THE ARCHITECTS' JOURNAL

No. 2529] [VOL. 98

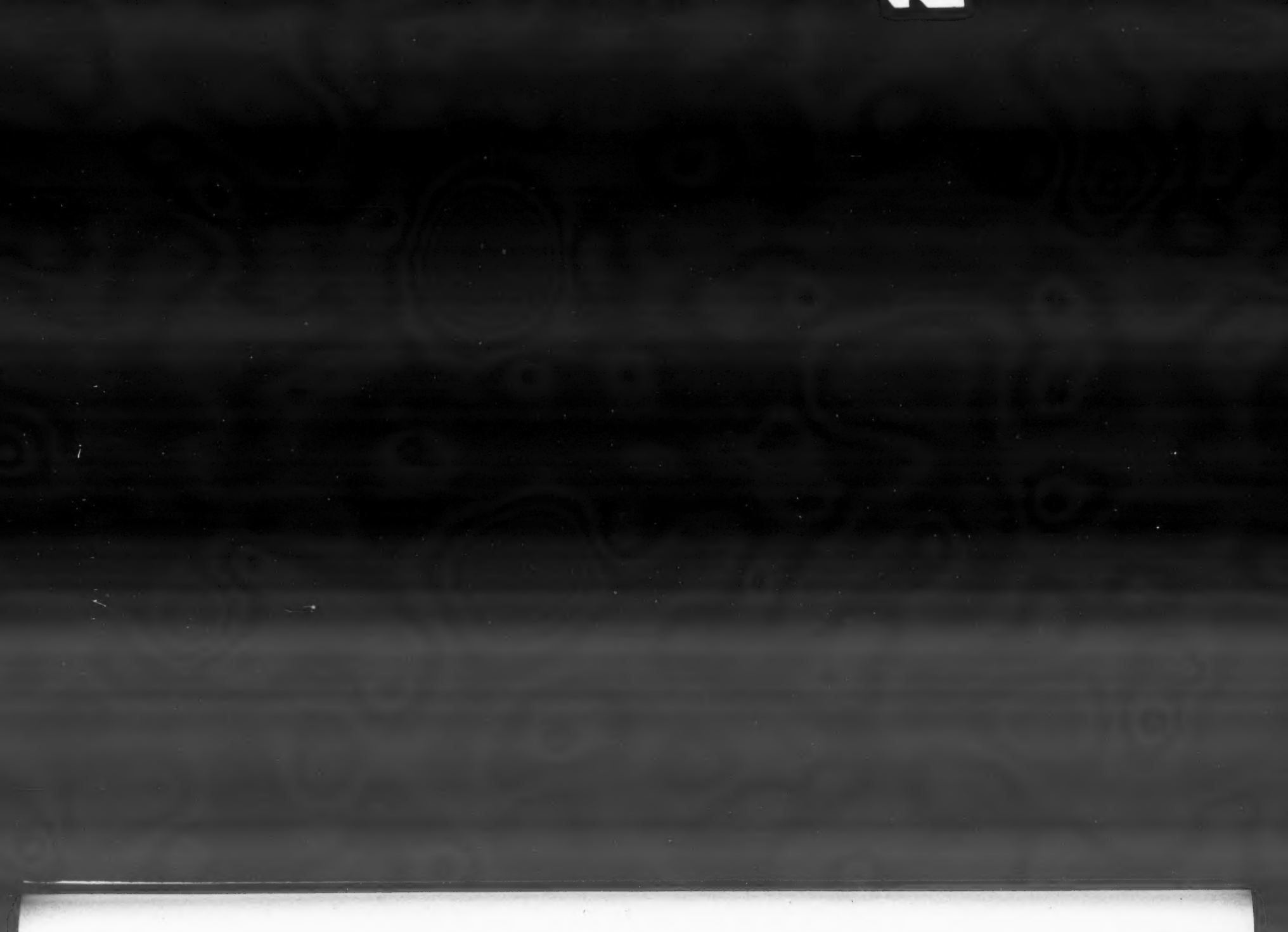
THE ARCHITECTURAL PRESS, War Address: Forty-five The Avenue, Cheam, Surrey. Phone: Vigilant 0087-9

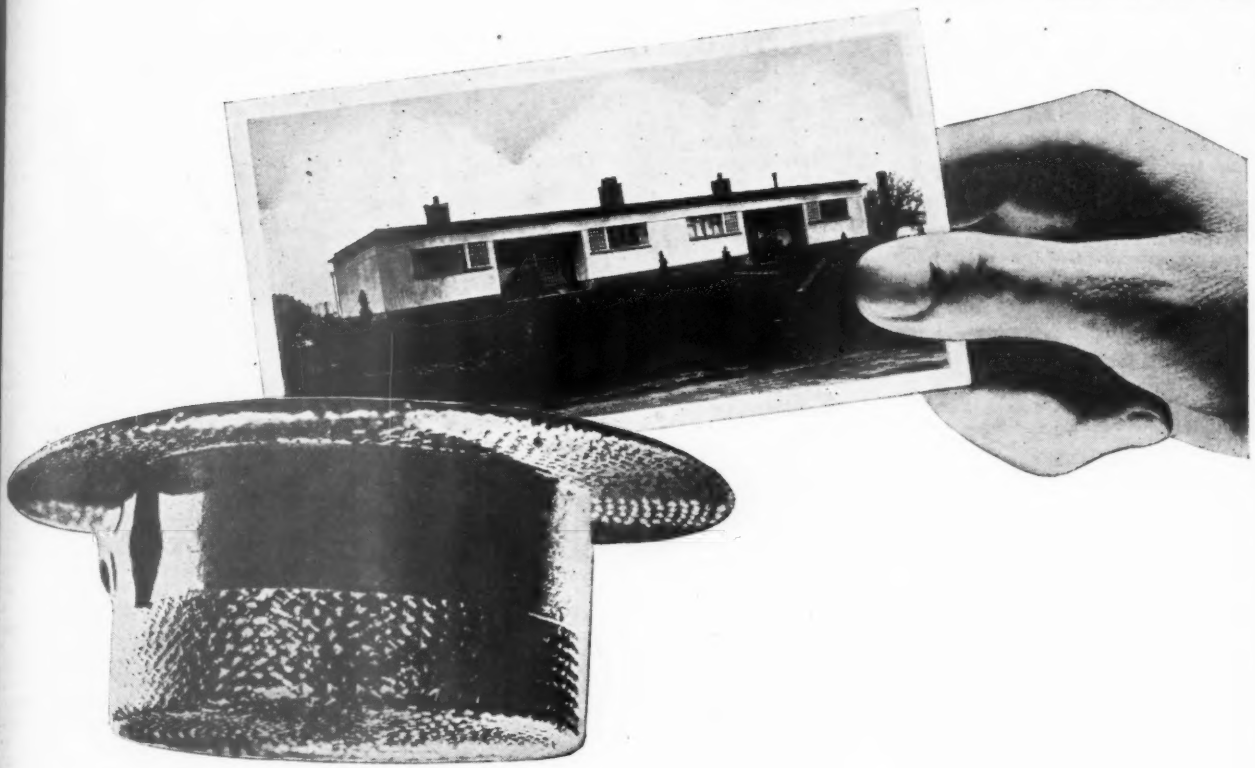
Price 9d.

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), Goring Hotel, Grosvenor Gardens, S.W.1. Victoria 9787-88.
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.





We've already taken something out of the hat which has aroused a great deal of interest

THESE are two experimental unit-construction houses at Kilmarnock, Ayrshire, designed for the Kilmarnock Town Council by S. Bunton, L.R.I.B.A. We manufactured the wall and roof units. This is a contribution to speed-building.

GYPROC: A high-grade gypsum board with high resistance to fire and vermin. It is strong, light in weight, and non-warping. Gyproc is already known to be one of the most advanced wall-lining and ceiling materials.

GYPSTELE: Is a unit construction system for using Gyproc board in steel-frame units. These are very strong, with a high resistance to fire, and are designed to make construction rapid and removal easy. For linings to walls and ceilings, and for partitions.

GYPKLITH: A wood wool building slab. It is strong, with high thermal insulation, and resists vermin, fungus and dry rot. It is sound absorbing and sound resisting.

SPEED BUILDING IS HERE

GYPROC PRODUCTS LTD. "WESTFIELD," UPPER SINGLEWELL ROAD, GRAVESEND, KENT

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.

FAMOUS DOORWAYS OF OLD ENGLAND No. 3.

John O'Gaunt's Stables, Lincoln.

NEWSUMS OF LINCOLN
FOUNDED 1856

For all that is best in Modern Design and Craftsmanship—

H. NEWSUM SONS & Co LTD

(Telegrams NEWSUMS) **LINCOLN** (Telephone Nos. 812—4 lines)

Mills also at GAINSBOROUGH and SHEFFIELD

DOORS • WINDOWS • STAIRS

AND ALL TYPES OF MANUFACTURED WOODWORK

★ *Art-paper reproductions of each illustration of this series will be gladly sent to Architects and Building Contractors on request.*

Q. *"How can I obtain a building that has long life, requires no upkeep, and yet uses the minimum amount of steel?"*

A. *By deciding to build in concrete and then selecting Square Grip Reinforcement.*

Two of the many inherent advantages of reinforced concrete are the extreme durability and the elimination of maintenance costs, i.e. absolute resistance to the corrosive effects of weather, industrial fumes and the like. By reinforcing the concrete with Square Grip *work-hardened* steel reinforcement—high strength steel in the form of a scientifically twisted square rod—there is a saving of 70 per cent. in the steel required. This as compared with an all-steel framework. By virtue of their shape, such rods have an exceedingly high degree of continuous bond with the concrete. This latter quality results in the reduction of risks of superficial cracking of the concrete, increases the resistance to corrosion . . . leads to long life and no maintenance.

IN A WORD

. . . this is how SQUARE GRIP reinforcement saves the Nation's valuable steel. Take, for example, a building of conventional steel construction that requires 1,500 tons of steel. Compare that with the amount necessary to construct a similar building by reinforced concrete. . . .

CONVENTIONAL STEEL CONSTRUCTION
1,500 tons of steel.

CONCRETE, reinforced by ordinary mild steel round bars . . 750 tons of steel.

CONCRETE, reinforced by SQUARE GRIP rods . . . . 450 tons of steel.

. . . and this is because Square Grip rods, compared with mild steel round bars, have a

TENSILE STRENGTH . . 50% greater.

CONTINUOUS BOND VALUE 500% greater.

SQUARE GRIP

REINFORCEMENT COMPANY LTD.

Sunbury-on-Thames, Middlesex
The Trading Estate, Gateshead
The Bath Road, Bristol

BEAVERS build themselves log huts containing a spacious internal chamber, apart from their well-known dam building activities.

Stockholders and Distributors of

SANITARYWARE
BATHROOM REQUISITES

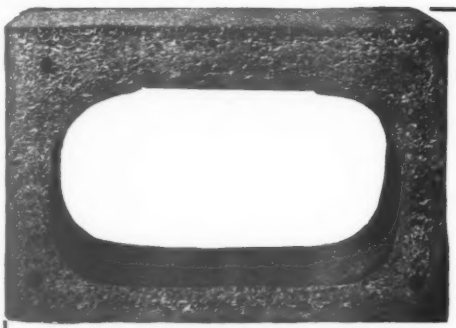
FIREPLACES STOVES
BOILERS

ARCHITECTURAL &
BUILDERS' IRONMONGERY

ANNOUNCEMENT.—Of interest to Architects, Surveyors, Building Contractors, Factory Owners, and Engineers. STOCK LIST No. 11. Available (in compliance with Paper Control Regulations) upon request, price 1d.

STANDARD RANGE & FOUNDRY CO. LTD.

TELEPHONE 2261 WATFORD (6 lines) EST. 1870 *Watford* TELEGRAMS "STANDARD, WATFORD"



THE STRENGTH IS IN THE SECTION

SIEGWART

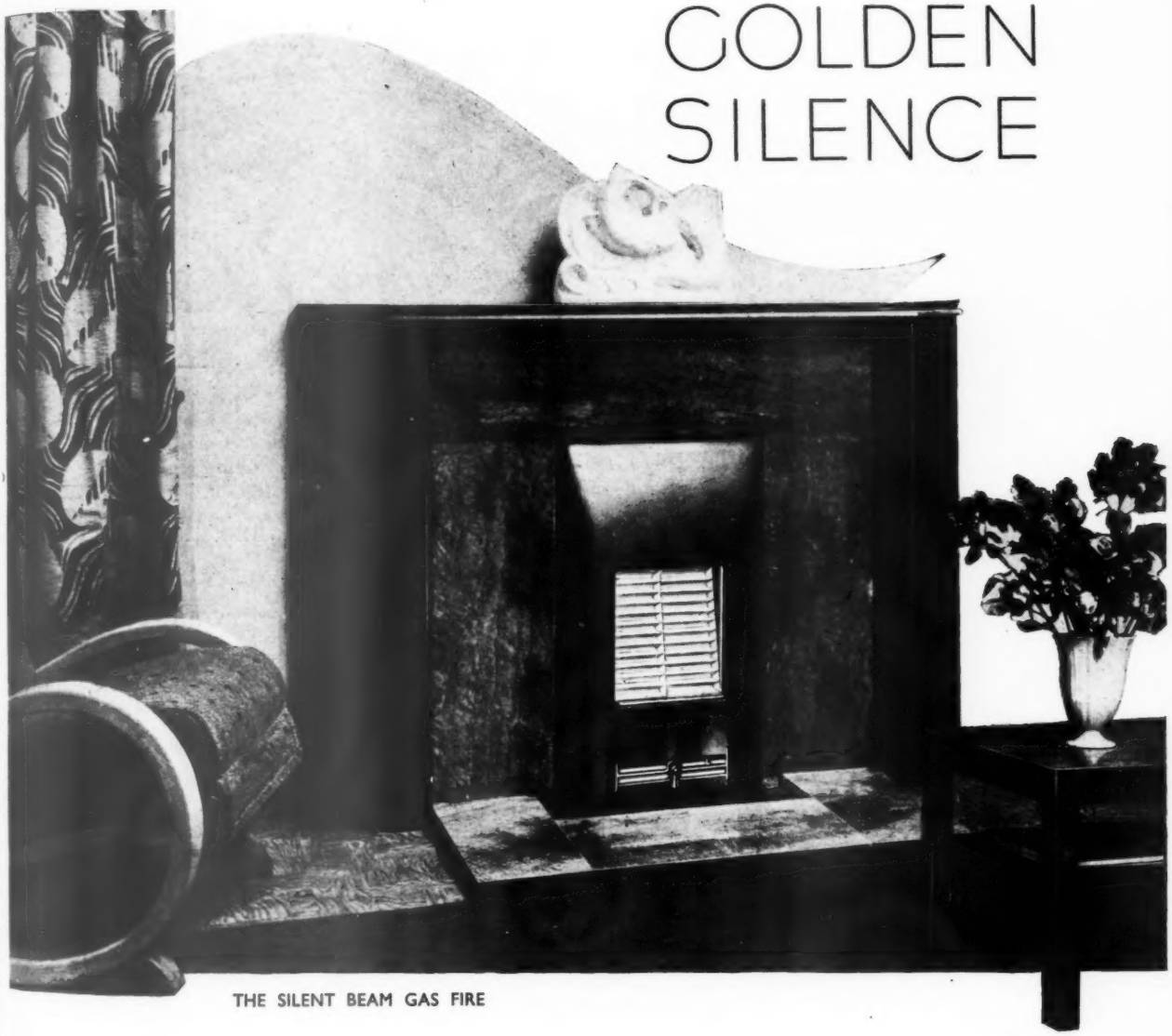
PRECAST FLOORS AND ROOFS

NO CENTERING REQUIRED

THE SIMPLICITY IS IN THE SYSTEM

SIEGWART FIREPROOF FLOOR COMPANY LIMITED
Croxley Green, Rickmansworth, Herts. Tel. : Rickmansworth 2268/9
Branches : BIRMINGHAM, LEICESTER, MANCHESTER, GLASGOW

GOLDEN SILENCE



THE SILENT BEAM GAS FIRE

ARCHITECTS will find a great deal to interest them in this new Radiation Gas Fire, the Silent Beam. Luminous flames are used in conjunction with the distinctive Rado Panel firefront, providing a "soft" comfortable warmth, with absolute silence in operation. The burners cannot light back nor choke, and three stages of heat are obtainable by means of the gas tap.

Radiation Ltd.

COMPRISING

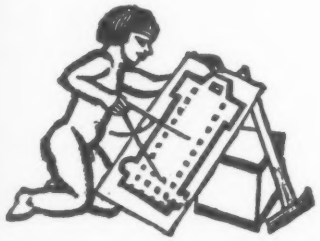
ARDEN HILL & CO. LTD.
DAVIS GAS STOVE CO. LTD.
EAGLE RANGE & GRATE CO. LTD.
FLETCHER, RUSSELL & CO. LTD.
NAUTILUS FIRE CO. LTD.
RICHMONDS GAS STOVE CO. LTD.
WILSONS & MATHIESONS LTD.
JOHN WRIGHT & CO. LTD.

