THE ARCHITECTS' JOURNAL

standard contents

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

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NEWS

from AN ARCHITECT'S Commonplace Book

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No. 2552] [Vol. 98

THE ARCHITECTURAL PRESS, War Address: Forty-five The Avenue, Cheam, Surrey. Phone: Vigilant 0087-9

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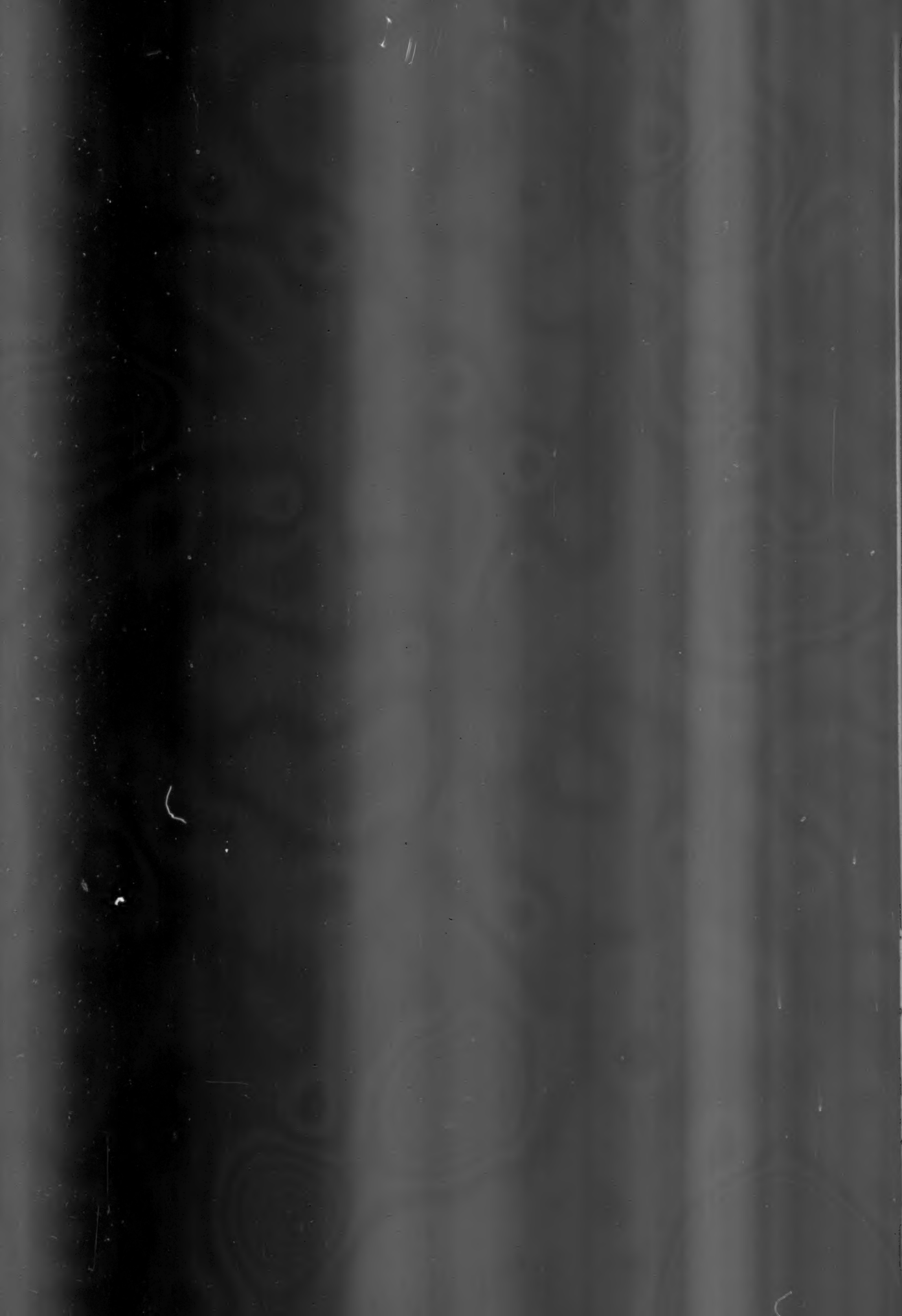
Registered as a Newspaper

★ The war has both multiplied the number of Official Departments and encouraged Societies and Committees of all kinds to become more vocal. The result is a growing output of official and group propaganda. A glossary of abbreviations is now provided below, together with the full address and telephone number of the organizations concerned. 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.
APRR	Association for Planning and Regional Reconstruction. 32, 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 6927.
BC	Building Centre. 23, Maddox Street, W.1. Mayfair 2128.
BDA	British Door Association, Shobnall Road, Burton-on-Trent. Burton-on-Trent 3350.
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1. Euston 5385.
BINC	Building Industries National Council. 110, Bickenhall Mansions, W.1. Welbeck 3335.
BOE	Board of Education. Belgrave Square, S.W.1. Sloane 4522.
BOT	Board of Trade. Millbank, S.W.1. Whitehall 5140.
BRS	Building Research Station. Bucknalls Lane, Watford. Garston 2246.
BSA	British Steelwork Association. 11, Tothill Street, S.W.1. Whitehall 5073.
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.
CEMA	Council for the Encouragement of Music and the Arts. 9, Belgrave Square, S.W. 1. Sloane 0421.
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. Central Institute of Art and Design, National Gallery, W.C.2. Whitehall 7618.
DOT	Department of Overseas Trade. Dolphin Square, S.W.1. Victoria 4477
EJMA	English Joinery Manufacturers Association (Incorporated), Sackville House, 40, Piccadilly, W.1. Regent 4448.
FMB	Federation of Master Builders. 23, Compton Terrace, Upper Street, N.1. Canonbury 2041.
GG	Georgian Group. 55, Great Ormond Street, W.C.1. Holborn 2664.
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.
ISPH	Committee for the Industrial and Scientific Provision of Housing. 1, Old Burlington Street, W.1.
LIDC	Lead Industries Development Council. Rex House, King William Street, E.C.4. Mansion House 2855.
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3767.
MARS	Modern Architectural Research. 8, Clarges Street, W.1. Grosvenor 2652.
MOA	Ministry of Agriculture and Fisheries, 55, Whitehall, S.W.1. Whitehall 3400.
MOH	Ministry of Health. Whitehall, S.W.1. Whitehall 4300.
MOI	Ministry of Information. Malet Street, W.C.1. Euston 4321.
MOLNS	Ministry of Labour and National Service. St. James' 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.
NBR	National Buildings Record. 66, Portland Place, W.1. Welbeck 1881. All Souls' College, Oxford. Oxford 48809.
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 Street, S.W.1. Whitehall 2881/2/3.
NT	National Trust for Places of Historic Interest or Natural Beauty. 7, Buckingham Palace Gardens, S.W.1. Sloane 5808.
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245.
PWB	Post War Building, Directorate of. Ministry of Works, Lambeth Bridge House S.E.1. Reliance 7611.
RC	Reconstruction Committee RIBA. 66, Portland Place, W.1. Welbeck 6927.
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.
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1. Holborn 2646.
TCPA	Town and Country Planning Association. 13, Suffolk Street, S.W.1. Whitehall 2881.
TDA	Timber Development Association. 75, Cannon Street, E.C.4. City 6147.
TPI	Town Planning Institute. 11, Arundel Street, Strand, W.C.2. Temple Bar 4985.



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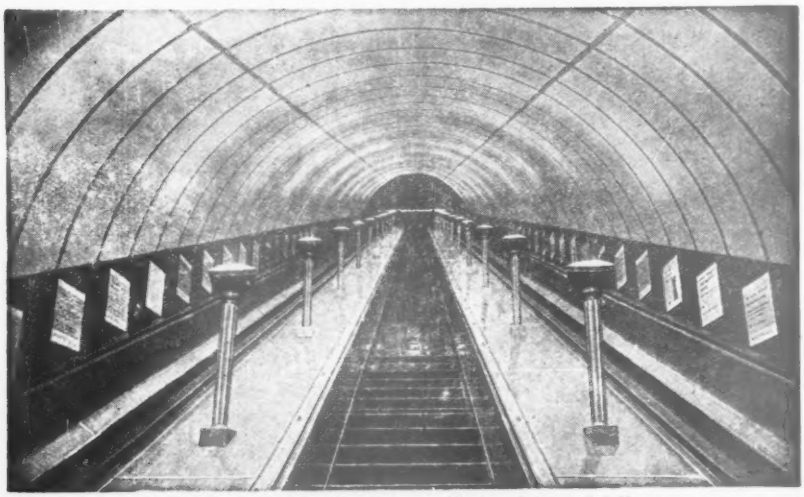
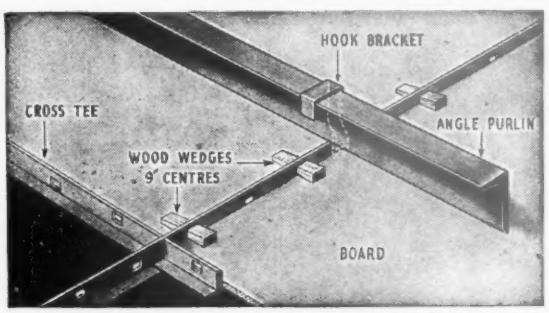
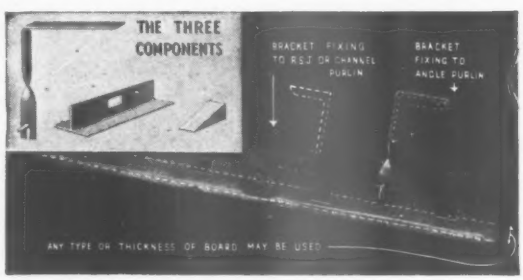


Escalator Tunnel at St. John's Wood Underground Station. Architect: S. A. Heaps.





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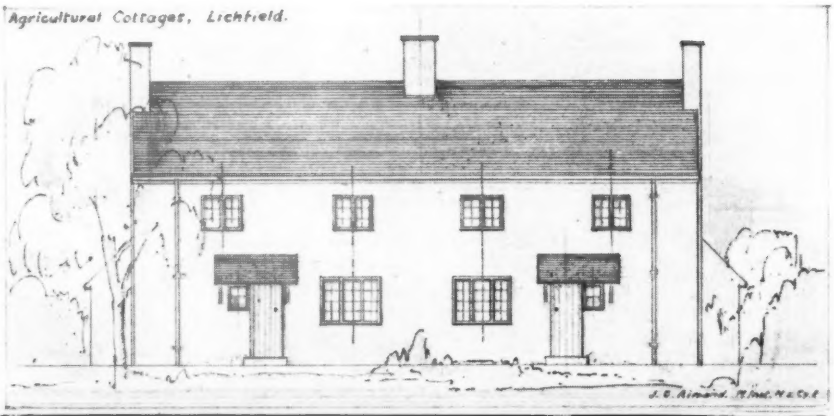

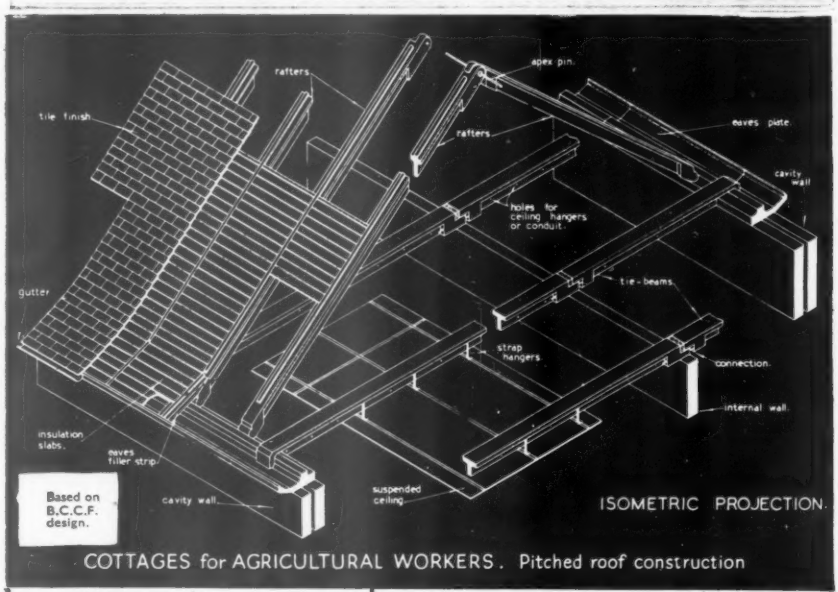

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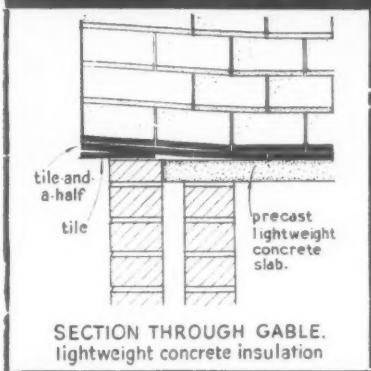
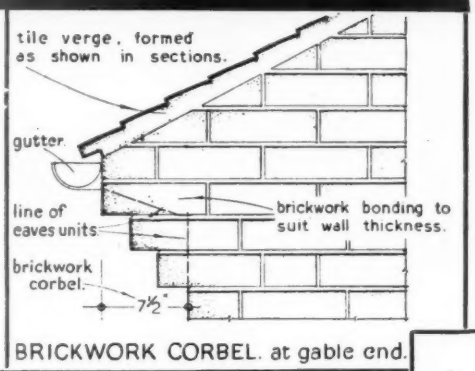
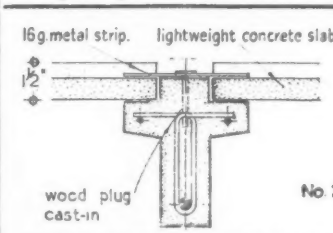


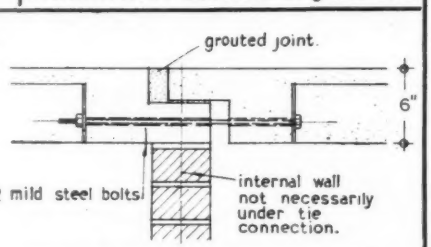
SECTION THROUGH GABLE. lightweight concrete insulation



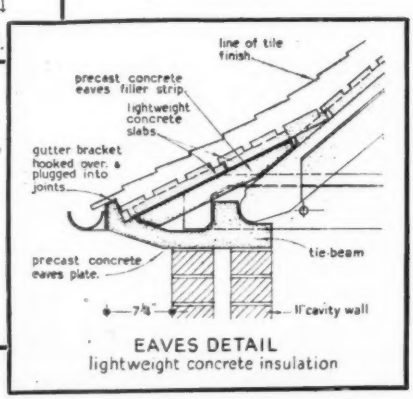
BRICKWORK CORBEL. at gable end.



RAFTER SECTION at 90° TO SLOPE showing fixing of insulation



DETAIL OF TENSION JOINT IN TIE-BEAM



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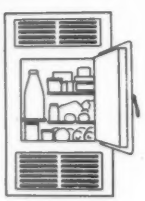

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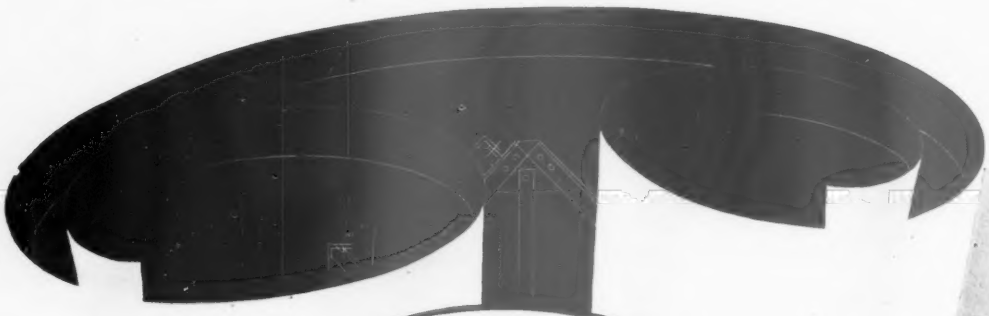

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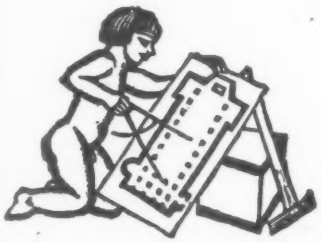

DIARY FOR DECEMBER, JANUARY AND FEBRUARY

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

CARDIFF. *Rebuilding Britain Exhibition.* (Sponsor, BIAE.) DEC. 23-JAN. 17

CLYDEBANK. *Housing, Town Planning and Reconstruction Exhibition.* At Janetta Street School, Clydebank. To be opened by the Rt. Hon. Thomas Johnston, Secretary of State for Scotland, at 3 p.m. on December 23. The exhibition includes detailed plans of planning reconstruction, scale model of the new town, done by William Crosbie, hall of housing, illustrating housing design of flats, cottages and prefabrication systems, model house, complete with equipment, all-electric kitchen, a prefabricated internal plumbing unit (working model) and a display of new building materials including: foam slag, wood wool, prefabricated brickwork, prefabricated briquettes and foam slag, special show of plastics and glass. Many prominent exhibitors from the building industry both in Scotland and England are showing components and materials to be used in post-war housing. Opening DEC. 23

DERBY. *Rebuilding Britain Exhibition.* At The Museum and Art Gallery. (Sponsor, BIAE). DEC. 23-JAN. 8

ISLE OF ARRAN. *Living in the Country Exhibition.* (Sponsor, HC.) DEC. 23-27

LONDON. *Chinese Art.* Exhibition of 60 paintings from China, organized by the British Council, at the request of the Ministry of Information, at the Royal Watercolour Society's Galleries, 26, Conduit Street, W.1. Thirty-one artists—from eight different provinces—are represented. Among them are Ju Peon, Sun Tsung-wei, and two women artists, Miss Sun Lu-chin and Miss Tsai Shu-shen. Wu Heng-chin, who painted *Air Raid in Chungking*, is secretary of the All-China Artists' Association, a member of the same institute, and an official war artist; Hsu Chieh-min fought in the Army. Some of these artists are still painting according to traditional Chinese methods, but in others can be seen the influence of Western art. Many of the artists have studied art in Europe and America. DEC. 23-24

Motorways for Britain Exhibition. At 22, Lower Regent Street, W.1. It has been designed by G. A. Jellicoe, President of the Institute of Landscape Architects. (Sponsor, British Road Federation.). DEC. 23-24

Russian Ancient Buildings Destroyed by the Germans. Exhibition of photographs. At 66, Portland Place, W.1. 10 a.m. to 6 p.m. (5 p.m. Saturdays). (Sponsors, RIBA and USSR Embassy.) (See page 467.) DEC. 23-JAN. 8

Film Evening. Films selected by Paul Rotha, who will give an informal talk. At 34-36, Bedford Square, W.C.1. 6 p.m. (Sponsor AA). Postponed until March 14.

Alastair Morton, on *Good Design in the Textile Trade.* At Royal Society, Burlington House, Piccadilly, W. Buffet lunch 2/6 from 12.45 to 1.30 p.m. Talk and discussion 1.30 to 2.30 p.m. (Sponsor DIA) JAN. 4

Miss J. Tyrwhitt, on *Adapting Wartime Sites for Post-war Industry.* At the Housing Centre, 13, Suffolk Street, S.W.1. 1.15 p.m. (Sponsor, HC.) JAN. 4

Science in the Art of Lighting. Discussion at a joint meeting of the RIBA and the IES. The subject will be introduced by R. O. Ackerley, Past-President of the IES, and A. G. Macdonald, F.R.I.B.A., Chairman of the Architectural Science Board of the RIBA. At 66, Portland Place, W.1. 5.30 p.m. (Sponsors, RIBA and IES.) JAN. 18

Henry Berry, chairman, Metropolitan Water Board, on *London's Water Supply.* At Royal Society of Arts, John Adam Street, Adelphi, W.C.2. Chairman, Viscount Falmouth. 1.45 p.m. JAN. 19

John Gloag, *The Selling Power of Good Industrial Design.* At Royal Society, Burlington House, Piccadilly, W. Buffet lunch 2/6 from 12.45 to 1.30 p.m. Talk and discussion, 1.30 to 2.30 p.m. (Sponsor DIA) FEB. 2

E. C. Goldsworthy, on *Light Alloys in Post-war Britain.* At Royal Society of Arts, John Adam Street, Adelphi, W.C.2. 1.45 p.m. FEB. 2

John Dower, M.A., A.R.I.B.A., M.T.P.I., on *Planning and Landscape.* At Essex Hall, Essex Street, W.C.2. 2.30 p.m. (Sponsor, TPI.) FEB. 3

LUTON. *Living in the Country Exhibition.* (Sponsor, HC.) DEC. 16-30
Rural Housing Exhibition. (Sponsor, HC.) DEC. 23-30

MALDEN. *Your Inheritance Exhibition.* (Sponsor, HC.) DEC. 23-29

RHYL. *Home from Home Exhibition.* (Sponsor, HC.) DEC. 23-JAN. 1

WEST HAM. *When We Build Again Exhibition.* (Sponsor, TCPA.) JAN. 8
TCPA Conference. JAN. 15

NEWS

THURSDAY, DECEMBER 23, 1943
No. 2552. VOL. 98

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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.

