THE ARCHITECTS' JOURNAL

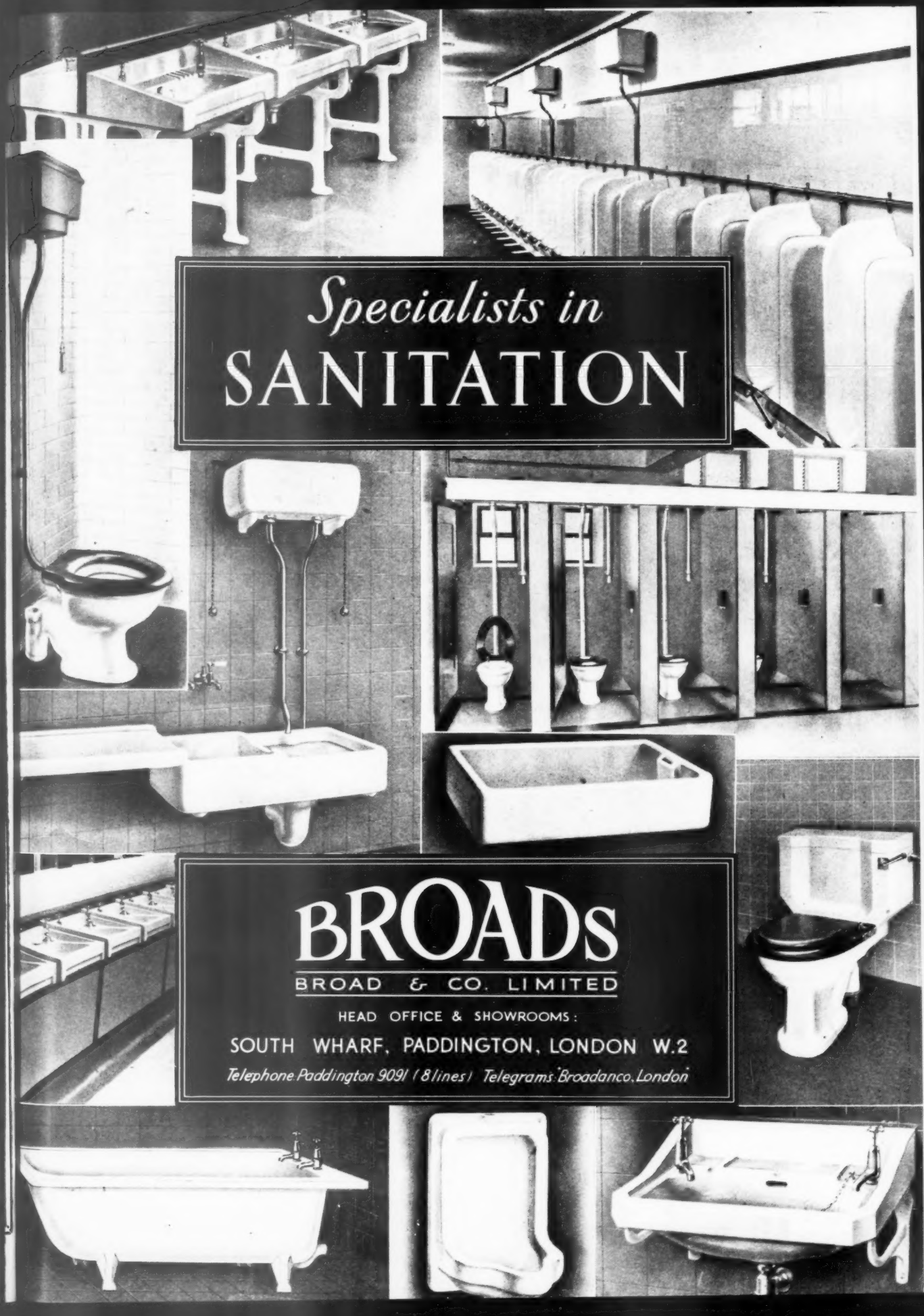
THE ARCHITECTURAL PRESS, *WAR ADDRESS:* 45 THE AVENUE, CHEAM

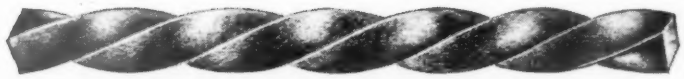
NO. 2512] Price 6d. [VOL. 97

REGISTERED AS A NEWSPAPER.

Alphabetical Index to Advertisers

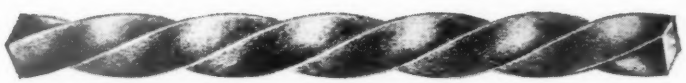
For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Educational Legal Notices, Miscellaneous, Property and Land Sales—*see* pages xlii and xliv.


Specialists in
SANITATION
BROADs
BROAD & CO. LIMITED
HEAD OFFICE & SHOWROOMS:
SOUTH WHARF, PADDINGTON, LONDON W.2
Telephone Paddington 9091 (8 lines) Telegrams: Broadanco, London



Q. *"How can I economise in the Nation's valuable steel to the extent of 70% on building construction?"*

A. *By constructing in concrete reinforced by SQUARE GRIP rods.*



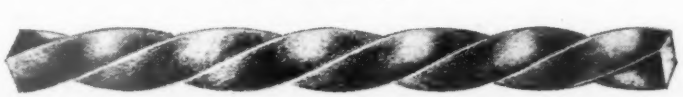
A CONCRETE structure reinforced by ordinary mild steel round bars, requires only HALF the amount of steel necessary to construct a similar building on the structural steel principle. But, rods of Square Grip reinforcement are *work-hardened* by scientifically controlled twisting: giving to each a working tensile strength that is 50 per cent. greater than that of mild steel. And again, Square Grip rods have a bond value that is 500 per cent. greater than that possessed by ordinary mild-steel. Thus, Square Grip reinforcement makes possible a further saving of 20 per cent. in the weight of steel used. That is to say, if a structural steel building requires 2,000 tons of steel, then a similar reinforced concrete structure—reinforced by mild-steel bars, requires 1,000 tons of steel. But the use of Square Grip *work-hardened* reinforcement would reduce the total weight of steel to only 600 tons.

Full technical data supporting these claims supplied on request.

SQUARE GRIP

REINFORCEMENT COMPANY LTD.

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



Books on the Planning of Modern Buildings

TOWN HALLS By A. Calveley Cotton, A.R.I.B.A.

Under the collective title of " Town Halls " the author includes the Departments usually incorporated in a municipal centre—Municipal Buildings, Assembly Hall and Law Courts, and examines in detail the planning problems associated with each. In the chapters on departmental layout the views, both of Councillors and permanent officials, are summarized concerning the merits of different arrangements. Six recently built Town Hall schemes—Slough, Worthing, Hornsey, Beckenham, Southampton and Swansea—are fully illustrated by plans, sections and axonometric projections, and have been specially drawn to be easily read. About 40 other town hall plans are included, as well as details of various plan units. Price 6s. Postage 7d.

SMALLER RETAIL SHOPS By Bryan and Norman Westwood

This is the second book to be published in *The Planning of Modern Buildings Series*, which is considering the planning, structure and equipment of certain specialized types of buildings.

The text is sectionized under various headings such as: The Various Problems—Sites and Sales Values—Sites in Detail—Elements of the Plan—Windows—Blinds—Signs—Pavements—Lights, etc.; and is fully illustrated by photographs and plans, while a large number of detail drawings are included. In addition, grouped together at the end of the book, there are 35 pages of illustrations of specially selected shop-fronts, interiors, plans and detail drawings of shops at home and abroad, with descriptive matter. Size: 12½ ins. by 9 ins. Price 12s. 6d. Postage 7d. Abroad 1s.

THE DESIGN OF NURSERY AND ELEMENTARY SCHOOLS.

By H. Myles Wright, M.A., A.R.I.B.A., and R. Gardner-Medwin, B.Arch., A.R.I.B.A.

The new educational policy of which the framework was laid down by the Hadow Report is slowly being put into practice by education authorities throughout the country. With larger grants being made available, it is probable that the pace of re-organization will improve; but the greatest obstacle will still remain the changes in school buildings and their surroundings which the new policy requires. Of these changes the largest are: new Nursery Schools, separate Infant, Junior and Senior Schools; larger sites and looser groupings; and higher standards of equipment.

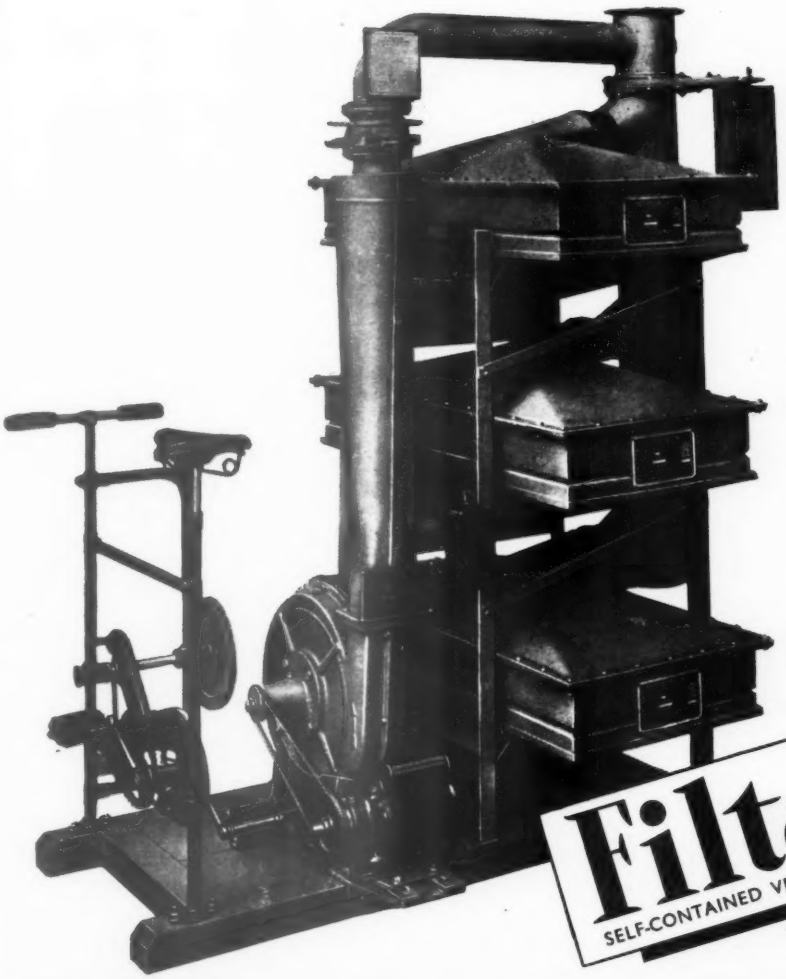
This book is concerned solely with such problems. It considers Nursery Schools and Classes, Junior and Senior Schools. Dimensions and layouts are suggested for each element in the school plan; the various alternative groupings of the plan units are discussed, and a large number of complete school schemes carried out in this country and abroad are illustrated. No such survey of contemporary school buildings exists at present in this country. The book contains 128 pages and about 250 photographs and drawings. Size 12½ ins. by 9 ins. Price 10s. 6d. Postage 7d. inland.

The principal contents of these books originally appeared in " The Architects' Journal."

Published by THE ARCHITECTURAL PRESS, *War Address*—**45 The Avenue, Cheam, Surrey**

Filtavent

ventilates and filters air in crowded places



This three-filter-unit plant, with standby pedal operation, provides perfect ventilation and air filtration for 105 persons, however long the plant may have to be in operation. Heating arrangements for incoming air can be incorporated if required. Similar plants have been supplied to municipalities, industrial concerns, office buildings, hotels, flats, etc.

WRITE FOR FULL PARTICULARS

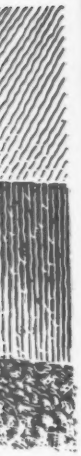
Filtavent
SELF-CONTAINED VENTILATION & AIR FILTRATION UNITS

SUTCLIFFE, SPEAKMAN & COMPANY LIMITED

Telephone: 94, 95, 96 Leigh LEIGH • LANCASHIRE *Grams: "Utilization," Leigh, Lancs.*