RADIATION HOUSE, ASTON, BIRMINGHAM 6. 7 STRATFORD PLACE, LONDON, W.1.

The year 1847 saw the establishment of a small wire-working shop in Great Davies Street, S.E.1 by George Caston. Since then the firm of Caston and Company has grown steadily to its present dimensions. In its time it has produced some of the most beautiful examples of decorative metalwork of which two typical specimens are shown here. That was before the War. Castons today are on "other work". When once more the arts of Peace may be practised, Caston & Co. Ltd. will be at the service of architects and designers.

CASTON & CO. LTD., TABARD STREET, LONDON, S.E.1

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 JULY

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

AIRTON, near Skipton. *Twenty Women at Home Exhibition.* (Sponsor, HC.) JULY 22–31

BROMLEY, Kent. *Your Inheritance Exhibition.* (Sponsor, HC.) JULY 17–24

BULFORD, Wilts. *Twenty Women at Home Exhibition.* (Sponsor, HC.) JULY 15–30

HUDDERSFIELD. *Englishman Builds Exhibition.* At Woodhead Memorial Lecture Hall, Tolson Memorial Museum. (Sponsor, BIAE.) JULY 17–31

LONDON. *Royal Academy's Summer Exhibition.* At Burlington House, Piccadilly. 9.30 a.m. until 7 p.m. Weekdays ; 2 p.m. until 6 p.m. Sundays. Admission one shilling. JULY 15 to AUGUST 7

ABT LECTURES

ABT School of New Building Technique. At the Alliance Hall, Palmer Street, Westminster, S.W.1.

Second Session—July 15, at 7 p.m. Chairman : Harry Adams. *Concrete.* Ove Arup. *Concrete* (*Site Organization*). F. S. Snow.

Third Session—July 22, at 6.30 p.m. Chairman : David Percival. *Steel and Other Metals.* F. J. Samuelly. *Plastics and Other Materials.* Lecturer to be arranged.

Fourth Session—July 29, at 6.30 p.m. Chairman : Professor W. G. Holford. *Site Experiences in the USA.* Mark Peter. *The Application of Prefabrication to Housing.* H. J. Spiwak.

The lectures will be illustrated by photographic material and drawings, and there will be opportunity for questions and discussion at the end of each session. A bibliography and a summary of the lectures and discussions will be available for those attending. Fees for the course, 5/ ; for individual lectures, 2/-. 50 per cent. reduction for members of the ABT and of the NFBTO on production of their Union cards. Applications for enrolment to : David Morrison, 3a, Heathway Court, Finchley Road, N.W.3.

Exhibition of the work of the London Regional Reconstruction Committee. At the National Gallery. The LRRC is a Committee appointed by the Council of the RIBA, with 12 members from the Institute and the AA respectively. It has been at work for nearly two years on the problems of reconstruction and post-war planning for the London Region. The latter for the purposes of the Committee's work has been defined as C.D. Region No. 5, the area of which is about 850 sq. miles, with a population of about 8,500,000. The exhibition consists of proposals for a Regional Plan illustrated by plans and a plan-model to a scale of 6 in. to 1 mile. Many other drawings and diagrams are exhibited to illustrate particular problems of the Region, such as transport, and to demonstrate the principles upon which the Committee has based its proposals. A Historical Section is included in the exhibition. (See A.J., June 10). JULY 15 to 31

Rebuilding Britain Exhibition. At Royal Exchange. Open at 1.45 p.m. Monday to Friday ; 10 a.m. to 12 noon Saturdays.

Building Congress. (Organised by BINC.) Central Hall, Westminster, S.W.1. JULY 21 and 22. The general object of the congress is to enable those in both official and private positions to meet and consider some of the main problems involved in the work of the building industries and allied professions in the reconstruction period. It is hoped that time will be available at each session for open discussion. The provisional programme is as follows :

July 21. 10 a.m. The Chairman of the LCC, Richard Coppock, will receive the delegates. 10 a.m. to 1 p.m., *The Post-War Building Programme:* Chairman : F. Leslie Wallis, J.P. (President of BINC). Opening speaker : Lord Portal (Minister of Works). 2 p.m. to 4 p.m., *Post-War Housing.* Chairman : J. M. Theobald (Past President of CSI). Opening speaker : Ernest Brown (Minister of Health). 4 p.m. to 6 p.m., *Development of Public Works in the Dominions and the Colonies after the War.* Chairman : Lord McGowan. Opening speaker : Clement Attlee (Deputy Prime Minister and Secretary of State for the Dominions).

July 22. 10 a.m. The Mayor of Westminster, Councillor H. V. Day, will receive the delegates. 10 a.m. to 11.15 p.m., *Town Planning and the Building Industry.* Chairman : Sir P. Malcolm Stewart, Bart. (formerly First Commissioner for Special Areas). Opening speaker : W. S. Morrison (Minister of Town and Country Planning). 11.20 a.m. to 1 p.m., *Availability of Labour in Building.* Chairman : Sir Walter Citrine, K.B.E. (Secretary of the Trades Union Congress). Opening speaker : Malcolm S. McCorquodale (Joint Parliamentary Secretary to the Minister of Labour). 2 p.m. to 3.30 p.m., *Future Organization of the Building Industries.* Chairman : W. H. Ansell (President of RIBA). Opening speaker : George Hicks (Parliamentary Secretary to MOW). 3.35 p.m. to 6 p.m., *Place of Building in Economic Reconstruction.* Chairman : Viscount Sankey. Opening speaker : Sir William Jowitt, K.C. (Minister without Portfolio).

WREXHAM. *TCPA Conference.* At the Guildhall. (Sponsor, TCPA.) 11 a.m. to 5 p.m. JULY 17

NEWS

THURSDAY, JULY 15, 1943
No. 2529. VOL. 98

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.*

Eight of the THIRTY HUTTED SCHOOLS FOR LONDON are now completed.

The thirty hutted schools will accommodate 5,000 boys and girls. There are 232,000 boys and girls between 5 and 14 in London schools. There are still 115,000 in the elementary schools in reception areas, most of whom have been there since the outbreak of war. Some schools are still in the hands of the Civil Defence services.

MOW announce that Mr. A. F. Ewing has been appointed PRIVATE SECRETARY TO LORD PORTAL, Minister of Works, in succession to Mr. F. J. Root, who has been promoted. Mr. J. V. Sheffield is to be Lord Portal's Assistant Private Secretary.

Sir William Ernest Reynolds-Stephens, SCULPTOR, LEFT £10,851 (net personalty £10,735).

He left his portrait by de Laszlo, his bust of Dr. Lang, Archbishop of Canterbury, and a bust of Sir Bernard Partridge to the National Portrait Gallery ; and the residue is to be held upon trust for his wife for life and, subject thereto, he appointed the Royal Society of British Sculptors as residuary legatees or failing them the Artists' General Benevolent Institution.

from AN ARCHITECT'S *Commonplace Book*

CONDITIONED REPLANNING. [*From* County of London Plan, *prepared for the LCC by J. H. Forshaw and Patrick Abercrombie.* (Macmillan & Co.)] And yet a patient analysis, undertaken for the purpose of this Report and disregarding to a considerable extent artificial administrative boundaries imposed during the 19th century, discovers a living and organic structure, still persisting in spite of overgrowth and decay. It consists of a collection of units or communities, fused together ; though their boundaries may have been lost, their centres are often clearly marked, having descended from ancient villages ; and in addition to the physical grouping there is found a strong local loyalty to each community whether large or small. It should be one of the first objectives of the planner to disengage these communities, to mark more clearly their identities, to preserve them from disturbing intrusions such as streams of through traffic and generally to reconstruct them where reconstruction is necessary owing to war damage or decay. This restoration of the London communities will largely determine how far the execution of the plan will entail preservation and how far new creation. The process is organic and may be likened to the grafting of a new, vigorous growth upon the old stock of London. To ignore or scrap these communities in favour of a new and theoretical sub-division of areas would be both academic and too drastic ; the plan might look well on paper but it would not be London. The planning of an existing town should stimulate and correct its natural evolutionary trends.

★

In the House of Commons last week Sir William Jowitt, Minister without Portfolio, foreshadowed a VAST TEN YEAR PROGRAMME OF AFFORESTATION and replanting of woodlands.

He said, the Forestry Commission proposed to afforest 500,000 acres in the next 10 years and to replant 600,000 acres, making a total of 1,100,000 acres to be replanted or afforested at a cost of £41,000,000. If Britain should find herself again at war in 50 years' time, she would be practically without timber. Therefore, it is a matter of great importance that we should now, as soon as possible, within the next decade, plant to a very considerable extent. There is also the possibility of a world timber shortage to be considered and the question whether we can afford to rely exclusively on imports. The Government view is that we must go on with a vigorous forestry policy. The Government want the Forestry Commission to take all steps open to it to prepare for a great expansion of its efforts ; to acquire land even if it is not at once diverted from its present uses and to go full speed ahead the moment peace comes. Whatever policy the Government decides on must be left to an ad hoc authority to carry on, and whatever the relationship of the authority with Ministers there must be close collaboration with agricultural interests. There are obvious advantages in having one authority for the whole of Great Britain.

Dr. John Johnson, the University Printer, made a strong plea at the annual meeting of the Oxford Preservation Trust, for the use of WYTHAM ESTATE AS THE SITE OF NUFFIELD COLLEGE.

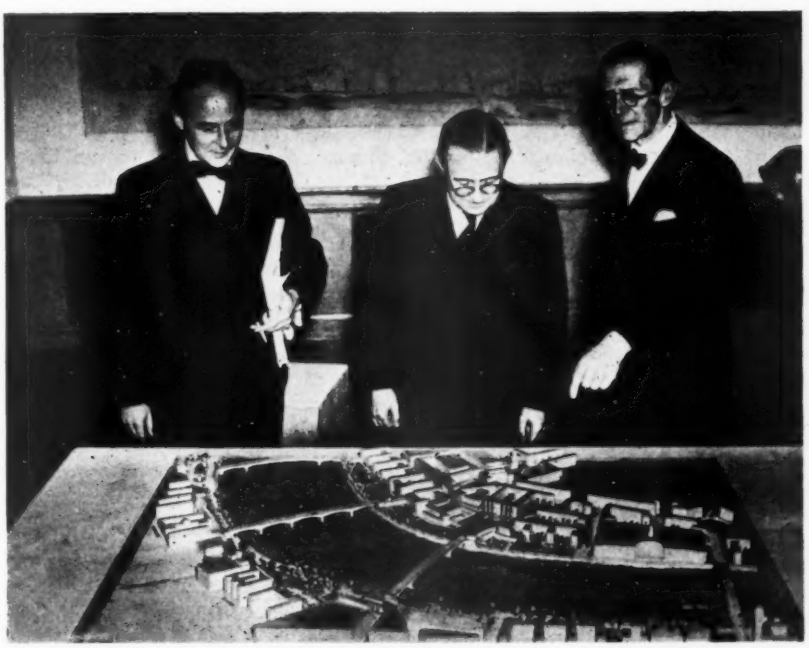
Wytham Estate was recently given to the University by Colonel ffennell. Sir David Ross, Vice-Chancellor, referring to Colonel ffennell's gift as the great event of the year, said there are three main purposes which they have in mind concerning the estate. The first is the continuation of the educational experiment which Colonel ffennell had already begun. The second is its possible use for the sites of scientific departments, and the third is the preservation for ever of this large estate, which ought never to be desecrated by thoughtless or careless building. Dr. Johnson, whose suggestion was warmly applauded, said that of all institutions Nuffield College ought to be unhampered by the noisy contacts of the world, to be serene in outlook, spacious in design, and free of the architectural reminiscences of Oxford and its past. Nuffield College, of which the ideals were the ideals of life itself, should not be so confined as to have no hope of physical enlargement of its walls.

A close-up view of the bomb damage which the RAF has inflicted on Essen, Cologne and other German, as well as Italian cities, can be seen at the exhibition BOOKS INTO BATTLE at the Ford Showrooms, Regent Street, London.

By means of a stereoscope, the public can study in detail pictures of blasted buildings and damaged docks. They are able even to see people walking about the streets of Genoa after a raid. The exhibition says: save more paper.

Mr. George Hicks, M.P., Parliamentary Secretary to MOW, in a speech to the NFBTO, said that although much of its war job is done MOW IS STILL INCREASING ITS RESPONSIBILITIES.

With regard to post-war, he said the most recent and most important development is the institution of the Training and Apprenticeship Council, launched by Lord Portal under the chairmanship of Sir Malcolm Trustram Eve, He said this Council has for its consideration



Mr. J. H. Forshaw, Architect of the LCC (left), Lord Latham, Leader of the LCC (centre) and Professor Patrick Abercrombie examining the suggested development of the south bank of the Thames, east of the County Hall. The scheme is part of the plan for the rebuilding of the County of London, prepared by Mr. Forshaw and Professor Abercrombie. *See pages* 39 *to* 44.

Planners of London County

The plan for the rebuilding of the County of London was presented to the members of the County Council on Tuesday last and is now on public exhibition at the County Hall. The plan, prepared at the request of Lord Reith when Minister of Works, by Mr. J. H. Forshaw, architect to the LCC (seen on the left) and Professor Patrick Abercrombie, assisted by the LCC staff, has taken two years to complete. It does not include the square mile of the City, for which the Corporation has its own scheme. Mr. Forshaw became architect to the LCC three years ago. Before he took up this appointment he was for twelve years architect to the Miners' Welfare Committee, now the Miners' Welfare Commission, where he was responsible for pithead baths and other miners' welfare and recreational schemes. These are universally recognized to be among the best buildings of this country. Professor Abercrombie was last month awarded the Howard Memorial Medal by the Town and Country Planning Association for his distinguished services to planning. He was recently appointed by the Ministry of Town and Country Planning to prepare a comprehensive plan for the Greater London Region. Joint Planner with Sir Edwin Lutyens, R.A., for Hull, he is also planning adviser to the Corporation of Plymouth and Dublin. The County of London plan, with its spectacular transformation of the south bank from County Hall to London Bridge with cafés, bandstand, swimming pool, youth centre, theatre and public gardens, is fully illustrated and described on pages 39 to 44.

the future personnel of the industry, and from its deliberations they are entitled to hope for a scheme which will raise the status of the whole industry. It is something which he, personally, has striven for, and dreamed of, all his industrial life. All interests concerned in the scientific and technical side of building are now linked in one organized team devoted to research for post-war building. These interests include other Government departments, senior professional bodies and a number of research and trade associations. Recently a director of experimental building development was appointed to encourage and assist worthwhile experiments. The Ministry itself will also shortly carry out some full-scale experiments in complete houses as well as such things as new kinds of walling, roofing and stairs and modern installations. Lord Portal has also appointed a building costs research officer to analyse the costs and production factors involved in different methods of construction of various types of buildings —traditional or otherwise—that will be required after the war. This step is a vital one if we are to keep the cost of building from rising as it did after the last war. The post-war building job as a whole is being studied in its broadest aspects, so that a balanced national programme will be ready. The position of supplies of building materials or reliable substitutes is also being considered. Houses rank among the most important items in the post-war programme.

Even the ponderous machine of the State has been affected by the keen PUBLIC DESIRE TO SAVE HISTORIC BUILDINGS said Lord Esher, presiding at the annual meeting of SPAB. But, he said, it seemed to him that the Government, instead of having an eye on the main chance, has an eye so firmly fixed on the voters that it cannot come to a decision, and the Barlow, the Scott, and the Uthwatt reports get dustier every day in their forlorn pigeon-holes. He felt the country is well ahead of Whitehall in these matters. In provincial towns, Lord Esher went on, civic and preservation societies are being formed, and in London the formation of the Friends of the City Churches will give satisfaction. Churches, like other charitable institutions, are not insured under the War Damage Act, and so far as he could see, the only hope of repairing the damaged churches would be by the sale of the sites of those destroyed. A very complicated and difficult adjustment will have to be made in deciding which sites can be sold having regard to the claims of open spaces and the proper preservation of the lovely isolated towers. The society has suggested to MOW that some form of practical demonstration should be given for the benefit of architects of the craftsmanship of repair both of damaged surfaces and structures. Professor A. E. Richardson said that soon there will be proposals to commemorate the victory of the United Nations, but the fewer memorials the better. Something would be demanded, however, to commemorate the epic battle of Britain, and what better plan could be adopted than in the treatment of the amenities of St.

Paul's? Commercial buildings in the vicinity of St. Paul's should be kept as far away as possible, say, about an eighth of a mile. The open spaces, with appropriate colonnades like those of Bernini in Rome, would act as screens to the traffic, and the new buildings round the cathedral would at once become the great monument to the Battle of Britain and the centre of the Empire.

In the House of Commons on May 18, Mr. McKinlay asked the Secretary of State for Scotland the COST OF THE TIMBER HOUSES BUILT IN FORTH, Lanarkshire, by the Scottish Housing Association.

Mr. Westwood: The average cost of the houses, including connections to water mains, etc., is £507. There are 120 houses, 56 of three rooms, 44 of four rooms and 20 of five.

★

At a meeting held last week the Council elected MR. PERCY E. THOMAS, PRESIDENT OF THE RIBA, in succession to Mr. W. H. Ansell, who has resigned the office.