Kensington Works Committee has examined the COUNTY OF LONDON PLAN and has commented on the plan as follows:

The proposed net density of 200 per acre for the central part of Kensington is excessive.

While the community idea may be a good one, it does not appear to be particularly applicable to Kensington.

The line of the "A" ring as planned within Kensington should be approved.

Strong support should be given to the proposal that the carriageway of the "B" ring should hug the Brompton Cemetery and the West London and Hammersmith railways.

Consideration should be given to the necessity for the coal sidings and coal yards between Warwick Road and the railway.

All the "B" ring roads in the borough should be constructed immediately after the war.

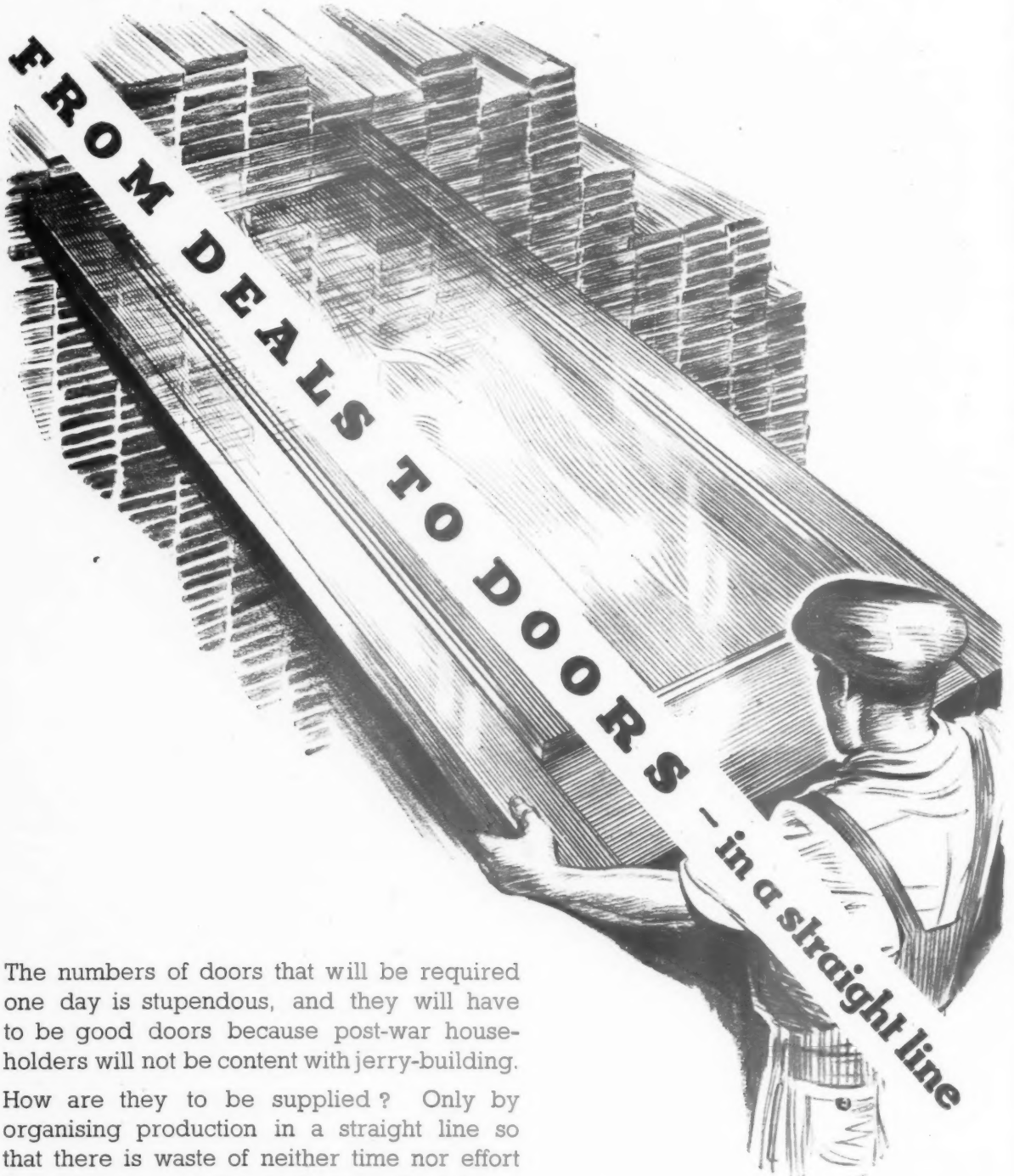
The proposal to acquire Holland Park as a public open space should be approved.

No objection to the St. Mark's Grove housing site being regarded as a future open space.

Proposed open spaces adjoining the canal in Kensal Town to be approved.

Reconsideration of the desirability of decentralizing part of the engineering industry from the borough.

Consideration of the desirability of a university area bounded by Cromwell Road, Onslow Gardens and Fulham Road.



The numbers of doors that will be required one day is stupendous, and they will have to be good doors because post-war householders will not be content with jerry-building.

How are they to be supplied? Only by organising production in a straight line so that there is waste of neither time nor effort from the moment the deals enter the joinery shop to emerge as doors.

Magnet Joinery is Line-Produced Joinery.

MAGNET JOINERY

WHITLEY STREET, BINGLEY, YORKS

WEST THURROCK, GRAYS, ESSEX • ANNE ROAD, SMETHWICK, BIRMINGHAM

Stoneham and Kirk

from AN ARCHITECT'S *Commonplace Book*

A FOREIGNER ON LONDON.—(continued). [*From* Letters from England, *by Karel Capek.* (Geoffrey Bles)]. I returned from London, crushed, despairing, overwhelmed in mind and body; for the first time in my life I experienced a blind and furious repugnance to modern civilization. It seemed to me that there was something barbarous and disastrous in this dread accumulation of people; it is said that there are seven and a half millions of them here, but I did not count them. I only know that my first impression of this huge assembly was almost a tragic one; I felt uneasy and I had a boundless yearning for Prague, as if I were a child who had lost its way in a forest. Yes, I may as well confess to you that I was afraid; I was afraid that I should get lost, that I should be run over by a motor-bus, that something would happen to me, that it was all up with me, that human life is worthless, that man is a large-sized bacillus swarming by the million on a sort of mouldy potato, that perhaps the whole thing was only a bad dream, that mankind would perish as the result of some dreadful catastrophe, that man is powerless, that for no reason whatever I should burst out crying, and that everyone would laugh at me—the whole seven and a half millions of them. . . . I have drawn you a picture, but the real thing is even worse, because it roars like a factory. On the other hand, the chauffeurs do not sound their hooters like mad and the people do not call each other names; they are such quiet people.

★

In the House of Commons, on December 15, PLANS OF FIFTEEN VILLAGES FROM THE MOTCP COLLECTION were exhibited to Members of Parliament.
The plans are included in notes to be sent to local authorities, so that rural planners may learn from them both good and bad features of village design. There are roughly ten thousand villages in England. Some have outlived their usefulness, some will need to be rebuilt entirely on different sites, in others only a few houses will suffice to comply with a new vision of village planning. Some completely new villages will have to be built.

It is with deep regret we record the DEATH OF HARRY WILLIAM ROBERTS, Hon. A.R.I.B.A., the architect and industrial designer. He died at Ipswich and was nearly ninety-two.
Born in Weedon and educated in Northampton, he was articled as an architect, surveyor and builder to the well-known firm of J. H. and E. Dyer, Alton, Hampshire and later, having developed a keen taste for decorative design, to Christopher H. Dresser, of London, one of the foremost designers in this country. In his London studio, Harry Roberts with six or seven assistants designed lace for Nottingham; carpets for firms in Kidderminster, Halifax and Glasgow; linoleums for Kirkcaldy; wall-papers for manufacturers all over the country; stained glass for The Whitefriars Glass Co.; tiles for Minton, Hollis & Co.; tapestry for all four makers in the country; chenille and madras muslin for Paisley; furniture for Heals; colour decoration for Birmingham Town Hall, and several Birmingham churches. In the studio two of his most brilliant pupils were his brother-in-law Thomas Linnell, who won the South Kensington Gold Medal for Design and afterwards became an Assistant Master at the Nottingham School of Art, and John Sykes, a son of Peace Sykes, the Headmaster of the School of Art at Huddersfield. One of the studio's great successes was the first nursery wall-paper, which was called "The Noah's Ark." Surveyor to the Countess of Stamford and Warrington, his largest works as an architect were the Aylestone Board School and many houses in the Eastern Counties. In Leicester he made a study of painting in water-colour, became a Member of the Leicester Society of Artists and was a constant exhibitor at their annual exhibitions. In later years he carried out a small Royal Commission, and one of his water-colours was added to the collection at Sandringham House. He retired from practice about 1902 and went to live in Ipswich, where he devoted his time to a close study of drawing and sketching, wrote various books including *R.'s Method of Using Ordinary Set Squares* (published by The Architectural Press). For about seven years he travelled the country teaching architects his method of making architectural perspectives. During the last war he lectured in this country to army units on his method of Accurate Panorama Sketching and after the armistice went to Germany as lecturer with the Army of Occupation. When he came home he settled down to a systematic study of his life's greatest work *Rhythmic Designing*. After teaching his discoveries as regards forms bounded by straight lines to nearly 1,000 architects in England, Scotland, Wales and Ireland, he devoted himself to pursuing the subject in respect of forms bounded by curved lines. His close study of this subject was relieved by sketching, mainly in pen and ink and water colour.

Harry W. Roberts, a portrait sketched by himself when 90 years old.

Members have been shown designs for the RESTORATION OF GRAY'S INN and asked to write down their opinions and suggestions in a book.
The new Southgate Square, with Bacon's statue restored to its pedestal, is shown in red brick. According to the *Evening Standard* it is not unlike its predecessor, but has projecting frontages that the old square lacked. There are to be four storeys and dormer windows. The sixteenth-century Hall will be reconstructed. The carved chestnut screen supposed to have been taken from a galleon of the Spanish Armada, was saved. So was the fifteenth and sixteenth-century glass and the serving table out of Drake's cabin on the Golden Hind. But the roof, with its great hammer beams, is all charcoal and cinders. The architect for the restoration is Mr. Edward Maufe, A.R.A., who has been named by the RIBA as the Royal Gold Medallist for 1944. See page 456.

★

Speaking in Parliament Mr. George Hicks, Parliamentary Secretary to MOW said that TWENTY EXPERIMENTAL HOUSES ARE TO BE BUILT in the first half of next year.
Mr. Hicks said that the houses are to be built to demonstrate the possibilities of various methods of construction. The first instalment will be 12 houses in six pairs. Eight other houses are being built for BRS to help full-scale scientific research into the problems of building generally. Mr. Hicks also said that the four members of the mission who went to the U.S. to investigate building schemes are writing their report. Published as soon as possible, it will cover a variety of things, including organization, technical methods, and new materials helpful in construction and design.

Mr. Henry John Chetwood, F.R.I.B.A., who died on September 10, LEFT £17,373 (n.p. £16,148). Duty paid £1,440.
He left £2,500 to Felsted School, Essex, on trust for a leaving scholarship tenable at any recognized architectural school in England, and £500 each to the Old Felstedian Society and Felsted School Mission, Victoria Docks, E.

Royal Gold Medallist

On the recommendation of the RIBA, the name of Edward Maufe, A.R.A., F.R.I.B.A., M.A. OXON, has been submitted to His Majesty the King as recipient of the Royal Gold Medal for Architecture, 1944. Born in 1883 at Ilkley, Edward Maufe was educated at Wharfedale School and at St. John's College, Oxford—where new buildings have since been built from his designs and by whom he was recently elected an Honorary Fellow—and articled to W. A. Pite, F.R.I.B.A. Best known as a church architect and as designer of the new Guildford Cathedral*—won in competition in 1932 and partly built when the war brought the work to a temporary close—his work has covered a wide range of architecture. His Playhouse, Oxford (with F. G. M. Chancellor) and Festival Theatre, Cambridge, are outstanding among English repertory theatres and the combination of church and club buildings in his First Clubland Church, Walworth, was one of the most interesting church building schemes of the inter-war period. A silver medallist of the Paris Exhibition, 1925, he has been vice-president of the RIBA and is now a member of the RIBA Council and the Faculty Board of Fine Arts of Cambridge University. In the last war he served in the R.A. and was A.D.C. to the G.O.C., R.A., XIIth Corps ; in the present one he is serving in the Observer Corps. His designs for the restoration of Gray's Inn, London, have just been exhibited to the members for their individual suggestions and observations, see page 455.

* A.J. October 30 and November 6, 1941

★

Mr. Austen St. B. Harrison has been appointed TOWN PLANNING CONSULTANT TO THE MALTA GOVERNMENT. Mr. R. P. S. Hubbard, Mr. Harrison's partner in the firm of Harrison, Barnes and Hubbard, architects and town planning consultants, has been appointed Assistant Town Planning Consultant. Both are now at work in Malta.

These appointments follow the setting up of a Reconstruction and Development Committee, a Reconstruction Board and a Reconstruction Department earlier in the year by Lord Gort, the Governor. The consultants will submit a comprehensive outline plan and report for Valletta and its environs, and may later, if required by the Malta Government, submit plans for other areas in Malta. Mr. Austen St. B. Harrison, F.R.I.B.A., M.T.P.I., who is Joint Representative of the RIBA on the British Joint Archaeological Advisory Board, has been in private practice since 1937. His firm are the architects for Nuffield College. He was educated at McGill University, Montreal, and University College, London. After early experience in Montreal, he did town planning work for the Greek Government after the last war. Later, after working for a few years as assistant to Mr. F. M. Simpson and Sir Edwin Lutyens, he served for some 15 years as an architect in the Palestine Government service. Among his best known works in Palestine are the Government House in Jerusalem and the Palestine Archaeological (Rockefeller) Museum. Mr. R. P. S. Hubbard, A.R.I.B.A., who has been specially released for the task from service as a Flight Lieutenant (Intelligence) in the RAF, is a Bachelor of Architecture, Liverpool. He was Recognized Schools Bronze Medallist in 1930 and Rome Scholar in Architecture in 1932. He has had much experience of the Mediterranean.

Steady progress is being made with plans for a new MASS-PRODUCED SMOKELESS OPEN DOMESTIC GRATE, announced Sir Evan Williams, President of the British Coal Utilization Research Association.

The new grate, said Sir Evan Williams, speaking at the annual meeting in London of the Association, will, it is believed, virtually dispose of the smoke problem besides having very nearly twice the efficiency of the old-fashioned fire. He said: This means that for the same coal consumption a very much higher standard of warmth and comfort can be maintained in a house. I say in a house, and not a room, because the new fire is able to provide warm air to heat upstairs bedrooms as well as the living-room in which it is installed. In addition to these advantages, it will burn continuously day and night without relighting, and only needs cleaning out once a week.

Insulation board in the new laboratories for the production of penicillin, the new drug which has already saved the lives of thousands of allied soldiers, is PARTIALLY MADE FROM WASTE PAPER.

WILL THERE BE TIMBER?

THE evergreen Christmas tree is part of that pagan symbolism which has been adopted by Christians, for as a sign of fertility and the returning spring, it is half as old as time. It is therefore not inappropriate at this season to consider the Christmas tree from what might be called the business end—the end from which it looks like a softwood conifer, for though timber is among the first materials to be fashioned by man, it has itself had a re-birth and is now in its new forms more important than ever, both in the natural state and as a basic raw material. For this reason it is vital to all concerned with rebuilding to discover as clear an answer as possible to the question: Will adequate supplies of timber be available for building in this country after the war?

But answers to the question from sources which should be reliable are contradictory. For instance, the Forestry Commission's report published last June states, "The immediate post-war timber position will be a very difficult one in which the dominant urge will be to continue the exploitation of forests which have already been over-cut." On the other hand, Mr. John L. Baynes says that, "At the moment there is very insidious propaganda going through the country that there won't be any timber after the war, and that has permeated into high quarters. I am going to tell you, as President of the Timber Trades Federation, . . . that this is moonshine." Who is right? We have collated some available facts on which a fairly accurate answer to this question can be made. It is, of course, impossible to know all the facts—for instance, what the exact shipping position will be after the war, what trade agreements will exist, and to what extent other countries besides ours (as per the Atlantic Charter, Section 4) will need, and have a claim on, world timber supplies. Certain facts, however, are known. Some general points are as follows:

(1) The chief timber importing countries of the world before the war were: Great Britain, France, Germany, Holland, Belgium, Denmark, and Spain, though France and Germany possessed large forest resources which were only used when economic reasons made it necessary to diminish imports. The main timber exporting countries were Russia, Sweden, Finland, Canada, the USA, and to a lesser extent, Norway, Esthonia, Latvia, Poland and Czechoslovakia.

(2) The average yearly import of softwoods into this country between 1929 and 1938 inclusive—(softwoods form by far the greatest bulk of timber used)—was just under two million standards.* The USSR was the main source of supply with 29 per cent. of the total, Finland was second with 25 per cent. and Sweden third with 21 per cent. Canada's average exports to us were only 4 per cent. In 1937 there was a record import of nearly 2,400,000 standards. The percentages that year were: Finland, 22; Canada, 20; USSR, 19; Sweden, 18; Poland, 9; Latvia, 3; USA, 2; Norway, 1; other countries, 6.

(3) According to Mr. J. L. Baynes an average working-class house does not require more than 1½ standards, and at the pre-war rate of building the annual consumption of this class of property did not exceed 300,000 standards per annum. The total consumption required by a scheme of 4 million houses to be constructed in ten years would amount to 600,000 standards a year. That, of course, would be so only if all these houses were built in the traditional way.

Here are some of the chief reasons why adequate timber supplies in this country after the war may *not* be available.

(1) Great Britain will for a long time be unable to supply herself to any degree that counts. The two wars have reduced standing timber to a dangerous

* A standard of timber is 270 cu. ft.

degree. Even before the war 96 per cent. of our timber consumption was imported. (2) Timber is being used more and more for other purposes than building, and wood chemistry has been considerably stimulated by the stress of war. Wood now forms the basis for certain kinds of hardware, for sugar, cattle fodder, motor fuel, and of course for textiles and paper. For instance, nearly 1,000 acres of forest are needed every day to make the daily newspapers of this country alone. Norway, Sweden and Finland are devoting more and more of their forests to manufactured materials such as pulp and cellulose, and their exports of softwoods as such will probably rapidly diminish. Shipbuilding will require timber ; even an ordinary steel cruiser of 10,000 tons needs 2,000 tons of wood. Pit props, railway sleepers, packing cases and fencing will be wanted, and plywood to an increasing extent, especially for ply-plastics not only for building but for aircraft, motor cars, ships and many other purposes. There will be a great demand for wood furniture and housing equipment.
(3) Russia, our largest supplier of softwoods before the war, has enormous devastated areas to rebuild and will need most of her own supply of timber. Even before the war she consumed internally about 60 per cent. of her timber. (4) Both the USA and Canada have been over-cutting for many years, and anxiety is shown in these countries by the intensive reafforestation that has begun. A B.C. lumberman has stated that 50 million Douglas fir seedlings a year are needed instead of the current 10 million, if merchantable stands are not soon to be exhausted. (British Columbia provides over 50 per cent. of the total Canadian lumber output). Present annual growth in the USA is about 11,000 million cu. ft. Pre-war annual drain was about 13,000 million. Present cutting is stated to be 25 per cent. above pre-war, but this is being partly offset by improvements in protection against fire, insects and disease. If post-war cutting in the USA and Canada is to be reduced by necessary Government control, as apparently it should be, supplies from there will be reduced.
(5) The occupied countries of Europe will probably not be able to export timber, for Germany has looted their forests while maintaining her own growth. Poland, from whom we obtained most of our railway sleepers before the war, has been particularly badly exploited. Available wood in the occupied countries and in Germany after the war will no doubt all be required for internal use, including the relatively large supplies from Rumania.