LONDON OFFICE: 66 Victoria Street, London, S.W.1

HOLDERS OF LICENCES TO USE HOME OFFICE CERTIFICATION MARK, LICENCE Nos. II, IV, V, VI, VII, XIV and XXII. F.L.3



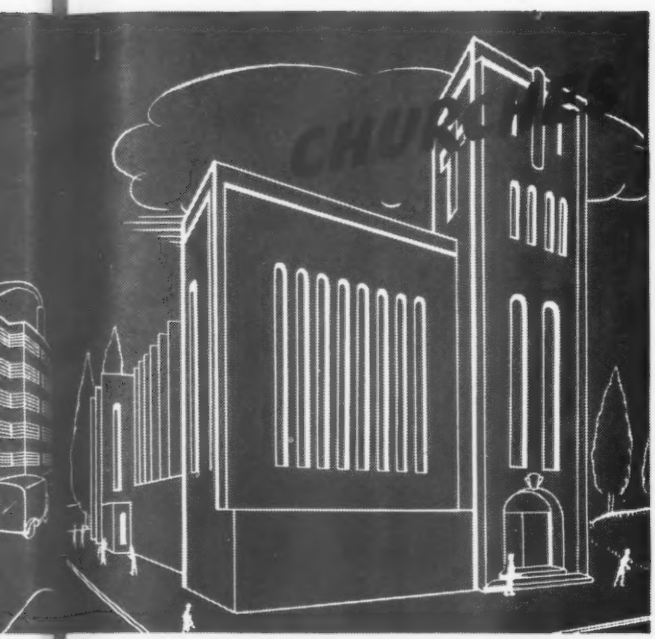
etc., to
es and
gap in
nanent,

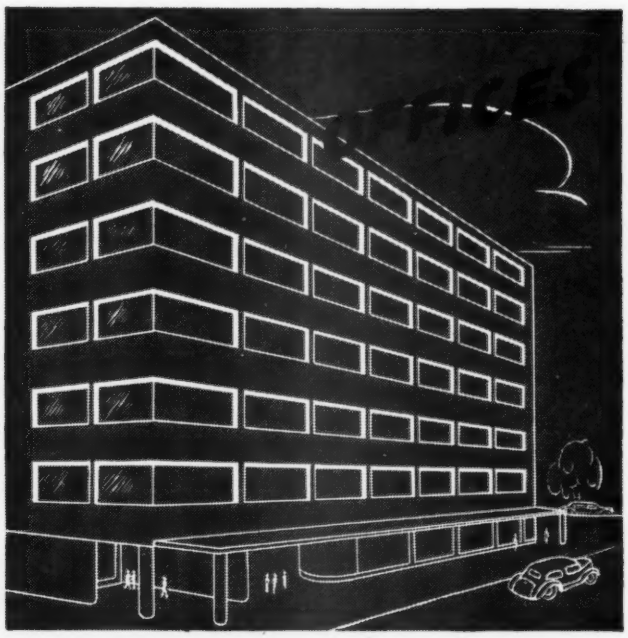
ch does
reforms
l, whilst
against

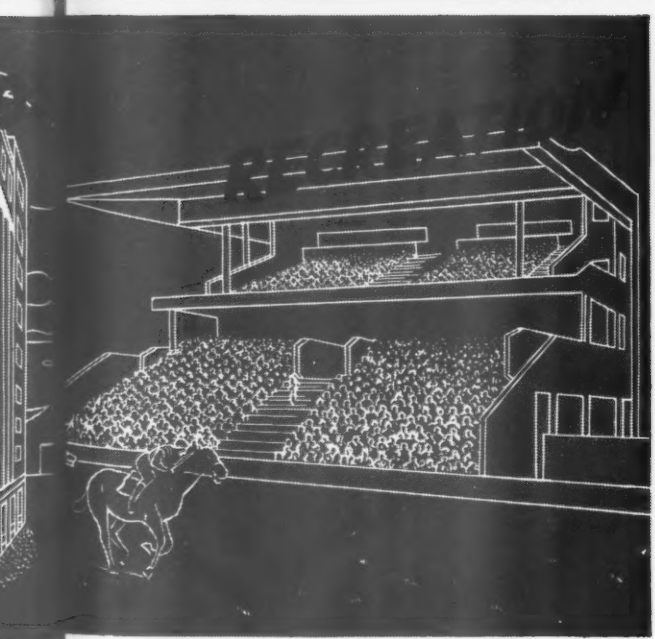
the gap.'
ıcts and
he right

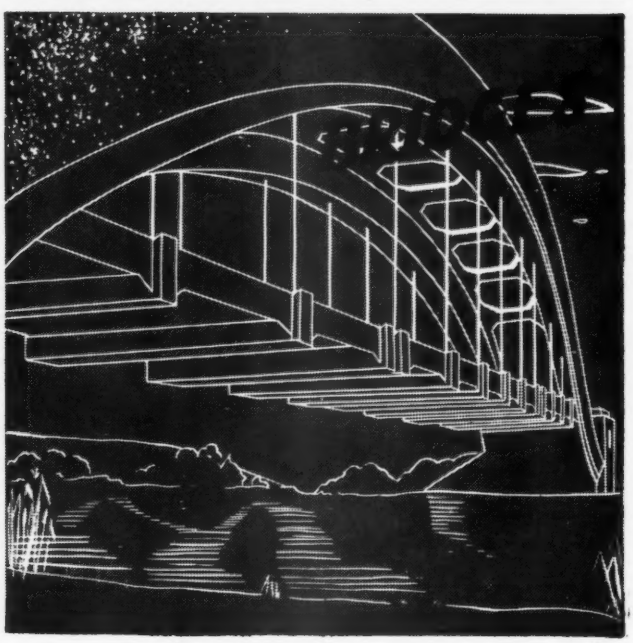
N.W.10

FUTURE CONSTRUCTION







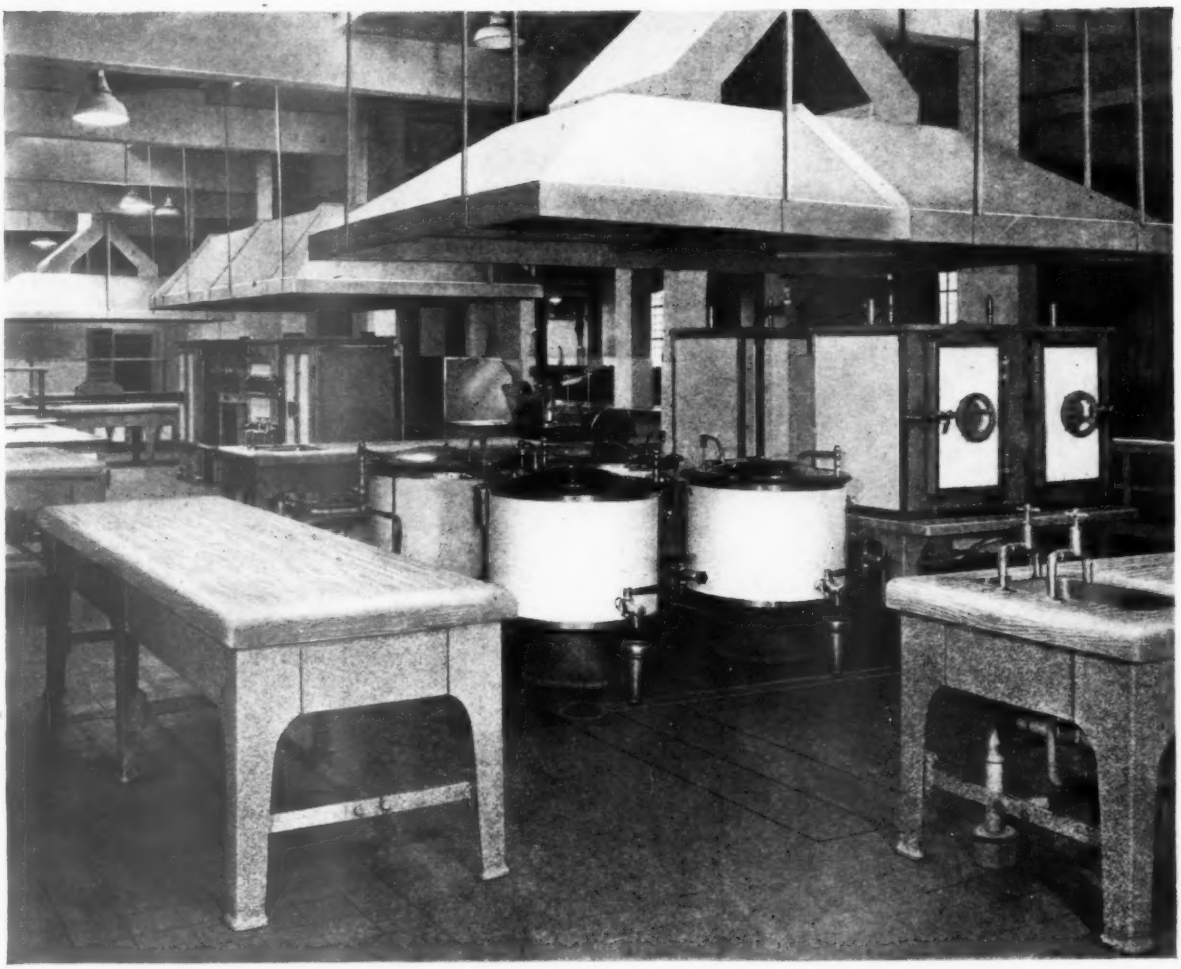


RE ENGINEERING CO. LTD. STAFFORD

ret Design & Suppliers of Reinforcement

EST NEWCASTLE, SHEFFIELD, CARDIFF, GLASGOW, DUBLIN, BELFAST

M-W.204



A general view in the Principal Kitchen of a large Canteen planned and equipped by

Specialists in large-scale Apparatus for the Cooking and Serving of Food.

MAIN

R. & A. MAIN LIMITED, LONDON AND FALKIRK

The Colonial Architects . . .

The domestic houses of the eighteenth century, in the older parts of the United States, are not associated with any great architectural name; but they inspire us to a musing admiration for their builders. These were men who, with the happiest success, adapted Europe's suavest manner to a wild and primitive setting. They gallantly asserted, upon the very border of the unknown, the immemorial virtues of scholarship and design. Far from fame and patronage, how disinterested were they in their devotion to their art! . . . To the pioneer architects, often anonymous, of the Colonial style, we pay this small tribute . . . we, who in our own sphere, have long also been pioneers.

BUILD FOR POSTERITY

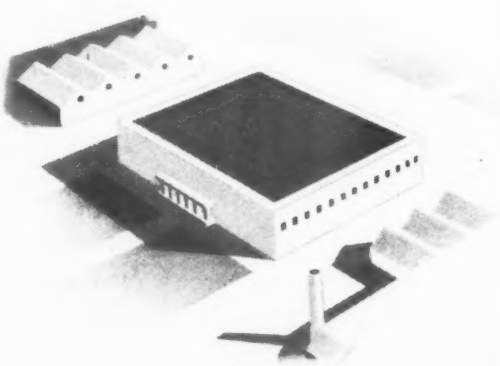
Wren, after the fire of 1666, had visions of a purer, cleaner, better London. Although petty officialdom and self-seeking merchants thwarted his dreams, many of his buildings were planned as he envisaged. Let us not commit the same crimes against the visionaries who desire to reconstruct Britain after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

Often courageous plans for a better world have been ruined in the past by the cost of pulling down before building up. This will not deter us this time.

A new world needs new methods and the latest science, air conditioning, will play its part in this new development when Peace comes . . . the Air Conditioning Division of Mellor-Bromley & Co. Ltd., through their intensive endeavour to give the utmost service to firms on vital production, may not have been able to contact you recently but when Peace comes . . . and it may come sooner than we expect . . . Mellor-Bromley will be able to offer to you a complete service employing the accrued experience of applying air conditioning to almost every type of industry.

MELLOR BROMLEY & Co. LTD. MINOTAUR WORKS ST. SAVIOUR'S RD. **LEICESTER**

Architects specify the Briggs "Challenge" Flat Roofing System with absolute confidence. It is dependable, as durable as the building itself, and, whilst it provides strength without weight, gives scope for individuality. There's seventy-five years of experience behind the Briggs weatherproofing materials, which include their "Aqualite" system of waterproofing. This is now used extensively for keeping basements, underground shelters, etc., free from water and damp. Briggs' long experience is especially valuable for dealing with unusual roofing and waterproofing problems — may we send you further details?



William Briggs
AND SONS LTD.
DUNDEE

London: Vauxhall Grove, S.W.8
Also at Glasgow, Edinburgh, Liverpool, Bristol, Aberdeen, Norwich

THIS ENGRAVING originally appeared seventy years ago. It is admirably suited to the modern idiom of the Quiz. The object depicted is (a) a coffee percolator, (b) an hour-glass, (c) a table? Lest the correct answer should be disputed, it may be as well to quote from an article which accompanied the illustration.

"Here we have an object worthy of great praise, for the beauty and perfection of its workmanship. It is a table," states the writer emphatically, "the top being a circular plate of porcelain, exquisitely painted. This is supported by three foliated gilt stems, which, at the point of greatest contraction, sustain a globe of rich blue porcelain, set with gilt stars."

The above illustration is one of a series culled from publications of 1873, in which year The Silicate Paint Company was founded. The selection has been made with an eye to the lesser known, though more exuberant, decorative experiments of the period. In the matter of paint, of course, Duresco is eminently suitable for all periods — including the coming era of post-war reconstruction.

DURESCO
for post war painting

On all painting problems consult The Silicate Paint Company, J. B. Orr & Co. Ltd., Charlton, London, S.E.7.

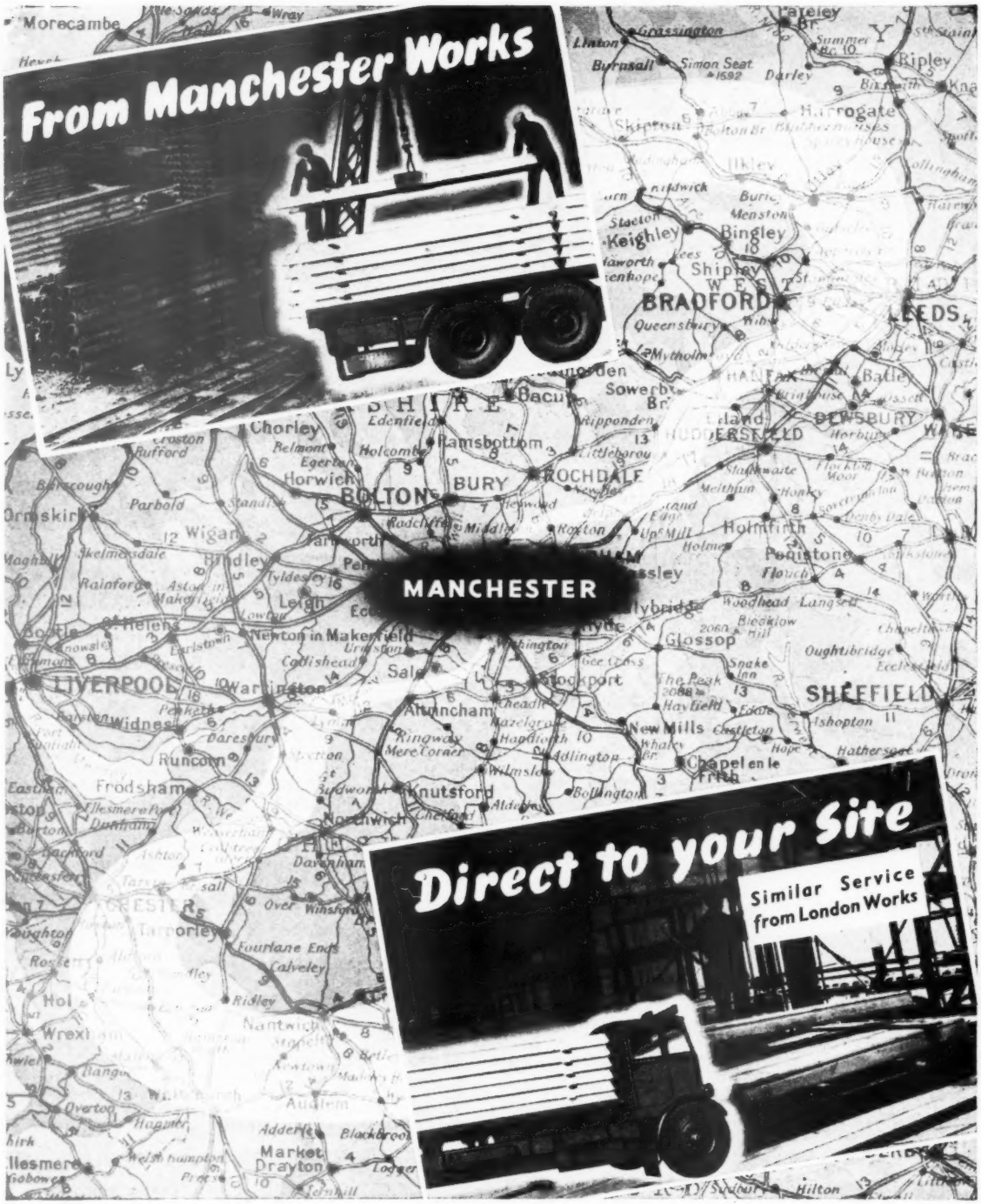
Wrought Light Alloys DEVELOPMENT ASSOCIATION

ADVISORY SERVICE BUREAU

The resources of the aluminium alloy industry are at the disposal of all interested or engaged in the fabrication, treatment and use of wrought light alloys. Works managers, metallurgists, chemists, foremen, charge hands and others are invited to send their problems to the Bureau. All enquiries should be addressed to the Manager of the Association.

