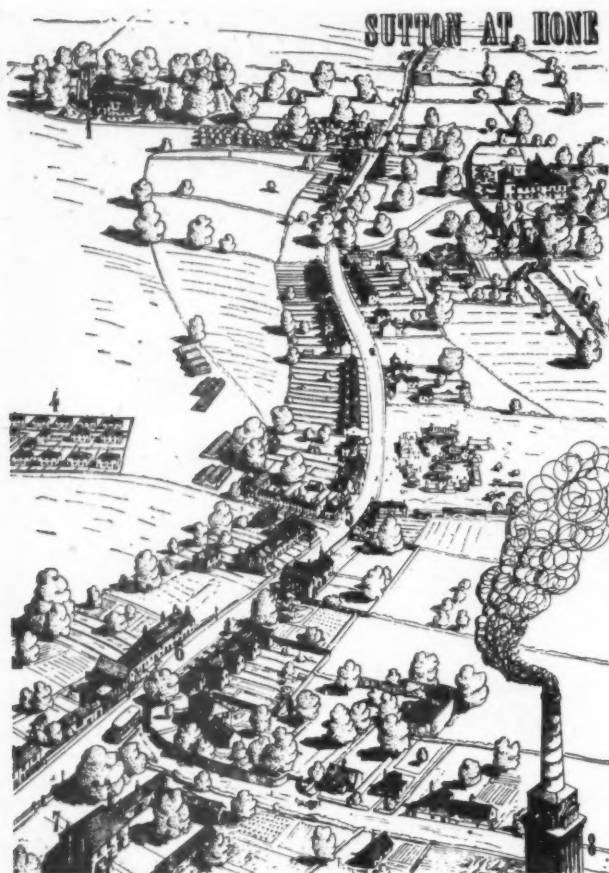


There are two dominating features of the survey. First, it is the work of a team, and not the single-handed effort of an individual planner. A geographer, a sociologist and an economist were consulted at the outset and have acted as advisers. Other consultants have been called in from time to time. Secondly, the approach has been as democratic as possible. The villagers themselves have been invited actively to co-operate, and the survey has been laid before them from the beginning, stage by stage, both at village meetings and through the medium of the local press. The entire survey material will be exhibited to the villagers again before final planning proposals are determined. The findings of the social and economic survey are not yet fully analysed, but the notes which follow are brief extracts from the more interesting findings of the research already undertaken.

appearance and character

The village straggles along the west side of the Darent Valley, dominated by a neighbouring factory chimney to the south and ending on the north in a line of bungalows which link it with an adjacent village. About 200 houses are distributed, ribbon fashion, along the main road. On the rising ground to the south-west stands a rather isolated group of Council houses.

In 1845 the village consisted of two almost detached groups, north and south. The changes which have taken place are, in general, typical of most villages. By 1869 the railway had come, a paper mill had arisen nearby and new housing had begun to link the two groups. By then the village possessed two Nonconformist chapels and a Church School. In 1897, glasshouses pointed to the increase in market garden-



APPEARANCE

ing, new houses had arrived and the graveyard had been extended. Today the village has its own small industry, Council houses, ribbon development and speculative building, but has suffered the loss of one small terrace of houses which was destroyed by enemy action.

accessibility

The relative accessibility of places in the district around Sutton-at-Hone is shown on a map on page 209. The unshaded areas are within 15 minutes of the village and the darkest areas over one hour's distance. Six miles of the valley, north to south, is within easy reach, having main bus routes. Swanley Junction and Fawkhams, three miles to the west and east respectively, are equally easily accessible by train. Other areas, not far distant but on high ground, are comparatively inaccessible. It is interesting to note how closely the lines of accessibility follow the natural contours.

A census of bus travel, which was taken on an ordinary weekday, showed that while 440 persons travelled out of the village to work, shops, amusement or friends, only 75 persons were attracted to the village from outside. The details of this survey gave a fair indication of the needs which the village could not itself satisfy and which necessitated this travel. Allowing for increased travel on Saturdays and Market Days, it has been calculated that the yearly cost to the village of travel by bus is in the region of £4,000. In addition, a study of railway tickets sold showed an expenditure of about £300 per month, though it is estimated that only

about one-third of the passengers came from the village.

village opinion

The adult villagers were given an opportunity of expressing their ideas for the future of the village in the detailed social and economic survey. The school-children put forward their views in an essay entitled *My Plan for My Village*, and the suggestions which emerged were discussed and the survey explained, with illustrative material, at a meeting in the school.

Their demands were definite and uncompromising. The children liked the country, but wanted the amenities of the town incorporated in their village. They wanted to be quite independent of other places, with their own shopping centre, cinema and recreation ground. A café or canteen was demanded, and a fish-and-chip shop urgently requested. They wanted electric light and better sanitation ("There are some very pretty houses . . . but the insides all need modernising, especially from the point of view of hygiene, which they are very inconvenient without"). The general cry was "More amusement!" not only for themselves but for their elders, though some would like to see fewer pubs. The demand for a recreation ground was almost unanimous, and a new Village Hall came high on the list. Footpaths on both sides of the village street, better lighting, a new school with improved playground and better lavatories, were among the foremost demands.

The boys seemed much more destructive than the girls, half of them suggesting more or less wholesale demolition, although several were alive to the present housing shortage which, they realized, made the fulfilment of their wishes impossible for the time being, and others pleaded for the older historic buildings to be preserved. The boys were naturally more aware of the significance of the one industry in the village ("if it were destroyed, many of the men would be out

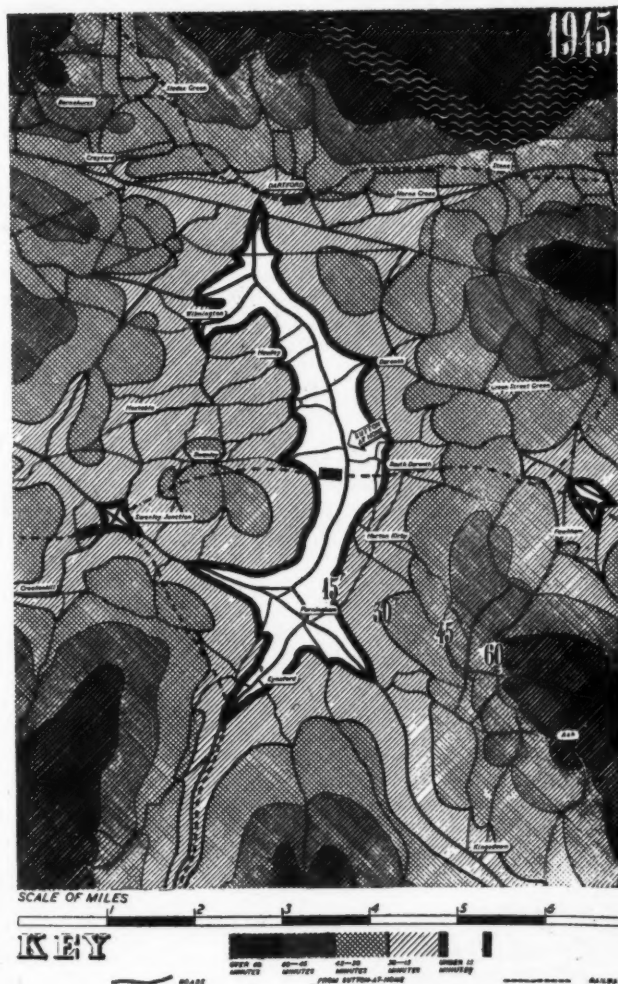


GROWTH & CHANGE

of work"). Few of them intended to spend their lives in Sutton. Of the girls, half stated that they would like to remain in Sutton all their lives, half would not on any account. The urge to travel was strong in both sexes, and the children felt that opportunities for work in the village were not great.

transport : consultant R. B. Hounsfeld

Transport services at Sutton-at-Hone are not merely of local interest. The general lay-out of the district from the point of view of both road and rail is typical of a number of places. Most of the existing village is built up along the Class I road A.225, and the traffic census figures show that although the rate of increase of traffic on this road has been substantial in recent years, the actual volume is not excessive, so that drastic measures of improvement in the near future are not called for. However, the construction of the Dartford Tunnel needs to be considered in relation to the future of the village. Obviously, some special provision will have to be made for distributing the traffic from the Tunnel, and the A.225 through Sutton-at-Hone will attract a certain amount of traffic bound for the south-east. It is not, therefore, reasonable to expect the "D" Ring Road in the Greater London Plan, if constructed, to remove a noticeable amount of traffic from the A.225. It would be prudent to anticipate, if anything, an increase in traffic on this latter road, due to the Tunnel, over and above the general increase which may be expected in the country as a whole. The position of Sutton-at-Hone is, briefly, that of a fairly well-sited village with traffic at its present volume, but one which may become increasingly unpleasant as traffic grows, if steps are not taken in time to allow for this growth. Immediate improvements need not be expensive, better vision at corners may be all that is required,



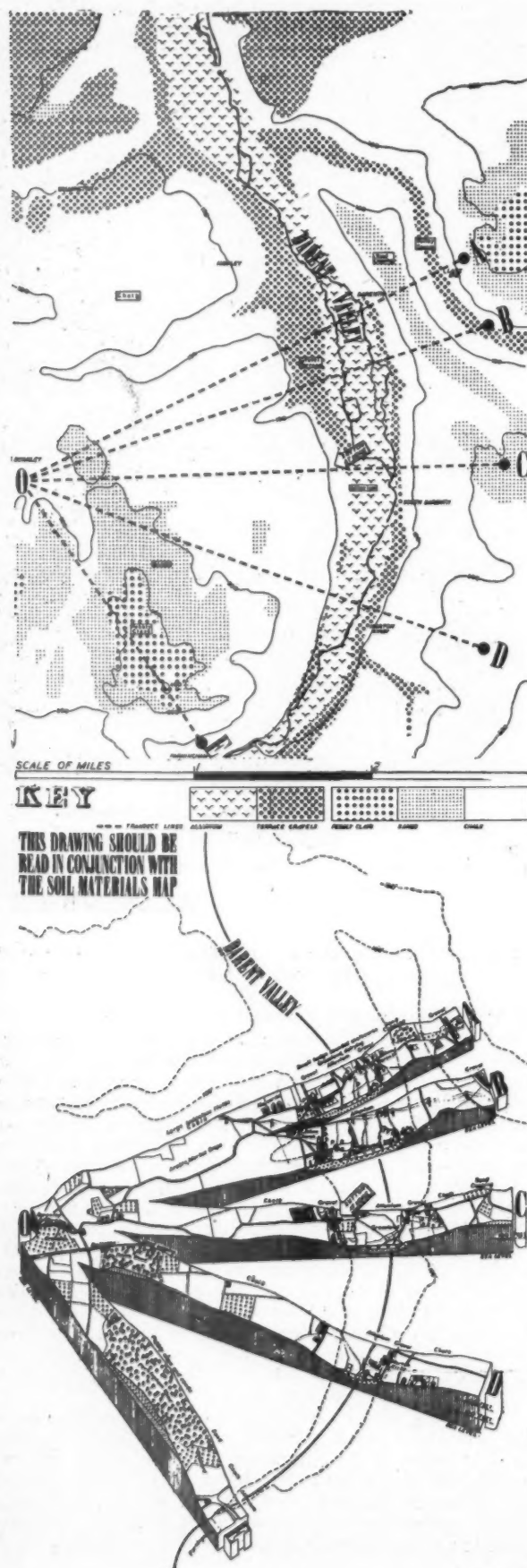
LAND FORM

particularly at the southern right-angle junction, where traffic emerging from the lane needs to see northbound traffic.

landscape : consultant Brenda Colvins

The older parts of the village are very happily related to the land forms, following the curve of the valley and lying comfortably in the hollow, with but little encroachment on the deep alluvial soil of the water meadows situated between and beside the two branches of the river. These meadows, with an occasional coppice of ash or alder, the fringe of the trees on the river banks and the watercress beds, are the outstanding landscape features of the area. Their charm is accentuated by the rising ground to the east and west, crowned by woodland on the high patches of sand and pebbly clay. The openness of the country on either side is attractive, though a greater provision of shade trees, on the lower slopes approaching the village—such as would probably be necessary if the land carried more stock—would make for better scale relationships between the village and its surroundings. The newer houses, built above the sites of traditional choice, make a very unpleasing skyline from wherever they are seen, and the position must be bleak and windswept.