So much for the reasons against there being post-war timber supplies. A following article will deal with the reasons *for* their existence. By weighing the facts given, we will draw our conclusions on the future of the Christmas tree.

The Architects' Journal

War Address : 45, The Avenue, Cheam, Surrey
Telephone : Vigilant 0087-9

NOTES & TOPICS

THE ROYAL GOLD MEDALLIST

Edward Maufe, who has received the RIBA's recommendation for the Royal Gold Medal for 1944, has an interesting architectural background. His father, Henry Maufe, lived at the famous Red House at Bexley built by Philip Webb for William Morris. Henry Maufe, a member of Lloyd's and an amateur water colourist, was a great admirer of Ruskin, with whom he corresponded. Mr. Maufe's mother was a niece of Sir Titus Salt, the founder of Saltaire, and he has therefore from early youth regarded Saltaire as a family bit of town planning. Though he is allergic, he says, to its severe Protestantism, he admires its order.

*

Edward Maufe was so impressed, when a boy, by the massing and the silhouette of Norman Shaw's Church at Ilkley, where he was born, that it gave him the wish to become an architect. Having spent part of his youth at the Red House he has been influenced by Philip Webb, but not to such a degree as by Shaw, for whom, in spite of his being out-of-fashion, he has a great admiration. Mr. Maufe still thinks that the north side of Shaw's house in Queen's Gate (the one opposite Booley's Holy Trinity—No. 85, I believe) is sheer genius, especially when one considers what was being built everywhere at the time.

*

Another strong influence has been Patrick Geddes. During his early married life he lived in Mores Garden, Chelsea, and was during that period the secretary to Geddes' Town Planning Exhibition Committee. The work of Lutyens too has been an inspiration, as it has been, of course, to all Mr. Maufe's generation.

*

The remaining influence is Oxford, especially St. John's College and its Canterbury Quad with its sculpture by Le Sueur. His rooms at Oxford faced this quad. He had been allowed to choose them himself on the strength of an essay he had written on the college buildings as part of the entrance exam.

THE EDUCATION BILL

For architects the Education Bill*, published last Thursday, promises much work. The Bill calls for the provision of nursery schools wherever needed, enables local authorities to purchase compulsorily any land required for the purpose of any school or college, gives a 50% grant towards the cost of alterations and repairs to aided schools and specifies April 1, 1945, as the date for raising the school-leaving age to 15. It is stated, however, that if it is found impossible to provide buildings and teachers in time, the Minister may defer raising the age to 15 for not more than two years.

THE UNIVERSAL PROVIDER

As the leading article points out this week, timber is being used to an increasing extent for many other purposes than building. In the words of Professor Brown of the New York State College of Forestry, "Wood is being demonstrated as the most important single basic raw material." So useful has it been to the Germans for *ersatz* purposes that scientists in that country have given it a new name which means "universal provider."

*

A new way of using wood, for instance, is by treating it with urea, a common ammonia salt. Natural

* Obtainable from H.M.S.O., 1s. 6d.

wood soaked in urea can be bent like rubber or kneaded like dough into any form. When dried it retains its shape and is almost as hard as iron. But that's nothing. Listen to what follows.

★

To the chemist wood is just raw cellulose and lignin. Cellulose is composed of thin fibrous cells, and lignin is the substance which glues them together. The industrial uses of lignin have not been fully explored, but already furniture, insulators, telephone instruments and engine parts have been made from wood lignin plastics. Lignin is as hard as mild steel and stronger than some steel of the same weight. It can be used for making many things which are usually of metal—such as hinges, locks, bolts, nuts and washers.

★

From cellulose can be obtained sugar of a kind which is harmless to diabetics. In America a process has been invented by which pure sugar can be produced from sawdust in 15 minutes, while during the war Germans have produced large quantities of wood molasses and sugar. From cellulose come textiles as well and, of course, wood pulp for paper, etc. An acre planted with trees will produce five times as much cellulose in one year, and year after year, as the same area planted with cotton.

★

We shall, it seems, soon obtain not only houses, but food and clothes as well from forest resources which on the world scale are of enormous extent and, if properly controlled, inexhaustible.

ARCHITECTS' STATUS NOT QUO?

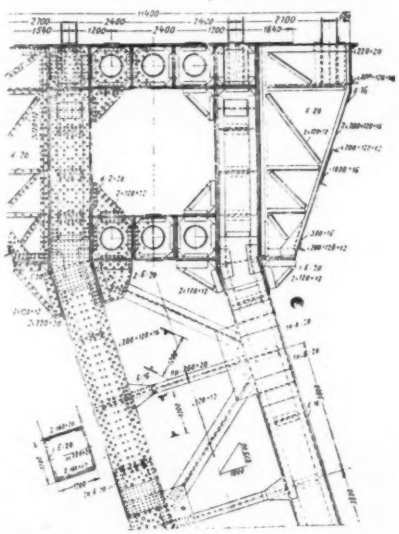
An architect was saying the other day that one of the results of war-time building procedure is that the authority of the architect is often diminished. Most of the war building programmes entail specialized services, particularly for the structural frame, the ventilation and heating plant, and for the electrical apparatus and the tooling required in large machine shops. Apart from this a number of other installations on a large scale for drainage and water supply are often required. Before the war, when work of this sort was undertaken by an architect, independent specialists were employed where the size justified it, or specialist firms were employed under the main contractor.

★

Since the war it has become necessary for the various Ministries concerned with building to employ specialist engineers in these services, and they are naturally used not only when the work is done internally, but also where independent architects are employed. The effect of this has been that decisions and alterations affecting the whole scheme have been made by these specialists and, unlike the normal peace-time contract, whose terms give practical control to the architect, this system is breaking the work down so that the power of the architect in co-ordinating the various specialists has often been lost. This process, said my architect friend, is probably inevitable in war time, but the architect may find it difficult to regain his status particularly in dealing with large public building programmes controlled by Ministries.

A CHRISTMAS CONUNDRUM

What does this drawing represent?



The answer is over the page, but before you give up consider these clues: (1) With the official recognition of Christianity this year by the USSR, the conundrum is not so incongruous for the time of year as at first might appear; (2) the skeleton can't be put in a cupboard. It's too big.

ASTRAGAL

LETTERS

Rt. Hon. Walter Elliot, M.P.

Robert Cromie, F.R.I.B.A.

Five Cycling Clubs and Associations

N. C. Stoneham

The RIBA Memorandum

SIR,—The RIBA Memorandum on short-life housing is a document not at all worthy of the situation nor, I think, of the distinguished body which has given it birth*. The point which does not seem to be fully grasped by many eminent men, is the really appalling state of overcrowding and discomfort in which so large a proportion of our population is now living. We are not comparing housing accommodation with some ideal for the future, but with the frightful and degrading realities of the present. The fact that we have been told that the building industry is to be stepped up for the future by a labour addition of about 25 per cent. does not seem to me to indicate that the normal methods can overtake the situation in any near future. To accept the position seems to me the negation of citizenship.

House of Commons. WALTER ELLIOT.

Sir Ian MacAlister: Changing the Pilot

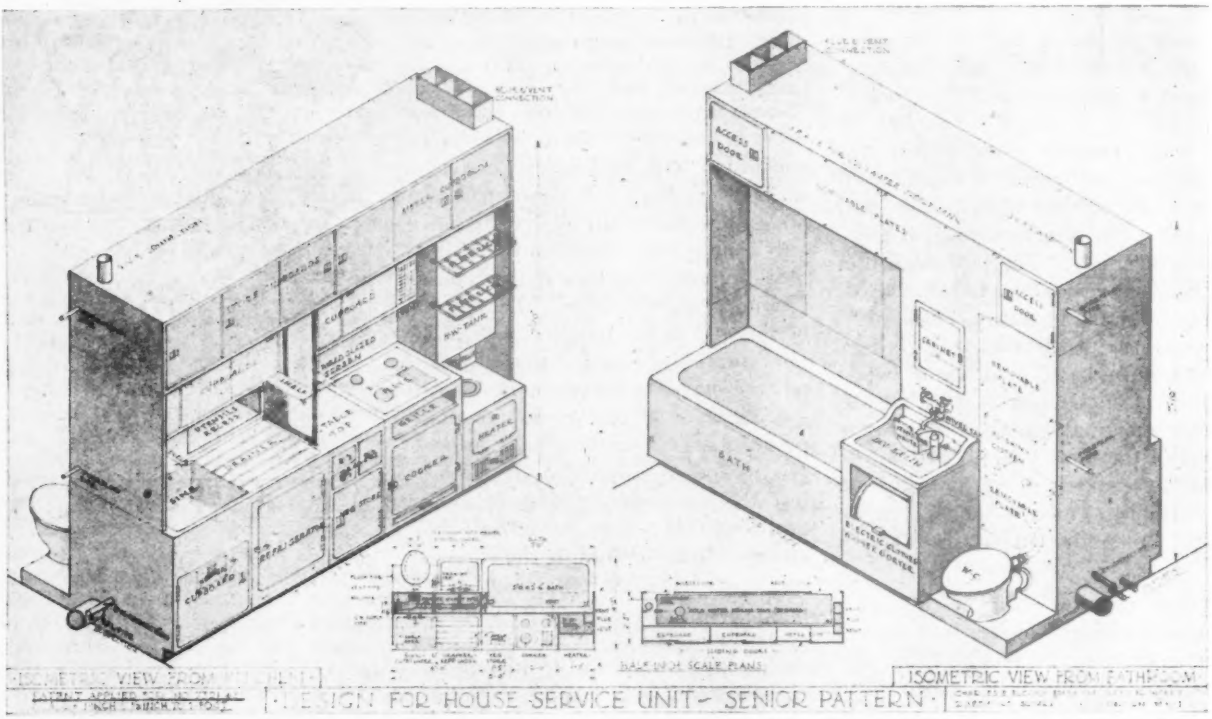
SIR,—I am not perhaps one of the best persons to reply to *A Middle Aged Member*, but readily join with him in his expressions of goodwill towards Sir Ian, who I personally hoped would have been able to continue in office until the end of the war.

That there is no one easily to be discovered who could gracefully don his mantle is the measure of the greatness of his stewardship but, as your correspondent indicates, it is not merely a new Secretary that is required, but a new sort of Secretary if only for the reason that the RIBA *must* become a new sort of RIBA.

Be he a barrister, an M.P., or a member of the Upper Chamber, our official guide and mentor must surely be a man of enthusiasm and

* It appears from the new memorandum on prefabrication and standardization issued by the RIBA this week (published in full on page 471) that the RIBA is also dissatisfied with its previous memorandum on short-life housing (A.J. Nov. 18, page 380). Presumably this will be withdrawn, as it is difficult to see how the two memoranda can be reconciled with each other.—Editor, A.J

A KITCHEN AND BATHROOM UNIT



Design for a house service unit, containing all kitchen and bathroom equipment with plumbing, flues, vents, etc., including an electric clothes washer and dryer. It has been designed by Charles E. Elcock, F.R.I.B.A., and was on view recently at the exhibition of post-war housing proposals organized by Economic Equity. *(See* ARCHITECTS' JOURNAL, *December 16, p. 454).*

energy, capable of dealing with the nebulous, assertive and pseudo-minded chattering which is the order of the day. Hence, if a new permanent Secretary must soon be found, he would have to possess the skill of a Charon to steer our souls across the rivers of Hades —and the choice of such a captain will indeed be difficult to make.

I am not, however, among those who see in the Secretary the complete embodiment of the Institute itself, although such a position appears to be the case in the various political associations which agitate in the cause of Labour or, in its abstraction, Socialism. The RIBA must have a steady policy, hence the Secretary should be—as indeed Sir Ian always was—inspired by vision and clarity of thought in all those matters which are so confusing and arise so often in any complex institution. He need be no architect, but in these days would surely require a sound and progressive head-piece.

The resurrection—for nothing less will do—of the architectural profession will not derive from an ideology which is little more than a glorified municipal mixture. There is more in architecture than the " kitchen component " ; there is less in all the facile talk of to-day than in one good example of a comely house. We are architects—not Borough Surveyors—and platitudinous contempt for the patrons is a cheap admission of jealousy—for the whole history of architecture is written in monumental beauty which would never have existed had our forebears and their profession not merited respect in their works or had they been unduly hampered by unnatural social conditions of control. For the glory of our cathedrals, palaces and castles there is no Ichabod.

Unfortunately, through rotten politics and worse wars, the necessity for mass habitations, with all that that term implies, lies like a mist over our horizon and at the moment exerts an ambiguous influence upon the minds of everyone concerned with building. Of course, we want houses ; of course we want planning —but man cannot live by bread alone, and if history and tradition formulate anything at all it is an incentive to rise superior to necessity. Let the RIBA stoop to conquer the evils which beset us, and to this end set its own house in order that it may become, what it certainly is not now, as powerful a body as the British Medical Council or the Law Society.

After some thirty years in practice I am not easily affected by professional prejudice, but must admit to being shocked at the attitude adopted towards us by the War Office and Governmental Departments generally when war broke out—the former " not requiring any architects " (for the design and construction of camps) and one of the latter offering me an appointment (at a weekly salary of £4 10s.) for which I, unfortunately, did not possess the requisite qualifications. Whatever the activities of the RIBA were at the beginning of the war I *am* among those who think they failed to establish our profession on any basis comparable with that of the Surveyors and Engineers—for here, at least, was an opportunity for an equitable distribution of employment free from favouritism and *pro bono publico*. Such a state of affairs is predominantly due to the fact that the Institute has never been really successful in exciting public appreciation of architecture, and unless it does that this England of ours will always be disgraced by the trumpery rubbish for which it is so well known, and indeed which is self-evident in almost every street in the realm. We British are the worst people in the world in appreciation of artistic creation and are systematically misled by fashionable movements directed by " ill-coined, ill-minted, spurious little chaps." The difficulty is to separate architecture from transient politics ; while being normally public spirited, I must admit I agree with those who would regret to see a Tudor castle bereft of its lawful owners with all their household gods and " thrown open " (with the magnanimity generated by income tax at 19s. 6d.) to the enjoyment of a polyglot public—with their charabancs and beer bottles—at the instance of disappointed politicians who such a few years ago said Buckingham Palace should be demolished. For even Solomon, snubbed as he was, still had his temple—and are we not fighting to-day with fearful valour to preserve for the world the sacred pillars of Rome ? There seem to be just a few too many who shout too much and produce nothing, who deceiving themselves would deceive us ; they are the type who laud a fictitious principle in press-gang methods to man the mines, and with hatred in their hearts of their own incompetence to compete would call upon the goddess Chance to heave them into positions for which they are neither destined nor suitable, nor in any way entitled to occupy by virtue of work or study.

Therefore we shall inevitably find our path strewn with embarrassment but must in the end rise superior to the charlatanism which is too readily accepted as immaculate faith in an imaginary New World.

Let the RIBA then steer and hold a steady course and not deviate from it at the dictates of popular clamour. We want, and indeed need, a sensible, firm and business-like lead. We will fail again, as we have failed before, to give life to our inherent possibilities, if through weakness we succumb to the riot of a temporary phase. *Usui civium. Decori urbium* is our motto—let it be hallowed—and let us stick to it. It is *our* job to serve and to embellish. The design of a tablecloth or a slop-pail can be left to others—nor are we essentially concerned with the politics of ordinary civilian life which are daily dragged in to make confusion worse confounded. The provision of houses and amenity buildings should have no part to play in party politics, and it is regrettable that such a great national need seems to be made to serve the ends of those who now find themselves at the steering wheel, especially when the backbone of our

Answer to Astragal's conundrum : The drawing represents the lower part of the torso of the steel skeleton supporting the 330 ft. high statue of Lenin which will surmount the Palace of the Soviets now under construction in Moscow.

whole existence depends, as it never did before, upon the productive capacity of private enterprise.

It is up to our profession to refuse to be goaded into the maelstrom or to worship false gods. A common-sense, deliberate direction is of paramount importance, and if it is not to come from our own Institute where then shall we look for it ?

I think the day has come when the RIBA should of its own volition re-generate the forces upon which it has been nurtured for so many years.

If I might make suggestions they would include the following :

That the RIBA :

Should stand four-square for good architecture everywhere in conjunction with, but distinct from, town-planning and social politics ; and to advance this—

Should institute a Design Panel who, on voluntary application by anybody, would be empowered to place their seal of merit upon any architectural design, or alternatively to express their opinion (without fee) ; and to strengthen our status—

Should institute a legal section for the benefit of all members, to give advice and, if necessary, legal support to all claims arising legitimately out of professional matters and to substantiate in practice the recognised scale of fees, etc.

Should extend the sphere of its Library to a very great extent—even to architectural *propaganda* in all schools, churches, Army, Navy and Air Force, women's institutes, youth movements, cadet corps, etc., etc. ; and that it should promote lectures all over the country and supply free to every school teacher albums of architectural photographs (continually added to and brought up to date) and publish very cheap series of RIBA books and force their dissemination throughout the kingdom. That it should link up with all the existing—and new—travel bureaux and extend architectural interest everywhere especially abroad and in the Colonies, and take every possible opportunity of " getting into " the daily press, and therefore—

Should be properly represented in both Houses of Parliament and should systematically respond to any criticism and be active in criticising any bad design anywhere whether departmental or private.

Should take steps to increase the interest of influential patrons and improve its own financial position by all reasonable means.

Should improve its contact with the Dominions and Colonies and regenerate abroad the character of the best British architecture by the most active processes possible.

Should entirely remodel the RIBA Journal—making it more attractive with the best possible illustrations and the omission of deplorably ugly advertisements by representations and active help to advertisers.

Should increase the secretarial staff and pay remuneration for their services in excess of, rather than less than, that paid by any important commercial organisation ; and should expose cases of under-salaried officials, assistants, etc.

Should improve the outlook of financially distressed retired architects and their dependants by the most progressive insurance schemes.

Should rigidly oppose any tendency by builders and contractors to absorb members of the profession.

Should destroy the museum-like atmosphere attaching to the Institute and inculcate a new spirit—not of meretricious modernity, but of fundamental rejuvenation with the great object of giving a new life to British architecture and an inspiration to members of one of the oldest professions of the world.

I am aware that the foregoing is a tall order, but while objecting in principle to the claptrap associated with slogans such as " a New Deal " (which means nothing), my sentiments tell me that unless something in the shape of resurrection takes place, then our dear old RIBA will become a moribund institution and its new Secretary General might just as well spend his ease in his club, before the fire and, literally, behind the times !

London. ROBERT CROMIE.

Bikes and Prams

SIR,—Members of local authorities, when they come to apply the policy of the Ministry of Health to include space for one or more bicycles and a pram in all new houses—as suggested to the Ministry by the National Committee on Cycling—may care to have before them the experience of the Church Army and Guinness Trust.

The Church Army tell us that they have already got lock-up sheds for this purpose in all block dwellings where there is no private garden. Some schemes have one shed per tenant at 3d. a week ; in others the demand is met by two or three sheds fewer than the number of houses.

The Guinness Trust has found that not fewer than two sheds are needed for every three dwellings. The tenant pays from 1d. to 3d. per week according to the size of the shed. " We have found during our long experience," the Trust informs us, " that they are very much appreciated by tenants, and if we were building again to-day, we should consider that the provision of such sheds was as much a necessity as, for example, bathrooms or a kitchen."