Mr. Percy E. Thomas, O.B.E., has already served as President in the years 1935-37. Fifty-nine years of age, he is a Cardiff architect who has been responsible for the design of important public buildings in many parts of the country. He was the second provincial architect to fill the Presidential Chair of the RIBA. During the present war his energies have been entirely devoted to the public service, and he has occupied important positions under MOS. He was awarded the Royal Gold Medal for Architecture in 1939. In the last war he served in the Artists' Rifles and the Royal Engineers, and ended as Staff Officer to the C.E. XIIth Army Corps in France. He is now Lt.-Col. commanding the 22nd Battalion of the Glamorgan (Cardiff) Home Guard. A portrait of Mr. Percy Thomas appeared as the frontispiece to our issue for July 30 last year, when he was appointed Regional Controller for Wales by the Minister of Production.

Mr. Percy Thomas, the new President of the RIBA. He served as President in 1935-37.

THE LCC PLAN

DEMOCRATIC government is based on the concept that men are born free and equal with equal rights before the law. In every democratic country there has been a long struggle to establish that concept. It was brutally trampled down by the countries we are now fighting. They seized their opportunities when unplanned democracy, losing its unifying philosophy in economic and spiritual confusion, was shaken to its very foundations.

For in its evolution what, rightly or wrongly, we have been calling democracy sowed the seeds of chaos. Free enterprise allowed the development of powerful groups each seeking its own interests, often at the expense of other groups. As a result the history of the last fifty years shows the growth of an ever-succeeding number of Government controls, of a constant negation of many things for which people were striving. This is as true in the field of town and country planning as in the wider field of economic planning. We had almost reached that unhappy state of affairs when our every action broke some law or minor law. Freedom of action was, in fact, coming to mean freedom of inaction.

Chronic unemployment, uncleared slums, the slaughter on the roads, the spoliation of our countryside are but chapters in a long story. But now people are beginning to understand the real meaning of these chapters, to know that they were stupid and unnecessary. Gradually they are coming to see that with unity of purpose the nation with powerful and dynamic democratic action can end them—and that it will have to make plans to do so. Positive action, already promised by the Government, can alone make sound planning possible. Positive action must mean direction as to where, when, and how to build, and then assistance, both legislative and financial. Decisions must be made from year to year or from four years' plan to four years' plan. The direction must not come from public officers working in secret nor from powerful group interests. The needs and aspirations of the people must be the guide for all who plan. But planning means looking ahead. It cannot be done in a hurry. That is why we must make sound outline plans now for the peace that will follow the war. That is why the LCC is to be congratulated on the thoroughness and boldness of the scheme it has prepared.

In 1941 after the prolonged bombardment of our towns from the air the outlook for planning improved. For the first time public interest grew to significant dimensions. People were able to visualise the remodelling of decayed areas in the towns where these had been cleared overnight. The Government responded to public pressure and charged Lord Reith, then Minister of Works and Buildings, with the task of studying the problem of physical reconstruction. He committed the Government to a policy of positive action, appointed the Scott and Uthwatt Committees, and asked Local Authorities in areas which had suffered damage, to

plan boldly. Early in 1941 he asked the LCC to make a bold outline plan for the redevelopment of the County of London. The LCC requested Mr. J. H. Forshaw, its chief architect, to prepare such a plan and in addition called in Professor Patrick Abercrombie to act as consultant.

To carry out such a task, time and an adequate staff were needed: the LCC already had in its various departments vital figures, statistics and maps. It has taken two years to prepare the scheme,* and this was possible, despite war-time difficulties, because the architect was able to gather together a well-balanced team in which youth, age, imagination and experience were well blended. The first steps were to investigate and collate existing material and to make many new studies in collaboration with other LCC departments, the various local authorities, Government departments, the railway companies, the port authority, outside experts and public bodies. Gradually, by piecing together evidence, assessing the merits and demerits of a variety of solutions, a key plan for future development was set down. It is of necessity broad in scale, as further study in great detail will be required if the key plan becomes a sequence of projects, each a part related to the whole. But this development plan is the most comprehensive and carefully considered of its kind that has yet appeared in this country. It blazes a trail in more senses than one. Inevitably it will be compared with other plans for the same area; for professional groups, with the advantage of freedom from the cares, the legacies and the responsibilities of the LCC have already shown their schemes to the public. But despite the fact that the LCC plan shows every respect for London as it is, it is as bold and imaginative as any and, what is more, is eminently practicable. And now the plan, which has been examined in detail by council committees, goes before the full Council of the County of London. The Council will not approve it as something final but will send it to the Minister of Town and Country Planning, the Minister of Transport, the Corporation of the City of London, the Metropolitan Boroughs and other bodies affected whose views as well as the public reactions will assist the Council to formulate its policy. The most important aid to the formulation of policy must come from the Minister of Town and Country Planning. He will soon have in his possession an outline plan for the London Region, which Professor Abercrombie is preparing for him, and it is to be hoped before long a sensible and imaginative plan for the City. But even more important than his views on Metropolitan London must be his declaration of policy on the Uthwatt Report. Without adequate powers whereby land may be acquired for an increasing range of essential public purposes, at reasonable speed and at non-ficticious prices, London and the LCC can only go on as before the war with a continued and alarming increase of London's planning problems.

*_County of London Plan_, 1943. Prepared for the London County Council by J. H. Forshaw and Patrick Abercrombie, with a foreword by Lord Latham. (Macmillan, 12s. 6d.).

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

NOTES & TOPICS

COUNTY OF LONDON PLAN

Will those who agreed with G. M. K.'s review of the LRRC plan in the JOURNAL of June 10, apply the criticisms he made to the County of London plan? In some respects the plans are similar, particularly in the principle of breaking up the town into precincts. In place of the Kenyon eggs, we now have the Forshaw-Abercrombie eggs. The main difference seems to be, however, that the F.-A. eggs have been more carefully laid in one basket.

★

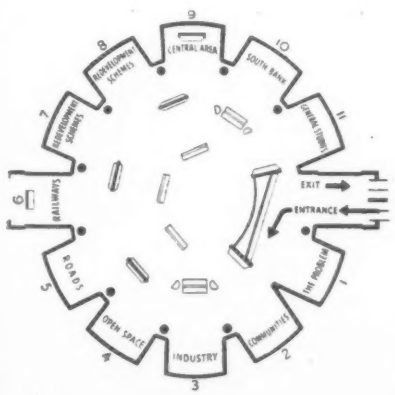
In the County plan, a far more thorough analysis has been carried out, which is, of course, to be expected from the greater resources and access to statistics which the LCC team possessed. A balance between all needs—transport, housing, industry, recreation and so on—has been sought. The whole County area does hold together in spite of the break-up into articulated community areas. But does it hold together sufficiently as a whole town? To what extent is the plan, in Mr. Max Lock's phrase, "cosmetic"? The County plan is certainly based on a scientific diagnosis, but is the objective clear enough? Has the diagnosis been carried to its logical conclusion? On the other hand, is an entirely new pattern based on a radical and ideal master plan a practical proposition? The combat between the various planning factions on this issue should be an interesting spectacle.

★

Within their premises, i.e. the

Members of the LCC architectural staff complete the large map which forms the focus of the exhibition of the County of London plan now on view at County Hall. The exhibition will remain open for a month. *See pages* 39 *to* 44, *and page* 46.

continuation of the political and economic *status quo* (though leaning far to the left), the compromise with the various local, railway and other interests involved, the lack of any clear national, regional or City of London planning, and the continuation of London as a great commercial and government centre, the authors of the County plan have made a splendid analysis of the problem and thorough, courageous and practical proposals.



Layout of the LCC exhibition at County Hall.

Professor Abercrombie, at the press conference at the County Hall last week, referred—if I remember his words correctly—to the MARS Plan as involving a clean sweep of existing London (an unfair criticism, the Martians would no doubt claim), unlike the County Plan which reconstructs London in an organic, living way. The MARS plan, he said, would astonish Lord Latham. To this Lord Latham replied that he found the County plan astonishing enough. Within accepted limitations the plan is certainly as bold, and yet as practicable as could be.

A WORD ABOUT WORDS

I am grateful to Mr. Arup for seconding my call for *A Simple Vocabulary of Planning* in his letter published in the JOURNAL recently.

★

He points out that though it is not always possible to give a precise definition of words such as planning, prefabrication, standardisation, an analysis of planning jargon is badly needed.

This confusion about words applies not only to planning in general but planning in particular. What, for instance, is a parlour? Judge Gordon Alchin at Edmonton County Court some days ago defined its former meaning as " a room seldom used, where they kept the aspidistra in an art pot." Evidence showed, however, that the parlour referred to in the case in question was " a room where the father did his woodwork, the mother made her puddings, the son did his studies, and the daughter learnt the piano."

★

Take the case of MOH's farm workers' cottages. Referring to the various criticisms that have been made about the cottages, a correspondent writes: " Much of it would be profitable comment, but for lack of precision in its terms which makes it difficult to be sure of its author's real meaning. How can you be sure you have seen the real point intended by the complaint that ' the scullery is too small ' when it is linked with the statement that ' most people cook and eat their

meals in the scullery?' You are at once in doubt. Don't they mean kitchen, or haven't they spotted the kitchen range in the living room? I suggest that uniform names should be agreed and used, thus :—

Living Room : A room where the family lives ; the general sitting room.

Dining Room : A room set aside for meals, having a permanent dining table and chairs.

Kitchen : A room where cooking is done.

Scullery : A room, containing a sink, in which dish-washing and the more messy food preparations are done.

Utility Room : With some diffidence—I suggest that this is only a vague name for the wash-house—but I do not know and would welcome correction.

If a room is designed for more than one purpose, it should be given a composite name, such as Living-room-Kitchen or Scullery-Kitchen."

★

The same trouble over words applies to the flats *versus* houses controversy. For instance, does the Town and Country Planning Association, which does not like flats at all, interpret the word flat in the same way that you do? Does Mrs. Hawkins, Mass-Observee, having spent her life in a slum tenement, look at flats with the same reactions as her Stockholm counterpart in her well-equipped HSB penthouse? There are flats and flats. A flat *could* be more pleasant to live in, more private, more sunny, more convenient, more spacious, less noisy, possess a larger garden (in the form of a terrace), contain more and better equipment and be more suited to family life than a house—but that, of course, depends on how you interpret the word house. For the most succulent red herring, give me the flats *v.* houses squabble.

★

A pathetic amount of unnecessary trouble and confusion is caused by uncertain or different interpretations of the meaning of words, as you will gather by reading that remarkable book called *The Tyranny of Words*, by Stuart Chase. In planning, as in most other matters, we surely need to take the advice of Hobbes :—

"A man that seeketh precise truth had need to remember what every name he uses stands for, and to place it accordingly, or else he will find himself entangled in words, as a bird in lime twigs, the more he struggles the more belimed. And therefore . . . men begin at settling the significations of their words ; which settling of signification they call "definitions" and place them in the beginning of their reckoning."

ASTRAGAL

LETTERS

Louis Erdi
W. H. Ansell, P.R.I.B.A.
Judex

Prefabricated Homes

SIR,—It is known by now that within one or two years of cessation of hostilities 3-4 million houses will be needed. This with a decimated building industry, which at its best in pre-war years was only capable of an output of approximately 300,000 dwellings per annum. Add to the above number the low estimate of 150,000 houses yearly necessitated by the increase of the population, the multitude of essential communal and commercial buildings as well as the necessary repairs to damaged buildings, and it might be seen that the building industry will not be able to provide even during a long drawn out period more than a small fraction of the immediate needs.

On the other hand, the failure of the Government to produce the so much discussed agricultural cottages quickly, efficiently and cheaply, may well prove to be an indication of things to come in the post-war period. Thus we will be faced with a grave problem and neither the industry nor the Government will be able to solve it.

As already realized in many quarters, the obvious reply is acceptance of industrial methods in building houses. Whether the public likes it or not, if the nation is to have decent homes within a reasonable time and which it can afford to pay for, these homes must be prefabricated on an enormous scale surpassing anything that has been done up to date even in the USA.

Our industry has almost no experience in prefabrication of dwellings and, apart from a very limited number of progressive firms who are making some research in this direction and a few schemes on paper, nothing seems to be done. Under these circumstances it is most distressing to see an opportunity such as the prefabrication of 3,000 houses would offer and which is very unlikely to occur again should be lost by a shortsighted policy.

The statement of a responsible Government official that these cottages do not represent the ideal English post-war home, renders them almost ideal for an experiment of this sort. Financial risks would be kept to a minimum for experience shows that even if not mass produced, prefabrication methods are no more expensive than conventional ones. On the other hand, there certainly would be a guarantee that the cottages would be ready at an early date and pre-fixed price, and many an official would be relieved for other important work.

Using this opportunity means having a good number of firms ready to start building immediately after the war in a few systems proven to be satisfactory in every respect. Losing it means a probable delay of years, and consequently slums and all the evils attached to such housing conditions.

London. LOUIS ERDI

British and Soviet Architects Exchange Views

SIR,—The RIBA recently received a cable of greetings from Professor Arkin, one of its Honorary Corresponding Members in Moscow, in which he suggested a "regular exchange of opinions and knowledge gained by experience" between British and Soviet architects. The RIBA has already sent full sets of the Reconstruction Committee's Reports and other Institute publications but we are eager that British architects individually and the authors and publishers of architectural books and architectural research and study institutions should do all they can to help us to fulfil our part of this exchange. We have ample evidence from Professor Arkin's cable, from news of the reception of the recent British Architecture Exhibition in Moscow and from other sources of the present Russian interest in British architectural achievement. Particularly it seems they are eager to learn about British housing, past and present, and of our plans for post-war housing and town and country planning.

The RIBA hopes that in the future we may be able to receive a regular supply of Soviet architectural publications, so that we may not be lacking in information on their building and planning activity.

By means of such an exchange—which as many members know, we have effectively established, to our great benefit, with our American colleagues—not only may we help to cement formal relations between the British and Soviet professions as represented by the RIBA, the Soviet Academy of Architecture and the Union of Soviet Architects, but we may be able to achieve a fruitful and intimate contact between architects in our two countries which will contribute directly to the better fulfilment of our tasks now and in the future.

Material for transmission should be sent in the first place to the RIBA, who will arrange for it to be forwarded to Moscow with the co-operation of the Soviet Embassy Department of Cultural Relations.

London W. H. ANSELL

Architects' Salaries

SIR,—It is good to see the live interest aroused in this burning question. This is a matter which vitally concerns everyone. Architects are being exploited by public authorities. They are offered dustmen's wages for professional services. An era of world-wide reconstruction will soon be upon us, and something must urgently be done.

Let the Association of Building Technicians compile and issue one of its pamphlets giving all the relevant facts, such as present salaries paid by various Government departments, public authorities, etc. This should also include the scale tabulated by the RIBA some years ago. From this comparison it will be seen how lamentably far short they all are. A comparison might also be made of what other building technicians receive, such as civil engineers, quantity surveyors and so forth ; we might be able to help them, too.

Proper payment for services rendered is the acid test of sincerity.

Aberdeen. JUDEX

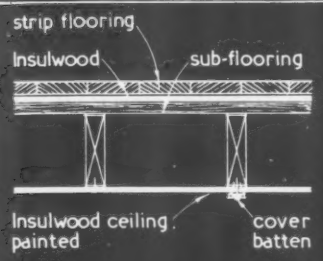
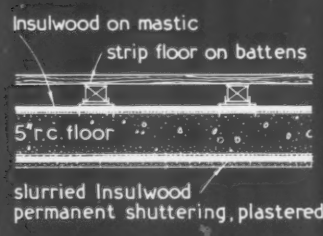
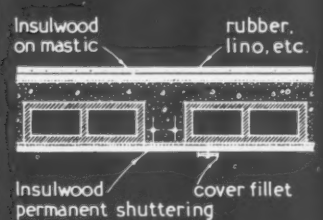
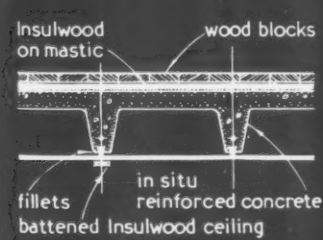
059

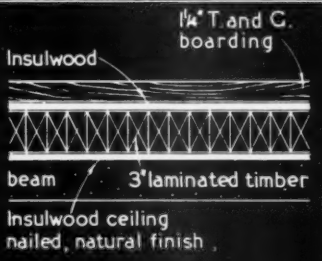
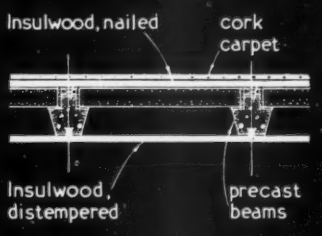
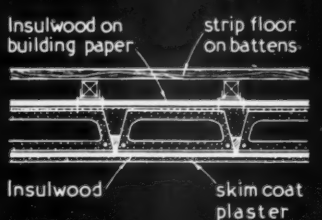
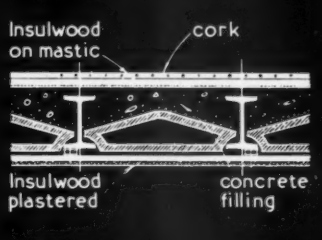
43

059

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

CONSTRUCTION AND COMPARATIVE EFFICIENCY OF INSULWOOD THERMALLY INSULATED FLOOR

STRUCTURE	THERMAL TRANSMISSION B.Th.U./Sq.Ft.	HEAT LOSS B.Th.U. 1,000 sq.ft/hr. 20° temp.diff.
 (A) TYPICAL TIMBER JOIST FLOOR CONSTRUCTION.	0.15	3,000
 (C) TYPICAL R.C. SLAB FLOOR CONSTRUCTION.	0.17	3,400
 (E) TYPICAL HOLLOW TILE FLOOR CONSTRUCTION.	0.20	4,000
 (G) TYPICAL IN SITU OR PRE-CAST TEE BEAM FLOOR.	0.16	3,200

STRUCTURE	THERMAL TRANSMISSION B.Th.U./Sq.Ft.	HEAT LOSS B.Th.U. 1,000 sq.ft/hr. 20° temp.diff.
 (B) TYPICAL LAMINATED SOLID TIMBER FLOOR.	0.12	2,400
 (D) PRECAST R.C. FILLER JOIST AND BEAM FLOOR.	0.15	3,000
 (F) TYPICAL PRECAST R.C. BEAM FLOOR.	0.15	3,000
 (H) TYPICAL FILLER JOIST AND HOLLOW TILE FLOOR.	0.14	2,800

Issued by P.I.M. Board Co. Ltd.