The railway, with its attendant industries, cuts clean across the land forms and the landscape, the embankment running at right angles to the natural trend of that region and even rivaling the land forms in importance. Its straight, unbroken horizontal line, cutting the valley in half, and its sharp vertical angles, almost devoid of vegetation, fit badly on the general structure of the valley and give an effect unpleasing to the eye.



geographical setting : consultant A. E. Smailes

Sutton-at-Hone lies in the valley of the Darent, near the northern end of the gap which it makes through the North Downs between Sevenoaks and Dartford. From the escarpment edge (above 800 ft.), which faces south across the Weald, the North Downs slope gently northwards to the Thames Estuary. In the lower part of this dip-slope, Sutton-at-Hone is one of several villages set along the line of the Darent Valley, which here trenches the smoothly undulating chalk plateau in a sweeping curve from south to north. The river itself flows deviously with several branching channels along the flat floor of its valley. Near Sutton the valley is rather more than a quarter of a mile wide, and little more than 60 ft. above sea level. The valley sides, however, rise in places rather steeply to the broad swells of the rolling chalk country, and the cross valley roads often show gradients steeper than 1 in 20.

Chalk not only forms the rock floor of the whole district, but is also the most widespread surface formation. The chalk is dipping northwards, and here on the lower part of its dip-slope only the upper part of the formation appears at the surface. This upper chalk is a remarkably pure, white limestone, rich in flint bands. The cover of younger marine deposits which once overlay the chalk has largely been stripped off, but some cappings remain as residual hills, such as Farningham Wood Hill and the high ground north-east of Green Street Green. Most extensive are the sandy Thanet Beds, which give excellent, light, loamy soil, especially attractive for fruit-growing and market gardening. Soil character is affected by the sand cappings, since downwash from these is mixed with material derived from the weathered chalk. The soils associated with all the above-mentioned geological formations are light and easily worked, and drainage is free. Indeed, from the agricultural standpoint, their chief defect is liability to suffer from the effects of drought.

In contrast, the strip of alluvium which forms the flat floor of the Darent Valley has a very high water table and drainage is impeded. In winter, flooding is common and large areas become waterlogged. Near Sutton, the valley gravels have been worked for building material, and their removal has converted considerable areas of the valley floor into shallow sheets of water. The gravel terraces above the level of the present valley floor, which represent the flood deposits of an earlier phase of river development, are more favoured, and the well-drained sites they offer have attracted the settlements, which conspicuously avoid the river flats.

The accompanying transects show how the pattern of land use is related to the contour of the surface and the nature of the rocks which form it. Both east and west of the Darent Valley, above the 100-ft. contour line, where chalk predominates; the rolling country has an open appearance. Fields are large, hedgeless, and mainly devoted to arable cultivation, with a strong emphasis nowadays upon the production of vegetable crops for the London market. Orchards are fairly extensive, but avoid the hollows where risk of frost is greater; they are found especially on slopes where the soil is derived in part from the residual sand cappings. The infertile hill cappings of pebbly clay and sand which overlie the chalk still carry extensive woods, and introduce a note of variety, relieving the monotony of the smooth, open chalk horizons which are the dominant aspect of the landscape outside the Darent Valley.

In the valley, land use and landscape are very different. Here there is a much more intricate pattern of small, hedge-bounded fields, with numerous scattered trees. The land is used chiefly for pasture and meadow, supporting dairy herds. Some of the alluvium between the braided channels of the river has been made into watercress beds.

above : **SOIL MATERIALS**

below : **TRANSECTS**



The Village Meeting

Photo by Picture Post

social survey : consultant Dennis Chapman

The social study of a village with planning as its objective is a complex operation. The study of Sutton-at-Hone has been made by using a number of different techniques which combine to give a rounded picture of its social life and problems. The study has included reference to the historic background, the growth of the village and a series of inquiries into its present social life and structure. The first procedure, and possibly the most important, has been that of getting to know the village intimately, through meetings and informal discussions. In this work key informants, like the librarian and the schoolmistress, have been invaluable. This side of the work has been done by Cecil and Mary Stewart in visits throughout the last twelve months.

This information has two purposes. It provides factual data, *i.e.*, it tells us how many people use the Village Hall, but, more important, it gives us information about the social relations between different groups in the village. This can be illustrated—there is a myth that the inhabitants of the Council houses do not “belong” to the village. When this was checked by the intensive field study, it was found that just as large a proportion of the inhabitants of the Council houses were born locally as the rest of the villagers, suggesting that the failure of the planner to integrate his housing with the physical structure of the village has had the consequence that the Council house tenants are to some extent socially isolated as well. The other methods used have included group interviews with the school-children and two field studies, made by interviewing families in their homes. The first of the field studies was an interview with every family in Sutton-at-Hone, the second a brief interview with a sample of families living in the surrounding villages.

The main field study sought information about family size and composition; the occupation and place of work of all workers; the origin and birthplace of all adults; information about the more important social activities; a study of shopping and an assessment of satisfaction with the village from the point of view of social life—friendships, social activities, housing, education, opportunities for work, entertainments, shopping and transport facilities.

It was interesting to discover that only a minority of the villagers were born at Sutton-at-Hone, and that a great number of English counties from Northumberland to Somerset had provided families for the village. There were even some who had come from abroad. In spite, however, of the number of villagers who had lived in large towns and had come from distant places, every schoolchild but one who was interviewed wished to continue to live in the country, and none of them wanted to see their village developed into a town. The integration of the second generation with the life of the village was marked, also, in the choice of occupation. Of 33 boys,

21 wished to go into farming; only three into factory work; the others were undecided.

In discussing the satisfaction with the village from different points of view, it is important to recognize the dependence of Sutton-at-Hone on Dartford and London, and also to take account of the growth of the village in relation to its schools and the origin of its inhabitants, many of whom are used to the facilities of the town. It was found, however, that 80 per cent. of the housewives were satisfied with transport facilities, 4 per cent. had no feelings, 16 per cent. were dissatisfied; 72 per cent. were satisfied with friendships and social life of a personal character, but only 45 per cent. with social activities and 18 per cent. with entertainments. Education and housing also had low proportions who were satisfied, 19 per cent. and 33 per cent.

The full evaluation of this kind of social data will only be possible when we have a number of comparable studies of villages of different types. It would be interesting to compare this village, which has to some extent become suburbanised and industrialised, with the purely agricultural village dependent upon the small market town. In conclusion, it is worth putting on record for other workers in this field that the villagers co-operated to the maximum extent and gave our field workers a most friendly reception on all occasions. There is, in fact, no difficulty about co-operation when planning is the objective.

industry : consultant Dr. Marian Bowley

The proper relation of the places in which people live to the places in which they work has long been recognized as a major problem of town and country planning. On the one hand, it is hoped to check the growth of towns excessively large as places in which to live, but attractive as offering a wide choice of work; on the other, it is hoped to check the decline of villages, partly attributable to the inadequate choice of work they offer. The preliminary results of the survey of Sutton-at-Hone are of some interest in connection with the latter.

The ease of accessibility of Sutton to other villages in and around the Darent Valley, and to the towns on the Thames Estuary and to London, has already been described. So simple is the journey either to London or to Dartford that Sutton might have become a dormitory to either. This has not happened. Nevertheless, the population of Sutton is not solely dependent on the local farms, market gardens and miscellaneous village trades. In Sutton and in neighbouring villages there are a variety of factories, as well as opportunities for employment in transport and other services over a wide area.

Sutton itself has an agricultural engineering works which has grown up in the course of two generations from its origin in the traditional village smithy. At present it employs 76 people. Almost adjoining Sutton there is a large paper mill. In other nearby villages there are more paper mills, a tannery and a shoelace factory. In addition, there are a number of medical and educational institutions in the neighbourhood. Thus there is a considerable choice of employment round about, apart from that provided by the Estuary towns and London. The two tables below indicate in a summary way the economic character of the adult working population over 18 years of Sutton itself, which consists of 229 men and 80 women full-time workers.

TABLE I.—Type of Work of Adults (over 18 years) Occupied Full-Time: Sutton-at-Hone, July, 1946.

Type of Occupation	Working in Sutton		All Workers	
	Male, Per cent.	Female, Per cent.	Male, Per cent.	Female, Per cent.
Non-Manual, incl. Employers	11	17	22	30
Manual—				
Skilled	5	5	36	17
Other	9	24	42	53
Total	25	46	100	100

It will be seen from Table I that only a minority of the occupied adults who live in Sutton are owners of businesses or engaged in black-coated occupations, and of these more than half actually work in the village.

TABLE II.—Industries and Places of Work of All Adults (Occupied Full-Time), Living in Sutton-at-Hone, July, 1946.

Industries and Service	Places of Work									
	Percentage of Males over 18 years					Percentage of Females over 18 years				
	Sutton	Dartford	London	Others	Total	Sutton	Dartford	London	Others	Total
Agric. Industries	11	—	—	5	16	20	1	—	7	28
Paper Manufact.	—	3	—	14	17	—	—	—	9	9
Engineering	3	7	1	4	15	4	4	—	1	9
Transport	1	1	1	8	11	2	1	—	1	4
Retail Dist.	6	—	—	3	9	10	3	—	—	13
Building	1	3	1	4	9	—	—	—	—	—
Misc. Industry*	1	6	2	5	14	8	11	—	5	24
Total Industry ...	23	20	5	43	91	44	20	—	23	87
Instit. Government, and Prof. Services	2	3	1	3	9	2	4	3	4	13
	25	23	6	46	100	46	24	3	27	100

* Includes 17 different industries.

Table II shows how and where people earn their livings. Only a quarter of the men and half the women work in Sutton itself. The relative unimportance of London as a place of employment is obvious. Dartford, not surprisingly, is the most important single place of work apart from Sutton itself, but it is less important than the surrounding villages and other miscellaneous places taken together. The variety of places of employment is matched by the variety of industries, services and professions in which the inhabitants of Sutton are occupied. The six most important, in order, are agricultural

occupations, including market and nursery gardening, paper manufacture, engineering and iron founding road and rail transport and garages, retail distribution and building; but the remaining 23 per cent. of the occupied men and 37 per cent. of the occupied women are distributed between 17 industries and four omnibus groups of services and professions.

Almost as interesting as the dispersal of places of work of the inhabitants of Sutton is the wide variety of places from which people come into Sutton to work, chiefly at the agricultural engineering works. This draws its employees from more than half-a-dozen different towns and villages as well as from Sutton, which contributes only a minority. Thus, as well as a daily movement out from Sutton each day there is an important, though smaller, movement in each day.

These very preliminary results of the survey of Sutton are suggestive in a number of ways. In relation to the planning of Sutton itself, it is evident that:—

- (1) Good communications form an essential basis of the present pattern of the economic life of the inhabitants.
- (2) The industrial activity of neighbouring villages and towns helps to counteract economic domination by Dartford and helps also to provide a wide choice of occupations.
- (3) It is important that the planning of the village should encourage community life to offset the disintegrating influence of the daily migration of so many of the inhabitants to other places.