G. HERBERT STANCER, Cyclists' Touring Club

A. J. BALLANTYNE, National Association of Cycle Traders

A. P. CHAMBERLIN, National Cyclists' Union

S. A. MOTTRAM, National Clarion Cycling Club

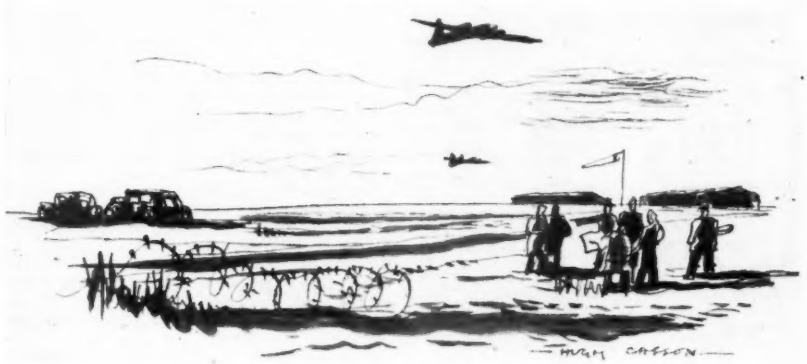
H. R. WATLING, Chairman of the National Committee on Cycling

A New Name for Prefabrication

SIR,—May I suggest a new name for Prefabrication ? What about Double Assembly ? This implies an assembly of the parts into units at the factory and assembly of the units into houses on the site.

Certain steel-framed buildings have always been erected by the double-assembly process, where girders have been assembled at the steel works, transported and assembled to other units at the site. A brick-built building does not come within this connotation because although bricks are prefabricated, they are not assembled at the brick works, and their use is, therefore, only single-assembly.

London. N. C. STONEHAM.



Christmas Eve on the SITE

A Seasonal Short Story

by Hugh Casson

The weather was clearing. Already there were blue rents torn in the clouds which all day had dragged their sloping grey curtains of rain across the landing ground. In a final ill-tempered burst, a squall leapt upon the aerodrome, hissing on the runways, drumming on the iron hangar roofs, and needling the office windows of Airstrux, Ltd., with a thin imperative tattoo.

The sudden noise awakened Tim Carter, the acting site-agent, from a heavy doze. He had spent a long wet morning down on the sewage farm, had missed his lunch, and had dropped off to sleep while drying his stockinged feet in front of the stove. Blinking and stupid with sleep he looked ridiculously young. He was, in fact, only twenty-five, fresh from a provincial university and now in his first job. A thin-faced, sandy-haired young man, he tried hard to conceal inexperience and a natural diffidence of manner by dressing " tough," padding out his slight frame with bulky lumber-jackets, corduroy trousers and huge roll-neck sweaters, swathing himself in oilskins or a white donkey-coat stencilled across the back with his employer's name, and crowning all with a shapeless, broken-peaked cap. He saw to it that his rubber boots (which he wore with the tops turned well over) were never cleaned, and in his mouth he clenched a stubby little pipe, seldom alight and nearly always upside down. This disguise failed to conceal the fact that Tim was an able engineer, and Weedon, the agent to whom he had been assistant for over a year, had not hesitated to leave him in charge of winding up the Airstrux contract. As he groped sleepily for his boots, his eye wandered round the office, gaining confidence from the sight of its familiar contents—the trestle table heaped with drawings, the bundle of ranging-rods, the sample piece of concrete from No. 2 Runway, the chipped tea-cup, the old-fashioned telephone. Faded progress charts were pinned to the walls between the "nudie" calendars presented by sub-contractors. A new batch of these had arrived as Christmas presents only a few days ago—one of them was even painted on silk—

but Tim hadn't bothered to pin them up. There was something hopelessly unprovocative about these boneless silk-stockinged creatures peering archly from under their 1923 hair-styles in aid of concrete mixers.

Tim yawned. Pity they didn't get some decent artists on the job—" Petty," for instance. (Weedon had been a subscriber to " Esquire "). Idly he wondered what the Christmas Eve dance in the Sergeants' Mess would be like. Marlene, one of the WAAF drivers, had promised him the first dance, but this was a symbolic glory—the last dance was the one that mattered—and Tim knew he'd be lucky to get another with her. With her gilded, dark-rooted curls and bold eyes Marlene was, in the general opinion of the camp, " a smashing job," but in her presence Tim was awkward and silent. Only that morning he had seen her larking round the M.T. yard with a piece of mistletoe, and had envied the boot-clattering " erks " who pursued her. Tim's thoughts drifted shamelessly. Suddenly he remembered. That appointment at No. 4 dispersal to site those Nissens ! He glanced at his watch. That rain had woken him up just in time. What was the parting advice Weedon had given him as he climbed into the Packard ? " For God's sake, old boy, keep the RAF sweet, and turn up on time when they want you, otherwise they'll have you out of bed on a Sunday morning to move a tar barrel six feet." Beneath the guardee moustache the big white teeth—" the best money can buy, old boy "—had gleamed in farewell.

" TTFN, old boy ! Don't let them break your heart ! " Gay, confident Weedon, with his jaunty manner and half the Waafs on the camp crazy about him. Tim sighed as he reached for his cap. Competent chap Weedon. He missed him a lot sometimes.

He started up the Austin and set off round the perimeter track. By now the rain had stopped and the grass sparkled and steamed a little in the pale sunshine. The Wellingtons dispersed round the aerodrome glinted wetly through the trees like fat trout half hidden in the reeds of a river. Soon they would be flying. Already ground crews were stripping off canvas covers, and somewhere an engine was warming up.

Tim drove slowly round the track, slowing at the end of each runway to look along its length. Surrealists, he thought (Tim had been a member of his College Art Society) would love runways. Such terrific perspectives. The water was getting away nicely, thank heaven. There were several large pools on No. 3 runway and another on No. 5. Soon Brady, the Air Ministry Clerk of Works, would have one of his men out with the whitewash bucket, marking the depressions for the tarmac people to attend to. Brady knew his job all right.

At one point Tim had to leave the track to let a Wellington taxy past. The pilot, masked, goggled, remote, a tiny Martian in his little cabin, raised a gloved hand in acknowledgment. Tim leaned out to watch the plane turn on to the runway. The wind from the airscrews flung a spatter of gravel against the car and tore viciously at his sleeve. The earth shook and tiny wrinkles sped across the rain puddles as the throttles were opened and the aircraft, lifting its tail in a curiously feminine movement, trundled off down the runway, awkwardly at first, waddling almost, then steadying as it gathered speed.

Tim watched it—he never could resist a take-off—until the fans of spray behind the wheels suddenly ceased, and the bomber rose firmly into the air, tucking its wheels comfortably under its wings.

Tim drove on more quickly. He was a few minutes late. The others, he could see, were already there—a little group of men standing beside their camouflaged cars. Hell, he thought miserably, Carter starting off on the wrong foot as per usual. A Waaf driver in one of the cars, her face as sharp and unsympathetic as a penknife, watched him over her copy of " Men Only."

He got hurriedly out of the car and muttering apologies, introduced himself to the party—some RAF officers, including the new C.O., young, scarred and medalled from the Middle East, Brady, the clerk of works, a local farmer wearing the look of patiently endured martyrdom which he donned like a uniform for all interviews with the RAF, and finally some Air Ministry officials in burberries and weatherbeaten hats. Among the last Tim noticed his *bête noire*—a junior grade engineer with many years behind him of loyal, if slow-moving, service to his country. He was a harmless fellow really, with a heavy closed face, and the sort of booming voice usually associated with lantern-slides, but he distilled an air of virtuous obstinacy which Tim found very distasteful. " They never promoted that bloke," Weedon used to say, " they just sharpened his legs and hammered him a little further in."

For a few moments the conversation was pushed around, then plans were produced and the discussion started.

Tim had long ago discovered that you could never erect the smallest building near an aerodrome without (*a*) obstructing flying operations ; (*b*) ruining the defence officer's field of fire ; (*c*) taking over the best arable land for thirty miles. For him the argument followed familiar paths, and he listened with half-attention, speaking only when directly questioned on a technical point. Soon the party wandered off through the wet grass, pointing, disputing and sketching inexpertly on scraps of paper. Tim hovered uncertainly at their backs, like a new boy at a dormitory feast. Every now and then argument was stilled by the thunder of the circling Wellingtons which cruised black, stiff and baleful over their heads. The C.O., Tim noticed, who was treating the whole affair with a puzzled courtesy, watched each aircraft keenly. At last after glancing frequently at his watch like an amateur actor registering impatience, he hurried off muttering some excuse about another appointment.

With his departure the discussion seemed to lose heart, and the party, all the members of which had very wet feet, showed signs of disintegration. Settlement, thought Tim, by non-settlement, like de Gaulle and Giraud. This was where Weedon would have stepped in and forced a decision. Seeing his opportunity, Tim made a hesitating, over-casual suggestion. It was a sensible solution, and to his surprise the others accepted it, thankful to be released from what had become a boring discussion. The party was over. One of the officers had lost a silver pencil, a flight lieutenant had torn his coat on some wire, and the sharpened legs man had turned his ankle, but the huts were sited.

" Wizz-oh ! " said the flight lieutenant, " now when do we get them ? "

There was a moment of shocked silence, broken (of course) by the sharpened-legs man who explained heavily that the land had first to be requisitioned, and approval for the site obtained from Command. As he finished one could almost hear the smug click of the following slide.

" To say nothing of the fact," Brady whispered to Tim, " that the huts are still on rail, and as we've chosen a nice rocky site we'll have to get a compressor back again, and God knows when *that* will be."

" Oh well," said the flight lieutenant. " We've done without them for three months, we may as well wait for another three." He was a cheerful young man who was off that evening on a piece of wangled Christmas leave. " Who's for a cup of tea ? "

They trailed back to the cars, tempers restored by a feeling of accomplishment. At their approach the Waaf drivers stopped fiddling with their coiffures and readjusted the driving mirrors to their correct positions. The sharpened-legs man folded his plan and placed it carefully in his " G.R."-stamped portfolio. He always carried one of these—even if it only contained his lunch. The royal monogram, he felt, gave a man prestige. Almost like being in the Diplomatic. Limping conspicuously he climbed into his car and settled himself in the back seat. It would be a long trip home, but he would get his subsistence pay all right. He nodded an affable farewell to the others.

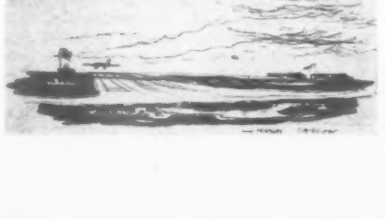
As Tim followed the two RAF officers a little further along the road he overheard their conversation.

Weedon

" Good type that Airstrux bloke," one was saying, " seemed to know which way up things go. Not like that other line-shooter—what was his name ? The type with the glamour-boy moustache ? "

" Whaddon or something, wasn't it ? " said the other, opening his car door. " Poor type. Always sinking beer in the mess when he wasn't sniffing round the Waafery in that co-respondent car of his."

The car door slammed, and Tim, glowing with disloyal satisfaction, heard no more. Absurd, of course, to take any notice of such a casual tribute—especially when it was offered by men whose judgment as shown by their assessment of Weedon's ability, was so superficial. Absurd, yes—but it was very gratifying. Tim swung the old Austin back to his office at a jaunty speed. He would ring head office at once about getting hold of a compressor. As for Marlene—she wouldn't know him to-night. From Tim's lips issued a purposeful tuneless rendering of " Good King Wenceslaus." It was lucky he'd got that new brown suit with him at the digs. Marlene hadn't seen him in that. The humming swelled into a song. " Fetch me bread and fetch me wine," sang Tim inaccurately but gaily, " Fetch me pine logs hither."



PHYSICAL PLANNING

THE JOBS TO BE DONE

Human ecology, *which has been defined as the study of people's modes of life in relation to their social and physical environment, has been given far more attention in the USA than in Britain. However, the sketchily defined neighbourhood units in the County of London Plan and the growing number of excellent surveys of various localities evince an awakening interest in the subject over here. The justification for labelling Physical Planners* utopianists *has previously been far too substantial, but through this growing interest in ecology, planners are now drawing nearer to a practical understanding of the people's social, in addition to their physical, needs. Dr. Dickinson, whose work has lain largely in this field, deals in two articles, the first of which is published this week, with the structure and relations of villages, towns and cities, paying particular attention to the efficient functioning of services for the inhabitants. In the following article he makes a special plea for rural Britain, where administrative areas, which are inherited from the past, have little relation to the new areas of economic orientation, making a drastic revision necessary if our country life is once more to become vital and be served according to its needs.*

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Dr. R. E. Dickinson, the first of whose articles on the structure and relations of villages, towns and cities is published this week is an M.A., Leeds and Ph.D., London. He is a reader in Geography at University College, London. He has specialized for many years on the physical and social structure of cities, studying the scope and problems of the subject in both the USA and on the Continent. He is author of a Penguin Special The German Lebensraum.

WE MUST RELATE SERVICE CENTRES TO SOCIAL GROUPS

by Dr. R. E. Dickinson

Part One—for the Countryman

social units and service centres

Two of the major problems of the physical planning of town and countryside are the siting, lay-out and community structure of settlements, on the one hand, and the reorganization of local government areas, on the other. These two problems are closely interrelated, since the local government area must be, as far as possible, a community area and the settlements in it the nuclei of its community life and organization. This is the same basic idea as that of the "Social Unit" which Mr. Frank Pick has indicated as the essential basis of physical planning and which is put into practice in the recently published *County of London Plan*. "A social unit must be devised," Pick wrote, "not too large to destroy personal contact and not too small to fail to afford variety and diversity," and he continued, "the parish used to be, and in many cases still is, a fairly satisfactory social unit," and in the new pattern of administrative areas "the town, the city, the metropolis itself, and finally the region, will be aggregates of social units."* This is a timely reiteration of the conception of Regionalism which has been elaborated frequently on broad philosophical lines by such scholars as the late Patrick Geddes and, in more recent years, by Lewis Mumford in his *Culture of Cities*, but which requires much more attention from the social scientist as a preliminary basis for the planning of town and country.

It is essential to realize that this conception of the community unit is essentially a geographical conception, for such a unit—be it the small Social Unit or the Region—is a geographical area with a considerable measure of unity in its services and organization. This hierarchy of community units, however, is not to be thought of as a theoretical mosaic to be designed out of the blue by the planner and the architect. It exists in the fabric of our society, and the geographical anatomy of this society must be thoroughly analysed so as to discover and rectify its maladjustments and elaborate principles of planning in accordance with its needs. Consequently we need to know the geographical or areal arrangements of existing neighbourhood relations, of the service areas of church, school, shop and other services. Such relations are complicated and their areas overlap widely, but they are integrated into what may be called community units through the medium of the central service centre, be it village, town or metropolis, and neighbourhood institutions and commercial sub-centres inside the large urban agglomeration. A great deal has been written on

* Frank Pick, Britain Must Rebuild, 1941, in the *Democratic Order Series*, published by Kegan Paul.

these general features in both America and Europe and the main facts are common knowledge.

In the United States this relatively new field of study is known to scientists as Human Ecology, and it has produced results of great value in the understanding of the structure of human communities. It is now a main task for the social sciences to investigate in selected regions such questions as the actual character of the warp and woof of community relations in rural areas, the interrelations of town and countryside, the neighbourhood structure of the great urban agglomeration, and the range of influence of the metropolitan city over the towns and country round it. It is to certain aspects of these problems that we shall draw attention in these two articles.

the rural social unit

Rural settlement in general is grouped in two forms, or variants of them, namely, the compact village or isolated farmsteads. In Britain, there usually occurs an intermediate form of settlement, in which the farmstead is almost always in its own fields, and the village contains the church, together with labourers' cottages, the school, the pub., post office, social buildings, etc. In areas of complete dispersion of farmsteads with a low density of settlement, the nucleated service settlement is simply a small hamlet as in the Welsh and Scottish Highlands. The overwhelming majority of parishes in Britain have less than 300 inhabitants; the village itself in eastern England seldom has more than 100 to 200 inhabitants. Local services are usually concentrated in an occasional village (about one in five in East Anglia), which in virtue of its specialized services assumes a certain urban character and may be termed an "urban village." In it are craftsmen (e.g. saddler), several specialized shops, as opposed to the village shopkeeper (e.g. chemist, grocer and outfitter), and a bank, open once or twice a week. Such villages in East Anglia generally contain about 700 people (the parish from 700-1,000); whereas in Cardiganshire, with a much lower density of rural settlements, they often have less than 300 inhabitants. In both areas these rural service centres have the same pattern of distribution in relation to the distribution of settlement, but their size varies with the density of population and the type of rural economy.

Many studies of the social structure of the rural community in the United States have appeared since the publication of *The Social Anatomy of an Agricultural Community*, by Dr. C. G. Galpin in 1915, which set the pattern for this type of investigation. This study revealed the emergence in the United States of a community occupying an area larger than that of the small country neighbourhood, in which the large village (urban village as named above) or the small town is in varying degree the centre for the surrounding farms for general shopping, banking, newspapers, marketing, high school education, church, library facilities and cinema. This he called the "rurban community." The neighbourhood as defined by the sociologist is the first grouping above the family that has social significance and that is conscious of some local unity, grouped in a small hamlet or village. This basic rural unit, however, is declining as a significant community group, except when it is identified with a school or church in relatively remote districts a few miles from the nearest service centre, for there is a general tendency for services to be concentrated in the larger "rurban centres," which serve several neighbourhoods in an area that is normally somewhat smaller than the square township area of 36 sq. miles. In studies in New York State and Wisconsin,* it was found that the village centre with "incomplete service" had 250 to 500 inhabitants and, together with its service area, had about 800 to 1,000 inhabitants; and that these centres together with the towns, were about four to five miles apart. The rurban or town-country community centres range from the village with "semi-complete service" (the equivalent of the urban village in England), which has 500 to 1,000 inhabitants, to the fully fledged town with "complete service," with populations ranging from 1,000 to 5,000.

We note a similar trend in the small English parish village, which is comparable in size with the rural neighbourhood. "Socially the village has tended to become a loose and indeterminate unit with some of its members looking exclusively to the neighbouring town for their amusements, while others suffer from the resulting decline of local institutions, thus robbed of a considerable fraction, especially of their younger people. . . . We are convinced that the cardinal problem is how to re-focus cultural life within the village itself." (Scott Report, p. 53.) It is remarkable, however, that so little attention has been given to the regrouping of rural population in Britain and the basis upon which it should be attempted, although rural depopulation has been going on for nearly a century. The rural community unit should be large enough to support a church, a school, clubs and the everyday retail services. A minimum population figure may be arrived at by considering the requirements of these services, and we suggest, in common with proposals by others, a population of 1,000 to 1,500—a figure which fits closely with the actual trends of rural community organization around larger urban village centres. Throughout eastern and southern England the parish has an area of between two and three square miles and a population of under 300 inhabitants. Thus a grouping of three to five parishes would give this minimum population with a compact area of some nine square miles, the furthest parts of which would be only some 1½ to 2 miles from the geometrical centre. (In parishes with larger areas, as in the highlands of Wales, these distances would be increased to some 2½ to 3 miles, but much of these parishes consist of uninhabited land and the contrast is more apparent than real). In fact, this kind of proposed arrangement exists in the grouping of the urban village and the several parishes which it serves. These urban villages, together with the towns, which clearly carry on the same local services as well as other services of a higher order, are spaced at intervals of some two to four miles, with service radii of about two to three miles. (See diagrams below).

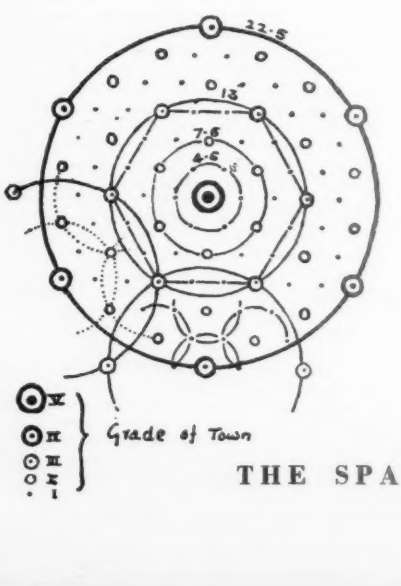
* E. de S. Brunner and J. H. Kolb. *Rural Social Trends*. 1933, p. 97.

the town as a service centre

The town is a compact settlement, which is engaged primarily in non-agricultural occupations. These occupations fall into two main categories—industry and services. The industries are usually classed as primary or basic industries, which are markedly localized, and secondary or local industries, which cater for the needs of the population of the town (e.g. laundering, baking) and are therefore distributed widely, proportional to the density of population and the local standard of living. The services are commercial, cultural and administrative. They also fall into two categories, though it is difficult to assess them quantitatively. The local services cater chiefly to the townspeople; the centralized services—commercial, administrative and cultural—are concentrated in towns in order to serve a widely scattered clientele as well as the townspeople. We need a thorough study of the localization of the centralized services, since they are determinants of the distribution of settlement, equal in importance with the localization of industry and are probably more vital in the structure of community life, though hitherto they have received very little scientific attention.