WROUGHT LIGHT ALLOYS DEVELOPMENT ASSOCIATION
Union Chambers,
63 Temple Row, Birmingham, 2

Manager:
E. G. West, Ph.D., B.Sc.
Telephone: MIDland 0721
Telegrams: LIGHTALDEV, B'HAM 2

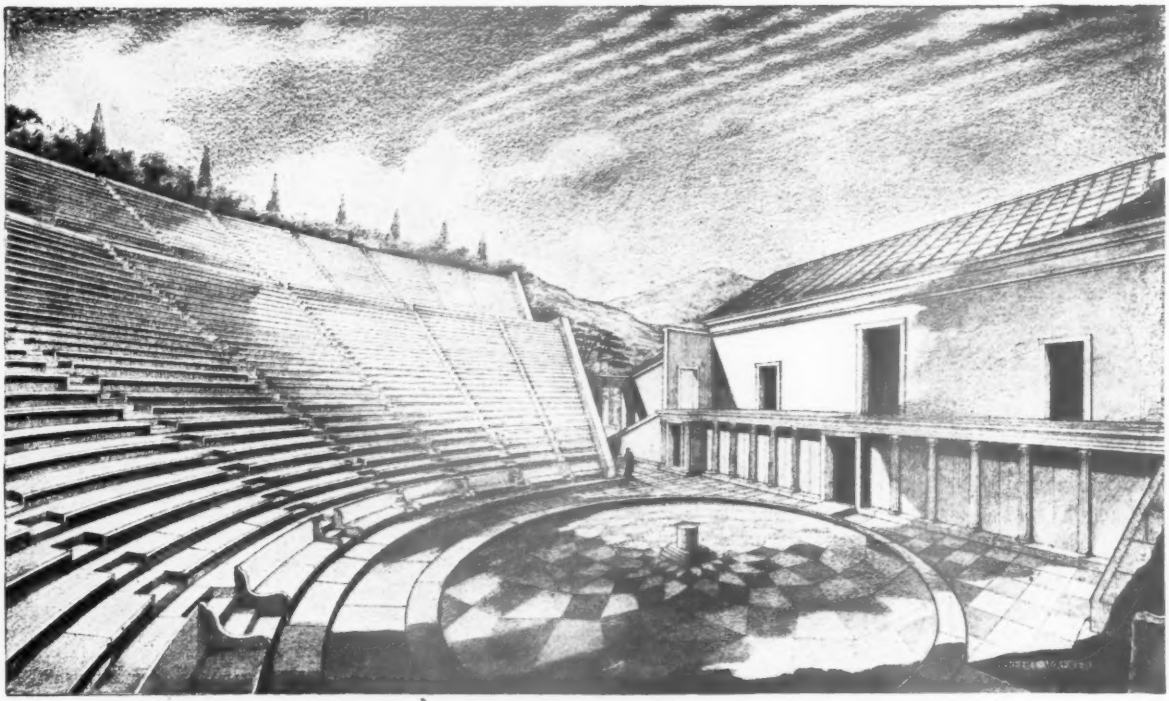


TRUSCON PRECAST FLOORS

READY MADE • READY TO LAY
DELAYS ELIMINATED
TRANSPORT SAVED

TRUSCON FLOORS, 6, COLLINGHAM GARDENS, LONDON, S·W·5 'PHONE: FROBISHER 8141

4-528



An impression of the Theatre reconstructed by the artist

THE THEATRE, EPIDAUROS

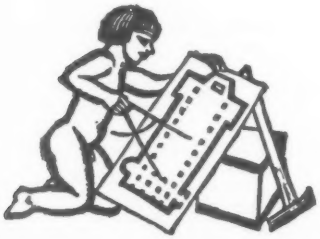
Generally, Greek theatres were hollowed out of the side of a hill near a city, and were intended for use in the daytime. The auditorium, which surrounded about two-thirds of the orchestra, rose in tiers of seats cut out of the solid rock. These seats were sometimes faced with marble. The orchestra was a complete circle, and here the chorus danced and chanted while the players enacted the drama on the stage which was usually a raised wooden platform with a permanent architectural background. Opinion differs as to the height of these stages above the orchestra, but they seem to have varied quite considerably by a process of development from a low platform, more of a table, in the earliest periods. At Epidauros, the stage was supported by a wall 12 ft. high. The circle of the orchestra, still intact, is about 66 ft. across. Overall, the Theatre is 373 ft. in diameter; 32 rows of seats form the lower division of the auditorium, which is separated from the upper division (consisting of 20 rows) by a broad passage. Access to all parts of the Theatre was given by 24 flights of steps diverging as radii from bottom to top.

• • •

Polycleitos was the designer of this, the best preserved of all Greek theatres, in the fourth century B.C.

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

In common with every other periodical this JOURNAL *is rationed to a small part of its peace-time needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the* JOURNAL. *Newsagents now cannot supply the* JOURNAL *except to a "firm order." Subscription rates: by post in the U.K. and Canada, £1. 3s. 10d. per annum; abroad, £1. 8s. 6d. Special combined rate for* ARCHITECTS' JOURNAL *and* ARCHITECTURAL REVIEW *in the U.K. and Canada, £2. 6s.; abroad, £2. 10s. Single copies, 6d.; post free, 8d. Special numbers are included in subscription; single copies, 1s.; post free, 1s. 3d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 12s. 6d. each; carriage 1s. extra. Goods advertised in the* JOURNAL, *and made of raw materials now in short supply, are not necessarily available for export.*



Journal Abbreviations

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974.
ABT	Association of Building Technicians. 113, High Holborn, W.C.1.	Holborn 1024-5.
APRR	Association for Planning and Regional Reconstruction. 32, Gordon Square, W.C.1.	Euston 2158-9.
ARCUK	Architects' Registration Council. 68, Portland Place, W.C.1	Welbeck 7938.
BC	Building Centre. 23, Maddox Street, W.1.	Mayfair 2128.
BINC	Building Industries National Council. 110, Bickenhall Mansions, W.1.	Welbeck 3335.
BCG	British Commercial Gas. 1, Grosvenor Place, S.W.1.	Sloane 4554.
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434.
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140.
BPVM	British Paint and Varnish Manufacturers. Waldegrave Road, Teddington.	Molesey 1063.
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
CDA	Copper Development Association. Grand Buildings, Trafalgar Square, W.C.2.	Abbey 2677.
CMC	Cement Marketing Company, Coombe Hill, Kingston, Surrey.	Kingston 2140.
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.
DOT	Department of Overseas Trade. Dolphin Square, S.W.1.	Victoria 4477.
DIA	Design and Industries Association. Central Institute of Art and Design, National Gallery, W.C.2.	Whitehall 2415.
FGLMB	Federation of Greater London Master Builders. 23, Compton Terrace, Upper Street, N.1.	Canonbury 2041.
GG	Georgian Group. 55, Great Ormond Street, W.C.1.	Holborn 2646.
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.
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215.
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172.
ISPH	Industrial & Scientific Provision of Housing. 3, Albemarle Street, W.1.	Regent 4782.
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 Society. 8, Clarges Street, W.1.	Grosvenor 2652.
MICE	Member of the Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577.
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.
MOTCP	Ministry of Town and Country Planning. Lambeth Bridge House, S.E.1.	Reliance 7611, Ex: 1519.
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611.
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 and Planning, Lambeth Bridge House, S.E.1.	Reliance 7611.
RCA	Reinforced Concrete Association. 91, Petty France, S.W.1.	Whitehall 9936.
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Welbeck 6927.
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.
WLA	Wrought Light Alloys Development Association. Union Chambers, 63, Temple Row, Birmingham, 2.	Midland 0721.
ZDA	Zinc Development Association. 15, Turl Street, Oxford.	Oxford 47988.

NEWS

THURSDAY, MARCH 18, 1943
No. 2512. VOL. 97

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.

In the House of Commons Mr. Hannah asked the Minister of Health whether he will give an undertaking that in his post-war planning HOUSING SHALL TAKE PRECEDENCE of the rebuilding of such fabrics as are not immediately necessary to the life of the nation?

Mr. E. Brown: I cannot give that undertaking since many considerations are involved and the matter is under examination. But I gladly undertake to press for the highest priority for housing work.

Bradford Corporation is considering the PURCHASE OF TONG HALL ESTATE, of 747 acres, in Yorkshire, with its Queen Anne manor house, gardens, park, farms and cottages. The estate is to come under the hammer in Bradford on April 1. The village of Tong has remained unchanged through the ages. The village smithy, for instance, has been in one family for over three centuries. It has one shop and one public-house. No trains or buses disturb its serenity.

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

REINFORCED CONCRETE IN THE ELECTRICAL INDUSTRY

Reinforced concrete cooling towers.

ELECTRICITY undertakings in all parts of the country have played a vital part in maintaining the output of our war industries. Their ability to do so has been due in no small measure to the sterling qualities of reinforced concrete structures which have given trouble-free service and provided a high degree of resistance to enemy bombing. The vast schemes of development and reconstruction which will be called for in the post-war years will make even greater demands on the resources of electricity undertakings. To meet the needs of increased output, reinforced concrete will be the logical choice of material for coal bunkers, cooling towers, water ponds, power houses, offices, and all construction work.

THE REINFORCED CONCRETE ASSOCIATION

94, PETTY FRANCE · LONDON, S.W.1.

Telephone: Whitehall 9936.

from AN ARCHITECT'S *Commonplace Book*

SIR EDWIN LUTYENS AND HIS GENIUS. [*From* Sir Edwin Lutyens, *by his son, Robert Lutyens.* (Constable.)] He has a simple and unqualified belief in his genius. He has an equally unqualified dislike for the work of most contemporary architects, and for all but two or three contemporary painters whose work displays (in his own phraseology) tolerably good manners ! He is reticent and ill at ease in the presence of any immoderate expression of feeling. He would emphatically deny the emotional quality in much of his own work ; admitting only the claims of a rigidly applied geometry, of disciplined planning, and of a knowledge of the character of materials. To this extent he is in the true line of the English masters, who conceived of the churches they built as places of judgment rather than of prayer, and who secularized the ascending steeple by idiomatic variations on classical themes. But his inexhaustible invention is without ready parallel. His art has been a superlative gift of heaven. His temperament is the product of an ancestry—previous to his father, that is—as remote, one would think, from any title to inspiration as it possibly could be.

Speaking at the annual meeting of the Southern Railway Company, Mr. Robert Holland-Martin, the chairman, said that it is not for the State TO EXPLOIT THE ROADS AT THE EXPENSE OF THE RAILWAYS, with the possibility, at some later date, of purchasing the railways at a sum below their real earning value. Mr. Holland-Martin, chairman, said there is still wisdom and virtue in individual ownership, the system under which British railways are conceived, financed and developed at no cost to the taxpayer. From the day the war started our railways have done their job with conspicuous success. If, to prevent unemployment after the war, untold millions are to be spent on the roads of this country. Parliament must remember the services that railways not only have given but are capable of giving in the future.

✶

Mr. George Hicks, Parliamentary Secretary to MOW, in reply to a question by Sir William Brass, in the House of Commons, announced details of a voluntary scheme for the grouping of that part of the building industry dealing with maintenance and small works. About 2,000 BUILDING FIRMS ARE TO BE GROUPED. The proposals will be applied to the carrying out of major repairs to some 40,000 bomb-damaged houses throughout the country, a task which the Government has decided must be greatly accelerated. The decision to introduce the scheme has been taken with the agreement of MOLNS and the approval of the advisory council of the building industry. Mr. Hicks stated that the contracts are being placed with groups of builders to be formed voluntarily through the regional works and buildings emergency organizations of MOW. The scheme is in general limited to firms employing up to 25 operatives and to local labour over 51 years of age not required on urgent priority works in the Government's building programme. Firms which desire to co-operate are being formed into groups of about 10 firms each, and their immobile labour is being pooled and made available to each group as required for work covered by the scheme. The scheme is designed, Mr. Hicks added, to keep such firms in a position to undertake their share in the programme of reconstruction after the war. It is expected that, within its present scope, the scheme would affect about 2,000 firms.

In the House of Lords, the Lord Chancellor, Viscount Simon, moved the SECOND READING OF THE WAR DAMAGE (AMENDMENT) BILL. It is a Bill mainly to amend Section 4 (1) of the principal Act, which was the War Damage Act of 1941. This subsection deals with the important question whether a value payment or a cost-of-works payment should be made in the case of premises that have suffered war damage. Viscount Simon recalled that a cost-of-works payment is made where the property can best be repaired or rebuilt and the payment is made when the work is done. A value payment, on the other hand, is normally made where the property is a total loss and it is a compensation for depreciation in value caused by the war damage because the case is one in which the particular property is not worth repairing. Continuing, he said : The question, therefore, under that section is whether a particular property is worth repairing or not. That is a matter which the War Damage Commission from time to time has to decide. But it has been found in experience that there is this very great difficulty in working out the scheme. Section 4 (1) of the principal Act requires the Commission to decide whether the particular case is a case of total loss by reference to levels of costs and values at some future indeterminate date. That being so, the Commission really is set an almost impossible task, for it would either have to delay making its estimates almost indefinitely, which would be most unfortunate, or else to make what is little more than a guess as to future changes in costs or values. In fact, up to the present the Commission, having that choice before it, has had to delay its decision in a large number of cases. I should emphasize that the only cases in which any difficulty arises are borderline cases where a very narrow margin separates the situation which would call for a cost-of-works payment from the situation which would call for a value payment. What, therefore, we propose to do by this amending Bill is to make this change : to authorize the taking of values and of costs as at March 31, 1939 ; that is to say, a past date instead of some indefinite future date. This same date is that on which value payments are already assessed for certain collateral purposes such as for calculating depreciation. It is impossible to be quite confident in advance how it will work out, but there is no reason to think it will produce a very substantial change. The question, of course, is whether the costs will rise more than the values, and there are obviously arguments either way. It may be that the result is likely to be, in the borderline cases, slightly to increase the proportion of cost-of-works payment. But there is no other course that can be taken as a practical matter. The House of Lords gave the Bill a Second Reading. It has already been carried without dissent in the House of Commons.

We regret to record the DEATH OF ANDREW DOUGLAS BRYCE, A.R.I.B.A. During the last two years he had been associated with Mr. Sam Bunton, of Glasgow, and for the past twelve months had been working on various systems of housing related to improved standards of planning, construction and equipment. Mr. Bryce started his architectural training in Glasgow and went to London before the outbreak of the last war. After serving in the R.E.'s during the last war, in which he won the D.S.M., he joined the staff of Sir John Burnet, Tait & Lorne, became chief assistant and was associated with many of the firm's largest undertakings. Recently he applied all his energies to the repair of a heavily blitzed town and made valuable contributions to the town's planning and reconstruction scheme. He died in a London hospital.

Yorkshire Theatres of Bradford, of which Mr. Francis Laidler, the theatre proprietor and pantomime producer, is head, and George Thompson (Leeds) Ltd., of Leeds, decorating contractors, were each fined £10 in Leeds Police Court for WORK DONE AT THE THEATRE ROYAL, LEEDS, WITHOUT A LICENCE from MOW. Mr. G. Goodhart, Town Clerk's Dept., said that the regulations provided that no building work (unless the total cost was less than £100)

Director of the National Gallery

When war came the National Gallery, its pictures removed to a cave, became the home of the midday concert. Now it houses the Rebuilding Britain Exhibition. The leading personality in these developments, from pictures to music and from music to architecture, is Sir Kenneth Clark. Before he became Director of the National Gallery and Surveyor of the King's Pictures in 1934, he was for three years Keeper of the Department of Fine Art at the Ashmolean Museum, Oxford. He is thirty-nine years of age, was educated at Winchester and Trinity College, Oxford, and worked for two years with Mr. Bernard Berenson in Florence. He is the author of a book famous in the field of architecture, *The Gothic Revival*, and he was largely responsible for the formation of the *National Buildings Record*. An expert on painting, he was made Director of the National Gallery at the early age of thirty-one, Ryerson lecturer at Yale in 1936, and a K.C.B. in 1938. There is almost nothing Sir Kenneth does not know, and he is as good a friend to architecture as he is to painting. It is largely through his initiative that the RIBA exhibition is being held in the National Gallery, and his influence has been used to make it a progressive social contribution rather than an academic one. Sir Kenneth is a very potent force to-day in the world of cultural relations.

might be undertaken without a licence from the MOW, or an authorization from the appropriate Government Department, and in addition that not more than £100 might be expended on any single property in any period of 12 months. Over £100 was expended on work at the Theatre Royal, Leeds, during the period ending June, 1942, and after that a contract was entered upon for £95 by Thompsons for painting the exterior. Another theatre and some cinemas had applied for licences which were refused, and that was the principal reason why this prosecution had been brought, because it was not fair to other places of entertainment. Mr. W. R. Hargrave, for the contractors, said his clients were under the impression that so long as the work within one calendar year did not exceed £100 they could complete the contract. Mr. H. M. Dawson, representing Yorkshire Theatres, Ltd., said Mr. Francis Laidler expressed his regret if the regulations had been broken. He thought the theatre required painting outside and decided to have it done quite cheaply for £95. The Stipendiary Magistrate (Mr. Horace Marshall) said Mr. Laidler had apparently not read the regulations, and Mr. Dawson suggested that possibly he would not have understood the regulations if he had read them. Since they had applied for licences, said Mr. Dawson, they had had no difficulty in getting them, and he suggested that if in this case they had applied for a licence it would have been granted. Mr. Laidler, in evidence, said he did not realize at the time that he had exceeded his quota. It was usual to have the outside of the building painted every three years, and as this was the fourth year he thought he was doing the right thing in having the work done for £95, which was very little. The Stipendiary Magistrate said he thought that if the departments had read the regulations and applied for a licence they would have been granted one up to £100, and possibly more. He did not consider it a very serious matter, but must impress upon the defendants the necessity of keeping to the regulations by imposing in each case a penalty of £10.