43 INFORMATION SHEET: FIBRE BUILDING BOARDS 6: THERMAL INSULATED FLOORS. Sir John Burnet Tait and Lorne Architects One Montague Place Bedford Square London WC1

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET
• 902 •
BUILDING BOARDS
No. 6

Subject : Thermal Insulation ; floors.

General :

This Sheet is the first of a group giving typical comparative thermal transmission values for various forms of floor, wall and roof construction, and deals with insulated floors 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 in the left-hand column represent the calculated thermal transmission of the structure for 1B.Th.U./1 sq. ft./1 hr./1°F., and the figures in the right-hand column give the 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 ensures 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.

Previous Sheets :

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

Issued by : P.I.M. Board Co., Ltd.
Address : Sunbury-on-Thames.
Telephone : Sunbury-on-Thames 341.

A simplification of the communities and open space survey, showing the existing main elements of London. Around the centre, consisting of the Port, City and West End, are grouped the residential communities. The major open spaces and industrial concentrations are also shown.

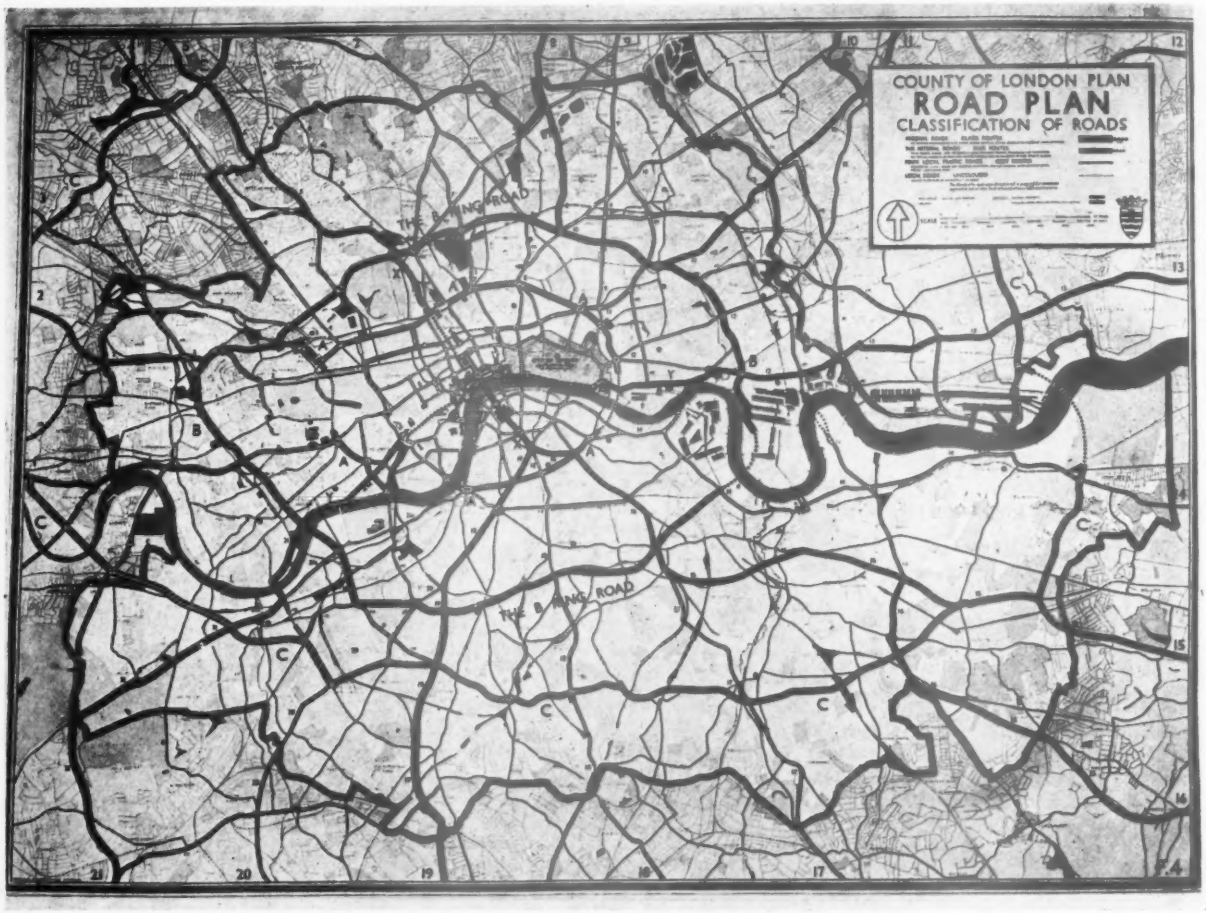
COUNTY OF LONDON PLAN

The County of London Plan, after two years' labour by Mr. J. H. Forshaw, the Council's Architect, Professor Patrick Abercrombie, and their team, is now before the public both in the form of a book (Macmillan, 12/6) and of an exhibition which opened yesterday at the County Hall. A special contributor here explains and comments on the plan which has been described by Lord Latham as "the greatest study of how to plan a vast city that has ever been attempted."

The County of London Plan was made public yesterday. It is an event of outstanding importance. Never before in the history of planning in this country has local government risen so nobly to one of the most urgent tasks before this generation. Never before has it been so well served by a real planning team. Before this plan was completed the public had been greatly confused about what planning implies. Now all who can read have before them a magnificent treatise, a text-book on planning, and a key to the solution of the most difficult planning problem in the country. By publishing this work the LCC has placed the ball fairly and squarely into the court of the Ministry of Town and Country Planning. It is for the Minister to return it with compliments. It is for Parliament and the people to determine that the game shall produce results.

The subject of this Plan is the County of London, with an area of 116 square miles, and an estimated population in 1937 of 4,053,620. The planning authority is the London County Council. The small area in the middle of the map known as the City of London is not dealt with in the Plan, the Corporation of London being its planning authority. Together the two areas of the City and County make up the Administrative County with about 832,000 dwellings, although the built-up areas extend far beyond into the surrounding counties. The area covered by the London Passenger Transport Board is a vast 2,000 square miles in which 9¾ million persons live.

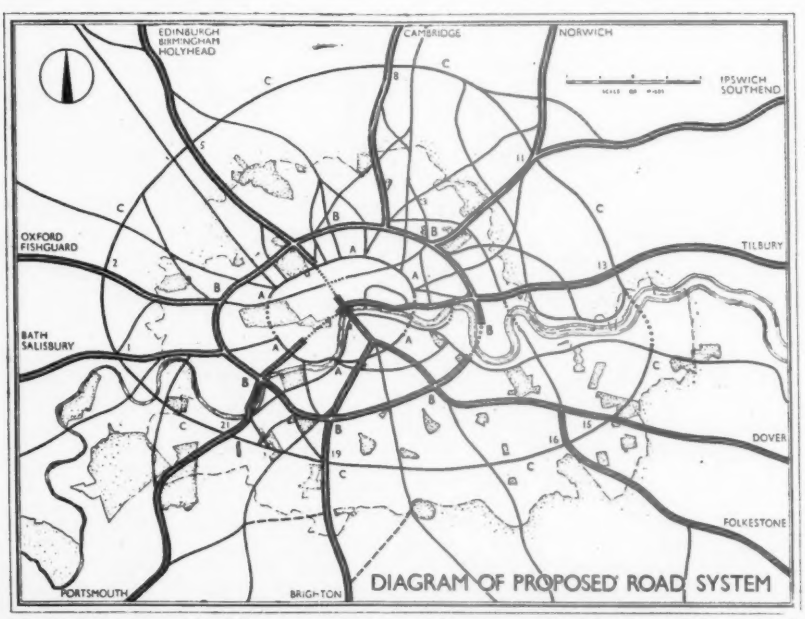
The plan has been prepared essentially for the people of London. First and foremost they have been in the minds of the authors. In the words of Lord Latham " they have not forgotten that people must continue to live and work in London, and that as soon as the war is over there will be urgent housing and other problems which will rank high in the



order of priorities. They have shown themselves practical visionaries. Their proposals are bold and far-reaching, but also flexible, because in their humility they are acutely aware of the limits of human foresight. The plan provides for short-term needs and long-term possibilities, in order that urgent things may be so done that they form part of the whole conception, even if it may have to be modified as the future unfolds." These are words of wisdom, and should be weighed carefully by those who would put us all into a strait-jacket of Renaissance facades and vistas. Lord Latham describes the new conception that the plan should be as much alive as the city, the growth of which it should direct for the benefit of all the citizens. It is a vastly different concept to that which prevailed officially before the war.

The younger planners, many of whom are now in uniform and actively engaged in carrying out the greatest plan of the moment, will fully agree with the authors in their statement that before the war "there was no effective plan, though there was much activity in the preparation of active planning schemes both within and without the County boundary. In fact, London at that period might be described as more planned against than planning; the inadequacy of the powers of local authorities, the restricted scope of their financial abilities and the lack of co-ordination from a regional or national standpoint between the schemes of individual authorities, all combined to impair mortally the effectiveness of what was attempted. These limiting factors still remain but the proposals now presented are framed on the confident assumption that the new conception of planning implicit in the reports of the Barlow Commission and of the Scott and Uthwatt Committees and in the pronouncements of various Ministers of the Crown, will be translated into law."

The authors in their approach to the problems made a fundamental decision. They rejected the idea that London could be laid bare and rebuilt on a theoretical paper pattern. They turned down as impractical the whole-hog decentralizers' plea that London should be disbanded and rebuilt as so many garden cities over the South of England. After investigation they discovered the living and organic structure of London, still persisting in spite of overgrowth and decay. They found it to consist "of a collection of units or communities, fused together; though their boundaries may have been lost, their centres are often clearly marked, having descended from ancient villages; and in addition to the physical grouping there is a strong local loyalty to each community whether large or small." They found a city of people—the real London.



The road pattern consists of three concentric ring-roads and a number of major radial cross-roads. The arterial roads have no side-street access. Top: road plan; above: road diagram.

COMMUNITY PLANNING

As one of the first objectives they set themselves the task "to disengage these communities, to mark more clearly their identities, to preserve them from disturbing intrusions of through traffic and generally to reconstruct them where reconstruction is necessary owing to war damage or decay." The process of preserving, restoring, and re-creating these communities would be truly organic. In the Report it is "likened to the grafting of a new, vigorous growth upon the old stock of London." The LCC plan is "designed to include the best of existing London, to enhance its strongly marked character, and to respect its structure and spheres of activities, but at the same time, and drastically if need be, to remedy its structure and defects."

One of the drawings boldly shows a carefully considered social and functional analysis of London. In this the many disengaged communities are seen in their relation to the Port, City, West End and Government Centre.

The various parts are seen in relation to the whole. With this as a basis the planner is able to appreciate the area he is studying in proper perspective and so devise his proposals that each one improves the whole and at the same time increases the efficiency, convenience and beauty of each part.

TRANSPORT—SERVANT OF THE PEOPLE

This is illustrated by the modifications of Bressey-Lutyens Road Plan which are proposed. Due to limited terms of reference the authors of this road plan were not able to examine the human and historical London. Their only objective was to increase the mobility of traffic in and about the Metropolitan area of London. As a result they produced a solution of the traffic problem which would tend further to break down London, the organism. Transport would have been strengthened as a master of the people instead of servant. This limited, as opposed to comprehensive, planning nearly always puts the cart before the horse, or in this case perhaps, the body before the engine. For the Bressey-Lutyens proposals the LCC planners make due acknowledgment. They fully appreciated the importance of such a study. They used it to advantage and modified the proposals in the light of all the other factors disclosed, producing a comprehensive road plan, similar in structure to the Bressey-Lutyens, but vitally different because of its complete and harmonious relation to the whole pattern of development proposed. Transport would not dictate future development as it has in the past but would be an essential part of it. It would be the servant of the people and not the master.

That this is no exaggeration is evident by a study of the maps. It can be seen that the main traffic ways do not cut through the functional units within the plan but pass between these units, outlining and emphasizing them instead of further destroying them. Such a solution not only preserves and enhances the integrity of the various parts of London but it immediately clarifies the whole traffic system. For many years Mr. Alker Tripp, Assistant Commissioner of Police at Scotland Yard, has advocated such a clarification. In normal times he has to cope with the control of London's traffic and therefore speaks with highest authority. Once through traffic is canalized in routes free from abutting development the battle is half won.

In planning the road system the objectives set were :

(1) The improvement of traffic circulation.
(2) The segregation of fast, long-distance traffic from traffic of a purely local nature.
(3) A reduction in the number of accidents.
(4) The maintenance of existing communities free of through traffic or, where such roads already pass through them, the provision of alternative routes between communities.

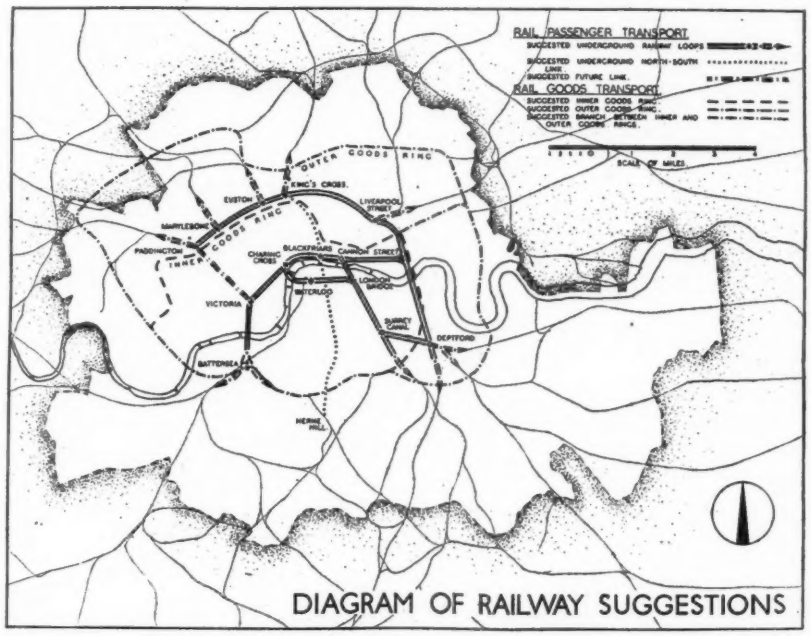
Nondescript roads would be eliminated, so far as possible, and a road classification is proposed as follows :

(1) *Arterial roads.* No riparian frontages or side-street access ; parallel service roads with access at long intervals.
(2) *Sub-arterial roads.* Main traffic roads in the built-up area—not necessarily long distance ; frontages not forbidden but service roads to be provided where possible, and the majority of side streets closed.
(3) (*a*) *Major local traffic roads.* Includes all existing Class I roads not absorbed by the proposed arterial and sub-arterial system, and new local roads in the central area.
(*b*) *Local roads.* Serving residential, business, industrial areas, etc.
(*c*) *Park roads.* Limited to certain types of traffic and intended mainly for leisure purposes.