A glance at a map will show that towns of different sizes are fairly equally spaced over the land, a fact which has often been observed, but not adequately explained. It is clear that certain basic causes must have brought about this distribution of towns, and that the growth of industry is, in large measure, a later factor in their modern growth. One of the chief of these causes appertains to the distribution of the centralized services, which before the Industrial Era, were the main determinants of the origin, distribution and sizes of towns. These services cater for the needs, daily and occasional, of the population in all parts. They range in our modern society from

1



2

THE SPACING OF SERVICE CENTRES

The Theoretical Distribution of Towns as Service Centres. Fig. 1 shows the distribution of the service centres, Fig. 2 the hexagonal pattern of the service area. From Christaller's Die Zentralen Orte Süddeutschlands, *pp. 66 and 71. Grade I is the small market town, 4 to 5 miles from its nearest neighbours, and is the basis of the whole system. Grade V, in the centre of the diagram, is equivalent to a large county town with 50,000–100,000 inhabitants, e.g., Exeter, Norwich, Lincoln. The numbers in Fig. 1 give the radius of each circle in miles.*

the everyday services, such as those of the general retail dealers, which must be within a few minutes' access of their clientele, to the services of occasional character (e.g. high-class furniture, or a main branch of an insurance office or government department), which require fewer centres, placed in large cities, which are easily accessible to an extensive service area. These centralized services segregate in definite seats of settlement which assume thereby an urban character. Before the Industrial Revolution, when the town was chiefly a marketing centre for the handicrafts and produce of the surrounding countryside, the centralized services were especially important in determining both the size and spacing of the towns. Then the market town was the seat of services for an area within an hour's journey by road—a distance of some three or four miles. But in the last hundred years the number and complexity of centralized services, as well as the great growth of industry and population, have occasioned the concentration of such services in fewer centres.

the spacing of service centres

There is a hierarchy of towns, graded according to the degree of concentration of centralized services, which, in considerable measure, is reflected in the size of their population. A German scholar, Walther Christaller, has developed this theme.* Working on a theoretical basis, with the market town with a service radius of 4 to 5 kms. (2½ to 3 miles) as the unit area, he has drawn up a scheme of distribution of centralized services which, he shows, is closely borne out by the facts of town size and distribution in South Germany. In respect of the centralized services, a town serves a theoretical circular market area. But towns with the same service status will be equally spaced from it and from each other, and will compete with each other in their intersecting border zones, where centres of lower status can supply certain local services more efficiently than the centres of higher order. Thus, one of the latter will be surrounded on the periphery of its service area by six equally spaced service centres of a lower order, equally spaced from each other and from the town in the centre. On this theoretical basis, towns will be equally spaced, in different orders, with hexagonal shaped market areas. Since there is a gradation of the services with respect to the extent of the areas they serve, there is a corresponding gradation in the degree of their concentration, which in large measure (and especially before the Industrial Era) is reflected in their size. The smallest complete service centre is the country market town about 7 kms. from its nearest neighbours, with a hexagonal shaped market area of 45 sq. kms. The next higher grade of centre will be spaced at $\sqrt{3}\times 7$ or 12 kms. apart with three times the market area, and so on to each next higher grade. This gradation of service concentration is not gradual, nor does the extent of the composite service area of a town vary directly with its size. The concentration proceeds in steps, from which there may be recognized towns of eight main grades, culminating in the State capital. The smallest seats of centralization (called *hilfszentralen Orte* by Christaller) are the urban villages, to which we have already drawn attention. The first grade of fully equipped service centre, the small market town, in Britain has about 1,000 inhabitants. Such places in East Anglia, for example, have a full quota of specialized retail services and one bank; and are sufficiently large to have one or more public utility services (gas, electricity, water). Study of other areas in Britain reveals that this minimum population for a compact settlement as indicative of real urban character is true throughout the country. Towns of higher grades contain all these services together with those which are more centralized and characteristic of each grade.

Clearly this service factor is a fundamental and universal control of the functional character, distribution and size of towns which is particularly important in dominantly agricultural areas. But the main increase of urban population has been due to the growth of industry, and the scheme also does not embrace the satellite centres of various kinds that have budded off from the great urban agglomerations. In agricultural areas the service factor is counterbalanced by such factors as the relief of the land, routes, river crossings, the distribution of uninhabited land, and the political conditions of the medieval development of towns. The varying density of population from one area to another does not appreciably affect the spacing of towns, since the need of services is universal; but it does affect their size.

In a special study of the urban settlements of East Anglia undertaken on these lines by the writer, it was found that the smaller towns fall into four grades ranging from the small service centre with about 1,000 inhabitants to the fully fledged market town with 5,000 to 10,000 inhabitants. The latter, including the larger county towns, 17 out of a grand total of about 100, are spaced at intervals of 15 to 20 miles. The towns of all four grades are spaced at intervals of about six to eight miles apart and, including the urban villages, at intervals of two to four miles apart. The present distribution of these towns as in the rest of Britain, dates back to their origin in the Middle Ages, when they were spaced in such a way that all places were only some 2 to 4 miles from one or more market towns. But modern changes have occasioned the concentration of functions in a few and the extension of the areas which they serve. This maladjustment of present economic, social and administrative services to the distribution of towns is reflected in three fundamental problems of rural life which are common to most parts of rural Britain.

(1) Administrative areas, which are based upon the parishes and hundreds established in the early Middle Ages, have little relation to the existing areas of economic orientation. The present system of administrative areas needs drastic revision, and in its reorganization the areas served by the towns and urban villages should be adapted as basic criteria.

(2) Such reorganization should be based upon a systematic survey of service and community areas. The actual areas served by hospitals, schools, cinemas, libraries, retail firms and wholesalers, etc., must be mapped. The adequacy of these services, with respect to the number of centres and their accessibility to the consumer, must be based on quantitative criteria. Thus the ideal distribution of certain services, e.g. hospitals, libraries and schools, may be determined from the minimum number of service units (bed, book or pupil) which are necessary for the effective organization of each service—this in turn depending, among other things, on the total population of the central service town plus that of the area which surrounds it.

(3) It is common ground that many markets are redundant, a fact which is well illustrated in East Anglia where, incidentally, there are relatively few markets as compared with other parts of the country. Many small markets draw few buyers and sellers, and the farmer would in fact get better bargains by travelling further to bigger markets. This in fact is a general tendency in East Anglia, and it is strongly encouraged by the Ministry of Agriculture (except in areas where small markets do sometimes serve a useful purpose), as a healthy economic trend in modern marketing organization.

The "market district," as defined by Christaller from his detailed studies in Germany, has a radius of about 2.5 miles and a population of 1,600 to 2,700 inhabitants. This corresponds in East Anglia with the small town with between 1,000 and 2,000 inhabitants, or, indeed, with the urban village with 750 to 1,000 inhabitants. This nucleus, together with the half dozen or more villages served by it, for a district with a total population of about 2,000 to 3,000 in East Anglia, and this figure may be taken as typical of other rural areas in Britain with the same density of population. It seems that such a district might serve as a suitable unit area in a new system of administrative units.

end of part one

THE MARKET AREAS OF EAST ANGLIA—Based on information obtained from auctioneers. In several cases where the actual area could not be obtained, circles with an 8 miles radius have been drawn, within which most of the local marketing takes place. In order not to complicate the map, the market areas of the chief towns are not directly shown. The line of plus signs encloses the area served by the seasonal sheep sales at Swaffham. Figures refer to the head of livestock sold annually in the markets. Similar maps are prepared showing areas served by newspapers, rural and urban districts with centres, bus services, etc. on a standard scale of 4 miles to 1 inch. This map is a sample, on a greatly reduced scale, of the type of investigation needed in large rural areas for the examination of town-country relationships (from Economic Geography, *April*, 1934)

* Walther Christaller, Die Zentralen Orte Suddeutschlands, Jena, 1933.

PLANNING REVIEW

LORD WOOLTON

In the three-day debate on reconstruction which started on December 8, in the House of Lords, Lord Woolton quoted one rule they had at the Ministry of Food, which was that no speeches were to be founded on hope, and stated that he would continue that rule as Minister of Reconstruction. Whatever might be the pressure on him in Parliament or in the country to get on quickly, he was not going to make any promises until he knew that they could be fulfilled. What he had to try to do was to see the reconstruction plans as a whole, to bring them into relation with one another, and to make sure there were no gaps and no overlapping and no conflicts between departments. He would have to see that nothing was left undone by his colleagues that the War Cabinet wished to be done.

On the second day, Lord Latham expressed disappointment at Lord Woolton's speech, saying that it added little, if anything, to what had already been said by other Ministers in regard to the Government's plans.

Lord Strabolgi said, on the third day, that he could only commiserate with Lord Woolton in his appointment; the new Minister seemed to have neither the machinery nor the powers and the appointment reminded one of that of Lord Caldecote as Minister for Co-ordination of Defence. Lord Caldecote's task had been impossible and so would be Lord Woolton's.

In reply, Lord Woolton stated that as to his powers as a Minister, if he was content to undertake this responsibility with the powers which the Prime Minister had given him, he would, with great respect, suggest that perhaps it was not necessary for others to be unduly concerned. Neither for Lord Latham nor Lord Strabolgi was he going to be drawn into political controversy. He did not intend to have anything to do with any of the political parties. He was going to remain completely outside. That was his value at the present time. He was going into a mass of problems under the heading of reconstruction which had been the elements of party politics for a very long time. If as a neutral member he could get a general agreement between all men of good will, not on the whole of the programmes, but something that would help the country in the next few years, that would be of value.

The *Daily Telegraph* believes that Lord Woolton did well to insist that a better Britain will not emerge from a welter of contending self-interests and dogmas; it will require a co-operative effort and the sinking of sectional differences and prejudices.

The Times pointed out, in a leading article, that it was natural for Lord Woolton, after only a fortnight in his new office, to refuse to make many promises but rather to indicate an attitude of mind to the problem of reconstruction.

The Parliamentary Correspondent of the *Daily Worker* describes the background to Lord Woolton's main announcements as a full-length eulogy of the industrialists of this country. Apparently it is they who are to build the new Britain after the war, and it would seem from the speech as though the Government was pinning all its hopes on their benevolence.

The *Observer* welcomed Lord Woolton's promise of a White Paper soon after Christmas on housing, land purchase, proper planning, agriculture and food, as good news to many local authorities worried about the post-war future, but pointed out that a White Paper is not, of course, legislation. For these are not academic matters. Upon them the face of the country in the next generation depends. Building and planning begun without decisions on these subjects will almost certainly be disastrous and wasteful.

MOTCP

Mr. W. S. Morrison gave an account of the present activities of his department at the annual meeting of the Council for the Preservation of Rural England. After discussing the Scott report and outlining the considerable number of its most important recommendations which had actually been put into operation, he stressed the fact that the fresh set of planning difficulties brought about by war-time building was fully realized and that arrangements for dealing with them were being worked out. He reported that Mr. John Dower, who had been making surveys in several potential national park areas and doing other preparatory work, had presented to him a general report, and consultations were now proceeding with other interested Departments.

The *News Chronicle* reports that MOTCP are supplying maps of 15 of Britain's most beautiful villages at a scale of 200 feet to the inch to authorities in rural districts in order that they may pick out the most suitable features and incorporate them in new villages. No attempt will be made, however, to impose a set pattern for the development of villages over the whole country. Out of 1,440 local planning authorities, 840 are now collaborating in 153 joint planning committees. If it is found to be in the public interest, the laggards will be brought into line by Mr. W. S. Morrison.

OXHEY ESTATE

Watford Trades Council has passed a resolution supporting the criticized LCC plan to house 15,000 Londoners after the war on Oxhey Place estate in the Watford district.

NEW LITERATURE

Reconstruction and Town and Country Planning: Sir Gwilym Gibbon, C.B., C.B.E., D.SC. The Architect and Building News. 1943. 15s.

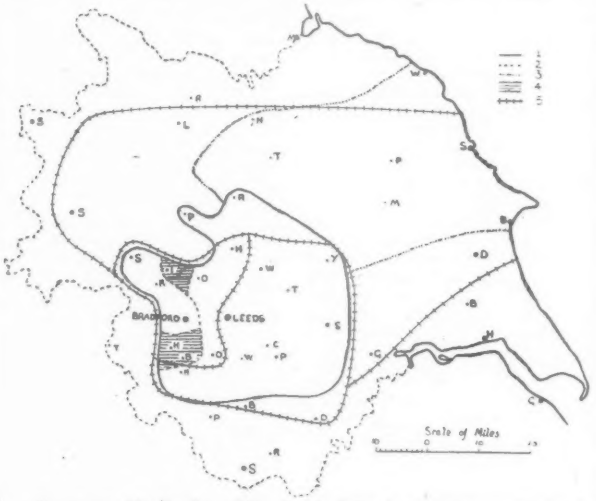
The Peckham Experiment: A study of the Living Structure of Society. Innes H. Pearse and Lucy H. Crocker. Allen and Unwin. 12s. 6d.

The County of London Plan, 1943: Extract from the Report of the General Purposes Committee presented to the Metropolitan Water Board, New River Head, Rosebery Avenue, London, E.C.1. November 19, 1943.

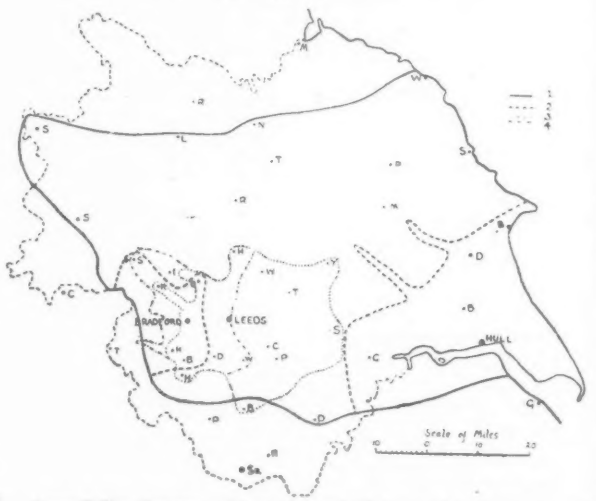
War-time Progress Report: September, 1942—September, 1943. Vol. XIV. No. 1. Council for the Preservation of Rural England.

REGIONAL ZONES OF INFLUENCE OF THE METROPOLITAN CITY

—These two maps prepared by Dr. Dickinson are examples of the method and difficulties of defining the range of influence of a city in respect of its chief regional functions. The study of Leeds and Bradford is based on the compilation of over 300 maps from concerns in both cities, none of these however being based on detailed statistical data, since none are available. The study of Chicago, which will be published in Planning Review next week, is based on statistical data.



1. *Areas served by Leeds and Bradford wholesale provision merchants and areas of retail shopping.*
   1. *Areas served by Leeds and Bradford with provisions, meat, fruit and vegetables.*
   2. *Boundary between Leeds and Bradford areas.*
   3. *Boundary of area receiving occasional deliveries of fruit and vegetables from Leeds.*
   4. *Areas receiving supplies from both Leeds and Bradford.*
   5. *Inner Ring. Market day customers' areas. Outer Ring. Seasonal customers' area, mainly shopping at Leeds.*



2. *Accessibility diagram. Lines of equal efficiency of railway passenger services based on frequency and time of service between*
   1. *Middlesbrough–Leeds, Sheffield–Leeds, Manchester–Leeds.*
   2. *Leeds–Bradford, Hull–Leeds.*

   Sixty-minute isochrones (rail only) with Leeds (3) and Bradford (4) as centres. The last is omitted where it coincides with the Leeds isochrone.

The author concludes from this diagram which was published in an article on the Influence of Leeds and Bradford in Geography, September, 1930, that the efficiency of transport services is the fundamental factor which determines the extent of the shopping and business areas.

1. LEEDS AND BRADFORD

DOMESTIC WATER HEATING 12: INSTALLATION OF INSTANTANEOUS GAS WATER HEATERS (A)

SELECTION OF APPLIANCE.

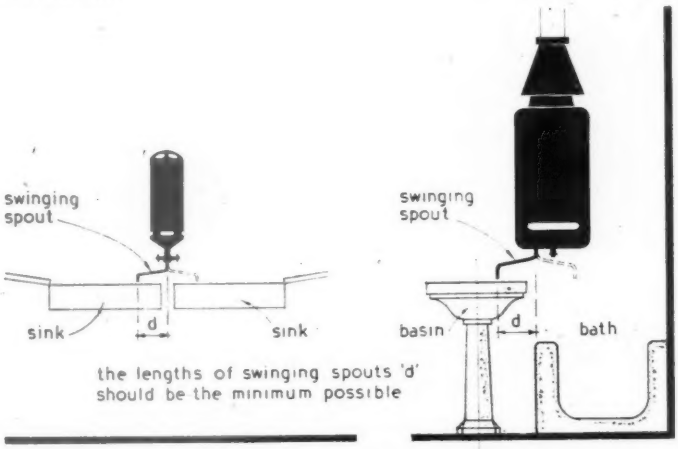
Types available come under two headings :

Single Point [1]	Multipoint
1. Sink heater.[2]	Small.[5]
2. Boiling Water Heater.[3]	Normal.[6]
3. Bath Heater.[4]	Large.[7]

FACTORS GOVERNING CHOICE.

(a) Number of Points to be Served.

Single point appliances, whether large or small can only serve one sink, bath or basin ; except where two points can be reached by a swinging outlet spout. Normally a multipoint or several single point appliances should be used for more than one draw-off.



1 : SINK HEATER (Single Point) SERVING TWO SINKS. **2 : BATH HEATER (Single Point) SERVING BATH AND BASIN**

(b) Rate of Flow.

The supply of hot water from an instantaneous heater cannot be exhausted, but the speed of delivery is limited by the size of the appliance. A small appliance is more efficient for small intermittent demands than a large one, so that the appliance should not be larger than necessary to meet the maximum demand.[8] In domestic installations the bath should not take longer than 15 minutes to fill.

(c) Distance Between Points to be Served.

When the hot water delivery pipes from a multipoint have to exceed 25 ft., the installation should be sub-divided and more than one appliance used.[9]

(d) Ventilation.

Instantaneous appliances require a good supply of air for combustion.[10] Large appliances should not, therefore, be installed in confined spaces. Under certain conditions it may even be advisable to use a multipoint in place of a single point to permit the appliance being installed with a good flue and adequate ventilation.

1. For detailed explanation of the differences between these types, see Information Sheet 908, Domestic Water Heating 8.

2. Ascot type R 12/4. For kitchen sink or single basins. Output 500 B.Th.U., or 1.25 gallons/minute heated 40°F., or 0.5 gallons/minute heated 100°F.

3. Ascot type RS 52/1. Boiling water for domestic use—performs all the other functions of type R 12/4—delivers 2-3 pints of boiling water per minute.

4. Ascot type SG 32/1. For supplying bath and basin when adjacent or for large canteen kitchen sinks. Output 1,300 B.Th.U. per minute, or 3.25 gallons heated 40°F. or 1.25 gallons heated 100°F.

5. Ascot type RA 12/5. Multipoint with same output as the sink heater type R 12/4. Suitable for sink and basin supply where single point appliance cannot be installed.

6. Ascot type NEA 32... Suitable for supplying all the hot water requirements at kitchen and bathroom in flats and houses up to three bedrooms. Output 1,300 B.Th.U. per minute or 3.25 gallons heated 40°F. or 1.25 gallons per minute heated 100°F.

7. Ascot type NEA 38. Similar to normal multipoint with a larger output, to be used where larger flows are required or several points to be served simultaneously.

8. Large appliances have a bigger residual heat capacity than small heaters ; consequently they are less efficient for small demands. In domestic installations the limiting factor is usually the time required to fill a bath. Average amount required for this purpose is 25-30 gallons with 5' 6" bath.

9. Hot water remaining in distributing pipes after hot tap is turned off will cool and heat is therefore lost. Long distributing pipes consequently reduce the efficiency of use of the installation. 25 ft. of ¾" pipe contains approximately 0.5 gallons of water.