At the Sessions House, Newington, last week, Major A. D. S. Rice and Mr. W. E. Rice, O.B.E., were SWORN IN AS JUSTICES OF THE PEACE for the County of London.
The new Justices, uncle and nephew, are Chairman and Deputy-Chairman of Rice & Son Ltd., and both are past Presidents of LMBA. Major A. D. S. Rice will sit at Wandsworth County Court, and Mr. W. E. Rice at St. Margaret's, Westminster.

Deptford BC has complained of the DETERIORATION OF MANY HOUSES owing to the cessation of repair work during the war.
The Metropolitan Boroughs Standing Joint Committee has now asked all constituent councils to furnish particulars of the position in their boroughs. Deptford complains, states the *Evening Standard*, that many houses have been slightly damaged in air raids and it is not possible to carry out first-aid repairs without first renewing roof timbers and window frames. Deptford asks that the whole question should be reviewed.

Mr. Rostron Duckworth asked Mr. Ernest Brown, MOH, in Parliament if he would state the gross cost of SUBSIDISING THE FOUR OR FIVE MILLION HOUSES it was proposed to build after the war as a matter of urgency, on the basis of the subsidisation which was approved under the last Housing Act.
Mr. Ernest Brown replied that it was not possible to say what number would be eligible for subsidy. Mr. Ivor Thomas—Are you aware that there is no object more worthy of subsidies than homes for the people ?

Mr. Alfred C. Bossom asked the Minister of Town and Country Planning in the House of Commons whether he will REVIEW THE SPECIAL PRIVILEGES held by the Commissioners of Crown Lands, railway companies, etc., to require all to conform with town and country planning and building regulations?
Mr. W. S. Morrison: The exemption of the Crown from the provisions of the Town and Country Planning Act, 1932, is unlikely in practice to lead to difficulty in future. That Act confers no general exemption on railway companies and other statutory undertakers. The question of the application of provisions of schemes made under the Act to such undertakers is being considered in connection with the Scott and Uthwatt Reports.

THE BUILDING CONTROL

CHANGES in the organisation of the Civil Building Control during 1942, (namely the transfer of licensing powers from architects to clerical officials), require us to return to a leading article written shortly after the inauguration of the Control over two years ago.

It may be recalled that gratification was then expressed at the good sense of MOW in appointing architects as Licensing Officers in the various Regions throughout the country, and it was argued that their experience and training qualified them better than any other people for the responsible function, professional and distinctly technical in character, which they would be required to discharge. The crux of the matter, expressed briefly, was that clerical officials were not competent to deal with the highly complex building questions, covering the whole professional and technical range of the industry, which would form the daily work of the Building Control.

Recently and for several weeks past we have been publishing a number of letters from architects, builders and others concerning the operation of this same department of MOW. In general there has been strong criticism and a convincing unanimity in the nature of the complaints.

Conviction is the greater not only because of this unanimity but also because builders and architects corroborate one another to an extent which can hardly be discounted. Whether the trouble is due to technical or clerical officials they demonstrate, in differing degrees, that serious irritation and costly delay are frequently being caused to applicants. Paraphrased they amount to a charge that there is undue delay in dealing with applications for licences, as well as unnecessary and irrelevant correspondence. It is suggested that access, by the applicants, to technical men is denied at a time when discussion would secure proper comprehension of their proposals. This idea is expressed with force both by a builder and an architect but the former goes further and rounds off his comment by making a definite attack upon architects generally. In fact he places them in the pillory as the principal offenders.

It is this final charge which claims our chief interest. It may have been noticed that a number of contributors, including builders, have since entered the lists in defence of the professional men. They explain that architects are no longer in control and state also that when they were responsible for the licensing of building projects, the work was done efficiently and gave general satisfaction to the building public.

As a sequel to the changes in staffing already referred to, which occurred early in 1942, the architect Licensing Officers —who in the majority of cases were men with wide experience of their exacting vocation—have been required to hand over their duties to officials who possess no knowledge whatever of any aspect of building. In many cases the people who are now examining applications and recommending the

issue or refusal of licences for building works are not even experienced Civil Servants. They may be war-time recruits from any calling under the sun except the Building Industry. To put it mildly their suitability to assess the nature and urgency of building proposals and maintenance is not apparent.

To put it less mildly, the officials now operating the Civil Building Control do not understand the job they have taken on. The clerical official, dabbling in building matters in a quasi-technical way, involves himself in tactical exchanges which he can neither break off effectively nor bring to a clear decision. He has shown himself to be behind-hand in inviting expert technical advice at the correct moment and in acting upon it when it is available.

The decision to supersede the architects and in their place to appoint non-professional people is surprising but presumably it is consistent with the customary official procedure where normally the advice of experts has to be sought by the administrator, at his discretion. The sequel in this instance may, however, be taken as a warning of what could happen under a general system of State Control. If the Civil Building Control may be taken as a fair sample of what is in store for the nation, it would appear that the doctors are fully justified in the doubts recently expressed by a number of general practitioners in regard to their own future.

On MOW lines a State Medical Service would require a patient needing treatment to fill in an application form describing his medical history and symptoms which, no doubt, he would submit in due course, to a "lay" secretary, for rubber stamping with a standard diagnosis. If the patient met with reasonably good luck he would possibly escape an inappropriate treatment and would recover; but he might equally well find himself being invited to swallow an aperient when he was urgently in need of an amputation. Whatever MOW might say we are sure that our correspondents as well as their colleagues would not argue that we have carried the analogy too far.

The questions which have been raised in our correspondence columns and which we have emphasised here, are not merely the matters of departmental organisation they appear to be at first sight. They are of urgent importance because the interests of architects, engineers and builders and, through them, of a large section of the public may be jeopardised and their money wasted by delay in granting licences for essential work—delay which is avoidable. On behalf of this section of the public as well as on behalf of the profession we feel justified in calling for early consideration of the matter by MOW and with no desire to interfere with traditional official policy we also suggest that arrangements must be made which will place the Architect in proper relation to the work which has to be done by the Control. It is common sense that his knowledge and experience, which obviously qualify him to deal with the kind of difficulties which are occurring, shall be employed.

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

NOTES & TOPICS

THROUGH DARKEST BETJEMANIA

The recent return to England of Mr. John Betjeman, the well-known topographical poet and church furnishing expert, has been suitably celebrated by his appearance in the BBC Brains Trust, and more importantly by the publication of two books from his pen.

★

The titles of these, *Vintage London* and *English Cities and Small Towns*,* are self-explanatory and their subjects are of course right up Mr. Betjeman's street. If you know Mr. Betjeman you will know at once what sort of a street his is—lined as it always was with lace-curtained and battlemented bay-windows, with chapels and spiky conifers, with tiled garden paths and squeaking iron gates. Every author is happiest against a background of his own topographical choice, whether it is the Riviera of Oppenheim, the Mayfair of Waugh, or the Grahame-Greeneland of suburban roadhouses and fly-blown tobacconists.

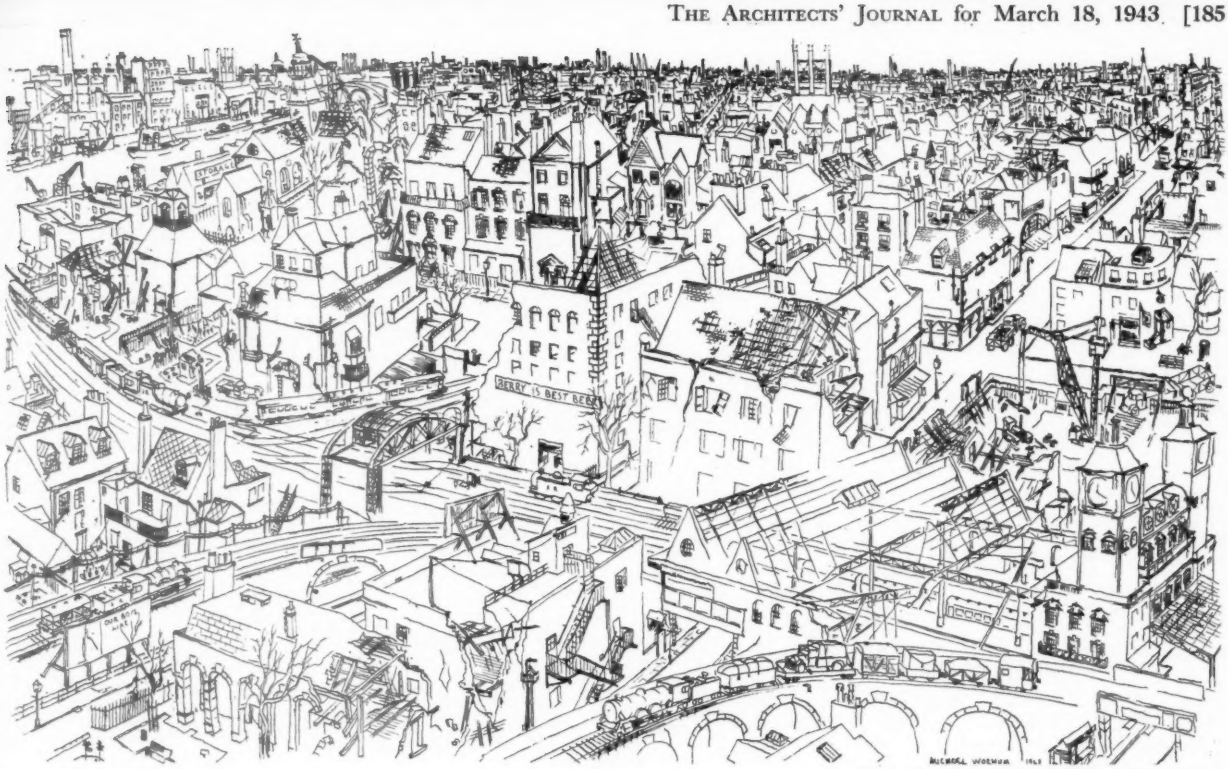
★

In the land of pitchpine, baize and gaslight, Mr. Betjeman is the supreme guide, and he leads us through it with an affectionate zeal which seems in these books to have been sharpened by his exile.

★

Both books are primarily picture books and though the war-time quality of reproduction is not high, this is more than compensated for by the wit and imagination shown in their selection, ranging from

* *Vintage London*, The Colour Art Books Series (William Collins). *English Cities and Small Towns*, Britain in Pictures Series (William Collins).



From the drawing by Michael Wornum

Rembrandt and Doré to John Piper and Kenneth Rowntree, from the photograph of a Cowper interior to the 30-year-old cover of a *Strand Magazine*.

★

In *Vintage London*, Mr. Betjeman describes the land on which it is built, the way in which it grew and the people who lived in it. In *English Cities* he takes us on a stroll round some of his favourites—Salisbury and Cambridge, Alnwick and Thaxted, Bridgnorth, Burford, Bristol and Padstow—and advises (how admirably !) on the best methods of exploration. With the confidence of experience Mr. Betjeman arrives by train, stays in obscure commercial hotels, and seeks his knowledge in the mahogany and mirrored bars of Victorian pubs, the cosy studies of local antiquaries, or from the post-card racks of old-fashioned shops, where his change rattles off to the cashier along an elevated railway. Welcome home, Mr. Betjeman, the conservatory panes have not shone so brightly, nor the Minton tiles so richly since you went away.

PROUST CULT IN ARCHITECTURE

Above you see a delightful drawing of a subject too familiar to need a title. It is by the schoolboy son of a well-known architect whose name you must guess unless you can read the signature below the picture.

★

Conversation piece :

Son : Do you like my drawing, papa ?

Papa : An excellent drawing, my son, of the shocking mess that you and I will have to help to clear clean away before we begin to PLAN.

Son : But, papa, I *like* it.

★

Do I hear already in this last remark a significant cry of revolt from the rising generation against the vast potential planning of the coming years ? Will we planners be one nearby day just *vieux jeux ?* Then, doubtless, we shall react against the youthful passion that would restrain our iconoclastic hand from wiping from the earth's face all the bitter-sweet, nostalgic horrors of the pre-war days. Derisively we shall quote in self-defence from our contemporary, Aldous Huxley, on the subjective Proust, " that asthmatic seeker of lost time for ever squatting in the tepid bath of his remembered past . . . taking up spongefuls of his own thick soup and squeezing it over his face, scooping up cupfuls of it and appreciatively rolling the grey and gritty liquor round his mouth, like a pious Hindu in the Ganges."

★

Even the most uncompromising planner, however, could not refuse to admit the very human desire to retain something of the past—even the worst of it—in that brave new world of the future. There lived an architect once who designed modern interiors that were pure and clean as water and that looked in the photos even more splendidly austere than in reality. Nevertheless he himself lived in a vast and rambling mansion amidst a chaos of Victoriana almost surrealistic in its frightfulness. This was not affectation. He *liked* it.

★

I suggest a compromise with the Unplanners. Let us, in the post-war world, retain as museum pieces one or two of the worst of our existing towns for the sake of that sentiment—sentimentality if you like —which the purest of us cannot deny in himself. A part of the Great West Road, too, dead and dreary as it may be to us, could be preserved intact with its factories, speculative villas and good-pull-ins-for-carmen, for to our grandchildren even these will have, through the remembrance of things past, a strange and perverse fascination.

ASTRAGAL

TOWN PLANNING NOTES

ARCHITECTS AND PLANNING

The conviction of the older generation that an architectural training creates not only an architect but also a town planner is challenged by the younger generation in the journal of the Architectural Association. In his presidential address Mr. Kenyon had expressed the former view at some length. He was at once challenged by Leo de Syllas and now Jane Drew and Ian McCallum have given battle.

★

Jane Drew considers that to create an ideal post-war Britain, there must be a vision for its future life. This she says is not a matter for architects, but for poets, artists, philosophers, educationalists, economists, sociologists, industrialists and others. It is then for the architects to provide a physical solution for this vision. Miss Drew suggests that a University should be asked to form a committee which should then advise the AA architects of its findings.

★

Ian McCallum thinks that the architect should gain the confidence and respect of all the specialists without whom realistic planning cannot be undertaken, so that a basis may be established for group working. He quotes from a publication of the APRR which states that " Planning involves an awareness of many subjects, and of the impact of each of these upon the whole field. The Association believes that physical planning can best be done by small, well-balanced groups of people, drawn from many occupations, who have developed a technique of working together."

THE PLANNING TEAM

At a meeting of TCPA on March 4, Colonel Cameron, past President of TPI and himself an engineer, considered that he was well in advance of public thought when he insisted—with a wealth of historical analogy—that architecture and engineering needed to work together in the preparation and execution of planning schemes.

★

The audience, however, had taken this much for granted, and one after another demanded that planning should be done by a group or team of members of many professions of which a sociologist should be somewhere near the centre.

LETTERS

John Gloag

A.R.I.B.A.

