THE ARCHITECTS' JOURNAL

No. 2535] [VOL. 98

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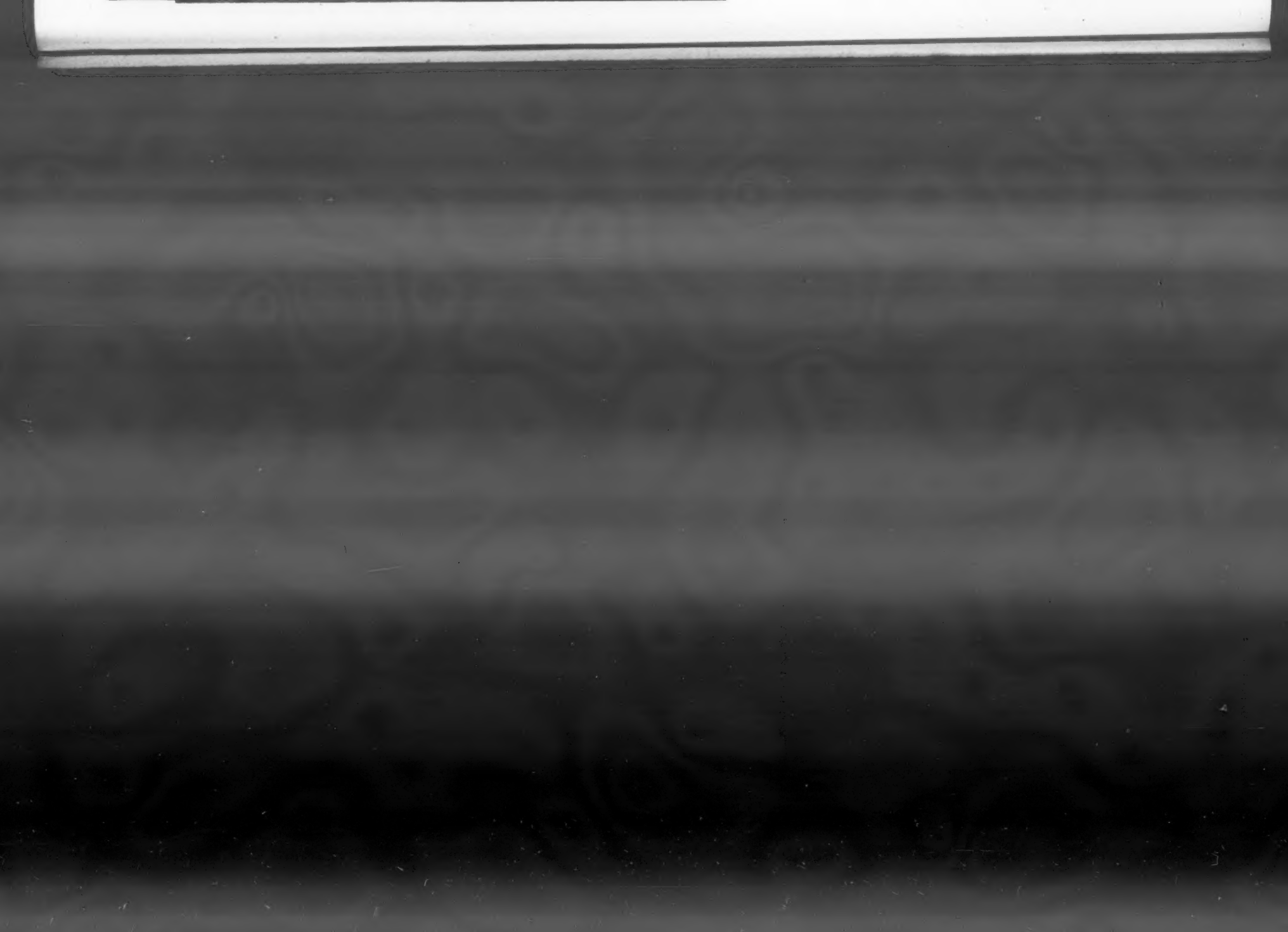
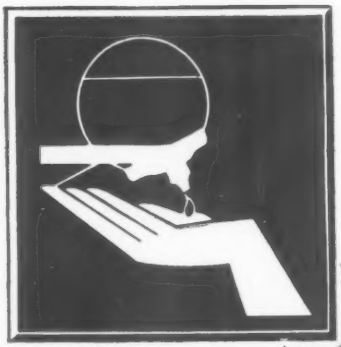
★ The war has both multiplied the number of Official Departments and encouraged Societies and Committees of all kinds to become more vocal. The result is a growing output of official and group propaganda. A glossary of abbreviations is now provided below, together with the full address and telephone 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.
BCGA	British Commercial Gas Assn. 1, Grosvenor Place, S.W.1.	Sloane 4554.
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434.
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.
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.1.	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, Victoria Embankment, W.C.2.	Temple Bar 7676.
IHVE	Institution of Heating and Ventilating Engineers. 21, Tothill Street, S.W. 1.	Whitehall 9609.
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. 3, Albemarle Street, W.1.	Regent 4782-3.
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.
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.2.	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.	
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.
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.
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.



HARVEST HOME BUILDERS
Smallest of British wild animals the Harvest Mouse makes his communal nest among the cornstalks. It is about the size of a cricket ball, and made of tightly woven grasses.



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For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Educational Legal Notices, Miscellaneous, Property and Land Sales—*see* pages xxx and xxxii.

B

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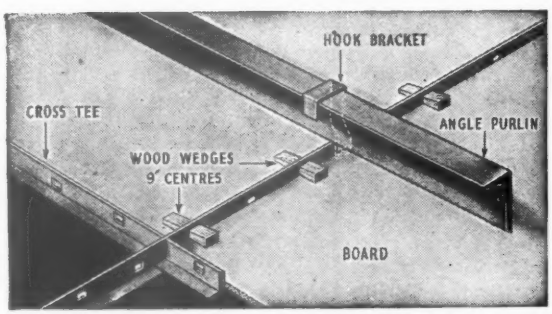

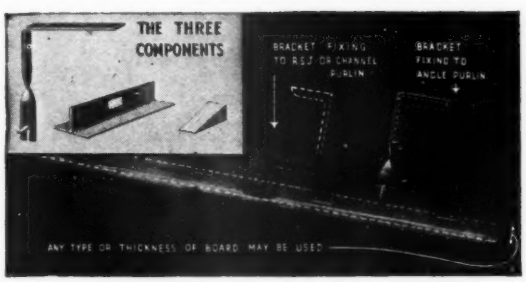

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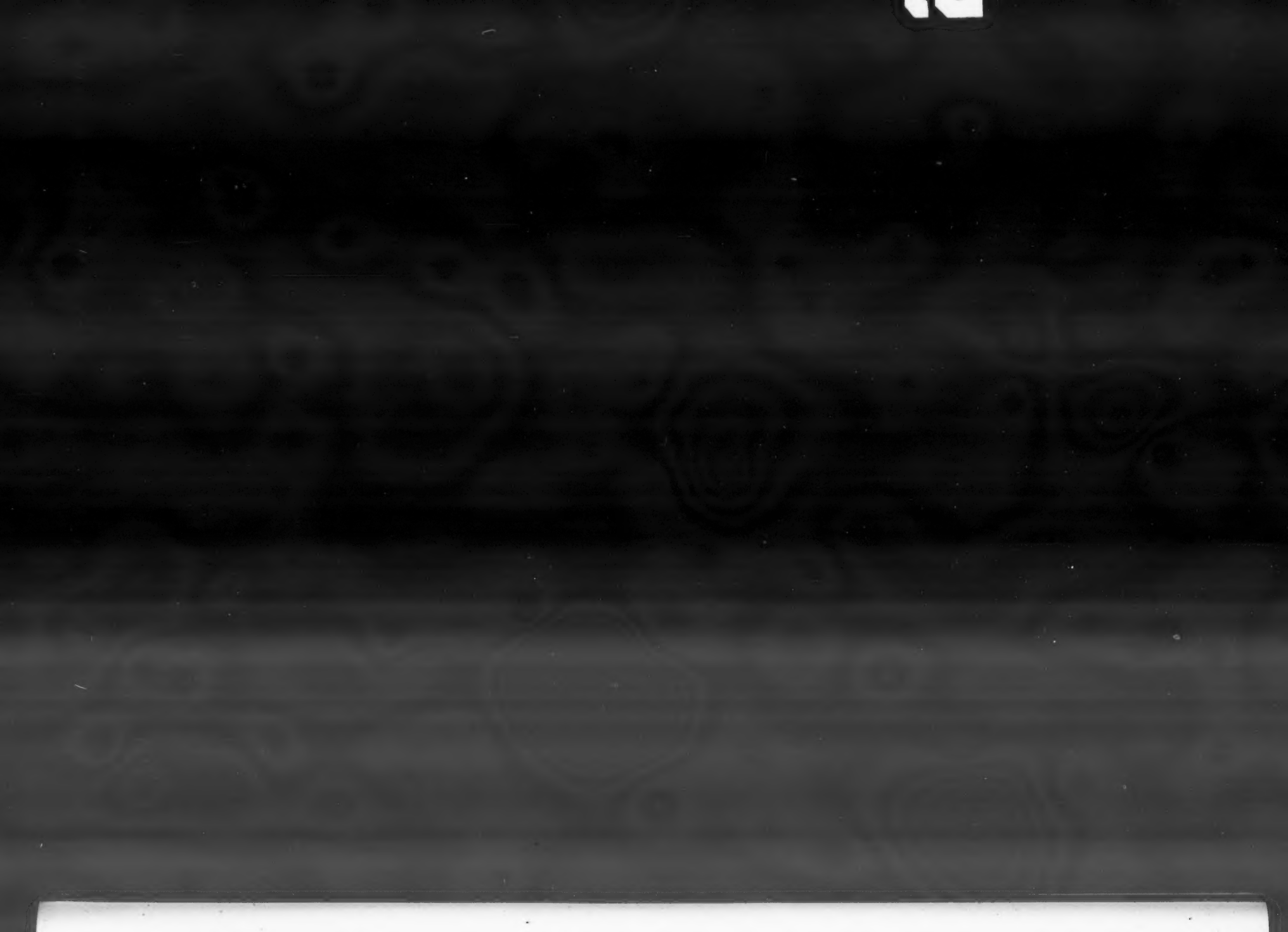
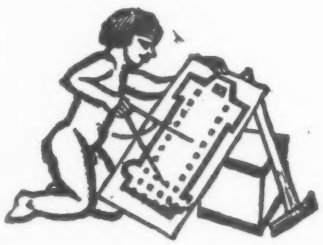


In common with every other periodical this JOURNAL *is rationed to a small part of its peace-time needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the* JOURNAL. *Newsagents now cannot supply the* JOURNAL *except to a "firm order." Subscription rates: by post in the U.K. or abroad, £1 15s. 0d. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage 1s. extra. Goods advertised in the* JOURNAL, *and made of raw materials now in short supply, are not necessarily available for export.*



DIARY FOR AUGUST, SEPTEMBER AND OCTOBER

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.

BANGOR. *TCPA Conference.* At Powys Hall. 11 a.m. to 5 p.m. Chairman: The Mayor of Bangor, Mrs. Elsie Chamberlain. B. Price Davies on *Planning a Town* (with slides). Alderman Edgar Chappell on *Welsh Planning Problems.* Conference fee 3s. (Sponsor, TCPA.) SEPT. 10

BIRMINGHAM. *Civic Diagnosis of the City of Hull: Exhibition.* At Town and Country Planning School, Birmingham University, Edgbaston. AUG. 26 to 31

BOURNEMOUTH. *TCPA Conference.* OCT. 2

BRIGHOUSE. *Englishman Builds Exhibition.* At Museum and Art Gallery. (Sponsor, BIAE.) AUG. 26 to 28

BRISTOL. *Rebuilding Britain Exhibition.* (Sponsor, RIBA.) SEPT. 15 to OCT. 6

CARDIFF. *Rebuilding Britain Exhibition.* (Sponsor, RIBA.) DEC. 20 to JAN. 17

CARLISLE. *When We Build Again Exhibition.* At Messrs. Binns Ltd. (Sponsor, TCPA.) OCT. 2-9

EAST BARNET. *Englishman Builds Exhibition.* At Littlegrove School, Cat Hill. (Sponsor, BIAE.) AUG. 26 to 28

EXETER. *Rebuilding Britain Exhibition.* (Sponsor, RIBA.) OCT. 18 to NOV. 8

GILLINGHAM. *Homes to Live In Exhibition.* At County Library. (Sponsor, BIAE.) AUG. 26 to SEPT. 11

GLASGOW. *Exhibition of Polish Architecture.* At the Scottish Building Centre, 425, Sauchiehall Street, Glasgow, C.2. Exhibition prepared by the Association of Polish Architects in Great Britain. Photographs and plans illustrate Polish architecture through the ages, development and achievement during the between-war years, and plans and ideas for the future. A number of plans and designs by students in the Polish School of Architecture are included. Polish architects are well aware of the huge task with which they are faced in the rebuilding and replanning of their war-devastated country. In this respect their activities in Great Britain are as follows: 1. The education and training of architects in the School of Polish Architecture, Liverpool University, under British and Polish professors; 2. Close collaboration with their British colleagues, extensive study of British Town and Country Planning schemes, and study of legal and technical considerations concerning the rebuilding of Poland with special reference to legislation for the enactment of a national master-plan with regional planning control. AUG. 29 to SEPT. 4

HULL. *When We Build Again Exhibition.* At Mortimer Gallery. (Sponsor, TCPA.) SEPT. 1-11

Civic Diagnosis of the City of Hull: Exhibition. At Mortimer Gallery. SEPT. 1-11

Conference on Planning for Living. In the Guildhall Reception Room. Conference fee, 3s. 0d. 11 a.m., Chairman: The Lord Mayor of Hull. Professor Patrick Abercrombie on *Hull in the National Plan.* 2.15 p.m., Chairman: The Bishop of Hull. Noel Curtis-Bennett, Chairman of the National Playing Fields Association, on *Living Needs of Industrial Cities.* Gilbert McAllister on *Towards a National Planning Policy.* The conference has been organized by R. G. Tarran. (Sponsor, TCPA.) SEPT. 4

LINCOLN. *Living in the Country Exhibition.* (Sponsor, HC.) AUG. 26-31

LIVERPOOL. *Rebuilding Britain Exhibition.* (Sponsor, RIBA.) AUG. 26 to SEPT. 4

LONDON. *Exhibition of Housing Plans and Models* at Selfridge's, Oxford Street, W. (Sponsor, IAAS). AUG. 26-31

Robert Lynd. *Obstacles to Planning in the U.S.A.* At 16, Queen Anne's Gate, S.W.1. (Sponsor, TCPA). 7 p.m. AUG. 28

War Office Exhibition. At National Gallery, Trafalgar Square. New pictures by war artists. First pictures of the victorious campaign in North Africa, portraits of General Eisenhower, General Alexander, Air Marshal Tedder and a whole series of pictures by Captain Edward Ardizzone.

Professor Sir Alfred Egerton. *Trends in the Development of Heating and Ventilating Installations.* At 21, Tothill Street, S.W.1. (Sponsor, IHVE.) 6 p.m. SEPT. 1

MIDDLESBROUGH. *When We Build Again Exhibition.* SEPT. 18-25

TCPA Conference. SEPT. 25

TODMORDEN. *Living In Cities Exhibition.* At Historical Rooms, Centre Vale Park. (Sponsor, BIAE.) AUG. 26 to 28

WELWYN GARDEN CITY. *TCPA Conference.* 11 a.m. to 5 p.m. Mrs. Nicholl, Chairman of the Urban District Council, will welcome the delegates. Sir Theodore Chambers, Chairman of Welwyn Garden City, will also be present. The party will be conducted round the city. Speakers: F. J. Osborn, W. F. Eccles and R. L. Rice. Subjects will include the general aspects of planning and the planning and development of Welwyn. (Sponsor, TCPA.) SEPT. 18

NEWS

THURSDAY, AUGUST 26, 1943
No. 2535. VOL. 89

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

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

★★ *means important news, for reasons which may or may not be obvious.*
Any feature marked with more than two stars is very big building news indeed.

The first award of THE C. N. HARDMAN PRIZE has been made at the Leeds School of Architecture. It was founded in memory of Sgt. Pilot C. Norton Hardman, a graduate of the School, who was killed in action near Malta in December, 1941.

The prize awarded in connection with the schools' third year examinations goes to Miss Margaret Whiteley. The G. and T. Earle prize (second year examinations), has been awarded to Alan G. East.

Mr. G. H. A. Hughes, Director of the Eastern Federation of BTE, has been ELECTED PRESIDENT OF THE CAMBRIDGE ROTARY CLUB.