10. To supply 25 gallons of water for say a bath, using an Ascot NEA 32... appliance, would require 285 cub. ft. of air in 12½ minutes to maintain combustion. See also Information Sheet 915, Domestic Water Heating 10, Note 1.

[TURN OVER

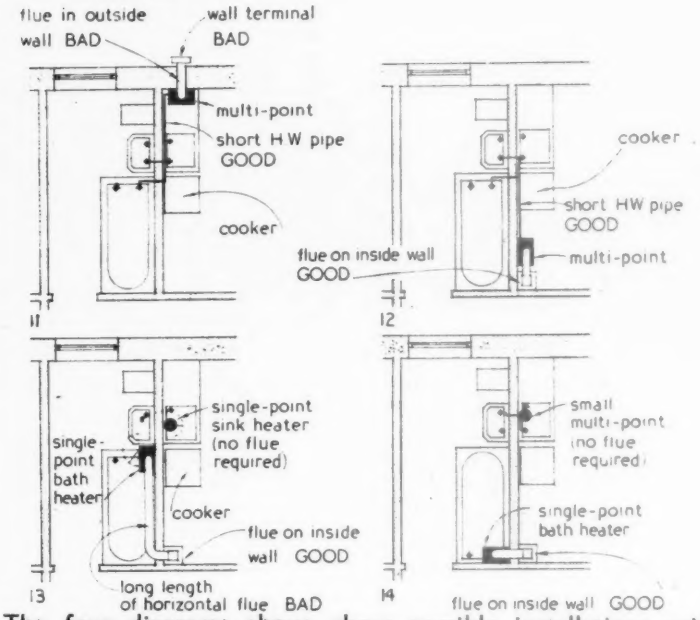
INFORMATION SHEET 921

(CONTINUED

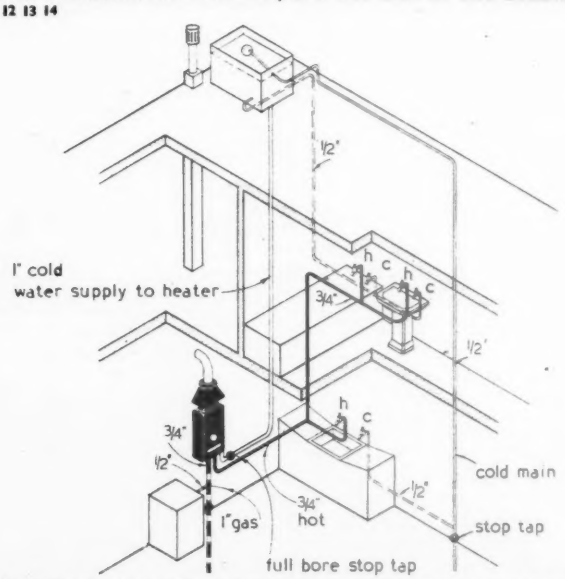
INSTALLATION PLANNING.

When laying out an installation, the following points should always be borne in mind :—

(a) Provide an efficient flue in cases where a flue is required.
(b) Ensure that the length of hot water pipe is as short as possible.
(c) Use an appliance with an output adequate to meet the demand.



The four diagrams above show possible installations using different combinations of instantaneous gas water heaters to supply the kitchen, bath and basin. The advantages and disadvantages of the alternatives shown, are set out in the accompanying notes.[11 12 13 14]



THIS DIAGRAM ILLUSTRATES THE USE OF A MULTI-POINT HEATER TO SUPPLY THE KITCHEN AND BATHROOM OF A TYPICAL TWO-STOREY HOUSE.[15]

11. The arrangement shown is bad because of the unsatisfactory position of the multi-point. Although the length of hot water pipe from the appliance to the sink is reasonably short, the appliance is fitted with a flue through an outside wall, finished with a wall terminal. Unless the ceiling height is considerable, no vertical rise from the draught diverter can be allowed for, and the use of wall terminals is unsatisfactory.

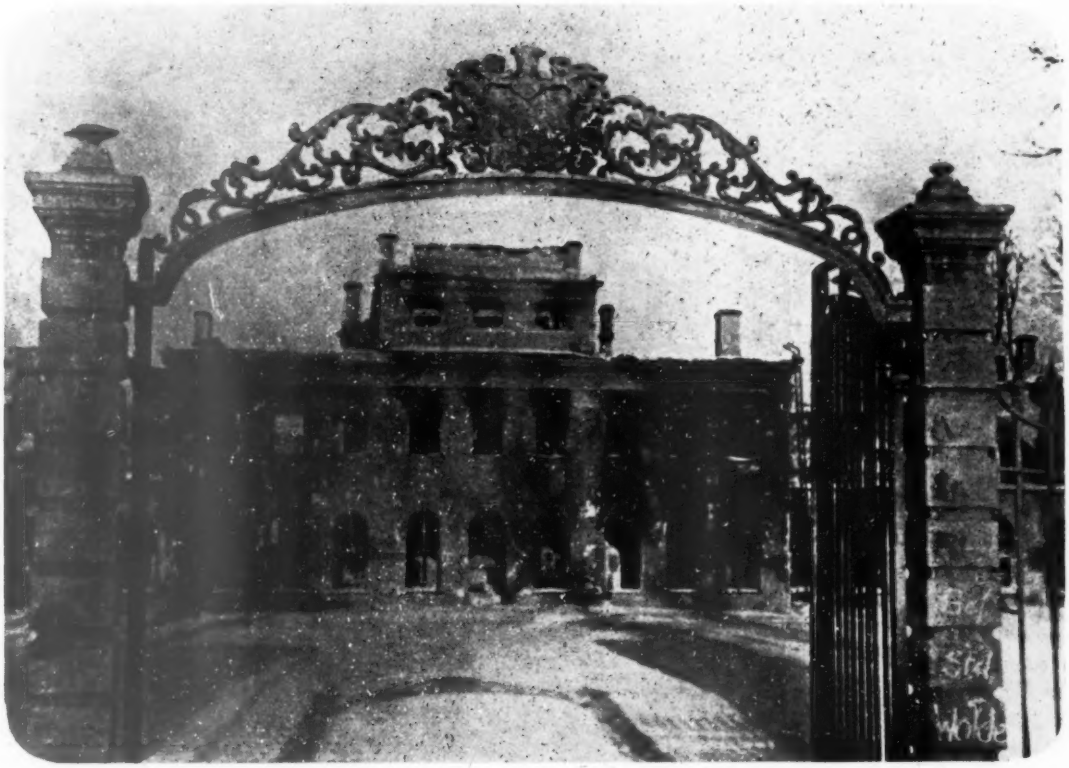
12. The multi-point has been moved to provide an efficient flue connection to a built-in flue. An obtuse bend could be used from the draught diverter to the flue. The hot water pipe to the kitchen is slightly longer than that shown in Diagram 11. This would, however, be permissible provided the head of water available was sufficient for a ½" draw-off pipe, and if the length of this draw-off pipe does not exceed a total of 6 ft. A reasonable efficiency of utilisation could be obtained in this way.

13. Two single-point appliances are used ; a sink heater in the kitchen (requiring no flue), and a bath heater in the bathroom to supply bath and basin by means of a swinging spout. Although a built-in flue is used, the connection to the flue is very long, and involves two right-angle bends. As the height of the appliance from the ground will be governed by the necessity to allow a clearance for the spout over the basin, a horizontal connection to the flue will be unavoidable. This arrangement is unsatisfactory from this point of view, even though the efficiency of utilization of the appliances would be reasonably good.

14. A small multi-point in the kitchen, serving the sink and the basin, has been substituted for a sink heater. This appliance requires no flue. The bath heater is fitted with an obtuse bend from the draught diverter to the built-in flue. All flue requirements are met, and at the same time the highest possible efficiency of utilization of the appliances is achieved, as a small instantaneous heater is used for the small quantities required at irregular intervals at the sink and basin, and a larger single point for the bath.

15. In this installation, a separate down service is provided to the heater from the tank. The cold taps in the bathroom are not supplied off this service to avoid the possibility of interfering with the cold supply to the heater. If this had not been done, the opening of a cold tap in the bathroom would reduce the flow through the appliance, and if this were already operating at or near the minimum flow, the automatic gas valve would shut. The cold water down service is 1" in order to reduce pressure losses. Hot pipes to the bathroom, only ¾" (the smallest permissible size, compatible with low pressure losses). Larger size pipes would hold too much water and be wasteful. The branches to the kitchen and basin taps are ½", as small flows and higher temperatures are required at the basin, and the head of water in the kitchen is greater, permitting the use of smaller pipe.

Issued by Ascot Gas Water Heaters Ltd., North Circular Road, Neasden, N.W.10. Telephone : Willesden 5121 (14 lines).



RUSSIAN

BUILDINGS DESTROYED BY THE GERMANS

EXHIBITION AT THE RIBA

Above, the Chernishev House at Yaropolets, after destruction. Left, the New Jerusalem Monastery at Istra, founded in 1654 and restored by Rastrelli and Kazakov in the early eighteenth century. The Rotunda columns shown here were designed by Rastrelli.

Last Monday, an exhibition—sponsored by the RIBA and the Russian Embassy—of photographs of famous ancient Russian buildings which have been destroyed by the Germans, opened at the RIBA, 66, Portland Place, W.1. Photographs show the ruined buildings and their pre-ruin state. Some of these are shown here.

The exhibition, which has been sent from Moscow, includes over a hundred large photographs, few of which have yet been shown in England. Among them is the great New Jerusalem Monastery founded in 1654 and restored in the eighteenth century by the architects Rastrelli and Kazakov. The Germans established a munitions dump in the New Jerusalem and destroyed the whole building when they exploded the dump before the 1942 retreat.

Other photos are of the mediæval churches of Novgorod, and the great Joseph Volokolamsk Monas-

tery is shown girdled by its great towered wall. The homes of Pushkin at Yaropolets, of Chekhov at Istra, of Tchaikovsky at Klin, and of Tolstoy at Yamaya Polyana, have all been destroyed, but photographs of all of these are to be seen.

The exhibition, which is open to the public, closes on January 8.

Left, the Cathedral of St. Sophia, Novgorod, built by Vladimir, son of Prince Yaroslav the Wise between 1045 *and* 1050. *Below, the Spas Nereditsy Church, Novgorod, built in* 1198. *The interior was covered with frescoes by Novgorod masters of the time. On the facing page, the Joseph Volokolamsk Monastery, founded in* 1479.

RUSSIAN BUILDINGS DESTROYED BY THE GERMANS

EXHIBITION AT THE RIBA

INFORMATION CENTRE

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

PHYSICAL PLANNING

1329 Population and Housing

PROBLEMS OF POPULATION. *R. M. Titmuss.* (*Association for Education in Citizenship, Handbook No.* 9, 1943, 4*d.*). A handbook on population position and its relation to housing policy.

1. We entered the war with 41 million people, 4½ million more than in 1914: despite this there were 2 million fewer children under 14 and 2½ million more people over 60.

2. For every 2 people living in England and Wales there are 100 in the rest of the world.

3. The birth-rate has fallen steadily for 70 years because more and more parents realized that they would be better off if the size of their family was restricted. The rich displayed their wealth: houses, cars, holidays. Others followed suit and children went out of fashion.

4. Children are an obstacle to freedom. Houses are no longer designed for the large family. A "good education" means a good job and costs a lot. All social surveys show the larger the family the deeper the poverty.

5. A further consequence of future population trends may be the heavier financial burdens imposed on the community. Schools and teachers will still be needed, although the number of pupils will be fewer. Roads, railways, water, electricity, sewerage and all essential services will be required despite a smaller number of consumers. The average cost of these goods and services will rise concurrently with increasing old-age pensions, medical treatment for the aged and other services.

6. Sweden's Royal Commission rejected the payment of cash allowances for children in favour of goods and services in kind. The measures to reduce the burden of children include house furnishing loans (to help young couples escape hire-purchase), the revision of income tax scales, the provision of adequate housing for three to four child families at low rents, the provision of communal laundries, child welfare and maternity centres, play centres and crèches, increased maternity benefits and assistance, cash allowances for certain classes of needy children (orphans, etc.), free school meals for all school children, summer kindergartens, "home helps," holidays for mothers, reductions in the cost of clothing for children of the poor, greater equality in educational opportunity and improved health services.

MATERIALS

1330 Building Timbers

BUILDING TIMBERS. *E. H. B. Boulton, M.C., M.A., and B. Alwyn Jay, M.A., F.L.S., both of the Technical Department, Timber Development Association Ltd.* (*Newnes Building Practice Series, Vol.* 9, 110 *pp.*, 18 *illustrations*, 7*s.* 6*d.*). A compendium of softwoods and hardwoods, with notes on selection, marketing, grading, seasoning, preservative treatments, storage, diseases, defects and remedies.

Modern research has brought new developments in the use of timber, and the variety of woods used in building is steadily increasing. All users of timber will therefore welcome this intelligent compendium of both classes of building timbers, hardwoods and softwoods, which gives the essential facts of the general properties of the different types and the best methods of utilizing them.

The introductory chapters deal with some general aspects of timber and a number of interesting points are raised. The first chapter is about selection, marketing and grading. The factors governing the selection of wood are mainly fitness for its purpose, cost, which includes labour in working. The various properties of woods need to be scientifically examined and tests are carried out to obtain data on such points as specific gravity, moisture content, durability, strength (in compression, bending, shear), elasticity, hardness, stability, workability, etc. The important terms used in marketing are given, including branding and shipping marks. No absolute system of grading has yet been adopted in Europe and only a rough general system can be given. Among architects and designers there has been a demand for timber to be graded according to strength, and the British Standard Institution formulated such grades. A subject of considerable practical importance is the correct requisitioning of timber for carpenter's work, such as flooring, roofs and partitions, bracketing, fillets.

The two following chapters contain notes on seasoning, preservative treatments and storing of timber, and on the most important question of diseases, defects and remedies.

The bulk of the book contains list and description of the various types of timber, both softwoods and hardwoods, giving of every type the botanical and other names, distribution, properties, working qualities (what kind of tool to use, nail- and screw-holding properties, whether apt to split, whether it glues and veneers well, takes finish, etc.), uses, supplies.

For anyone who uses timber in building it will be a great help to have this book handy and to consult it whenever he is in need of exact information on any special kind of timber.

1331 Timber-Concrete Beams

OREGON TESTS ON COMPOSITE (TIMBER-CONCRETE) BEAMS. *C. B. McCullough.* (*Journal of the American Concrete Institute, April*, 1943, *pp.* 429 *to* 440). Tests on composite timber-concrete T-beams prompted by desire to develop short span highway bridge intermediate between untreated timber trestle and reinforced concrete girder.

Untreated timber bridges are cheap in first cost, but not safe against fire; they have a short life of service and are expensive in maintenance. Reinforced concrete bridges give long life, low maintenance and safety against fire, but they are higher in first cost than warranted under some conditions, especially where long approach construction is necessary. To meet this need a composite system of creosoted timber substructure supporting a concrete deck was developed. The main advantages for a design of this type are (1) the overhanging concrete roadway acts as a waterproof and fireproof cover, (2) the monolithic deck increases the stiffness of the structure and reduces the stresses in the timber, (3) first costs can be reduced to a point sufficient to render the type economically sound for many locations.

In No. 1139 of the Information Centre (*A.J.*, May 13, 1943, pp. 319 to 320) reference was made to tests on composite timber-concrete beams of the "slab type." The Oregon tests were made on 22 T-beams composed of a concrete flange and a timber web, rigidly connected by 5 different methods. Certain beams were subjected to repeated or alternated load tests, and also to alternated temperature varying from 15 to 69°F.

As a result of these tests the following conclusions were stated:—

(1) The ultimate strength of a composite beam of this type suitably connected at the junction plane and suitably designed is at least twice that for the same materials and the same dimensions independently employed.

(2) The deflection of such a composite beam under a given loading will be not more than 25 per cent. of the corresponding deflection for the same sizes and materials used independently.

(3) As regards the type of shear connection, metal pipes and combined spikes and daps produced the best results.

(4) Repeated or alternating loads did not appear to have any detrimental effect on this type of construction.

(5) Variations in temperature produced stresses of sufficient magnitude to warrant a definite provision for the same in the design.

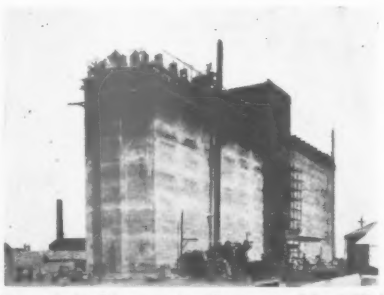
Based upon the results of the tests a composite design was developed by the Oregon Highway Department and to date more than 180 structures, having a total length in excess of 20,000 feet, have been constructed in accordance therewith.

STRUCTURE

1332 MOW Grain Silos

GRAIN STORING AND DRYING SILOS. *Designed by MOW for MOA.* (*The Builder, October* 1, 1943, *pp.* 268-270; *The Engineer, October* 8, 1943, *pp.* 291-292; *Engineering, October* 8, 1943, *p.* 287). Erection of fifteen grain drying silos of 5,000 tons capacity each, necessitated by increased grain production in Britain. Simple architecture. Two methods of shuttering.

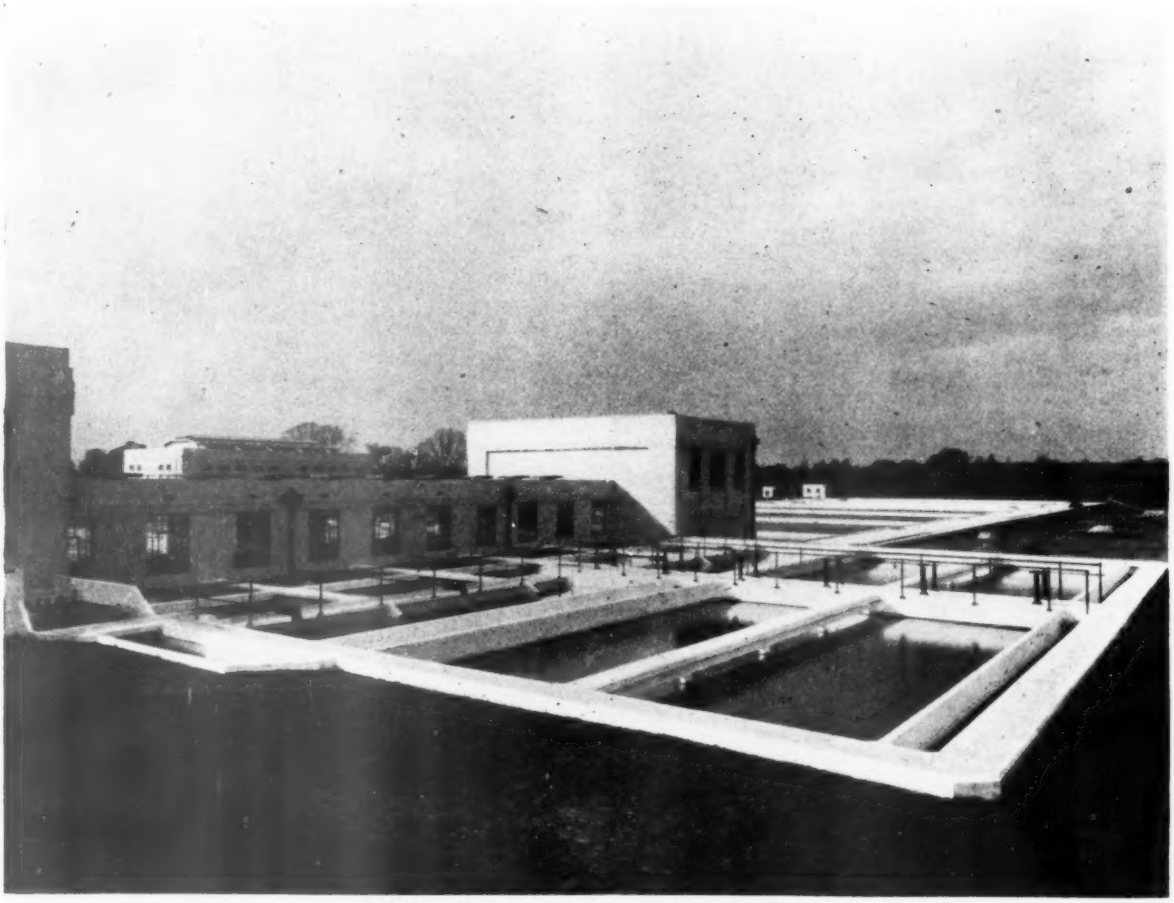
Fifteen grain-drying silos are in course of erection in various parts of Britain. Their



One of the fifteen grain silos, erected for MOA by MOW (*see item No. 1332*).