In order to bring the present street network into conformity with the principles established the main proposals in the road plan are as follows :

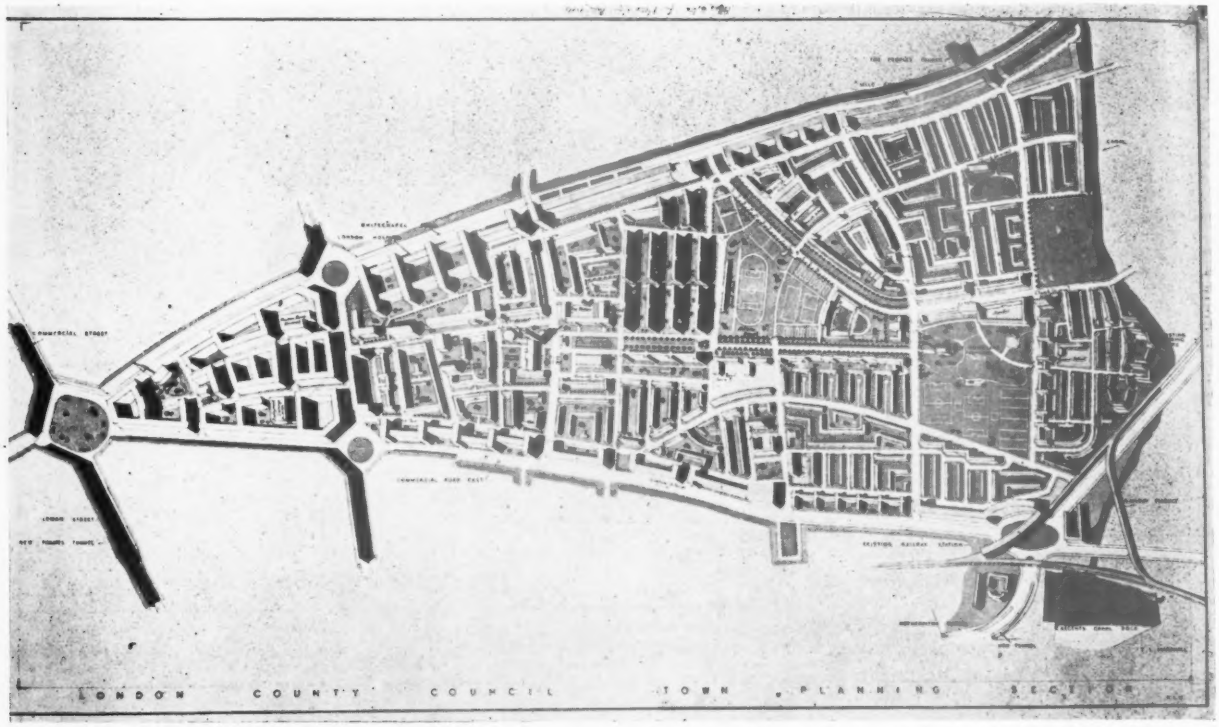
(1) The arterial road system, comprising :
(*a*) The B ring-road for fast traffic.
(*b*) The main cross routes, X north to south, and Y east to west.
(*c*) The arterial radial roads, ten in number.
(2) The sub-arterial road system, comprising :
(*a*) The A ring-road.
(*b*) The C ring-road.
(*c*) The sub-arterial radial roads, ten in number.
(3) The sub-arterial cross-connecting routes, 23 in number.
(4) New major local traffic roads in the central area.

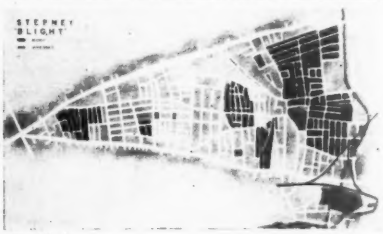
The B ring-road would serve as a by-pass to central London. It would relieve the congestion at the hub. Eighteen of the twenty-eight boroughs would have immediate access to it. It passes through less densely populated areas than the A ring-road, and through areas



The railway suggestions. These include (i) *the electrification of all lines leading into London from selected points within the outer-London region ;* (ii) *when new terminals are designed, the use of different levels made possible by electrification, with suburban lines taken underground and flat roofs for future air landing ;* (iii) *improvements to the northern terminals including combining St. Pancras with Euston.*

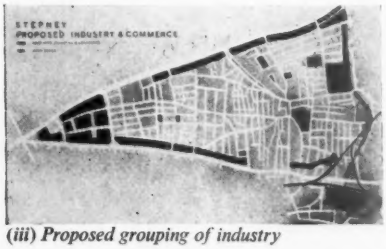
A diagram of the development and zoning plan, showing location of industry, general business, special users, special government area, open spaces and social communities.





(i) *Blight*

(ii) *Existing industry*



(iii) *Proposed grouping of industry*

(iv) *Proposed grouping of residential areas*

Above: axonometric view of a suggested layout of an area in Stepney between Mile End Road and Commercial Road East. Housing is based on a net density of 136 persons per acre. There is a mixture of multi-storey flats and terrace houses. Left: (i) *Stepney Blight; a survey showing the pre-war limits of blight due to deterioration and overcrowding. The whole area would eventually be redeveloped.* (ii) *Existing industry. Commerce and industry are scattered and factories are mixed indiscriminately with houses and schools.* (iii) *Proposed grouping of industry adjacent to main traffic roads, thus freeing the residential roads from heavy traffic.* (iv) *Proposed grouping of residential areas into three self-contained neighbourhood units.*

which it is suggested should be given first priority for post-war reconstruction because of bomb damage and obsolescence. In the design of the road, when it is actually carried out by stages, it is to be hoped that there will be a finer solution in detail than the proposal embodied in the Report, namely, that it should be flanked by twin service roads. Turning into and out of these service roads would cause minor traffic friction; they would detract from the simplicity and nobility in design which can be achieved in laying out twin ribbons flanked only by a buffer park strip (however small the latter might be); and they would be quite unnecessary in an entirely new cut through obsolescent property, as buildings on the line of the road would have to be pulled down. New abutting buildings could back on to the buffer park strip and be approached from local precinctal roads.

In proposing the X and Y arterial cross roads, the planners have disregarded, and quite rightly, those who advocate ring roads, and roads radiating out from the rings, as the complete solution to the road problem in the heart of our towns. If the heart is to remain a vital collection of important buildings, it is essential that it should be served by fast through traffic-ways. Courageously the authors propose that the arterial cross roads should pass through tunnels in Bloomsbury and Westminster. Without these tunnels the roads would be difficult to achieve and, if they were achieved, would badly wound the University and Governmental precincts.

The most important roads in the country radiate from London and so does the main railway network. The railways are a major feature of the country's transport system, and on them flows industry's heavy raw materials and products, and the great bulk of long distance passenger transport. Within the Metropolitan area the London Passenger Transport Pool achieves a daily miracle in handling, with a high degree of efficiency, the millions of workers and visitors. The bombing and destruction of 1940–41 did not succeed in putting the complex system out of order. However, the railway system both under and above ground is in serious need of replanning if it is to become a more integral part of a transport plan for London. Among the more obvious defects to be remedied are the overhead lines carried on embankments and viaducts, which destroy the amenities of vast areas, the out-of-date terminal stations, and the large sidings which use up valuable land in central positions.

The authors propose a railway framework conforming to the general requirements of the Plan and based largely upon suggestions for improving the existing services and routes, but including the addition of new underground facilities to take suitably equipped rolling stock. It is suggested in the Report that a specially-appointed investigating body should consider the following:—

(1) Electrification of all lines leading into London, both main and suburban, from selected points (as may be most practicable) within the outer-London region, together with the provision of suitable traction for goods transport.

(2) When new terminals are designed, the use of different levels made possible by electrification, with suburban lines taken underground and flat roofs for future air landing.

(3) Where practicable, suburban traffic should be connected with the tube system and express lines provided.

(4) With a view to the avoidance of traffic congestion, the sub-traffic in main line terminals should be separated, where possible, from the main-line traffic.

(5) With a view to the elimination of some of the overhead approach lines to stations within the A ring-road, it might be desirable to investigate the possibility of constructing two separate deep-level tracks, both operating on the loop principle and affording interchange facilities at stations on the routes; together with an independent north-south tunnel connection between the existing surface systems.

In making their railway proposals the authors

have made the right use of land their first consideration. The æsthetic question, over-emphasized by so many, has been a secondary consideration. Great areas are strangled by the railways, and the potential site value of the area so strangled is enormous. The strangulation is particularly deadly on the South Bank. In the Plan it is shown that this could be made comparable, in every way, with the North Bank, provided it was freed from the tangle of overhead railways. It is suggested that the south-western and south-eastern lines should be brought down into tunnels to house normal rolling stock. The great prospect which could be opened up if the loop round Southwark Cathedral were swept away is striking. On the north bank of the river an important suggestion is that the riverside stations at Charing Cross, Cannon Street and Blackfriars might be replaced by underground stations below their present sites and the three connected on an underground loop system. To the south-west this system would run to Victoria and thence under the river to connect up with the south-western system. To the south-east the connection would be via Shadwell Junction, thence under the river to Deptford. Other underground passenger links between main stations are suggested, and also an inner and outer goods ring.

REHOUSING THE PEOPLE OF LONDON

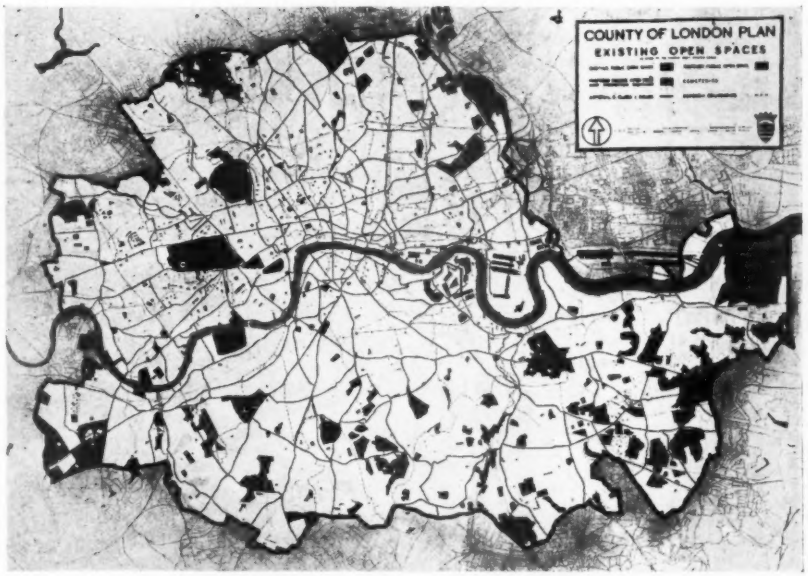
In proposing plans for the rehousing of the people of London, the authors do not evade the Houses *v.* Flats issue. They examine the pros and cons; existing conditions, both residential and industrial, are the vital factors. With the density figures finally adopted they conclude that nearly 600,000 people would leave the County, together with industrial concerns which would provide employment for the wage-earners in that 600,000. Chiefly because of the limits of industrial decentralization, which will not allow low densities in the central areas, the Plan shows a revolutionary scheme in density zoning. The marked tendency in statutory schemes has been to zone residential areas for a density approximating to the existing density. The result has been that existing high densities were maintained on land which is low-lying and poor in amenities and low densities prevailed on high-lying land or that near parks and open spaces. It is courageously suggested that this should be reversed in principle.

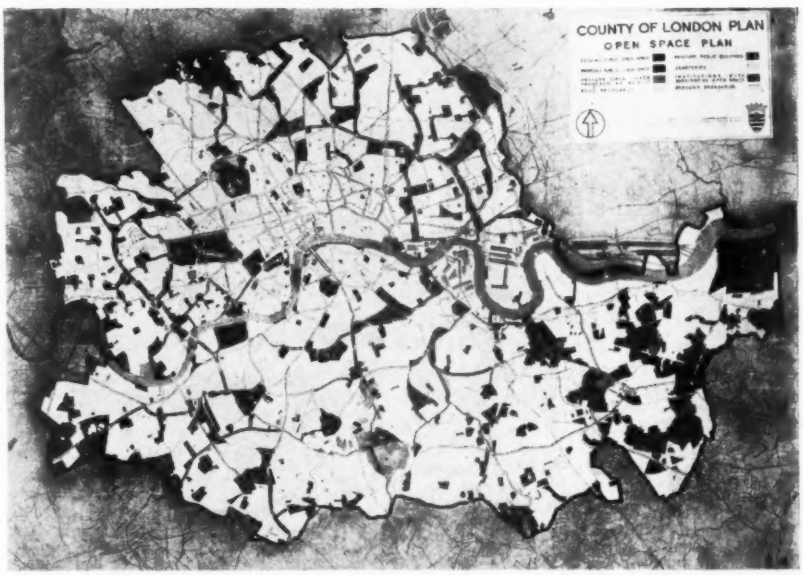
Only three density zones are proposed, with the ring roads as approximate limits. This classification of density zones would greatly simplify statutory procedure. The densities would be 100, 136 and 200 persons per net residential acre. These densities would not make any discrimination between houses and flats, as has been usual so far. They indicate the maximum number of persons per acre who theoretically can be housed as the authority or builder wishes. Though it would not be possible to provide for houses everywhere, as this would lead to unsatisfactory types and site planning, the authors have worked out several trial schemes in which the maximum proportion of houses has been included and flats have been kept high, with the object of freeing more ground space about the dwellings.

OPEN SPACE

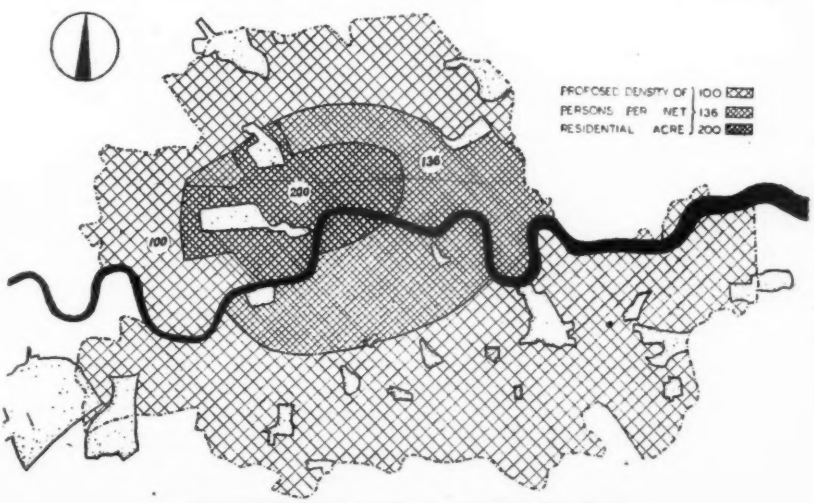
A co-ordinated plan of open spaces for the whole area is proposed with the object of providing the minimum local needs for each London Community. The proposed standard of 4 acres per 1,000 of population is something rather less than double that which exists to-day, but it would mean a great increase of amenities in certain areas. Better distribution of open space is the key to this part of the Plan, for it was found that while some boroughs were amply supplied with parks and playgrounds others were incredibly deficient. Shoreditch, for example, has only 0.1 acre per 1,000 residents.

It is pointed out that the river Thames is the largest single open space in the County. At present access to the river front is very limited. Of a total river frontage in the County, of 39.3 miles, less than one-tenth is

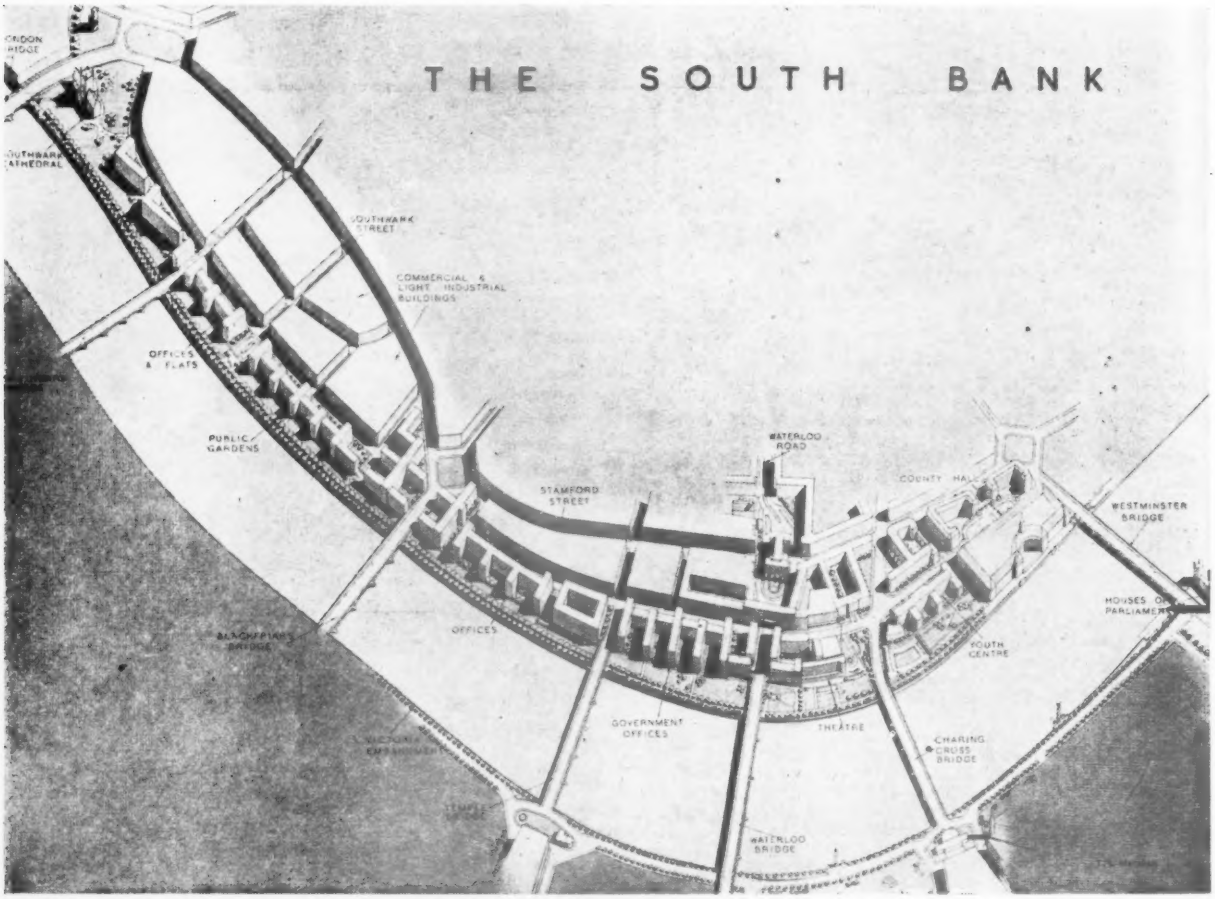




Plans of existing and proposed open spaces, public and private. Existing open space is 2¾ acres per 1,000 of the population; the proportion proposed is 4 acres per 1,000. The new open spaces would be linked with those existing to form a co-ordinated park system related to the new road plan.