Mr. Hughes has been Director of the Eastern Federation and Employers' Secretary of the Eastern Counties Regional Joint Committee for the Building Industry since 1929. He is one of the best-known figures in the building industry throughout the Eastern Counties. He is a Fellow of the Chartered Surveyors' Institution, and a Fellow of the Institute of Arbitrators, and has been a Rotarian since 1924.

from AN ARCHITECT'S *Commonplace Book*

DESIRABLE RESIDENCES: MLLE. DE MORFONTAINE'S. [*From* The Cabala, *by Thornton Wilder.*] The villa had been a monastery for many years, and in purchasing it Mlle. de Morfontaine had obtained likewise the adjoining church which still served the peasants of the hillside. She claimed that the villa was the very one that Mæcanas had given to Horace: local tradition affirmed it; the foundations were of the best *opus reticulatum;* and the location fulfilled the rather vague requirements of classical illusion. . . . In furnishing her monastery our hostess had combined, as best she could, a delight in æsthetic effects and a longing for severity. A long, low, rambling plaster building, without grace of line, was the Villa Horace. Disordered rose gardens surrounded it, with intentionally neglected gravel paths, and chipped marble benches. One entered a long hall at the end of which several steps descended to a library. The hall was lined with doors at regular intervals on both sides, doors to what had once been cells now thrown together into reception rooms. Many of these doors stood open during the day and the long corridor, paved with russet tiles, was striped with the sunshine that fell across it. The ceiling had been coffered, and, like the doors, touched with dark green and gilt, and with that rich wasted brick-red that is the colour of Neapolitan tiles. The walls were yellow-white, of caked and crumbling plaster, and the beauty of the view, with the optical illusion of distance and the depth and the lightness of the library seen like some great green-golden well at the further end, appealed to that sense of balance and one's tactile imagination as do the vistas in the paintings of Raphael, whose spell is said to reside in that secret.

Presiding at the annual meeting of the Building Societies' Association in London Mr. William McKinnell said that the societies are building up a position in which they will be able to give LARGE-SCALE ASSISTANCE TO HOUSING after the war.
He said: the provision of these houses must be essentially a co-operative effort with all proved and trustworthy sources of supply contributing their due quota. There is scope for all the recognized agencies, including local authorities and private enterprise. One of the more important factors contributing to the problem's complexity is doubt as to the level of post-war building costs. If experience after the last war is any guide, there will be an initial period when costs are in process of adjusting themselves to a post-war equilibrium. That will present various difficulties. Enterprise will be discouraged if prices are believed to be at a conspicuously artificial level, and if there is also a belief that there will sooner or later be an adjustment to a substantially lower level. The building societies will clearly have difficulty in determining a lending policy which will be most serviceable to their members under such conditions.

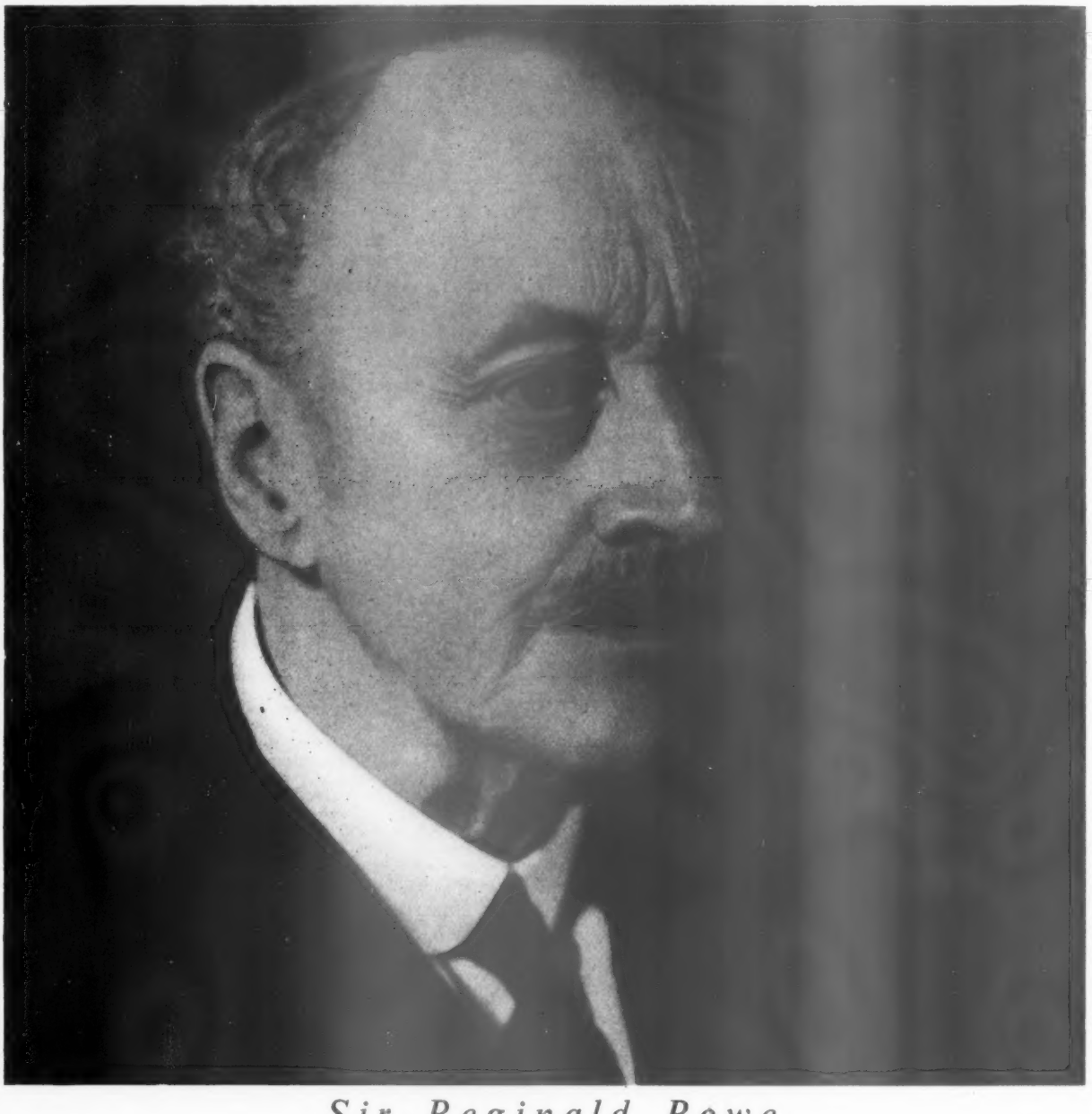
★

The War Damage Commission announces an addition to the official notice of March 2, 1942, which sets out the scale of PROFESSIONAL FEES FOR WAR DAMAGE.
The fees are for professional advisers acting in an advisory capacity in connection with the execution of works allowed by the Commission in claims for cost of works or temporary works. Consideration has been given to the appropriate fee to be paid in those cases where working drawings and/or specifications have been prepared but there has been no supervision or certification of accounts by the professional adviser, either because the client did not require him to perform these latter services or because some part (or the whole) of the work for which the drawings and/or specifications were prepared has had to be abandoned, e.g., owing to further war damage, or requisition, or compulsory purchase of the property. After consultation with, and with the concurrence of, the professional associations concerned, the Commission has decided that the fee to be allowed should be calculated as follows:—(*a*) Where no supervision or certification is given, two-thirds of the fee under Scale 2(*a*) or 2(*b*) as the case may be; (*b*) Where all the appropriate services are rendered but part of the work is abandoned, full scale fee on the work done and two-thirds of the scale fee on the work abandoned. The only limitation is that where two professional advisers render the full services between them, the aggregate fees paid will not normally exceed a single full fee on the prescribed scale.

The Holidays-at-Home week of the Brush Electrical Engineering Company, probably the best ever held by an industrial firm, included FAMOUS BANDS AND ORCHESTRAS, artists and sportsmen.
Dr. Malcolm Sargent conducted the London Philharmonic Orchestra. There were the band of the RAF Regiment, and the bands and orchestras of Billy Ternent, Harry Roy and Sid Millward, and the artists included George Robey, Gillie Potter, Margaret Eaves, Arthur Brough and Leonard Henry—to name but a few. There were also Henry Cotton, golf exhibition match; a swimming gala, tennis tournament and cricket, and "all the fun of the fair," with special attractions for the children. The chairman of the Holidays-at-Home Committee was Mr. Alan P. Good.

Lord Crawford and Balcarres, Chairman of the Royal Fine Art Commission, opening a Rebuilding Britain exhibition at Liverpool, said that between the two wars, more of our BEAUTIFUL BUILDINGS HAVE BEEN DESTROYED than in any other country in the world.
In innumerable cases, he said, they have been replaced by others so mean and unworthy that they have brought satisfaction only to the pockets of the speculator and contractor who put them up. It has been a tragic and humiliating episode in our national history. The damage done both by destruction of what is fine in this country and by unco-ordinated and capricious redevelopment has been greater than the damage Hitler has been able to inflict upon us in this war. The Lord Mayor of Liverpool (Alderman R. D. French) replied to suggestions that Liverpool replanning seems to be inclined once more towards the application of mere cosmetics—road widening and straightening. He said that since the passing of the Town and Country Planning Act, 1932, the corporation has been very busy replanning. This has been accelerated by war damage. Up to the outbreak of the war eight redevelopment areas of over 280 acres have been approved, and it is proposed to deal with two other central areas exceeding 70 acres. The greatest difficulty is that until people living in the scheduled areas can be rehoused it is impossible to pull down their dilapidated houses. Nevertheless, between the two wars Liverpool has built 39,200 houses on the outskirts, including 700 flats, and nearly 9,000 flats in the central areas.

Property on the outskirts of London valued at over £20,000 has been GIVEN TO ST. THOMAS'S HOSPITAL, London, by Mr. E. Hayes Dashwood, of Oxfordshire.
The gift is made in recognition of treatment which he received in St. Thomas's Home many years ago after a severe hunting accident. According to *The Times* this property is one of the greatest benefactions ever received by St. Thomas's in all its long history. The hospital has suffered so severely from enemy action that Mr. Dashwood's generosity will materially lighten the task of reconstruction which lies before the governors. Mr. Dashwood makes only one reservation: That, in the event of the Civil Servants using their dictatorial powers (which is endured by the public at large, but which will not be tolerated after the war, when the taxpayers will see that they will do their duty as servants of the British Empire and not become their masters) and nationalizing the hospitals either by local or national government, the gift is to be used for the advancement of medical knowledge.



Sir Reginald Rowe

Most of the towns and villages of England must have seen the mobile exhibitions of the Housing Centre. These exhibitions started about two years ago and deal with various aspects of reconstruction. They are continually on the move, several copies of the same exhibition spending a week or so in different places at the same time. This week about six exhibitions and their copies are on the road, the latest addition being *Civil Diagnosis, the Work of the Hull Regional Survey*—in this case a single exhibition—which is at Birmingham until Saturday next, when it goes to Hull. The Chairman of the Housing Centre is Professor Patrick Abercrombie and the Chairman of the Executive Committee is Sir Reginald Rowe, whose interest in housing dates from 1900, when he became Chairman of the Improved Tenements Association, a position he still holds. With the assistance of Octavia Hill he helped to inaugurate this Association for the better housing of the poor. He is also both President and Chairman of the National Federation of Housing Societies, for the formation of which he was also largely responsible, and Chairman of the Housing Society Investment Trust. Educated at Clifton College and Magdalen College, Oxford, he rowed for Oxford against Cambridge in the 1889-1892 boat races, winning in three of the four years, in the last year as President of the OUBC. Subsequently he was a member of the Stock Exchange, first as a broker and then as a jobber. Later, having retired, he became Secretary of the New University Club. He served in Flanders as Captain in the Royal West Kent Regiment in 1915-16 and later at the War Office, and from 1920-37 was Under Treasurer of Lincolns Inn. For many years he has been closely connected as a Governor with the administration of the Old Vic. He originated and organised the scheme for the re-creation of Sadlers Wells and he is now Managing Governor of the Old Vic and Sadlers Wells. President and Chairman of the Economic Reform Club and Institute, senior member of the Council of Oxford House and Chairman of its Finance Committee, he has in recent years been associated with the work of the National Association of Boys' Clubs, and is Vice-President and Chairman of its Music and Drama Sub-Committee. He has written a book on rowing, a book on economics, a volume of poems, two novels, and a chronicle of the last war. He was knighted in 1934.

★ *MOTCP has issued a circular to local authorities and joint town and country planning committees, calling attention to the TOWN AND COUNTRY PLANNING ACT, which has now become law.* The Act enlarges in important respects the powers hitherto exercised under the Town and Country Planning Act, 1932, by local planning authorities and by the Minister. It relates solely to the "interim development period," i.e., to the period between the taking effect of a resolution to prepare a scheme and the date on which the scheme becomes operative. Further planning legislation dealing with other matters is contemplated. The main features of the new Act, so far as it affects local authorities, are these:—(i) As from October 22 a resolution to prepare a scheme will be deemed to have taken effect of all land in England and Wales which is not already the subject of an operative scheme or a resolution and interim control over such land will operate from that date; (ii) Interim development decisions become enforceable in the interim period. This will apply as from July 22 in those areas already subject to an effective planning resolution and as from October 22 in those areas referred to in (i) above. The powers of local authorities during the interim period are strengthened in a number of points. All local authorities and joint planning committees will shortly receive memoranda—(i) explaining the combined effect of the 1932 and 1943 Acts; (ii) describing the amount of survey and other work essential for the proper exercise of planning control during the war; (iii) suggesting how the available technical staff can best be used in the difficult war conditions. The Ministry's Regional Planning Officers will also be ready to assist with advice. The Minister is satisfied that an extension of joint action by Local Authorities will lead to more efficient planning and he has therefore arranged for a review to be made of those areas in which the Authorities have not yet formed or joined such groups. He expects that voluntary arrangements for joint action will generally be made; but in the absence of such voluntary arrangements, he will, where appropriate, himself initiate the formation of Joint Planning Committees or secure other suitable forms of co-operation. He contemplates that existing groups should be disturbed only if, in the interests of good planning, some rearrangement is essential. The circular can be obtained from H.M. Stationery Office, price 1d. net.

Flatford Mill adjoining the farmhouse WHERE JOHN CONSTABLE WAS BORN has been purchased by the NT. Some 15 years ago the late Mr. T. R. Parkington, of Ipswich, purchased Flatford Mill, the Mill House, and Willy Lott's cottage and some adjacent land in order that they might be preserved for the benefit of the nation. The NT now announces that through the public-spirited co-operation of Mrs. Parkington and the executors of the late Mr. Parkington it has been able to purchase the property. Willy Lott's cottage, on the Suffolk bank of the Stour, is in the middle of the Gainsborough country and probably dates from the first quarter of the seventeenth century, although some of its timbers are considerably older. Adjoining the cottage are mill-house and mill and the former farmhouse. The former farmhouse with 12 acres of adjacent land has already been acquired for preservation by the Ancient Buildings Trust and carefully restored from its former ruinous condition. But it is as the birthplace of John Constable, and the subject of "The Haywain" and many other pictures, that Flatford is famed wherever English landscape painting is known.

USE EMPTY HOUSES

ON August 4 a circular was sent to local councils throughout the country by the Ministry of Health. The circular informed them that, in view of the increasing housing difficulties, and on the strength of a report made to MOH by a conference of the Associations of Local Authorities and the LCC, local authorities would be given wider powers than they had hitherto possessed to requisition suitable premises, which might otherwise remain unoccupied, and to make these premises available for families living in unsatisfactory conditions; that is to say for families other than those evacuated or bombed out. On August 10, local authorities in the Greater London area had already begun their preparations for requisitioning houses.

Each requisitioning notice must have the approval of the Ministry's senior regional officer, but, apart from that, the whole machinery is in the hands of the local authorities, including the selection of suitable families, who will occupy the empty premises. The Ministry recommends, however, that authorities should be guided generally by the considerations which govern the selection of tenants for houses on municipal housing estates, a reasonable preference being given to those who now live in insanitary, overcrowded or otherwise unsatisfactory conditions.

The report presented to MOH suggests that the accommodation to be requisitioned may be (i) empty houses already suitable for use as single family dwellings, to be repaired if necessary, (ii) houses needing adaptation as self-contained flats, (iii) shops or other premises suitable for conversion, or (iv) larger houses which can be converted into dwellings for two or more families.

Tenants or owners of property liable to be requisitioned will be given an opportunity of stating their intentions concerning the property and of letting or re-occupying before requisitioning is applied. In cases where houses to be requisitioned are furnished, the furniture will be removed either by the owner, or, in case of his default, by the local authority.

An economic rent will be charged, taking into account the cost of requisitioning and repair work. The rent will not be less than the amount the tenant might reasonably be expected to pay if housed in the normal way in the district.

That briefly is the outline of the new requisitioning scheme. Provided adequate organisation, materials, labour and architectural assistance is forthcoming, it should mitigate the housing shortage to an appreciable degree, if the number of empty buildings is as great as a superficial observation in the streets of any large town would lead one to believe. Since the main bulk of building for war purposes is complete, it is to be hoped that greater resources for this kind of work will now be available.

This advance on the housing front by MOH (one might ask in passing, why MOH and not MOW) has been taken under

the powers given to the Minister of Health under the Defence (General) Regulations of 1939. This rationing of housing is a war-time measure, an important and drastic step that could not have been taken except under war conditions. Nevertheless a precedent has been created which could well be carried over into the first years of peace, when housing will be perhaps the most pressing problem.