H. A. N. Brockman

Frederick Butler

Kara Alabyan

Utility Furniture

SIR,—As Astragal has referred to me personally in connection with the Advisory Committee on Utility Furniture, it would be discourteous to ignore his remarks, and silence might also suggest that I agreed with his critical views. First, let me say that I was not in any way concerned with the lay-out, design or production of the official catalogue : nor, as far as I know, was any other member of the Advisory Committee.

As a committee we were concerned only with the interpretation of our terms of reference, so that utility furniture could be produced as speedily as possible. Speaking for myself (for I have no right to speak for others), I can say that nothing would have given me deeper satisfaction than an opportunity for showing to my fellow-countrymen the pleasant, gracious and labour-saving things that can be created with contemporary materials, when they are in the hands of industrial designers of the calibre of Brian O'Rorke or R. D. Russell. But, Astragal, we are at war.

The Egyptians told the Israelites to make bricks without supplying them with straw : it never occurred to those hard task-masters to withhold supplies of clay too. But war, Astragal, is a harder task-master than the Egyptians. I should have liked to make furniture from plastics. But there is a Plastics Controller, and no plastics could be released for this sort of civilian consumption. We are at war, Astragal. I should have liked to use plywood ; for bent plywood furniture would have given home-makers new ideas and new, light, agreeable shapes for their rooms. But there was no plywood. We are at war. The timber content of each article was determined by the limited amount of timber available : little could be spared, for the needs of the services are great. We are at war, Astragal. I should have liked to see convenient associations of light alloys and timber ; but aluminium is a vital war material.

So, because we are at war, and because this utility furniture is *rationed* furniture, and because we had to consider how the existing machinery of the furniture manufacturing industry could handle the production involved, with the minimum of labour, there was no opportunity for setting up new production processes, and evolving new techniques, which would have been necessary if experiments had been made with all the new and exciting materials that exist, but which were not available. The results are plain, unpretentious, unexciting ; like utility clothes, like our food rations. We are at war : a dark and bloody fact that is too often forgotten by those who are dreaming of a new heaven and a new earth and making plans—on paper.

JOHN GLOAG.

London.

Salaries

SIR,—I was very interested in the letter by Judex in your issue for February 25, on salaries offered to architects in local government employ. I would like to quote a recent experience of mine in this connection.

I am an A.R.I.B.A., and also have a recognized Diploma in Town Planning. I made application for an appointment of Planning Assistant in the department of a Home Counties Planning Officer. I was informed that my qualifications were those required for the position vacant and that I was a suitable applicant.

As a result of this I was offered the appointment at a salary of £250 per annum, rising to a maximum of £300 per annum. I was to provide my own car for official business and would receive an allowance of £72 per year.

When salaries such as these are offered to qualified architects and town planners it is not surprising that local authorities are only able to obtain unqualified or partly qualified assistants.

Surely it is time that the RIBA and the TPI set to work on this important question of salaries of local government architects and town planners and issued a minimum scale of salaries. It is difficult to imagine an assistant MOH being offered £250 per annum and to provide a car for official business.

A.R.I.B.A.

The RIBA Exhibition

SIR,—Whilst agreeing with the tribute paid in your issue for March 4 to the method of approach and the new and adventurous spirit upon which the RIBA planning exhibition is based, I am surprised that your appreciation should be so completely unqualified.

I believe I am right in saying that at least half-a-dozen assistants have been working on it with the designer for upwards of a year, and that the cost has run into some thousands of pounds ; and with this knowledge I submit the following remarks :

The lettering across the tops of the screens is coarse and the sub-titling, whilst being pleasant in itself, is so out of tune with the best of to-day's typography as to constitute an anachronism. The careless mounting of titles and pictures is inexcusable ; many are already coming away from the screens. In two cases titles were somewhat obviously obliterated. Large photographs, when reproduced by different methods and placed side by side, look extremely awkward. The symbolism used to illustrate the development of the planning unit is a too " precious " medium for the average visitor. The diagrammatic presentation of the Master Plan is not easy for even the technical visitor to grasp. There is a lack of direction in the layout ; I saw quite a few people going the wrong way round and heard expressions of bewilderment on this point.

CARRYING CEMENT IN BULK

From May, 1942, to January, 1943 MOW delivered 210,000 tons of cement in bulk to 34 projects, thus saving much time and labour and 1,400 tons of paper for bags. By quick supply of cement in bulk and the use of paving machines, very rapid construction of aerodrome runways has been possible; in one case, 5,800 feet of a 15-foot strip were poured in a day. Below, a 12-ton lorry on a ramp is delivering cement in bulk by gravity. It can be emptied in 20 minutes by four men. Above, cement is being delivered straight into the elevator of a large concrete mixer.

I feel that it is historically incorrect to offer the Clifton and Coalbrookdale bridges as examples of decadence, whereas they are pioneering efforts in the use of metal in structural design. The debt which this and every other period owes to continental influence is undeniable and, where planning lay out is concerned, we unfortunately have little to show; there are certainly, however, enough good examples in building design of contemporary quality in Great Britain with which to illustrate architecture in an exhibition by the RIBA. In quality and arrangement the exhibition falls short of the standards it should attain as "the complete and unanimous message of the whole profession."

The Institute Journal, speaking of the background of planning, says: "The sheet is badly smudged and many confusing symbols have been added." This is a not much exaggerated description of the appearance of the present exhibition.

H. A. N. BROCKMAN

London.

After the War

Sir,—Reconstruction after the war is the problem that is occupying our minds very much at the moment, but I would like to suggest that a practical way of preventing mass unemployment must come first.

For twenty years before the war, this country was carrying millions of workless people and those of us who lived through those years will never forget the crowds of able-bodied men, many of them having fought in the Great War, who lined up week after week and year after year to draw the degrading dole.

How are we going to prevent a recurrence of this?

Not by building labour-saving houses for workless people in a country always faced with the danger of starvation in the event of another war, for no one can guarantee that what the world is going through now is the *War to end War*.

We have not enough land in the British Isles to grow half the food we require to make us self-supporting, and now we are told that thousands of houses are to be built to meet the post-war demand and these houses must, of necessity, be built upon land that is needed for agricultural purposes.

Surely the time has come for us to face the fact that our country is dangerously overcrowded?

Look at our cities with their people huddled together and their streets thronged! Our roads, with a continuous stream of traffic taking away all pleasure from our journeyings and becoming more and more a danger to life.

Can we not start our post-war reconstruction in our under-populated Dominions and Colonies? There we have thousands of fertile acres crying out for development, and there health and happiness await the youth of Great Britain.

Emigration must not, however, be carried out in any haphazard fashion, but a practical scheme prepared.

Modern towns could be built in the selected areas with the farmlands around so that people will not be isolated, and these towns serve as centres for industry and markets.

Small modern Britains in all parts of the world could be built and the land laid out in a way that would invite people to make their homes there and, by means of air transport, always

be within a few hours' reach of the Motherland. By this means Great Britain, the Dominions and the Colonies could be self-supporting and free from the curse of unemployment and, most important of all, be independent of the outside world should trouble arise.

FREDERICK BUTLER,
Chairman of the Architectural and Building Surveyors' Society.

Dublin.

CABLEGRAM

from Russia

The following cablegram, headed Soviet Scientific Researches into Theory and History of Architecture, *has been received from Academician Karâ Alabyan, Vice-President of Illurian Academy of Architecture.*

In addition to tremendous practical activities undertaken in connection with design of new industrial and living premises in eastern districts of Soviet Union and restoration of dozens Russian cities destroyed by Germans, scientific research work on Theory and History of Architecture is still being conducted by Academy of Architecture of USSR. Last year first volume of *History of Architecture* devoted to architecture of ancient world was completed. Work is in progress on next two volumes on Architecture of Greece, Rome and Middle Ages. Each volume will contain 500 to 600 pages and will be copiously illustrated.

Academy is also preparing number monograms for publication on *Monuments of Russian Architecture*. Lengthy monograph is devoted to Cathedral of Saint Basil Blessed on Red Square in Moscow, 16th Century Building. Second monograph which Academy is preparing in conjunction with Committee Preservation National Monuments deals with three famous 17th Century building Cathedrals in Fili and Troitsky-Lykov and Church at Ubori. Third monograph will deal with Classic Monuments of Petersburgh.

Important research work on ancient Russian architectural ensembles—city fortifications (Kremlins) and monasteries—is nearing completion. Researches being carried out on history of dwelling-houses in Georgia, Armenia, Central Asiatic Republics, Turkmenistan, Uzbekistan, etc., and Siberia. Illustrative material is being collected.

Work is being continued on exhaustive *Annals of Soviet Architecture*. So far annals have been issued up to 1939. At present moment annals for 1941 and 1942 are in course of preparation.

Interesting theoretical and historical research work are *Popular Influence and National Characteristics in Russian Architecture* and *Programmes of Modern Architecture* which give details creative *credo* of outstanding Soviet and Foreign Architects. Book gives details of principles of work of Academician Alexei Shchusev, Stalin prize-winner, who designed Lenin Mausoleum in Moscow, Kazan Railway Station and Hotel *Moskva*, and about 100 other buildings: Brothers Vesnin who designed Dnieper Power-station; Academician Boris Jofan, who designed Palace of Soviets, construction of which was interrupted on account of War at time when it was already in full swing; of Western Masters book examine Architectural Systems of Wright, Corbusier, Perret and Estburg.

Statements on Architecture by outstanding people of all times and all nations are being collected and systematized. Amongst them are statements by philosophers, writers, artists, art critics and statesmen.

Academy of Architecture will this year publish about 400 works—a total of 7000 pages—including number important monographs on Theory of Architecture, Town Construction, Town Planning, Building Technique, etc. Six new issues of *Architecture of USSR* will appear this year, giving betails of work and achievements of Soviet builders.

KARA ALABYAN

WARTIME HOUSING

An interim Report prepared by CCA on permanent types of construction, reviewed by our Technical Correspondent.*

The use of concrete for floors, roofs and staircases during the war has brought various problems in detail design and at the same time produced a number of solutions. The Cement and Concrete Association has compiled records of 26 housing schemes which, with certain conclusions, are summarised in the present publication. The title *Interim Report* is used advisedly since the final report would have to be based upon long-term observations of the behaviour of the various types of construction in the completed and occupied houses.

The report comprises some 60 foolscap pages with 220 drawings and photographs, and deals in a systematic manner with all important aspects of the designs, such as planning, appearance, structure (walls, foundations, floors, roofs, etc.), finishes, services and ARP. All examples refer to houses having load-bearing brick walls, reinforced concrete floors and flat roofs (except in two cases), and it is pointed out in the foreword "that this particular method of building houses is only one of many methods." In collecting the data it has been realised that the use of concrete in housing involves far more than the mere substitution of one material for another, and affects not only matters of design such as house and site planning, elevational treatment, etc., but also matters of detail such as positioning of water, gas and electrical services.

The importance of the report is in the fact that the information contained in it is based on actual experience. It may be expected that at some later date the report will be published in enlarged form, including more housing schemes, more details and reports on the behaviour of occupied houses. The following remarks should, therefore, be considered as suggestions for a second edition.

It is most valuable that besides giving a vast amount of information, the report endeavours to give "yardsticks" for the various requirements in housing, so as to help readers to form their opinion in adopting or rejecting certain solutions; e.g. 11 items are recommended for consideration by the Architect before he selects any particular type of concrete construction for suspended floors and roofs (p. 11). The first of these is cost. Cost is a fundamental consideration in everything, and naturally so in a housing scheme, but in view of the 10 other items some guidance would be needed to assess their value in cost. If the decision had to be based on the direct cost of the floor or roof construction only, all other items would be irrelevant. If, however, they are also to be looked into (as undoubtedly they will be), some indication of their importance in terms of money would be desirable. The most obvious example is item (3) *Sound and Heat Insulation* (which, by the way, should have been subdivided into two separate items). Without an expert knowledge of these subjects and thorough numerical investigation it is impossible to compare the 21 various systems contained in Appendix I, although their insulation values (both for heat and sound) vary within very wide ranges.

"It is strongly recommended that all concrete roofs to houses should be insulated, in the first instance, by means of insulation placed *above* (writer's italics) the structural roof. Provided the soffit is plastered, either ½ in. building board or 3 in. average thickness lightweight concrete screed *above* (writer's italics), the roof will afford a standard of insulation equivalent to that of the normal felted, battened and tiled pitched roof with a lath and plaster ceiling. Lightweight concretes are concretes made with lightweight aggregates such as foamed slag, clinker, broken brick, etc., and insulating screeds using these aggregates are liable to more thermal movement than the structural roof itself. Thus, particularly where parapet construction is used, space for the expansion of the insulating screed should be allowed at the foot of the parapet" (p. 18).

This recommendation seems to ignore the differences between the various systems and to overlook those which are self-insulating and need no extra layer of screed. Further, if the insulating screeds are "liable to more thermal movement than the structural roof itself," is it not better to arrange the insulation, if possible, *under* and not *above* the structural concrete, where it is less likely to cause trouble to the parapet? Is the thermal insulation of concrete made with the various lightweight aggregates equivalent and is the mix of the concrete of no importance? It would appear that the question of thermal insulation has been dealt with by rule of thumb methods. A much more systematic and scientific approach is required. The necessity of fuel economy need not be stressed in these days. A minimum standard of thermal insulation (in terms of BTU/sq.ft./hr./1°F) should be established for various parts of the country, according to climatic conditions. The influence of a specified thermal insulation on the practical value of a roof would be much greater than that of the usually specified superimposed load (which may be 40, 30 or 15 lb./sq. ft.).

Appendix I should contain figures characteristic of the thermal insulation of the various roofing systems, such figures to be obtained from BRS or the National Physical Laboratory and not from the suppliers of the systems.

Another important item, the money value of which is not easily assessed, is (8) *Type of service installations*. Most of the solutions shown on pp. 44 to 48 are unsatisfactory, whereas better and cheaper arrangements, actually carried out, have not been included in the report.

"In situ concrete floors can be brought to a smooth finish by careful workmanship and no separate screed is therefore necessary. The same applies to types of concrete floor where an in situ topping is an integral part of the floor construction. . . . In wholly precast floors, however, there are inevitably some inequalities which require to be masked by a screed" (p. 15). This ought to be taken into account; but is, in fact, often overlooked. Some of the diagrams of the report are misleading in this respect. Only by assessing all the direct and indirect expenses, not only for the construction, but also in service, is a true comparison of cost possible—a very difficult task without more information than is available at present.

The report stresses the ideal of the coincidence of load-bearing walls in ground floor and first floor which, however, is very rare in actual practice. If they do not coincide, it is "more economical to carry the roof structure on beams which do not depend upon first-floor partitions for intermediate support. In many cases such beams can be positioned to coincide with non-load-bearing first-floor partitions" (p. 17). In the example (Figs. 64, 65) two beams are spanned right across two bedrooms although it might have been easy to avoid this and adhere to the suggestion contained in the text. No doubt there are plenty of good examples which could have been published.

The same applies to the trimming of staircases for which it is possible to avoid enclosing walls and provide precast trimming beams, the soffit of which does not project below the soffit of the floor.

In spite of these shortcomings, which could be continued if more space were available, the report is of very great practical value, and everybody concerned with post-war as well as war-time building should study it carefully.

* Published 1942, price 2/- net.

