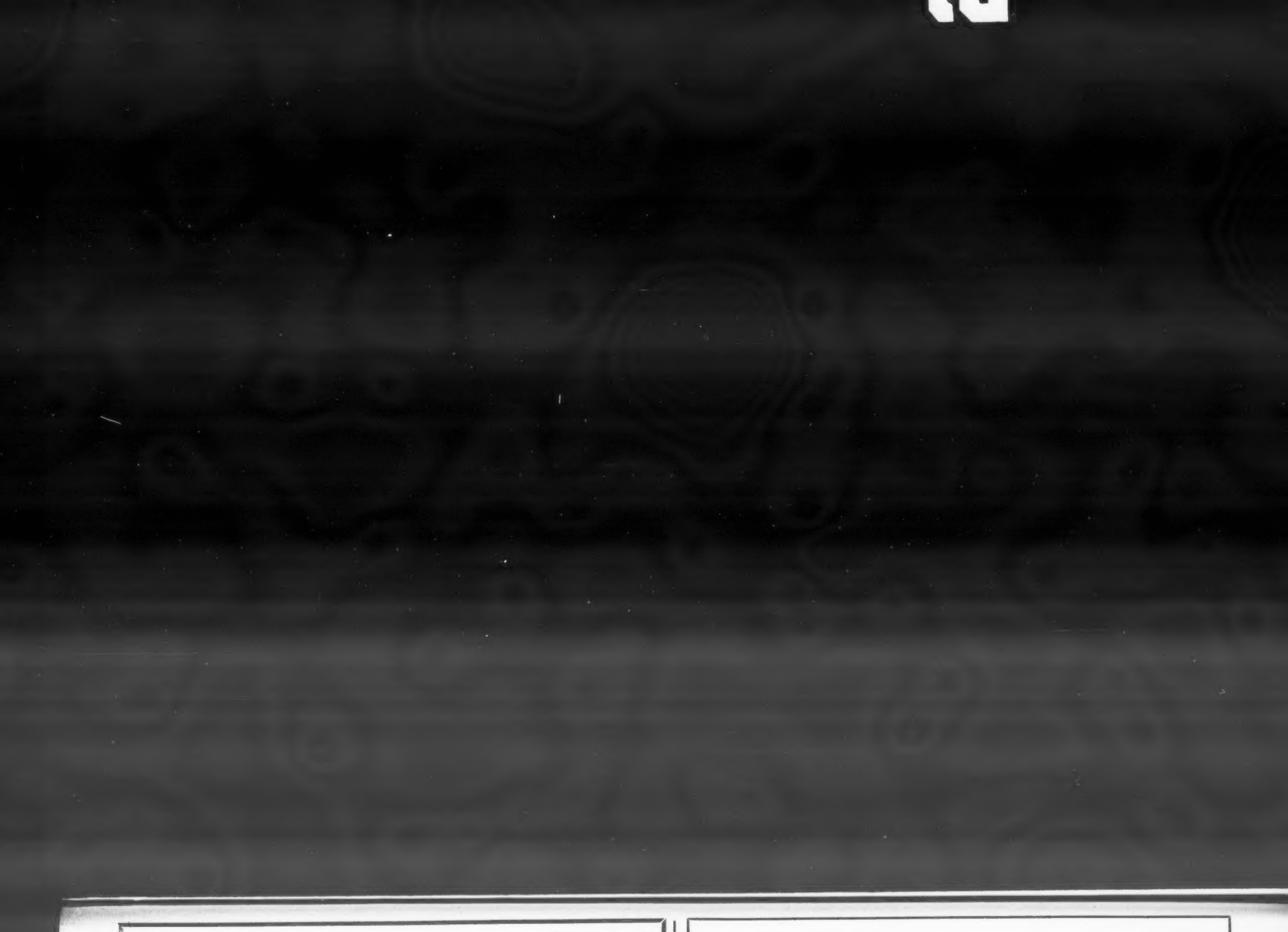
THE ARCHITECTS' JOURNAL

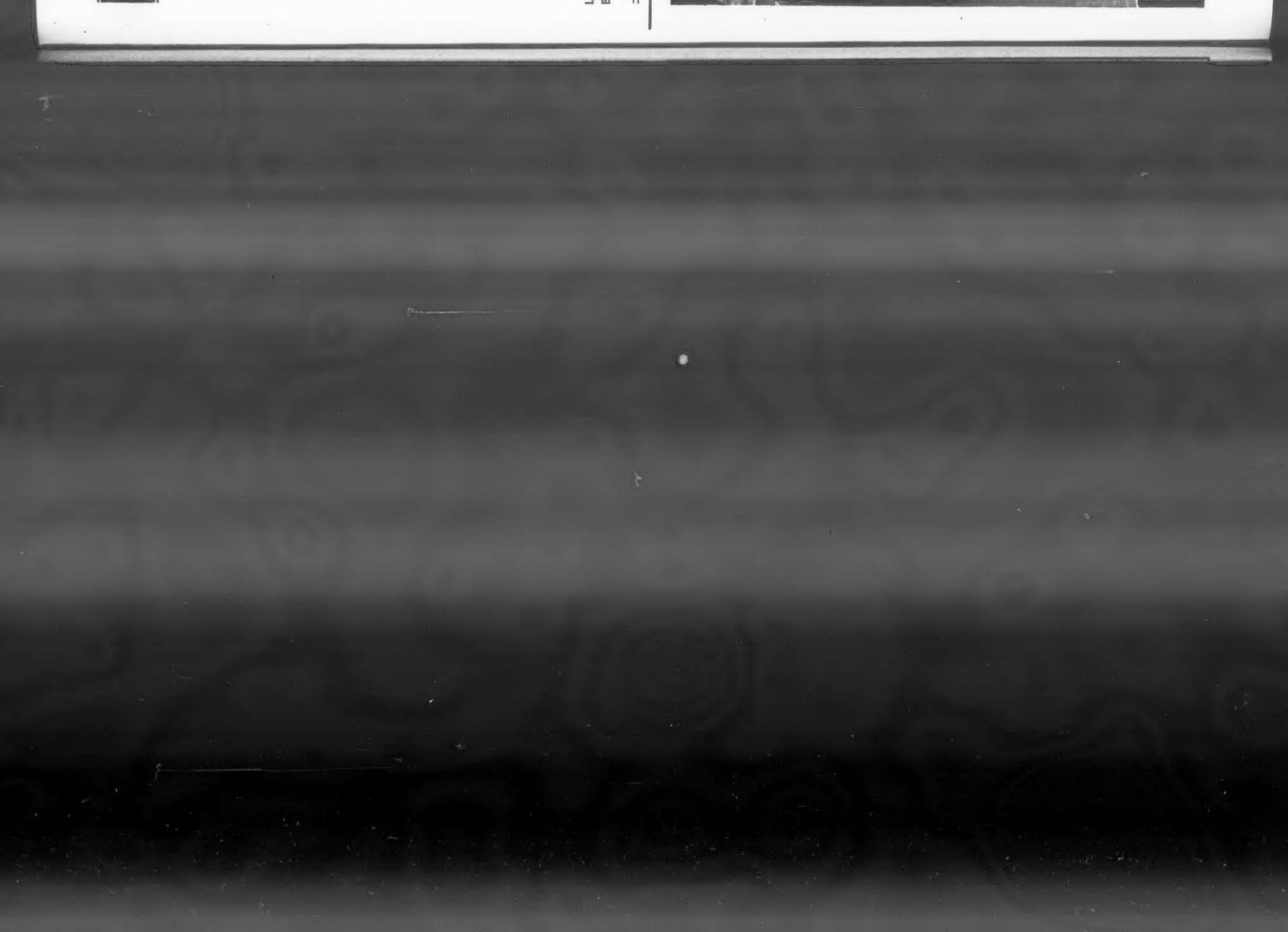
No. 2536] [VOL. 98
THE ARCHITECTURAL PRESS, War Address: Forty-five The Avenue, Cheam, Surrey. Phone: Vigilant 0087-9

Price 9d.
Registered as a Newspaper

★ The war has both multiplied the number of Official Departments and encouraged Societies and Committees of all kinds to become more vocal. The result is a growing output of official and group propaganda. A glossary of abbreviations is now provided below, together with the full address and telephone number of the organizations concerned. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association. 34/6, Bedford Square, W.C.1. Museum 0974.
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1. Victoria 0447-8.
APRR	Association for Planning and Regional Reconstruction. 32, Gordon Square, W.C.1. Euston 2158-9.
ARCUK	Architects' Registration Council. 68, Portland Place, W.1. Welbeck 9738.
ASB	Architectural Science Board of the Royal Institute of British Architects, 66, Portland Place, W.1. Welbeck 6927.
BC	Building Centre. 23, Maddox Street, W.1. Mayfair 2128.
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.



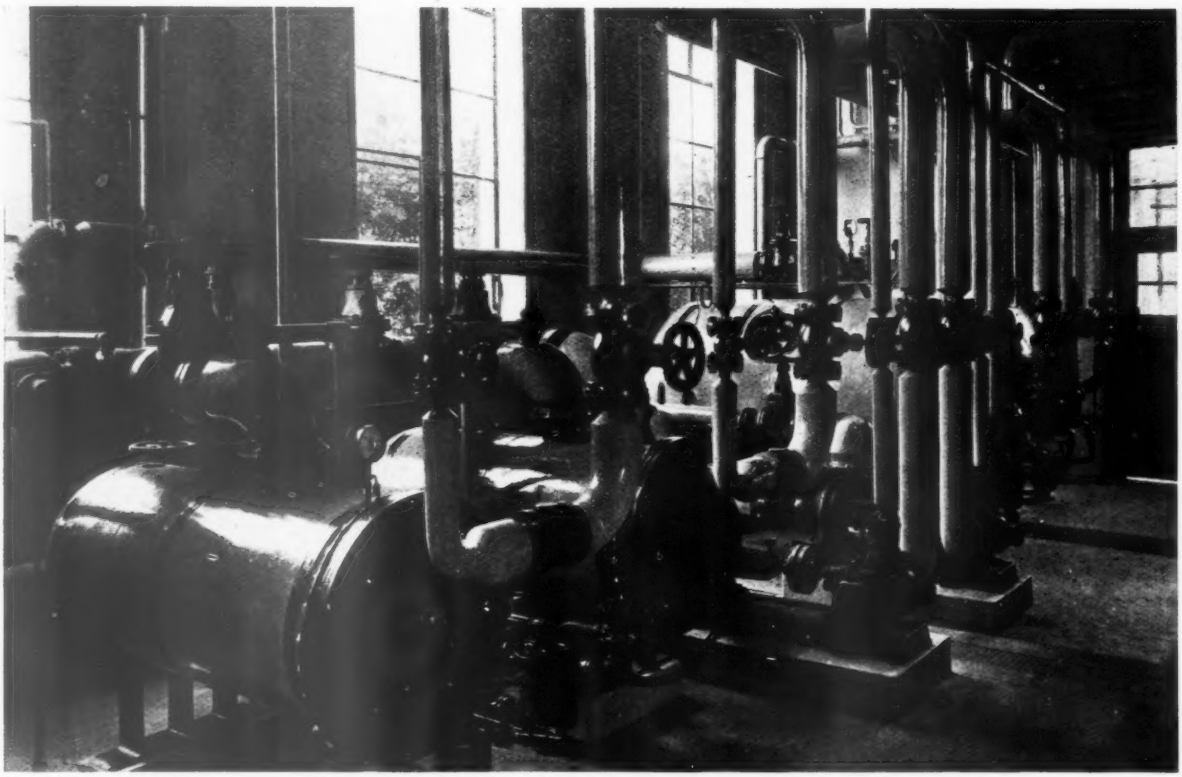


Alphabetical Index to Advertisers

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

SERIES No. 12

MODERN ENGINEERING INSTALLATIONS *by* HADENS



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Canterbury: 19-29 Woburn Place, London, W.C.1 - - *Terminus 2877*
Liverpool: 4 Albert Square, Manchester 2 - - - *Blackfriars 6356*

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Wren, after the fire of 1666, had visions of a purer, cleaner, better London. Although petty officialdom and self-seeking merchants thwarted his dreams, many of his buildings were planned as he envisaged. Let us not commit the same crimes against the visionaries who desire to reconstruct Britain after the war. It must be a better land . . . the highest authorities in Britain and in the U.S.A. have determined that this shall be so.

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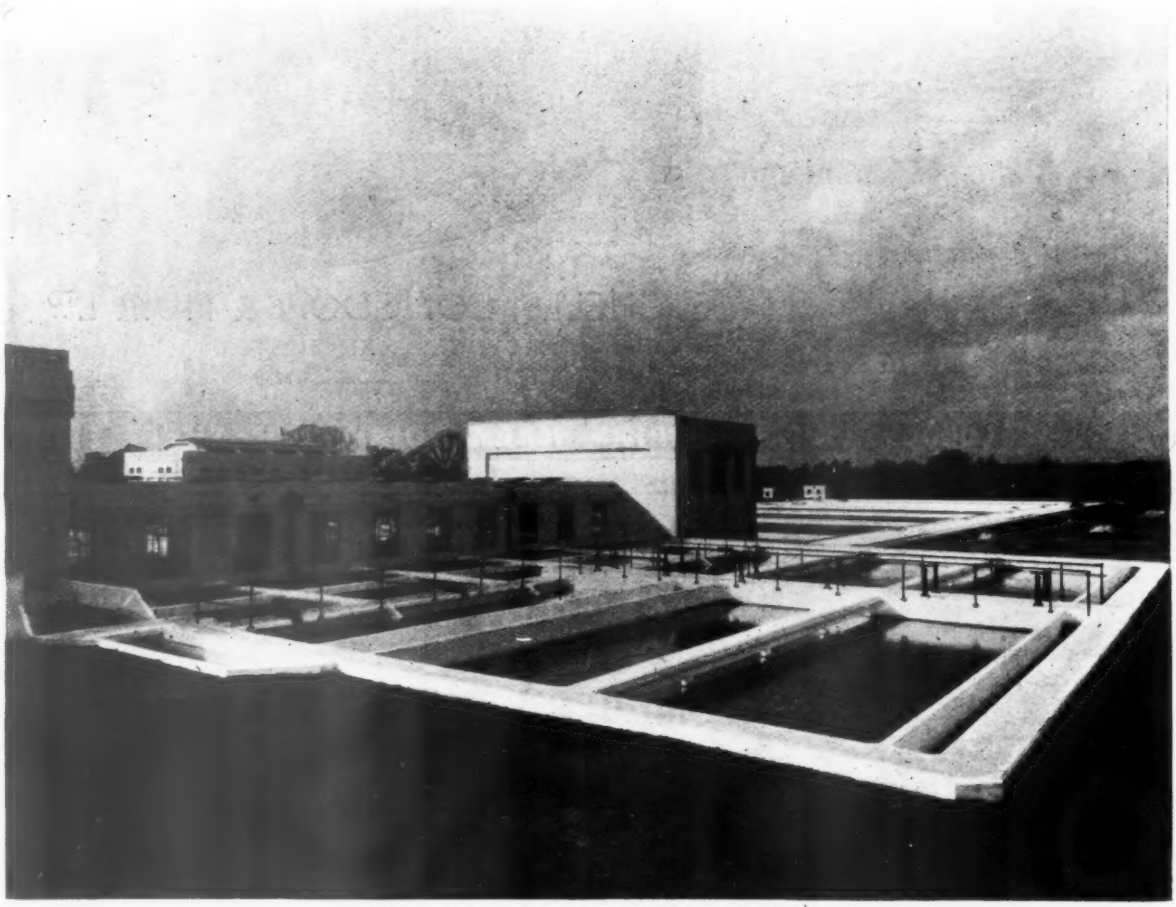
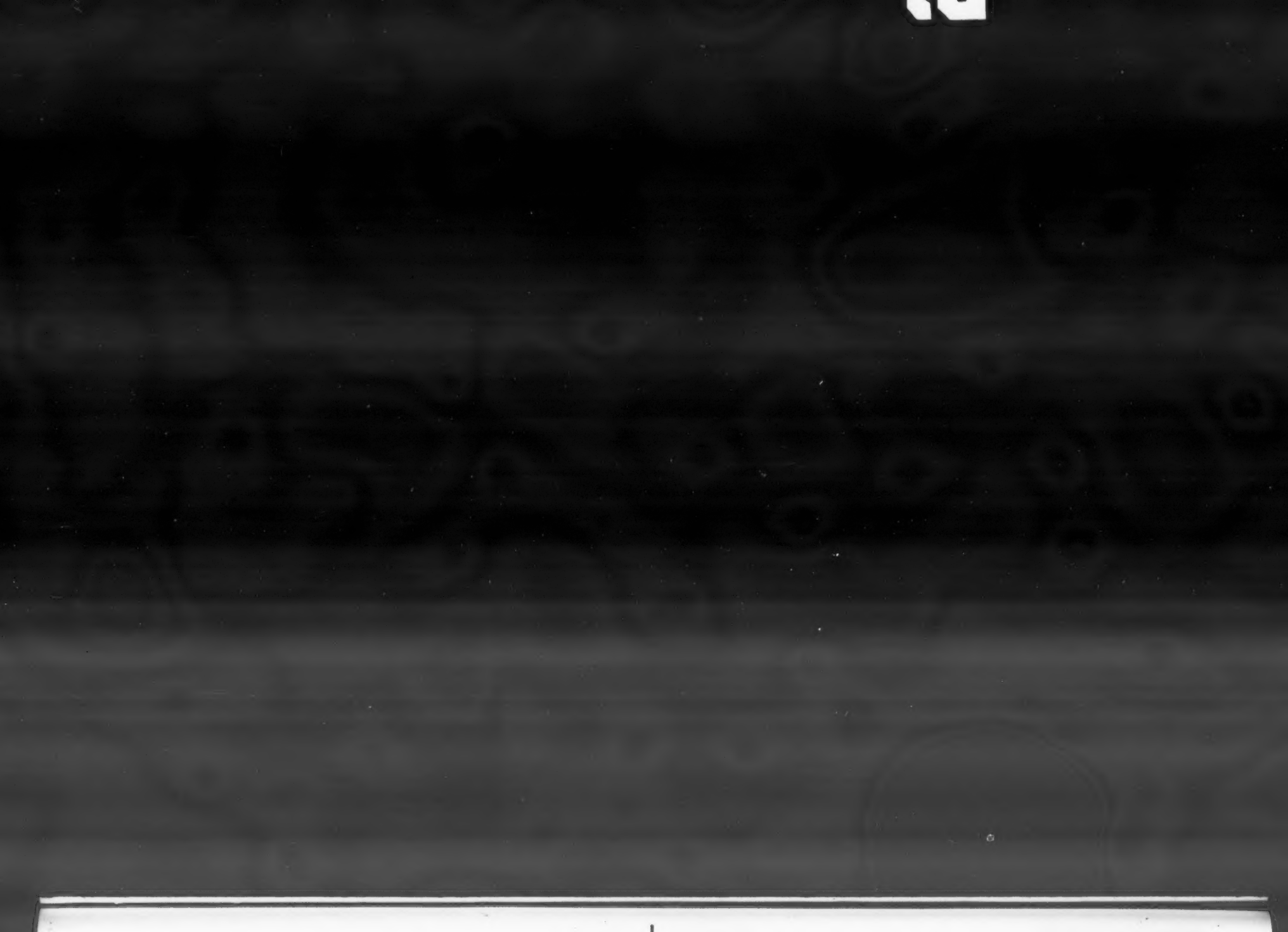
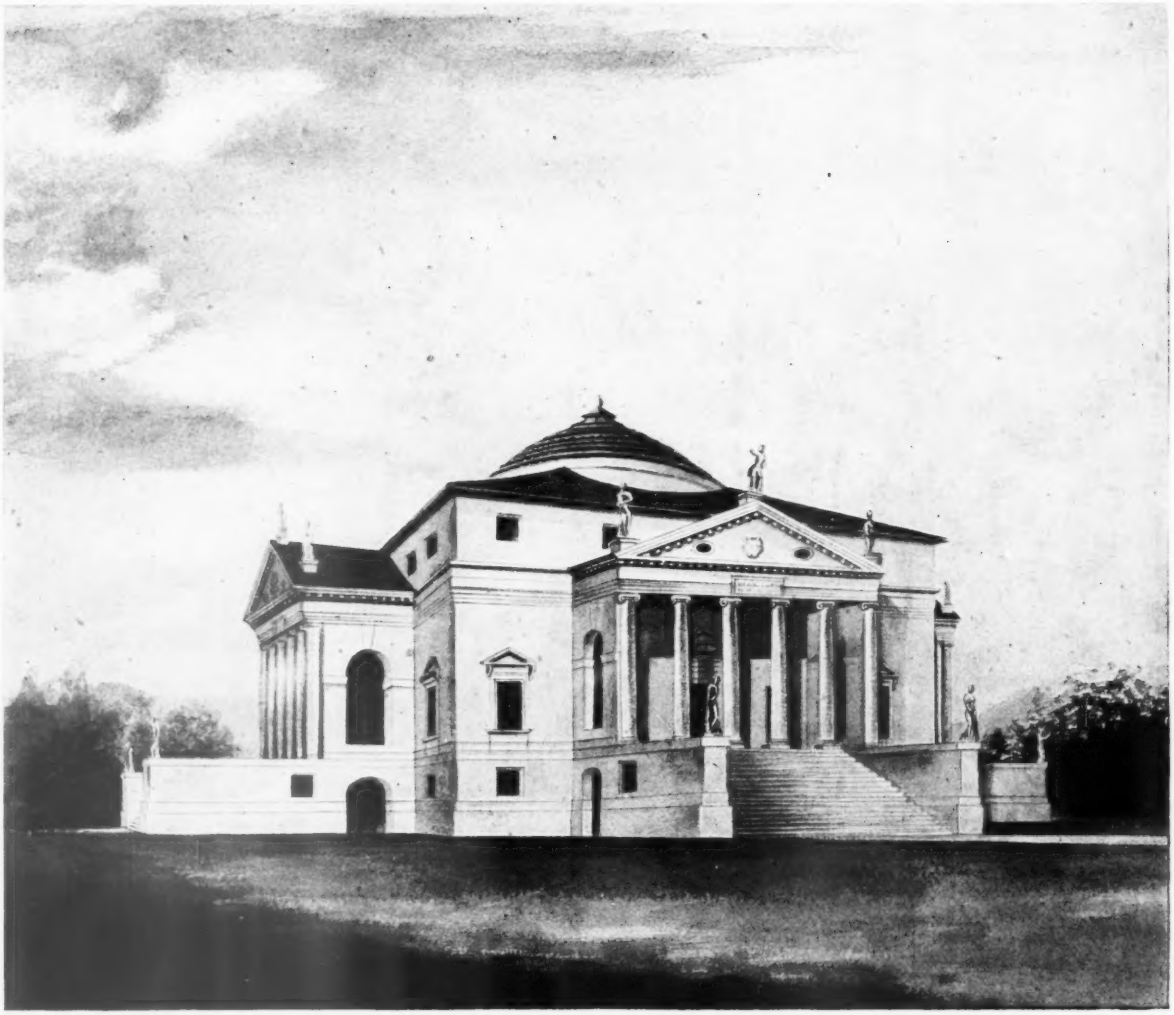