We are unlikely to return to the days when the spacious Victorian and Edwardian bourgeois mansion will be used for its original purpose. Yet thousands of this type of building still stand unused. Here surely, in the adaptation and full, if only provisional, use of such buildings lies one valuable source of supply of that temporary housing which will somehow have to be found during the first difficult years of demobilisation and reconstruction.

The Architects' Journal

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

NOTES & TOPICS

FIRST SHOT ON THE HOUSE FRONT

During the past six months most of those who live near London have had among their acquaintance one or two people whose absent expressions and one-subject conversation disclosed them as househunters. The powers conferred on local authorities to requisition empty houses and other premises in order to improve housing conditions caused these people to swing between new hope and black despair. Nor is it easy to tell just what the effect of the powers will be.

★

It would appear that undamaged empty houses in the London area are almost entirely confined to two types—the large terrace house and, in much smaller numbers, the large suburban house (usually for sale only). Both types would entail a labour and money cost in upkeep which in wartime is impossible for almost everyone. Despite this, sales have been taking place in growing numbers since our heavy raids on Germany brought no reply.

★

The amount of relief which the new powers will confer will therefore depend on labour and materials which local authorities can wheedle from MOW for conversion purposes, for repairing slightly damaged houses and for converting buildings other than houses. Unless local authorities can recruit some more architects, they are therefore unlikely—from sheer shortage of manpower—to use the powers with vigour.

★

The many who have been sharing a house for far too long but cannot claim that their quarters are insanitary, do not feel, after some days of reflection, that their chances are much changed. A few owners may decide to sell who would not have done so otherwise, a few who were trying to sell already may lower their price a little, a very few may decide to lease if they cannot get the desired price for a sale ; but on the whole the man who can afford £100 to £150 rent and rates, is going to remain as unlucky as all those who cannot.

★

When every allowance has been made for house-hunter's pessimism, it does seem that the present powers can only produce results if it is made obligatory for a local authority to use all buildings in its area which can be converted. This in turn would need close (and efficient) liaison between all " overcrowded " authorities and the Ministries of Health, Works and Labour.

★

Without these things the new powers are not going to provide homes for more than a very few thousand.

FOURIER AND HIS PHALANSTERIES

The quotation from *An Architect's Commonplace Book* on *Plan for the New Era* published in the JOURNAL for August 12, stimulated one to discover more about Fourier, that logical but utterly impractical French reformer, who lived when the world was buzzing, as it is again to-day, with a hundred and one new ideas of social reform, the days, in Napoleon's words, of " the great and splendid truths, the sublime principles " of the Revolution.

★

Convinced by bitter personal experience in commerce that enlightened self-interest and unorganized competition were immoral and that the world in which he lived was on the wrong path towards perfection, François Fourier expounded in a series of books a new method, " in perfect conformity with Newtonian concepts and the first real application of these concepts to sociology," by which the full and harmonious development of human nature might be attained. This method he called Natural Optimism, the view that unrestrained indulgence of the " refined passions " is the only way to happiness and virtue.

★

Society, Fourier claimed, should be divided into *phalanges*, or social units, industrially complete in themselves and self-governing, each numbering about 1,600 persons who would inhabit a *phalanstère* or common building built on a standard plan and surrounded by a square league of land. The staple industry would be agriculture. The arrangements of these *phalanstères* were worked out with extraordinary detail and with the orderliness of the man of business that Fourier was. Each family would live in separate apartments and though there would be richer and poorer members of the

community, the wealth it produced would be justly distributed. Rich and poor would be mixed and unsegregated, thus avoiding class distinctions. Marriage would, of course, be abolished, and a new system of polygamy would be substituted.

★

"From the first few days after birth," writes Fülöp-Miller in his *Leaders, Dreamers and Rebels*, "the children of the community would be brought up together—harmoniously, of course—in large and splendidly furnished nurseries. The young folk, according as their natural inclinations varied, would either be employed in doing the dirty work of the community (for which many children have a natural disposition) or they would take care of the pigeons and the rabbits, would decorate the banqueting halls, etc. The effect of these wisely conceived institutions would be amazing. 'We behold a spectacle,' wrote Fourier ecstatically, 'such as can never again be witnessed on this planet; a sudden transition from unsociability to social combinations. This will be the most striking effect of a movement which will spread all over the world. To me alone will present and future generations be indebted for the initiative leading to their immense happiness.'"

★

Under these healthier conditions the normal duration of life would increase to one hundred and forty years. At length the great harmony of human society would affect the whole of nature. A "north polar crown" would come into existence radiating light and heat like the sun so that the whole earth, including the frozen poles, would enjoy a balmy climate. This, for some inexplicable reason, would diminish the salinity of the sea, which would become pleasant in taste like lemonade. The monsters of the deep would perish giving place to "anti-shark" and "anti-whale" who would be friendly towards man and gladly tow his ships across the ocean. Edible fish would greatly and obligingly multiply in spite of the change in the composition of the sea water.

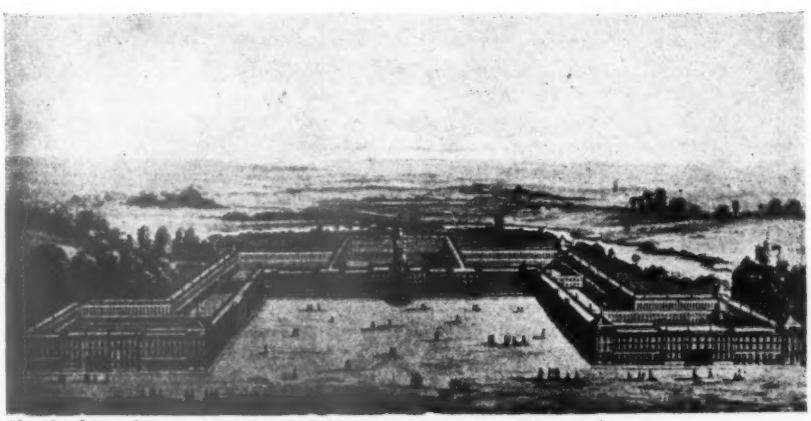
★

"Man himself," continues Miller's description, "would, in course of time, become equipped with two new members of great value: with a handsome prehensile tail having an eye at the end; and with an invisible proboscis, which would enable its owner to perceive etheric undulations and to get into communication with the inhabitants of other stars."

★

For the redemption of the world, Fourier required but eight million francs, the sum needed for building his first phalanstery. "Day after day, for twenty years, he continued to knock at the doors of the wealthy, the powerful and the famous. At length, it was an old, broken, grey-haired little man who ran up the steps to ask for another interview with Rothschild or Thiers, never tiring, never embarrassed." Perhaps people said of him, as did his chief when he was a youthful clerk in Marseilles: "Certainly he is a most worthy young fellow, but of trifling use in practical affairs." So lacking in faith is the human kind.

ASTRAGAL



Sketch of one of Fourier's proposed phalansteries. See Astragal's note above.

LETTERS

Michael Thornely

E. Pollak, ING., ARCH.

T. Warnett Kennedy A.M.T.P.I.

Architects in Building Units

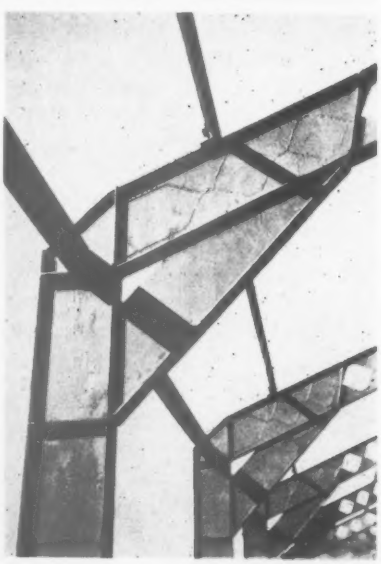
SIR,—I have not yet seen any suggestion that the architect should, after the war, become a member of a building unit. This unit would perhaps be operated as a semi-official body of town planners, architects, surveyors, quantity surveyors, experts in building materials, and building organizers, and of course civil engineers and steel and concrete designers.

Every principal area of the country would have one of these units, and their services would be available to the smaller local authorities, business firms, industrialists, etc. The unit would be maintained partly by a retaining fee paid by the local authority, industrialist in the area, and partly by a percentage fee on any work executed by the unit for the client. In this way a local authority or firm would be able, however small, to obtain the best services possible without having to burden the rates or overheads with the salaries of these experts as full-time employees.

The present danger is that jobs are becoming far too specialized. An architect employed by a local authority will only work on certain types of buildings, and conversely a man in private practice will find that he gets into a groove—hospitals, cinemas, public-houses, domestic work, or banks, etc. The unit would make work much more varied and interesting.

The danger, as I see it, is that after the war the large contractors who have built up, in many instances, staffs of experts, will maintain that hold which they have obtained during this war, over Government departments, local authorities and firms; and will compete with one another as units for the erection of buildings and perhaps towns and suburbs.

MAXIMUM HEADROOM



The above factory in the Midlands was designed to give maximum headroom in the centre of each bay for a continuous process of conveyor-type machine. This design was made possible by a steelwork of continuous welded framed construction in which was incorporated the patent castellated beam principle. Although the cost of the steelwork was about 10 per cent. higher than the cost of a conventional design, it was more than offset by the saving effected in brickwork at the sides and gable ends, for conventional construction would have necessitated making the building 4 ft. higher at the eaves to give the required headroom for the machinery. The building has two bays each 50 ft. span, 12 ft. high to eaves, and 320 ft. long. Top: Factory under construction, showing castellated rafters. Centre: Interior of factory completed, showing the small amount of light obstruction by the steelwork. Right: Detail of the rigid knee joint giving continuous construction.

The menace of this possibility is obvious. The technician will be tied to financial considerations, and vested interests will insist on the use of certain materials and methods of building irrespective of whether they are the most suitable for the job.

The old idea of an independent architect with his brass plate waiting for clients in his small office, with no financial reserves (unless he happens to be fortunate enough to inherit a practice), taking on a job and virtually subletting the steel, concrete, mechanical equipment, electrical services, etc., appears to be a thing of the past. The assistant to this man can find no feeling of security, and for this reason more and more young men have been seeking employment with Government and local authorities.

MICHAEL THORNELY

Liverpool.

LRRC Plan and Road Crossings

SIR,—In regard to the excellent draft Master Plan for the London Region recently exhibited at the National Gallery good reasons can be put forward for the use of the Fly-over Roundabout shown at all junctions of arterial roads. Indeed Alker Tripp has drawn attention to it in his book *Town Planning and Road Traffic*.

We respectfully submit, however, that this design is by no means the last word, and the LRRC admit this on page 19 of the Exhibition booklet. To be more precise we would point out that where two trunk roads intersect the Fly-over Roundabout does not permit fast through traffic for both roads. Always, in the case of one road, the traffic is obliged to slow down and circulate on the roundabout. With this grave limitation in mind the LRRC give precedence to Trunk Radial Roads which they have made 180 ft. in breadth and have forced traffic on the Trunk Ring Roads to slow down at every main crossing. This road has been figured 150 ft. in breadth.

Obviously both roads are equally important and the LRRC's indecision on this point is markedly emphasised by reference to two drawings in the Exhibition, each of which contradicts the other. One shows the design of crossings where the North Circular and Edgware Roads meet. It is painted by S. Rowland Pierce, F.R.I.B.A. The other is the map of the Planning area of the Region. In these two designs for the same crossings the order of precedence has been reversed.

In any case the design which appears to satisfy all conditions is the Three-Level-Crossing.* It might be argued that the cost would be increased by the necessity for excavation of one road as well as a fly-over for the other, but it is incontestable that the increased usefulness would more than compensate.

However, the point of this letter is to draw attention to a solution which provides 100 per cent. convenience at lower cost and *using only two levels*. This is the Switchback Crossing*. The particular point to note is that two opposite sides of the roundabout circle have been lifted up to allow the lower Trunk Road to pass under. This forms a slight switchback. To sweeten the gradients still further the two levels are half below and half above ground level.

The LRRC says: "The details of various types of cross-over junctions require considerable study not only by architects, but by constructional engineers." As architects who have anticipated this advice we would welcome criticism of our schemes by the LRRC, especially since we have taken the liberty of frankly criticising theirs. Only by open discussion can we comprehend the limitations which are the baseline of further research.

E. POLLAK, ING. ARCH.,
T. WARNETT KENNEDY, A.M.T.P.I.

London.

* See feature on page 124 A.J. of last week.

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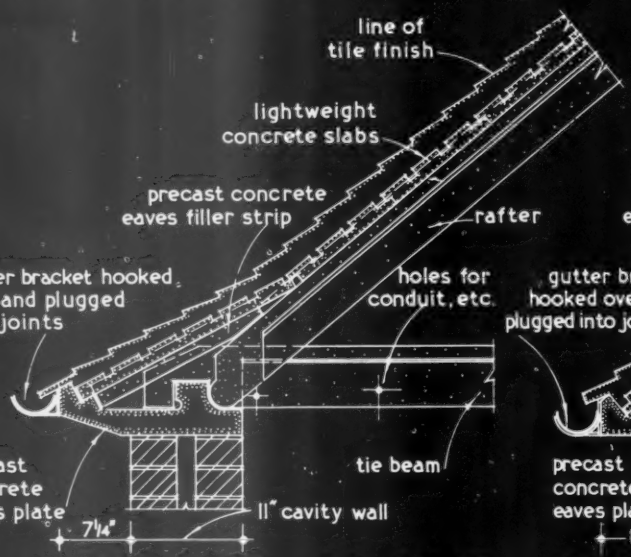
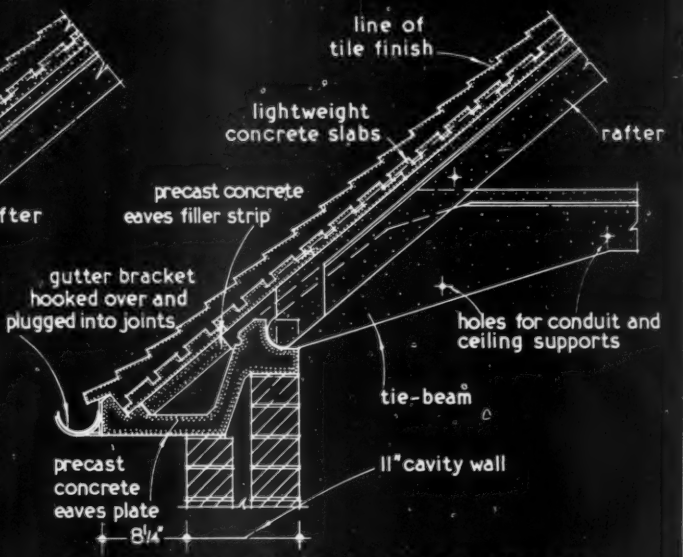
THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

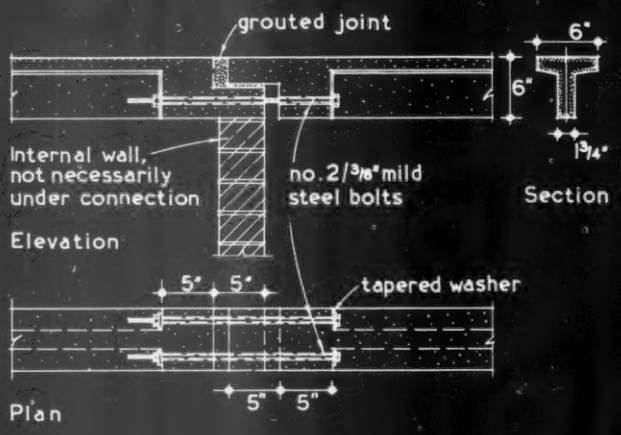
DETAILS AT EAVES, RIDGE, GABLE AND TIE-BEAM.



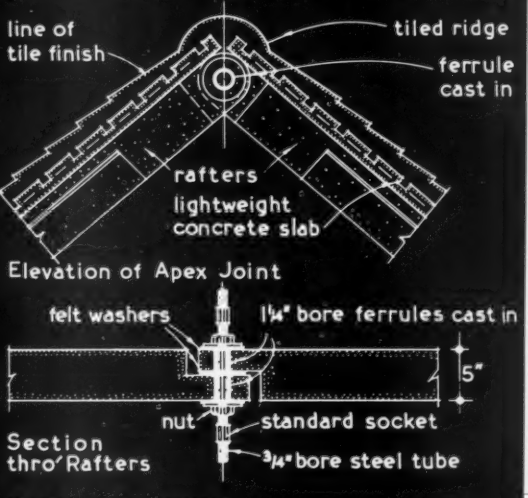
SECTION AT EAVES: FLAT CEILING.