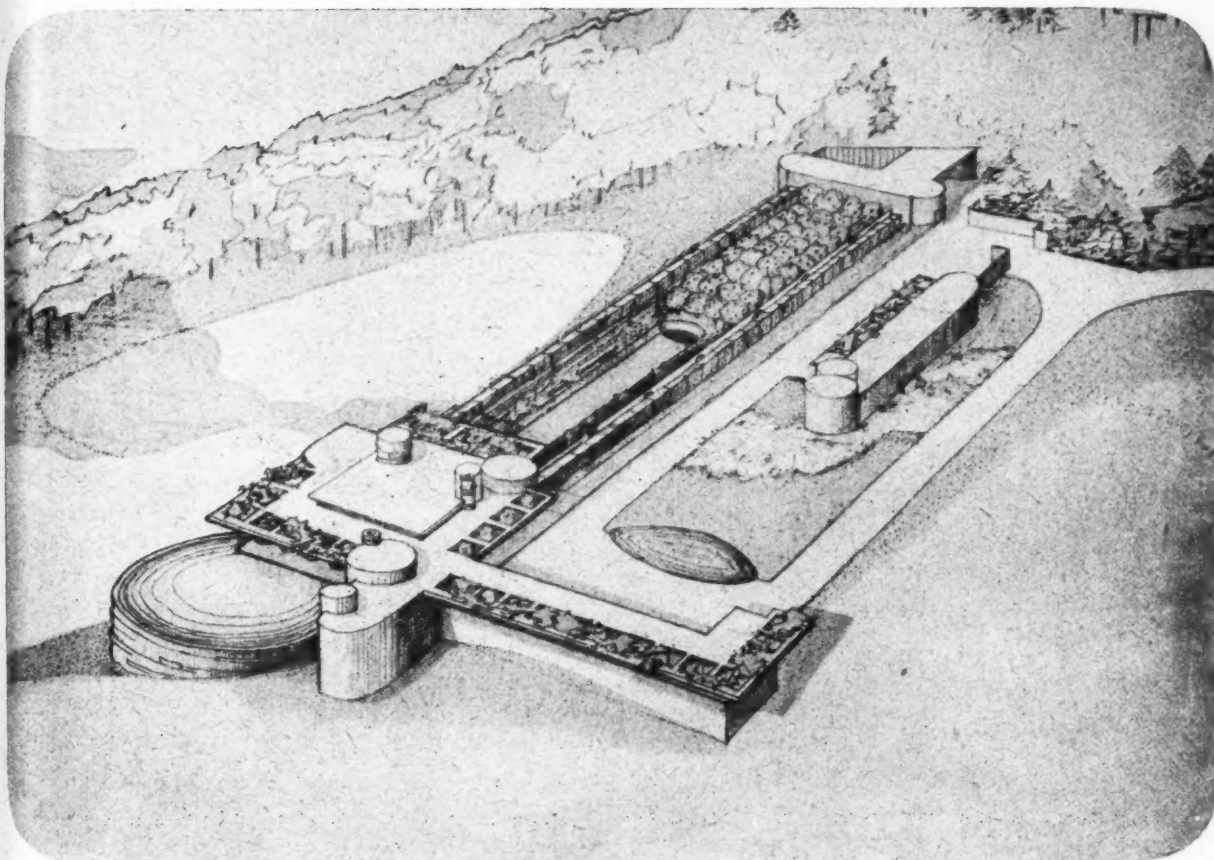
In conclusion, it may be tentatively suggested that this preliminary sketch of the economic pattern of life in Sutton indicates a possible solution of one of the major problems facing country planners. It would seem that in certain circumstances a reasonably wide choice of employment could be provided for a group of villages if each had some one industry providing an occupation alternative to agriculture, so long as the villages are integrated from the point of view of employment by a sufficiently good system of communications. From some points of view this may be preferable to developing one village as the economic centre of a surrounding group.

TENTATIVE PLAN

From the research so far undertaken, the following points would appear to deserve consideration in any scheme for the future of the village:—

- (1) The Divisional Executive of the Kent Education Committee has chosen Sutton-at-Hone as the most suitable village in the district for a new "Modern" School. The site for this has been determined in consultation with the authorities concerned.
- (2) A new Primary School is envisaged within the reconstruction plans.
- (3) A recreation ground or Village Green is needed away from the main road.
- (4) The Council houses should be more closely integrated into the community as a whole.
- (5) A dual carriageway should ultimately be created along the line of the existing main road.
- (6) A new Village Hall should be provided (it has been suggested that this may be incorporated within the proposed Modern School).
- (7) New houses are required to meet the present shortage within the village.





Above, aerial perspective. Below, sketch from the south, showing the wall of the circular swimming pool on the left.

COUNTRY HOUSE

IN CONNECTICUT, USA

DESIGNED BY FRANK LLOYD WRIGHT

The latest house by Frank Lloyd Wright, preliminary sketches of which are shown here, has been designed for Mr. G. M. Loeb, a bachelor of quiet tastes. Building, it is hoped, will begin next year. It will stand on a hill top at

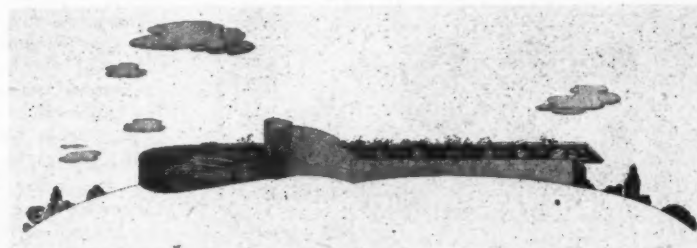
Redding, Connecticut, at the edge of the commuting country of New York City, having a fine view towards the south and east across a circular swimming pool. On account of this windswept site, an orchard and long walled

garden planted with native trees and shrubs has been included in the lay-out.

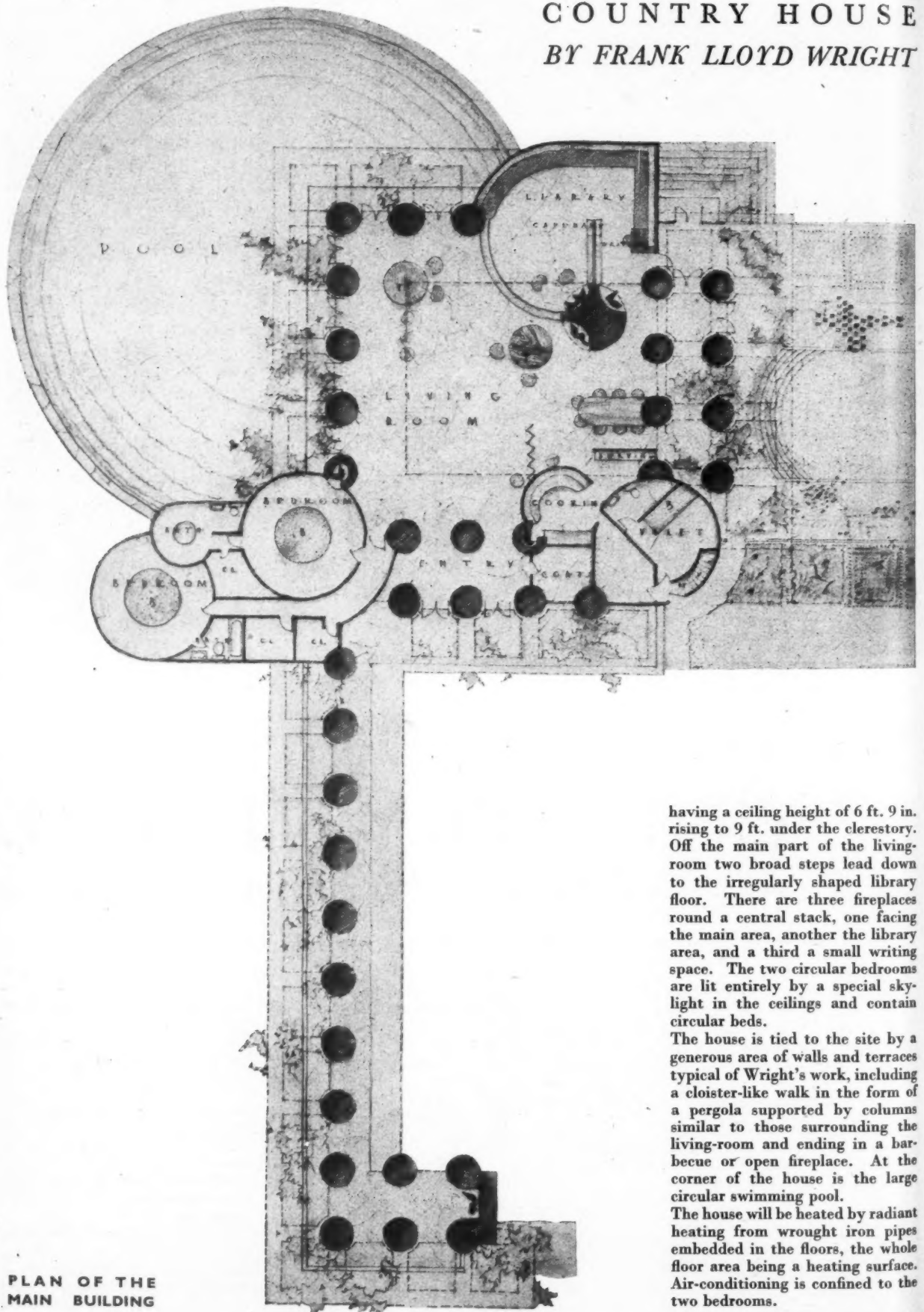
The whole scheme is between 400 to 500 feet long and includes a garage and caretaker's quarters and a stable near the entrance at the end of the walled garden.

The house itself consists of a large central living-dining-room, two circular bedrooms, 18 feet in diameter, each with its own bathroom, a small kitchen and a valet's room.

The living room forms an approximate square, 50 ft. by 50 ft., looking out in four directions through glass doors between massive columns of local stone and



COUNTRY HOUSE BY FRANK LLOYD WRIGHT



PLAN OF THE
MAIN BUILDING

having a ceiling height of 6 ft. 9 in. rising to 9 ft. under the clerestory. Off the main part of the living-room two broad steps lead down to the irregularly shaped library floor. There are three fireplaces round a central stack, one facing the main area, another the library area, and a third a small writing space. The two circular bedrooms are lit entirely by a special skylight in the ceilings and contain circular beds.

The house is tied to the site by a generous area of walls and terraces typical of Wright's work, including a cloister-like walk in the form of a pergola supported by columns similar to those surrounding the living-room and ending in a barbecue or open fireplace. At the corner of the house is the large circular swimming pool.

The house will be heated by radiant heating from wrought iron pipes embedded in the floors, the whole floor area being a heating surface. Air-conditioning is confined to the two bedrooms.

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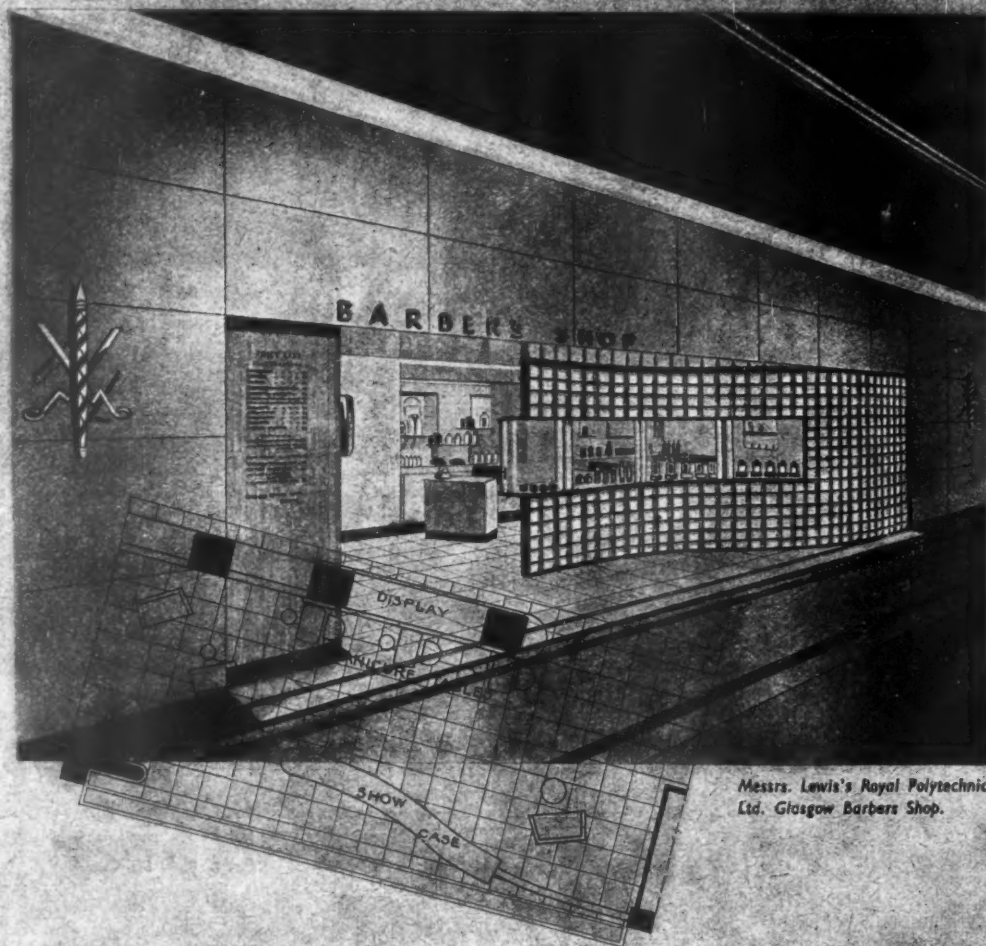
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INFORMATION CENTRE

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.