Reinforced concrete water supply buildings.

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





FONS ET ORIGO . . .

The famous Palladio was surely one who "builded better than he knew" — he who saw little beyond his Italian lakes and cypresses, and yet has been the father of innumerable of England's finest houses. But the astonishing vogue of his style in eighteenth century England is a tribute not only to him. It exemplifies the insight of his "discoverers"—they who recognised the wonderful rightness of his philosophy of architecture, with its three cardinal points — "L'Utile — La Perpetuita — La Bellazza". British architects have always shown themselves most ready to discern merit, both in material and style — and Celotex, makers of insulation and building boards, know they can trust their future safely to them.

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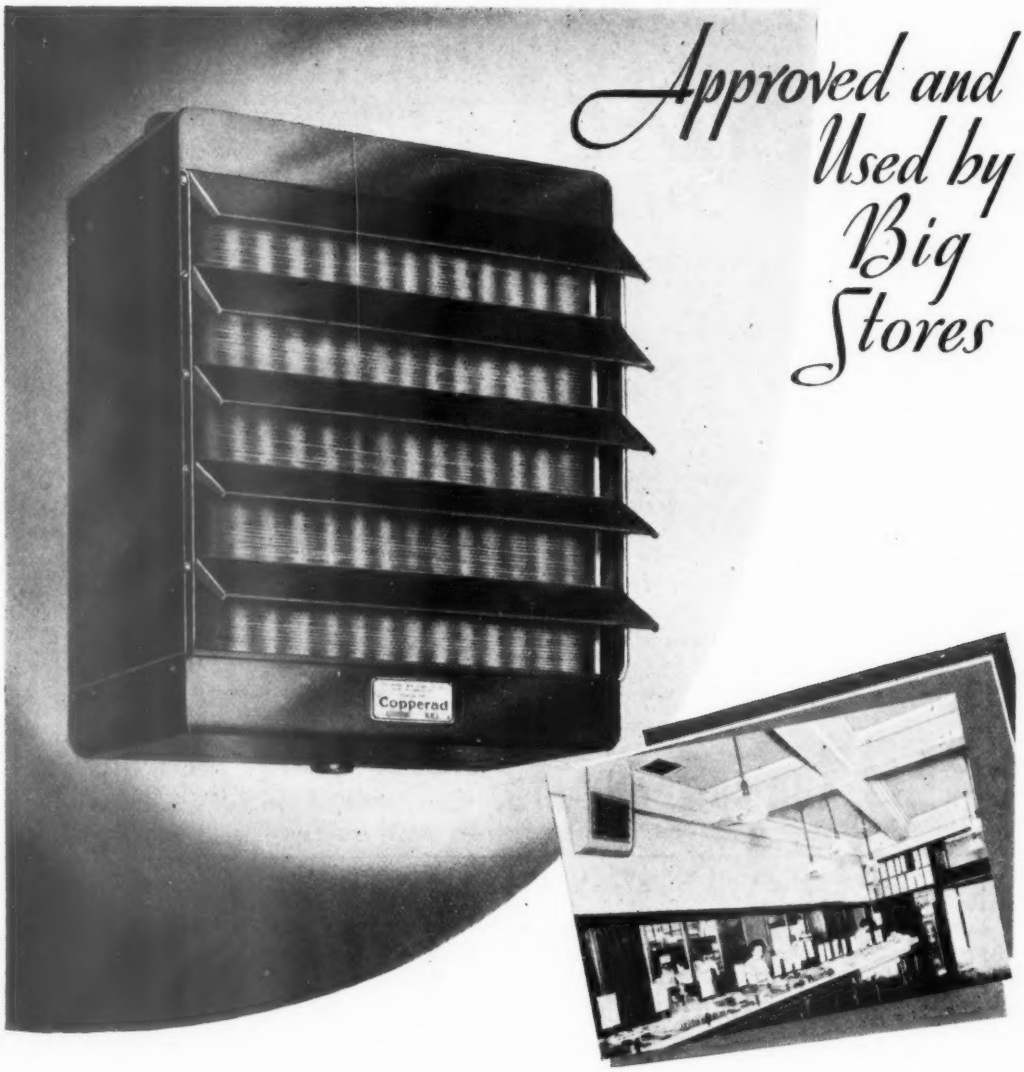

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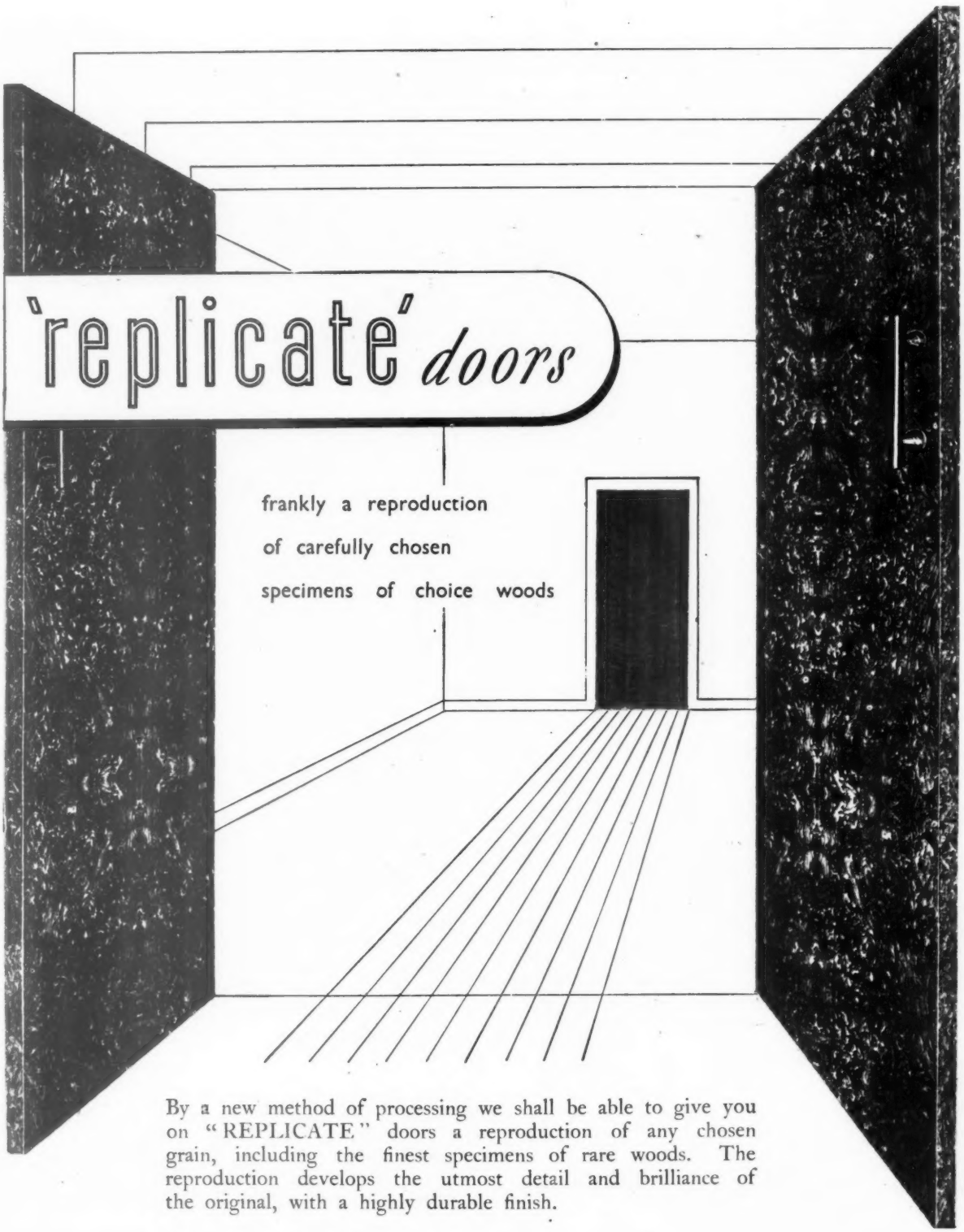

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And giving advice on household equipment is one of the main functions of the Good Housekeeping Institute.

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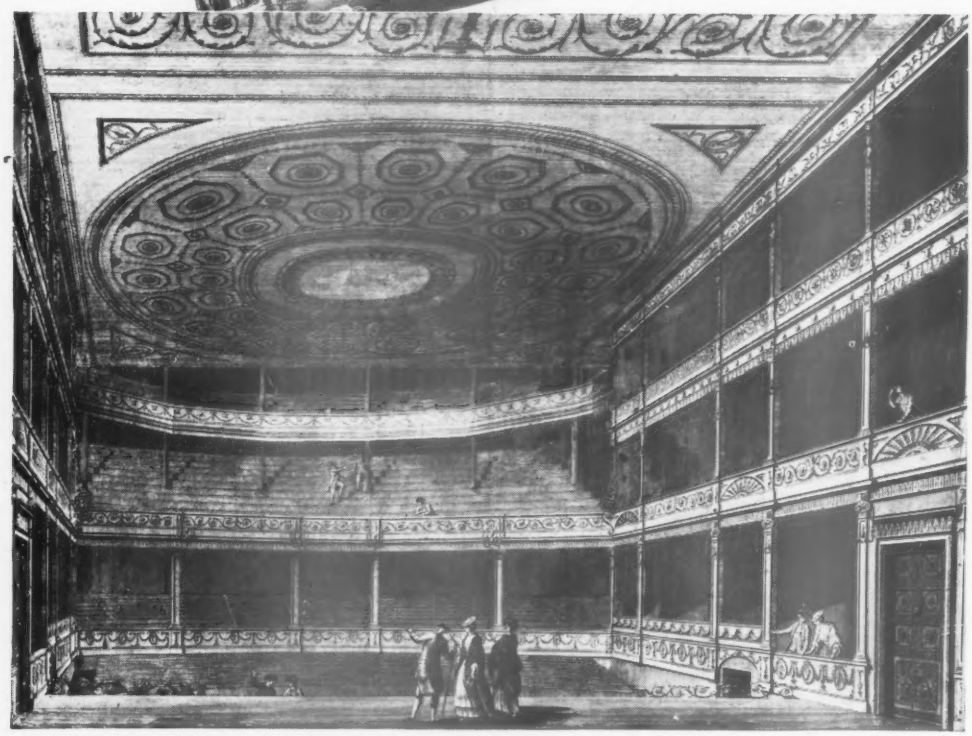
Reproductions from old prints dated 1775 showing the Adam front facing Bridge Street, and the auditorium from the stage.

CHRISTOPHER WREN'S

Drury Lane . . .



The second Drury Lane Theatre, designed by Christopher Wren, stood for nearly 120 years. It was opened in 1674 and pulled down in 1791. The theatre cost £4,000 to build and held about 2,000 people. David Garrick, in partnership with James Lacy (a manufacturer from Norwich) held the theatre for 30 years during this period, and sold their interests about 1776 to Sheridan for £35,000 and £45,000 respectively.

The first Drury Lane had cost £1,500 and opened its doors in 1663. It was destroyed by fire in 1672, (Nell Gwynne had first appeared on the stage in 1665). The third theatre was completed in 1794 and accommodated 3,611 people; 15 years later this, too, was burned down. The fourth and present Drury Lane opened in 1812; before the portico was added in 1831 it measured 237 ft. by 131 ft. as compared with 59 ft. by 112 ft. in 1663.

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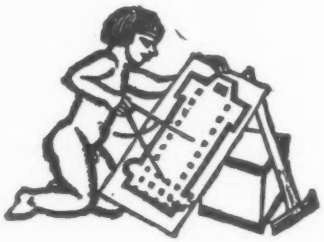
¶ *This advertisement is one of a series which briefly traces, from earliest times, the structural development of the theatre and places of entertainment, according to the "fashion" and requirements of the entertainment demanded.*

R

In common with every other periodical this JOURNAL *is rationed to a small part of its peacetime 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 SEPTEMBER OCTOBER AND NOVEMBER

Titles of exhibitions, lectures and papers are printed in italics. In the case of papers and lectures the authors' names come first. Sponsors are represented by 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

BOURNEMOUTH. *TCPA Conference.* OCT. 2

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

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

GILLINGHAM. *Homes to Live In Exhibition.* At County Library. (Sponsor, BIAE.) SEPT. 4-11

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. SEPT. 2-4

HULL. *When We Build Again Exhibition.* At Mortimer Gallery. (Sponsor, TCPA.) SEPT. 2-11

Civic Diagnosis of the City of Hull: Exhibition. At Mortimer Gallery. SEPT. 2-11

Conference : Planning for Living. At Guildhall Reception Room, Hull. 11 a.m., The Lord Mayor of Hull will welcome the delegates. 11 a.m., Chairman : The Lord Mayor (Ald. J. L. Schultz, J.P.). 11.15 a.m., Professor Patrick Abercrombie : *Hull in the National Plan.* 12 noon, Discussion. 12.45 p.m., Interval for lunch. 2.30 p.m., Chairman : The Bishop of Hull. 2.40 p.m., Sir Noel Curtis-Bennett, K.C.V.O., Chairman of the National Playing Fields Association : *The Importance of Playing Fields in Post-War Town and Country Planning.* 3.15 p.m., Discussion. 3.45 p.m., Gilbert McAlister, M.A. : *The National Planning Basis.* 4.20 p.m., Discussion. The conference will finish at 5.30 p.m. Conference Fee, 3/-., payable on morning of Conference. (Sponsor, TCPA). SEPT. 4

LIVERPOOL. *Rebuilding Britain Exhibition.* (Sponsor, RIBA.) SEPT. 2-4

LONDON. *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.