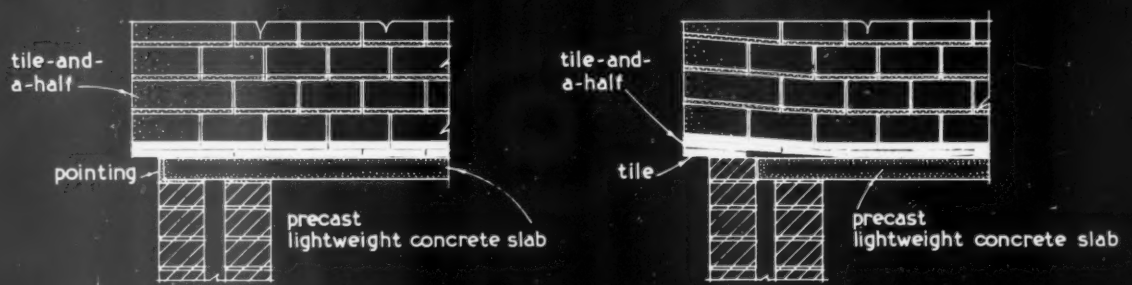
SECTION AT EAVES: SCALED CEILING.



DETAIL OF TENSION JOINT IN TIE-BEAM.



DETAIL OF RIDGE.



ALTERNATIVE DETAILS FOR TILE VERGE AT GABLE.

Issued by The Marley Tile Company Limited
to the design of The British Cast Concrete Federation.

643 INFORMATION SHEET: PREFABRICATED R.C. PITCHED ROOF CONSTRUCTION 2
Sir John Burnet Tait and Lorne Architects One Montague Place Bedford Square London WC1

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 907 •

ROOF CONSTRUCTION

Subject : Prefabricated R.C. Pitched Roof Construction (2).

General :

The Sheet is a continuation of Sheet No. 906 and deals with general constructional detailing and finishes.

Details and Finishes :

Tie beams are bedded in slots in the eaves plates. Rafters are located in a radial groove in the eaves plate, and the radial foot to each rafter allows the roof pitch to be modified within limits, to accommodate variation in span.

Rafters are jointed at the apex by threaded tubular studs passing through ferrules cast into the halved ends. The stud to each pair of rafters is fixed to the stud on each side by screwed sockets. These studs are secured to the party or gable walls.

Gutters are fixed to the face of the eaves plate by brackets.

The two units forming the tie beam are bolted together ; the joint may be arranged over an internal wall, but this is not essential.

The units are halved and tension bolted with two $\frac{3}{8}$ in. mild steel bolts, and the joint grouted.

Insulation is obtained by the use of light-weight concrete slabs or wood-wool slabs.

A tile or slate roof finish may be used. When a light-weight concrete insulation is used, tile nibs locate in grooves cast in the slabs. In the case of wood-wool slabs, timber battens are used.

Suspended ceilings of fibre or plaster board may be attached to the tie beams or rafters by strap hangers and fixed by a suitable patent system. The tie beams and rafters have holes cast at 12 in. centres which may be used for ceiling fixings or for threading lighting conduit, etc.

A modified tie beam and eaves plate provides a scaled ceiling. Additional bolt fixings are made between the rafters and the eaves plate.

Alternative finishes at the gable may be obtained by variations in tiling and in the co-relation of wall and roofing slabs, as shown. Similar alternatives apply when wood-wool insulating slabs are used.

Issued by : The Marley Tile Co., Ltd.

Address : London Road, Riverhead Sevencaks, Kent

Telephone : Sevenoaks 1251

BASIC TYPES OF INSTANTANEOUS GAS WATER HEATERS.

There are two fundamental types :

(A) Single Point Appliances :[1]

Integral water tap. May not be connected with other taps—usually fitted with swivel spout.

(1) *Sink Heaters :* Including small domestic boiling water appliances suitable for sink supplies only.

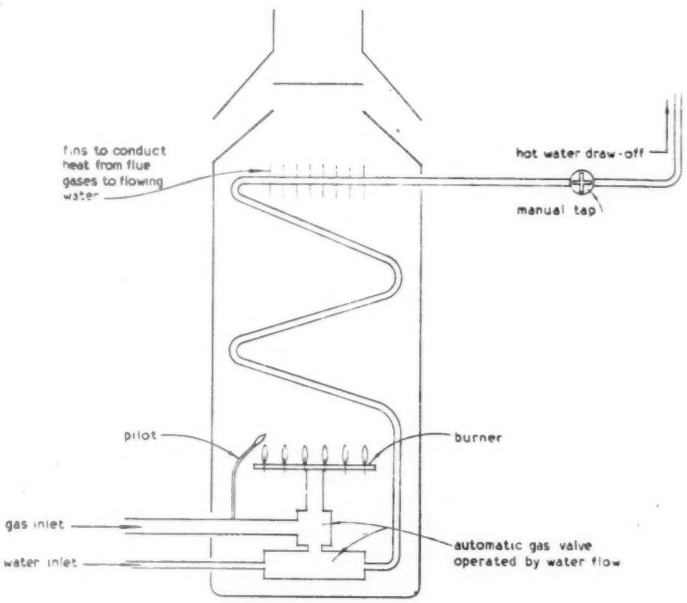
(2) *Bath Heaters :* Usually same output as Multi-point—cannot be connected to pipe system—controlled by integral water tap and fitted with a swivel spout. Can, therefore, supply a basin also if it is within reach.

(B) Multi-Point Heaters :[2]

Can supply two or more, taps according to appliance size. The appliance is put into operation by any of the taps connected with it.

1. The automatic valves of single point appliances differ fundamentally in principle from those fitted to multi-point appliances. The single point valve operates by pressure, consequently a control tap is fitted before the valve so that when shut there is no pressure on the diaphragm. Ascot types R12/4, SG 32/1, RS 52/1.

2. Multi-point valves operate by a flow of water through the venturi, setting up a difference of pressure, which moves the diaphragm. These valves can be kept constantly under pressure without affecting the operation, hence the appliances may be operated from distant taps. Ascot types NEA 32/6, NEA 32MT1, NEA 38.



DIAGRAMMATIC SKETCH SHOWING PRINCIPLES OF INSTANTANEOUS GAS WATER HEATER.

The above sketch shows in diagrammatic form the principles underlying the operation of an instantaneous gas water heater. With the hot water tap shut no water flows, and the gas is shut off. When the water tap is opened, the water flow opens the gas valve (as soon as sufficient water is flowing to prevent overheating). The main burners ignite from the pilot flame. Combustion takes place within the space formed by the walls of the heating body, at the top of this being the heat exchanger.[3] When the tap is closed the water flow is stopped and the gas valve is closed again automatically by a strong spring.

3. The heat exchanger is a group of thin strips of copper, through which pass a number of copper tubes carrying water. The arrangement is designed to transmit approximately 80 per cent. of the heat of the gases to the water ; the remaining heat is used to carry the flue gases away. Below the heat exchanger is an enclosed space called the combustion chamber, the walls being cooled by a number of coils of pipe carrying the water to and from the heat exchanger. The efficiency of 80 per cent. may be increased, but this would cause the water vapour in the flue gases to condense. Early geysers were designed on this principle, and the effects of deposits are well known.

[TURN OVER

INFORMATION SHEET 908 (CONTINUED)

CHARACTERISTICS OF INSTANTANEOUS GAS WATER HEATERS.

Fuel Storage Space.

(*a*) The instantaneous gas water heater is self-contained and no additional storage space for fuel or hot water is required. There is no hot water storage in the appliance. The appliance is therefore very compact. An appliance supplying all hot water requirements of a normal household requires 4 cu. ft. of wall space.

Attendance.

(*b*) The instantaneous gas water heater is completely automatic in operation and requires no daily attention by the user.

Maintenance.

(*c*) Two visits yearly of a total duration of 1¼ hours.[4]

Appliance Efficiency.

(*d*) Well designed instantaneous gas water heaters have an appliance efficiency of 75—78 per cent. (percentage of heat input transferred to the water). As no fuel is wasted in maintaining temperature of stored water, fuel used is exactly proportional to hot water requirements. Overall efficiency of use is 65 per cent. for a well designed installation.

Appliance.	Fuel to Water Efficiency.	Overall Efficiency of Use.[5]
Slow Combustion Coke or Coal ...	25%—40%	20%—30%
Gas, Instantaneous	75%—78%	55%—65%
Gas, Storage	70%—75%	30%—45%
Electric, Storage	95%—98%	65%—80%

4. As there is no storage to heat up or to allow to cool before and after attendance, hot water is available immediately before and after service without waiting. Minimum possible interruption of hot water service to inconvenience household.

5. "Efficiency of use" is the overall efficiency of a water heating appliance in normal use over a considerable period. It is always lower than the bench test efficiency as account is taken of unavoidable heat losses and waste. Examples of such waste are the small amount of hot water left in the pipes between the appliance and the tap after hot water has been drawn. In the case of storage heaters, there is continual loss by radiation from the storage cylinder as no lagging can be 100 per cent. efficient. In the case of gas storage heaters, there is a very considerable and unavoidable heat loss through the flueways of the appliance; these cannot be lagged, and owing to the heat in the appliance there will be a constant current of air through the heat exchanger, from which heat is lost from the water as readily as it is transferred from the flue gases to the water.

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

PHYSICAL PLANNING

FUTURE PERFECT 1945, 1946

With drawings by Gordon Cullen.

Current war news seems to indicate that the "end of the beginning" is turning into "the beginning of the end" and that we stand now at the opening of a transition period between war and peace. Organization for war has involved the suspension of standards by which we have been accustomed to judge events at home, and one is tempted to ignore what is happening now as of no importance to the future lives of English men and women. In fact the manner of our return to a peace time economy must either help or hinder reform, and trends which are allowed to develop now are bound to condition planning legislation during the next couple of decades. Astragal's diary of the future which ends with the opening of the New Forest War Memorial by the Prime Minister in the autumn of 1946, provides a measuring stick against which we can easily see what progress we are making and in what direction we are being led.
★ This star indicates events of significance in Physical Planning.

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index

Above is the framework of the physical planning series. It represents an eight week period, and, after the first three weeks, it will move down one rung each week. Thus, after the first three numbers, the next six rungs in the framework will always be visible with the last two.

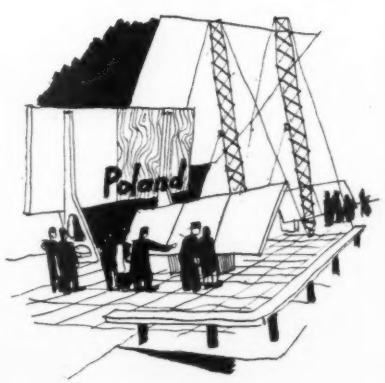
1945

WINTER

★ **The Great Exhibition**

The Great Allied Exhibition of 1945 was unlike all its predecessors in not being a summer event. It was also unique in being staged while a major war was still in progress; since Japan, though nearing the end of her resources, was still keeping the Pacific as unpacific as her resources would allow. But Europe was now changed from a battlefield into a vast reconstruction area, and the arsenals of Europe—at least those which remained—were by no means fully employed in making munitions of war. At the time, the underlying advantages of partial demobilisation, partial transference of industry to peacetime consumer goods, and partial relaxation of wartime controls, were by no means appreciated. The feeling was general that an armistice without subsequent slackening of the nation's belt, was a poor thing indeed. To counter it, however, three quite powerful influences were at work.

The first was the really appalling state of devastation revealed in Europe. It was no longer possible to shut one's eyes to the condition of far distant countries. World communications, and the presence in Britain of so many representatives of European nations, kept the facts insistently before the public. RAF photography, no longer secret, produced the most terrifying record of the state of the occupied countries that had ever been assembled. One of the most sombre, but most frequently visited sections of the Great Exhibition was the series of halls devoted to the presentation of the Wartime Surveys of the USSR, Poland, Greece, Czechoslovakia, Holland, Belgium, France, Sicily, Roumania, Jugoslavia, Norway, Finland and the Ruhr.



★ **Resistance to Demobilisation**

The second influence was the noticeable resistance to demobilisation of a number of men and women in the armed and the Civil Defence Services. After five years of public responsibility and—within the hazards of war—of private security, many of them welcomed the opportunity to continue in some kind of service, even if it meant staying in uniform. The more cautious reckoned up the advantages of allowances and payments in kind, as against the chances of private practice or employment, with its uncertain income halved by taxation. Thus it was that a large part of the skilled labour employed on the construction and layout of the Exhibition itself, its illustrative material, the aerial photographs, the surveys, and even the astounding electrical effects (obtained by the use of searchlights against an artificial cloud bank), was really military and service labour, and not the trade union variety.

The third influence was as unexpected as it was effective. The Civil Service, and especially the newer branches of it, was permeated by a wave of enthusiasm for what might be called the immediate domestic aspects of public service—food distribution, holidays, temporary and part-

time employment, the whole process of readjustment to a more leisured routine. It was as if it accepted an unspoken challenge to prove that besides getting up pressure in time of emergency, it could also operate the safety valves—and enjoy doing so.

The Ministry of Labour performed wonders at this period; so did the Ministry of Food, which proved its worth in the early reconstruction period to be equal to its wartime record. And CEMA blossomed suddenly into a national organisation for the recreative arts, succeeding in an informal way where a formal Governmental body would almost certainly have failed.

★ **CEMA Established on Permanent Basis.**

In general the sudden increase of leisure and the relief of tension were catered for in an unexpectedly imaginative way in this interim period; and it was thus possible not only to organise a gigantic demonstration of peace aims, such as the Great Exhibition, but to focus public interest upon it quite successfully, and without strain. Its great value lay in the fact that it kept the horizons wide, and thus prevented the immediate narrowing down of sectional interests in a scramble for position. Its message was an invitation to think where we were going before setting out on the road; it was the outward and visible sign of a plan for the future.

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SPRING, 1945

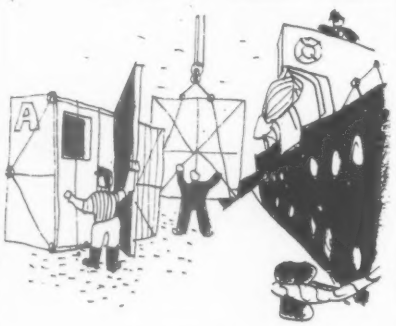
When the First Session of the Peace Conference opened in London at Easter various kinds of public demand were beginning to formulate themselves within the general framework of the reconstruction programme. Once again history repeated itself, with a difference; and housing became the chief symbol of the movement. In every country in Europe the insistent call for building and yet more building made itself heard; and nowhere could the ghost of the old building industry become corporate enough in time. The Allied Production Council therefore looked about for means to reinforce the building resources of this country and of the "occupied" nations in Europe. In the USA Henry Kaiser's $1,500 Homes—three and four-roomed demountable houses complete with sanitary equipment and disposal facilities—were critically examined with a view to their adaptation for European models. In England the idea was viewed with misgiving.

★ **Peace Conference; Allied Production Council reorganizes Building Industry.**

Pages of Hansard were filled with the harrowing anticipations of Members of Parliament who foresaw caravans in churchyards, standardised horrors in every village, and towns turned into "the abomination of mechanical desolation." But events were too much for their conservatism. The more thoughtful soon realised that the only chance for architecture was a filling of the gap by purely temporary buildings—buildings of a kind which could not possibly hang on, like the Nissen huts of the First Great War, for twenty years after the Armistice, but would serve their turn like motor-cars, and have almost as few roots in the ground.

★ **World Production of Emergency Housing exceeds 500,000 a month.**

Sheer brilliance of invention and organisation caught the public fancy. At the three great production centres of the USA, England and France—with Czechoslovakia and the Ruhr following up—the erstwhile armament centres began to turn out not only the frames of the houses, their equipment, heating, refrigeration, plumbing and electro-chemical waste disposal units, but also the vehicles and casings in which they were to travel. The single house was designed to be carried by a single lorry chassis, another type was designed to fit a large railway container of the sort used before the war for furniture removal.



There were even special packings for the standard cargo vessels. (A few eccentrics had specially lightweight models made for air transport planes but it was generally felt that this was taking the glamour out of African or Arctic exploration).

These temporary buildings were not widely used in this country except for some badly damaged areas, for holiday and school camps, for forestry and building construction hostels, for temporary accommodation in new towns and estates, and—curiously enough—in Scotland. But in Europe they were delivered at the rate of half-a-million a month for a period of at least two years. Sweden, and to a lesser degree Canada (on account of shortage of shipping space), supplied a small proportion of timber houses to help meet the demand. Infilling materials varied in each country but there were standard insulating panels of light weight gas concrete with foil and fibre backing, which could be transported anywhere.

* *

SUMMER, 1945

On the planning front it was soon realized that experimental layouts were of great importance. And the temporary buildings served to illustrate many merits and demerits of site planning which were afterwards avoided when permanent building took its place. The British Government produced during the summer its plans for full employment. The school-leaving age was fixed temporarily at 15, with an extension to 16 in the near future; but since there was an obligatory period of national service which could include training in the army, navy or air force, in agriculture, technical schools, art schools, domestic science, forestry, building or colonial service, and which lasted for two to three years depending on circumstances, the age was really raised to 18 or 19.

The Fighting Services took on more and more educational work, and like the Red Army in 1938 could be said to be the military universities of the age. The Civil Universities received undergraduates at 19 or 20 who had at least had some form of practical experience; and this was a distinct advantage, particularly for research.