Overwhelming evidence of the resistance to fire and the great structural strength of reinforced concrete has been provided during five years of aerial attack on cities. Whilst it may not be necessary to design against aerial attack in the future, it is only common sense to select for war-time and post-war construction the material which has been conclusively proved to possess the greatest structural advantages.

REINFORCED CONCRETE AND WATER SUPPLY



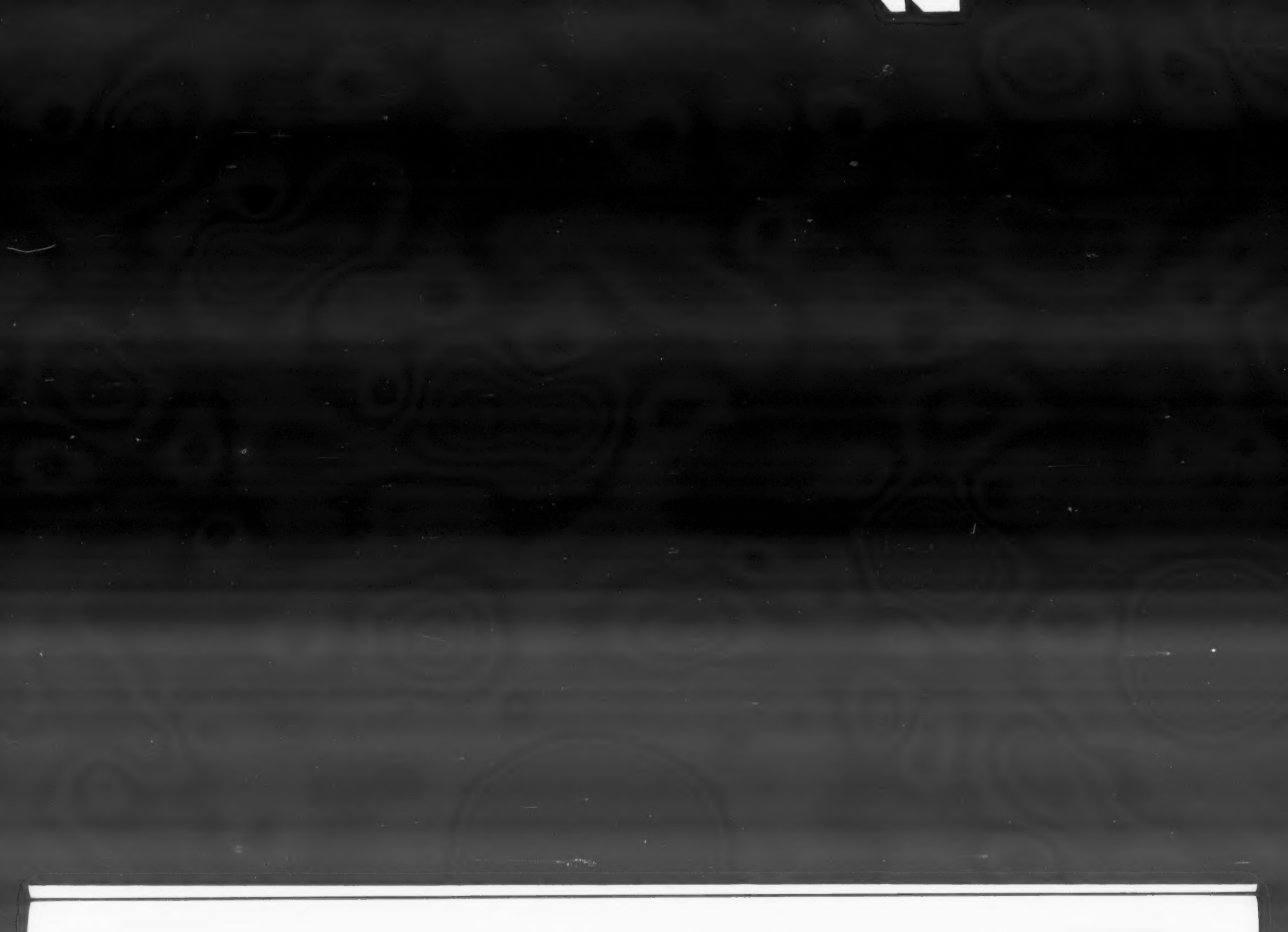
Reinforced concrete water supply buildings.

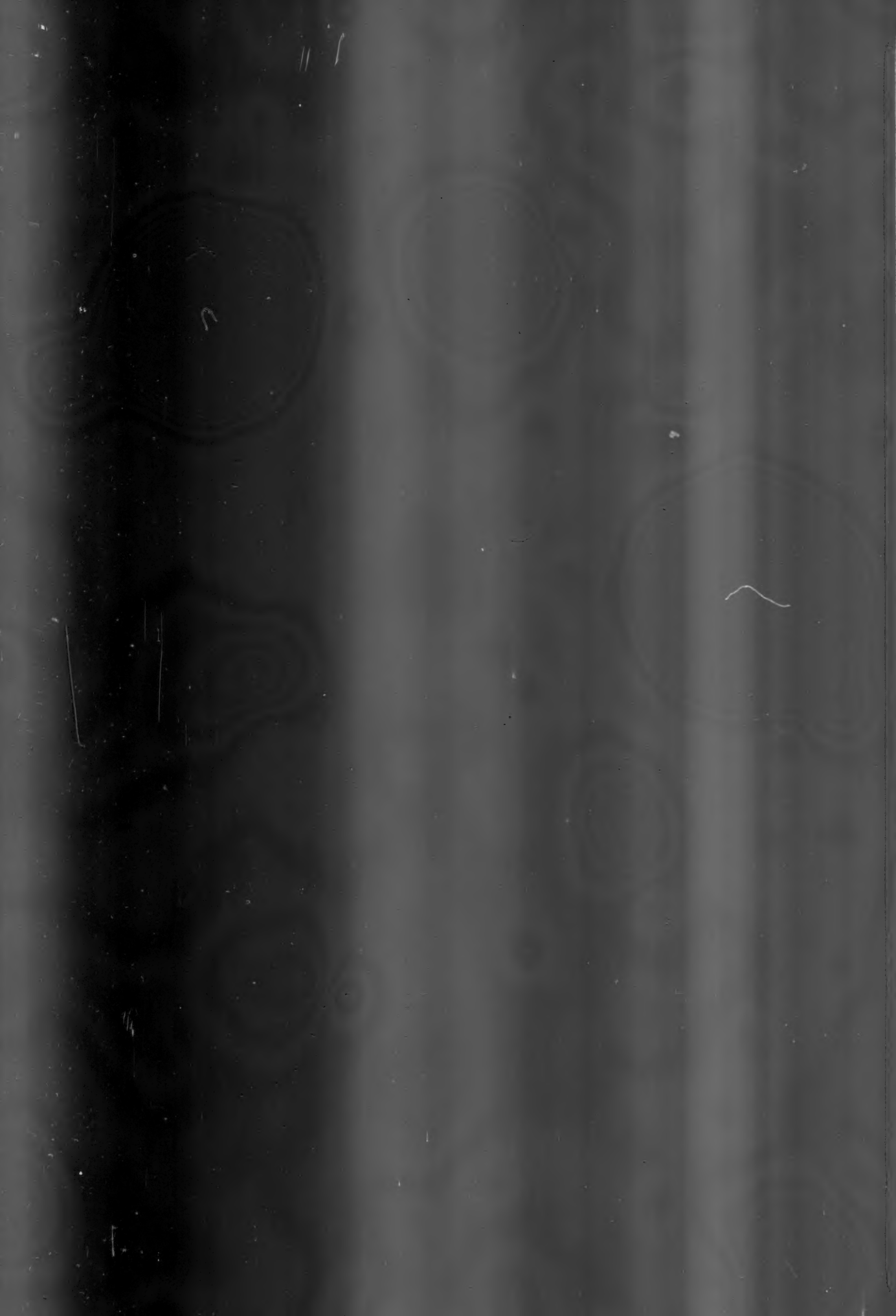
REINFORCED concrete was widely adopted in pre-war years as the most suitable form of construction for pumping stations, filtration plant and other works connected with water supply. The construction of new water supply schemes and extensions to existing plant, with all necessary reservoirs, pumping stations, bridges, culverts and drainage, is an integral part of post-war planning to provide essential facilities for the millions of new houses which will be built. Because reinforced concrete construction has many years of trouble-free service to its credit in public utility undertakings of all kinds, it will again be the logical choice for new water supply schemes throughout the country.

THE REINFORCED CONCRETE ASSOCIATION

94, PETTY FRANCE · LONDON, S.W.1.

Telephone: Whitehall 9936.





erection is necessitated by the increased production of home-grown grain which has to be dried in bulk before milling or long-term storage can take place.

Movement by gravity and cheap storage facilities are the governing factors in silo design. Height is the dominant feature. The elevation is strikingly simple—a central working tower, brick-built, with two reinforced concrete wings (with a brick-built penthouse), each of which contains twelve storage bins. Provisions are made to interchange wheat from any bin to any other bin, either direct or via the drying plant in the central tower, or to deliver it to road, rail or river craft. The total storage capacity is 5,000 tons. The working house is 85 ft. high and about 30 ft. square, each wing is 75 ft. high and 90 ft. long. The foundation has to carry a load of about 9,000 tons over an area of 210 ft. by 30 ft. The central working house is steel framed with brick panel walls and contains seven floors.

The casting of the bin walls is an intricate job. Two methods of wall formwork have been adopted :—

(*a*) Creeping or continuous, operating on a system of jacks (see Inf. Centre No. 1193).

(*b*) Leap-frog or detachable, operated by a system of clamps.

With the creeping method, construction joints are avoided, and it is possible to obtain a perfect wall over the whole height, whereas with the leap-frog method a construction joint is necessary with each lift. A further advantage of the creeping method is the speed of erection. A complete nest of twelve bins has been concreted in six days, a rise per hour of nearly 5½ in. Whichever method is used, the 2,000 tons of concrete required are mixed at ground level and raised to the working platform by ship on an electric hoist.

The cross-section of the bins is either circular or square.

LIGHTING

1333 — *Lighting and Vision*

LIGHTING AND VISION—THE OXFORD OPHTHALMOLOGICAL CONGRESS, 1943. (*Light and Lighting, August*, 1943, *p.* 113.) Three papers on lighting and vision by *Sir Duncan Wilson, H. C. Weston and C. R. Mereweather.*

It has always been a remarkable fact that lighting and vision, which are exactly complementary factors, have been mainly studied separately. Physicists and illuminating engineers studied lighting, and physiologists studied the eye. (The architect, though responsible for much human environment, studied neither.) The Conference—mostly physiologists—received these three papers by Wilson, Weston and Mereweather exhorting co-operation for the purpose of research, and setting out the present position. It makes quite interesting reading for designers, though some of the blame for inadequate lighting in factories—especially daylighting—is laid at their door. Sir Duncan Wilson, who is Chief Inspector of Factories, was largely responsible for the fact that factory lighting has been made the subject of increasingly stringent legislation. It is worth noting that he here expresses the opinion that the regulation of lighting in offices is now overdue. This is another of many signs indicating that architects' responsibilities for lighting are likely to be increased in the near future.

1334 — *Gas Lighting*

DOMESTIC GAS LIGHTING. (*Gas Journal, June* 9, 1943, *p.* 699.) Discussion of gas industry's policy on lighting.

It is widely assumed by designers and lay public that electricity is the best source of light, and that gas will be used only where electricity is not available. To some extent this attitude has been confirmed by the gas industry itself in evidence to the Central Housing Advisory Committee of the Ministry of Health, but apparently this is not an agreed view, and the present reference is a very frank discussion of the position. Certain people in the industry feel that gas lighting has lost position only because of inadequate research and bad policy regarding the marketing of fittings. Gas lighting may stage a come-back, though it does not seem likely for some years.

QUESTIONS and answers

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

1335 — *Stonework Repairs*

Q *Repairs to stonework. We have been asked to advise on the repairs to decayed stonework in a church. The structure is magnesium limestone, which is very badly weathered, and we should like to know if you think a satisfactory job could be made by rubbing down and preparing with a wire brush and afterwards cement rendering in a coloured cement prepared to match the remaining weathered stone.*

A There is no objection to the use of a cement rendering on magnesium limestone, except for the fact that it is difficult to match up the colours and that it will inevitably show. There are transparent water repellent substances which can be used as a preservation where the decay is not sufficient to warrant the replacement or the facing up of the stone.

In our view, if you are not experienced in this class of work you would do well to employ an expert, and we suggest Messrs. Szerelmy, of 277, Rotherhithe New Road, London, S.E.16, who would both advise you and give an estimate for the carrying out of the work.

1336 — *Hardening Timber*

Q *I believe there is a process whereby sawn timber can be hardened. Can you confirm this and supply any details of the process ?*

A The Timber Development Association, to whom we referred your enquiry, state that there is a process of compregnation which makes wood much heavier and harder, and gives it many of the qualities of metal. We understand that sawn timber is compressed and then impregnated with resin. A firm who compregnates wood is Jicwood of Weybridge, and we suggest that you get in touch with them direct.

1337 — *Linking Three Towns*

Q *I am interested in town planning development, and I understand that some time ago there was illustrated in some architectural journals a scheme for linking three small townships (each about* 3,000 *to* 4,000 *inhabitants) in East Lothian, Scotland. The architect was, I believe, Mr. F. Meers. Can you please tell me where to look to study this scheme ?*

A The following list has been extracted, with the kind permission of the RIBA Librarian, from the library catalogues :

The Journal of the Town Planning Institute, 1941, May-June and June-July issues.

The Journal of the Royal Society of Arts, August 22, 1941, p. 604.

The Official Architect, September, 1941, pp. 443-447 : *An Experiment in Planning for Agriculture and Industry*, by F. Meers.

SOCIETIES AND INSTITUTIONS

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

RIBA

Prefabrication

Some time ago the War Executive Committee of the Council, on the proposition of the President, appointed a small Committee to formulate the Institute's views on prefabrication and standardization. This Committee, of which Dr. Chas. Holden was Chairman, has prepared the following memorandum, which has been approved by the Council and may be taken as expressing officially their views on this subject, which, quite properly, is receiving so much attention at the present time :—

MEMORANDUM ON PREFABRICATION AND STANDARDIZATION

1. Prefabrication is assumed to mean the construction and assembly at the factory of units of building in portable sections for convenience of transport and would include structural units, complete sanitary units, fitments, etc. Such units would be standardized for speed and economy in production and erection.

2. Standardization has long been applied in the production and manufacture of small single items of building equipment, and could with advantage be greatly extended.

3. The RIBA points out that it is inevitable that there must be a much larger degree of prefabrication and standardization in the post-war years than hitherto for the following reasons :—

That the demand for post-war building will be so great that "speed" will be essential to cope with this demand within a reasonable time.

That four years of war production have taught us the value in terms of organization for speed and economy of mass production

of almost all war materials, and these lessons must be applied to the arts of peace.

4. The RIBA would, therefore, welcome the assistance which prefabrication and standardization could make towards the carrying out of the post-war building programme; subject only to the over-riding condition that the fundamental principles of good architecture shall not suffer, viz., good planning and siting, good design and construction that is sound technically and economically. Good design must be interpreted in its broadest sense when applied to a new material or a new building technique, both of which must have appropriate expression.

5. Any proposal, therefore, for prefabrication and standardization as applied to building, whether it be for doors, windows, internal fittings, or for larger units of buildings themselves, should be judged on its merits in fulfilling the above conditions.

6. It is suggested that a central Board should be set up for the purpose of making sole recommendations for the modification of building bye-laws permitting, under licence, the use of new materials and building techniques which fulfil the above-mentioned principles.

7. All new methods and materials should be subjected to drastic tests by the Building Research Station, which should report direct to the Board.

8. From time to time there should be a review of different types of structure with a report on the behaviour of materials and techniques under stress of weather, wear and tear, maintenance costs and general amenity.

9. It would be advisable that the standardization of prefabricated structures should consist of units of construction capable of assembly in a variety of combinations. This would enable buildings to be planned for aspect, for varying needs and for the avoidance of the monotony of endless repetitions.

10. In the interest of public amenity it would be generally preferable to confine the use of any particular building technique to groups of houses or buildings in specified areas rather than in isolated examples among buildings of traditional technique.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS,
IAN MAC ALISTER,
Secretary

CPRE

W. S. Morrison

December 10, at the Chartered Surveyors' Institution, 12, Great George Street, S.W.1. Annual General Meeting of the Council for the Preservation of Rural England. ADDRESS BY THE RT. HON. W. S. MORRISON, M.C., K.C., M.P., Minister of Town and Country Planning.

W. S. Morrison: I and my colleagues and predecessors in office have made it abundantly clear that we are determined to preserve the countryside generally from haphazard urban infiltration with its train of interference and disfigurement—that, on the one hand, we mean to guard jealously the country's farmland, especially the limited and precious extent of farm-land of high quality—that, on the other hand, we mean to preserve no less jealously the country's rural amenities, especially in what I may call (for lack of a better name) the "amenity areas," the stretches of countryside which, through their landscape beauty and their relative wildness and openness, are of special value and suitability for the holiday-making of the people, for open-air recreation, and for the refreshment to body, mind and spirit of contact with unspoilt nature.

But—it would be wrong, dangerously wrong and misleading, to let these key points of policy stand unqualified—to allow them to carry the suggestion that every part of England and Wales which is at present rural can and should for ever remain so. On the contrary: the huge overall shortage of urban housing—the urgent need of decongestion in our cities and many of our larger towns—the overcrowding of land with buildings, and of buildings with people—the problems of traffic concentration—the call for a better balanced location of industry, and for a progressive and systematic use of our mineral resources. All these pressing necessities of our urban population and their physical environment mean that there will have to be *some* new urban development in places which are at present rural; *some* expansion of existing towns, large and small; *some* creation of new towns, satellite or independent, whether round existing village centres or on entirely new sites.

The additional land required to accommodate all our urban population, without congestion and at satisfactory standards, is but a small proportion of the total extent of England and Wales. But this proportion we must be ready to give. There must be an "overspill": a controlled and planned overspill, but in sum a very large overspill—the London Plan alone visualizes an outward migration of some 600,000 people.

The first thing I have to say about Rural England is, then, that—while we safeguard all the rest—we must be ready to earmark and devote some parts of it to urban expansion. It must be the business of planning to see that these parts are, in sum, no more than is really necessary, and that, individually, they are chosen with due care for farming and amenity values no less than for urban, economic and transport convenience.

Before I turn to the rural side of the picture—your side—I would like to say a word of one main aspect of planning which is common to both town and country, and which is, I know, of very great interest to CPRE—an aspect, moreover, which is emphatically within the responsibility of my Ministry. I refer to planning control over the external appearance, the siting and the group arrangement of buildings, and other works. Wherever we do or do not permit them to be constructed on general grounds of land utilization planning (I am coming to some of the issues of rural land utilization in a minute), it must be our aim to ensure that our houses, villages, suburbs and towns are not only good to live in but good to look at. This is true in equal measure (and with greater need of attention) in relation to the more utilitarian structures which are indispensable to our economy—the waterworks, power plant, and industrial buildings of the countryside which can all add to rather than detract from the interest of the rural scene if they are designed singly, honestly and without pretension.

I do not mention this issue in order to announce anything to you—the time for that is not yet—but I do want to assure you that we are using the breathing-space provided by the wartime cessation of ordinary building development to make a thorough re-examination of it, with a view to more systematic and effective action. The fact that Mr. Strauss, who has so persistently and ably advocated the architectural and amenity objects of planning, is my Ministerial colleague, really makes it unnecessary to give this assurance—but I want to tell you that my own personal interest is no less strong.

I am very much relying on the continued help, based on wide knowledge and experience, of the CPRE, and its branches and associated bodies. I am mindful and appreciative—as, I am sure, is the whole planning movement—of the ungrudging service which so many of your members have given in the past through the system of Advisory Architectural Panels: voluntary service which has secured in many areas not only a marked improvement in the design of current building works, but also a significant awakening of official and public concern for good design.