STRUCTURE

2726

Reinforced Concrete

THE STRUCTURAL USE OF NORMAL REINFORCED CONCRETE IN BUILDINGS. *British Standard Code of Practice Draft for Comment, CP 1946. (British Standards Institution, 3s.)* Materials, appliances and components. Design considerations. Workmanship. Standard methods of making tests. Not up-to-date.

This code deals with the structural use of normal reinforced concrete in buildings. The previous code was issued in 1934. Since then much research and progress in reinforced concrete has been made both in this country and abroad. One would have expected that the new code would take notice of the latest developments, but, instead of this, in some respects it falls back even behind the previous code.

In its main features, the code agrees with No. 8 of Post-War Building Studies (see No. 1560 : 17.8.44) although there are some alterations. Thus the ceiling stress for the tensile reinforcement is now 27,000 lb./sq. in. both in slabs and beams and the use of lightweight concrete has been included, confined to what the code calls subsidiary members, i.e., floor and roof slabs and wall panels.

As compared with the Code of 1934, the chief difference is an increase by 10 per cent. of the permissible concrete stresses. This offers some advantages in the design in certain cases, but it would have been of much greater value to make an end to the requirement of increased effective depth in connection with high tensile steel, when both the permissible stress of steel and concrete are fully utilized. This is automatic with the present method of design and in no way justified. It could be avoided if an alternative method of design (based on ultimate loads and not on working stresses) were permissible, as in several other countries.

The limitation of the permissible steel stress to 27,000 lb./sq. in., equally applicable to

slabs and beams, irrespective of the surface characteristics of the bars, is unsound. The limit is too high in certain cases and too low in others. Its worst feature is that it tends to perpetuate the use of bars with smooth surface, which is the least efficient type of reinforcement.

The reactionary spirit of the new code is perhaps best demonstrated by the reintroduction of the obsolete method of designing columns, which was already replaced by the correct method in the 1934 Code.

These are only a few points out of many which cannot be discussed here. It would be harmful for the progress of reinforced concrete design if this draft were accepted as the future Code. Instead of promoting development, the Code, as it stands, would prevent it and would compel designers to adhere to out-of-date methods and principles.

2727

Linoleum Curing Chambers

HIGH CONCRETE WALLS PARTITION BUILDING INTO CURING CHAMBERS FOR LINOLEUM. (*Engineering News-Record, June 27, 1946, pp. 978-980.*) Building consisting of a series of huge reinforced concrete ovens.

The stove building, recently constructed at Kearny, N.Y., for Congoleum-Nairn, Inc., is 214 ft. 8 in. long, 132 ft. 5 in. wide and 59 ft. high. Architecturally, the windowless exterior depends entirely upon the surface treatment of concrete. Alternate smooth and recessed horizontal bands articulate the floor levels.

The main structural problem was to allow for expansion and contraction of the walls of the nine ovens, each of which can be operated as an independent unit. All external walls are constructed with a number of expansion joints. The internal walls are provided with two contraction joints at the quarter points and are separated from the lower portion of the end wall on one side so as to prevent their pushing the end wall outward. The practically free-standing walls, 16 in. thick and 50 ft. high, without bracing except at one end and the top, required special precautions during erection to eliminate the possibility of wind damage.

EQUIPMENT

2728

Fulham Grate

THE FULHAM GRATE. (*The Gas Light & Coke Company, May, 1946.*) Pamphlet illustrating Fulham grate. Dimensions. Consumption figures and description. Use as a convactor and with back boiler for water heating.

This grate has been described before but the present pamphlet is useful in giving fairly full details though architects might wish for more dimensions, e.g., on the back boiler type. It is curious that the "con-

vector" model appears to be arranged for convection to bedrooms only. No dimensions are given for the convector model. The Fulham grate is not intended for continuous burning overnight.

2729

Electric Lifts

ELECTRIC LIFTS FOR PASSENGERS, GOODS AND SERVICE. *Draft British Standard Code of Practice, 1946. (British Standards Institution, 2s. 0d.)* Covers electric passenger, goods and service lifts. General guidance on conditions which govern choice of equipment and location of lifts in a building. Structural requirements. A useful outline of value to architects.

MISCELLANEOUS

2730

Quantity Surveying

THE QUANTITY SURVEYING PROFESSION: EVOLUTION IN WAR-TIME AND PRESENT POLICY. *Alan W. Davson. (Paper read at the Quantity Surveyors' Conference, June 20, 1946.)* Paper prepared (a) to make chartered quantity surveyors more aware of their committee's work and (b) to give members returning from the forces a perspective of the position and a view of present policy.

Soon after the outbreak of war it became evident that the Government attached considerable importance to the services of the profession and the committee soon became involved in a review of day to day trends in national policy. Many of the conclusions reached are embodied in reports.

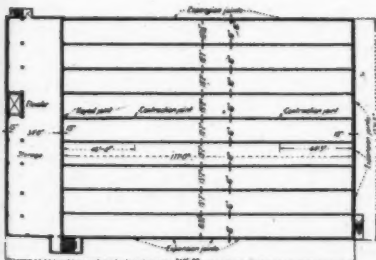
The first report, published in 1942, was *The Future of the Quantity Surveyors' Profession*. This treated the subject very broadly as it was felt that the future of the profession could not be separated from the building industry as a whole and one of the conclusions reached was that nationalization of the building industry would not be in the national interest.

As a result of national policy the number of builders was severely reduced or concentrated, the number of operatives was also severely reduced, private building work was virtually shut down and the character of the industry's work entirely changed. The effect on the quantity surveying profession was to some extent the same, but the committee opposed the breaking up of efficient private units so that technical staff might be absorbed into growing Government departments and the Eighth Report of the Select Committee of the House of Commons on National Expenditure vindicated this policy.

The war-time changes in technique including introduction, by the Government, of a standard schedule of prices and the use of innumerable types of prime cost and schedule contracts made it necessary for the committee to formulate a post-war policy and this was published in a report on *The Use of Bills of Quantities in Post-War Operations*. Apart from the normal bill of quantities the report advocated, in certain circumstances, an approximate bill of quantities, based on the standard method of measurement but subject to remeasurement, and in certain other circumstances either a schedule of prices or the prime cost system with fixed fee.

Another change in technique came with the introduction of *The Code of Measurement of Building Work in Small Dwelling Houses* which replaces the standard method of measurement for this purpose.

The committee also considered the status of the profession, membership of the Insti-



Plan of the stove building for curing linoleum. The building has windowless walls of surface treated concrete. The main structural problem was to allow for expansion and contraction of the walls of the nine ovens. See No. 2727.

tution and the recruitment, education and training of new members. Policy has been summed up in the following pamphlets and reports:—

Quantity Surveyors: Recruitment, Education and Training for Post-war Reconstruction.

The Work and Training of the Quantity Surveyor.

The Quantity Surveyor and the Return to Peace Conditions.

The Chartered Quantity Surveyor and his Work.

The possibility of broadening the basis of membership of the Institution was considered but it was felt that membership should, as heretofore, be restricted to professional surveyors. The committee, however, recommended the substitution of a direct membership examination for the direct fellowship examination. As a result any professional surveyor can, until 1951, become a member of the Institution if he is prepared to prove by examination that he is entitled to membership.

The paper fulfils its purpose admirably and there can be little doubt that chartered surveyors are much indebted to the Quantity Surveyors Committee of the Royal Institution of Chartered Surveyors.

LIGHTING

2731 School Lighting

APPLIED BRIGHTNESS CONTROL IN SCHOOLS. K. C. Welch. (*Arch. Record*, March, 1946.) General principles. Designs using louvres.

Glare, often assumed to be attributable to too much light, is merely an intolerable excess of local contrast. In this note the author's main concern is to describe the general principles which should guide design to ensure reasonable limitation of the variation of brightness in a school environment.

Some attention is given to the calculation of contrasts—a useful addition to design data. A design for louvres is illustrated which is claimed to admit or usefully redirect daylight and sunlight under various conditions, to reduce sky glare, and to give a black-out when needed.

2732 Solar Angles

SHORT CUTS TO SOLAR ANGLES. H. P. Maas. (*Arch. Record*, March, 1946, p. 125.) Formulæ and tables for determining the position of the sun.

This is a note associated with Time-Saver Standard Sheets, on which tables and diagrams of sun-paths are given. The article itself gives the mathematical methods by which they were determined.

It would be interesting to know how much use such data is for design, compared with diagram methods such as Burnett's, or the Heliodon, using models. One is bound to ask, what are one's standards? If the Code of Practice view is accepted, then data of this kind is only very rarely necessary, if ever, in normal practice.

Of its kind, the information given is clear and straightforward.

2733 Industrial Lighting

INDUSTRIAL LIGHTING. (Department of Labour and National Service, Australia, 1945.) Principles of lighting and vision; important practical points in design; recommended values; colour in industry; general guidance on choice of equipment and layout.

There is nothing particularly novel in this publication, but it is comprehensive, objec-

tive and factual. The illustrations and layout are useful, and indeed the whole document is unusually well set-up.

ACOUSTICS and Sound Insulation

2734 Sound Insulation

ISOLATION OF SOUND IN BUILDINGS. R. R. J. Tinkham. (*Arch. Record*, May, 1946, p. 114.) Terminology, planning, insulation principles and practice. Reduction values for walls.

A short, but clear and useful note. The best part is the description of how sound is transmitted. The discussion of what is called homogeneous and non-homogeneous (i.e., discontinuous) construction is fairly useful, but the author, who is a physicist, is clearly more at home at his own subject. There are one or two differences between accepted information in America and in this country if the author is correct, for he claims that multiple walls of different thicknesses and different materials are appreciably better than when the separate units are similar to one another. No evidence from British laboratories supports this.

Construction is considered on a list of some thirty forms of wall, which are illustrated on two Time-Saver Standard sheets. Transmission loss figures are given for these walls at frequencies from 128 to 4,096 cycles per second, but unfortunately the average values for frequencies of 200-2,000 c.p.s., which is usually quoted, is not given here, and one has to waste a good deal of time before one can effectively compare the examples.

Perhaps the author felt it was not his job to tell architects their business, but it would have been helpful to direct attention to the particularly advantageous forms of construction.

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, 13, Queen Anne's Gate, Westminster, S.W.1.

2735 Ordnance Survey Maps

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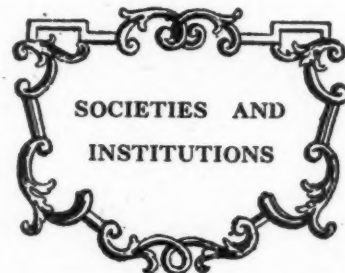
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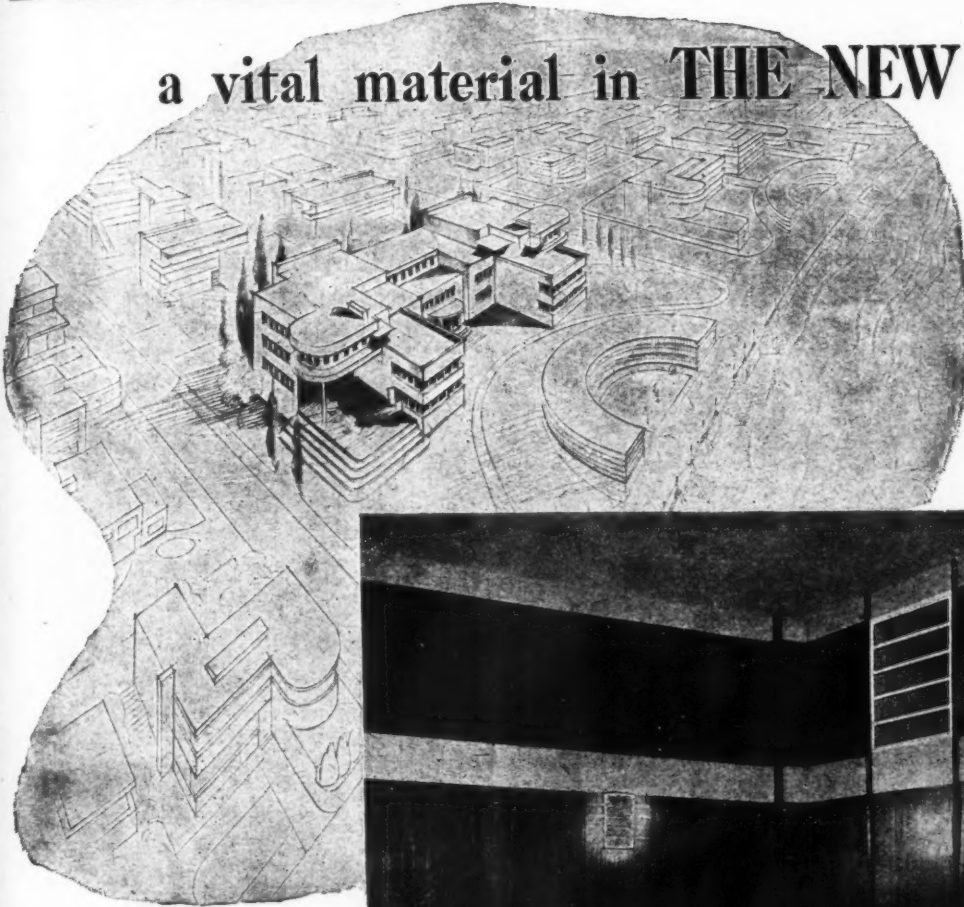
Released Members

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.