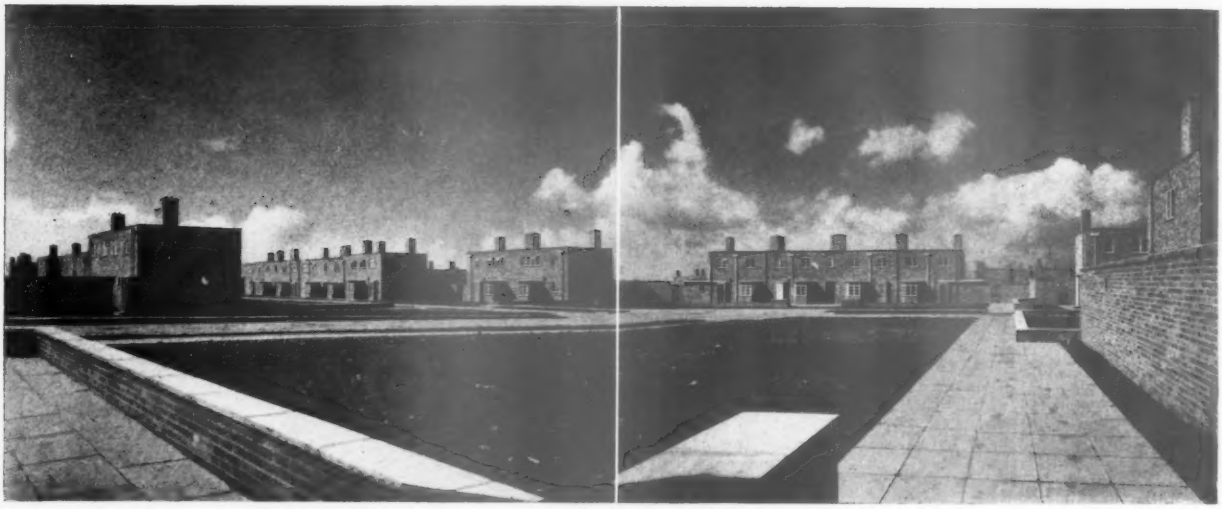
WAR HOUSING

DESIGNED BY ARTHUR W. KENYON

GENERAL — 200 houses built for the Ministry of Supply for married factory workers. The houses are in pairs or blocks of four or six, some for the time being divided into flats, the others consisting of three bedrooms, living room, parlour (converted into an air-raid shelter by strengthening walls and ceiling, and partly blocking up the window), kitchen, bathroom and w.c.

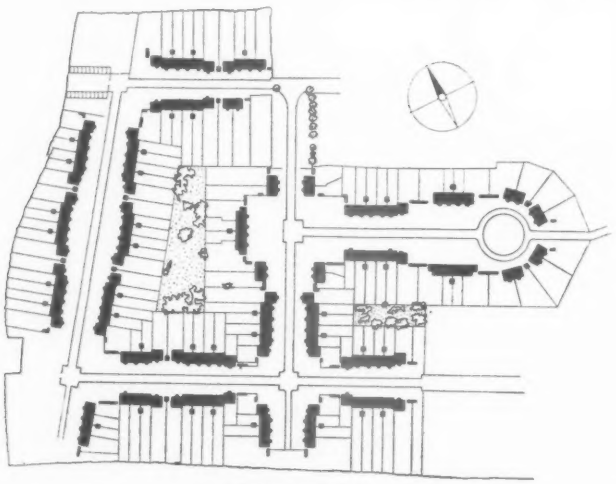
PLAN—The scheme forms part of a village, and is laid out as an independent configuration with possibilities for future planned development. Each house has a brick shed, large enough for a bicycle, wringer, garden tools and fuel. Screen walls link up the houses and add privacy to the back premises.

CONSTRUCTION AND EQUIPMENT—Local 2¾ in. and 2⅝ in. bricks. Hollow brick walls, 11 in. thick, plastered inside. Precast concrete floors, asphalte covered. Asphalte skirting to the walls. Concrete staircases. Asbestos roofs to the bay-windows, asbestos entrance door surrounds, down pipes, rain-water heads and draining boards. Front doors and interior woodwork in various



colours. Coloured shelter shutters. Central boilers in the kitchens supply hot water. Cooking is done by gas or electricity. There are fireplaces in the living room and one bedroom. Electric plugs are fitted in all rooms, gas installation where possible.

Each house has a bay window and a parlour converted into an air-raid shelter. Variety of grouping is achieved by alternating two, four and six house units.



SITE PLAN

DESIGNED BY ARTHUR W. KENYON

The function of this feature is to record all developments in building technics throughout the world as reflected in technical publications, papers read before learned societies, official statements, reports of research institutions and building experiments. Lack of scientific data is a handicap both to the technician and to the planner. The ***information centre*** *attempts to remedy this deficiency and to keep all busy men, whether fighting or working, abreast of current developments in building technique. Items are written by specialists of the highest authority who are not on the permanent staff of the Journal. The views expressed are disinterested and objective. The Editors of the Information Centre would be very glad to receive information on all technical developments from any source, including contractors and manufacturers.*

Physical PLANNING

1096 Education for Planners

U.S.A. National Resources Planning Board: EDUCATION FOR PLANNERS. *Memorandum by H. S. Morrison, June*, 1942. Present lack of planners. Suggestions for special training curriculum.

In every part of the country the war has caused dislocations of housing, transport, public services, agricultural marketing. One of the serious deficiencies is the lack of trained personnel to staff the existing planning agencies which are struggling to minimise these dislocations and keep the war programme moving forward as smoothly as possible.

1. The lack of planners is partly due to defects in the educational system. Most school curricula are not oriented to make children desire to take an active part in the alleviation of environmental problems.

2. The location of most planning courses inside schools of architecture, landscape architecture and engineering has tended to produce planners who think too exclusively in terms of design at the expense of the broader social and economic factors which are of equal importance. While acquiring excellence in one branch they must obtain a general knowledge of the other branches of planning which make up the whole. It must be remembered that not one but several kinds of planners are required.

3. As part of the general mobilization of man-power every effort must be made to locate those groups in the population already possessing skills that can be transformed into assets of immediate value for planning purposes. A practical method must be found to do the job without waiting for the slower process of formal education.

4. The attention of architects, landscape architects, engineers, public officials, lawyers, business men and social scientists must be drawn to the fact that there is a job for them to do which will accept their past training and experience as a basis for participation in war planning programmes. Yet the element on which the whole effort will depend is the formulation of an adequate training curriculum.

5. The first essential of an educational programme must orient the potential planner to an awareness of contemporary social and economic forces. Only within this framework can he appreciate the implications of a planning programme and a discussion of the basic physical and social studies that are preliminary to effective planning work. When he is conversant with these fundamentals he will be prepared to learn, through the apprenticeship method, specific techniques of land-use surveys, population and economic analysis, zoning, traffic and transportation studies, housing and the like.

6. A series of three months' intensive training courses would be instituted under the general direction of the American Society of Planning Officials in cities where there are both a university and an active planning department. The university should furnish classroom and library facilities and assign lecturers on political science, geography, economics and sociology; the planning department should provide lecturers on specific aspects of planning procedure and make place for the student during his apprenticeship period. Registration would be limited to 20 students in each school to ensure good discussion and facilitate placing in the planning office. The course would consist of four weeks lectures, six weeks apprenticeship, two weeks summary lectures. The curriculum would cover the Structure of a City; National Resource Planning and Management; Government Relationships; Relationship of City to County, State and Region; Special War-time Planning Problems; Effect of War Exigencies on Longer Range Planning Objectives.

7. It is not intended that this training will be sufficient to produce thorough and experienced planning technicians. Rather, the programme is aimed to satisfy the immediate need for planning assistants who have some understanding of the techniques and problems of planning arising out of the present emergency. It is expected that from this group of trainees there will be some who will become permanent additions to the planning profession.

STRUCTURE

1097 Highway Tunnel

K. W. Mautner: HIGHWAY TUNNEL UNDER THE RIVER MAAS, ROTTERDAM. *The Structural Engineer, February*, 1943, *pp.* 43 *to* 65. Under river tunnel of rectangular cross section accommodating four motor-car tracks, cyclists and pedestrian tracks, composed of precast reinforced concrete caissons of 200 ft. length and 15,000 tons dead weight. New method of forming watertight joints.

Under-river highway tunnels instead of bridges are in many cases advantageous, especially where the clear height under the bridge required for the passage of sea-going vessels would necessitate approach ramps of many miles. Movable bridges, allowing a reduction of clear height, have the inconvenience of interrupting the road traffic whenever a large ship has to pass. After a careful investigation of the various possibilities the Dutch Government, in common with the City of Rotterdam, decided in favour of a tunnel under the River Maas at Rotterdam. The original design, prepared by the Dutch Authorities, provided two alternative solutions, both with circular cross section:

(*a*) One large tunnel for four lines of traffic (two in each direction), cycle tracks, path for pedestrians and control footpaths.

(*b*) One small tunnel in which one half

of the lines of traffic were provisionally arranged for pedestrians and cyclists, later on to be completed by a second tunnel for vehicular traffic.

The Authorities were prepared to consider tenders based on designs made by the contractors themselves. The design finally accepted differed fundamentally from that contemplated by the administration. A rectangular cross section was adopted as this permitted the erection of a large tunnel comprising all four motor-car tracks, cyclists and pedestrian tracks at once at a cost only about 20 per cent. higher than the cost of erecting first a small tunnel comprising only two motor-car tracks, cyclist and pedestrian tracks. This was certainly much cheaper than the erection of two tunnels in two stages. The method of construction was found more convenient as regards dock facilities, shuttering, welding of the outer skin and carrying out the watertight joints between two adjacent tunnel caissons.

The usual method of shield driving was abandoned in favour of sinking large caissons. The work was commenced early in 1937 and completed, as far as one may know, by the end of 1941, although the invasion of Holland interrupted the work for several months.

The length of the tunnel is 1,170 yds. Two open cuts with retaining walls form the accesses, 146 yds. long on the right-hand bank and 180 yds. long on the left-hand bank where ramps lead to street level. The total cross-sectional area of the tunnel under the river is 81 ft. 3 in. by 28 ft. 8½ in., that is 260 sq. yds. The river tunnel (611 yds. long) is composed of nine pre-cast sections, each 200 ft. long. These caissons had a displacement of 13,500 tons and a total dead weight of 15,000 tons.

Details of the construction and sinking of the caissons and of their jointing, for which a new method has been invented, are described and illustrated in the article. It is to be expected that after the war a far more detailed report will be issued by the town authorities of Rotterdam. During construction these authorities edited a popular monthly review, *De Maastunnel*.

The methods adopted at Rotterdam may be of great interest to this country after the war.

LIGHTING

1098 Light Assessment

K. W. W. Craik, Sheila J. Macpherson, W. G. Stiles and W. D. Wright : THE EFFECTIVENESS OF LIGHTING—ITS NUMERICAL ASSESSMENT. *Meeting of Illuminating Engineering Society, February* 9, 1943. Four aspects of subject of better methods of assessing performance.

The subject is for the present largely a problem for the illuminating engineers themselves, though ultimately it affects architects a good deal. The point of the discussion may be summed thus : foot candles indicate the actual illumination to be found on a working plane, but they are not a guarantee of the visual performance to be expected from a lighting design. As Mr. Craik put it, a well-diffused, and a glaring system will give quite different performances for the same power consumption. The illuminating engineers, of course, can design a system the performance of which they can predict ; but they want to find a better way of assessing the performance numerically. This meeting did not appear to carry them forward very far, though it was obviously useful in closing a number of paths upon which time was being spent in exploitation likely to be fruitless for this purpose.

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*

1099 Foundry Floor

Q *I have been engaged for a long period in extending a Foundry and in the Spun Cast Department, near the furnace of course, the floor is surfaced with* Stelcon 12 *in. by* 12 *in. steel plates embedded in concrete, which is of good thickness and strength. At intervals of about* 4 *feet Steel Bumping Blocks each about* 24 *in. by* 24. *in by* 2 *in. thick are laid and these are also bedded in the concrete.*

About six months ago these plates and blocks were relaid as the surface got most uneven and dangerous to the furnace men travelling about. During the last three months this has again become worse. How can I get over the trouble ?

The largest casting would be about 36 *in. long,* 6 *in. diameter with a* 1 *in. hole running through, dealt with by one man, carried from furnaces by a special tong and carried along by a series of jumps ; then the castings are lifted up and dropped vertically on to the Bumping Blocks. Can anything be obtained to act as a cushion to take the shock of the bumps, or the method altered in some way ?*

A We doubt whether any system of cushions would give satisfaction. The *Stelcon* floor plates and steel bumping blocks presumably withstand the weight and the trouble is due to the bedding of the plates and blocks or to the actual floor construction, e.g., if the bedding is satisfactory it might still be necessary to reinforce the floor more heavily under the bumping blocks so that the shock is distributed over a larger floor area or to increase the thickness to avoid vibration.

This is really a matter of design. Your best course would be to write to the Building Research Station, Garston, Watford, Herts., who would advise you for a small charge. It would be as well for you to send them sketches showing the construction of the floor and how the plates and bumping blocks are bedded.

1100 Resin-bonded Plywood

Q *Can you tell us the name of the supplier of resin-bonded plywood or, alternatively, tell us to whom we should make application ?*

A We have been in touch with the Timber Development Association, who give the names of Venesta, Copyground Lane, High Wycombe, Bucks, and Aeronautical and Panel Plywood, 218/226, Kingsland Road, London, E.2, as manufacturers of resin-bonded plywood. We have also been in touch with the Timber Control, who inform us that prospective users should not apply direct to manufacturers but to a local timber merchant. Details of the job for which it is required should be submitted, and the merchant can then apply to the Timber Control for a licence. If granted, the Timber Control releases the plywood to the merchant.

1101 Paper on Concrete

Q *We have used building paper on shuttering under concrete flat roofs, and on moving the shuttering it was found that the building paper adhered to the concrete. This must be removed and we have tried both hot water and a blow lamp without satisfactory results. Have you any observations which will help us out of this difficulty ?*

A We suggest trying a solution of Permanol W.A. (made by Imperial Chemical Industries), in hot water in the proportions advocated by the manufacturers, which should make it possible for you to scrape or peel off the paper without too much difficulty. If this is unsatisfactory, we can only suggest the use of a grinder which, of course, would be an expensive process.

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 contents page. Except where inverted commas are used, the reports are summaries and not verbatim.

NHTPC

Ernest Brown

March 5, at Connaught Rooms, Queen Street, W.C.1. Special meeting of Local Authorities in London and Home Counties arranged by the National Housing and Town Planning Council. Chief speaker : Rt. Hon. Ernest Brown, M.P., Minister of Health.

E. Brown: Housing is above all a health service. If the nation's housing conditions are bad, the nation's health is bound to suffer.

What has been the result of the impact of the war on housing ? Before the war houses were being built at the rate of nearly 350,000 a year. During the three and a half years of the war it has been possible to bring into use only 135,000 new houses, the majority of which were under construction when the war began, and this number has been offset by dwellings which have been destroyed or irreparably damaged by enemy action.

Before the war slums were being swept away at the rate of 60,000 dwellings every year. Since the war began very few slum dwellings have been demolished ; indeed, the position in some areas has been such that I have had to authorize local authorities by Defence Regulation powers to issue licences enabling slum houses to be reoccupied. In the result many people—a low estimate is 100,000 families—are continuing to live in houses which three years ago had been legally condemned as unfit for human habitation. A few, including those which have been licensed, have had the barest repairs done.

Briefly summarized the position is that about 300,000 families are living in houses which have already been, or but for the war would have been, condemned as slums, that 2½ million families are living a Spartan existence in houses which have been first-aid repaired, and that many others are living in overcrowded conditions. And, owing to the difficulties of carrying out works of ordinary repair and maintenance, large numbers of houses are deteriorating rapidly and will shortly reach the stage at which they will become a total loss unless substantial works are carried out. The difficulties have been intensified in rural areas, where the need was very great before the war, by the expansion of the agricultural industry, the influx of evacuees from the target areas and, in some cases, the building of war factories.