Association of Planning and Regional Reconstruction. Consideration of Report of the Town and Country Planning Summer School. At 32 Gordon Square, W.C.1. 5.30 p.m. SEPT. 2.

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

TCPA Conference. SEPT. 25

Conference on Planning for Living. At Grange Road Hall, Middlesbrough. Alfred Edwards, M.P. for Middlesbrough East, is taking an active part in the organisation of the conference. The Mayor of Middlesbrough has been invited to attend and welcome the delegates. F. J. Osborn, Hon. Secretary of TCPA, the principal speaker at the morning session, will outline a programme for a National Planning Policy. Mrs. Jean Mann, former Chief Magistrate of Glasgow and Max Lock, Director of the Hull Regional Survey, will deal with aspects of the problems involved in replanning industrial cities. TCPA, in consultation with other bodies, has worked out a set of key principles in its National Planning Basis, as a platform for action when the time comes, and for preparation beforehand. The purpose of the Middlesbrough conference is to crystallise opinion on a policy having these broad objects, to ensure its application, and to discuss what can be done to get it better understood and accepted by the public. The exhibition *When We Build Again* is being shown at the Hall from September 18 till September 25. It includes a large scale model of a new town, prepared by Cadbury Bros., in conjunction with TCPA. SEPT. 21

NEWS

THURSDAY, SEPTEMBER 2, 1943
No. 2536. 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.*

Liverpool City Council has decided TO LEASE SPEKE HALL from the N.T.

Speke Hall, with 35 acres of grounds, will be leased for 99 years at a nominal rent. The Council is also to buy 125 acres of agricultural land and woods around the hall. The Deputy Lord Mayor, Sir Sydney Jones, said it is a joy that the city will now have this hall, which is the only Elizabethan black and white timber mansion built around a quadrangle. The Trust is to arrange for most of the hall's contents, including armour, ancient weapons, furniture, and tapestry, to remain there.

MOTCP has issued REGULATIONS FOR INTERIM DEVELOPMENT authorities to come into force immediately.

Interim development authority means a local authority, county council, or joint committee empowered by an interim development order to permit the development of land. The regulations show how notices in pursuance of subsection (2) of Section 2, and of subsection (3) of Section 4 of the Act may be served, and explain the procedure to be adopted where an interim development authority makes an order under Section 8 of the Act with respect to trees or woodlands. The regulations can be obtained from H.M. Stationery Office. Price 1d. net.

from AN ARCHITECT'S *Commonplace Book*

LONDON CLUB. [*From* Buried Alive, *by Arnold Bennett.*] Priam had never been in a club before. . . . Mr. Oxford's club alarmed and intimidated him ; it was so big and so black. Externally it resembled a town-hall of some great industrial town. . . . Your head was also far below the sills of the mighty windows of the ground-floor. There were two storeys above the ground-floor, and above them a projecting eave of carven stone that threatened the uplifted eye like a menace. And all the façade was black, black with ages of carbonic deposit. The notion that the building was a town-hall that had got itself misplaced and perverted gradually left you as you gazed. You perceived its falseness. You perceived that Mr. Oxford's club was a monument, a relic of the days when there were giants on earth, that it had come down unimpaired to a race of pigmies, who were making the best of it. The sole descendant of the giants was the scout behind the door. As Mr. Oxford and Priam climbed towards it, this unique giant, with a giant's force, pulled open the gigantic door, and Mr. Oxford and Priam walked imperceptibly in, and the door swung to with a large displacement of air. Priam found himself in an immense interior, under a distant carved ceiling, far, far upwards, like heaven. He watched Mr. Oxford write his name in a gigantic folio, under a gigantic clock. This accomplished, Mr. Oxford led him past enormous vistas to right and left, into a very long chamber, both of whose long walls were studded with thousands upon thousands of massive hooks—and here and there upon a hook a silk hat or an overcoat.

Building operatives of all grades and trades are urgently required for the SPECIAL REPAIR SERVICE of MOW. The Service is organized, controlled and paid by MOW. It includes the flying squads who travel in their own caravan lorries. SRS men are held in readiness at all times to be sent at a moment's notice to newly blitzed areas. That is their priority job. Meanwhile they are kept busy on work of great urgency. Men in the Service are enrolled in the Register of Building Volunteers under The Essential Work (Building and Civil Engineering) Order, 1942, and are recruited as such through MOL. Men sign on for a year and get guaranteed wages (payable during any interval between jobs), fares and travelling time, lodging allowances, free fares home, extra holidays with pay, and sick allowances. The service is open to men born before 1910 (or born in 1910 or after and are unfit for military service) who have had previous experience in the building industry. Application forms BV1 can be obtained from any labour exchange.

After serving London for seventeen years the framework of the Temporary Waterloo Bridge is being demolished to provide STEEL FOR WAR. It is to be cut up by oxy-acetylene into short lengths for removal, and is expected to yield 3,000 tons for munitions. The roadway has already gone, and so has the footpath, which was outside the main girders. The last stage will be the removal of the seven or eight piers, two of them of steel and concrete and the others of timber, in the river bed.

★

The Friends of the National Libraries have presented to the RIBA library what is said to be the best and perhaps the only existing record of ONE OF THE MOST SINGULAR OUTPOSTS of English eighteenth-century art. The gift is a collection of about 130 photographic prints, 12 fine coloured slides, and sundry papers and manuscripts relating to the buildings, furniture, and art objects designed by Charles Cameron for Catherine the Great of Russia. The collection belonged to Prince Georges Loukomski, one-time director of the museum in the Tsar's country palace, Tsarskoie Selo, now said to have been looted and destroyed by the Germans. Charles Cameron, who built the palace, was a Scottish architect, now as enthusiastically recognized by the Soviet as ever he was by the Tsarist Government and architects. He carried the Adam style to St. Petersburg and the Court of Catherine the Great. At Tsarskoie Selo are—or were—to be seen perhaps the most extravagant realizations of the Adam style ever constructed, with fittings and furniture to correspond.

At the invitation of the chairman of the LCC, Mr. R. Coppock, the ALLIED BUILDERS' CONFERENCE held a meeting at County Hall. The Allied Builders' Conference comprises the MOW, United Nations Works and Building Committee and the LMBA Liaison Committee. Mr. Coppock addressed the conference at the end of the meeting and entertained the delegates at tea, after which they were shown round the County of London Plan Exhibition.

Day classes in the 1943 session at the School of Architecture, Gray's School of Art, Robert Gordon's Technical College, Aberdeen, BEGIN ON SEPTEMBER 14. Students who obtain the Diploma of the school are eligible for exemption from the final examinations of the RIBA in all subjects except Professional Practice, the examination in which is conducted in the school by external examiners. On spending one year in practical office experience after obtaining the Diploma, the student, if of British nationality, is eligible for election as Associate RIBA. Under the Architects (Registration) Act, 1931, the school final diploma examination is recognised as qualifying for admission to the Statutory Register of Architects. The Principal of the School of Architecture is Mr. E. F. Davies, B.Arch., Lvpl., A.R.I.B.A., A.R.I.A.S.

Since the publication of TIMBER ECONOMY No. 3 (Fitments) in June last year, MOW has found it advisable to include some additional types of fitments and to modify the sizes of others. These additions and modifications are set out in a four-page supplement just issued. New fitments shown are: another type of beaker rack for fixing to walls, a tray or cutlery table, chopping boards and slate slabs. Copies of Timber Economy No. 3 (Fitments) are obtainable through H.M. Stationery Office, price 1s. 2d. including supplement ; or the supplement may be purchased separately, price 2d. Information on timber-saving construction for casements (both side and top hung), fanlights and borrowed lights, and simple black-out systems for industrial and domestic uses, is given in Timber Economy No. 4, H.M. Stationery Office, price 1s.

A limited quantity of Wartime Emergency PAINT IS ON SALE throughout England and Wales. This paint, dark brown in colour, has been made available by MOW for essential external maintenance repair work of private dwellings and other civilian property. The price is 1s. 9d. a pint tin, 3s. 6d. a quart tin. The paint is to be used only for recoating by patch painting the existing exterior paintwork where the film has perished and no longer affords protection to the surface of the property. The paint is ready for use and must not be thinned.

We regret to record the DEATH OF SYDNEY A. KELLY, Liverpool chartered surveyor and town-planner. Mr. Kelly, whose home was at Ambleside, died suddenly at Manchester after a heart attack. He was 62 years old. Mr. Kelly was associated with Professor Patrick Abercrombie, then Professor of Civic Design at

Dr. Karl Mannheim

The article on planning for *Freedom* in the Physical Planning Section of the JOURNAL this week is contributed by Dr. Karl Mannheim, the distinguished sociologist. Born at Budapest, fifty years ago, and now a naturalised British subject, he studied at the universities of Budapest, Berlin, Paris, Freiburg (Breisgau) and Heidelberg. It was this last university that first gave him official recognition as a sociologist. This was in 1926 when he was appointed lecturer, a position he held for four years. From 1930 to 1933 he was Professor of Sociology and Director of the Department of Sociology at the University of Frankfort-on-Main, and in 1933 became—and still is—lecturer on sociology at the London School of Economics. Editor of the International Library of Sociology and Social Reconstruction, his chief books are *Ideology and Utopia*, *Men and Society in the Age of Reconstruction* and *Diagnosis of Our Time* (all published by Kegan Paul)—three works equally well known on both sides of the Atlantic. His theme in the article we publish this week is one that needs to be heavily underlined to-day—that *planning* and *freedom* are so far from being antitheses that full democratic freedom is simply not attainable under modern conditions without planning.

Liverpool University, until the professor's appointment in University College, London University, to the Chair of Town Planning. They produced several planning schemes together, and were awarded the first premium in the international competition for the replanning of Dublin in 1913. They also submitted a plan for Deeside in 1925, and in 1932 worked out a scheme for planning parts of Cumberland, Westmorland and Lancashire as a single unit to be called Lakeland.

It is probable that a WEST END SITE FOR THE NEW NATIONAL THEATRE will be used after all.

The site at South Kensington was bought, in 1937, by the National Theatre Committee from the Office of Works for £75,000, and plans were prepared by Sir Edwin Lutyens and Mr. Cecil Masey for a theatre with four frontages, big enough to hold about 1,100. Now, says *The Times*, it is stated that the original project is likely to be scrapped in the light of the new schemes for the replanning of London, and that the South Kensington site might be sold. One report, indeed, suggests that negotiations are in progress between the National Theatre Committee and the LCC for the sale of the Cromwell Gardens site at South Kensington to the Council. It is also suggested that as a result of the air raids a larger site nearer the West End of London's theatreland can be obtained,

and that at least one alternative site has been under consideration. When the question of the site for the National Theatre was being discussed at the time of the decision to build it in Kensington there was much criticism of the project. Many of the critics said that the theatre should be in the heart of London's theatreland, and the suggestion was made that at South Kensington there was a danger of its being regarded as more of a museum than a theatre.

★

At Walsingham each of the FARM WORKERS' COTTAGES WILL COST £500 MORE than the original builders' estimate.

At a meeting of the Rural District Council it was stated that a ruling of MOH makes local councils responsible for the cost of workmen's transport to and from the sites of farm workers' cottages and for paying the men lodging money. The cottages, estimated originally to cost £1,010 each, will have cost at least £1,500 when completed, declared the Rev. C. Chitty, chairman of the housing committee. It is a hardship on every local authority in the country, he added.

Because it was in a dangerous condition the ANCIENT ARCHWAY HAS BEEN DEMOLISHED from the corner of Stoney Street and Clink Street, Bankside.

On the archway there stood, in the Middle Ages, the kitchen attached to the banqueting hall of Winchester Palace. The remains of the historic fourteenth century Winchester Palace, Southwark, are little known. The Bishops of Winchester lived on this site from the twelfth century to 1649, when they moved to a palace in Chelsea. Their Southwark palace, which was used by Cardinal Beaufort, Cardinal Wolsey, Bishop Gardiner (Mary's first Lord Chancellor) and Bishop Lancelot Andrewes (who died there), stood on the site of a former palace which was used by Thomas Becket a few nights before he was murdered in Canterbury Cathedral.

A recommendation to bring the ELECTRICITY SUPPLY INDUSTRY UNDER UNIFIED PUBLIC CONTROL is made in a report by the Electrical Power Engineers' Association, which represents the technical staffs in the industry.

The report was drawn up by a sub-committee appointed by the association to consider post-war planning as affecting the electricity supply industry. The national council, in expressing approval of the report as amended, asks that the Government should, without delay, provide by legislation for the appointment of a National Electricity Supply Board, which would have power to acquire all statutory electricity undertakings in the country and would be responsible for national control and policy relating to the generation, transmission, and distribution of electricity as a public service. The reforms proposed, it is argued in the report, would do away with the present lack of uniformity in tariffs and services and make possible an adequate supply to all part of the country.

WHO SHOULD HAVE THE CHILD?

IN the JOURNAL for August 5, *Astragal* gave reasons for thinking that the control of post-war housing is in dispute between the Ministries of Health and Works.

It would be silly to pretend that such disputes do not exist. There have been many complaints of tardiness in announcing reconstruction policy and this delay is generally attributed to Right v. Left differences among statesmen. But it is obvious that machinery must follow close on the heels of measures. New and sweeping measures require new machinery or the comprehensive overhaul of old. When a very broad programme of interlocked reforms is proposed, the efficiency of a great deal of existing machinery is called in question. This is what is happening now.

Consider the proposals already on the carpet. Physical proposals—houses, schools, health centres, roads, re-building of blitzed areas, National Parks and much else: behind these the bigger intangibles—social security, full employment, guidance of the use of all land, reform of local authorities. And then set up in your mind against each of these the Ministry or Ministries interested in it—Ministries of which several have been created over many years on the plug-a-leak-with-anything-handy system. The question 'who shall do what?' is then seen to be a much bigger thing than an inter-departmental squabble. It is for this wider reason that the dispute between MOH and MOW is of consequence.

There is no space here to list the British Ministries which have an interest in things in which the "intelligent foreigner" would never have expected them to be interested, but MOH's control of state-aided housing would surely be high on that list. This control, of course, causes no surprise to Englishmen. MOH is responsible for Public Health; in the course of years the definition of Public Health was widened, as it should have been, to mean "all-round healthiness of living conditions," and houses are one of the most vital parts of living conditions. So far so good. But this "all-round healthiness" is an idea without boundaries. As the years pass it includes more and more. Town-planning, police, fire-fighting, education, transport facilities, factory conditions, prevention of unemployment and so on without limit: all are part of "all-round healthiness of living conditions." And responsibility for all of these last has been removed in whole or in part from MOH or was never entrusted to it. Why then, asks one body of reformers, should MOH remain responsible for a comprehensive medical service? And why, asks another, for houses?—and this is what interests architects.

As the JOURNAL sees it, three Ministries, as they now exist, are going to be primarily interested in post-war housing. MOH and MOTCP will be jointly responsible for saying how many are needed and where and how they are to be sited; MOH will be or should be responsible for specifying broadly

and *non-technically* what kind of houses are needed, and for administrative and financial arrangements with local authorities; and MOW will be or should be responsible for the design, the construction and production rate of the actual houses.

It has been stated many times that *rate of production* is going to dwarf all other aspects of post-war housing. The only way to obtain a rate of production which approaches post-war demand is to bring up-to-date every aspect of the small-house-building industry which in methods, outlook and craft divisions can be said without much exaggeration to be twenty years behind any other industry of comparable size. Yet all physical reconstruction must in a very real sense queue behind this outmoded turnstile. Only a technical Ministry which gives its whole mind to the job and controls all materials and processes from the clay bed or the log to the last coat of paint can hope to succeed in the undertaking. The Ministry of Works is in a position to do this. We shall have more to say on this subject next week.

The Architects' Journal

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Telephone: Vigilant 0087-9

NOTES & TOPICS

LETTERS FROM AFAR

Here are authentic extracts from two letters received recently in this country, the first from a Major serving with the RASC in North Africa, the second from a Sergeant in the RE's, in the Middle East, presumably Palestine.

★

Dear V.,—What sort of Britain after the war laddie? Hope all you birds at home don't assume you know too much of the lads who will be citizens again. They have, believe me, got a good idea of what they want and will HAVE. If all you builders don't want to get bumped off you had better start building homes NOW. (Get some ideas on the external appearances and designs of houses from Algiers and the South of France). What do you think will happen if after the war men cannot find homes and houses quickly. I can guess. Get the job over as quickly as possible and back to a home and the local pub is what is in most people's minds overseas. Tell them they can't have a house for two or three years after they leave the army. Can't you picture it? You can't talk blokes away with words, not this kind. They have been trained in the Army to be realists, whom to kid yourself may cost your life. Get on building laddie; preach the old story. It will be the saving of a lot of real trouble and surely this is a problem that can be understood and tackled. There will be so many other problems that few will understand and know how to tackle. So deal with the easy ones first.

★

Dear Auntie and Dad,—I have just read Cunningham Reid's revealing little book *After Churchill, Who?* If all he writes of is true then a bloody revolution is about the only solution for dear old England. In my opinion the average man at home does not take half enough interest in the politics of his country and I can only put this down to one thing, and that is the rotten, and rotten is but a mild adjective, the altogether feudal system of education. I have spoken to people from all over Europe and I have seen the kind of education the average child receives here, the system which these people with European ideas have built. Believe me, a child in this country gets a far better chance than ever you or I had. And all this without the great institution called the Public School. There is a slow movement towards daylight, however, and strangely enough the men who have nursed the idea of a healthier and broader system of education in Britain are not the far-seeing bodies at the head of our local and provincial administrations but the architects, who in the face of much opposition have designed and erected what few schools we have that are fitted to the generation in which we live.

★

Whether one can generalise about what the men in the Forces are thinking of the future from these two letters, and take them as being typical, I do not know. Architects, in any case, used as they are to all too frequent criticism, will no doubt be glad to accept a nice little bouquet from an outspoken young sapper.

POLISH ARCHITECTURE

Another exhibition of Polish architecture now follows that recently held at the RIBA. This time the exhibition is in Glasgow at the Scottish Building Centre, and will be open until September 4. It has been prepared by the Association of Polish Architects in Great Britain, and deals with Polish architecture in the past, present and future. A number of designs by students from the Polish School of Architecture at Liverpool University are included.