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AUTUMN, 1945

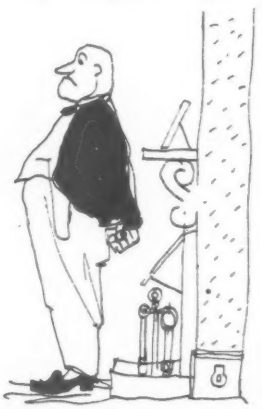
The great fight over the anti-Trust laws began towards the end of the summer. Most European countries followed America; but in Britain the large firms and the new Public Utilities appeared to rub shoulders quite successfully and the large measures of Government control of industry were all defeated. In regard to location, however, control was agreed on all sides to be necessary; and the Urban and Industrial Development Act became law in the autumn, followed by the setting up of the respective Commissions. The size of the larger towns was restricted; not on a purely territorial basis, but with regard to a time and distance standard from their centres to the surrounding country. That is to say even London could extend in certain directions provided that improved transport and improved conditions of open space in the built-up area were secured as a *quid pro quo*. The bigger extractive industries, if not under national control, were required to agree their territorial claims and programmes with the National Land Office. Certain large tracts of country including the recently established National Parks, were closed to all except specified types of rural industry; and regional areas were established to give a choice of location for the light consumer and assembly industries which were not fixed to a particular geographic location.

★ **Urban and Industrial Development Act.**

WINTER, 1945

A comparatively small measure that produced violent controversy was the Atmospheric Pollution Bill of 1945 by which it was hoped to make inefficient combustion of coal an offence under the Public Health Acts. All sorts of good advice had been given in Government publications; the manufacturers had been encouraged to put on the market many types of new apparatus, all of them conducive to smoke reduction. Gas, electricity, even district and central heating, were being given extended uses, and the National Smoke Abatement Society had poured out propaganda on Fumifuge, at a greater rate than the smoke from the chimneys it was condemning.

But when a careless Parliamentary Secretary, in introducing the Bill, referred to "the anti-social practice of burning an open coal fire at the domestic hearth," English individualism



rebelled. It happened that during the debate in mid-November, a quite usual November visitor descended on London—a good old-fashioned pea-soup fog. It might have been specially created by the burning of tens of thousands of indignant home fires; but on the contrary every Londoner appeared to enjoy it. And Smoke Abatement was set back for at least a decade.

★ Atmospheric Pollution Bill Fails to Pass.

* *

★ First Four-Year Plan.

The First Four-Year Plan, inaugurated at the opening of the Great Exhibition, was now under way, and was beginning to raise a few problems of machinery. One of the earliest of these to come to a head was the use or misuse of the technical Civil Servant. Big Business taunted the bureaucrats with inefficiency, but the root cause of trouble was the relation between administrative and technical branches of the Service. The technicians, the Association of Scientific Workers, and many professional societies joined in the formation of a new Association, which was in reality an attempt at a non-political Trade Union, and which set itself to define the responsibilities of this branch of the service, its conditions of work, and its right to demand that the results of its research work should be considered and not pigeonholed. The Geddes Axe of 1919 was not wielded with such effect in 1945 but nevertheless the administrative branch of the Civil Service was considerably reduced.

★ Professional and Scientific Workers Union.

★ Reclamation of Aerodrome Sites.

In the revised land utilization maps of Britain one particularly thorny problem awaited investigation; namely, the post-war use of the numerous aerodromes, landing grounds and runways which the war had called into being. Some hundreds of miles of concrete and tarmac were judged unsuitable for their present use, and no suitable demolition machinery could be found. In some cases where land was urgently required for reversion to agricultural purposes, and where the topsoil had been heaped, the runways were actually covered with long earth barrows, and planted. Some of the concrete was used for foundations and roads, and as platforms for glass houses, etc. Some were broken up by giant pulverisers.

★ Growth of Civil Aviation.

More important, however, than the structural problem of runways, was the question of post-war civil aviation. American Transport Inc. was still bringing over raw materials from Canada and the USA by air, and Britain tended to concentrate on passenger transport, seeking to make this country the great air junction of the west. British Airways was certainly by this time building up for itself an international reputation for efficient and comprehensive service. The number of Reconstruction Commissioners in Europe and North Africa who made it a regular practice to week-end in England or Scotland, was proof of the popularity and convenience of this method of travel. Passengers were also numerous in the Colonies and Dominions. It was impossible to get shipping space for the individuals and families who wished to pay a visit to England from South Africa, Kenya, India, the West Indies, and even New Zealand. Very many came by air, and the foundation of a regular passenger and mail service was quickly laid.

In England the really big airports that grew up were fewer than had been expected. Outer London, Southampton, Newcastle, Birmingham, Liverpool and Gloucester provided full facilities; there were Continental Terminals in addition on the East Coast and South Coast, and small "holiday landing grounds" at many places of resort. The time had not yet come for a vast increase of internal travel, which awaited the invention of the soundless machine and the fast helicopters that appeared much later.

1946

★ 2,000 Miles of Motorways.

Linking the airports and avoiding altogether the large centres of population, were the projected Motorways, inaugurated by the Minister of Transport on New Year's Day, 1946. It was aimed to produce 2,000 miles of these double-carriage-way non-intersected roads during the First Four-Year Plan, at the rate of something over 500 miles a year.

★ 1,000,000 Acres for Re-afforestation.

The Forestry Commissioners purchased—or rather had transferred to them by the National Land Office—a further million acres for planting, or conversion into National Forest Parkland.

As the winter, for the fourth year in succession, was exceptionally mild, a curious cross-traffic sprang up of Britons visiting Norway, Switzerland and the USSR for winter sports, while

thousands of cold Europeans visited this country to enjoy themselves in comparative warmth. Holiday resorts benefited from an extended season.

* *

SPRING, 1946

In the old centres of unemployment—the "Special Areas" of 1934—trouble would again have reared its head had it not been for the formation of Development Commissions on the lines of the famous TVA experiment of the USA. Cumberland, Durham, Lanarkshire and South Wales were the centres of the first big schemes, which combined power production, land reclamation, manufacturing industry and intensive agriculture in planned combination. In the spring of 1946 the special votes of £100 million a time were passed by Parliament; and the jobs began in earnest. Detailed town and country planning followed in their wake; and hope of a prosperous future inspired the dour men of the valleys as nothing had done before.

★ Development Commissions for Cumberland, Durham, Lanarkshire and South Wales.

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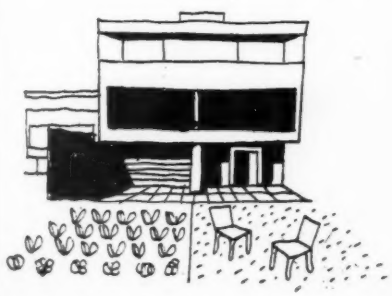
The year was an interesting one from the point of view of urban architecture, because it witnessed the arrival of the modern terrace house in London at the comparatively high densities of 16, 24 and 30 to the residential acre. Several old-fashioned squares in Kensington, St. Pancras and Belgravia, some famous war-damaged streets, like Ebury Street, and many terraces and crescents in the north and east ends of London had been cleared for building during the previous year. The big estates, including the Crown, the Duchy of Cornwall, and other landowners with experience of estate management, had organised competitions; and the successful architects were commissioned to execute a certain number of houses in an architectural composition of some kind, in order to



determine the best models for general use.

Lt.-Colonel Fry's East Ham Houses were among those completed and tenanted by the Spring. They had kitchen and living room on the ground floor, two bedrooms and a bathroom above, and on a reduced second floor a spare or workroom and a covered loggia. The small heating plant and greenhouse (lit from the yard), were in a basement. As building costs were then just about double what they had been in 1939, these particular terrace houses were considered reasonably cheap at a total construction cost of £750 a house.

There was still insufficient building labour to undertake large-scale permanent building in the big towns; but here and there very interesting structures made their appearance. The new John Lewis, in what had now been turned into a pedestrian Oxford Street, was beginning to take shape behind its scaffolding. Its simple facade of glass and gold-coloured quartzite and the entrances to the semi-circular arcade kept a human scale in spite of the great bulk of the building. At this part of Oxford Street was begun a section of the moving pavement which is now a familiar feature of central shopping streets.

★ **Pedestrian Oxford Street.**

Some of the most exciting new buildings in the country were the schools, the village colleges and the Aero Clubs. The schools in particular—all designed for park or countryside settings—gave their architects great scope for free planning, simple repetitive units and absolutely first class materials. Classes were averaged at 25, instead of the 30's and 40's that were common a decade before.

★ **Reorganization of Urban Transport Precedes Rebuilding.**

While architects were busy designing houses, schools, offices, factories and even crematoria, some remarkable feats of engineering were being attempted in the first stages of the redevelopment plans for London, Manchester, Birmingham and the other big towns.

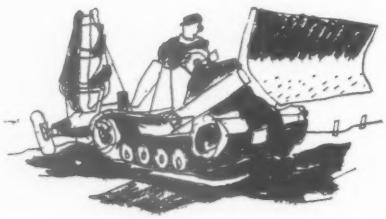
In London the sinking of the railway system below ground, linking up all the main line stations immediately north and south of the Thames, was in itself a most formidable undertaking. The underground food distribution circuit was a comparatively simple proposition compared with it. Everyone looked forward to the removal of some of the railway bridges over the Thames but it was announced that the operation would take at least three years, and meanwhile the surface lines must continue in use.

Birmingham projected two lines of road tunnel crossing at right angles beneath the hill on which the centre of the city is built. Manchester began its underground railway system, and Liverpool extended the Mersey Tunnel under the Everton Hill.

* *

SUMMER, 1946

By June, 1946, it was calculated that public works to the value of some two thousand million sterling were in hand. Not a third of this colossal programme could have been contemplated so soon after the war, had it not been for the importation of road-making machinery, bulldozers, levellers,



and every type of contractors' plant from the USA.

For the moment unemployment was almost non-existent. So that when at last the Government introduced the Social Security Bill, it had ceased to be the burning issue of the day; and nearly everyone accepted as a matter of course what had been called "the crippling cost" of economic security in 1942. Lesser measures, such as the Public Restaurants Bill, and the bills for regularising Hire Purchase and Air (Taxi) Traffic, were far more closely debated.

★ **Social Security Bill.**

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AUTUMN, 1946

On a magnificent September day, the Prime Minister dedicated the War Memorial to the RAF in the New Forest. Standing in the open air amphitheatre at the junction of the four great Rides, he recalled to his great audience the perilous days of 1940 and 1941, and the debt that was owed by us and by the whole of Europe to the airmen who defended this island from invasion, and each of whom was now commemorated by a tree in the Forest about them. Mr. Churchill compared the spirit of victory in 1946 with that of 1919, and said it was symptomatic of the change of outlook that whereas before we had crystallised our hopes and feelings in monuments of stone after the last war, now we chose a more living and a more heartening symbol. All over England the memorials to those who fell on land, in the air, or at sea were being enshrined in landscape fashioned by man, or in

buildings for living use rather than mere monuments. No more fitting conclusion to this chapter in the nation's history could be found than the range of commemorative projects undertaken as a tribute to "the Few." Some of the National Parks, Youth Centres, Public Gardens, and Forests which we to-day look upon as state-provided amenities, were originated in this way.

* *

Now, looking back from the '60's on the stress and turmoil of those early post-war years, it is possible to arrive at some sort of judgment on the value or otherwise of "planning" as it was then understood. There is no doubt that the overwhelming majority of people in England during the Second World War believed that the end of it would find them an impoverished nation, and that, as in the early 1920's, public expenditure would have to be cut down to a minimum to help pay off the National Debt. Unemployment was also regarded as inevitable, and it was desperately hoped that demobilisation would be well enough organised to palliate misfortune a little.

In the event, a sounder economic policy prevailed, and this time money-cost, in Mr. Churchill's words, "never considered to be a factor capable of limiting the supplies of the armies," did not assert a claim to priority from the moment the fighting stopped. And planning *did* prove itself capable (1) of maintaining relatively full and steady employment; and (2) of preventing us from wasting our natural and human resources.

It was not quite capable of raising the standard of living, of housing, and of social security with the speed which the public—swinging from one extreme to the other—began to demand. But we realise now that this was the lesser evil. Panic spending would not have produced any quicker the buildings and the hydro-electric schemes, the forests and farms, the motor cars and private planes that have since come into existence. Indeed, it would have made labour transference more difficult, the export balance insecure, and brought eventual unemployment in its train. That we are generally a more hard-working nation now than we were in 1939 most historians will admit. We have over six million women at work, although, on the other hand, hours are shorter and holidays longer. The country's production is up and by now its standard of education, of social security, and of consumption is up correspondingly.

As to housing, we are by no means through the redevelopment crisis, and have not yet caught up with our arrears of building. But at least each family has a home and it is well-built, not "jerry-engineered." The next step will be to increase the available reserve, so that families will be more mobile, and will be able to live wherever they find it sociable and convenient.

If the first three Four-Year Plans represent the period of redevelopment, during which we were putting our own house in order, let us hope that the next three will be as successful in developing the Colonies, and the backward areas of Europe.

[End of the Diary]

This special article indicates the general principles to be observed in planning against noise in buildings, especially in houses and flats. It is intended to supplement the volume issued by the Department of Scientific and Industrial Research called Sound Transmission in Buildings ; Practical Notes for Architects and Builders, *by R. Fitzmaurice and W. Allen (HMSO 1939). After a brief reference to general planning measures which should be taken, the first part of the article deals with the prevention of noise in houses. The second part will deal with noise prevention in flats. The article covers the planning aspects of sound prevention as distinct from the structural aspects.*

PLANNING against NOISE

[*By D. DEX HARRISON, A.R.I.B.A., A.M.T.P.I.*]

Part I

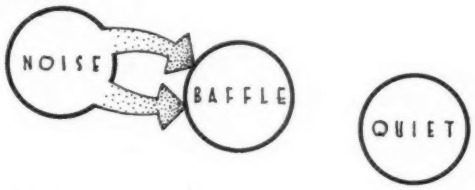
It will be clear to anyone conversant with the principles of remote transmission of sound through structures that even the best planning may be rendered abortive by defective structure. This is particularly the case in monolithic and framed structures through which sound can travel great distances from its source to cause annoyance in remote parts of the building. Conversely, elaborate structural precautions against sound transmission are of little value if the planning is inherently bad. Some of the plans illustrated are so defective from the standpoint of noise that only a prohibitive expenditure on the structure could hope to make them tolerable. The two elements, structure and planning, support each other and the best results in noise prevention will only be attained when careful attention is given to both aspects of the problem.

The first general principle to be observed is that of zoning or grouping the respective elements. Appropriate zones will be (*a*) quiet zones, to include all rooms, such as bedrooms, where quiet is the main consideration, (*b*) noisy zones, where would be grouped all the noise emitters in the dwelling, such as the service rooms, access corridors, and (*c*) zones which are alternately emitters of noise and quiet zones, according to special circumstances. The living room is in this category since it is required on the one hand for reading and on the other for the wireless or piano.

The second principle is to provide for adequate bufferage or baffle between the different zones. The baffle might be structural, consisting of an insulated wall, or it might be a

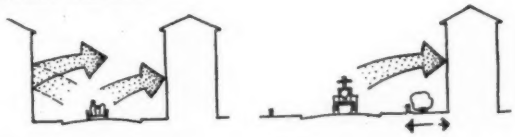
GENERAL PLANNING MEASURES

1 *THE CONDITION :—*



2 *IN PRACTICE :—*

3 *THE COMMON FAULT :—*



METAMORPHOSIS OF THE CORRIDOR STREET

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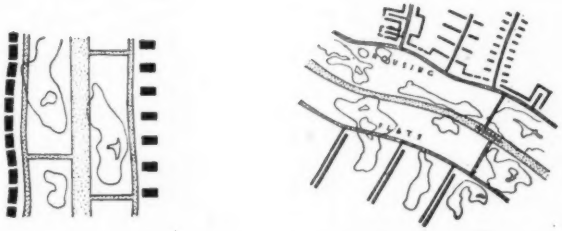
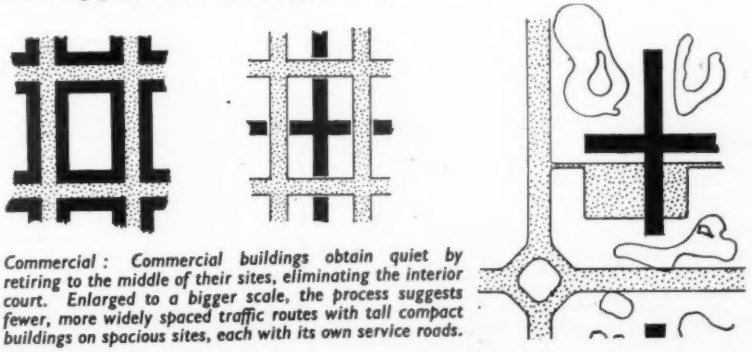


Residential : Elimination of traffic noise by segregation of through traffic into specialised arteries detached from living areas. Protection against local traffic noise obtained by planning at right angles to the street. Only in the case of the small cul-de-sac or backwater street, where traffic noise is negligible, does the corridor type survive.