There are nearly 100,000 houses which are empty and cannot be occupied until substantial further repairs are carried out. Thanks to the help promised me by my colleagues, Mr. Ernest Bevin and Lord Portal, we are now going ahead to restore a considerable number of these empty houses to a condition fit for occupation. In conjunction with my colleagues and with the War Damage Commission a scheme is being launched right away for accelerating the repair of 10,000 of these houses, starting in 24 of the towns and cities which have suffered most severely from air-raids. The scheme provides for the selection by the local authority of such of the houses as justify repair at the present time. The houses selected are agreed with the War Damage Commission as houses in respect of which a *cost of works* payment is appropriate. This is to avoid any difficulty which might later arise if the Commission were to classify the houses as total losses and subject only to value payments. They are as far as possible to be arranged in groups in order to enable advantage to be taken of the benefits of large-scale operations. The Ministry of Works is responsible for organizing the contractors and the labour required to complete the work involved in the repair of each group of houses and our aim is to have all the repairs finished by the end of November. This will be a substantial contribution to the relief of the present housing shortage. In carrying out this work, care will be taken to repair only houses worth repair, and we shall do nothing to prejudice the future of planning.

As to the maintenance of existing houses in reasonable condition, the Ministry of Works are arranging for the retention in the various regions of a minimum labour force for carrying out essential maintenance work. In determining the size of this force they have consulted my department, and if it appears that in any area it is being reduced below the danger limit, they will make representations to the Ministry of Labour and National Service. This should ensure that in all areas owners should be able to get essential repairs done.

Now I come to the building of new houses. I was thought optimistic when a few months ago I talked of building new houses this year, but, as you know, we are already making the preliminary arrangements for the carrying out of a modest programme for agricultural workers during 1943. This is a war-time emergency programme designed to meet the special difficulties which have arisen in some rural areas from the substantial development of war-time agriculture. We hope to begin building next month. I can hold out no hope of other new house building for the time being, but I am still hopeful that we may be able to carry out further raids if not to fight really big engagements before the war ends.

Let us now take a further glimpse into the future. The task before us is tremendous. I have my Central Housing Advisory Committee to advise me on all housing matters and they have been hard at work for many months. Let me tell you of some of the problems they have been investigating through their Sub-Committees. They work in close touch with the Study Groups of the Ministry of Works, and their meetings are attended as may be necessary by officials of the Ministries of Works, Town and Country Planning, and Agriculture and Fisheries.

First, there is the Sub-Committee on the Design and Planning of Houses and Flats, who have been asked to make recommendations as to the design, planning, layout, standards of construction and equipment of dwellings for the people throughout the country. They have collected material and information from a wide range of organizations. Especially have the views of women been obtained, for it is the housewife who has to spend the greater part of her time in the house and her ideas are frequently most practical. When the Sub-Committee has produced its plans for urban houses and flats a manual will be prepared for the information and guidance of local authorities in consultation with the Ministry of Town and Country Planning and the Ministry of Works, so that all the collected knowledge and information on the most up-to-date housing design may be available to them.

The Rural Housing Sub-Committee has been a standing Sub-Committee for many years now, and is giving me valuable assistance and advice. Rural housing will be more important than ever if agriculture is to maintain the strong position it now holds and rural workers are to be provided, as they should be, with all the amenities available to town dwellers and the houses are to harmonise with the natural beauty and features ofthe countryside.

I have been considering, in consultation with a special Sub-Committee of the Central Housing Advisory Committee and with deputations from local authorities, what more we can do in the meantime to ensure, what we must ensure, that the attack on bad housing is resumed immediately conditions permit. As a result I have just issued a circular to local authorities in which I have put to them the view that they need not await either the result of all the deliberations which I have mentioned or pronouncement by the Government on the many important principles raised by the Barlow, Scott and Uthwatt reports. I have suggested that there are almost certain to be in each area sites which, whatever the future national or local plan—and it is essential that nothing must be done which would be likely to add to future planning difficulties—are bound to be suitable housing sites. I have asked them to decide on sufficient of such sites for a one-year housing programme and to select them in consultation with the regional planning officers and, where agricultural land is involved, with the local representatives of the Ministry of Agriculture. And, I am glad to say, I have been able, with the concurrence of the Chancellor of the Exchequer, to tell them that if they do not possess the sites and cannot purchase them out of funds available to them, I shall be prepared to sanction the raising of the necessary loans. I have also told them that, while I hope that they will be able to buy the land by agreement with the owner at a price below the 1939 value, I shall be prepared, where necessary, to entertain compulsory purchase orders. I have also asked the authorities when they have purchased the sites to make the best use of their reduced staffs and to go ahead right away with the preliminary work of surveying and of preparing the general layout which can be further filled in when the manual of post-war house plans and designs is issued.

RIBA

W. G. Holford

March 3, at 66, Portland Place, W.1. Lecture (here reported in full) on *Town and City*, illustrated with slides, by Professor W. G. Holford, A.R.I.B.A. Second in series of six lectures on *Town and Country Planning*, organized by the RIBA Committee on the Training of Architects as Town-Planners.

W. G. Holford: "In a series of lectures such as this, on Town and Country Planning, it is easy to stray beyond the confines of one's subject. Besides being unfair to my fellow lecturers that would mean that I had even

less time to deal with my own enormous task, which is in itself difficult to treat adequately. So if I, on my side, adopt a self-denying ordinance and put forward some arguments which seem to me to be worth considering at the present time, instead of attempting an omnibus review of the whole field, I hope that you, in turn, will take as read a good part of the town planning thesis, so that I can plunge into the middle of it without introduction.

The same remarks apply to the slides. They must take the place of maps, without which town-planning matters can hardly be discussed. They are not intended to be a pictorial guide to the whole subject, but merely to illustrate particular points. If anyone wants pictures he cannot do better than visit the RIBA exhibition at the National Gallery. My object this evening is not to tell a story but to point to some of the morals. I could hardly do less, since some of you have a longer experience, both in architecture and planning, than I have, and I should hate to be thought to be making a deliberate mystery of a profession which is one of the finest in the world, but is largely a matter of conscience, trained judgment, and common sense.

That is not to say it is a simple matter. In fact, one of the differences between town planning and architecture is that of complexity. An architect designs a building, or even a series of buildings, and is responsible —or should be—for the appearance of every detail, and the relation between every part and the whole. Except in rare cases a town planner does not design a town, cannot be held responsible for its details, and is only jointly responsible, for a brief period only, for the relation of parts to the whole. He is so much concerned with control, administration, negotiation and report, that he often has to forgo the personal creative work which is the salt of an architect's existence.

That is all I have to say by way of preface, and it will serve to introduce the first argument I want to put forward this evening, that of the importance of the time factor in town planning.

THE FOURTH DIMENSION

Time is the fourth dimension of town planning, and as important as the other three ; which is seldom the case in architecture. Marcel Poète, the famous town planning historian of Paris, used to say in the course of his lectures at the École d'Urbanisme, that the very terms in which we so often refer to the historical growth of towns betray our forgetfulness of the process of evolution. We talk commonly of "old London" or "ancient Rome" ; and what we mean is "young London" or "Rome in its early days." It is the London of 1943 that is "old London." In England, if you go on long enough, you become a respected character, for longevity is a great virtue with us. So I think we can say that London is genuinely our grand old man among cities. Some would say a dear old man, others a nasty old man ; but at all events, because of the war (and what was happening even before it), a very battered old man.

Consider for a moment the case of one square mile in the vast urban complex that London has now become—the City itself. If you were to make a civic survey of those few hundred acres and set out in a series of maps the amount of growth or redevelopment between one critical date and another—as for example between the dates of revision of the Ordnance Survey Sheets or between 1908 and 1939—you would find that during a recent three decades no less than one quarter of the buildings in the City were rebuilt. That means that, with the exception of ancient monuments and buildings of historic or artistic interest, the whole fabric of the City might be expected to renew itself in something over a century.

So it is tempting to the anti-planner, and even to the planner who lacks the powers necessary to plan, to consider the gradual amelioration of transport and working conditions which might reasonably be expected to accompany slow rebuilding, as the whole process of planning. In fact, it is nothing of the kind ; it *is* a method of planning, to make almost exclusive use of the fourth dimension like this, but it is not complete, and it is far from satisfactory. These are some of the reasons :

1. Methods of town planning practice change fairly quickly, and legislation changes with them. One has only to compare the scope of the Housing, Town Planning, &c., Act of 1909 (which the late John Burns introduced as President of the then Local Government Board), with that of the 1932 Act, and then make an intelligent guess at the amendments and additions which are now clearly demanded, to realize that completely satisfactory results will not be achieved 30 years hence on the sole basis of plans drawn up under present legislation.

In other words, planning by this method is likely to be always a stage behind development. To take an extreme example, it may be decided to widen a thoroughfare gradually by setting back frontages to a new building line as rebuilding takes place. Owing to the irregular falling in of leases some buildings remain projecting beyond their neighbours, and in the interim period the whole effect and value of the corridor street is negatived by a ragged frontage. But during this same period changes in siting of the buildings themselves, due to other causes such as a need for better light, air or orientation, or the provision of parking space, may cause setbacks or gaps in the corridor, while the cutting of a new road through back property, or the re-classification of routes, may remove the need to widen the existing thoroughfare.

The history of the Restriction of Ribbon Development Act is another example of the need for amended legislation to meet a changing situation.

2. The second reason is a social one. If changes in detail are so gradual as to be incomprehensible in relation to the evolutionary process as a whole, the public takes no interest in them, and planning loses its momentum, degenerating into a hopeless attempt to preserve a little decency and order against a rising tide of individualism and resistance. The Strand, London, is a case in point. The scale and complexity of town planning has increased enormously in the last hundred years, but men's memories are no longer than they were. It is thus extremely important to realize at least part of any major town planning operation in clearly recognisable stages—if possible within five or ten years, at least within a generation.

Consider the difference between the kind of estate development that gave us the squares of Bloomsbury, Bath, Belgravia or Brighton, or the layout of Regents Park—each of them created in a clearly discernible measure of time and therefore true to their period—with the slow building-up of a Trafalgar or a Leicester Square, the piecemeal development of pre-war suburbia, the gradual swallowing up of village streets and village centres in the so-called "planned" extension of London.

Please do not jump to the conclusion that I am advocating purely surgical methods of town planning. What I am trying to demonstrate is the interdependence of the visible creative forms of town development, and those planning controls in the background which govern the methods and the rates of change. Without the former, planning loses its popular appeal and appears as a restrictive and little-understood form of bureaucratic interference.

I think this is probably the reason why most architects look on town planning in quite a different way to the local government administrator.

Most of the exciting and interesting examples which we quote are really examples of town *development* : they are the steps—quite literally the treads and risers—in the stairway of evolution, not the carriages on which it rests.

We read about and visit the Acropolis at Athens, the avenues and boulevards of Houssmann's Paris, seaside settlements in Sweden, Sabaudia and Littovia, the site of the Bosch-plan in Amsterdam, Welwyn Garden City, the Westside Express Highway and the parkways in New York, Radio City, the dams and the new communities of the Tennessee Valley, and the Greenbelt towns. All these developments stand out as milestones in town-planning history, and every one of them has been conceived and brought to maturity—if not completed—each within the period of a generation or less.

In these days when the country is fighting for the rights of the individual as much as for those of the nation, it is a matter of far greater difficulty to carry out large-scale developments of this kind, than it was in the days of the Renaissance, or of the big land-owners. But there are compensating advantages, not the least being improved matters of building organization and technique which have been used already, during the war, to build the equivalent of a town the size of Welwyn Garden City in a little under eighteen months.

3. The third reason for short-term as well as long-term planning appears very clearly when one considers the problems of redevelopment. The fact is that towns all over England are being overtaken by obsolescence, they are not keeping up with it. Those of you who know the great industrial towns of the north—Liverpool, Manchester, Leeds, Bradford, the Tyneside towns, and many others—which erected in their periods of prosperity whole streets and wards of houses at a time, will recognize in these districts the redevelopment areas of the immediate future. Liverpool, for example, has hundred of acres of terrace house property (of two or three floors and basement), which is between 70 and 100 years old. Most of it is unsuited for family houses to-day, and is divided, awkwardly, into flats, lodgings and all kinds of mixed uses.

The City Engineer of Birmingham has surveyed the 330,000 houses in his borough, and found 63,000 of them due to be condemned, with another 40,000 or so to follow within ten years. In other words, a third of the houses in Birmingham are due for replacement in order to meet even a moderate standard of habitability.

In London you will find in the East End the acknowledged slums, the near-slums and the all-but-uninhabitable houses. You will also find in Kensington, Bayswater, Chelsea and many other districts, quite good houses which were difficult to manage before the war, and after it will be nearly impossible. At a rough estimate there are over 4 million houses in this country which are at least 80 years old, and a million over 180 years old. Both the old and the obsolete occur in fairly well-defined groups and show that piecemeal redevelopment will not be adequate to meet their case. War damage, on the other hand, is in most cases quite unhelpful to the planner, being random, unselective, and, except in a few instances, merely dotted about over the urban area. Its psychological importance is very great, but its effect on layout negligible.

4. The last point I wish to emphasize in relation to short-term development, is the architectural one. Both social usage and building technique change fairly quickly, and as a reflection of that change we have changes of style and feeling. To achieve architectural significance a great effort has to be made by the promoter of the development and his professional advisers, to create visual unities as a whole and at the same time. The massive and sometimes lofty intruders who have elbowed their way into eighteenth-century squares, such as Berkeley or St. James's, do not give the spectator a feeling of reassurance in the eventual betterment that planning aims to produce ; yet in a gathering of their own size and style they might look impressive.

Similarly, there is a great difference between the two garden cities, Letchworth and Welwyn, the latter being very much more of an architectural unity.

In the central areas of our towns the creation of a series of visually satisfying units is more important, but at the same time more practicable than in the straggling suburbs. It is, in fact, a good definition of the word "urbanity." To achieve it in the reconstruction of towns after the war two things will be

necessary ; first, sufficient capable architects, with sufficient unity of aim and integrity of purpose, to take responsibility for the work ; and, second, a system of architectural zoning in the planning scheme, whereby certain areas, streets or groups of buildings, whether under single or multiple ownership, may be given some unifying architectural character.

The architect may be designer, specialist, official, or consultant, he may have to work with other architects, and certainly with engineers, surveyors and lawyers. But the responsibility for appearance should be his, internal and external, in the parts and in the whole composition ; and his should be the sensitive conscience that watches over every element of the design that can be shaped to the desired end. The official architect with his staff, the firm, the group, and even individuals working under the general guidance of a consultant, will all be necessary for the task of giving form and character to the good intentions of a planning scheme. It is the planner's job to control abuse, and that of the architect, the engineer, and the landscape architect, to create amenity. The former establishes the long-term programme, the latter build it up step by step.

For all these reasons, then, the planner must reckon with the fourth dimension. Time is not altogether on his side. There are occasions when he must trust to it to solve problems which seem incapable of solution otherwise ; and there are occasions when he must take it by the forelock and treat it as an architect treats it in the RIBA Form of Contract !

It is unnecessary for me to recall all the other elements of what is known as *Civic Survey*. Most of them are common practice among architects. But it is the time factor which differentiates it from a site survey ; which is mainly concerned with things as they are now, in preparation for a change over to things as they will be when the architect's design is realized. Civic Survey is a comparatively new technique. You can trace its growth in some of Professor Abercrombie's reports and writings, and there is a good chapter on it in his little book *Town and Country Planning*, just re-published. You will find it very scientifically treated in some American examples, especially in the reports on New York and Los Angeles.