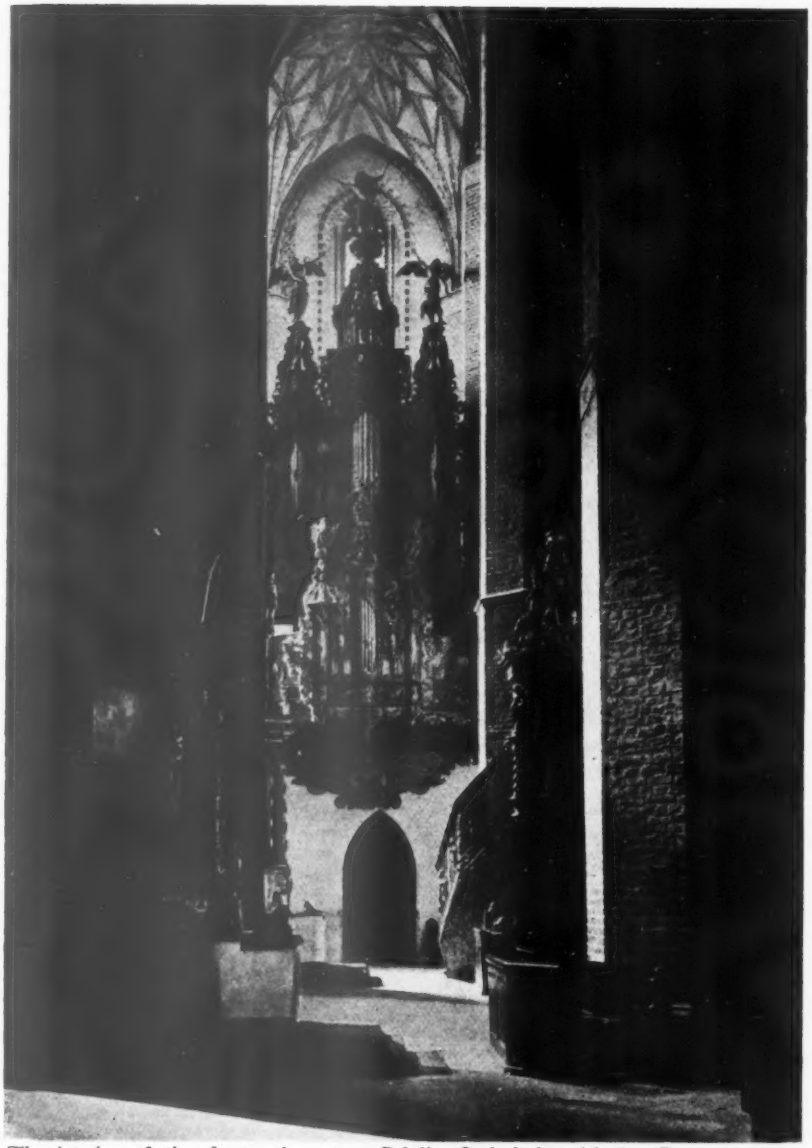
★

Surprisingly little is known in this country of Polish work, especially the old. *Glimpses of Polish Architecture** by the architect Roman Soltynski, which was published at the time of the exhibition at the RIBA, forms an excellent introduction to the subject, and is therefore welcome. As Professor William Holford writes in a foreword to the book: "Until I read it I confess—and confess with shame—that I did not know that Poland boasted some of the finest Renaissance buildings in Europe, Baroque churches as interesting as those of Rome, formal town houses and country mansions as good as any in England."

★

Early Polish architecture was influenced chiefly by the West, from whence the Church and the monastic orders came, and with them builders and craftsmen from Lombardy, Flanders and the Rhineland. However, as M. Soltynski tells us: "The Polish builders used decorations of

*Published by the Standard Art Book Co., and translated by Peter Jordan; price 6/-.



The interior of the fourteenth century Pelplin Cathedral, with its Baroque organ.

their own invention, introducing creative alterations and sometimes breaking the rules of style. Thus there appeared a distinct national art, obviously inspired by the originals, but different in character and sense of proportion."

★

Building stone in Poland is limited, and with the introduction of Gothic, brick became the main material in monumental buildings, though timber was used a good deal in houses and in the little village churches, which from the illustrations in M. Soltynski's book are seen to have great charm in their own peasant vernacular.

★

"Baroque gave full expression to the exuberant, vigorous temperament of our ancestors," writes the author. "No other style was better suited to Polish creative talent. Its most remarkable achievements are to be found in the churches of Wilno and Lwow, the distant outposts of western civilization. In spite of certain formal differences, the churches of these two towns are strangely reminiscent of Spain, situated at the other extremity of Europe."

★

The photograph above shows the eighteenth century baroque organ in the fourteenth century Pelplin Cathedral. It is interesting to see how well these two contradictory styles blend in their virile and dramatic contrast.

ASTRAGAL

LETTERS

Gordon F. Taylor

H. A. N. Brockman, L.R.I.B.A.

Misha Black

A Lancashire National Camp

SIR,—I have just been round one of the *National Camp Corporation* schemes near Whalley (Lancs) which was the subject of a competition won by Sir J. Burnet Tait & Lorne some years ago. This scheme comprises the pleasantest buildings of their kind that I have yet been round, and I feel in writing to you I am giving them the publicity they undoubtedly deserve, but do not seem to have had.

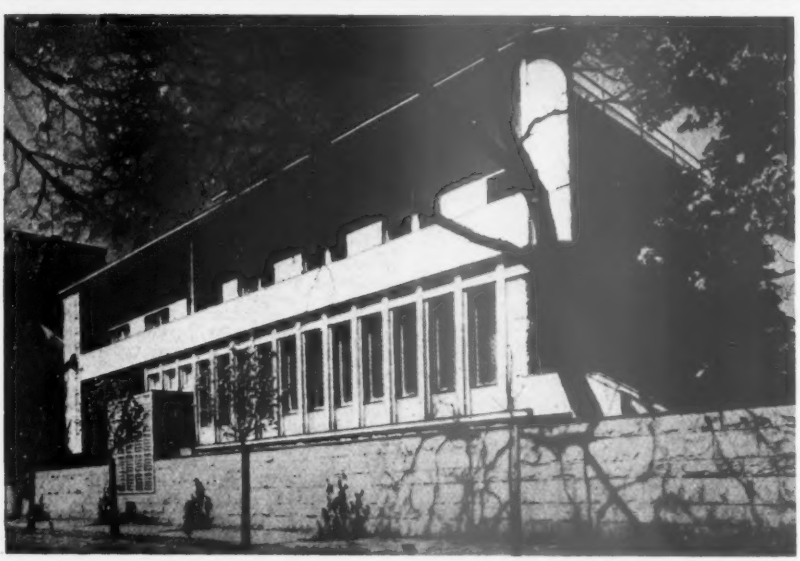
There is no need for me to go into the technical details, which I am sure readers are acquainted with, but what struck me most was the excellent siting of the whole scheme, nestling under a large hill, and harmonizing with the countryside without trying to imitate it.

There is a delightful air of lightness and gaiety—so essential in a school—about these buildings which is an all too rare quality of English architecture in general, and school architecture in particular. This quality is to a large extent the happy choice of materials and colours: western red cedar boarding, cream frames and pale blue or green shutters, which for once in a while are actually used for the purpose which in the first place they were intended. The general æsthetics of the scheme are by no means impaired by the planting of climbing roses, low shrubs and small trees, which help to link up the buildings very effectively with the landscape.

Although it is, I feel, rather late in the day, Mr. Tait—or was it Lorne—is to be congratulated on the excellent job, as the head of the school corroborated, that he has made of this scheme.

I recommend the scheme especially to those architects who still remain unconvinced of the excellent qualities of the light timber framing constructional method, for, although it is in its third year of occupation by some of the toughest inmates—evacuated children up to

NEW HOUSES IN WARSAW



The Association of Polish Architects in Great Britain has prepared a similar exhibition on Polish architecture, old and new, to that recently shown at the RIBA. This is now on view in Glasgow until September 4. Above are three examples of contemporary Polish architecture in Warsaw. Top, a Housing Co-operative estate by St. Brukalski. Centre, a private house by L. Korngold and P. Lubinski. Above, another private house by B. Priewski. Note the balconies in each case. These are found in many Polish dwellings, for the Polish summer is long and hot.

the age of fourteen—it has stood up to the continual wear and tear in a manner that has to be seen to be believed.

Let the old die-hards beware, for the new architecture has come to stay, and for once in a while we have started at the beginning—with the children. Let us hope that through the influence of schools such as these, the rising generation will, after the war, scorn the muddle-headed goings on under the name of architecture, that their fathers endured, and demand a new and living architecture that we know our profession to be capable of.

GORDON F. TAYLOR

Leicester

The LRRC Plan

SIR,—I feel that the welcome remarks of G.M.K. and your leader-writer need a reply and I also appreciate that this should be short.

1. Certainly there is no comparison between MARS and LRRC. Neither, I think, is there comparison between LRRC and RA. Whereas MARS is revolution by destruction followed by revolutionary reconstruction, RA appears to me to have the negative quality of Beaux Arts Beauty without any social basis. Of the two, MARS is preferable because it aims at a social ideal, while of the three I prefer LRRC, because the physician therein is not entirely superseded by the surgeon.

2. G.M.K. is not convinced that the proposed scheme forms a town entity. Neither am I. It is a magnificent regional-entity composed of two cities, many large and small towns and a number of villages.

3 and 4. Broadly speaking, the physician-cum-surgeon analogy again applies here.

5. The dynamic solution surely visualizes a complete alteration in flow and direction of the life-blood of the Region and this would, I am sure, be too much for it. The planner must obviously be scientific but he must also respect his human values.

I thank your leader-writer for his generous reception of a limited criticism. I would say that the complex problems to which he refers lie just as much in the practical field of existing circumstances as in the theoretical field of the future. The time-space conception is, I must agree, as essential in the realization of LRRC as of the MARS plan, but the latter is altogether too arbitrary as a satisfactory solution. Nevertheless, the one thing that cannot be tolerated in the future of planning is a negative and niggling approach devoted merely to the betterment of our own lives and times.

H. A. N. BROCKMAN

London

Chief Exhibition Architect to MOI

SIR,—I am afraid some inaccuracies have been made in the note under my photograph in your issue for August 19.

Apart from the larger exhibitions, for the design of which I am responsible, the work of the Display and Exhibitions Division covers a multitude of other activities under the control of other design and administrative personnel. The Director of the division is Mr. Clifford Bloxham and not myself, as might be construed from the first paragraph of your comment.

All the creative work of the division, including that for which I am personally responsible, comes under the general direction of Mr. Milner Gray, R.D.I.

In a previous issue, when commenting on the Dig for Victory exhibition, you pointed out that this was designed under the direction of Mr. Milner Gray with several commissioned collaborating architects and designers. I was not directly responsible for that particular project.

MISHA BLACK.

London.

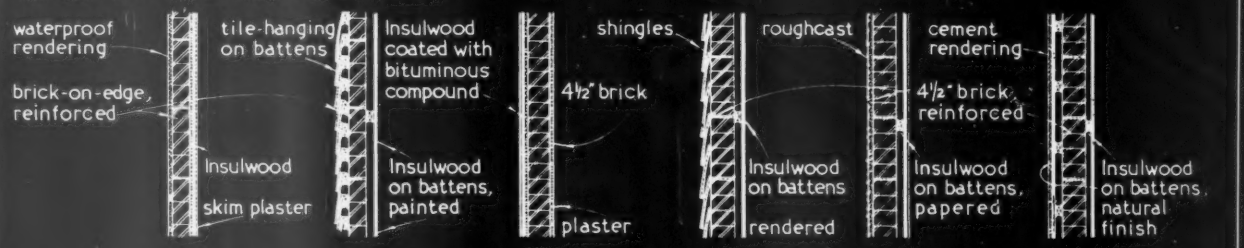
1061

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

CONSTRUCTION AND COMPARATIVE EFFICIENCY OF INSULWOOD THERMALLY INSULATED WALLING

(for details of fixings and finishings to Insulwood, see later Information Sheets of this series).

4½" BRICK: VERTICAL SECTIONS



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9" BRICK: VERTICAL SECTIONS

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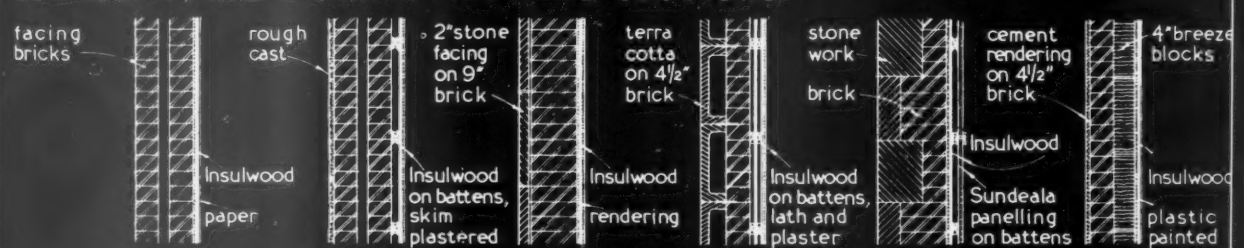
COMPOSITE, AND 11" CAVITY: VERTICAL SECTIONS.



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INFORMATION SHEET

• 909 •

BUILDING BOARDS No. 8

Subject : Thermal Insulation ; Walls (B).

General :

This Sheet is the third of the group giving typical comparative thermal transmission values for various forms of floor, wall and roof construction, and deals with insulated walls, using ½ in. Insulwood.

Thermal Transmission Values :

The thermal transmission values shown are based on assumed coefficients which have been adhered to throughout, and include surface resistances. The figures represent the calculated thermal transmission of the structure for IB.Th.U./1 sq. ft./1 hr./°F., and heat loss per 1,000 sq. ft. over 1 hour, for the specified temperature difference.

In calculating values, allowances have not been made for variations in moisture content, etc., which would occur in actual practice due to aspect, climatic conditions, etc.

Insulwood :

This board belongs to the low-density range, and has a thermal conductivity of 0.36 B.Th.U. per sq. ft. per hour for 1 in. thickness and for each degree F. difference in air temperatures.

The waterproofing process undergone by the board during manufacture increases its efficiency, and ensure both a dry medium and the rejection of any absorption of atmospheric moisture.

The material can be left in its natural state, or distempered, painted, enamelled, coated with plaster, paper, etc. It may be used as an underlay and a permanent shuttering to concrete.

Sheets ½ in. thick are used in the constructions shown. Sizes, weight and other physical properties are given in previous Sheets of this series.

Application :

Concrete or screeded surfaces should be thoroughly clean and dry, mopped with hot asphalte or pitch, and the insulwood firmly embedded while the mopping is hot. Two or more layers of insulation may be applied in a similar manner, well brushed before laying.

Waterproof felts and built-up roofings should be applied according to makers' instructions.

Timber nailing strips not less than 2 in. by 1 in. should be secured to brickwork or masonry walls by means of plugs and galvanized screws, at not more than 3 ft. centres. 6 ft. Insulwood sheets require three intermediates, 4 ft. two intermediates, and 3 ft. one intermediate. Cross nailing strips should be inserted to take end nailing.

On no account should sheets be forced into position, but be cut and fitted so that they are in moderate contact only—or ⅛ in. space may be left between.

Nail first to intermediates from centre outwards in each direction, with 1¼ in. galvanized cut clasp nails at 8 in. centres ; finally, nail edge of sheets in a similar manner with 1¼ in. galvanized slaters nails at 4 in. centres. It is important to nail ½ in. from the edges of the sheets.

Previous Sheets :

Previous Sheets of this series on wallboards are Nos. 893, 895, 896, 898, 900, 902 and 904.

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PHYSICAL PLANNING

5 index

The bogies

5. Freedom — Dr. Karl Mannheim
6. Democracy — E. M. Nicholson
7. Democracy — Harold Laski
8. Economics — F. Schumacher
9. Land Ownership Part I. — E. S. Watkins
10. Land Ownership Part II. — E. S. Watkins

Problems

11. Local Government Part I. — Dr. W. A. Robson
12. Local Government Part II. — Dr. W. A. Robson

Dr. Karl Mannheim, author of this week's article on Freedom, lectures on Sociology at the London School of Economics and edits the International Library of Sociology and Social Reconstruction. His writings include Ideology and Utopia, Men and Society in the Age of Reconstruction and Diagnosis of Our Time (Kegan Paul).

Planning is a word which meant one thing to the public before 1939 and is gradually beginning to have another meaning. The nature of the change was clearly brought out in Astragal's diary of Planning Events. To mark the change the term Town Planning is going out of fashion and Physical Planning is preferred. It is less exact but has the advantage of being free of cramping associations. What is the reason for this change? Why do we all feel that even when Town Planning is expanded into Town and Country Planning it fails to express what we want?

It fails first because it seems to imply that we are to be presented with a *fait accompli*—so much town and so much country—so much capital all-ready sunk—the resulting development to be rendered attractive with the least possible disturbance to vested interests. Physical Planning on the other hand suggests that the raw material of the planner should be the resources of an entire region, and that the existing pattern of settlement should not be sacrosanct if it interferes with the efficient working of the area as a whole.

It fails again because it treats landscape and building as something apart from the economic life of the country, and regards them as an opportunity for experiments in arbitrary stylization limited only by financial stringency. Physical Planning softens the distinction between plant and machinery, between landscape and buildings on the one hand and the productive activity which goes on in them. It directs the attention of designers to the need to work within a common framework imposed by the contemporary technique. In doing so it holds out hope that industrial processes themselves may be modified and brought into harmony with the new æsthetic.

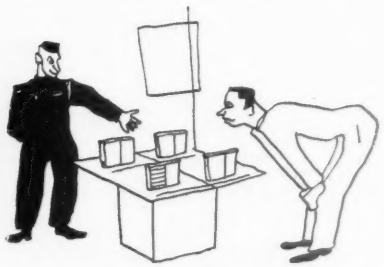
The trouble with the term Physical Planning, however, is that it sets no limit to the subject, and it seems to open up a prospect of endless readjustment to increasingly complicated machines and still greater and more ruthless efficiency—a prospect which so terrifies Mr. Mumford that he is able to foresee a technical plateau on which we are to remain in a state of dynamic equilibrium for several thousands of years. If and when this happens, planning may again become an applied art.

But Planning as it is understood in England, and we hope will be understood after the war throughout Europe, is concerned only incidentally with machine efficiency. Efficiency yes, but as a means to an end—the end of greater freedom. Physical Planning offers us freedom from that endless struggle for food and shelter which keeps us nearer the level of animals than we should be now that we have so many machines to do the hack work for us. There are people who tell us that this kind of freedom costs too much because it means an end of doing as we like—means in fact totalitarianism. Are these two kinds of freedom really alternatives or can we have both? The question is discussed overleaf by Dr. Karl Mannheim.