6



Commercial : Commercial buildings obtain quiet by retiring to the middle of their sites, eliminating the interior court. Enlarged to a bigger scale, the process suggests fewer, more widely spaced traffic routes with tall compact buildings on spacious sites, each with its own service roads.

planned buffer, a series of cupboards or rooms, or, again, it might combine both elements.

It is in domestic buildings that the most acute noise problems arise. The principles set out here, nevertheless, apply to all buildings and it should be possible to apply these notes generally.

It should also be noted that the diagrams and criticisms are made with the single aspect of noise transmission in mind and no other criticism of the plans is implied. It may be that the plans shown to be defective from the noise standpoint are excellent in other ways and, conversely, plans held up as good examples might have serious faults in other directions.

In practice the relative gain of reduced sound transmission will often have to be set against loss in some other way, and the planner will, at all times, have to strike an appropriate balance between the many conflicting aspects of his problem.

It will be convenient to divide the problem of sound disturbances into two broad categories, viz. :

1. Those noises produced by some source outside the building.
2. Those produced within the building.

Consideration of the first heading, noises produced by an outside source, is a major problem in itself, and can only be touched on here. It will be clear that the layout and siting of the building will come under review and, ultimately, the zoning of buildings away from the sources of noise. These are matters of town and regional planning, which will seek to segregate noisy industries away from residential zones, and so forth, but the particular problem of traffic noise, which is by far the most insistent cause of trouble, cannot be ignored in treating with the individual building.

Diagrams 1 to 6 show, very briefly, the nature and possible remedies for this problem. They are axiomatic, but serve as an approach to the main problems discussed in the notes, and they serve to reinforce, from the particular angle of noise disturbances, the arguments in favour of an overhaul in our present conception of site planning and street frontages.

The prime source of trouble, apart from gross overcrowding, is the so-called corridor or tunnel street. This type of planning is more or less universal in this country, except perhaps in wealthy suburban neighbourhoods, and the corridor street persists in most new development. It is a form of planning which has outlived its function. At one time, before the advent of motor traffic, there was, no doubt, much to be said in favour of the building facing onto the street, and where the street remains a quiet by-road or cul-de-sac this is still one of the pleasantest forms of planning. There is, however, no justification for facing buildings on to the modern traffic artery, with its noise and fumes, and Diagrams 4 to 6 sketch the alternative methods available. These are, briefly, to plan at right angles to the street, to interpose service ways between the traffic streets and the buildings and, in commercial areas, to utilize plans built on a central spine. The use of additional height, too, can often give relief where it is not accompanied by additional density.

The consideration of noise produced within the building will be limited in these notes to domestic examples, under two headings, houses and flats.

Consideration of Noise in Houses.

Noise between house and house can often be reduced by careful attention to the placing of the buildings on the site. Diagrams 7 to 9 illustrate. Use is made of sound-resisting baffle walls between the houses. The simple baffle prolonged beyond the faces of the buildings, together with various ways of staggering the buildings, are indicated, giving different degrees of baffle effect. The area of joint party wall can also be much reduced from normal, simplifying the problems of structural insulation. The object of the blank baffle wall is to increase the length

THE INDIVIDUAL BUILDING—THE HOUSE

COMBATING NOISE BETWEEN HOUSE AND HOUSE

Noise passes through the party wall and along the external walls or any wall common to both houses, along floors, roofs, and through window openings. Airborne noise generated in one row of houses will disturb other rows if planning is too congested.

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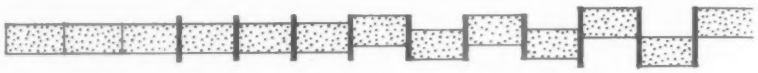

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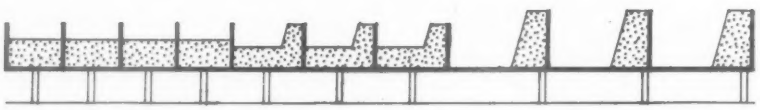
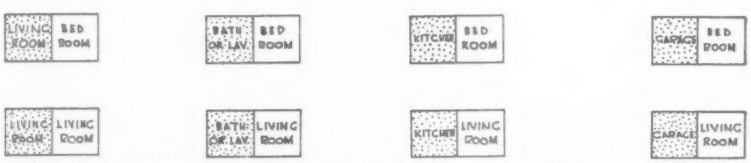


Different ways of placing the building on the site : 7 and 8 show simple use of baffle wall and various methods of staggering to increase the baffling effect. 9 shows the use of an additional baffle on the road frontage to cut out street noise. This type of baffle would consist of a blank wall, pierced only for ventilation grills, windows being solid glass bricks.

COMMON FAULTS IN PLANNING AND SUGGESTIONS FOR THEIR REMEDY

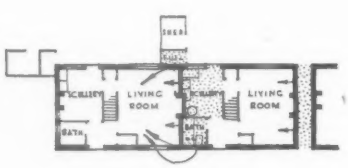
10

11



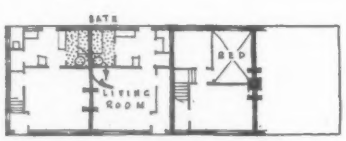
The planning of a noise source adjoining or diagonally opposite to a quiet room, 10, in either plan or section, is faulty since noise will be transmitted along any continuous wall, ceiling, or floor. Rooms which in practice are thus faultily juxtaposed are shown in 11.

12



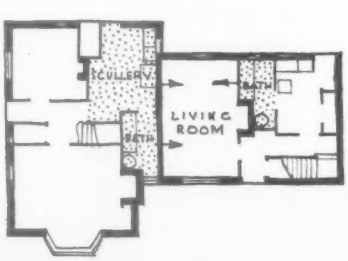
An example where all the noisy elements in the house are concentrated against the wall of an adjoining living room. Sink, bath and w.c. will cause particular annoyance. In vertical section these noises will disturb the adjoining bedrooms by vibration of the party wall. Improvement could be effected by alternating the plans, as is more usual.

13



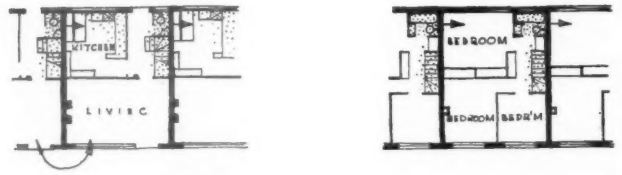
Bathrooms next to living rooms on narrow site with a path for sound along the party wall to living room and adjoining bedroom over. A common type of plan.

14

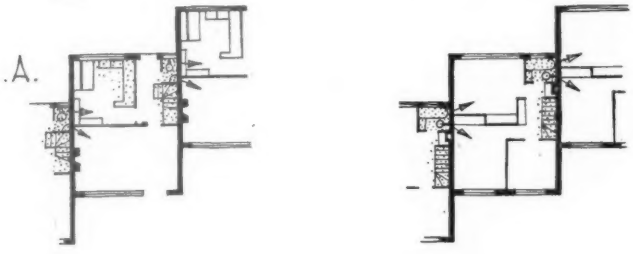


Living room girt by adjoining scullery and bath and with its own bathroom. This type of plan is common where the end house in a row is placed at right angles to secure "artistic" effect.

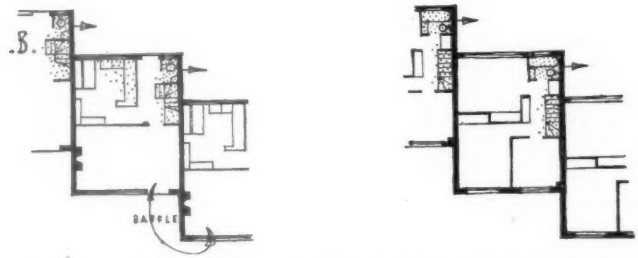
15



16

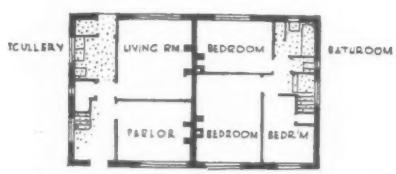


17

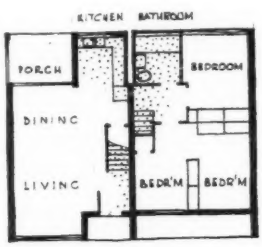


15, 16 and 17 show the advantages gained by suitably staggering a terrace type plan which would have objectionable features in terrace form. A in 16 gives no advantage. B in 17 indicates the best method.

18



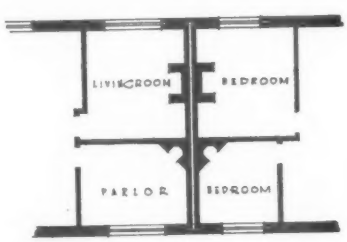
19



The British type of speculator's "Universal" plan in 18 is fairly safe from the noise point of view in semi-detached form, but has the drawback of a large party wall area. The American type of "Universal" plan in 19 places the noisy elements next to the party wall, forming a baffle for the quiet rooms. This is a theoretically sound semi-detached type.

THE USE OF STRUCTURAL BAFFLES

20

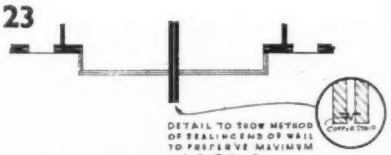


21

Baffle by use of discontinuous party wall between two houses, 20, the wall being formed of two completely discontinuous 4½ in. leaves in the manner suggested by the BRS. This is an improvement on the 9 in. solid wall. 21 shows the addition of an extended baffle wall against air-borne sound.

22

23



Bay windows are frequently a weak element in the transmission of airborne noises, 22. The use of an extending baffle wall is a better treatment, 23.

of the path of air-borne sound, which tends, thereby, to be dissipated, and by continuing a blank wall along the street front, as in Diagram 9, much of the traffic noise can be eliminated. This is a return to a very old system of house planning, when the house was literally a castle and faced inward to its garden courts. Under present conditions of congestion and noise in towns this might well prove a satisfying solution, offering quietude and grace to the house.

Irritation from an adjoining house is much more difficult to bear than irritation produced by one's own family, and it is important to avoid placing noisy rooms against the quiet rooms of an adjoining house. Diagrams 12 to 15, taken from published plans (as are all these diagrams, unless otherwise stated) indicate that this principle is not always observed. The noise of a flushing W.C. is particularly objectionable in a living room, especially if it is a neighbour's W.C., but it occurs in two of the examples given. Diagram 13 illustrates disturbance obliquely from bath to living room by vibration of the common walls. This effect can act when the bathroom is upstairs in the same relative position since the entire party wall will be set into vibration.

The terrace house in Diagrams 15 to 17 was expressly designed to be set in stepped formation on the site and illustrates advantages to be gained by intelligent use of such planning devices. In ordinary terrace form this plan has objectionable features, inasmuch as both W.C.'s are on the party wall, in one case, opposite a bedroom, in the other case, opposite the adjoining owner's dining table, a particularly bad piece of siting. In addition, the bathroom and staircase, both noise emitters, are on the party wall. In Diagram 16 the houses have been stepped, and this was the form in which the plan was published, but beyond reducing the area of party wall common to both houses, which will require insulating, and achieving lengths of baffle wall against air-borne sound, no advantage has accrued. In fact, the W.C's are likely to prove even more objectionable as they will directly affect two bedrooms and the living room.

Diagram 17 gives the better way of staggering this plan, so that the noise sources face on to the open air. For best results the part of the wall common to both houses would be insulated against sound and insulated from the projecting baffle walls so that vibrations produced in these walls are not transmitted to the common party wall.

In the examples so far discussed it has been assumed that the living room requires quiet conditions. Whilst this is true, the living room by virtue of its wireless, piano and general use is also the chief noise emitter of the house. It is better, therefore, if the living rooms can be separated from each other and, all things considered, a plan which places the noisy service rooms together on the party wall, with the living rooms well separated, will give the best results. In small housing development this is only possible in semi-detached houses or in staggered units. Diagrams 18 to 19 illustrate the point. The British type, so-called Universal plan, adopted as standard for small parlour houses, segregates all the noisy service rooms away from the party wall. The rather deep plan form adopted gives a very large area of common party walling, with the living rooms opposite each other. This is a great source of annoyance in this type of plan, and noises in the opposing living rooms can always be heard. In the American pattern of the Universal plan, the position of the noisy rooms is reversed, and they are strung along the common party wall, thus forming a buffer between the two living rooms. The zoning principle is here fairly well developed, and this seems to be the ideal treatment of the semi-detached type.

The arguments for acclaiming this a good plan are as follows :—

1. The service rooms will receive the noise from the opposing service rooms, but

being noisy rooms themselves, they will not be inconvenienced, since their own threshold of noise is unlikely to be exceeded.

2. The service rooms serve to baffle the noise produced in the opposing living rooms, so that one can function as a quiet room, whilst the other is acting as a noisy room.

3. One set of service rooms serves to baffle the noise produced in the opposing set, from its own living room.

4. The bedrooms are kept as far as possible from the common party wall, only one bedroom in each house being planned along it, as against two in the British type Universal plan.

Investigation at the BRS and elsewhere has established that the best method of sound-proofing a wall is to provide for complete structural discontinuity, and the series of Diagrams 20 to 25 illustrate the use and value of the discontinuous party wall, together with its extension as a baffle on either side of the house. As the demand for greater openness of plan arises, so the dividing walls between buildings must be extended outwards, to take the place of the solid external wall of the traditional plan. The use of these baffles is supplementary to good planning arrangements, but it must be explained that the screening effect against air-borne sound is only slight. The main advantage lies in the feeling of privacy which they induce and which is more psychological than real.

So far consideration has been given mainly to noise between house and house. It is necessary to examine noise irritation within the individual house.

The individual family should have living conditions which provide, in addition to freedom from outside irritation and disturbance, rooms adequate in sound insulation for their respective functions, and any family of three or more will require one room for study in which absolute quiet can be assured. This is particularly the case with growing children who must have a room apart for their lessons and the development of their mind, away from the family caucus, with its wireless, piano and conversation.

Pre-war housing has not made any provision for this need. The parlour or the bedrooms, inadequately insulated, have had to serve as best they may.

A more desirable solution is to isolate one room in the house completely from its fellows, and there are two ways of doing this. The planning method, which can be adopted when insistence is not on minimum cost, is illustrated in Diagram 26. A small quiet room, so placed that it can readily be isolated from the building, is planned in a quiet corner of the house, and provided with structural insulation of the discontinuous pattern along the walls which connect it to the main building. Special attention would be required for the door to this room, but it acquires its especial characteristic of quietness mainly on account of its position in the plan.

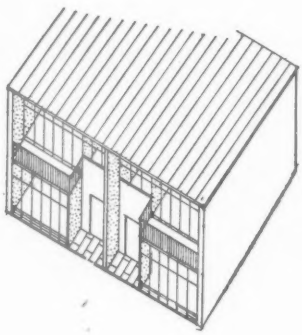
The alternative method is to use the structurally separate " floating " room construction, similar to that elaborated by the BRS. This method is applicable to any plan, and a parlour, or even a bedroom, could be chosen for treatment. The idea is illustrated on Diagram 27, which shows the parlour so treated. For a small house it will involve a considerable additional outlay in structural cost, as the provision of an independent floating box of this nature is an expensive matter.

Where conditions permit there can be little doubt that the " planned " quiet room is to be preferred to the " structural " quiet room, and is likely to give the greater amenity for the additional outlay involved.

(To be concluded.)

24

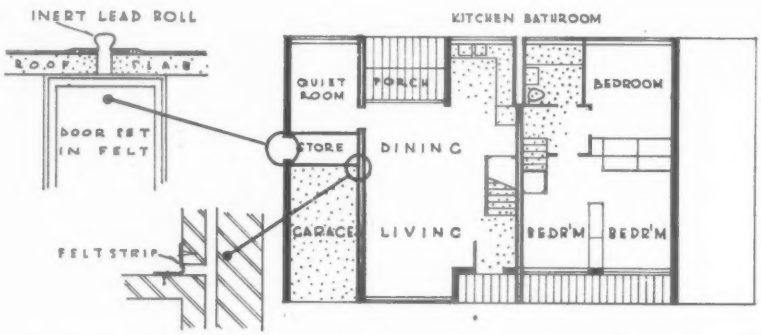
25



An advance is to treat the structural baffle as an integral part of the design as in the American plan, 19. Two examples are given, 24 and 25. In contemporary design with its large window areas, the structural baffle wall is especially necessary to give the feeling and reality of privacy.