Proposed density of population per net residential acre.



Axonometric view of the suggested treatment of the South Bank. The existing embankment in front of County Hall is continued to London Bridge with a planted riverside treatment, equipped with cafés, bandstand, shelters and a swimming pool. New buildings front on to this open space.

used for open space to which the public have access. In contrast over seven-tenths are used for industry. In six boroughs, including those in the East End and on the South Bank, there is no public access to the river front. The Plan proposes that each riverside borough should have such access and that, eventually, 30 per cent. of the river frontage shall be used for open space amenity.

In the immediate post-war years, one of the main tasks set by the Plan will be to provide open spaces in those areas which at present have an amount totally inadequate for the needs of the inhabitants—the East End, Islington, Finsbury, and the South Bank boroughs.

A proposal is made for a cultural centre on the South Bank, together with a series of fine riverside buildings. This would mean an improvement of the central reach of the river on a scale comparable to that of the Victoria Embankment.

INDUSTRY

In the Survey a remarkable analysis was made of London's industry. The extent of the growth of industry in the Greater London Region has been tremendous and that growth was accelerating immediately before the war. Between 1934–38 approximately 50 per cent. of all factories opened in the country, and more than 75 per cent. of the foreign firms, established in England between 1931 and 1935, were located in the London region. Within the region, however, decentralization is taking place and will continue to do so. This in future must be controlled and related to a planned decentralization of population.

The industrial planning within the County foreseen by the Plan will involve the grouping of the larger industries; the concentration in depth of industries which at present occupy valuable waterfront and have no need to be there; and the picking-up of the "peppered" small industry in residential areas to regroup in small estates of tenant factories. In some of the reconstruction plans included in the Report, methods of doing this have been tentatively worked out.

PERIOD PLANNING

The authors have concluded that the best method of carrying out the many proposals of the Plan is by building them up into stages of development covering a long-term programme of, say, 50 years. They indicate broadly the requirements of this method in operation, emphasizing the first period or short-term programme of positive reconstruction that would follow immediately upon the cessation of hostilities. They insist wisely that the long-term development of the Plan must remain flexible, to meet the changing needs of progress and enable adjustments to be made without vitiating the whole scheme. They emphasize that the first period programme for the immediate post-war years must obviously contain more positive proposals so as to allow time for negotiations and the preparation of schemes. They issue the warning that unless decisions are made in time to enable schemes to be prepared and ready, with the suitable alternatives in reserve to meet calls for immediate action in other directions, shortage of materials or other circumstances might enforce the curtailment of even a limited programme.

They award highest place to housing in the first period programme of works. This they would see rebuilt in neighbourhood units, each one part of a larger community which in turn would be a major unit of London as a whole.

The property in the areas selected for priority operations fall, generally, into one or more of the following groups:

(i) Destroyed or severely damaged property.
(ii) Slums.
(iii) Semi-slums and obsolescent property.

Housing in the East End and South Bank boroughs would, therefore, have priority. Important development studies for parts of these areas are included in the Plan. With the first priority housing certain deficiencies in open space could be made good, and parts of the road proposals could be carried out.

If areas for redevelopment could be defined, as the Uthwatt Committee suggested, the first priority programme could be worked out in greater detail so that, when the peace came, the LCC, at least, would be ready to employ many of the people of London on the vital work of building homes.

THE FUTURE OF THE PLAN

The County of London Plan is of such a nature that it must live for a long time. It is young, it is vigorous, it is not set in any way. To keep it alive will not be difficult if the people of London make up their minds and set their hearts on maintaining their City as a worthy and ever-improving place for all to live and work and play in. They will need help from their County Government and the Central Government, but that must surely be forthcoming. One thing is certain. The authors of this Plan have done a great work for them. They have prepared a key plan which represents a framework, a set of principles, on which all could agree. There could be quibbles over details and criticisms of minor parts but they are no cause for disunity or inaction. Lord Latham's words in the foreword to the Report are an apt summing-up. He says: "I do earnestly commend this Plan to the people of London and, indeed, to all people of goodwill everywhere, for their thought, for their criticism, but, above all, for their enthusiasm, not necessarily for the particular projects in the Plan, but for the faith it embodies and the hope it inspires."

G.S.

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

1178 *Planning of Schools*

ON PLANNING THE POST-WAR SCHOOL. *J. E. Nichols.* (*Architectural Record: USA, March*, 1943). Post-war schools will take their places as integral parts of life of the community—not symbols of affluence and false culture. Classrooms designed for special functions. Schools as centres of health, welfare and recreation.

1. The old undifferentiated classroom will give way to specialized rooms with specialized equipment: tables, benches, sinks, filing cases, etc.
2. School buildings increasingly are becoming the headquarters for health, welfare and recreation. In smaller communities the school will also accommodate the public library service and serve as the local government centre. School buildings will be designed for sectional occupancy so that various parts (auditoriums, gymnasiums, shops, laboratories, libraries) may be used independently.
3. Schools will continue to extend downwards to include pre-kindergarten children and upwards to include junior college youth. Day care units will be added and there will be more emphasis upon shops of various kinds in order to provide experience in vocational work of a practical nature.
4. There will also be an extension in terms of time. The result will be an increase in the facilities for living within the school—resting, eating, washing, dressing, amusement and recreation as well as formal learning.
5. There will come an increasing tendency to break down the barriers between areas of subject matter. More attention must therefore be paid to *physical* inter-relationships which will permit and encourage proper *working* inter-relationships.
6. Probably the ideal school would be so nicely designed and constructed that it would serve faithfully and without failure for 10—15 years, and then "go to pieces all at once."

HEATING and Ventilation

1179 *Factories*

HEATING AND VENTILATING OF FACTORIES. *G. S. Whittaker.* (*Architectural Record, February*, 1943, *p.* 54). Describes equipment used in war factories; conservation of materials, saving time by unusual methods.

The peculiar problems posed by war-time factories are due to increased size of buildings, the conditions created by black-out and the need for conservation of certain materials. The demand for speed has necessitated the use of standard equipment in unusual ways.

One factory has no windows, necessitating special attention to ventilation. Supply and extract fans housed in light-tight enclosures were fixed at uniform spacings in the roof. Fresh air was introduced as near the floor as possible, the quantity being calculated to prevent inside temperatures being more than 10°F. above outside temperature. The fans ran all night, and the resultant cooling kept the inside temperature lower than the outside until late afternoon. In winter a smaller quantity of air warmed by steam coils was introduced.

Unit heaters mounted very high up have been used. High pressure steam reduces pipe sizes. Standardization of roof openings and types of fans, ventilators and dampers has lowered the cost of the equipment.

Where metal must be reduced to the minimum, direct fired brick furnaces have been employed. Air is blown through steel tubes bent to U-shape, and round the outside of which hot gases from the fire circulate. After leaving the tubes the air is led in underground ducts to appropriate spots in the factory. Air is withdrawn through grilles in the floor ducts and returned to the heater for re-heating. (This scheme is quite reminiscent of the *BRS War-time Building Bulletin, No.* 11).

Unit heaters and direct fired units have not been found satisfactory where uniform temperatures are necessary; plenum systems have then been used. Ducts are now fabricated exclusively of asbestos cement, plywood or pressed wood, using metal, if necessary, only for angles and corners.

1180 *Insulation Tests*

HOW MUCH INSULATION? *Don Graf.* (*The New Pencil Points, February*, 1943). Tests on value of varying degrees of insulation to houses. Experiments on timber frame houses, USA.

Four test houses exactly similar in size and construction but with varying amounts of heat insulation were erected on similar sites in St. Paul, Minnesota, USA. Insulation was nil in one house, and in the other was 0.9 in., 1.7 in. and 2.3 in. thickness of felted wood fibres in an envelope of asphalt saturated and coated paper.

The object of the experiment, which was carried out as far as possible under conditions of normal usage, was to see whether calculated savings of fuel were realized in practice. The k factor for insulation was 0.25 B.Th.U. per sq. ft. per hr. per °F. per inch thickness.

The houses were heated by forced warm air from oil-burning apparatus.

The 0.9 in. insulation saved 294.7 gallons over the uninsulated.

The 1.7 in. insulation saved 47.9 gallons over the 0.9 in. uninsulated.

The 2.3 in. insulation saved 9.2 gallons over the 1.7 in. insulated.

This result is striking, particularly when compared as a graph with the calculated savings in which the curve does not fall off nearly so rapidly.

There is an interesting analysis of the results.

1181 *RIBA Lecture*

HEATING AND VENTILATION. *A. C. Pallot, M.B.E., B.Sc., M.Inst.C.E.* (*RIBA Science Lecture, May* 8, 1943. *Fully reported in Architects' Journal, June* 10, 1943). Comfort conditions, effect of ventilation rate, insulation of buildings, provision for services in structure, local heating by open grates, stoves, combination units, gas fires, electric heaters. Central heating, panel systems, low pressure steam, high temperature hot water. Factory heating, hot air furnaces, pipe coils, unit heaters, plenum heating. Ventilation, plenum ventilation, air conditioning. Special problems in ventilation. Contains many figures for efficiencies, etc.

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.*

1182 *Action of Coke on Copper*

Q *I have been informed that a coke fire is very bad for a copper boiler. Is this so? I presume that it is the sulphur content that acts on the copper, but if sulphur is present in the coke it should also be present in the original coal. Can you explain?*

A More smell is given off by coke than by coal, which gives rise to the theory that the sulphur content is higher. This theory is not true, the sulphur content of coke is actually less than that of coal.

The Coal Utilization Joint Council state that coke, in itself, is less injurious that coal; it is non-volatile and gives more direct radiation. Coke can reach a higher temperature than coal and for this reason fire bars, etc., do sometimes deteriorate more quickly with a coke fire than with a coal one, but this should not occur if the fire is properly tended.

1183 *Anti-germ Screens*

Q *I understand from a doctor who has just returned from America that it is the practice there to form an anti-germ screen at the doorway of isolation wards in hospitals by means of an ultra-violet ray tube over the doorway. Can the Centre give me any information regarding this and say who are the firms to contact for the supply and fixing of the necessary apparatus?*

A Lamps which have been used in this country for this purpose were called *Sterilamps* and were of American manufacture. The lamps were sold in this country by a man who has recently died. It is too soon to say whether there is a surplus stock available and from whom they can be obtained. For further information we should advise you to write to: Mr. H. W. Groves, the Medical Supply Association, 167-173, Gray's Inn Road, London, W.C.1.

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.

LCC

Lord Latham

July 9, at the County Hall. Speech by Lord Latham, Leader of the LCC, at a press conference on the COUNTY OF LONDON PLAN, now on exhibition at the County Hall.

Lord Latham: What I would like to make as clear as I can is: In the first place, how the present plan came to be drawn up; secondly, the purpose of the Council's consideration of the Plan next Tuesday; and thirdly, the prospects of putting the Plan into effect.

Item 1—How came the Plan to be drawn up? Well, about two years ago Lord Reith, then Minister of Works, asked the London County Council to prepare a new plan for the post-war re-development of London and to plan on bold lines, assuming that new legislation would make positive planning a practical proposition. In other words, this Plan is the direct result of a request from the Minister and that request is part of the new emphasis on planned development with which you are all familiar in various responsible statements on behalf of the Government from the Prime Minister downwards. The Plan deals, as must any plan, with roads, open spaces, residential communities, business groupings, rail transport and density of development. It deals with them, as the Minister asked that it should, in a bold and far-reaching way. In framing it the authors, while maintaining a personal and creative attitude to their task, have not been unregardful of the broad principles enunciated in the report of the Barlow Commission, the Scott Report and the Uthwatt Report. They have assumed that in some form or another these principles would be translated into laws before the time comes for acting on plans now being considered.

Now for the second question. What will the Council do with this Plan next Tuesday? I want you to be very clear about this because t is easy for mistakes to be made, and nothing is so damaging to good, constructive work, whether in planning or in any other branch of public activity, as a misunderstanding between an authority and the public it serves, and the resultant sense of frustration and anger. The Council will not be asked to approve this Plan on Tuesday. It is committed to planning, but not to an individual plan, whether this or any other. What it will do will be to submit this comprehensive and important document, with its supporting drawings, for consideration by that host of interested authorities and other parties which make up a modern community. There are more than eighty of these, so you will not expect me to enumerate them all, but among the most important are the central government departments, including the Ministry of Town and Country Planning. Next come the City Corporation and the metropolitan borough councils, who had a statutory right to be consulted on plans made by the Council under the Town and Country Planning Act, 1932. Besides these there are the railway companies, London Transport, the Port Authority, the Metropolitan Water Board and a number of professional and other bodies. And besides this formal consultation the Council, by placing the Plan on sale and by organizing an exhibition—which will be opened on Wednesday for a month, invites the help of the general body of citizens. Any one of them who is sufficiently interested to buy the book, or to read it in a public library, can make his opinion known, either directly or otherwise. I have no doubt that a number will seek that time-honoured channel of expression, the correspondence columns of the daily press. And it is right that the private citizen should have at any rate the opportunity of saying what he thinks, for although I would not go so far as to endorse that business slogan that "the customer is always right," I would at least concede that the customer has a right to an opinion. From the moment that the Plan is launched you can think of London as a vast forum in which the authorities and others I have mentioned will subject it to analysis, admiration, energetic attack and constructive criticism. The fruits of all this discussion will be garnered and examined by the Council and its committees when the Council in the formulation of its planning policy gives further and more detailed consideration to the principles and projects of the Plan itself.

Finally, point number three—and the most important of all. What are the chances of the Plan, or any plan, being carried out? We must avoid confusion of thought. Many of the elements which make up the Plan must in any case be carried out, such as new housing, wider roads, new buildings for social services and the like. Planning does not introduce new elements into the community's make-up, but attempts to arrange them in an orderly and tidy way. The question then is not whether reconstruction will come, because the sheer pressure of public opinion and human energy will enforce some sort of reconstruction, but whether that reconstruction will be haphazard, distorted by selfish and unsocial motives, self-injured by an excess of zeal in one direction which overlooks other equally important needs; or whether it shall be a co-ordinated series of stages of an intelligent design thought out in advance.

One thing I must say quite clearly. With the best will in the world, no satisfactory planning, whether on the lines of this Plan or otherwise, can ever be achieved unless there are far-reaching extensions of town-planning powers and unless fair and reasonable financial arrangements are made between local authorities and the Exchequer. This planning must be nation-wide; and just as a new ministry has been set up to harmonize all the local and regional planning efforts, the cost must be fairly spread between the rates and the taxes. Do not think, however, that we have a choice between cheap reconstruction without planning and reconstruction to which planning has been added as an expensive luxury. Planned reconstruction looks expensive when you set down in a column the cost of projects that will spread over ten or twenty years and find that it adds up to a big sum. But haphazard reconstruction, where you never add up the sum, and where you never think about the effect of fulfilling one need on the ability to fulfil another, may well cost far more on the long view in wasted effort, abortive expenditure and thought, and intangible but real leakages of time, money and energy that spring from inconvenient housing, badly arranged industry, inadequate roads and obsolete communications. We rightly plan labour-saving houses: well, let us also plan a labour-saving City. This bold inspiring plan is probably the greatest study of how to plan a vast City that has ever been attempted. If it helps to make us planning-minded, it will have achieved a great public service.

To plan London may well mean in the early post-war years that the community—and that means its individual members—must be prepared to accept in the interests of civic health and happiness a continuance of some part of that restriction of purely personal expenditure which they have cheerfully borne for the defence of their country in time of war. We can have a planned London if we want it, but we have got to want it with determination, to press for it both as individuals and communities, and be prepared to bear its sacrifices as we and the future shall enjoy its benefits.