Cyril Adler (A) (late Captain R.E.), 31, Kings Road, Sloane Square, Chelsea, S.W.3; J. M. Angus (L), The Northern Clubs Federation Brewery, Ltd., Hanover Square, Newcastle-upon-Tyne, 1 (Newcastle 26540); Capt. J. L. Bakewell (L), Quarry House, Ambergate, Derby; J. W. Barrow (A), Messrs. William & Segar Owen, Palmyra Square Chambers, Warrington; Philip B. Beard (A), Buildings and Estates Officer, University of Manchester, Manchester, 13; E. E. Bedingfield (A), 20, Park Place, Cheltenham; G. E. Cassidy (A), 61, The Green, Kew, Surrey; K. J. Caton (A), Borough Architect's Dept., Town Hall, Reading; R. V. Davis (A), 2a, Lawrence Sheriff Street, Rugby; S. F. Everson (A), and Mr. D. F. Searles (A), Gordon Lodge, 1, Charlton Road, Blackheath, S.E.3; N. R. Galloway (A), 35, Burleigh Road, Gorse Hill, Stratford, Manchester; D. S. Gladstone (A), 28, Gloucester Place, W.1; W. H. Godwin (F), Messrs. Pritchard Godwin and Clist, Bank Buildings, Kidderminster; W. N. Hawkes (A), 253, High Street, Henley-in-Arden; Maurice A. H. Hobbiss (A), 36, Waterloo Street, Birmingham, 2; W. A. L. Hopkins (A), 52, Alleen Road, West Dulwich, S.E.21;

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Announcements

Representatives of the Northern Ireland Government attended the opening at Laurelvale of the new Aircon Works. Speaking at the opening ceremony, Major Percy Maxwell, Parliamentary Secretary to the Ministry of Commerce, referred to the delightful situation of the new factory. Production has already commenced, and Air Conditioning & Engineering, Ltd., are turning out air conditioning equipment, fans, hand driers, etc., for industrial, home and commercial use, as well as important ventilating equipment. Naturally, a high percentage of the output is for export, but the home trade is being supplied in increasing quantities. The productive capacity of these new works will be very much greater than that of the old factory at Bridbury, Cheshire. Many amenities are provided for the employees, including recreation rooms and a sports ground.

With the approval of the Prime Minister, the Minister of Town and Country Planning has made the following appointments in his Department: Sir Thomas Sheepshanks, at present Deputy Secretary, to be Permanent Secretary in succession to Sir Geoffrey Whiskard, who will be retiring on August 20. Miss Evelyn Sharp, an Under-Secretary in the Ministry of Health, to be Deputy Secretary in succession to Sir Thomas Sheepshanks.

Mr. E. Ashburner, B.A.R.C., F.R.I.B.A., A.I.S.T.R.U.C.T.E., Housing Architect to the Lunesdale Rural District Council, has been appointed Deputy County Architect of the Derbyshire County Council.

Mr. J. Ronald Firth, A.R.I.B.A., who for the past two years has been in charge of the Cowes, Isle of Wight, office of Mr. H. V. Lobb, F.R.I.B.A., 20, Gower Street, W.C.1, is now Assistant Architect to the Anglo-Iranian Oil Co., Ltd., Masjid-i-Sulaiman, Khumjistan, South Iran; where he would like to be kept in touch with modern developments in building materials and components.

Mr. George F. Long, L.R.I.B.A., A.I.A.A., Chartered Architect, is now practising from 52, Brook Street, Grosvenor Square, W.1.

The Council of the British Electrical and Allied Manufacturers' Association has appointed Mr. Bruce H. Leeson, O.B.E., M.I.E.E., to be Director of the Association as from October 1, 1946, in succession to Mr. V. Watlington.

Obituary

Mr. John Morris Fearn, Chief Clerk of the Council of Architects and Engineers, who was "ever kindly and tolerant," died suddenly last week at his Esher home. He joined the Council in 1924.

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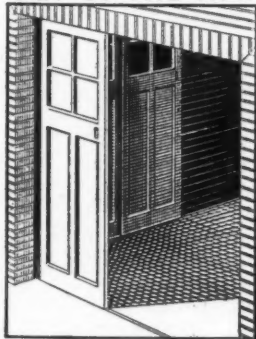
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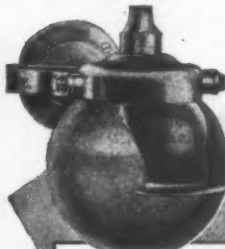
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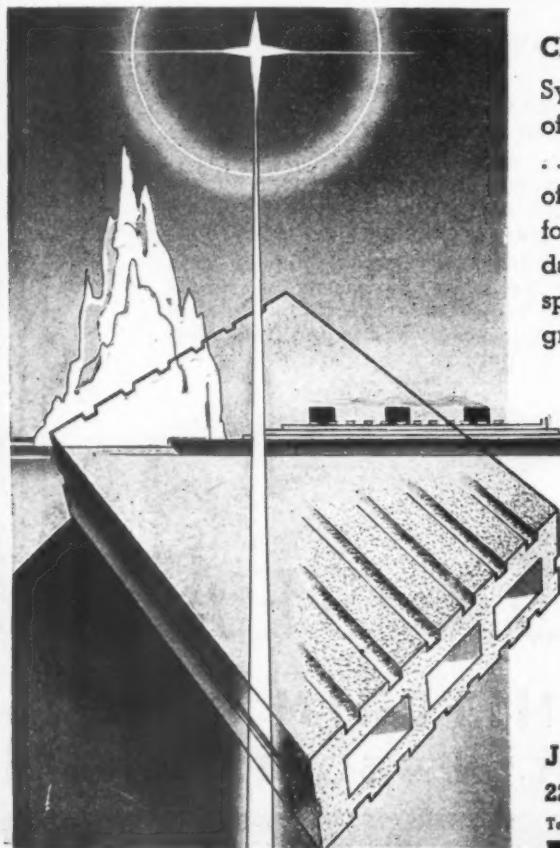


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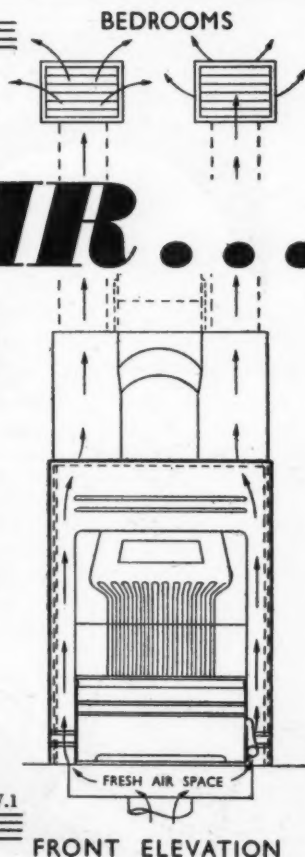
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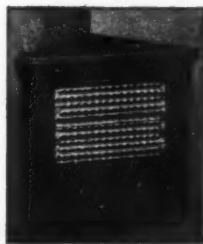
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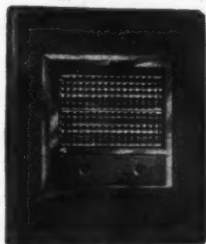
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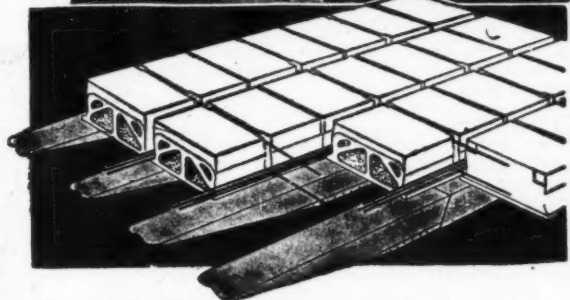
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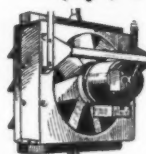
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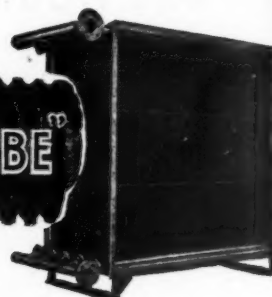
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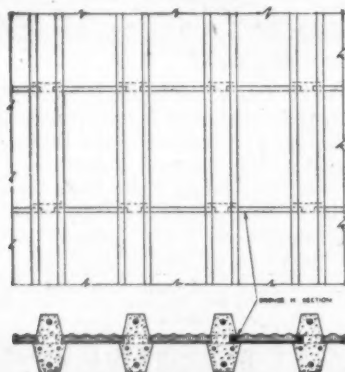
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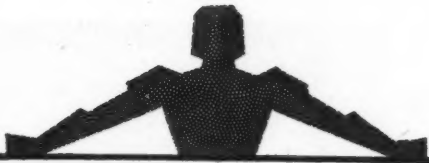
It is thus possible to construct windows continuously up to any desired height, as the weight of each glass is carried on the "H" members, which, in turn, transmit it to the mullions. Mullions are spaced at 9in. or 12in. centres when high relief glass units are used, but may be spaced up to 2ft. centres when glazing is carried out in sheet glass.



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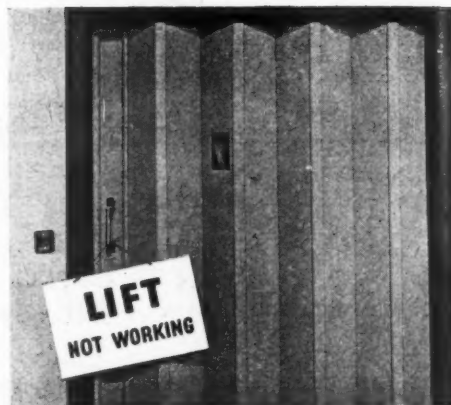


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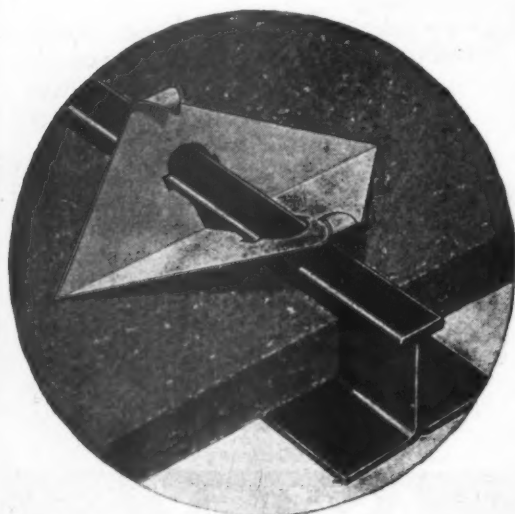
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Save time in erection of interior wall and ceiling boards by using this simplest of all fixing methods. Without the use of screws, bolts or special tools, fixer has only to slide "V" clips on the flanged T bar illustrated, fix latter to purlins with hangers provided, insert board under clips and the job is done! There is no time lost due to awkward fixing in confined spaces since the clips are fixed to the T bars on the bench before erection.