THE BOGIES

Bricks, mortar and motor cars were slowly crushing the life out of us before the war, and are all ready to begin again when it's over. By planning we can make room for ourselves. It's important that we should begin now to think systematically about planning. Instead we go on debating. "Shall we have it or shall we not?" We go on and on debating in our crowded undergrounds, steamy eating houses, damp basements and noisy bedrooms, because we are scared of certain bogies. The first and most powerful of the bogies that prevents us from getting to grips with our real problems is the Freedom bogie. Planning puts an end to freedom so we can't have planning. Whose Freedom? Freedom for What? The usual answer is a polite evasion of the Rule-Britannia-Britannia-rules-the-waves-Britains-never-never-shall-be-slaves variety. Does this formidable lady with her three-pronged trident and cumbersome shield really block the path, or can she be stared out of countenance and made to disappear from the planning scene a discredited bogie. Would we miss her if she went? Has she really anything to do with the kind of freedom we value? Dr. Mannheim, author of a number of books, discusses this problem of freedom below. The theme will be found developed at greater length in Diagnosis of Our Time (*Kegan Paul*).

BOGIE NUMBER ONE



IS PLANNING HOSTILE TO FREEDOM?

by Karl Mannheim

DEMOCRACY'S PROBLEM

Liberal Democracy, by which we mean variations of a political system which has striven to reduce the functions of government to a minimum in order to allow the greatest possible freedom of action to individuals acting either singly or in voluntary association with each other, has lost its stability. Changes in economic organization and industrial technique have destroyed the basis of laissez-faire democracy by destroying the economic independence of the individual, always more apparent than real but in a machine age quite obviously illusory. Democracy is therefore faced now with the necessity of adopting a positive attitude to social and economic problems involving a greatly increased measure of general control in these fields, alternatively of risking its own destruction by the blind operation of uncontrolled economic forces. This as we have lately seen is likely to involve also the end of personal freedom which has never yet been associated with any other political system.

A positive attitude to social and economic problems makes it necessary to elaborate new methods of control. The methods of control in their turn very much depend on the kind of social techniques that prevail in a society. Like all techniques, social technique, which I understand as the sum of these methods which aim at influencing human behaviour and which, when in the hands of the Government, act as an especially powerful means of social control, are neither good nor bad in themselves. Everything depends on the use that is made of them by human will and intelligence. If they are left to themselves and develop unguarded they lead to dictatorship. If they are made to serve a good purpose and are continually checked, if they do not master men but are mastered by men, they are among the most magnificent achievements of mankind. But we shall be able to turn the flow of events and avert the fate of Germany, Italy and Russia only if we are vigilant and use our knowledge and judgment for the better. The principle of laissez-faire will not help us any further, we shall have to face the forthcoming events at the level of conscious thought in terms of concrete knowledge of society. Such an analysis will have to start with some preliminary clarifications which might help us in defining our policy.

First of all—not all planning is evil. We shall have to make a distinction between planning for conformity and planning for freedom and variety. In both cases co-ordination plays a great role, co-ordination of the means of social techniques such as education, propaganda, administration, etc.; but there is a difference between co-ordination in the spirit of monotony and co-ordination in the spirit of variety. The conductor of an orchestra co-ordinates the different instruments and it rests with him to direct this co-ordination to the achievement of monotony or of variety. The goose-step co-ordination of the dictators is the most primitive misinterpretation of the meaning of co-ordination. Real co-ordination in the social sphere means only a greater economy and a more purposeful use of the social techniques at our disposal. The more we think about the best forms of planning, the more we might arrive at the decision that in the most important spheres of life one should deliberately refrain from interference, and that the scope for spontaneity should rather be kept free than distorted by superfluous management. You might plan the timetable of a boarding-school and come to the decision that at certain hours the pupils should be left entirely free—it is still planning if you are the master of the whole situation and decide that with certain fields of life one should not interfere. This sort of deliberate refraining from interference by a planner will radically differ from the purposeless non-interference of the laissez-faire society. Although it seems obvious that planning should not necessarily mean goose-step co-ordination, it was the bureaucratic and militaristic spirit of the totalitarian states which distorted the meaning of planning in that way.

There is a simple reason why in the long run a great society cannot survive if it only fosters conformity. The French sociologist Durkheim first pointed out in *The Division of Labour in Society* that only very simple societies like those of primitive peoples can work on the basis of homogeneity and conformity. The more complex the social division of labour becomes, the more it demands the differentiation of types. The integration and unity of great society is not achieved through uniform behaviour but through the mutual complementing of functions. In a highly industrialized society people keep together because the farmer needs the industrial worker, the scientist, the educationist, and vice versa. Besides this vocational differentiation individual differentiation is needed for the sake of inventions and efficient control of the new developments. All this only corroborates our statement that the bureaucratic and military ideal of planning must be replaced by the new ideal of the planning for freedom.

Another necessary clarification is that planning need not be based upon dictatorship. Co-ordination and planning can be done on the basis of democratic advice. There is nothing to prevent parliamentary machinery from carrying out the necessary control in planned society.

SOCIAL JUSTICE

But it is not only the abstract principle of democracy which must be saved as well as recast in a new form. The increasing demand for social justice has to be met if we wish to guarantee the working of the new social order. The working of the present economic system if left to itself tends in the shortest possible time to increase the differences in income and wealth between the various classes to such an extent that this itself is bound to create dissatisfaction and continuous social tension. But as the working of democracy is essentially based upon democratic consent, the principle of social justice is not only a question of ethics but also a precondition of the functioning of the democratic system itself. The claim for greater justice does not necessarily mean a mechanical concept of equality. Reasonable differences in income and in the accumulation of wealth to create the necessary stimulus to achievement might be maintained as long as they do not interfere with the main trends in planning and do not grow to such an extent as to prevent co-operation between the different classes.

REFORM *v.* REVOLUTION

This move towards greater justice has the advantage that it can be achieved by the existing means of reform—through taxation, control of investment, through public works and the radical extension of social services; it does not call for revolutionary interference, which would lead at once to dictatorship. The transformation brought about through reform instead of revolution also has the advantage that it can reckon with the help of former leading democratic groups. If a new system starts with the destruction of the older leading groups in society, it destroys all the traditional values of European culture as well. Ruthless attacks on the Liberal and Conservative intelligentsia and the persecution of the Churches are designed to annihilate the last remnants of Christianity and humanism and to frustrate all efforts to bring peace to the world. If the new

society is to last, and if it is to be worthy of the efforts humanity has made so far, the new leadership must be blended with the old. Together they can help to rejuvenate the valuable elements in tradition, continuing them in the spirit of creative evolution.

NEED FOR A BELIEF

But it is obvious that a new social order cannot be brought about simply by a more skilful and human handling of the new social techniques—it needs the guidance by the spirit, which is more than a system of decision on technical issues. The system of laissez-faire Liberalism could leave the final decisions to chance, to the miracle of the self-equilibrating forces of economic and social life. The age of Liberalism, therefore, was characterized by a pluralism of aims and values and a neutral attitude towards the main issues of life.

Laissez-faire Liberalism mistook neutrality for tolerance. Yet, neither democratic tolerance nor scientific objectivity means that we should refrain from taking a stand for what we believe to be true or that we should avoid the discussion of the final values and objectives in life. The meaning of tolerance is that everybody should have a fair chance to present his case, but not that nobody should ardently believe in his cause. This attitude of neutrality in our modern democracy went so far that we ceased to believe, out of mere fairness, in our own objectives; we no longer thought that peaceful adjustment is desirable, that freedom has to be saved and democratic control has to be maintained.

Our democracy has to become militant if it is to survive. Of course, there is a fundamental difference between the fighting spirit of the dictators on the one hand, who aim at imposing a total system of values and a strait-jacket social organization upon their citizens, and a militant democracy on the other, which becomes militant only in the defence of the agreed right procedure of social change and those basic virtues and values—such as brotherly love, mutual help, decency, social justice, freedom, respect for the person, etc.—which are the basis of the peaceful functioning of a social order. The new militant democracy will therefore develop a new attitude to values. It will differ from the relativist laissez-faire of the previous age, as it will have the courage to agree on some basic values which are acceptable to everybody who shares the traditions of Western civilization.

The challenge of the Nazi system more than anything else made us aware of the fact that the democracies have a set of basic values in common, which are inherited from classical antiquity, and even more from Christianity, and that it is not too difficult to state them and to agree on them. But militant democracy will accept from Liberalism the belief that in a highly differentiated modern society—apart from those basic values on which democratic agreement will be necessary—it is better to leave the more complicated values open to creed individual choice or free experimentation. The synthesis of these two principles will be reflected in our educational system in so far as the agreed basic virtues will be brought home to the child with all the educational methods at our disposal. But the more complex issues will be left open to save us from the evil effects of fanaticism.

The main problems of our time can be expressed in the following questions. Is there a possibility of planning which is based upon co-ordination and yet leaves scope for freedom? Can the new form of planning deliberately refrain from interfering except in cases where free adjustment has led not to harmony but to conflict and chaos? Is there a form of planning which moves in the direction of social justice, gradually eliminating the increasing disproportion in income and wealth in the various strata of the nation? Is there a possibility of transforming our neutral democracy into a militant one? Can we transform our attitudes to valuations so that democratic agreement on certain basic issues becomes possible, while the more complex issues are left to individual choice?

THE STRATEGIC SITUATION

Our diagnosis would be incomplete if we examined the possibilities in the abstract only. Any sociological or political therapy must devote special attention to the concrete situation in which we find ourselves. What is then the strategic situation? There are a number of forces which seem to be moving automatically in the direction which I have indicated above. First, there is a growing disappointment with laissez-faire methods. It is gradually being realized that they have been destructive, not only in the economic field where they produced the trade cycle and devastating mass unemployment, but that they are partly responsible for the lack of preparedness in the liberal and democratic states. The principle of letting things slide cannot compete with the efficiency of co-ordination—it is too slow, is based too much upon improvization and encourages all the waste inherent in departmentalization. Secondly, there is a growing disappointment about Fascism for, although it seems to be efficient, its efficiency is that of the devil. Thirdly, there are grave doubts concerning Communism, even in the minds of those to whom—as a doctrine—it first meant the panacea for all the evils of Capitalism. Not only are they forced to ponder upon the chances of Communism if it were to be introduced by revolutionary methods into the Western countries with their differentiated social structure, but they cannot close their eyes to certain changes which took place in the time between Lenin and Stalin. The more they have to admit that what has happened was an inevitable compromise with realities, the more they have to take into

MILESTONES

1

Ebenezer Howard

"A Garden City is built up. Its population has reached 32,000. How will it grow? It will grow by establishing—under parliamentary powers probably—another city some little distance beyond its own zone of country, so that the new town may have a zone of country of its own . . .

"And this principle of growth—This principle of always preserving a belt of country round our cities would be ever kept in mind till, in course of time, we should have a cluster of cities, not of course arranged in the precise geometrical form of my diagram, but so grouped around a Central City that each inhabitant of the whole group, though in one sense living in a town of small size, would be in reality living in, and would enjoy all the advantages of, a great and most beautiful city."

2

Toni Garnier

" In giving my town a medium size, about 35,000 inhabitants, I intended to keep for my research a general validity which could not have been achieved by a study of a village or a very big city. . . . All building land is divided into lots of 30 (north-south) by 150 (east-west) metres. At least half of each lot must remain free from building. It is assigned to public gardens with rights of way for pedestrians. The town can thus be crossed in every direction, independent of the streets. . . . A main line railway passes between factories and town, the town being placed on a level much higher up. Higher still are the hospitals, sheltered—as is the town, too—against north wind, and with south terraces. Each element, factories, town, hospitals, is isolated in such a way as to make enlargements possible."

3

Patrick Geddes

". . .' The piercing of characterless perspectives and boulevards through this past confusion or beyond it . . . the endeavours of too many schemes to repeat here, there and everywhere bits of Letchworth or Hampstead Suburb (excellent as these are in their own place and way) are but poor examples of Town Planning. . . . Each valid scheme should and must embody the full utilization of its local and regional conditions, and be the expression of local and regional personality. . . . Each place has a true personality; and with this shows some unique elements—a personality too much asleep it may be, but which it is the task of the planner, as master artist, to awaken. . . . Hence our plea for a full and thorough survey of country and town, village and city, as preparatory to all town planning and city design."

4

Le Corbusier

"At every moment, either directly or through the medium of newspapers and reviews, we are presented with objects of an arresting novelty. All these objects of modern life create in the long run a modern state of mind. Bewilderment seizes us, then, if we bring our minds to bear on the old and rotting buildings that form our snail shell. The machine that we

live in is an old coach full of tuberculosis. There is no real link between our daily activities at the factory, the office or the bank which are healthy and useful and productive, and our activities in the bosom of the family which are handicapped at every turn. The family is everywhere being killed and men's minds demoralized in servitude to anachronisms. Although every other sort of human enterprize is subject to the rough warfare of competition, the landlord ensconced in his property escapes the common law in princely fashion; he is a king. On the existing principle of property it is impossible to establish a constructional programme that will hang together and so the necessary building is not done."

5

Lewis Mumford

"The truth is that every aspect of the earlier order, from the slums in which is housed its workers to the towers of abstraction in which it housed its intellectuals, was jerry built—hastily clapped together for the sake of immediate profits, immediate practical success, with no regard for the wider consequences and implications. The emphasis in future must be, not upon speed and immediate practical conquest, but upon exhaustiveness, inter-relationship and integration. The co-ordination of our technical effort—such co-ordination and adjustment as is pictured for us in the physiology of the living organism—is more important than extravagant advances along special lines, and equally extravagant retardations along other lines, with a disastrous lack of balance and harmony between the various parts. The fact is then that partly thanks to the machine we have now an insight into a larger world and a more comprehensive intellectual synthesis than that which was originally outlined in our mechanical ideology. We can now see plainly that power, work, regularity are adequate principles of action only when they co-operate with a humane scheme of living."

6

C.I.A.M.

"The point of departure for all town planning should be the cell represented by a single dwelling, taken together with similar cells to form a neighbourhood of efficacious size. With this cell as the starting point, dwellings, places of work, and recreation areas should be distributed throughout the urban area in the most favourable relationship possible. . . . Town planning is a science based on three dimensions, not two. It is in admitting the element of height that efficacious provision can be made for traffic needs and for the creation of open spaces for recreation or other purposes. . . . Every town-planning programme must be based upon accurate researches made by specialists. It must foresee the different stages of urban development in time and space. It must co-ordinate the natural, sociological, economic, and cultural factors that exist in each case. . . . The course to be taken in all town planning projects will be influenced basically by the political, social and economic factors at the time and not, in the last resort, by the spirit of modern architecture."

account the presence of these realities also elsewhere. What these realities teach us is, briefly, that Communism works, that it is efficient and has great achievements to its credit as far as the state of the masses goes. The miscalculation begins with the fact that neither Dictatorship nor the State seems to wither away. Marx and Lenin believed that dictatorship was only a transient stage, which would disappear after the establishment of a new society. To-day we know that this was a typical nineteenth-century delusion. When Marx conceived this idea, one could point to the fate of absolutism which everywhere was slowly giving way to democracy. But this process was due to the fact that in the nineteenth century social techniques were still very inefficient and those in power had to compromise with the forces working from below. In a modern totalitarian state once the whole apparatus is appropriated by a single party and its bureaucracy, there is little chance that they will give it up of their own accord.

Thus there is at least a chance that out of the general fear and disillusionment a more reformist attitude may develop. War automatically created a united front—a kind of natural consensus which is needed for such reform. Ultimately it depends on us whether we can take full advantage of this unanimity. The question of the moment is whether we understand the deeper meaning of the so-called Emergency Measures. These are a step towards the necessary co-ordination of the social techniques at our disposal without giving up democratic control based upon the co-operation of all parties. Of course, many of these emergency measures cannot, and should not, remain permanent. But some of them must endure, as they are simply an expression of the basic fact that the vital needs of the community should everywhere and always override the privileges of individuals. On the other hand, if we are to preserve the great traditions of Western civilization, we must vigorously defend those rights of the individual upon which real freedom depends. In this struggle for a new and stronger authority combined with new forms of freedom we must base our selection upon conscious principles in the building up of a new system.

THE PEACETIME ENEMY

To this analysis of the strategical situation one may object that the political unity engendered by the war cannot be expected to last, once the threat of the common enemy is removed. The advantage of a war emergency from the standpoint of planning is that it creates a unity of purpose. My answer to this is that, whatever the outcome of this war may be, the menace of social and economic chaos will be imminent and may replace the threat of Fascist aggression. Of course this threat will only produce co-operation between groups and parties if under the pressure of the situation they are capable of creative adjustment, if they are capable of a type of response which is on a higher level of morality and based upon a fuller understanding of the situation than is required under normal conditions. If this happens there could well be co-operation and agreement upon certain basic, long-range issues, and the transition to a higher stage of civilization could be planned. As in the life of the individual, so in the life of nations, the hour of crisis reveals the presence of fundamental vitality. We must prepare the ground now for a full realization of the significance of the hour.

The unbridled criticism of the form of freedom and democracy which has existed in the past decades must therefore cease. Even if we agree that freedom and democracy are necessarily incomplete as long as social opportunities are hampered by economic inequality, it is irresponsible not to realize what a great achievement they represent and that through them we can enlarge the scope of social progress. Progressive groups will be readier to advocate reformist measures, as it is becoming obvious that recent revolutions tend to result in Fascism and that the chances of a revolution will be very slight as soon as a united party has co-ordinated all the key positions and is capable of preventing any organized resistance.

The depressing experiences of the past few years have taught us that a dictatorship can govern against the will of even a large majority of the population. The reason is that the techniques of revolution lag far behind the techniques of government. Barricades, the symbols of revolution, are relics of an age when they were built up against cavalry. This means that there is a high premium on evolutionary methods. As to the ruling classes, there is a chance that the more intelligent sections within them may, under changed conditions, prefer a gradual transition from the present unplanned stage of Capitalism to a democratically planned society with social aims to the alternative of Fascism. Although Fascism does not formally deprive them of their property, State interference is growing and will ultimately subjugate them. The strategical problem in their case consists in splitting their ranks in such a way that the would-be Fascists among them are severed from those who have only to lose in a Fascist experiment.