MOW & BOE

School Kitchens

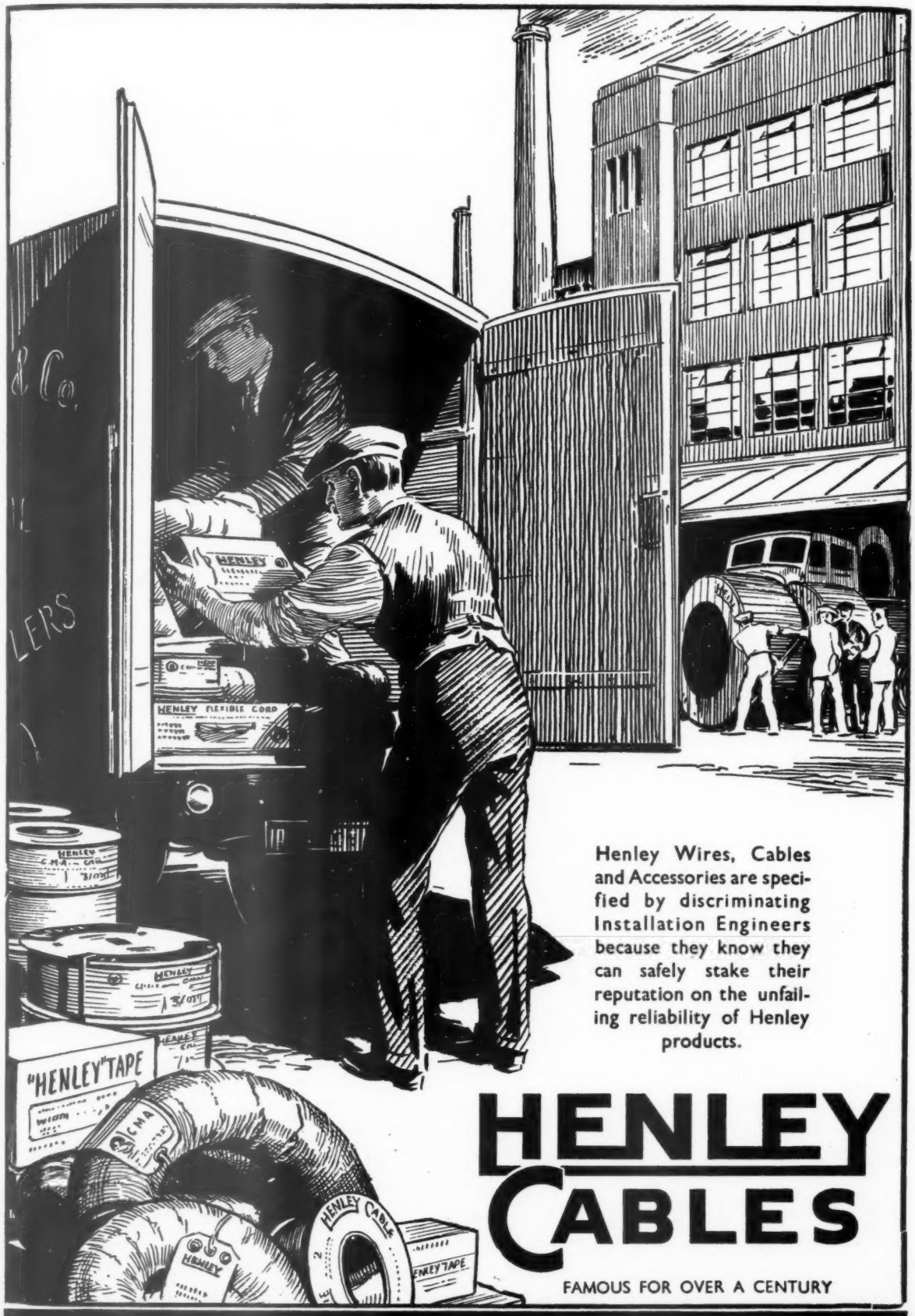
Plans for typical kitchens and sculleries, prepared by MOW in collaboration with the Board of Education, have been issued to local education authorities. As announced by the President of the Board of Education on May 17, when he called for still more rapid expansion of the school meals service, the Ministry of Works at the request of local education authorities will supply completely-equipped kitchens in accordance with these plans. Where authorities erect the kitchens themselves as they have been doing until now, these plans, embodying the recommendations of the Board will, no doubt, be of assistance. The immense task of providing canteens for most of our school children will tax all available resources: it is hoped this new scheme for the Ministry of Works to lend a hand will greatly help.

Local education authorities will still make use of existing buildings wherever possible. When new buildings have to be erected all but the smallest will be pre-fabricated.

The plans embody the experience of the Board and the local education authorities in the provision and running of school kitchens, and incorporate features rendered possible by the adaptation of the MOW Standard Hut. New building will be provided for two main types of kitchen—central kitchens and canteen kitchens. These may be operated by steam, gas, electricity and solid fuel. A complete outfit of kitchen furniture and equipment will be supplied with the kitchens erected by the Ministry.

Further plans for a dining-room and scullery (fed from a central kitchen) and a dining-room, kitchen and scullery have been prepared for use where exceptional circumstances exist.

The central kitchens, sending out meals in insulated containers to groups of schools, have been designed to supply 2,000, 1,500, 1,000, 750 or 500 meals a day. Canteen kitchens planned to supply 350, 250, 150 or 75 meals a day are intended for erection in



Henley Wires, Cables and Accessories are specified by discriminating Installation Engineers because they know they can safely stake their reputation on the unfailing reliability of Henley products.

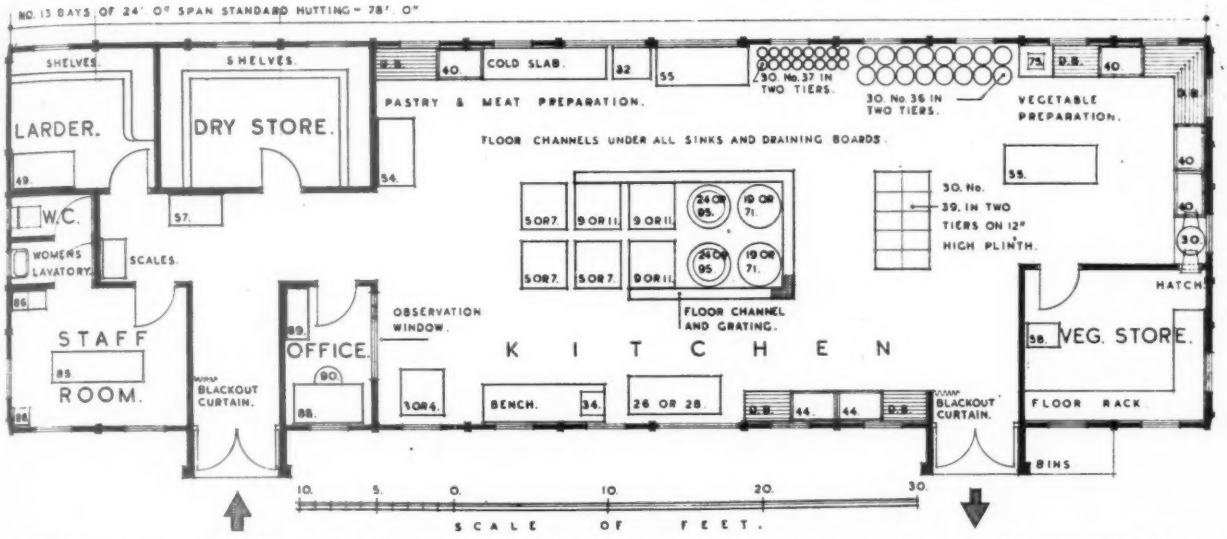
HENLEY CABLES

FAMOUS FOR OVER A CENTURY

W. T. HENLEY'S TELEGRAPH WORKS CO. LTD.

MILTON COURT · WESTCOTT · DORKING · SURREY

PHONE: DORKING 3241 (10 LINES)
TELEGRAMS: HENLETEL, DORKING



One of the eight plans for school kitchens and canteens prepared and issued to local education authorities by MOW in collaboration with the Board of Education. Plans types vary from central kitchens suitable for preparing 2,000 meals to canteen kitchens for 75 meals. The plan above is a central kitchen for 750 meals. The boiler house and fuel store which is placed to suit site conditions is not shown. Key to equipment: 3 or 4, range; 5 or 7, general purpose ovens; 9 or 11, steaming ovens; 19 or 71, boiling pans; 24 or 95, boiling pans, dual purpose; 26 or 28, hot cupboard; 30, potato peeling machine; 32, mixing machine; 34, meat slicer; 36, circular insulated containers, 3 gallons; 37, ditto, 1 gallon; 39, rectangular insulated containers; 40, glazed sinks; 44, galvanized sinks; 49, refrigerator, 50 cu. ft.; 54, kitchen table; 55, kitchen tables, heavy type; 57, truck; 58, sack barrow; 68, calorifier; 75, vegetable slicing machine; 76, domestic boiler; 85, dining table; 86, lockers; 88, supervisor's table; 89, supervisor's dwarf cupboard; 90, supervisor's chair.

the grounds of the school they will serve. A combined 50/50 central and canteen kitchen has also been designed for erection in school grounds. This kitchen would serve 250 meals on the spot, while a further 250 meals would be delivered to neighbouring schools.

Schools receiving meals from a central kitchen require a scullery for washing up the cutlery and crockery and cleaning the insulated containers. A plan of a typical scullery has been included to meet cases where provision cannot be made inside the school.

Apart from the canteen kitchen for up to 75 meals and the scullery, which will be built in brick, the new buildings will be prefabricated; the MOW Standard Hut, of 24 ft. or 18 ft. 6 in. span, will be adapted by the Ministry or supplied in suitable sections to local education authorities where they execute the work. This adaptation of the Standard Hut makes for quick building, for the framework of the hut and the roof can be erected before the walls are put in. This enables building to proceed in any weather. Further, the parts are being manufactured all over England and Wales, and can be provided with the minimum use of transport.

As hitherto, MOW will supply local education authorities with all the heavy and light equipment, which is on austerity lines, and in accordance with the Schedule of Cooking Appliances published for the Ministry by HMSO. A minimum of timber and metal is used in this equipment, economies being effected by the omission of brackets, legs, etc. Supports will be made of brick or concrete piers.

Among the items included in the list of equipment obtainable by local education authorities from the Ministry are ranges, ovens, potato peeling machines, slicers, hot plates, mixing machines, sinks, draining boards, insulated food containers, boilers, tables, refrigerators, water heaters, benches, chairs, trolleys, duck boards, stools, meat safes, step ladders, trucks, sack barrows, wardrobes (cupboards), utensils, cutlery, pottery and glassware, turnery, linen, hollowware, brushes, dust-pans, coal hods, pokers, shovels, scales, knife cleaning machines, knife boards, door mats, mops, automatic dish washers, capable of taking 3,000 pieces an hour, fire extinguishers, clocks, potato mashers, pot and pan racks, first aid outfits, oil stoves, hot cupboards, drying racks, baking tins, and stock pots.

It is anticipated that there will be no delay in supplying the equipment, providing orders are made in good time on the correct form and are properly authorised.

RIBA

ASB Lecture

May 8 at 66 Portland Place. Lecture in a series arranged by the Architectural Science Board of the RIBA on HEATING AND VENTILATING by Dr. T. Bedford, D.Sc., Ph.D., M.I.Min.E., Investigator to the Industrial Health Research Board of the Medical Research Council. Chairman: Alister MacDonald, F.R.I.B.A.

T. Bedford: It was at one time believed that the discomfort which we experience in crowded rooms was due to an excessive amount of carbon dioxide. For many years that view held the field. It is now known, however, that the concentration of carbon dioxide in the air of occupied rooms has no sensible effect on comfort. No physiological effects are noticed from increased concentrations of carbon dioxide until the concentration becomes about 2·5 or 3 per cent. In fresh air we have 0·04 per cent.: in badly-ventilated rooms the concentration of the gas rarely rises above about 0·5 per cent., and does not nearly reach 2·5 per cent.

In the middle of the last century doubt was thrown on the carbon dioxide theory, but then it was said that carbon dioxide was a very useful yardstick by which to measure other pollution of the air. It was asserted that the animal body gave off some mysterious organic exhalation which had very toxic properties and was most undesirable. Ultimately, the theory was completely disproved.

It is now known that this unpleasant sensation which we feel in crowded rooms is due almost always to excessive warmth, excessive humidity and lack of air movement. The heat and moisture given off by the occupants cause the temperature and humidity to rise, while if the room is badly ventilated there will be hardly any air movement. Those factors combined account for the trouble.

Although the organic poison theory is now dead, and the concentration of carbon dioxide is not a thing to worry about, that does not mean that the chemical properties of the air do not matter at all. Quite apart from troubles that arise in industry, such as the liberating of noxious gases from industrial processes, human beings, in common with other animals, give off odorous substances. The amount of body odour given off varies from person to person, and is much influenced by one's personal habits.

Almost all the standards of fresh air supply which have been advocated by ventilation experts during the last hundred years have been based on the amount of fresh air required to dilute the air of the room and thus keep body odours down to an imperceptible or barely perceptible level. The latest work done in the USA on this subject shows that the amount of fresh air required depends on social class, and that does in a way measure the opportunities for careful personal hygiene. As a rule, labourers do not have the opportunity of taking baths as frequently as some other people. In a congested room a better air supply is needed than in a larger room. On the whole, it is a reasonable generalization to say that roughly about 17 cubic feet per person per minute is required, or about 1,000 cubic feet per person per hour. That is the figure specified in the LCC by-laws for theatres and cinemas.

There is also another reason for having plenty of fresh air, and a very important one, and that concerns the spread of air-borne infection.

As far as the air-borne method of transmitting infection by floating particles is concerned, clearly one way to avoid it, and the main way, is to have copious ventilation, so that any organisms present in the air of the room are diluted to as low a concentration as possible.

I want to say a word about ozone. There has been a good deal of talk about the use of ozone in general ventilation for purifying the air, and so making it possible to use smaller quantities of air, and thus reduce ventilation and heating costs. Ozone has been proposed partly as a deodorant and partly as a bactericidal agent. It is known that a concentration of ozone of about one part in 10 millions has a strongly irritant action and will shorten the

lives of guinea-pigs exposed to it ; and human beings begin to feel irritation from the presence of ozone with a concentration as low as one part in 20 millions. One can smell ozone at a concentration of about one part in 100 millions, or slightly more. It is now generally agreed that the upper permissible limit is about one part in 25 millions.

Ozone at the threshold level—that is to say, slightly over one part in 100 millions, the concentration which can readily be perceived —will reduce body odours to a useful extent, so that it would be possible on those lines to reduce the amount of fresh air required to keep down odours, but a lower concentration than that is no good at all. Ozone does not destroy the odours, but merely masks them.

One trouble about the use of ozone for this purpose is that if you have in a given room an ozonator producing a constant amount of ozone day by day, the concentration which will be found in the air varies with the weather, and on a humid day there will be a distinctly lower concentration than on a dry day ; so that if you regulate the ozonator to give you just the quantity that you need, and only that quantity, on some days it will not be doing any good at all. Indeed, it is recommended by one of the foremost workers on the subject in the USA, that until some means are available for controlling the concentration of ozone more accurately, it should not be used in general ventilation.

Turning to the germicidal action of ozone, if you take pure cultures of organisms and spray them into the air, you find that ozone at round about the maximum permissible level—that is to say, one part in 25 millions—has a useful bactericidal action. But organisms are not discharged into the atmosphere as pure cultures in that way ; they come out entangled in particles of saliva and other body fluids, and recent work by some of my colleagues on the staff of the Medical Research Council has shown that, when organisms coated with organic matter are discharged into the air, ozone in tolerable concentrations is no use whatever. There is therefore, so far as our present knowledge goes, no good case for using ozone in general ventilation.

The body loses heat to the environment by convection (that is, by warming the air which comes in contact with it), by evaporation, and by radiating heat outwards to the usually cooler surroundings. Of those three modes of heat loss, the radiation is the most important in calm room conditions.

The factors in the environment that govern those methods of heat loss are the temperature of the air, the velocity of the air (i.e. its speed of movement), the atmospheric humidity, and the temperature of the solid surroundings to which the body is radiating. When one is assessing the thermal environment, those factors have to be measured.

With regard to comfort zones, a few years ago my colleagues and I made a study of the comfort, from the point of view of warmth, of factory workers engaged on very light work. About 90 per cent. of the work was done sitting down, and about the same proportion of those doing it were women and girls. We questioned them to find out how warm they really felt.

One thing that stands out from our study is that it is never possible to please everybody ; whatever the temperature, some people are dissatisfied.

On the basis of those observations, we were able to suggest a working comfort zone. The equivalent temperature should be within the range 58° to 66°. An average of 62° would be ideal, but it is not always possible to avoid deviation from an optimum value, and the ranges given allow a certain latitude. Within the range mentioned, at least 70 per cent. were found to be quite comfortable in our investigation.

There is a further point with regard to temperature to which I should refer. So far, we have been dealing with conditions in winter, during the heating season ; but obviously in summer, if you have no artificial cooling arrangements, you want to keep the room or the factory building as cool as possible. If you have air conditioning, and are using refrigeration, you must beware of excessive cooling ; there is such a thing as cold shock, which is the cause of severe complaints in buildings where cooling is carried too far. Preferably, the temperature indoors should not be more than about 10°F. less than that out of doors, and, if that does not make the conditions sufficiently comfortable, then the air should be dehumidified rather than further cooled.