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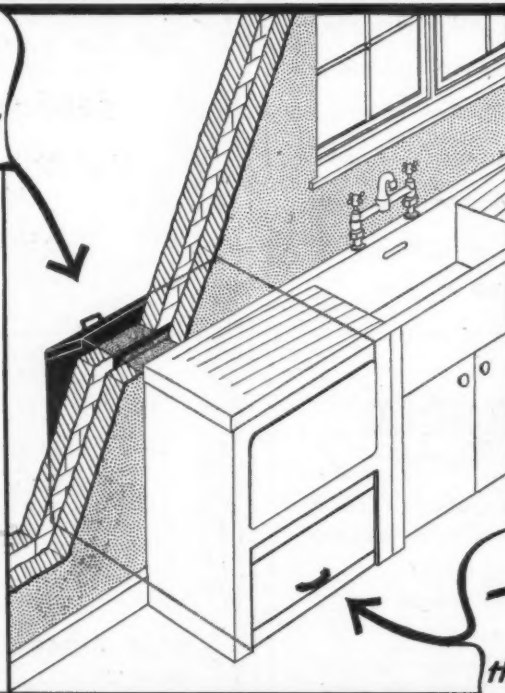
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CLASSIFIED ADVERTISEMENTS

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, Euron Place, London, S.W.1. TEL.: SLOANE 5615. 994

LONDON COUNTY COUNCIL.

Applications are invited for the following positions:—
(1) QUANTITY SURVEYORS AND ASSISTANTS (SENIOR AND JUNIOR). Required for:

(a) "Taking-off" quantities, measuring, and adjusting variations under building contracts and preparing estimates.

(b) Preparing estimates and measuring repairs and minor works under schedule of prices (experience of London County Council War Department or Office of Works Schedules).

(c) Working up, etc., in connection with domestic buildings and general working up (junior).

(d) Measurement of roads and sewers and housing work on cottage estates, preparation of interim and final bills on Schedules.

(2) ARCHITECTS, BUILDING SURVEYORS, TECHNICAL ASSISTANTS (ARCHITECTURAL) AND JUNIOR DRAWING OFFICE ASSISTANTS. Required for:

(a) Work in connection with the design and development of housing schemes for cottage estates and block dwellings (experience in domestic architecture preferred).

(b) Similar work in connection with schools and hospitals.

(c) The preparation of estimates and specifications for works of cleaning and painting, repairs and minor alterations at schools and hospitals.

(d) Assistants to district surveyors. A knowledge of the London Building Acts and by-laws is necessary for these positions.

(e) Junior drawing office assistants for general drawing office work. Should be able to finish plans from rough drawings, take dimensions and make sketches. Pay, according to age and experience, up to 65s. a week, plus cost-of-living addition.

(3) HEATING ENGINEERS AND HEATING AND VENTILATING ASSISTANTS. Good technical education required. Applicants must be experienced in the design of, and preparation of drawings, specifications and estimates for, modern hot water heating, ventilating and hot water supply schemes.

Except as otherwise shown, salaries for the above positions will be determined by qualifications and experience up to a maximum of £420 a year, together with cost-of-living additions up to £90 a year, according to basic salary. Salary up to £500 for certain positions of heating engineer and building surveyor. Successful candidates will be engaged on a temporary basis, but will be eligible for appointment, according to merits, for permanent appointment on the occurrence of vacancies. Temporary staff are required to contribute to the Council's Superannuation and Provident Fund.

Ex-Service candidates with experience prior to their war service will be specially considered.

Application forms may be obtained from the Clerk of the Council, County Hall, Westminster Bridge, London, S.E.1, enclosing stamped addressed foolscap envelope.

Canvassing disqualifies. 947

THE ARCHITECTS' JOURNAL LIBRARY OF INFORMATION SHEETS.

Applications are invited for appointment of TECHNICAL ASSISTANT.

Applicants must be first-class draughtsmen, possess a sound knowledge of building practice, and be interested in the preparation of technical data.

Salary £300 to £500 per annum, according to qualifications and experience. Applications may be made by members of H.M. Forces expecting demobilisation by October, 1946.

THE TECHNICAL EDITOR.

The Architectural Press, Ltd., 45, The Avenue, Cheam, Surrey. 57

DEPARTMENT OF HEALTH FOR SCOTLAND.

CHIEF ARCHITECT AND PLANNING OFFICER.

Applications are invited by the Department of Health for Scotland for the post of Chief Architect and Planning Officer in Edinburgh, at a salary of £1,800 inclusive.

The appointment is subject to the usual Civil Service conditions as to pension, holidays, etc. If the successful applicant is a pensionable official of a local authority, the Local Government and Civil Service (Superannuation) Rules, 1936, will apply.

Candidates must be between the ages of 35 and 50 on 1st September, 1946, must be members of the R.I.B.A. and the T.P.I., and must have extensive experience of housing (with particular reference to layout, design, and the new forms of construction) and of town and country planning.

Forms of application, with further particulars of the appointment, may be obtained from the Establishment Officer (Room 31), Department of Health for Scotland, St. Andrew's House, Edinburgh, 1, and must be returned to him not later than the 31st October, 1946.

Those candidates who appear best qualified will be required to attend a Selection Board in Edinburgh or London. 827

CITY OF LIVERPOOL.

ARCHITECTURAL AND HOUSING DEPARTMENT.

The Council of the City of Liverpool invite applications from qualified persons for the following temporary positions, in the Architectural and Housing Department, at the salaries shown, viz.:

(a) TWO QUANTITY SURVEYORS. Salary £500, plus war bonus.

(b) ONE ASSISTANT ARCHITECT. Salary £450, plus war bonus.

Applicants must have had professional experience, preferably in Local or Central Government service, and one of the Quantity Surveyors must be competent in measurement of works and checking contractors' accounts for estate development (roads and sewers) contracts.

Although the positions are classed as temporary, it is probable that on continued satisfactory service the officers appointed will be absorbed into the permanent establishment of the Department at a later date, subject to the Standing Orders of the City Council.

The appointments will be determinable by one calendar month's notice on either side.

Applications, on forms to be obtained from the City Architect and Director of Housing, Blackburn Chambers, Kingsway, Dale Street, Liverpool, 2, accompanied by copies of three recent testimonials, must be addressed to the City Architect and Director of Housing (endorsed with the description of the post applied for, e.g., "Quantity Surveyor"), and should be received on or before the 30th September, 1946.

Candidates serving in H.M. Forces abroad need not complete the official form of application, but may submit direct applications on or before the date specified, giving particulars of age, education, qualifications and experience, and three names as references. The number of the applicant's release group and probable date of release should also be stated.

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

W. H. BAINES,
Town Clerk.

Liverpool, 2,
August, 1946. 872

COUNTY BOROUGH OF NEWPORT, MON.

BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

THREE SENIOR ASSISTANT ARCHITECTS. Mainly for Housing Work.

TWO SENIOR ASSISTANT ARCHITECTS. Mainly for Education Works.

Candidates must be members of the R.I.B.A. by examination.

Salaries for each position will be in accordance with Grade VI, A.P. & T. Division of the National Scheme for Local Government Officers. £535 per annum to £600, plus the current cost-of-living bonus.

The appointments will be subject to the Corporation's Conditions of Service and Superannuation Scheme, and the successful candidates will be required to pass a medical examination.

The appointments are temporary, but it is possible that permanent positions may develop.

Applications, accompanied by three recent testimonials, must reach me not later than Monday, the 30th September, 1946.

JOHNSON BLACKETT, F.R.I.B.A.,
Borough Architect.

Town Hall, Newport, Mon.
9th September, 1946. 951

COUNTY BOROUGH OF GRIMSBY.

APPOINTMENT OF ARCHITECTURAL ASSISTANTS.

Applications are invited for the following Architectural appointments to the permanent staff, in accordance with the National Scales:—

(a) First Architectural Assistant. A.P. & T. Grade V, salary £440—£415—£250.

(b) Senior Architectural Assistant. A.P. & T. Grade IV, salary £420—£15—£465.

A cost-of-living bonus, at present £59 16s. per annum, is also payable to each appointment, and the successful applicants will be required to pass a medical examination, and be subject to the Local Government Superannuation Act, 1937, the appointments being terminable by one month's notice on either side.

Candidates should be Registered Architects, and preference will be given to Corporate Members of the R.I.B.A. or holders of the Diploma of a recognized School of Architecture.

Experience in Housing, Schools and Public Buildings is desirable. Applications, stating age, qualifications, experience, whether married or single, together with copies of two recent testimonials, should reach the undersigned not later than Friday, the 27th September, 1946.

In connection with one of the appointments, housing accommodation will be available for a married person, if required.

J. V. OLDFIELD.

Borough Engineer and Surveyor.
Municipal Offices, Town Hall Square,
Grimsby. 932

COUNTY BOROUGH OF GREAT YARMOUTH.

BOROUGH ENGINEER'S DEPARTMENT.

APPOINTMENT OF PERMANENT GENERAL ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment, in the Borough Engineer's Department, of one General Architectural Assistant (permanent), at a salary in accordance with Grade III of the National Scale of Conditions of Service, commencing at £390 per annum, rising by annual increments of £15 to a maximum of £435 per annum, plus cost-of-living bonus (at present £59 16s.).

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

Applicants should be Associates of the Royal Institute of British Architects, and must have had experience in design and construction, particularly in relation to housing, schools and public buildings.

Applications, stating age, qualifications and previous experience, together with copies of three recent testimonials, should be enclosed in an envelope endorsed "General Architectural Assistant," and must reach the undersigned not later than noon, on Friday, the 27th September, 1946.

Canvassing, directly or indirectly, will be deemed a disqualification, and candidates must disclose in writing whether, to their knowledge, they are related to any member or holder of any senior office under the Council. A candidate who fails to do so will be disqualified and, if appointed, will be liable to dismissal without notice.

FARRA CONWAY.

Town Clerk.
Town Hall, Great Yarmouth. 938

MARSHLAND RURAL DISTRICT COUNCIL.
WISBECH RURAL DISTRICT COUNCIL.

ARCHITECT'S DEPARTMENT.

The Joint Councils invite applications for the following temporary appointments in their Architect's Department:—

(a) ARCHITECTURAL ASSISTANT. Inclusive salary within the range of £315 p.a. × £15 p.a. to £360 p.a., according to age, qualifications, and experience.

(b) JUNIOR ARCHITECTURAL ASSISTANT. Inclusive salary £250 p.a., rising by annual increments of £10 p.a.

Candidates for both these appointments should be experienced in the preparation of working drawings and details, particularly in relation to housing.

The above-mentioned appointments will be in accordance with the Conditions of Service laid down by the National Joint Council, and to one month's notice on either side.

Applications, stating age, education, qualifications (if any) and experience, together with copies of two recent testimonials, must be delivered to the undersigned not later than Monday, the 30th September, 1946.

Canvassing will disqualify.

GEORGE HELLIER,

Clerk to the Councils.
Council Offices, Alexandra Road,
Wisbech, Cambs.
9th September, 1946. 949

COUNTY BOROUGH OF WEST HAM.

BOROUGH ARCHITECT AND PLANNING OFFICER'S DEPARTMENT.

Applications are invited for the following appointments:—

(1) **EDUCATION SECTION:**
(a) SENIOR ARCHITECTURAL ASSISTANT. A.P.T. Division, Grade VI, £535 to £600 per annum, by two annual increments of £20 and one of £25 (subject to satisfactory service).

(b) ARCHITECTURAL ASSISTANT. A.P.T. Division, Grade IV, £420 to £465 per annum, by annual increments of £15 (subject to satisfactory service).

Plus war bonus, at present £59 19s. 3d. per annum, and London weighting of £20 per annum.

Applicants for appointment (a) should be members of the Royal Institute of British Architects, and preference will be given in both appointments to persons having experience in the design and construction of schools.

(2) **PLANNING SECTION:**

(a) SENIOR TOWN PLANNING ASSISTANT. A.P.T. Division, Grade VI, £535 to £600 per annum, by two annual increments of £20 and one of £25 (subject to satisfactory service).

(b) TOWN PLANNING ASSISTANT. A.P.T. Division, Grade IV, £420 to £465 per annum, by annual increments of £15 (subject to satisfactory service).

Plus war bonus, at present £59 19s. 3d. per annum, and London weighting of £20 per annum.

Applicants for both appointments should have had experience in planning work in a Local Authority office.

The appointments will be whole time, terminable by one month's notice in writing on either side, and subject to the Local Government Superannuation Act, 1937-39. The 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 for which post they are applying. Forms are to be returned to the above not later than 12 noon, Monday, 30th September, 1946.