In my opinion, a new social order can be developed and the dictatorial tendencies of modern social techniques can be checked if our generation has the courage, imagination and will to master them and guide them in the right direction. This must be done immediately, while the techniques are still flexible and have not been monopolized by any single group. It rests with us to avoid the mistakes of former democracies which, owing to their ignorance of these main trends, could not prevent the rise of dictatorship, and it is the historical mission of this country on the basis of her long-standing tradition of democracy, liberty and spontaneous reform to create a society which will work in the spirit of the new ideal: "Planning for Freedom."

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, published last week, dealt with the prevention of noise in houses. This second part deals with noise prevention in flats. The article as a whole 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 II

Sources of noise irritation are the same in flats as in houses, but are aggravated by the very much more concentrated conditions of living. The essence of good anti-noise planning lies in the grouping of various parts of the dwelling into zones and in the use of various methods of baffle. There are three zones:

(*a*) Noisy zone: Service rooms (kitchen, W.C., bathroom, corridors), stairs, lifts, access ways.

(*b*) Living zone: Alternately noisy and quiet.

(*c*) Quiet zone: Bedrooms and study or special quiet rooms.

In the design of flats the opportunity arises of expanding the zonal treatment, which in the case of houses cannot usually embrace more than two units, to embrace several units or dwellings, thereby creating larger and more efficient zones.

Diagram 32 illustrates. The process can be used in some measure to compensate for the additional congestion of the flat as a type over the house, and the further analysis will show how different zonal patterns can be built up on the plan types commonly accepted in flat design. Diagrams 29 to 31 illustrate the principal type plans to be considered, each with its special uses, but each producing very different problems from the standpoint of sound transmission.

Generally speaking, the best results from the sound transmission point of view are obtained from plan patterns that are simple and strictly standardized in their parts. The crossword puzzle type of plan, when each room is fitted into a preconceived and sometimes tortuous plan shape, rarely gives good results.

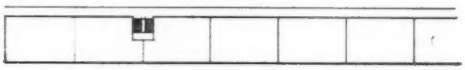
THE INDIVIDUAL BUILDING—THE FLAT

28

The basic principles are the same in the case of flats as for houses, though difficulties are intensified since each flat is surrounded on four sides by other flats instead of one or two sides as is common with the house. The principles of zoning into noisy and quiet zones will apply with equal insistence, 28.

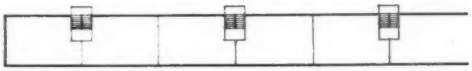
THE PRINCIPAL PLANNING TYPES

29



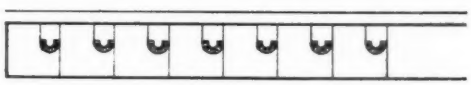
Corridor access.

30



Internal stair access.

31

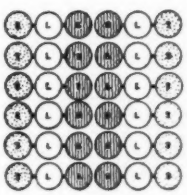


Maisonettes.

THE CONDITION

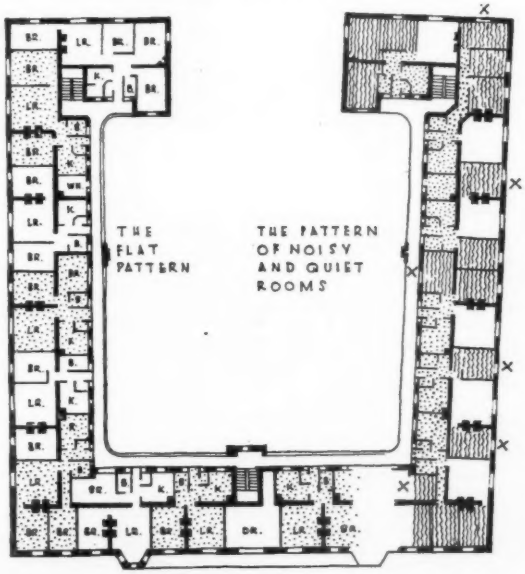
32

The condition—Noise : Baffle : Quiet—becomes, in this case—Service : Living : Bedroom. This in turn can be accumulated into larger zones of noise and quiet by utilising more than one flat. The value of the different plan types, 29 *to* 31, *in producing various zone patterns, will become apparent as the analysis unfolds.*



FLATS FOR LOWER INCOME GROUPS

33



Working-class flat design has followed a definite trend in recent years and a more or less standard type of plan has been produced using brick structure, four or five floors in height, with corridor access to the flats. The detailed design of the flats is controlled within narrow limits. 33 *is a typical example of this class of work.*

Flats for the Lower Income Groups.

The most acute noise problems arise in this class of flat owing to the stringency of plan and construction.

Diagram 33 illustrates an example of this class of work, the planning and construction of which is quite typical and, indeed, little variation is to be found throughout the country. Access is by external corridor, the flats are intermixed, two and three bedrooms, and the construction is solid weight bearing brick walling. The most noticeable noise-planning defect arises from the lack of standardization in the plans, which has resulted in peculiar individual flat plan shapes. For easy reference the plan shapes of individual flats have been extracted and laid out side by side in Diagram 34. The dog leg party walls of inordinate length will be noticed; such walls are very difficult and expensive to insulate, but in many cases they are built merely of 4½ in. brickwork, no attempt apparently being made to reduce the passage of sound between flat and flat. It would, of course, be almost out of the question to attempt completely discontinuous party walls on such a plan pattern.

A recognized weakness in corridor access flats of normal design is that, with two and three bedroom flats, some bedrooms must face into the access corridor, which is little better than having them face directly on to the footpath of a public street. It is partly to mitigate this defect that the blocks are planned round external angles and lose some of their simplicity of plan, but it will be seen that there are still a few bedrooms facing on to the corridor. As standards rise and three bedroom flats become the rule, this defect will be aggravated, and it is doubtful whether the normal corridor access plan could survive such conditions.

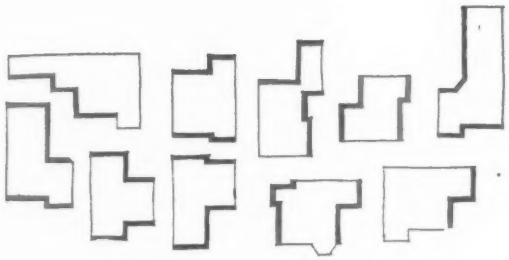
Only a perfunctory attempt has been made to segregate noise zones and quiet zones. The analysis on the right-hand side of 33 shows how the different elements are interwoven. Living rooms adjoin bedrooms, bedrooms adjoin kitchens, baths and stairs. Only the central 9 in. spine wall gives a suggestion of tolerance to the plans. A common fault is to place a bedroom next to an adjoining apartment's living room or kitchen; this occurs no less than nine times in 33. Certain of these bedrooms adjoin their own living room and a neighbour's living room and kitchen, one is between two bathrooms and the access corridor, yet another between a living room, the access corridor, a W.C. and the main stair. The rooms marked X are the worst examples.

This analysis has considered only the horizontal plane. In diagram 35 it has been elaborated to include the vertical plane, and it is seen that the faults are repeated vertically. Looked at in the solid, some of the bedrooms on plan 33 have to contend with the noise from six adjacent, and obliquely adjacent, living rooms and three kitchens. This is the measure of the noise problem in flats.

A type of plan coming more and more into favour, largely because it produces better plans from the point of view of noise, is the staircase access type. Two examples of well-designed flats of this type are given, and the zoning diagrams 37 and 39 indicate the substantial improvement over the plans previously discussed. In these two plans every effort has been made to obtain zonal segregation, and they are representative of the two methods of zone treatment possible with this plan pattern. In the one case the quiet rooms are grouped together about the party wall, and the service rooms are grouped about the staircase; in the other example the quiet rooms are grouped on to one face of the building and the noisy rooms on the opposite face, an arrangement that cuts out disturbance by airborne sound in the quiet rooms. There would seem to be little to choose between these zonal patterns.

It must not be supposed that staircase access types are necessarily superior to corridor access types. 40 shows a three-bedroom corridor access type which avoids most of the

34



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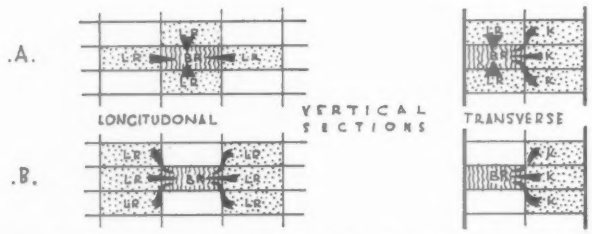
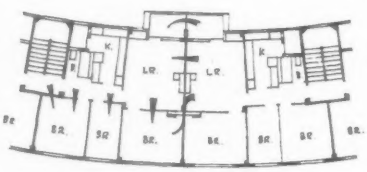


Analysis of individual flat planshapes, 34, taken from 33, shows the lack of standardisation and inordinate lengths of common party-wall (indicated by thick black lines). Unless care is taken with this type of planning the trouble can be aggravated vertically where different sized flats are superimposed on each other. It is possible to have a case as bad as 35A. 35B is an actual case taken from 33.

36



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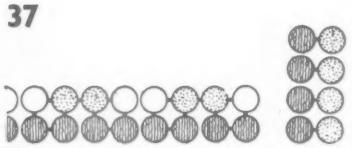

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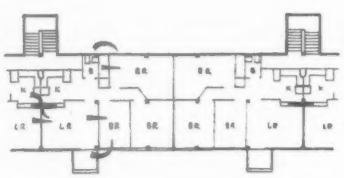

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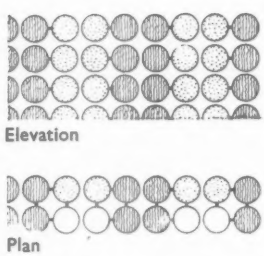
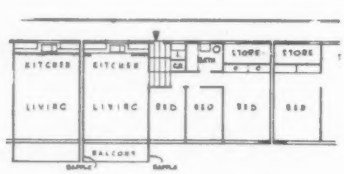


An alternative plan much used on the Continent and coming more into favour, uses individual stair access to each flat. This does away with the bedroom facing the corridor, and some measure of anti-noise zoning is attained in most of the examples. 37 is the zoning diagram of 36, and 39 of 38.

40



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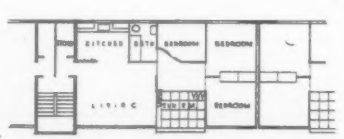

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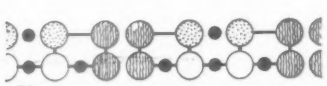
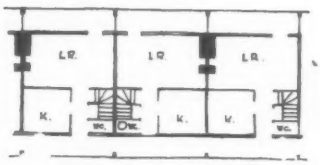


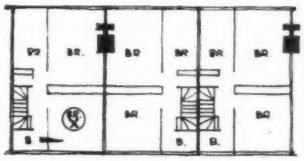
Planning equal to that obtainable in staircase access flats is only possible with corridor access if rather more spacious planning can be used. The area of the flat in 40 is 800 ft. sup., which compares with about 700 ft. sup. in contemporary work. 41 is a suggestion for staircase access flats giving maximum segregation of the different zones within the limits of a total area of 900 ft. sup. The sun room and staircase are made to function as baffles against sound transmission between zone and zone. 42 is the zoning pattern of 41. The baffles are shown by black dots.

MAISONETTES

43

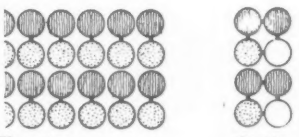


Access Floor Plan



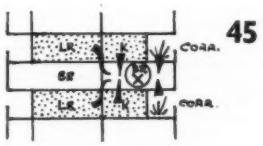
Upper Floor Plan

44



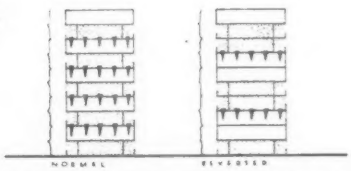
Elevation Section

45

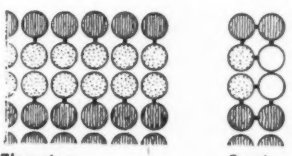


The advantage of the maisonette lies in the segregation of access corridor from living space. The length of corridor impinging on the flat is reduced by about half. Its disadvantages are vertical, particularly in the bedrooms being placed underneath adjoining noisy rooms. 43 is a well-planned example of the type. 44 is the zoning diagram. 45 shows the plight of bedroom, marked on the upper floor plan above, in vertical cross section.

46



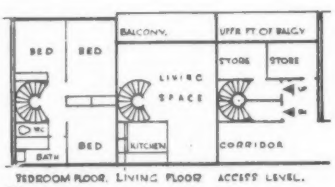
47



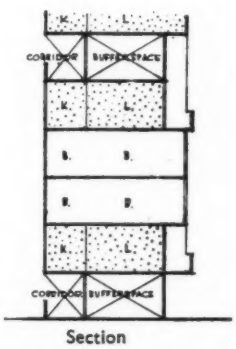
Elevation Section

By reversing alternate tiers of maisonettes, impact noises from noisy rooms above bedrooms can be reduced by 50 per cent. This expedient serves also to increase the size of the different zones by a like amount. 47 is the zoning diagram of the reversed dwelling type.

48



Plans



Section

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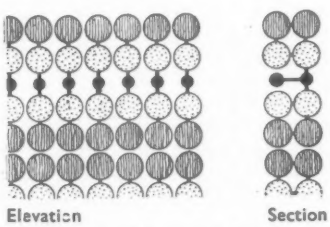
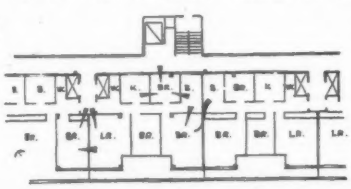


Elevation Section

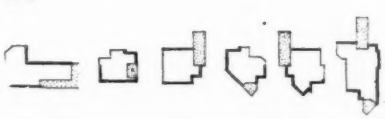
A development of the reversed maisonette type, eliminating the corridor over the bedroom and giving bufferage between living space, places one access corridor every fifth floor. The zoning diagram indicates the value of bufferage.

FLATS FOR HIGHER INCOME GROUPS

50



51



Flats for the higher income groups suffer from the same kind of defects. In some cases the defects are actually aggravated by more congested conditions of planning as indicated in 50 to 53. 51 shows plan shapes taken from a block of high rental but congested luxury flats. Compare with 34 and note the similar excessive lengths of party walling. Note also the small service areas peculiar to congested luxury flats which act as reverberators for the noises produced by rooms facing on to them. Thick lines in 51 indicate party walling. Dots indicate areas.

defects of 33, although admittedly the plan has had to be drawn more spaciously to accomplish this; it is not put forward as an economic design, and has the disadvantage of a long length of corridor per flat.

This plan, with its relaxation from strict economic standards, should be compared with 41, a plan prepared on a staircase access type with a comparable relaxation of existing economic standards. It must be confessed that, comparatively, the staircase access type always scores. Plan 41, basically the same as plan 38, has had neutral buffer zones interposed between its principal zones. The common stair separates the two living rooms and the sun balcony, instead of being planted on the face of the building, has been incorporated so as to buffer the living room from the bedrooms. The plan area is 900 sq. ft., and the zoning pattern illustrates the extent of the improvement on previously considered types.

Corridor access plans, despite their deficiencies of detail planning, have certain advantages over staircase access types, the most notable being that economical lift services can be arranged from a common central hall. Lifts are, unfortunately, not economically possible for lower income flats unless they can be made to serve many flats on each floor, and this limits the use of staircase access types to buildings of a height of not more than 4 or 5 storeys.

Maisonettes.

The maisonette has been put forward as a means of overcoming the chief defects of corridor access, and this type of plan has both advantages and disadvantages from the noise point of view. Diagram 43 illustrates a well-planned example of the maisonette and it will be seen that only the kitchen faces on to the corridor. Horizontally the zoning pattern is good, since one floor is devoted entirely to noise rooms and the alternate floor to bedrooms. This means that, vertically, the bedrooms are sandwiched between two noisy floors and the weakness of horizontal zoning is that impact noises on the floor are most difficult to get rid of. The bedrooms of the maisonette are bound to be affected by the impact noises from the floor above. Consider the plight of the bedroom marked X in vertical cross section, diagram 45. For these reasons the simple maisonette cannot be considered as satisfactory as the well-designed flat.

Various planning expedients are available to minimize impact noises on the bedrooms. By turning alternate rows of maisonettes upside down, two floors of bedrooms are made to occur one above the other and two noisy floors are similarly brought together, giving the zoning pattern of diagram 47. This is a demonstrable improvement on 44. The impact noises from bedroom to bedroom below are not likely to be severe, and the impact noises from living room to bedroom below are reduced by 50 per cent. as against the previous plan. Furthermore, the living room is part of the same apartment as the bedrooms it inconveniences, and the noise disturbance will be more amenable to control. Corridor impact noises have been reduced 50 per cent., a most important contribution.

Throughout the criticism it has been implied that the corridor is a major source of noise disturbance, being really an elevated public causeway. A logical step in designing good noise-resisting buildings is to eliminate as much corridor length as possible. Diagram 48 is a development of diagrams 46 and 47 with corridor at every fifth floor interval, serving flats both up and down. In this plan the average length of corridor access per flat is only 9 ft., and it is partly baffled by noisy rooms (kitchens) above and below. There is a small impact area above the dining recess in the living space, but no rooms of any sort actually abut on the corridor, and the bedrooms are completely segregated. With such a small area of corridor to treat, it becomes feasible to provide it with a floated floor to complete the segregation initiated in the planning arrangements and the corridor as a

source of noise irritation may then be considered to be eliminated.

The use of a complete buffer storey at corridor level to separate the two living room zones is a further refinement, and places this type of plan in the same category as plan 41, by eliminating impact noises between living room and living room.

These two zone types, 41, 48, represent the best possible practice, in stair access and corridor access respectively, with flats for the lower income groups, but whereas 41 is limited in height to four or five storeys, 48 is only practicable in big schemes, with lift access and buildings of eight storeys or over.

The analysis has indicated that normal corridor access types are generally inferior to corresponding staircase access types, and that vertical zoning of rooms is better than horizontal zoning, owing to the great difficulty of masking impact noises on the floor. Nevertheless, the specialized corridor access type 48 is equal to the best staircase access types and illustrates the point that each has its special advantages. The diagrams further illustrate the advantages to be gained by zoning and baffling as well as indicating the remarkable deficiencies in both these respects prevalent in some contemporary work. It remains only to point out that external baffle against air-borne sound is just as necessary in flats as in houses (diagrams 22 to 25). Diagram 38 illustrates the wrong method of designing flat balconies, planted on to the face of the building, and diagrams 40, 41, 43 and 48 better ways of treating the problem. Further attention is given to this point in diagrams 54 to 62.