Two rooms may be equally warm on the equivalent temperature basis, but one may feel stuffy and the other fresh and invigorating. A fresh atmosphere should be cool rather than over-warm, and it should have adequate air movement. It is possible to obtain a satisfactory reading of equivalent temperature with quite still air, with suitable conditions of temperature and radiation, but in such a case one would not feel comfortable ; there would be a " deadness " in the atmosphere.

In our observations we found that in ordinarily ventilated factory buildings in winter the average rate of air movement is about 30 feet a minute : the great bulk of the observations fell between 20 and 40 feet a minute. If the velocity falls as low as, say, 10 feet a minute, then, if the atmosphere is comfortably warm, there are likely to be complaints of stuffiness.

Another point about air movement is that it should not be uniform, but of variable velocity.

A fresh atmosphere is dry rather than damp. A rise in humidity which would not affect one's feelings of warmth can begin to make the room feel stuffy. It is preferable also that the walls and other surroundings should be warmer than the air. Where you have the condition which obtains in some light structures in winter, when the walls are much colder than the air, you tend to feel stuffiness.

Some methods of heating tend to make the temperature at head level much higher than that at floor level. Those conditions tend to make the feet feel very cold and to cause stuffiness in the head, a most undesirable state of affairs. Plenum heating often produces such a result. There is no marked temperature gradient with ceiling panel heating.

TCPA

Conference

July 3-4, at the Waldorf Hotel, Aldwych, W.C.2. Conference on TOWN PLANNING, HOUSING AND FULL EMPLOYMENT. Purpose: to bring specialists and others dealing with each of these subjects into closer touch with the conclusions and proposals of those dealing with the others, and to go into certain difficult questions that appear to involve all of them, and, if possible, to make some advance towards the solution of these questions. Sir Montague Barlow, K.B.E., opened the conference.

Session I. : *Implications of a Full Employment Policy*. (The methods of a Full Employment Policy, particularly in their bearing on the building industry and housing). Chairman : Sir Cecil Weir, K.B.E. Address by : Mrs. Joan Robinson (Lecturer in Economics, University of Cambridge). Discussion opened by : Prof. Allan G. B. Fisher (Professor of International Economics, Royal Institute of International Affairs).

Session II. : *Scale of Housing and of Expansion of Building Industry*. (A discussion of the White Paper on the Building Industry and matters arising therefrom). Chairman : Mr. R. G. Tarran. Address by : Mr. Walter Hill (Industry and Trade Editor, *The Economist*). Discussion opened by : Mr. T. P. Bennett, C.B.E., F.R.I.B.A.

Session III. : *Difficulties of Rebuilding in City Areas*. (Problems of reducing congestion, and of replacing obsolescent properties at rate required by Full Employment Policy). Chairman : Sir Eric Macfadyen. Address by : Mr. F. J. Osborn (Hon. Sec., Town and Country Planning Association). Discussion opened by : Mr. Paul Cadbury (Member of Birmingham City Council).

Session IV. : *Finance of Housing and Rebuilding*. (Effect of Full Employment Policy on availability of capital, relation of public to private finance of construction, rate of interest, rents, etc.) Chairman : Major R. L. Reiss. Address by : Mr. W. Manning Dacey (Editor, *The Banker* ; Assistant Editor, *Financial News*).

Session V. : *Problem of Compensation and Betterment*. (The problem dealt with in the Uthwatt Report and its bearing on Planning, Housing and Full Employment). Chairman : Mrs. Hermione Hichens (Member of Barlow Royal Commission and Scott Committee). Address by : Mr. Raymond Evershed, K.C. (Member of the Uthwatt Committee). Discussion opened by : Mr. Donald Tyerman (Deputy Editor, *The Economist*).

PWB

Study Committees

The following is the eighth extract from the booklet issued by the Directorate of Post-war Building of MOW containing reviews of ten of the *First Draft Reports* of its twenty-three Study Committees. See leading article for April 22, and these columns for April 22, 29, May 6, 20, 27, June 17, 24 and July 8.

16. GAS INSTALLATIONS COMMITTEE. First Draft Report, October 30, 1942.

18 pp. plus 2pp. appendix and 8 pp. summary, divided thus :

Introduction.
Gas service pipes.
Gas distributing pipes.
Gas meters.
Gas appliances (installation).
Appendix.
Summary.

Introduction.

Membership of Committee and terms of reference.

RECOMMENDED that terminology for gas, water and electricity services be standardized. A glossary of terms is in preparation.

The Report consists of recommended rules of good practice for gas installations. In preparing the rules reference has been made to relevant B.S.S. and to the B.S. Code of Practice, 1043-1942, " Provision of Engineering and Utility Services in Buildings." Particular attention is drawn to recommendations in the foreword to this Code.

Gas Service Pipes (pipe between main and meter).

RECOMMENDED all the gas service pipe, i.e., pipe between main and meter, be installed by the Gas Undertaking or its authorised contractor.

Where common trench is used for more than one public utility service, the undertakings concerned should consult together to secure agreement on position and placing of respective services.

RECOMMENDED that all surface boxes, covers, etc., for controls in gas service pipes be of a standard design and bear standard sign indicating purpose. B.S.S. required.

RECOMMENDED that all ferrous pipes be adequately protected against corrosion. Paint Committee invited to suggest suitable paints.

RECOMMENDED specification for laying gas service pipes is detailed under following headings :

(1) materials ; (2) responsibility for laying ; (3) size ; (4) method of laying ; (5) protection ; (6) local disconnection of supply ; (7) inspection and testing.

Gas Distributing Pipes (pipes between meter and appliances).

B.S.S. relating to pipes and connections, for supply of gas between meter and appliance should be examined.

RECOMMENDED that all materials concerned be described as " pipes " or " pipe fittings."

Thin walled lead pipe coated in tin (composition) not recommended for post-war building. Both lead and composition pipe are likely to be in short supply.

RECOMMENDED that in order to ensure adequate supply of gas for all appliances, actual or potential, Gas Undertaking be consulted at early stage in planning any new building.

RECOMMENDATIONS are made under the headings : (1) materials ; (2) jointing ; (3) sizes ; (4) methods of installation ; (5) protection ; (6) control ; (7) distributing points ; (8) inspection, testing and certification ; (9) identification.

Gas Meters.

RECOMMENDED that service pipe enter at front of house, at common point of entry with electricity supply and telecommunications, and common compartment for housing gas and electric meters be provided near point of entry.

Details for meter housing are suggested.

RECOMMENDED that all meters, within normal capacities mentioned in Report, comply with Institution of Gas Engineers Specification for Gas Meters for Domestic Consumers, 6.11.35, with certain modifications.

RECOMMENDATIONS are made for (1) fixing ; (2) position (prohibited locations are stated).

Gas Appliances.

Type of appliances and kind of fuel for cooking, space heating, water heating, laundry, refrigeration, lighting, etc., are usually considered in large and specialized buildings, but often neglected in planning small dwellings.

Design and installation of gas appliances has been hampered because gas appliances are usually installed as addenda to existing solid fuel appliances, or fixed in positions not primarily or adequately designed for them. If certain general provisions were made, appropriate type of appliance for any form of fuel could be installed without difficulty.

RECOMMENDED that Standards Committee consider this matter in consultation with coal, coke gas and electrical industries, to determine suitable locations and dimensions of openings for domestic fuel appliances into which appliances for any fuel service could be fixed.

RECOMMENDED standard dimensions are given, suitable for inclusion in plans of all small dwellings.

RECOMMENDATIONS regarding details of installations are made under the headings : (1) cooking appliances ; (2) water heating appliances ; (3) space heating appliances ; (4) refrigerators ; (5) flues for gas appliances.

Appendix.

Tables (*a*), (*b*) and (*c*) referred to in the Report.

Summary.

Sub-division as for report, without appendix.

PUBLICATIONS RECEIVED

Elizabethan Miniatures. Carl Winter. (Penguin Books, King Penguin series, 2s.)

Fashions and Fashion. James Laver. (Penguin Books, King Penguin series, 2s.)

Microcosm of London. John Summerson (Penguin Books, King Penguin series, 2s.)

British Shells. F. Martin Duncan. (Penguin Books, King Penguin series, 2s.)

Civic Design and the Home. Arnold Whittick. (Faber & Faber, Rebuilding Britain series, 1s. 6d.)

Britain's Town and Country Pattern. Prepared by Nuffield College Social Reconstruction Survey. (Faber & Faber, Rebuilding Britain series, 2s. 6d.)

The Honeywood File. H. B. Creswell (Faber & Faber, 7s. 6d.)

Specification, 1943. (Architectural Press, 15s.)

Plan for a School of Technological Design. Norbert Dutton. (Private publication, Staple House, 1s. 6d.)

Chemical Seasoning of Timber. (Timber Development Association, booklet.)

The Standard of Wartime Building. (H.M. Stationery Office, 9d.)

The Sensible Use of Latent Heat (Part I). Fuel Efficiency Bulletin No. 18. (Ministry of Fuel and Power.)

The Production Authorities' Guide. (H.M. Stationery Office, 4d.)

Pre-Fabrication in Timber—Part I. C. Sjostrom. (The English Joinery Manufacturers' Association.)

County of London Plan. J. H. Forshaw & Patrick Abercrombie. (Macmillan 12s. 6d.)

County School, Weston-Super-Mare.
Architect: A. J. Toomer, Esq., F.R.I.B.A. Taunton.

Architects and Engineers are invited to write for a copy of this Ruberoid publication No. 326 entitled "Standard Specifications for Ruberoid Roofs."

THE RUBEROID BUILT-UP ROOF

A Ruberoid Built-up Roof consists of two or more layers of Ruberoid underlay, bedded together and surfaced with either Ruberoid Standard Roofing or Ruberoid Astos Asbestos Roofing. It can be laid on either boarded or concrete roofs, whether flat, pitched or curved. It is a permanent roof which will withstand all weather conditions

An attractive alternative is provided by a finishing layer of Ruberoid Slate Surfaced Roofing in red, green or blue. These colours are particularly soft and pleasant, being formed of natural crushed slate applied to the surface during manufacture

Ruberoid Contract Departments located in London, Birmingham, Manchester Newcastle, Edinburgh, Dublin and Belfast, promptly undertake work on any scale and in any part of the country. Estimates sent on receipt of particulars

RUBEROID ROOFING

THE RUBEROID CO., LTD., 1, COMMONWEALTH HOUSE, NEW OXFORD STREET, W.C.1

AS OUR INDUSTRY IS CONTROLLED AND PRIORITY HAS TO BE GIVEN TO GOVERNMENT WORK, OUR ABILITY TO EXECUTE ORDERS IS SUBJECT TO THE REGULATIONS IMPOSED ON OUR INDUSTRY BY THE MINISTRY OF WORKS.

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

ARCHITECT required for the Public Works Department of the Gold Coast Government for two tours of 12 to 24 months, with possibility of permanency. Salary £475 a year for two years, then £500—£25—£600—£36—£840 a year. Initial salary according to qualifications and experience. Free passages and quarters. Candidates must be Associates of the Royal Institute of British Architects. The officer will be required to undertake the design of public buildings and to take charge of a drawing office. Write, stating age and full particulars of qualifications and experience to the Central (Technical and Scientific) Register, of the Ministry of Labour and National Service, Alexandra House, Kingsway, London, W.C.2, quoting reference E.A.690. 918

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 charges 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.

ARCHITECTS' ASSISTANT. Preferably qualified, Slough district, required for investigation and design, should be experienced in medium-size dwelling-house construction, plumbing and equipment. Exempt from Military Service. State salary. Box 906.

Architectural Appointments Wanted

A.R.I.B.A., over military age, seeks employment. Thoroughly experienced in planning and detailing. Would enter any good private office and take charge if required. London or near London desired. Box 883.

A.R.I.B.A. offers part-time services in own office, London area. Wide experience of structural surveys, planning, detailing, and some knowledge of quantities. Box 103.

ASSISTANCE ON DRAWINGS, etc. Part-time work offered by post; setting out plans from sketches, perspectives, etc. Architectural training and building experience. Box 106.

ARCHITECT AND SURVEYOR, I.A.A.S. (38), fully experienced in war-time factories throughout the country for various Ministries; own car. Box 107.

YOUTH, aged 17, desires post in architect's office, studying architecture and draughtsmanship. Now preparing for professional preliminary examination. London area. Box 108.

ARCHITECT requires position London area, experienced in carrying through works complete. Please state approximate salary and prospects. Box 110.

F.R.I.B.A., 36 years old, exempt, requires post; Watford district preferred; 12 years' general experience. Salary by arrangement. Box 112.

15 YEARS' EXTENSIVE EXPERIENCE in peace and war-time planning and design, including R.A.F. aerodromes, storage depots, turfed camouflage sheds and traversed bomb stores, hutted camps; also strutting and shoring of dangerous buildings in bombed areas and general emergency measures. Box 114.

WANTED AT ONCE, summer vacation work, for an architectural student, in an architects' office or in the building industry, engaged on work of national importance; dates approximately July 10th—September 20th, 1943. Write Box 115.

SURVEYOR desires position. Measurements, adjustments, final bills, W.D. and Air Ministry Schedule; extensive experience all trades; references. Staples, 49, Highview Avenue, Edgware, Middlesex. 116

CLERK-OF-WORKS, BUILDING SURVEYOR, Etc., requires appointment as a Clerk-of-Works, Surveyor, Property Manager, etc., in Birmingham Area, or the West Midlands, etc.; over military age; rendered War Service during the 1914-18 first Great War; control of all contract works, etc., supervision all branches of the building trades, etc., over 25 years' practical and theoretical experience; keen and alert; highest recommendations. Please apply Box 117.

SENIOR ARCHITECTURAL ASSISTANT requires position in progressive office on reconstruction and post-war planning or research; 12 years' sound experience on good classes of building. Scotland or Provinces preferred. Exempt military service. Box 119.

PUBLIC SCHOOL BOY, aged 17, desires post in architects office in the London area. Applicant takes Higher Certificate in July.—Write Mrs. Custance, 433, Edgware Road, W.2. 120

SITUATION IN ARCHITECTS OFFICE required by youth, aged 16 years. Leaving County School this term. Now sitting for General Schools Examination. Write Bass, 6, Denbigh Road, Southall, Middx. 121

CHARTERED ARCHITECT, over military age, desires engagement; wide experience in all branches; recently engaged upon War Ministry Buildings. Box 122.

Classified Advertisements continued on page xlii

ARCHITECTURAL ASSISTANT, seven years' experience, age 25 years, exempt military service, seeks position in architects or similar office. Experienced in design and construction, surveying, levelling and estimating. Studying for forthcoming Inter. R.I.B.A. examination. Good references. Box 124.

CHARTERED BUILDING SURVEYOR, 27, exempt Forces, requires situation in Birmingham; wide experience, including architectural work and quantities. Box 125.

ARCHITECTURAL ASSISTANT, age 19, desires post in architect's office, preferably in Birmingham or Shrewsbury areas. Competent draughtsman, able to make surveys, use level, theodolite, etc.; sound knowledge of building construction; over 2½ years as builder's draughtsman; studying for Studentship R.I.B.A. Not liable for military service. Prefer essential work. Available from July 26. Present salary £5 15s. per week. Box 126.

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

LADY seeks position as Junior Architectural Assistant in Reading. Box 128.

Other Appointments Vacant

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

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

BUILDING AND SURVEYING ASSISTANT required for Monmouthshire Contract. Civil Engineering. Experience necessary. Hinkins & Frewin, Ltd., Oxford. 915

BUILDING AND ENGINEERING DRAUGHTSMAN required for Monmouthshire Contract. Hinkins & Frewin, Ltd., Oxford. 916

Competitions

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

SCOTTISH NATIONAL HOUSING AND TOWN PLANNING COUNCIL.

SIR WILLIAM E. WHYTE PRIZE FUND.

The Council invite competitive efforts for the replanning of an existing town or village of approximately 5,000 inhabitants with a view to the creation of a model self-contained community. The Competition is confined to men and women (of not more than 35 years of age) of British nationality normally resident in Scotland. They will be allowed to choose which Scottish town they propose to replan.

Prizes of twenty guineas, ten guineas and five guineas will be awarded as First, Second and Third Prizes respectively.

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

NORMAN J. CAMPBELL, S.S.C.,
Honorary Secretary and Treasurer.
11, Drumsheugh Gardens,
Edinburgh 3.
26th June, 1943. 910

Miscellaneous

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

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

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

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

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

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

WANTED TO BUY, complete edition of *Planned Information* by Sir John Burnet, Tait & Lorne, first or second-hand. Please write Mrs. Marianne Walter, A.R.I.B.A., 260, Fulwood Road, Sheffield. 904

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

Educational Announcements

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

R.I.B.A. QUALIFYING EXAMINATIONS
Mr. C. W. Box, F.R.I.B.A., M.R.San.I.
Courses by Correspondence and Personal in Studio.
115, Gower St., London, W.C.1.
Telephone: Euston 3305 and 3906

R.I.B.A. AND T.P. INST. EXAMS. Private Courses of tuition by correspondence arranged by Mr. L. Stuart Stanley, M.A., F.R.I.B.A., M.T.P.I. Tutor, St. Catherine's College, Cambridge. 231

C

Lo

Rl

WA

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.