Canvassing members of the Council is prohibited, and will disqualify applicant.

E. E. KING,
Town Clerk.

Town Hall, West Ham, E.15.
9th September, 1946. 956

BOROUGH OF HARROGATE.

ARCHITECTURAL ASSISTANTS.

Applications are invited for the appointment of two Architectural Assistants, in the Office of the Borough Engineer and Architect, each at a salary of £360 per annum, rising by annual increments of £15 to a maximum of £405, plus war bonus of £59 19s. 3d. per annum.

Candidates should have experience in preparation of plans and details, estimating and supervision of works, and preference will be given to Associates of the R.I.B.A. The appointments will be subject to the provisions of the Superannuation Act, and the successful applicants will be required to pass a medical examination.

Applications, stating age, qualifications and experience, together with copies of not more than three recent testimonials, should be delivered suitably endorsed to the undersigned not later than the 10th October, 1946.

L. H. CLARKE, A.R.I.B.A., M.T.P.L.,
Borough Engineer and Architect.
Municipal Offices, Harrogate.
September, 1946. 941

COUNTY BOROUGH OF IPSWICH.

APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Senior Architectural Assistant, in the Borough Surveyor's Department. Applicants must have had previous architectural experience and be an Associate of the R.I.B.A. or possess a similar qualification.

The appointment is subject to the provisions of the Local Government Superannuation Scheme, 1937, and to the passing of a medical examination.

Salary will be in accordance with Grade IV of the A.P.T. Division of the National Scales (£420 to £465 p.a.), plus the current war bonus.

There is no form of application, but candidates must state age, experience, qualifications, and any other relevant details. Copies of not more than three recent testimonials must be supplied. Applications must be received by E. McLaughlan, Borough Surveyor, Town Hall, Ipswich, not later than Monday, 30th September, 1946.

Canvassing will disqualify. If the applicant is to his knowledge related to any member or any senior officer of the Council he must disclose that fact in writing when submitting his application.

J. G. BARR,
Town Clerk.

Town Hall, Ipswich.
7th September, 1946. 948

BOROUGH OF ROYAL LEAMINGTON SPA.

DEPARTMENT OF DIRECTOR OF HOUSING.

APPOINTMENT OF JUNIOR ASSISTANT ARCHITECT.

Applications are invited for the above appointment, at a basic salary of £255, rising by annual increments of £15 to £300, plus cost-of-living bonus, at present approximately £60 per annum.

The appointment will be on the unestablished staff of the Corporation, terminable by one month's notice on either side.

Candidates should be experienced in the preparing of working drawings and details, particularly in relation to housing.

Applications, together with copies of not more than two testimonials, must be submitted before 12 noon on Wednesday, the 2nd October, 1946, enclosed "Assistant Architect."

H. FEDESKI, A.R.I.B.A., Dip.T.P.,
A.M.T.P.L.,
Director of Housing.

Town Hall Annexe, 3, Regent Grove,
Leamington Spa.
12th September, 1946. 972

CITY AND COUNTY BOROUGH OF BELFAST.

ELECTRICITY DEPARTMENT.

Applications are invited for the position of ASSISTANT ARCHITECT (Temporary).

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

The appointment is for a period not exceeding 2½ years.

The wages for the position are £9 15s. 6d. per week, being the maximum in Grade 8a, Class J, of the National Joint Board Schedule of Salaries for Technical Engineers on the staff of Authorised Undertakers.

Preference will be given to ex-Servicé candidates possessing the required qualifications.

Applications must be made on official forms, which can be obtained from the City Electrical Engineer and General Manager, Electricity Department, East Bridge Street, Belfast, and, with copies of not more than three recent testimonials, should be lodged with the Town Clerk, City Hall, Belfast, not later than 4 p.m. on Friday, 27th September, 1946.

Canvassing, oral or written, if proved to the satisfaction of the appointing authority, will disqualify.

JOHN DUNLOP,
Town Clerk.

City Hall, Belfast.
6th September, 1946. 942

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

Applications are invited for the undermentioned appointments, in the City Architect's Department. Salaries in accordance with the National Joint Council Salary Scales, plus cost-of-living bonus (at present £59 19s. 3d. per annum):—

(a) QUALIFIED QUANTITY SURVEYOR. A.P.T., Grade VI (£535-£600).

(b) QUALIFIED QUANTITY SURVEYOR. A.P.T., Grade V (£460-£510).

(c) ASSISTANT QUANTITY SURVEYOR. A.P.T., Grade IV (£420-£465).

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

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be addressed to the undersigned.

R. G. ROBERTS, F.R.I.B.A.,
City Architect.

18, Cloth Market, Newcastle-upon-Tyne, 1.
10th September, 1946. 964

BOROUGH OF SOUTHALL.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the following permanent appointment, in the Department of the Borough Engineer:—

ARCHITECTURAL ASSISTANT. Salary £355 per annum, rising by annual increments of £15 to £425 per annum, plus cost-of-living bonus, at present £59 19s. 3d. per annum.

Applicants should be registered architects, and should have experience in housing design.

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

Applications, on forms to be obtained from the Borough Engineer, Town Hall, Southall, must be returned, accompanied by copies of three recent testimonials, on or before 3rd October, 1946.

Canvassing any member of the Council or any Committee thereof, directly or indirectly, will disqualify.

M. LINDSAY TAYLOR,
Town Clerk.

Town Clerk's Offices, South Road, Southall.
11th September, 1946. 974

MOUNTAIN ASH URBAN DISTRICT COUNCIL.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT (Temporary), in the Architect's Department, at a salary of £350 per annum, plus cost-of-living bonus of £59 19s. 3d. per annum.

Candidates should have had good Housing and general architectural experience. Preference will be given to students of the Royal Institute of British Architects who are about to qualify for the Associateship.

Applications, endorsed "Architectural Assistant," stating age, qualifications and experience, etc., and giving the names of two persons to whom reference may be made, must reach the undersigned not later than the 30th September, 1946.

BERNARD M. MURPHY,
Clerk of the Council.

Town Hall, Mountain Ash.
12th September, 1946. 968

CORPORATION OF KIRKCALDY.

BURGH ENGINEER'S DEPARTMENT.

Applications are invited for the following appointments in the office of the Burgh Engineer and Surveyor:—

(1) THREE ENGINEERING ASSISTANTS (one permanent).

(2) TWO ARCHITECTURAL ASSISTANTS (one permanent).

(3) ONE TEMPORARY TOWN PLANNING ASSISTANT.

Candidates for No. 1 above should preferably be Corporate Members of the Institution of Civil Engineers or Institution of Municipal and County Engineers, or hold equivalent qualifications. Candidates for No. 2 must be Associates of the Royal Institute of British Architects, or hold equivalent qualifications. Candidates for No. 3 should preferably have Town Planning qualifications or experience.

Appointments will be on salary scale Grade 1A, £325 per annum, rising by annual increments of £15 to £400 per annum, or on Grade 1B £280 per annum, rising by annual increments of £10 to £320 per annum, the former grade only applying to candidates holding the above-mentioned qualifications. Cost-of-living bonus is in addition.

Permanent appointments will be subject to the Corporation's Conditions of Service and Superannuation Scheme, and the selected candidates will be required to pass a medical examination. Temporary appointments are subject to the terms of the appropriate section of the Local Government Superannuation (Scotland) Act, 1937, dealing with whole-time officers appointed in a temporary capacity.

Applications, indicating age, qualifications, experience and present salary, and accompanied by copies of two recent testimonials, should be lodged with the Burgh Engineer and Surveyor, Osborne House, East Fergus Place, Kirkcaldy, not later than 12th October, 1946. 973

GOVERNMENT OF NORTHERN IRELAND.

ASSISTANT ARCHITECTS.

Applications are invited for posts of Assistant Architect, in the Ministry of Health and Local Government. The appointments will be temporary, but so far as can be foreseen will last for several years.

Remuneration.—Successful candidates will be remunerated within one of the following salary ranges:—

Range B: £350-£550 per annum.

Range C: £250-£450 per annum.

and the commencing salary within these ranges will be fixed according to the qualifications and experience of successful candidates. In addition a war bonus, varying between £70 and £90 per annum, is at present payable.

Qualifications.—To qualify for appointment on the B salary range candidates must have passed the Final (Associateship) Examination of the Royal Institute of British Architects, or possess equivalent qualifications; in addition they

(a) should have experience in up-to-date house design and layout, and have some aptitude for research into comparative standards of design and construction; or

(b) possess a recognized qualification in town planning or have good experience in town planning work.

For appointment on the C salary range preference will be given to candidates who have passed the Intermediate (Studentship) Examination of the Royal Institute of British Architects.

Preference will be given to candidates who served with H.M. Forces during the 1914-18 or 1939-45 war, providing the Ministry is satisfied that such candidates can, or within a reasonable time, will be able to, discharge the duties of the post efficiently.

Closing date for receipt of applications.—Applications must reach the Assistant Secretary (Establishments), Ministry of Finance, Stormont, Belfast, on or before the 11th October, 1946. Applicants should state their date of birth and give full particulars of qualifications and experience. They should also enclose copies of two recent testimonials. 975

CITY OF STOKE-ON-TRENT.

APPOINTMENT OF ASSISTANT ARCHITECT.

Salary, A.P.T. Division, Grade VI, £535-£600, plus bonus, at present £59 15s. per annum.

Applications are invited for the above appointment, on the Establishment Staff of the City Architectural department, at a salary commencing within the above grade, according to qualifications and experience.

Applicants must be Associates of the Royal Institute of British Architects, and must have had experience in the planning, design, and construction of buildings for Education purposes, and possess a full knowledge of the requirements of a Local Education Authority, and of the Building Regulations and Standards for School Premises of the Education Act, 1944.

The selected applicant will be required to pass a medical examination, and the appointment will be subject to one calendar month's notice on either side, the provisions of the Local Government Superannuation Act, 1937, and the National Scheme of Conditions of Service for Local Government Officers.

Applications, giving particulars of architectural training, stating date of birth, qualifications, experience, present appointment and salary, together with copies of two recent testimonials, and the names and addresses of two persons to whom reference may be made, should be received by me not later than 1st October, 1946.

HARRY TAYLOR,
Town Clerk.

Town Hall, Stoke-on-Trent.
11th September, 1946.

966

Competition

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

COMPETITION FOR DESIGNS FOR BUS-PASSENGER SHELTERS.

During the War abnormal conditions introduced the bus-passenger queue, and as a matter of urgency the London Passenger Transport Board erected a large number of kerbside shelters to give their waiting passengers some degree of protection; of necessity these shelters were austere in construction and appearance.

Whilst the need for queueing will disappear as conditions improve, the Board recognizes that there will always be the need to provide shelter for their passengers at very busy stopping points, and they have decided to replace the utility shelters with structures which will be good examples of street furniture.

THE LONDON PASSENGER TRANSPORT BOARD

in accordance with their policy of promoting good design in industry, invite Architects to submit designs in competition for a bus-passenger shelter to replace the present utility wartime model in the populous areas served by the Board.

Two prizes are offered:

- 1st Prize ... 300 GUINEAS.
2nd Prize ... 100 GUINEAS.

The Assessors are:

Professor W. G. Holford, A.R.I.B.A., M.T.P.I.
Mr. F. R. S. Yorke, F.R.I.B.A.

Mr. Thomas Bilbow, F.R.I.B.A.

The last date for submitting designs is 8th January, 1947.

Conditions of the competition may be obtained, post free, from the Chief Public Relations and Publicity Officer, 55, Broadway, Westminster, S.W.1, applications to be marked "Queene Shelter Competition" in the left-hand corner.

Tenders

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

METROPOLITAN BOROUGH OF HOLBORN.

ERECTION OF 162 FLATS.

Tenders are invited for the erection of 162 Flats in Holborn (comprising five blocks of 7 storeys and one block of 10 storeys).

Bills of Quantities and Forms of Tender can be obtained from, and Conditions of Contract and Drawings inspected at, the offices of the Architects, Messrs. Henning & Chitty, F.R.I.B.A., 20, Gower Street, W.C.1, on or after 28th September, on payment of £3 3s. by crossed cheque or order payable to Holborn Borough Council. Amount returnable only if bona fide tender is submitted and not subsequently withdrawn. Tenders on the prescribed form in a plain sealed envelope, bearing no indication of the name of the sender, and endorsed "Tender for 162 Flats," must be delivered at the office of the undersigned not later than 12 noon on the 28th day of October, 1946.