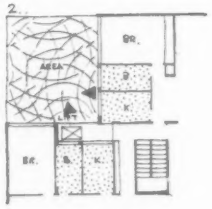
Flats for the Higher Income Groups

There is no fundamental difference between the so-called luxury flats and working-class flats, except that plan types become more varied with increasing size of flats and the provision of bufferage within the more spacious layouts is easier. Rather surprisingly the anti-noise planning of many luxury flats is no better than that encountered in working-class flats despite the great increase in cost. In most such cases the extra cost of the building is absorbed in high site values and, frequently, these expensive sites are placed in the noisiest positions on main traffic arteries. The remaining extra costs can be accounted for by structural embellishments of a superficial kind and by better provision for services. The noise value of many of these expensive flats is, consequently, often very low. Some examples of ill-planned flats of this nature are illustrated in diagrams 50 to 53 and they should be compared to the corresponding example of working-class flats, 33, over which they show no improvement. Compare the extracted flat plan shapes, 34 and 51, one working class, one luxury.

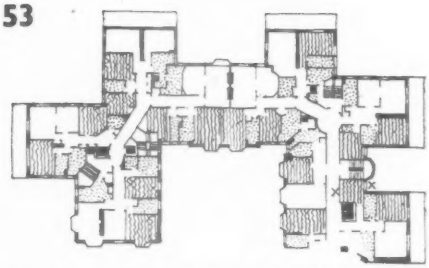
Two sources of noise irritation occur in this type of flat which are not met with in working-class flats: the lift and, strangely enough, air-borne sounds due to congested planning around interior courts. Lifts are treated separately. Diagrams 51 and 52 illustrate the dangers of interior court planning. These are, for the most part, well-planned flats in detail, and there is no cure for this particular evil, except reduced density on the site. The working-class flats built recently, from which interior courts have been virtually eliminated, are at a density of not more than 60 to 70 to the acre whereas these luxury flats range up to densities of 300 to the acre.

Diagram 53, a combination of staircase access and corridor, with lifts, illustrates in greater or less degree all the faults to which these types of flats are prone. There is the same absence of defined zoning as in 33, bedrooms being commonly placed between noisy rooms. Note particularly the bedroom marked X, situated between staircase, lift, bathroom and placed within the internal angle of a narrow well. This plan illustrates, together with 51, the method of jigsaw planning to a preconceived mould, referred to in the preamble to the section dealing with flats,

52



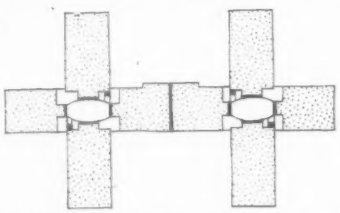
53



52 is an example of luxury flats planned round a narrow deep area on to which face bathrooms, kitchens and w.c.'s, and bedrooms. The building is five storeys high and density is 300 flats per acre. The chief defect is vertical; each "quiet" room is affected by the accumulated noise from all the rooms facing the area from top to bottom of the building. 53 illustrates most of the common defects of this type of flat—lack of adequate zoning, lack of baffles, planning round interior courts, haphazard and confused shapes.

METHODS OF BUFFERAGE BY PLANNING

54



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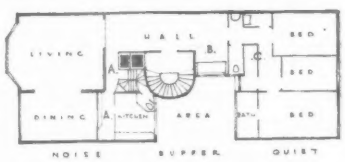
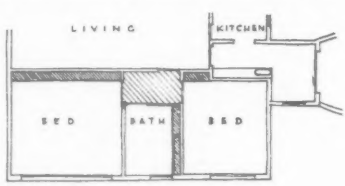


54 shows complete flats isolated from each other by air or space buffer and connected only at the common staircase and by one party-wall amongst eight flats. Compare the party-wall length with the examples in 51. Compare also with 6 for elimination of traffic noises. 55 is a block of luxury flats, one flat per floor, obtaining extreme degree of isolation by luxurious space planning. Note the three zones of bufferage A, B, C. Once planning has reached this degree of spaciousness, problems of noise have ceased to be serious.

56



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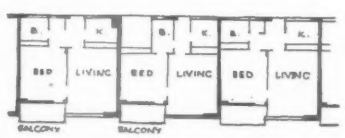

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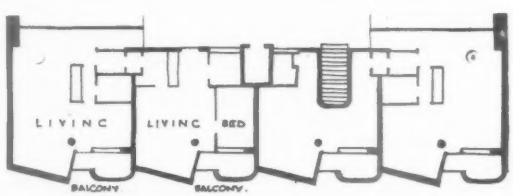
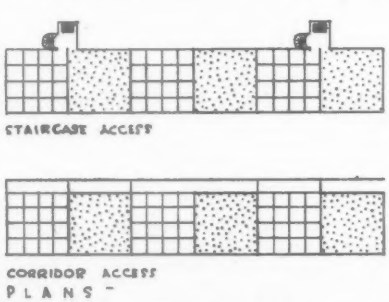
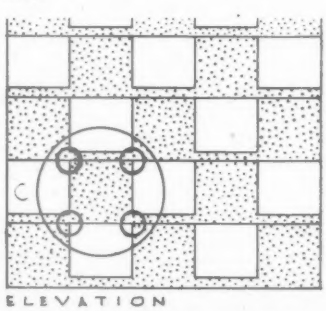


Use of continuous cupboards and ducts as baffles, 56. The value is in the continuity. The lobby acts in a similar way and completes the chain. Other examples: 26, 43, 48. Baffles against external air-borne sounds follow housing principles. The old type of protruding balcony can be considered obsolete, 38. The inset balcony uses the main wall for baffle purposes, 57. By placing the balconies together in alternate plans, privacy would have been sacrificed. To achieve privacy the architect has accepted placing living room against bedroom along the party-wall, illustrating the importance attached to proper insulation against air-borne sounds. 58 shows a brilliant exploitation of the screening effect of the solid external wall, an extension of the principle illustrated in 57, giving even better privacy.

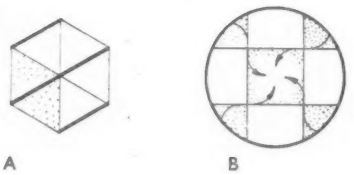
59





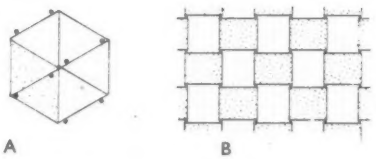
Beyond a certain point vertical disturbance vitiates further improvement in the horizontal plane. The cellular plan of Le Corbusier provides equal vertical and horizontal bufferage.

60



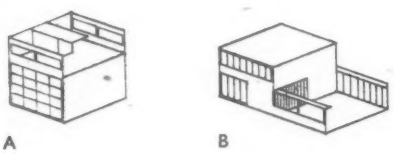
Points of contact between separate apartments in the cellular plan have been reduced to the four angles 59 inset circles, indicated in 60A. Sound may still pass from apartment to apartment via the continuous walls and floors, 60B.

61



The next step is to reduce the points of contact to the stancheon lines only, resulting in eight points of contact for each apartment. The final stage is to introduce some form of damping into these eight joints so that each apartment is an independent "floating" box, 61A and B.

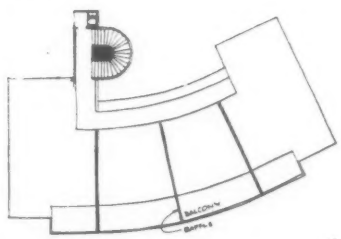
62



The basic dwelling units in 62 are possible on the cellular pattern: A, with roof garden; B, with garden at living room level.

LIFTS

63



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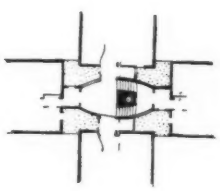
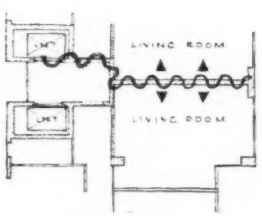


The special problem of lift noises can be avoided by segregating the lift access from the main structure. This is the most important planning contribution to the problem. In 63 the stair and lift access is separate from the main body of the structure. Note the baffles to the balconies giving privacy to the living space. 64 shows the possibility of segregation with staircase access types, the shaded portion being open to the air.

65

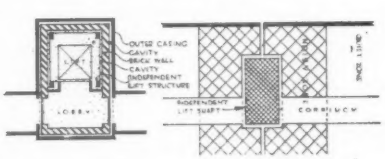
66



Common faults in cases where the lift is built integrally with the structure is illustrated in 65. A whole cluster of bedrooms immediately adjoin the noisy lift shaft and access stair. 66 is an example of the passage of sound along a continuous wall to a quiet room from the lift. The problem has become structural. Failure to provide structural discontinuity for the noise source will nullify the best planning measures.

67

68



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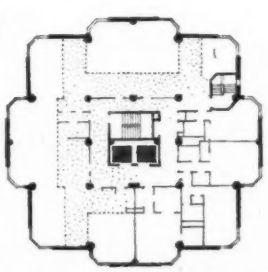


67 indicates the method of structural segregation of the lift. Independent framing prevents dispersion of conducted sound, and the equally independent brick enclosure absorbs air-borne sound. Segregation by planning a wad of noisy rooms around the lift completes the process. 68. 69 illustrates good planning of interior lifts—an American example. The lift and staircase are enclosed within a solid containing wall and segregated by a corridor. There is no connecting wall to transmit the sound but the floors would prove a weakness. An additional baffle of service rooms completes the insulation.

and it is easy to see how the general principles of organized zoning are lost sight of in the effort to fit in the various niggling elements. There are no interior courts, except the central large one, but a good many interior angles with noisy rooms and quiet rooms juxtaposed. The bay-windows in the main court should be noticed as they aggravate the conditions in the interior angles, and are likely to be a source of noise irritation themselves. If broken down, the flat plans would exhibit some weak party walls. A certain amount of bufferage is provided in the centre of plan in the form of cupboards, etc., and this point is taken up in the following diagrams.

Buffers and Baffles.

Diagram 54 shows the simplest form of baffle, using space to dissipate the sound between flat and flat. Notice the almost complete segregation of each flat. This is the simplest and the best method of obtaining quiet and private conditions in the flat. In the more sumptuous plans now under review the usual method of obtaining quiet conditions within the flat is to segregate the zones by wide halls, corridors, store rooms, and so on. This is illustrated in 55 and 56. Simpler examples of the same method were 41, 43 and 58. A stage is reached where increase in horizontal bufferage is vitiated by weakness in the vertical bufferage and any additional horizontal buffer is valueless. The point has been reached in diagram 55, where no appreciable disturbance is to be expected from within the flat and additional spaciousness would be waste. Disturbance from adjoining rooms up and down is, nevertheless, just as likely as in any other flat of good zoning characteristics.

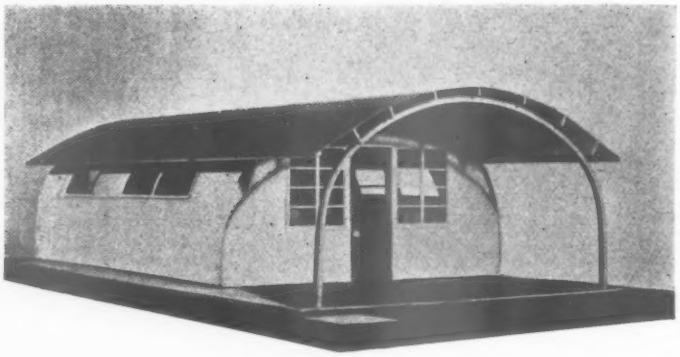
Treatment by vertical baffle has been considered previously, notably in connection with the maisonette, 43 to 49, when it was seen that a complete buffer floor could be interposed between every pair of maisonettes. Where planning can be more spacious, other expedients are available, the most important being Le Corbusier's principle of the cellular plan, indicated diagrammatically in diagram 59. Reduction in noise transmission was only one of many reasons for the production of this plan, and it has the disadvantage of additional cost and excessive heat loss, but against this, it achieves a degree of amenity and privacy equal to that of a detached house. The principle is simply that of introducing space bufferage on all four sides of the apartment, which in normal flats abut on other apartments. The only points of contact between one apartment and another are along the four external angles shown in diagram 60. There are no party walls. If the structures were built rigidly, nevertheless, there would still be an oblique path for sound along the connected walls and floors, as shown in 60 B, and to avoid this the expedients indicated in 61 could be used. In the first place, the building being framed, the points of contact could conveniently be reduced to about eight or twelve per apartment, 61A and B, and the final refinement would be to interpose a damping joint at each of these points of juncture, to prevent the passage of sound along the structural members. The building would then take the form of a series of structurally self-contained boxes placed one above the other on floating joints which, of course, involves some novel structural problems.

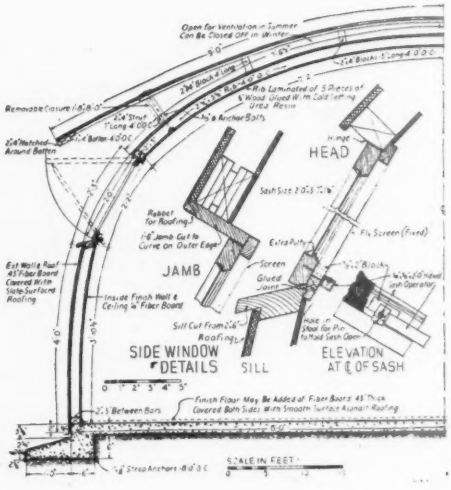
This is the totally floating structure, as elaborated by the BRS, developed to embrace a complete house, and so far as flats are concerned is the most complete solution to the problem of noise transmission. Some of the additional structural costs could be recouped by avoiding the necessity of large outlay in sound proofing the building. Diagram 62 illustrates the unit maisonette, A, with a garden space at roof level, avoiding impact noises from the garden on to the bedrooms of an adjoining unit, B, with a garden at living floor level which gives the better amenity and is to be preferred as a unit.

TEMPORARY

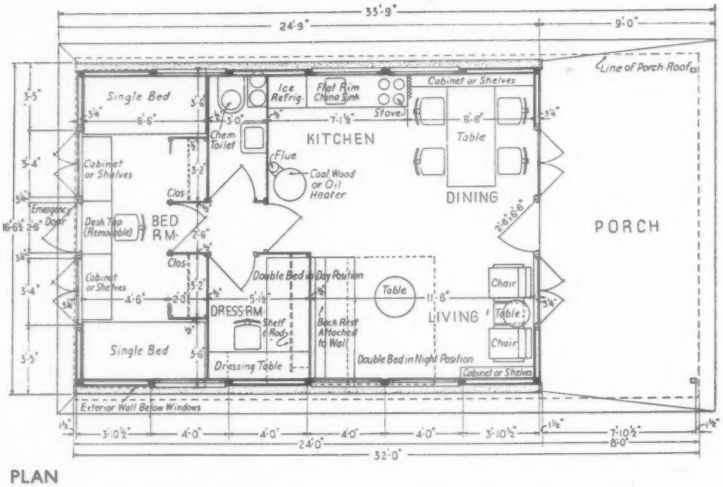
House in the USA

Developed by the John B. Pierce Foundation

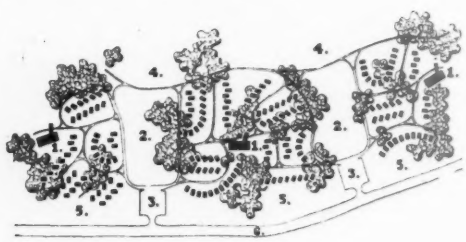




HALF SECTION AND DETAILS



PLAN



SUGGESTED LAY-OUT

The Victory House is an emergency, minimal unit designed for temporary use in war-swollen communities where acute housing shortages exist. It can be built and completely furnished for $1,000, and accommodates a family of four. Construction is of laminated wood arches 4 feet apart, covered on both sides with wall-board. A third layer of wall-board forms the roof. This is coated at the factory with asphalte roofing, providing a ventilated air-space as insulation, and also a shield from wind and sun to the sloping windows at the sides. The house has no plumbing or electric wiring; the kitchen sink drains into a dry well. The lay-out plan shows how houses might be arranged in temporary settlements. Blocks marked 1 are community lavatories, toilets and laundries.

Lifts and Access Stairs

When lifts are used, an additional noise load is added to the plan. Lift noises are, of their nature, extremely irritating, consisting mainly of (*a*) motor hum (and vibration) and (*b*) crashings of the gates. Motor hum can be considerably reduced if the motor is put in the basement, a procedure which, however, decreases the working efficiency of the lift and is not always otherwise practicable. There is a certain amount of mechanical noise due to the travelling of the lift in addition to the noise of the motor.

As with all other mechanical contrivances, care in design can go far towards eliminating noise. Locks, electric light switches, plumbing fittings are all capable of being improved in this respect, but when the practical limit has been reached some noise remains, and with wear and tear quiet contrivances tend to get noisier again.

Where possible, therefore, the lift should be entirely separated from the main body of the building, and where this is not possible careful precautions are necessary both in planning and design.

Structural tenets are: The complete lift mechanism to be structurally independent from the rest of the structure. The independent lift structure to be enclosed within a 9 in. solid wall, and if possible this, too, to be structurally independent.

Planning tenets are: No lift to be placed next to a quiet room. No continuous wall to connect the lift obliquely to a quiet room. Maximum buffer space to be arranged between lift and quiet zone.

Diagrams 63 and 64 show how planned segregation of the lift and stair can be obtained in buildings of different size and shape. This is simply a matter of basic approach and is the best planning contribution that can be made to this particular problem.

Placing the lift within the building gives rise to many troubles, briefly illustrated in diagrams 65 and 66. In the case 65 the lift is adjoined by bedrooms and living rooms. This is weak planning not to be condoned by the presence of 9 in. brick walls round the lifts. A remote effect of sound transmitted by vibration is illustrated in diagram 66, a reinforced concrete structure. Sound will travel along the monolithic cross wall from the lift shaft, across the corridor, ultimately to emerge as vibration of the panel between the two living rooms. Remote effects of this kind have been dealt with very thoroughly in the DSIR book and depend much on the type of structure and degree of continuity in the members. The first remedy is to break these soundpaths by interposing a resilient or damping joint.