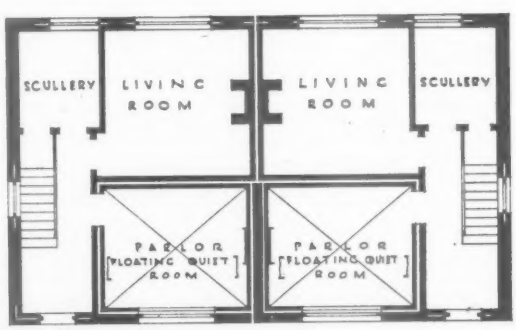
PROVISION OF QUIET ROOMS WITHIN THE INDIVIDUAL HOUSE

26

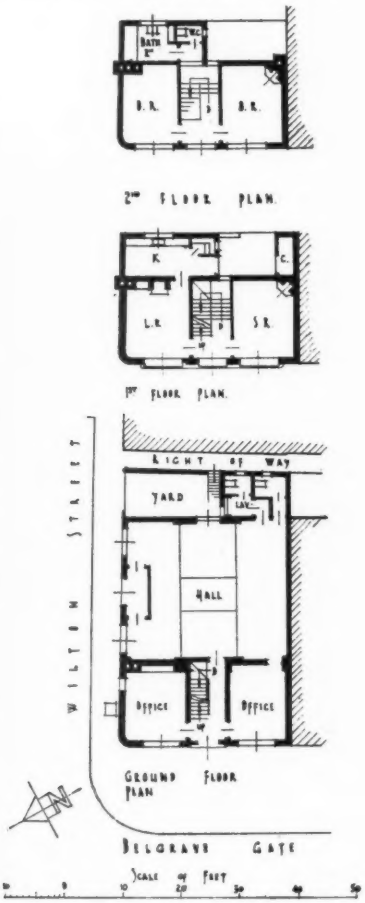


The American plan, 19, can be elaborated to provide for a garage and quiet room. 26 is an example of the planned quiet room segregated as much as possible from the main building. The garage should also have the maximum segregation and should never adjoin the party wall. Note that where hollow walls are shown in these diagrams, they represent the discontinuous baffle walls indicated in 20.

27



Typical British type Universal plan showing the parlour treated as a fully floated quiet room. This is the minimum plan form suitable for such a measure which would add appreciably to the cost of the house. The quiet room properly segregated on plan, as in 26, is preferable on account of both amenity and cost.



OFFICES

BY FRANK BROWN AND A. L. SHARPE

GENERAL—Trade Union Offices at Leicester. It was desired that the basement should contain an air raid shelter for the staff and a heating chamber, the ground floor offices for the district organiser and secretary, and a meeting hall for 80 persons, and the first and second floors living accommodation for the caretaker. The site is restricted and has a right of way to adjoining premises.

ELEVATIONAL TREATMENT AND CONSTRUCTION—The local authorities made the following restrictions: Fixed heights from pavement to the underside of the label mould over ground floor windows, to the top of first floor window sills, and to the top of the main parapet. As the building completed a row of shops, it was requested that the ground floor elevation be designed as a shop front. This was neither suitable nor desirable so a compromise was made by designing the entrance as nearly resembling a shop front as possible. The local authority also requested that the entire site should *not* be covered by buildings. An open area of 20 per cent. of the entire site should have been left open, but this was impossible and the local authority approved the small yard space which is large enough for car parking. The building is part steel framed. Walls are brick, floors and roof pre-cast concrete beams. Elevations are faced with bricks and re-constructed Portland stone.

INTERNAL FINISH—Internal walls, except basement, plastered and finished with wallpaper or paint and distemper. Floors, except kitchen and lavatories, lino cemented down. All joinery is deal (painted) except the oiled teak main entrance doors on to street frontages.

SERVICES—Central heating to offices and meeting hall by gas fired boiler, controlled by electric clock thermostat. Caretaker's living accommodation heated by coal fires, with back boiler in living room for domestic hot water. Electric immersion heater in storage cylinder for summer use.

INFORMATION CENTRE

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

STRUCTURE

1210 Waterloo Bridge

THE NEW WATERLOO BRIDGE. *E. J. Buckton and J. Cuerel.* (*Journal of the Institution of Civil Engineers, June*, 1943, *pp.* 145 *to* 201. *See also The Builder, May* 28, 1943, *pp.* 470 *to* 476, *and Concrete and Constructional Engineering, July*, 1943, *pp.* 211 *to* 230, *and Information Centre, No.* 1060). Collaboration between architect and engineers from the start. Monumental design replaced by functional design. Superstructure: continuous twin hollow box girders with cantilevers in reinforced concrete. Use of pre-stressing, welding and vibration. Surface faced with Portland stone.

In the design of this latest bridge in London, collaboration between the engineers (Messrs. Rendel, Palmer & Tritton) and the architect (Sir Giles Gilbert Scott) was arranged from the start. The first design was of a more monumental structure, with pylons at the entrances at both ends, and it was much more of an architectural solution. It was soon decided that the bridge should be below the road level. A good height had to be provided for large barges, so that not much room was available for constructional work underneath the roadway. The positioning of the piers was dictated largely by the position of the navigation channel and by the relation of the bridge to the adjoining buildings.

In view of the great width of the roadway the treatment of the soffit was an important question in avoiding a tunnel-like effect. It was for this reason that a system of twin girders with central strip of decking has been adopted*.

In a drawing prepared by Sir Giles for a six-line Waterloo bridge, and adopted by the LCC in February, 1932, the bridge consisted of five spans of elliptical arches. In addition, there were two flat spans, one on either side, to cross the embankments. As against this monumental design, the engineers tried out a functional design. The chief difference were :—

The siting of the piers—the first span jumping the Victoria Embankment.
Girder-cantilever design instead of arches.
Five equal segmental spans, instead of five graded elliptical spans with two special spans, one over the Victoria Embankment and the other over an assumed future south-side embankment.
The elimination of massive construction on the edges of the embankment as abutments for the arches.
Extreme slenderness, giving maximum openings to river traffic.
No pylons.
Level bridge.
Continuous parapet.
Tram tunnel entrance sited centrally.

*This arrangement is common with many big American and Continental bridges.

The similarities were :—

Superstructure in form of twin arches with central strip of decking.
Reinforced concrete construction.
Portland stone and granite surface-treatment.

The Highways Committee of the LCC unanimously recommended the adoption of the functional design when officially submitted. The dimensions finally adopted were a roadway 58 ft. wide, two footpaths each 11 ft. wide and five spans each nearly 240 ft. clear (252 ft. 7 in. between centres of piers) in place of the roadway 27 ft. wide, footpaths 7 ft. wide and spans 120 ft. clear of the old bridge. The new bridge has almost twice the surface area of the old bridge and twice its clear spans, yet its weight is only about three-quarters of the old structure. These figures give a fair idea of the technical development in bridge building which was achieved in reinforced concrete.

The superstructure consists throughout of two box girders, subdivided by internal ribs and diaphragms, carrying a central strip of decking which is integral with the main members.

Considered longitudinally, the bridge is symmetrical about its centre and each half consists of a twin two-span girder continuous over the first river pier and cantilevering shorewards from the abutments and into the centre span from the second pier. The gap in the centre span, between the cantilevers extending from the north and south, is filled by a suspended section, whilst each shore end cantilever carries a short span approach slab. At the extreme ends in the centre span at the bearings of the suspended section, expansion joints are provided. At these places, as well as at the shore cantilevers, certain reinforcing bars were required to be pre-stressed.

To realize the designed slimness of the construction a high percentage of reinforcement was necessary. In order to avoid laps, splice bars and hooks which would have increased the dead weight by the extra concrete required for their accommodation, a considerable use of welding was made.

The whole of the concrete in the bridge structure, except the foundation blocks, was vibrated.

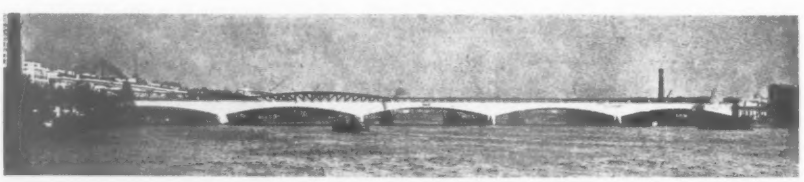
The foundation of the piers consists of a solid block of reinforced concrete, 6 ft. thick. On top of this block a cellular base is provided to spread transversally the load from the bearing wall. The bearing wall is surrounded by, but completely separated from, a granite and Portland stone-faced reinforced concrete shell. This shell, apart from any question of appearance, has several purely technical functions. It protects the main supporting member from damage by shipping, and constitutes a cofferdam which would, if necessary, facilitate inspection and repair of the bearing wall.

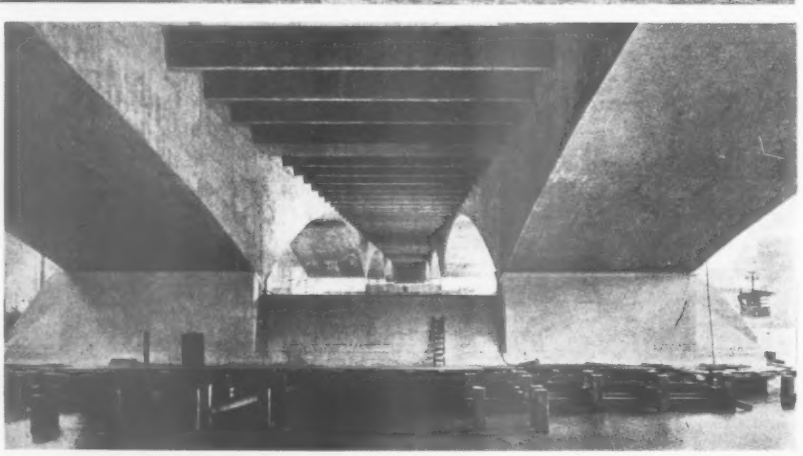
The outer ribs of the main girders are faced with Portland stone. " Alternatives such as a treated concrete surface and pre-cast concrete slabs were investigated, but it was decided that the technique of in-situ concrete treatment had not progressed far enough for the engineers to give assurance that pleasing result would be obtained by such means on the large highly exposed areas of the ' spandrels.' "

It was also decided " that no form of treatment could be adopted which would impair the strength and life of the structure, and accordingly the complete removal of the dense, hard surface layer resulting from the vibrating could not be entertained. Bush hammering and tooling, which not only remove the surface but also cause damage to the underlying concrete, were therefore excluded from general adoption." (Compare this with Information Centre Nos. 1048 to 1051 and Astragal's note in the JOURNAL, May 6, 1943, p. 297). The stone facing has been arranged by the architect in vertical strips so that the joints in no way suggest heavy stones functioning as an arch or wall.

In regard to concrete surfaces exposed to public view, it was specified that the forms should be lined with a smooth-faced non-absorbent plywood and, after stripping, the concrete face should be mechanically ground by means of carborundum disks.

" It is suggested that the result on the first-constructed span on the south side is pleasing ;





The new Waterloo Bridge. Top, view from west. Above, under one of the arches. See item No. 1210.

but the work at the northern end had to be carried out under great difficulties owing to war-time restrictions on labour and materials, it was impossible to obtain plywood for the lining of the forms, the best available substitute was inferior and the appearance has suffered somewhat in consequence."

Although the construction of the new bridge was commenced two years before war was declared, even the pre-war period was very difficult. At the outbreak of the war, in spite of priorities, the supply of labour and materials became even more difficult. The provision of the permanent handrailing and lamp standards and two of the four stairways will be left over until after the war, together with the clearing up of the embankment.

The article contains a great number of interesting details. It may be added that the new Waterloo bridge is the largest span reinforced concrete box-girder bridge in the world.

In its architectural treatment the bridge is a compromise. The concrete is exposed at the bottom of the girders and thus the impression of very slender arches is created. This impression is enhanced by the shape of the piers. The load bearing wall is concealed by the protective shell of stone which looks as if its object was to transmit the horizontal thrust from the arches. In actual fact, however, no thrust is developed by the girders and only vertical loads are carried by the piers.

MATERIALS

1211 Plaster Substitutes

PLASTERING PROBLEMS OF THE NINETEEN-TWENTIES WILL NOT RECUR. *E. Gunn.* (*The Architect and Building News, June* 25, 1943, *pp.* 188-190). Substitute methods to eliminate plastering as a finish.

After the war of 1914-1918 one of the obstacles to rapid completion of houses was the shortage of plasterers and the time taken by a wet process to dry. This led to expedients some of which were found to show definite advantages in certain directions, notable in heat insulation and sound absorption. These methods may be classed roughly as follows:

(*a*) Omission of plaster on walls and partitions by the use of structural materials capable of giving an acceptably fair face.

(*b*) The use of fibrous material in big sheets, particularly for ceilings, calling for only a setting coat and sometimes left bare or merely distempered.

(*c*) Similar use of smooth-faced material intended as the visible finish and needing only covering of the butt joints between the sheets and "stopping" over nail fixings.

The available materials may be divided into those of mineral origin (asbestos-cement sheets, plaster board, foamed slag) and those of vegetable substance, more or less reconstituted, in some cases with impregnation and coating with mineral cements (wood-wool, vegetable fibre-board, thatch-board, pulp board, plywood, etc.).

1212 Seasoning Timber

INTERIM NOTES ON CHEMICAL SEASONING OF TIMBER. (*Booklet published by the Timber Development Association Ltd.*). New method of seasoning timber.

It is difficult to dry timber of large cross-section rapidly as the speedy loss of moisture from the outer cells will result in surface shrinkage, "checking" and splitting. Experimental work carried out in the USA has shown that there are many chemicals which will reduce the surface-checking of timber. These notes describe the method and results achieved with a chemical called Urea, which has made it possible to dry, for instance, green white-oak staves, without intermediate air seasoning, in 2 to 3 weeks to 12-14 per cent. moisture content without checking. The information given is derived entirely from American literature, and will, it is hoped, provide a useful basis at least for experimental work in Britain.

1213 Properties of Concrete

A REVIEW OF THE PROPERTIES OF CONCRETE. *Russell Allin.* (*Civil Engineering, May*, 1943, *pp.* 98 *to* 101.) Brief review of developments of last 20 years regarding compressive strength, volume changes due to moisture, curing, temperature effects on concrete, creep, workability, cement, aggregates, choice of mix.

A considerable amount of research has been carried out in this country and abroad. In the author's opinion, however, the conclusions of this research have not been disseminated sufficiently in a form which can be readily applied by those in direct charge of practical work.

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.*

1214 Competition Procedure

Q *I should be glad to know if you could recommend a brochure detailing the procedure to be followed in inviting competition for the design of a building required by an authority, for example a religious body, without access to technical advice, and thus differing from a Borough Council or Corporation.*

A We would advise:—"Regulations governing the Promotion and Conduct of Architectural Competitions as approved by the Royal Institute of British Architects and by its Allied Societies." A copy will be sent to you free of charge on application to the Royal Institute of British Architects, 66, Portland Place, London, W.1.

1215 Licensed Premises

Q *Can you give a list of publications on the design of licensed premises?*

A We give below a short list of comparatively recent publications:—

English Inns. RIBA Journal, May 14, 1942.

Design and Construction of Public Houses. The Architects' Journal, November 24, 1938.

The Modern Public House. B. Oliver. 1934.

The New Public House. E. Williams. 1924.

1216 Light Patent Flooring

Q *I shall be obliged if you can give me the name and address of manufacturers of a light weight patent flooring capable of carrying 50 lb. per foot super, the longest span at present contemplated is 12 feet.*

A The Cement and Concrete Association, to whom we referred your enquiry, advise, for a light weight floor, Myko flooring, in which is incorporated foamed slag aggregate. The nearest supplier is The Bath and Portland Stone Co., Portland.

SOME RECENT BOOKS

AN OUTLINE OF EUROPEAN ARCHITECTURE. *By Nikolaus Pevsner. Penguin Books. 9d.*

It would be a great pity if the modest format of this volume leads to its neglect. It will, of course, have a large circulation—larger than it would receive in a worthier format. But will it be read? And if it is read, will it be preserved for re-reading and reference? For it is quite the best short history of European architecture that has ever been published in this country, preserving within its 150 pages, not merely a control of all the essential facts, but a balance of treatment of quite exceptional justness, and at the same time a liveliness of approach and freshness of vision which are generally sacrificed in such efforts of condensation. These excellent qualities are in a large measure due to the selection of a principle—an essential thread upon which the facts hang securely and in orderly sequence. "What distinguishes architecture from painting and sculpture," writes Dr. Pevsner in his Introduction, "is its spatial quality. In this, and only in this, no other artist can emulate the architect. Thus the history of architecture is primarily the history of man shaping space, and the historian must keep spatial problems always in the foreground. That is why no book on architecture, however popular its presentation may be, can be successful without ground plans."

Dr. Pevsner, however, is far from adopting the purist or abstract attitude towards his subject which such a statement might suggest. He never forgets that architecture is a functional art, and that therefore its æsthetic pretensions are always corrected by its social relevance. For this reason architecture must always be accorded its position as the mistress art—though that does not necessarily imply its æsthetic superiority, as Dr. Pevsner seems too readily to assume. Personally I doubt if there is any æsthetic hierarchy into which all the arts will fit: the particular sensuous experiences which we derive from architecture, poetry and music are not strictly comparable, though admittedly, as Dr. Pevsner claims, "salvation can only come from architecture as the art most closely bound up with the necessities of life, with immediate use, and functional and structural fundamentals." Integration is the key-word for most of our reconstructive activities to-day, and the integration of the arts can only be achieved through architecture, which in its turn is dependent on a deeper spiritual integration in the mind of man.