I turn now to other planning issues of more strictly rural concern. In doing so I pass at once into the field covered by the Report of the Committee presided over by Lord Justice Scott. I think I shall not be far wrong if I assume that the Scott Report embodies or reflects a large part of the policy of CPRE. It is an exceedingly wide-ranging document—we have reckoned that it contains 108 distinct recommendations—and it has all sorts of repercussions on issues of public policy outside its immediate subject of Rural Land Utilization. It is not—as I have no doubt its authors would be the first to agree—the sort of document that any government could possibly accept or reject *en bloc*.

But we have been hard at work on it ever since it was received, in collaboration with the other Departments concerned, and we have made good progress.

A considerable number of the most important recommendations of the Report have not only been accepted, with or without variation of detail, but have already been put into operation. A central planning authority, with a regional organization, was recommended: it has been established, though not in the precise form proposed, in the Ministry over which I have the honour to preside, and ten Regional Planning Offices are an important feature of the organization I have built up. Compulsory local planning throughout the country—strengthened interim control—provision for reference to the central planning authority of cases involving wider than local considerations, and stronger and more positive central supervision generally: all these were recommended, and all these, with other improvements which I have no time to detail, have been secured by the passage of the Town and Country Planning (Interim Development) Act, now in force.

I have a feeling that our friendly critics (or critical friends) in the planning movement have not quite fully appreciated this new Act—perhaps because the word "Interim" suggests something impermanent and liable to be abandoned, along with wartime defence regulations and the like, when peace returns. I need hardly say to this informed audience that this impression is wholly erroneous.

It is true that—with the major exception of Clause 1, which extends the full range of planning powers over the whole country—the Act is primarily concerned with strengthening the system of planning control during the "interim" period while schemes are being prepared. It is true also that we have not yet brought forward our proposals for the corresponding strengthening of the system to apply after the interim period—this is obviously bound up with the questions of development values, compensation and betterment covered by the rural land recommendations of the Uthwatt Report, on which—to quote from Mr. Lyttelton's recent speech—"the Government has not yet made up its mind, and is not in the least ashamed to say so." *But*—at the very least—"what we have, we hold"—I am not going to indulge in vague anticipations of the future full "operative stage" system, but you may be assured that it will be a thorough, well-considered handling of the vast subject. The interim system enables us, from now on, to hold the fort.

But the war itself has produced and is producing a fresh set of planning difficulties, about which the CPRE is, I know, much and rightly concerned. Particularly, there is the mushroom growth of wartime factories, camps and hostels so widely dispersed in country places and the problems of their disposal after the war—and, even more widespread especially round the coast, the innumerable temporary defence works and miscellaneous "war messes" and the need that they should be quickly and systematically cleared away and the damage made good when peace comes. Recent Ministerial statements have shown that the Government fully realizes the importance of these issues, and that arrangements for dealing with them are being worked out. I will add only this—that planning considerations are not being and will

not be overlooked. The prime need in this and many other aspects of planning where other departments are inevitably concerned is that inter-departmental consultation should be regular, thorough and expeditious. I do not pretend that under the strain of war such consultation has always been effective in the past, when form has perhaps sometimes been taken to excuse substance. But I do say that we have already established a wide range of consultation and regular detail reference which is effective, and that further extensions are in early prospect.

Another effect of the war has been to speed up and make more ruthless the destructive march of a variety of extractive industries—gravel, ironstone, roadstone, lime and open-cast coal. So far as proved war necessities are concerned, all that can be done is to try to minimise the damage and to make what provision is possible under the existing law for reinstatement. This we are doing. As to after the war—all these issues of quarrying and mining are highly technical and, from the planning point of view, largely novel. If planning is to deal with them wisely and thoroughly, it must have an adequate basis of survey knowledge and research. This basis my officers are now actively preparing.

Not least important among the issues covered by the recommendations of the Scott Report are the groups relating to holiday and recreational use of the countryside and coastline. At the forepoint stands the call for National Parks: that a choice of the finest, more extensive areas of wilder country should be strictly preserved, and provided with access and facilities for public enjoyment, by specific national action. We have been hard at work on this issue.

Mr. John Dower has been making surveys for me in several potential National Park areas and doing other preparatory work. He has now presented a general Report to me, which we are using as the basis for consultations now proceeding with other interested Departments.

The coastline comes next—with its many special problems, its pressing need (in view of the growth of "Holidays with Pay") of sound holiday development in carefully selected places, and of strict preservation and improved access in all the remaining unspoilt stretches. Here, too, we are pressing on. Mr. Steers, the Cambridge Geographer, has given most generously of his time to make an expert survey, which already covers a large part and will before long cover the whole coastline of England and Wales.

Other related issues on which my officers are hard at work, in co-operation with other Departments, are footpaths, commons, the conservation of wild life, and the general provision of holiday accommodation.

BCURA

Report

The British Coal Utilization Research Association has issued its quinquennial report, THE FIRST FIVE YEARS, REPORT FOR THE PERIOD: 1938-1942. The address of the Association is: Experimental Station, Rickett Street, West Brompton, S.W.6.

The report contains an interesting description of the development of the Convector Fire, which shows an increase of efficiency as compared with the ordinary coal fire grate of from under 25 to 40 per cent.

LMBA

H. C. Harland

Luncheon in Putney of the London Master Builders' Association's Central Area No. 5. The guest of honour was H. C. Harland, F.I.O.B., LMBA President

H. C. Harland: During the war men have been directed from their usual occupations and manner of life to works which the Government have considered essential in the war effort, often on sites where there has been little comfort and many privations to put up with. Labour has really done a good job of work in pulling its weight for the war effort. That control has got to go at the earliest possible moment.

Building firms, on the other hand, have taken hard knocks. Businesses have been altered in many cases almost to closing-down point and many smaller firms have had to close their doors owing to lack of work.

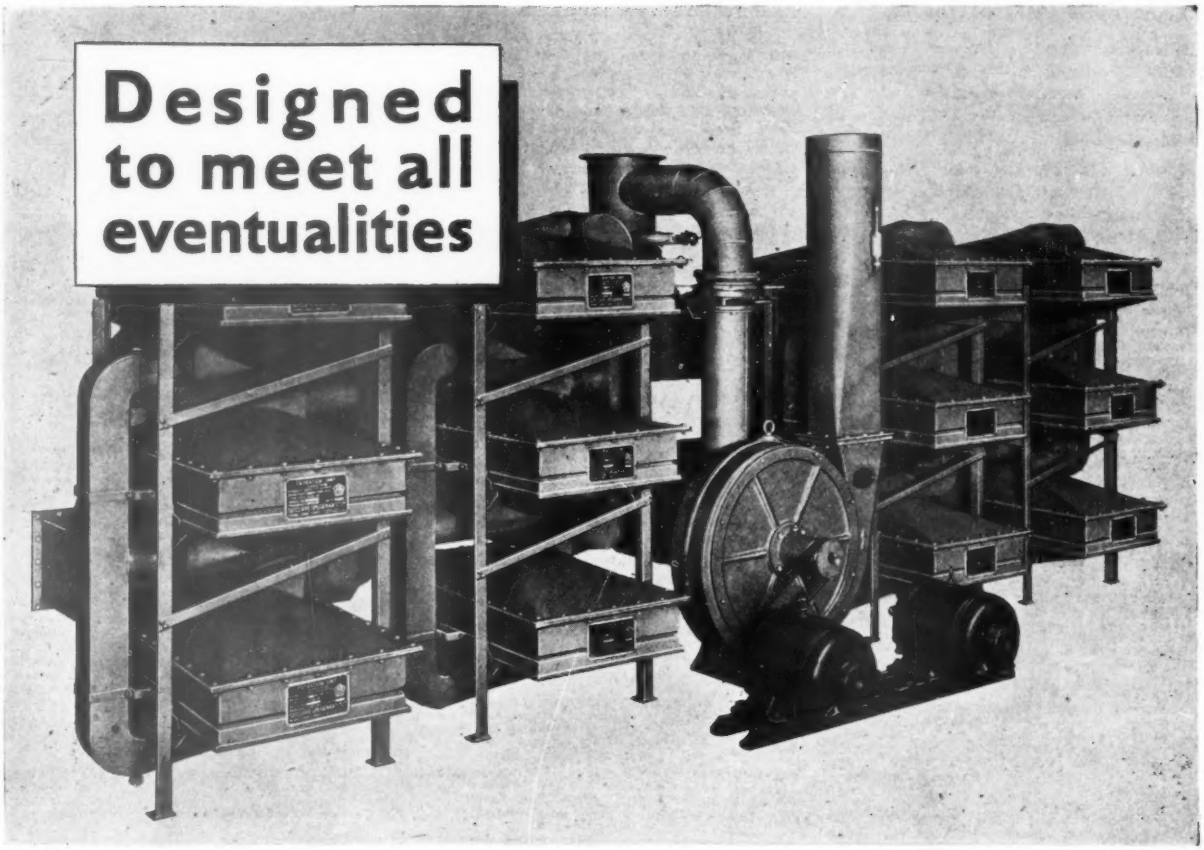
As to control of materials, I say

(1) Free the market from unnecessary controls, and

(2) Fix maximum prices of materials for short periods at a time.

This will make for cheaper production. It is only when controls are removed, and manufacturers are permitted to manufacture in a normal, healthy, competitive way that prices will fall.

With the relaxation of controls many of the Ministries which have been set up will disappear. From the point of view of national economy these Ministries should not be tolerated for one minute longer than is necessary. My advice to them now is to prepare for speedy dissolution as soon as victory has been achieved.



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

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Applicants must be good Draughtsmen, capable of making surveys, preparing working drawings, etc., and preferably have had experience in a Local Government Office.

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E. O. HUMPHREYS,
Director of Education.

Education Offices,
Llangefni, Anglesey.
14th December, 1943. 11

Architectural Appointments Vacant

Advertisements from Architects requiring Assistants or Draughtsmen, and from Assistants and Draughtsmen seeking positions in Architects' offices will be printed in "The Architects' Journal" free of charge until further notice. Other "Appointments Vacant" and "Wanted" will be found under later headings, and are subject to the charge given under each heading.

Wherever possible prospective employers are urged to give in their advertisement 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.

TOWN PLANNING ASSISTANT required to Local Authority (London Area). Capable of preparing schemes under supervision; interviewing; knowledge of the Acts. Salary £400—£450, according to ability. Box 4.

ARCHITECTURAL DRAUGHTSMAN required in Westminster. General all round experience useful. Provided he has had some previous experience it would be opportunity for ex-Service man now studying for A.R.I.B.A. Send details in full to Box 221.

ARCHITECTURAL ASSISTANT required Westminster district, mainly for industrial work. Good draughtsman with planning ability preferred. Give age, experience, salary and state if release from present work could be obtained at short notice. Box 222.

A LARGE FIRM OF ARCHITECTS AND SURVEYORS practising in the Midlands have vacancies for the following: SENIOR ASSISTANT. Qualifications required: A.R.I.B.A. or better; excellent designer and draughtsman essential; capable of preparing coloured perspective drawings. SENIOR ASSISTANT. Qualifications required: A.R.I.B.A. or better; first-class experience in modern cinematograph theatre design and construction essential. Box 223.

SENIOR ASSISTANT required immediately by London architect, to work on experimental houses. Responsible position, £12 per week. Junior also required. Box 224.

JUNIOR ASSISTANT wanted in country architect's office near Worcester. Able to make measured surveys of existing buildings and prepare plans therefrom for post-war schemes. Salary £5 per week. Box 225.

CLERK OF WORKS required immediately for factory extension in West Riding of Yorkshire. Steel-framed construction with alterations and connections to existing factory whilst maintaining production. Close Time-Schedule, U.A. and E.W.O. operating. Box 226.

TEMPORARY ASSISTANT QUANTITY SURVEYOR required in the Provinces by Main Line Railway Company, capable of undertaking all duties including accounts, assessments and valuations. Young improver exempt from military service might be considered. Possible permanency to suitable man. Applications and salary required, with copies of recent testimonials, to be sent to the Employment Exchange, York. 8

Architectural Appointments Wanted

CHARTERED ARCHITECT AND SURVEYOR with own London office, offers assistance to other practitioners in the preparation of post-war schemes, surveys, war damage, etc. Terms by arrangement. Box 181.

REINFORCED CONCRETE ENGINEER requires spare-time design and detail work. Calculations submitted. Any type of precast or *in situ* structures. Box 187.

ARCHITECTS' SENIOR ASSISTANT, prepared to undertake spare time work, working drawings, etc., Birmingham area. Box 191.

KEEN AND ENTHUSIASTIC STUDENT of Architecture seeks position as junior assistant in architects office, Epsom district; experienced in scales from ½ to 3 in. and full size; have prepared sheet drawings, small knowledge of perspective; experience in use of colours and of printing; 13 months' experience in architect's office; firm now moving back to London. Box 192.

CHARTERED ARCHITECT (51), desires engagement, London or near preferred. J. L., 71, Allerton Grange Way, Leeds 7. 193

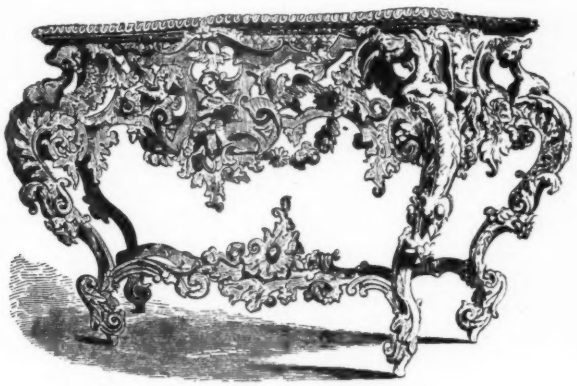
ARCHITECT'S AND SURVEYOR'S ASSISTANT age 22 years, totally exempt from military service, desires post in the North Midlands, preferably Manchester or Leeds district. Seven years experience including three years as Quantity Surveyor's Assistant. Fully competent to perform all usual duties. Salary £300 per year or by arrangement. R. Cooper, c/o. Miss Bird, Oak Street, Fakenham, Norfolk. 194

JUNIOR requires post in architect's office (London area), keen and willing. At present attending Municipal College and School of Building. Box 197.

A.R.I.B.A., 25, exempt, seeks responsible position in London. Box 198.

Classified Advertisements continued on page xxxii

TABLE MANNERS were strictly formal in the 'seventies, but the mannerisms of table design showed no such restraint. Indeed, the Mid-Victorians saw no particular reason why a table (or anything else in the room) should not be enriched with all the ornament it could possibly accommodate. The curliest of out-



lines, too, were freely permitted, as in the console table illustrated here.

The bow legs are especially noteworthy. It will be seen that the designer has shaped them down to tiny feet which, to more modern eyes, suggest the artistry of Pavlova dancing to Chopin's music. The same aversion from straight lines and plain surfaces was apparent in the wall decorations of the period. Floral patterns, sometimes of questionable horticultural veracity, but invariably striking, curved across a colourful background.

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CHIEF ARCHITECT of a Government Department desires change. Aged 32, married. Exempt (medically). Preferably Eastern Area. Experienced Government and Local Government service. Please state salary, and if housing accommodation available. Free at month's notice. Box 201.

ENGINEERING AND ARCHITECTURAL ASSISTANT. Eleven years' wide experience of civil and structural engineering calculations, site organization and supervision and quantities. Able at short notice to execute detail draughting efficiently and expeditiously. Have own drawing office in London. Travel no object. Age 28. Medically exempt. "Rahmen—Structures," 708, Chelsea Cloisters, Sloane Avenue, London, S.W.3. Kensington 5535. 206

YOUTH (17), keen, intelligent; has G.S.C.; desires situation in architect's office with view to being articled. Leatherhead and Dorking district. Marshall, 12, Brook Cottages, Cobham Road, Fetcham. 207

CHIEF ASSISTANT (Chartered Architect), desires change to an executive or similar position of responsibility with a Municipal, Industrial or Commercial Undertaking. Wide experience including recent design and supervision of large factory contracts of national importance. State details and salary. Box 208.

SENIOR ASSISTANT requires new position, preferably London. Age 33, medically exempt. Considerable experience in first-class architects office. Box 210.

ARCHITECTURAL ASSISTANT. Age 23, medically exempt. With 5 years' wide experience in industrial architecture, requires new position. Box 211.

ARCHITECT offers part-time services on drawings at own home; 20 years' London experience. Box 213.

ARCHITECT AND SURVEYOR offers services in spare time; London office, car, own assistant; moderate terms. Box 214.

A.R.I.B.A., exempt military service on medical grounds, requires controlling position with post-war interests, in commercial or private enterprise. Development of materials, pre-fabrication and research. Possessor of keen brain and desire to use it. London area preferred. Salary according to work offered. Box 218.

ARCHITECT, experienced in carrying through works complete, specialized in large industrial and commercial building. Box 216.

ARCHITECT AND SURVEYOR, with own office near Exeter, seeks free lance or part-time work. Experience in all branches of the profession, especially in brewery, licensed premises, domestic, war damage and maintenance work, schedules of condition and dilapidation. Speedy, accurate draughtsman with high capabilities in design and construction. Box 217.

DIP. ARCH., A.R.I.B.A., 38, exempt, is looking for an appointment with responsibility and prospects. Box 219.

ARCHITECT, with 20 years' experience in all branches of the profession, with special qualifications in domestic work and decoration, desires to change from his present position. Write Box 220.

THOROUGHLY EXPERIENCED ESTATE CLERK OF WORKS, BUILDING SURVEYOR, etc., desires position, Midlands preferred; over 30 years' experience, with qualifications, practical and theoretical. Not liable for military service; rendered war service during 1914-18, first Great War. Controlled large, important, ane extensive first-class contracts, etc. Estate management, general property maintenance, supervision all branches of the building trades and the profession; local authorities experience. Full particulars, testimonials, etc., on request. Box 227.

PERSPECTIVE AND ARCHITECTURAL DRAWINGS carried out by architect, with good experience in this work, for moderate charges. Box 228.

Other Appointments Vacant

Four lines or under, 4s.; each additional line, 1s.

ASSISTANT EDITOR wanted for Architectural Paper. Write, with full particulars of qualifications, salary required, &c., to Box 51.

WANTED PRACTICAL INTERIOR DECORATOR who can translate own creative ideas into articles for leading woman's magazine. Preferably one with facilities for taking photographs. Box 7.

Other Appointments Wanted

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

ADVERTISER of proven ability and with valuable existing contacts with Architects, Government Departments and the building industry generally, would like to hear from progressive and well-established company requiring the services of a keen and responsible sales executive. Box 205.

Miscellaneous

Four lines or under, 4s.; each additional line, 1s.

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

SPECIFICATIONS AND BILLS OF QUANTITIES, etc., expeditiously and accurately typed or duplicated. Translations and Facsimile, Typewriting. All work treated confidentially. Miss G. Saunders, Typewriting Bureau, 17, Dacre Street, Westminster, S.W.1. Telephone: Whitehall 2605.

WANTED, one complete set of information sheets, either loose or bound, please state price. Box 988.

MERCHANT NAVY OFFICER, studying architecture for post-war career, wishes to purchase *Building Construction*, Vols. I and II. By Mitchell. To replace copies lost with his ship in recent action. Please write Box 991.

AN ARCHITECT requires two or three perspectives made from his drawings. Send address and fees required to Box 1000.

MAILLARD MANUSCRIPT STUDIOS undertakes all classes of Typewriting. Specializes in Specifications, Bills of Quantities, Survey Reports, etc. 86, South Park Road, Wimbledon, S.W.19. 'Phone Liberty 1788. 9

Educational Announcements

Four lines or under 4s.; each additional line, 1s.

EDINBURGH COLLEGE OF ART.

ANDREW GRANT SCHOLARSHIPS.

The Board of Management may award in March, 1944 four Scholarships of £45 to £80 per annum for three to five years for admission in October, 1944. Candidates must be under the age of 19 on 1st October, 1944, and must show evidence of exceptional artistic ability. One Scholarship of £120 per annum for two or three years may also be awarded to a student who has already reached an advanced stage of training and is under the age of 22 on 1st October, 1944. The College incorporates Schools of Architecture and Town Planning, Design, Painting and Sculpture, and is well endowed with Travelling Scholarships and Fellowships.

Application Forms and further particulars may be obtained from the Registrar, College of Art, Lauriston Place, Edinburgh, 3.

The last day for receiving applications is 31st January, 1944. 10

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