The two diagrams 67 and 68 show how a lift should be treated if it is planned within the building. The actual mechanism, motor, etc., are structurally independent and the whole enclosure, including the cut-off lobby, is enclosed within a 9 in. brick wall equally independent both of the main structure and of the lift structure. This wall will take care of air-borne sounds, and the noise of the lift doors. The whole is then enclosed in partitioning as in the rest of the building. Special attention will be required to seal the two exit doors from the lobby to the corridor.

These are structural measures. A buffer of service or noisy rooms is placed completely round the lift, and segregation is complete.

Diagram 69 shows a practical example of a well-planned lift. It is not known whether the structural segregation is adequate but the buffer zone of service and non-quiet rooms is very ample. The example is particularly well padded, and it will be seen that the lift enclosure walling does not carry through to the rest of the structure.

In the ideal examples given, 67, 68, it will be observed that, in addition to the walling, the lift well has been made discontinuous with the floor slabs. This is a point to watch, as vibration could equally well be transmitted along these slabs.

(*Concluded*)

INFORMATION CENTRE

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

PHYSICAL PLANNING

1217 Model USA Town

THE TOWN OF WILLOW RUN. (*Architectural Forum, March*, 1943). Designs for a model American community to house the families of 6,000 aircraft workers.

The plan below shows the final stage of the three-neighbourhood town, and illustrates very clearly its essential characteristics. The three communities sprawl loosely around the town centre and are connected with it by a series of peripheral roads. Each community is a self-contained unit, with an ultimate population of 1,200 families, provided with its own school and shops for daily necessities. A green-belt surrounds the entire town, and most of the architects worked out some method of allowing the main greenbelt to filter through their housing groups to the small community centres. The schools, which provided a social as well as architectural centre for each community, were designed to serve the needs of adults as well as children. In fact, during the wartime stage of the project each school was to be a meeting hall, entertainment centre, church and anything else the inhabitants might require. There was ample room in each neighbourhood centre for additions to the school and for new, special purpose buildings.

A larger five-neighbourhood town is also illustrated in the article.

Each architect's programme comprised 10 per cent. one-bedroom units in rows, 60 per cent. two-bedroom units in twin houses and singles, 30 per cent. three-bedroom units in single houses.

Most unusual of all house types in the entire town was the " ground-freed " house, illustrated below in two plans and a perspective sketch. The ground floor, as shown, contains only an open carport, stairs and large utility room. Upstairs, except for the stairs, is a one-storey house plan, provided in this instance with either two or three bedrooms. The other plans, for twin or row houses, show a much less radical departure from the units commonly accepted.

MATERIALS

1218 Post-War Timber Position

NO POST-WAR TIMBER SHORTAGE. *B. Alwyn Jay.* (*The Architect and Building News, June* 25, 1943, *pp.* 190-191). Survey of timber situation likely to arise after the war. Post-war planners have developed timber-phobia and leave out timber when planning for reconstruction, because they think it will not be available. Several reasons why timber import may rise within short time after war.

Britain will develop her export trade as quickly as possible and timber will be the main commodity with which a great number of countries can pay for imports. If the present tremendous ship-building programme is carried out a larger amount of tonnage will probably be available than is now anticipated. There has, so far, been no large destruction of the raw material or of the saw mills. Structural soft woods and hard woods should be in adequate supply from all over the world.

A number of improvements in the technique of timber manufacture has been achieved in recent years which will greatly increase the adaptability of timber to building purposes. Waterproof plywood (more economical to ship than solid timber) has proved itself as an external building material. Beams and trusses of large dimensions can now be built up from small-sized timbers. The wider use of timber connectors greatly increases the strength of bolted joints. (See Information Centre Nos. 1140, 1146). The difficulty in obtaining seasoned timber will be overcome by chemical seasoning. (See Information Centre No. 1212).

With all these achievements timber will be ideally suited for repair work in houses damaged by raids (precautions must be taken to avoid rot by using timber treated with a preservative) and, owing to the high speed of production, especially in the field of temporary building.

1219 Aggregates, Sands & Fillers

SAMPLING AND TESTING OF MINERAL AGGREGATES, SANDS AND FILLERS. *British Standard Specification B.S.* 812 : 1943. (*British Standards Institution, price* 3/6). Reprint with corrections of 1938 edition. Amendments and new methods included which have been approved by the Road Industry Committee and published in British Standards since 1938.

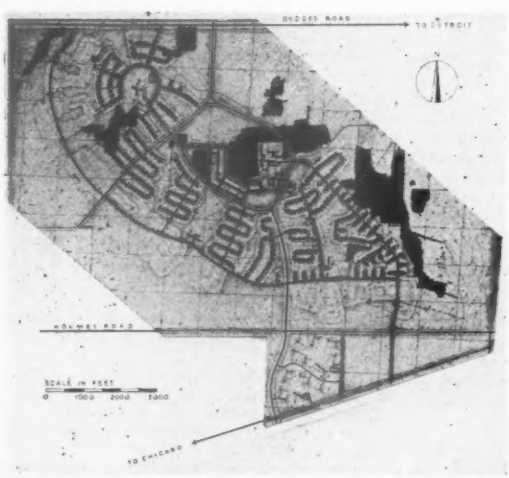
The importance of the proper choice and control of aggregates, sands and fillers is still not sufficiently appreciated by many makers of concrete, including even works manufacturing nothing but precast concrete. By adopting the methods specified in B.S. 812 an improvement of the quality of concrete could be achieved, often combined with a saving in cement. Of particular importance are the methods for determining the suitability of clinker and blast furnace slag for concrete—materials which, if carelessly used, may be a source of trouble in the completed building.

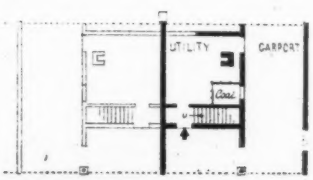
LIGHTING

1220 Colour in Industrial Lighting

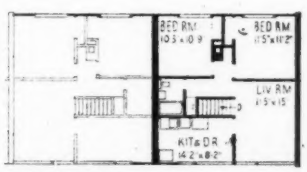
COLOUR AND LIGHTING IN INDUSTRY. *A. H. Brainerd and R. A. Massey.* (*Journal of the Illuminating Engineers Society, USA, December*, 1942, *p.* 738). Improved illumination and visibility by the proper use of colour in industrial plants.

In recent years in this country the emphasis, in illumination, has been laid on intensity





GROUND FLOOR



FIRST FLOOR

Illustrations from The Town of Willow Run *in the Architectural Forum, March 1943. Left, one of the designs for a three-neighbourhood town. Right, plans and perspective of one of the house designs. See item No. 1217.*

almost alone, and as a result we have in force now a statutory minimum illumination intensity for places of work. Our attention has been so far diverted to this aspect of lighting that we have almost overlooked the fact that it is illumination *plus colour contrast* that makes visibility possible, and indeed, we have even neglected the *effect of intensity* of high reflection factors in rooms. The Americans have gone ahead on all three fronts at the same time, and lately it has become evident that they are now using colour and reflection very skilfully indeed in their illumination techniques. The principles upon which their work is based were set out by Faber Birren in the *Architectural Record* for July, 1942, and in the present article, by Brainerd and Massey, more details of the technique are given and some results are recorded.

The first part of the paper is devoted to reflection factors and their effect upon lighting intensities, and to illustrate their points the authors analyse the illumination values in a room decorated in two different ways. The room is quite a large shop, 40 ft. by 100 ft. by 12 ft. high, with normal representative finishes in the ceilings and side walls, the reflection factor for the former being 70 per cent. and for the latter 30 per cent. They suggest redecoration with an 80 per cent. reflecting ceiling (which they claim is now perfectly practical as a service value), 65 per cent. for the walls, in a light green, and 40 per cent. for benches, floors and tables. They started with an illumination of 50 ft. candles and they ended with about 100, an increase of 100 per cent. This is a remarkable demonstration of the use of decoration as an aid to illumination intensity alone, and the authors back up their experiment with examples from practice.

Two interesting points emerge here. In the first place, it has often been said that light coloured floors were unpopular because the eye likes the lower part of the visual field to be dark.

The authors find that so long as the reflection factor on the floor and lower parts is not greater than in the upper parts of the room, it appears perfectly comfortable. It is, in fact, the balance that matters, and they say that reflection factors as high as 80 per cent. are comfortable. The second point is this, that since the increase in intensity is dependent upon high reflection factors everywhere, the contrast necessary for actual visibility of work must come mainly from colour.

This second point is elaborated, and the statement is made that the function of colour for industrial machinery is to provide "a controlled mild stimulation and to increase visibility by means of suitable contrast." Two colours are described which have been found very suitable, one a light buff, which lies in the region of the high colour sensitivity of the eye, and the other a light yellow green, which is also in the range of good eye sensitivity. Both colours are weak in chroma—an important factor for comfort where they are continuously in the field of view—and both have high reflection factors of nearly 70 per cent.

A light grey is also used for backgrounds, though its reflection is not very high. Such colours as these are chosen after consideration of the actual tasks involved, and are used actually on the working parts. For instance, a case is described where sewing machinery is painted a light green, and the tables are cream. Brilliant colours of intense hue stimulate impulsive action, and are used only for dangerous points and signals.

The discussion of the paper is almost as interesting as the paper itself, and shows that not all of the points mentioned commanded universal acceptance. At the same time there was a general agreement, and what is more important, there is evidence that this problem of colour has now reached a stage of quite reasonable refinement among practitioners in America.

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.*

1221 Continuity in Construction

Q *I have been interested in the two articles on* Continuity in Construction, *by Dr. K. Hajnal-Kónyi recently published in the* ARCHITECTS' JOURNAL *and I wonder if your* Information Centre *could refer me to any books on the subject dealing with its theory and/or practice, with especial reference to welded steel structures.*

I am familiar with Cross and Morgan's Continuous Frames of Reinforced Concrete, *and a similar book by Shepley, both of which deal with the theory as applying to reinforced concrete.*

A As far as the theory is concerned there is no difference between steel and reinforced concrete structures. The books mentioned in the question are equally applicable to steel as to reinforced concrete, and in fact the book by Prof. Hardy Cross is one of the most important works on this subject.

The following list contains a selection of books and articles, published in English during the last ten years, but it is far from being complete. Continental literature on this subject is particularly rich.

A.—Books.

1. Earle Brewster Russel: *Analysis of Continuous Frames by the Method of Restraining Stiffness.* (Pamphlet published by Ellison & Russell, San Francisco. Second Edition 1934). Contains a great number of tables and deals also with variable moments of inertia.

2. A. J. S. Pippard and J. F. Baker: *The Analysis of Engineering Structures.* (1936 London, Edward Arnold & Co., Chapter 9. Frames with Stiff Joints).

3. R. A. Caughey: *Reinforced Concrete.* (1937. London, Chapman & Hall, Ltd. Chapter VII. Moments in Beams and Frames: Slope Deflection Method, The Moment Area Method, The Moment Distribution Method).

B.—Articles.

4. H. V. Hill: *The Design of Continuous Beams and Frameworks, with Rigid Connections in Welded Construction, with Special Reference to Professor Hardy Cross's Method of Analysis.* (*The Welder*, November-December, 1940, January-June, 1941, July-September, 1941, October-December, 1941, January-June, 1942). This series of articles may be especially suitable and there are a number of practical examples in the same issues.

5. J. W. H. King: *The Graphical Solution of Portal Frames.* (Journal of the Institution of Civil Engineers, December, 1940, pp. 85 to 106. See also correspondence October, 1941, pp. 431 to 446).

6. V. A. Murphy: *The Design of Welded Rigid Frames.* (Bulletin and Proceedings of The New Zealand Institution of Engineers, April 15, 1941, pp. 86 to 134).

7. A great number of articles on continuous beams and frames, by various authors, has been published in *Concrete and Constructional Engineering*, 1940, 1941, 1942 and 1943.

SOCIETIES AND INSTITUTIONS

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

AA

Annual Prize Day

Scholarships and prize awards announced at the annual prize day on August 13:

Leverhulme Scholarship (value £1,000).—Roy D. Lyons, Lawrence Sheriff School, Rugby.

Minter Open Entrance Scholarship (value £75 12s.).—Norman A. Whichelce, Beckenham School of Art.

Sir Walter Lawrence Open Entrance Scholarship (value £75 12s.).—Alan J. Middleton, St. Olaves Grammar School, London.

Royal West of England Academy School of Architecture (affiliated to the AA) prize in design, (value £5 5s.).—R. S. Hignell.

Alec Stanhope Forbes' prize for the best colour work in the school (awarded annually, value £5).—Geoffrey C. H. Powell.

First Year Prizes.—Howard Colls Travelling Studentship (value £15 15s.).—Eleanor Godfrey Second prize (value £1 1s.), Catharine C. T. Elder. Honourable mention, Margaret E. Pryce.

Second Year Prizes. AA Travelling Studentship (value £26 5s.).—Henry T. Swain. Second prize (value £1 1s.), Jean P. Cutler. Honourable mention, Ian C. Baker.

Third Year Prizes.—Holloway Scholarship, tenable for two years (value £250), Neville H. Conder. Third Year Travelling Studentship, Certificate of Honour (nominal value £1 1s.), Barbara E. Priestley. Second prize (value £1 1s.), Pearl D. Eglington.

Fourth Year Prizes.—Certificate of Honour for Year Prize (nominal value £10 10s.), William Taylor.

Fifth Year Prizes.—Henry Florence Travelling Studentship (value £50), Arnold J. P. Powell. Certificate of Honour for Fifth Year. AA Travelling Studentship (nominal value £1 1s.), Elizabeth Boultbee.

During the session the following awards were announced:

The Architects' Registration Council of the

United Kingdom.—Maintenance Scholarships. Awards announced for future terms, June H. Vinycombe, Lilian M. Sims, Dorothy Heaton.
The May and Baker Prize (for Constructional Analysis).—Rosemary Elliott.
Architectural Association Diploma (Honours).—John D. Broadbent.

TARRAN INDUSTRIES

Prefabricated House

On August 26 at Conway Hall, W.C.1, an exhibition of a system of prefabricating houses prepared by Tarran Industries of Hull was opened by Mr. Arthur Greenwood. Mr. George Hicks was also there in an unofficial capacity. Professor Patrick Abercrombie took the chair.

Mr. Greenwood said that the problem of housing was not merely a British one, but was very largely a world-wide problem. On the continent of Europe there would be a far greater need, and a more urgent need, for the building of houses than there would be even in this country. He held the view for which he had been criticised in the highest quarters that pounds, shillings and pence had become meaningless symbols, but if anyone present could tell him what was meant by £14,000,000 or £15,000,000 he would be glad to meet that gentleman. We were faced with the problem at the end of the war of the development of almost illimitable world resources which had not yet been tapped, and it was not a question of money but a question of men's willingness and power to work, of men's quality to design plans whereby people could work, and of the harnessing of that power to the world's resources.

He did not know how many new houses we wanted in this country now, but at the time when he introduced his Housing Bill in 1930 we wanted over four million. At present three-fifths of our people were living in houses built three-quarters of a century or more ago, and which even when built had been behind the enlightened thought of their time. We had to face the problem quickly, a revolution in building methods had taken place in recent years, and that revolution had been developed and intensified during the war. Just because men in the Middle Ages had done building this way or that was no reason we should now follow their technique in detail. It was right that science and research should pay tribute to the building industry.

It was about time the Government made its mind up on the Barlow, Scott and Uthwatt Reports, because unless the Government faced the intricate and highly controversial problems involved the schemes of Mr. Tarran and others would be held up for many years, and that would be a national tragedy. The present exhibition was a demonstration of what was possible in the way of rapid building, and in the way of new methods of production: it merited very earnest constructive criticism. In some quarters a view was held that we should not do any thinking about the future until the war was over, but that way lay suicide. (Hear, hear.) We had to be up and doing now. The war was not over yet, but we could, with a certain amount of courage and confidence, begin to think and plan for the future. That was the value of a demonstration of this kind. Mr. Tarran's plans might lead others to follow his general line and so give us the houses we should need so quickly at the end of the war. In doing that Mr. Tarran was performing a great national service, said Mr. Greenwood.

The Tarran system of factory-produced houses is based on a wall unit of a non-condensating sawdust, chalk and cement composition called Lignocrete, reinforced with steel wires and resin-bonded plywood ribs. Units, usually 8 ft. long by 1 ft. 4 in. wide, are bolted together and jointed with a bituminous filler, the final seal being carried out by a heated iron on the site. The outer face may be of various waterproofed rendering finishes.

Floor units have external frame of a steel channel, about 12 ft. by 4 ft. Intermediate cross ribs and decking being of resin-bonded plywood. Roof units are similar.

Internal partitions are of resin-bonded plywood framing faced with plasterboard.

Foundations are of precast concrete blocks carried by a concrete raft.

A feature of the Tarran house is the prefabricated plumbing unit, combined for kitchen and bathroom.

The exhibition will be open until September 2.

ANNOUNCEMENTS

Messrs. James & Bywaters and Rowland Pierce (5, Bloomsbury Street, W.C.1) announce that their telephone number has been changed to Museum 1403.

The address of Messrs. Gillespie, Kidd & Coia, chartered architects and town planning consultants' is now 7, Hamilton Drive, Glasgow, W.2. Telephone: West 1095.

Mr. Noel Moffett, B.ARCH. (Liverpool), A.R.I.B.A., A.M.T.P.I., has opened an office and atelier at 5, Herbert Place, Dublin, at which address he would be glad to receive trade catalogues.

The National Council of Building Material Producers has moved to 2, Caxton Street, Westminster, London, S.W.1.

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.

ARCHITECTURAL ASSISTANT. A West of England Company specialising in Brewery Construction and Equipment have vacancy for Assistant, experienced in building, surveying and industrial construction and willing to travel, to make surveys and supervise construction. Apply Box 944.

Architectural Appointments Wanted

ARCHITECTURAL AND BUILDING SURVEYING ASSISTANT, age 22, sitting for Final Chartered Surveyors' Institution and Inter. R.I.B.A. in 1944. Four years' experience. Medical Grade III. London area. State salary. Box 145.

YOUNG REGISTERED ARCHITECT AND SURVEYOR desires position or part time work for own office. Box 150

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.

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Classified Advertisements continued on page xlii

Printed in Great Britain for the Proprietors of "THE ARCHITECTS' JOURNAL"
(The Architectural Press, Ltd.) War Address: 45 The Avenue, Cheam, Surrey
by KNAPP, DREWETT & SONS LTD. Kingston-on-Thames and London.

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