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

G. T. LLOYD,
Deputy Town Clerk.

Town Hall, Holborn, W.C.1.

962

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.

SENIOR and JUNIOR ARCHITECTURAL ASSISTANTS required; pleasant working conditions; good salary and interesting work. Full particulars to Forshaw & Greaves, 33, Albion Street, Hanley, Stoke-on-Trent. 819

ASSISTANT ARCHITECT required by W. H. Smith & Son, Ltd., in their Estate Department; aged about 30-35; must be fully qualified and commercially minded; preference given to applicants who have had practical experience with a multiple firm; position is permanent and pensionable, and offers good scope to a man of proved ability.—Write, in confidence, stating age, qualifications, experience, and salary required, W. H. Smith & Son, Ltd., Estate Manager, Strand House, London, W.C.2. 861

WANTED, by a Railway Civil Engineer's Office in Edinburgh, **TEMPORARY ARCHITECTURAL ASSISTANTS**; capable of preparing working drawings from rough sketches, estimating, and supervising works in progress; state age, qualifications, and salary expected. Apply Box 919.

EXPERIENCED ARCHITECTURAL ASSISTANT required for Brighton Office; state age, experience, and salary required. Box 923.

JUNIOR DRAUGHTSMEN required in Manchester Office; should be good draughtsmen, with sound knowledge of general construction, and competent in the preparation of sketch plans and working drawings under supervision; salary £250 per annum (plus war bonus of £73); successful candidates will be required to pass a medical examination for entry into compulsory Superannuation Scheme. Applications, stating educational qualifications, experience, and age, with copies only of testimonials, to Box 926.

ASSISTANT QUANTITY SURVEYOR required in Manchester Office; should be experienced in preparing Bills of Quantities, measuring work, and adjusting variations on Contracts and estimating; salary up to £400 per annum, according to qualifications (plus war bonus of £73), with good prospects of promotion. Also a **JUNIOR QUANTITY SURVEYOR**, able to take-off sub-trades, salary £250 per annum (plus war bonus of £73); successful candidates will be required to pass a medical examination for entry into compulsory Superannuation Scheme. Applications, stating age, qualifications, and experience, with copies only of testimonials, to Box 927.

ARCHITECTURAL ASSISTANT, for small modern office, East Anglia; pleasant conditions. Full particulars and salary required to Box 937.

ARCHITECTURAL ASSISTANT required by firm with extensive practice in Kent and London; sound knowledge of building construction, specifications, pricing, W.D. and compensation claims essential; the post offers an excellent opportunity for the right man. Apply, stating age and full details of past experience, qualifications, and salary. Box 929.

WANTED—Two **JUNIOR ARCHITECTURAL ASSISTANTS**, R.I.B.A.; Intermediate Standard; general office; Somerset. Full particulars of training, experience, salary required, to Box 957.

ARCHITECTURAL ASSISTANT required in small office; accurate draughtsmanship essential; experience of factory construction desirable; good experience for young architect intending to set up practice on his own account. Write Pidgeon and Demuth, 37, Great James Street, London, W.C.1. 959

ARCHITECT'S ASSISTANT required. Apply, stating age, experience, and salary required, to Henry C. Smart & Partners, Architects, 251-3, Finsbury Pavement House, 120, Moorgate, London, E.C.2. 960

SENIOR ARCHITECTURAL ASSISTANT required; able to take complete charge of work. Full particulars to F. W. Beech, F.R.I.B.A., 15, Dixie's Field, Exeter. 961

ARCHITECTURAL ASSISTANT required, A.R.I.B.A.; experienced in housing and/or industrial work; commencing salary £400-£550. Write, stating age and experience, to J. G. L. Poulsen, L.R.I.B.A., Chartered Architect and Surveyor, 29, Ropergate, Pontefract, Yorkshire. 962

ASSISTANT required for progressive position in young practice handling domestic work and industrial design; intelligence, versatility, and experienced draughtsmanship essential; office situated two minutes Hampton Court Station. Box 963.

ASSISTANT ARCHITECTS required in Manchester Office; should be experienced in commercial and industrial work, good draughtsmen, with sound knowledge of general construction; salary up to £400 per annum, according to qualifications (plus war bonus of £73); good prospects of promotion for competent assistants; successful candidates will be required to pass a medical examination for entry into compulsory Superannuation Scheme. Applications, stating educational qualifications, experience and age, with copies only of testimonials, to Box 940.

TEMPORARY ARCHITECTURAL ASSISTANT required for 3 months; 4th scale drawings required. Levitt, Biggleswade, Beds. 946

ARCHITECTURAL DRAUGHTSMAN for Architect's Department of an industrial undertaking in Birmingham. Write age, qualifications and experience, to Box 967.

JUNIOR ASSISTANT (R.I.B.A. Intermediate Standard) required for private practice. Apply, stating age, experience, and salary required, to Lavender and Twentyman, F.A.R.I.B.A., Waterloo Road, Wolverhampton. 969

JUNIOR (16-17 years) urgently required in private practice engaged on housing and industrial work; good experience and prospects; previous experience an advantage, but not essential. Clark, L.R.I.B.A., 44, Gt. Russell Street, W.C.1. Museum 4400. 970

SURVEYOR'S ASSISTANT required, age 25-30, capable of cubing buildings for fire insurance purposes and general routine duties; salary £6 6s. weekly. Write Box 93, c/o Mather & Crowther, Ltd., Brettenham House, Lancaster Place, W.C.2. 971

ASSISTANT wanted in Estate Department of a Company having branches throughout British Isles and overseas; applicant must be architecturally trained, a good draughtsman, with ability to design interior decorative schemes, fittings also shop-fronts; position is a permanent one; applicants must be resident in or near London, or be able to obtain living accommodation there. Apply in first instance in confidence, stating age, salary, and brief particulars of experience, to Box 976.

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.

ASSISTANT, just released from R.A.F. on return from Far East; good draughtsman; 5 years' pre-war experience (general), including surveying, mapping, perspective, modelling, details; good character; Kent and London area preferred, others considered. Box 74.

ARCHITECTURAL ASSISTANT (SENIOR), 35, 12 years' experience planning, detailing and supervision, cinemas, hospitals, schools, factories, office buildings, local authority and private housing, requires situation with new or re-establishing firm building-up staff; salary £500 p.a. Box 95.

JUNIOR ARCHITECTURAL ASSISTANT desires position; East Suffolk, preferably Ipswich or district; would consider position Northern Ireland; 6½ years' experience domestic work, housing, shops, etc.; Council housing schemes and public works, including 1½ years as clerk of works, Council housing schemes; neat draughtsman, details, sketches, working drawings; 4½ years' service H.M. Forces. Box 103.

JUNIOR ARCHITECTURAL ASSISTANT (17½), 3 years' day school and 1½ years' office experience, accurate draughtsman, and capable of preparing details, requires position in good Architect's office, with chance of promotion. Box 102.

QUALIFIED ARCHITECT offers part-time professional assistance in London; site reports and preparation of sketch schemes, working drawings and specifications; general experience; own car. Replies to Box 96.

STUDENT, well educated, school certificate, 1 year's training at school of architecture, seeks position in Architect's office in Birmingham district, for further experience and training. Box 97.

STUDENT ARCHITECT (27), passed R.I.B.A. final exam in design group, year's experience in office and survey work. seeks suitable employment, in or near London. Please write, with details, to Box 98.

JUNIOR ASSISTANT, Inter. Standard, 12 months' office experience, desires position in London, preferably S.W. Box 99.

COUNTRY TOWN—A.R.I.B.A., recently demobilized, 20 years' first-class experience, seeks responsible work, with prospects, in country district; salary not less than £600 p.a. Box 100.

SENIOR ASSISTANT ARCHITECT, L.R.I.B.A., 37, desires change to position of permanent nature on the coast; one leading to a partnership preferred, but not essential if good prospects offered; able to take control of jobs, and responsibility and hard work welcomed; wide experience in all types of offices in London and provinces for 21 years; commencing salary, £500 p.a. or near. Box 101.

A.R.I.B.A. (aged 24) desires progressive position in London office immediately; 8 years' continuous experience licensed premises, industrial, commercial and domestic, in London and N.W.; capable and responsible; keen, energetic; excellent references; particularly interested in design and construction; salary required £520 minimum. Box 104.

ARCHITECTURAL ASSISTANT, neat and accurate draughtsman, preparing for Inter., used to responsibility, desires change to progressive office; can make surveys, take levels. Box 105.

Other Appointments Vacant

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

REPRESENTATIVES or **AGENTS** wanted by well-known Building Materials Company; London and all counties; good connections with architects and civil engineers essential. Box 886

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COMPETENT ARCHITECTURAL ASSISTANTS (2) desire spare-time draughting work, including sketch plans, working up, details and tracing; strictest confidence assured. Box 954.

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Miscellaneous

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Have been instructed by the Executors of the late Mr. E. L. Payton to sell by Auction at the London Auction Mart., 155, Queen Victoria Street, E.C.4, on 9th October, 1946

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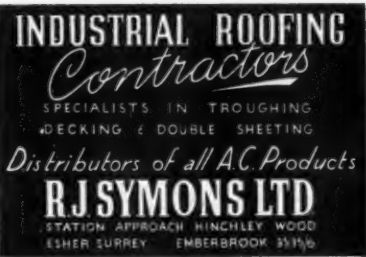
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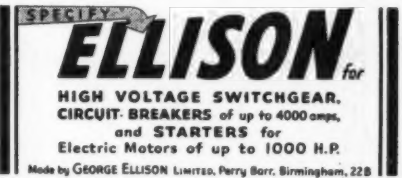
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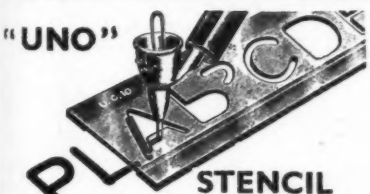
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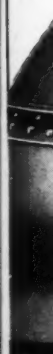
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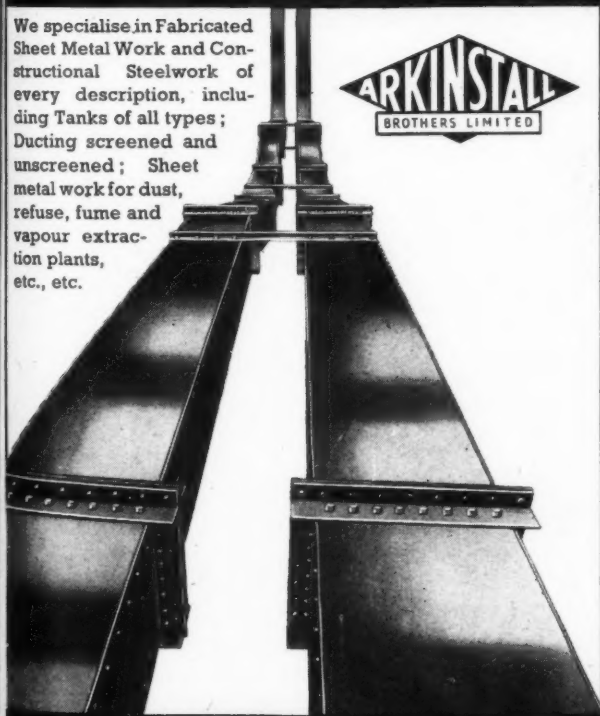
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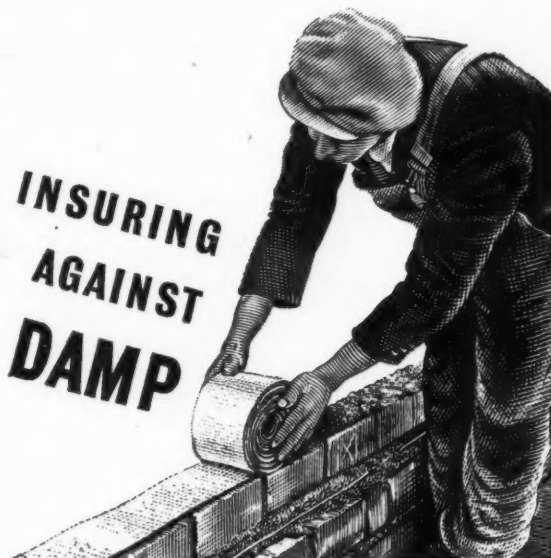
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