Dr. Pevsner specialised in the history of English architecture before he came to this country, and it is therefore natural that he should show such a complete understanding of its place in the development of European architecture. Here, for example, are two remarks from his chaper on "The Gothic Style," which will cause us some gratification. After comparing the French system of vaulting with the vault of Lincoln, he observes: "In all this, the Early English style appears the true representative of a national character that seems scarcely changed to this day. There is still the same distrust of the consistent and logical and the extreme and uncompromising." He even admits that this attitude in art is perhaps more vital, for a little later he admits a fact which continental scholars have been slow to recognize—that "English architecture between 1250 and 1350 was in some ways the most forward, the most important, and certainly the most interesting in Europe."

The independence of Dr. Pevsner's judgment is nowhere more evident than in his treatment of a great figure such as Michelangelo. After a brilliant analysis of the architectural com-

position of the Medici Chapel, he sums up in these words:—

"It has often been said that the motifs of the walls show Michelangelo as the father of the Baroque, because they express the superhuman struggle of active forces against overpowering matter. I do not think that anybody who examines without prejudice his sensations in the room itself would subscribe to this statement. There seems to me no expression of struggle anywhere. What in fact Michelangelo has done, what is his wholly personal architectural achievement, and what has indeed initiated a new style for the sixteenth century, the style which art historians are now getting used to calling Mannerism, is the conception of a world of frustration much more tragic than the Baroque world of struggles between mind and matter. In Michelangelo's architecture every force seems paralysed. The load does not weigh, the support does not carry, natural reactions play no part—a highly artificial system upheld by the severest discipline."

"Michelangelo was the first to turn architecture into an instrument of individual expression"—in this sense he was the first of the romantics. In this sense he stands apart from the Baroque movement, which was a return to universality and objectivity. Dr. Pevsner, in his previously published works, has made himself an authority on this particular period, and he is in a sense jealous for its æsthetic fame. It is at this point in his history, and at this point only, that he will probably find a considerable body of English opinion ready to challenge his judgement. "In so far as Western architecture through the whole of its evolution is essentially spatial architecture, the Baroque can be regarded as the supreme architectural achievement, the subtlest and most complex expression of the West." We have long since overcome the prejudices of our Puritan tradition and the special pleading of Ruskin, but this sweeping affirmation is still more than most of us will feel inclined to accept. I think we should argue that something so subtle and complex cannot for that very reason be supreme. Our conception of sublimity demands something simpler and (we would say) more sincere. It may be that, as Dr. Pevsner claims, the Baroque is not the style of a privileged set of virtuosi, but the style of the people. But for all that, it is not the expression of a co-operative impulse in the sense that Gothic was, and it does not attain anything like the same quality of transcendentalism. But this is a question more suited to debating societies than the review columns of a serious journal: it serves to illustrate, however, the lively sense of competing values which characterizes the whole of this little volume. It is a sense which does not fail the author when he comes to deal with the modern movement.

HERBERT READ.

ROADSIDE PLANTING. *Roads Beautifying Association.* (*Country Life*, 5/-).

HOME-GROWN TIMBER TREES. *Timber Development Association.* (*pamphlet*).

A POCKET BOOK OF ENGLISH TREES. *E. H. B. Boulton.* (*A. & C. Black*, 7/6.)

In the book of Ezekiel is told with brilliant simplicity how the great Cedar of Lebanon, king of the trees, was struck down and at his fall there was mourning, the great waters were stayed, and all the trees of the field fainted for him. It is with some such feelings that one sees to-day in every part of England the wholesale and ruthless felling of beech, fir, elm and oak. This must be so in war-time, just as it was in the "years of endurance," when heart of oak ran short of the demands of the British Navy. To-day, the demand is greater, but too little attention is paid to scientific felling and labour conditions do not permit of replanting. Whole valleys of the beautiful greybearded oak peculiar to the N. Devon coast are disappearing at the hands of timber merchants. It is important that local authorities, and landowners, large and small alike, should prepare new schemes for replanting on an unprecedented scale as soon as the war situation permits this important aspect of reconstruction.

Too few people realize that the face of the English countryside as we see it to-day did not just occur so, but is a man-made heritage bequeathed us by our forebears as much for beauty as for use. In 1664, John Evelyn published his "trumpet call to the nation on the condition of their woods and forests," and thus started an enthusiasm for tree planting which spread quickly and "Noble Persons adorned their Goodly Mansions and Demesnes" with trees of venerable shade as well as planting up woods for shipbuilding. The eighteenth century revolution of agricultural economy and tenure caused by enclosure furthered this scenic change by a chequerboard of quickset hedge with clumps and hedgetrees intervening. Much of this planting is now past its prime and falling into decay, hedgerows are neglected and parks broken up and destroyed. We stand idly by lacking imagination to see the end of this steady, slow decay, making a feeble effort now and then to preserve this or that "beauty spot," but forgetting that it is in our power to maintain, protect, replant, invigorate and make the countryside to live again.

The Timber Development Association's pamphlet and its Director's pocket-book of trees will both assist in making the public conscious of this pressing duty to our children. The first is a simple list of tree types suitable for various conditions of soil, aspect, temperature, shade and wind firmness. The second is a charming guide to species with beautiful photographs and concise notes on habit, use and origin. The only criticism to be made is that detail of leaves, flowers and fruit is less clearly illustrated by photograph than by line drawings, which one misses in this little book. *Roadside Planting* is a book that should be used by all road engineers, local authorities and landowners. Published with the beauty of picture, paper and typography one expects from Country Life, it is a perfect "text-book of imagination" bringing together qualities seldom reconciled. For both text and photographs reveal the vast and glorious opportunities for introducing beauty and variety into road planting through the four seasons by colour, form and grouping. It is clearly shown that all trees, from English oak and humble whitethorn to imported cedar and sequoia, and flowering magnolia, plum and cherry, can have a place beside the roads of England. Every species is explored and suggestions are made for each difficult position of climate and soil, and the potentialities of each are developed, whether of weeping, climbing or fastigiate habit. It is even hinted that by thoughtful planting the purlieus of suburbia can be transfigured.

ANTHONY M. CHITTY.

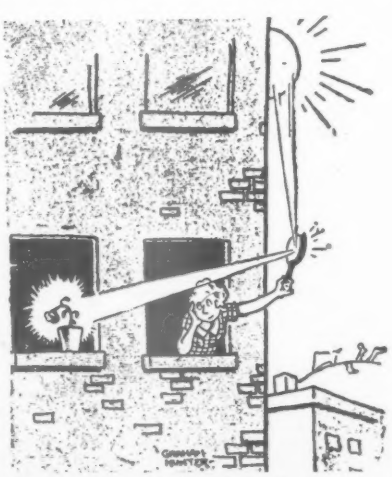
CAN OUR CITIES SURVIVE? *J. L. Sert. Based on the proposals of CIAM.* (*Harvard University Press*, $5.00).

CIAM, big brother or more accurately parent of our MARS, has published in America a finely produced and strikingly illustrated manifesto. To those who have digested their Mumford and their Giedion there will be little in the text that is not familiar. They may even find their attention wandering from what is presumably a rather inexpert translation, and their intelligence irritated by an overdose of italicized truisms such as *In case of conflict, private interests should be subordinated to public interests.* There is a starry-eyed Atlantic Charter atmosphere about it all which repeatedly invites the comment "Yes, but . . ." Still, the text has its value. Taking the four elements of city life in turn, it deals logically with Dwelling, Recreation, Work, Transport, in each case castigating what is and proclaiming what should be. The above order of importance is itself characteristic of the modern approach. The Romans would have put Recreation first, the Victorians Work. The Augustans would have subordinated the whole lot to Beauty. And in many other ways this book will come to be regarded as perfectly typical of the twentieth century. Our subordination of aesthetic to social criteria is very marked: we condemn our cities not for their ugliness but for their inefficiency. The same is true positively. "The course to be taken in town-planning will be influenced basically by the political, social and economic factors of the time, and not in the last resort by the spirit of modern architecture." Then there is our fondness for the "organic" approach, or what Sert calls "urban biology," a useful analogy which some of us stretch rather far in the suddenness of the mutation which we now demand. Above all the book typifies our generalized, international, rather colourless outlook. It makes a brave and consistent attempt to treat the problem as a universal and human one, excluding particularities. The result is inevitably that one's local obstacles, the toughest of all, are ignored. We must remember, for example, that to a normal inhabitant of, say, Birmingham, these communal lawns, these repetitive skyscrapers, which have become the signature of modern urban projects, are utterly forbidding. Here anyhow, in concentrated and convenient form, is the theoretical urban ideal of the 'thirties, the normal modern answer, the deadline from which we all start.

And now that we have it, let us have no more of it. Apart from propaganda (for which it is unsuitable) this book will, one hopes, be the *final* statement of (*a*) what is wrong and (*b*) what is right. The question now is how to reduce (*a*) and approach (*b*). In other words it is high time we descended from the cloudy region of Ends, and got down to the hard work of contriving Means. People have had enough of generalities in capital letters; they want to see the plan for their own town, the local problem tackled, the technical snag overcome, the old embodied in the new.

The illustrations are superb. American photographers have a peculiar eye for the significant. Jaded students of this subject, who know all the stock illustrations for this kind of book, will be refreshed to find here a great deal of new material, mostly air views, which are of the greatest assistance to the contemporary planner. The myriad identical cars, which infest the American landscape like slugs, are an appalling feature which we must be ready for. Nor is this the only instance in which America anticipates our own troubles. As a planner's Bestiary, these pictures are of the greatest value.

LIONEL BRETT.



From Can Our Cities Survive?

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BY DAVIS AND BELFIELD, CHARTERED QUANTITY SURVEYORS

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BASIC MATERIALS	Increase over pre-war prices at end of						
	Jan., 1943	Feb., 1943	Mar.,1943	April, 1943	May, 1943	June, 1943	July, 1943
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Portland cement	+41·46	+41·46	+41·46	+41·46	+41·46	+41·46	+41·46
2-in. Unscreened ballast	+71·01	+71·01	+71·01	+88·41	+88·41	+88·41	+88·41
Fletton bricks (at station)	+29·19	+29·19	+29·19	+29·19	+29·19	+29·19	+29·19
Stoneware drainpipes (British Standard) 2 tons and over	+37½	+37½	+37½	+37½	+37½	+43·75	+43·75
Roofing tiles	+42½	+42½	+45	+45	+45	+45	+45
Steel joists (basic sections) ex mills	+47·5	+47·5	+47·5	+47·5	+47·5	+47·5	+47·5
Lime greystone	+43·53	+43·53	+43·53	+43·53	+43·53	+43·53	+43·53
Sheet lead	+65·22	+65·22	+65·22	+65·22	+65·22	+65·22	+65·22
Iron rainwater goods and soil pipes	+26½	+26½	+26½	+26½	+26½	+26½	+26½
White lead paint	+44·70	+44·70	+46·21	+46·21	+46·21	+46·21	+46·21
RATES OF WAGES (Central London Area)							
Labourers	+22·22	+22·22	+26·98	+26·98	+26·98	+26·98	+26·98
Craftsmen	+16·67	+16·67	+21·43	+21·43	+21·43	+21·43	+21·43

LABOUR—Rates of Wages since 2nd April, 1943.

LONDON DISTRICT	Craftsmen	Labourers
Within 12 miles radius	2s. 1½d.	1s. 8d.
From 12-15 „ „	2s. 1d.	1s. 7½d.

GRADE CLASSIFICATIONS	A	A¹	A²	A³	B	B¹	B²	B³	C
Craftsmen	2/–	1/11½	1/11	1/10½	1/10	1/9½	1/9	1/8½	1/8
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Davis.

F.S.I.

CLASSIFIED ADVERTISEMENTS

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

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

Public and Official Announcements

Six lines or under, 8s.; each additional line, 1s.

The Incorporated Association of Architects and Surveyors maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. Address: **75 Eaton Place, London, S.W.1. Tel.: Sloane 5615** 991

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.

NATIONAL BUILDINGS RECORD requires the services of one or two draughtsmen, R.I.B.A. intermediate or finals standard, for survey work in London. Short-term appointments considered. Salary £3 to £5 according to qualifications. Apply by letter to Deputy Director, N. B. R., 66, Portland Place, W.1. 138

ARCHITECTURAL DRAUGHTSMAN, well experienced, required for the permanent staff of a Birmingham Office. A good knowledge of construction is necessary, and applicants must be adaptable and prepared to specialize in the application of a modern material to building purposes. Box 935.

ARCHITECT OR SURVEYOR required for London Office. Must be capable of taking full responsibility for maintenance and other works in connection with a number of properties. Appointment will be immediate, but only for the duration of the war. Details of experience, salary required, etc., to Box 937

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ARCHITECTURAL AND SURVEYING ASSISTANT requires position on work of National importance; 6 years' experience industrial and domestic design; willing to go anywhere, if has post-war possibilities; salary by arrangement. Box 127.

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ENGINEERING AND ARCHITECTURAL ASSISTANT. Expeditious and efficient detail draughting. Accurate engineering, calculations and quantities. Thorough site supervision. Medically exempt. Age 28. Office if required, but travel no object. Farrant, 366, Chelsea Cloisters, Sloane Avenue, S.W.3. Kensington 2525. 129

SURVEYOR, PROPERTY MANAGER, etc., requires appointment; 25 years' theoretical and practical experience in the profession and building trade. Not liable for military service; rendered war service 1914-18 first great war. Energetic, alert and conscientious; supervision all branches of the building, allied and specialists trades; all classes of buildings, etc., and also war damaged properties, etc. Excellent testimonials. Please apply Box 130.

ASSISTANT ARCHITECT (registration pending), having just completed a five years' diploma course at the Regent Street Polytechnic School of Architecture, requires position in architect's office. Would prefer post-war reconstruction work with local government. Not liable for military service. Salary by arrangement. Meller, 35, Clifton Gardens, W.9. 134

YOUTH, 17, registered as Probationer; distinction in Drawing, London General Schools. Would like summer vacation work in architect's office, from August 16 to September 20. Write R. Burbidge, c/o 53, Beattyville Gardens, Ilford, Essex. 135

ARCHITECT. Experience carrying through works complete; all parts country. Requires position with other architect or firm. Please state possibilities and remuneration. Box 136.

CHARTERED SURVEYOR; qualified town planner; experienced in research work; some experience of journalism and publicity; ineligible for military service; would be interested to hear of any remunerative opening for his services. Box 137.

YOUTH, aged 16½, completed three years' course in School of Art, desires post in Architect's office (London Area). Keen and willing. J. W. Newall, 91, West Road, E.15. 139

YOUNG ARCHITECT, registered, competent, requires position—London or Surrey area, on war-time building or preparation post-war schemes. Box 140.

YOUNG MAN, 20 years old, not liable for military service, attending evening classes in architecture. Looking for post as junior draughtsman (war work) in London area. Write Box 141.

BREWERY ARCHITECT (registered) **QUANTITY SURVEYOR,** Member of the Birmingham and Five Counties Architectural Association, desires responsible position with Brewery Co., experienced designing Licensed Houses and Hotels for Midland Breweries, one-eighth scale working drawings, details, bills of quantities, estimates, surveying, post-war planning, etc. Salary £500 per annum. Box 142.

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ARCHITECTURAL ASSISTANT, 5 years' experience; age 23; exempt from Military Service; requires position with Professional Firm or Local Government. For further particulars write Box 146.

STUDENT R.I.B.A., six years' practical experience, requires good progressive position with London Architect. Experience in many types of building, including War Emergency standards. Field surveys, site supervision, preparation of all drawings. Excellent testimonials available. Box 147

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WANTED to purchase. The Library of Planned Information, Vols. 1—IV. Box 76.

WANTED. Complete set of Information Sheets, loose or bound. State price. Box 77.

WANTED. Complete set of volumes of the Architects' Journal Library of Planned Information. Box 98.

Classified Advertisements continued on page xxxii

WANTED TO PURCHASE. A copy of *Specification*, 1933. Box 123.

MAJOR H. S. ATKIN-BERRY, F.S.I., "Slamat," Bessels Green, Sevenoaks, would be grateful if anyone having a copy of THE ARCHITECTS JOURNAL of April 30, 1930, which contained illustrations of his Singapore house, would communicate with him. 151

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SIR WILLIAM E. WHYTE PRIZE FUND.

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Sketch plans with appropriate letterpress must be lodged with the subscriber not later than 31st October, 1943, in the case of civilians, and not later than 31st December, 1943, in the case of men and women serving in H.M. Forces, and copies of the Conditions of the Competition may be obtained from him.

NORMAN J. CAMPBELL, S.S.C.,
Honorary Secretary and Treasurer.

11, Drumsheugh Gardens,
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26th June, 1943. 910

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SESSION 1943-44.
(Commencing on Tuesday, 5th October, 1943).

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W. J. WILLIAMS,
Director of Education.

City Hall,
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Applicants must be Fellows of the Royal Institute of British Architects, with considerable professional experience; some teaching experience is desirable though not essential. Salary £500—£25—£700, initial salary being according to qualifications and experience. Duties to commence on the 1st January, 1944.

Forms of application and further details may be obtained on receipt of a stamped and addressed foolscap envelope from the undersigned, and returned to the Principal by not later than 11th September, 1943.

H. BOYES WATSON,
Chief Education Officer.

Education Office,
Warrior Square,
Southend-on-Sea. 942

R.I.B.A. QUALIFYING EXAMINATIONS
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