Only one word more is necessary. There is no absolutely standard survey. The essential planning facts are different in the case of a historic centre, from those in a town of recent origin ; they are different in an expanding economy such as that of Birmingham from those in a depressed area such as Gateshead, or Jarrow, or Merthyr Tydvil before the war. London, Southampton and Liverpool are different as cities, and different as ports. And what might be an improvement to the city of Stoke-on-Trent might be quite intolerable to Bournemouth.

POSITIVE AND REGULATORY PLANNING

My next argument is on the subject of the plans themselves, and derives from the survey. If you agree that the time element has a short- and a long-term aspect, then you will also agree that two complementary types of plans are needed. The plans prepared under the Town and Country Planning Act of 1932 are known as statutory plans ; when the schemes are finally approved they have the force of law. Clearly, since statutes—even town-planning statutes—must be long-term by nature and general in application, the plans primarily designed as instruments for the exercise of these powers must be of the regulatory kind. For convenience I should like to refer to "planning under the Act," and more generally to all kinds of zoning, reservation, the protection of individual rights and of the public interest, as *Regulatory Planning*. Since the central authority is the court of appeal, it follows that it must be mainly concerned with regulatory planning, and with its embodiment in legislation.

But in order to determine what is good and what bad in proposals put forward in statutory schemes, to define what is in the public interest and what against it, and to be able to promote the right kind of development besides merely discouraging the wrong kind, something more is needed than regulatory planning. For convenience again, and not in order to imply that statutory planning is always negative, I should like to refer to this kind of activity as *Positive Planning*.

Let me give an example of these two types of planning in relation to the development of a town. As you know, planning schemes for built-up areas were not envisaged in the early town-planning Acts, which set out to exercise a measure of control over land that was likely to be developed on the outskirts of towns. The 1932 Act was the first to extend planning provisions to the built-up areas.

Now, a town grows in two ways : by increasing its built-up area, and by redeveloping what has already been built-up. The first is the normal method, the second is less usual and more costly. Before the war it was limited more or less to the redevelopment consequent on slum clearance, and the abatement of overcrowding. The war has added bomb damage. But we are still not attuned to the necessity for periodic redevelopment schemes as a normal function of planning in addition to, or in place of, the rebuilding of individual structures as their leases fall in or they become physically or economically unsound.

The Planning Officer to an urban authority whose town suffers from damage or obsolescence or both, has therefore to consider what measures he can adopt for control of development on the fringe of his area, and of redevelopment inside it.

The fringe problem is one which can be studied in many operative planning schemes to-day. Reservations for public and private open space are made, either by negotiation and agreement, sometimes by direct purchase, very occasionally by compensation to an owner for loss of potential building value. Reservations are also made for new roads and widenings. The land is then "zoned" for different kinds of use, usually with restrictions on the amount of ground to be covered by building and other provisions set out in Section 11 of the Act. Some land will be prohibited for building altogether, and there may be areas in which building is temporarily suspended except by special permission, on account of the lack of public services and the unreasonable cost of providing them.

There is the statutory framework of planning, the regulatory machinery. You will notice that zoning and reservation do two things in particular : they give the local authority opportunity to prevent development in the wrong place (provided that acute cases of compensation do not compel an unfortunate decision), and they protect the private developer in the use of the land and amenities to which he is entitled. That is to say, the man who builds a house in a residential zone controlled under a planning scheme, is reasonably secure against the possibility of a gas works or a tannery being set up in the same zone.

But how is the zoning pattern arrived at ? The Planning Officer may calculate that land for building should reasonably be allowed to a considerable depth all round the existing built-up area, even though the development, if it ever took place, would cater for a population wildly in excess of any that his town might conceivably attain. Or he may make a careful estimate of future needs, based on past history and present trends and with that as a checking figure at the back of his mind, he may go to his colleagues, the engineers, the surveyor, the valuer, the director of housing, the medical officer, the education officer, the parks superintendent (if there is one), and find out what their programmes are for roads, services, schools, sewage disposal, water supply —both short and long term. He will then go carefully over his ground with this information and relate it to physical features, to agricultural and market gardening productivity, to the wider needs of forestry and water supply, and to other considerations which may be regional or national rather than local. With a useful draft of this kind on his map, he will then consult architect and surveyor on the actual form which suitable development—both public and private—might take. He then has a picture, or development plan, which will provide the background for his regulatory scheme. The process of creating this picture I call Positive Planning ; and I think it is undeniable that the more imaginative and the more complete that process is, the more satisfactory the statutory plan will be.

Positive planning is equally necessary in relation to the built-up areas, since regulatory planning has come late into the field and is bound to be weak. Under Section 12 of the 1932 Act a scheme may prescribe the space about buildings and limit their number, it may regulate their size, height, design and external appearance, and it may impose restrictions on the type and manner of use.

But all these restrictions (to make a very summary précis indeed of the conditions concerning compensation, etc.), must have regard to cost, to the allowance of what is in use and may reasonably be extended, to custom, and to certain special exceptions which I need not mention now. And compensation can only be avoided for what is "proper and reasonable and expedient having regard to the local circumstances."

So you see that in practice it all comes back to the basis of judgment, the criteria for deciding what is "reasonable and expedient."

And here again my contention is that a positive development plan is the indispensable preliminary to the exercise of regulatory powers. And in a city, such a plan should be worked out in at least three—if not four—dimensions. It will not be binding ; it may very well have to be confidential ; but it should show, irrespective (in the first place) of ownerships, how the best value can be got out of the opportunities for rebuilding which are likely to present themselves now, in five years time, in ten years, in a generation, and possibly in an even more distant future.

Though you may disagree both with the technique and with the intentions of the Royal Academy Plan for London, I think you must concede that it indicates the value of the positive planning approach. This, of course, was not a development plan, and it was not official, it certainly could not be called secret. But it demonstrated how much investigation, thinking, and drawing lies between the "resolution to plan" and the first real scheme of rebuilding. This is essentially architect's work. At the moment there are vague and general theories at one end of the scale, and an understandable timidity to propose anything that will interfere with the *status quo*, at the other ; and it will be the task of every large town that is concerned about its future to narrow the gap between those two extremes. It is difficult to plan boldly unless positive development plans are ready in the background.

Perhaps I should add a word of comment at this point on the difference between proposals and powers. The preparation of the best development plan in the world does not ensure that development will take place at all. This is very noticeable in industrial and commercial zoning. A scheme may build the areas of special or noxious industry and set out on the map an industrial zone suitably placed for communications and services and labour, in the hope that enterprises will be attracted by the advantages of the site, and will develop there. Sometimes the enterprises are attracted, sometimes they are persuaded, sometimes the area remains unoccupied.

On the other hand, requests are made by factory and shop owners to build on land that appears to them more advantageous from their own point of view, but does not suit the local authority's plan. And in general a planning authority welcomes a new factory that will provide local employment ; and usually, subject to one or two conditions, the industrialist gets his land.

I will only add that there have been many such occasions when the resulting factory has proved a success when judged by its own production figures, but has cost a great deal

in services, housing, roads and social provisions generally, these items being absent from its profit and loss account.

To weight the balance, then, between private and public advantage, the planning authority must know something of the economics of industry, and its development plan must be drawn up on a real foundation of knowledge.

ORGANIC AND GEOMETRIC PATTERNS

Now for the actual shape of things to come. This, which is the third of my main arguments, can best be summed up in a phrase—*the search for an organic pattern.* Let me explain what I mean by that.

Most of us have grown accustomed to seeing comparative diagrams of the growth of large towns at various stages. If you are not familiar with these sensational pictures, you may find examples at the RIBA exhibition. No architectural or planning student is ignorant of the formal patterns discernible in the centres and extensions of growing towns. You are all familiar with the square and rectangle, the spider-web formation, the combined gridiron and radial, the picturesque, the deliberately informal, the scattered, the geometric, and the new "ribbon."

When, however, the distinguishable elements are merged into a conglomerate of the size of Birmingham, Greater Manchester, Merseyside, or Greater London, one is apt to gasp at the bewildering complexity of it, and stand by in a sort of fascinated horror similar to that which one feels on being shown a hive of bees with the cover off. Personally this kind of horror has ceased to have any fascination for me, and probably for you; and before long it will be the same with the general public. One's instinctive reaction is to look for an outlet, a solution. What sort of solution offers any hope?

Rasmussen—that penetrating Danish commentator on London—calls it a "scattered city." He begs us in his book to keep it as near to a loose grouping of city centre and villages, as we possibly can; maintaining private gardens and public open spaces, avoiding concentrations of flats, and developing altogether in the opposite direction to the formal densely built-up cities of the Continent. We, who are children of the most urban nation in the world, are apt to see only the black side of urbanism; and run from it, whenever we get the chance, into the countryside. It is perfectly true that we have treated the countryside in scurvy fashion in the inter-war period, and every thinking person will take pleasure in the renewal of interest in, and attention to, rural matters which the importance of war-time agriculture has created. Lord Justice Scott's Committee has gathered this between the paper covers of the first Government Report ever to achieve the distinction of being considered a good universal bedside book!

But the biggest post-war planning problem is that of the towns. And no careful controls of land-use in the countryside will be practicable without considerable rebuilding of town fabric and reorganization of town life. As I see it, the key task is the reforming of the organism so that it can function without strain; and these are the principal constituents of the process:

1. *The organic community.* The movement is away from quantitative towards qualitative housing; from houses as such, to grouping of houses; from estates to communities. The war has made every one of us aware of the relation between the dwellings and the warden's post, the basic grouping of a community of perhaps 200 souls. The housewife is more conscious of the shopping centre, the parent of the distances to schools. And gradually, with some elasticity of figures, the numbers necessary for building various kinds of social organizations are forming in people's minds. The National Council of Social Service says that it takes about 200 families to run a voluntary community centre; the Board of Education are discussing the numbers necessary to support the different types of schools—both in the past and in the future. The Society of Women Housing Managers reports that estates of a certain size need a shopping centre as well as a proportionate selection of "shops round the corner." The Post Office, the cinema circuit, the markets association, the road transport companies, can all give an approximate figure of population within which facilities can economically be provided.

So the planner at least has a basis of division and sub-division to work on when he attempts to create nuclei or centres of activity for a more social existence, and physical boundaries or lines of demarcation between one community and another. An arterial road should be a boundary between units, not a kind of uninsulated live-wire cutting right through them. A railway is another artificial barrier, even more exclusive than the road.

Both forms of integration are needed; the centre and sub-centres, and the visible embodiments of size. The primary school is probably the most exact basis for sub-division to start with.

2. *The organic traffic system.* This devolves naturally from the community idea. Commissioner Tripp has called the area between sub-arterial roads a "precinct." His thesis is that no town whose plan allows the present rate of street accidents, delays in transport, congestion and confusion, can really be called a planned town at all. From the point of view of safety, I think his argument is incontrovertible. It is interesting to note that the recent investigation into child fatalities during the war has confirmed that it is not often the negligence of the motor driver, but the layout of the roads, the houses and the schools, that is responsible.

Taking an even wider view of the transport function, one comes to just the same conclusion. Given a rational growth and distribution of communities within the urban pattern, it is the transport system alone which determines the tolerable or intolerable size of a town.

If it is possible (as Colonel O'Gorman remarked) for a family to reach open country by some medium or other in 20 minutes to half-an-hour from its doorstep, and without crippling expense, the town is not too large for its citizens.

Equally important from the point of view of production and marketing and distribution, segregated and classified traffic channels are indispensable. So that whether we have more or fewer cars for a period after the war, a reorganization of traffic systems is likely to be demanded. The arterial road must be treated, and used, like a railway, the sub-arterial roads being the only ones to have access to it. Sub-arterial roads must be the main roads of the inter-local traffic, to which the various types of local roads are tributaries. Even shopkeepers will need to forgo the doubtful advantage of attracting through traffic to central areas. The absolutely essential improvements, such as under or over-passes and safe crossings, will undoubtedly be expensive in towns; but enormous cost can be saved by classification of roads to serve their varying purposes more exactly, rather than by carving or building-up a whole new series.

When a complete traffic survey shows a really difficult bottleneck which is incapable of being unravelled and must be systematised, then bold steps should be taken in time. [See, for example, the way in which Stockholm allowed for continued increase of traffic into the city from the south by building the famous "Slussen" clover-leaf in good time. Our problems at Hyde Park Corner and Trafalgar Square in London are more formidable than Stockholm's.]

3. *Organic use zoning.* In the same way as residential areas may be nucleated on the basis of centres of community interest, so may the town as a whole tend towards a more functional definition of parts. In many cities (see for example Liverpool or London) the interplay of interests has produced over a long period an unconscious zoning system, which it may very well be the planner's job to clarify and extend. It is a mistake, as Sir Gwilym Gibbon has pointed out, to concentrate too many "centres" of activity all in the same central area. The main shopping centre, the business centre, the markets, the academic and museum centre, the civic centre, the traffic centre, the entertainment centre, and the centres of local or central government, are all likely to be contiguous, but there are advantages in keeping them as more or less definable zones.

When such a zone exhibits widespread changes of use, it is a danger signal for the planning authority. Single houses are sub-divided into flats, then into offices and shops; or offices get taken over for warehouses. [The American studies of city planning, and in particular of what they term "blighted areas," are valuable references in this connection.]

Eventually, one hopes, some method of imposing a life on all buildings for town planning purposes, will come to be adopted.

This would not mean that special buildings, including churches and historic buildings, would be condemned to demolition! It simply means that a scheme of redevelopment made now, could be made on the basis of far more reliable data than is the case under present legislation. The normal building—house, office, factory or shop—would have a nominal span of planned existence. That existence might very well be extended—perhaps indefinitely, but the questions of compensation, of compulsory acquisition prior to change of use, would be settled at that point in its career, and would moreover be predictable.

This is too large a subject to go into here; I should like to add only one comment, namely, that the imposition of a "life" on all buildings is not as drastic as it sounds; and may in the long run be less difficult and more practicable than wholesale acquisition by local authorities.

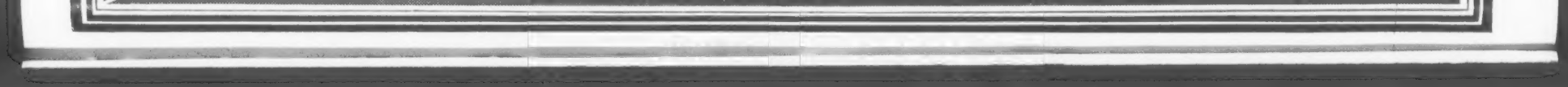
4. *The Town in the Region.* At this point I should like to consider the town from the outside rather than the inside, in regard to its function in the region. This is the fourth symptom of movement towards a more organic structure; and it makes its appearance because of the emphasis given to national aspects of planning in recent months.

The gist of my argument here—which I can put very briefly—is, that one county borough is not necessarily comparable to another, even on the basis of equal populations or rateable values. It may perform a different function in the regional or in the national economy; and, according as it is flourishing or depressed, may establish less or more of a claim on the national exchequer. War damage has emphasized some of the differences. A port may depend on its communications to a far greater extent than the manufacturing town in its hinterland; the resort and the residential town (such as Southport or Brighton) can afford amenities of a kind which would be out of keeping in an industrial town. A city like Birmingham, whose inner wards show an inextricable mixture of industry and housing, cannot regulate its zoning in the same way as Middlesbrough, for example. Adjacent towns in the same region may each desire to attract a certain industry or range of industries, but the balance of advantage when regional or national considerations are introduced, may lie with one.

There are then certain questions—notably arterial roads, industrial estates, the housing of overspill populations outside the area of a particular local authority, drainage and water services, mineral working and some others—which are dependent on the preparation of a wider plan than that of the town or city itself. It may be a long time before the region itself becomes an organism, but there is clear evidence that many planning authorites are beginning to think regionally as well as locally.

CONCLUSION

In conclusion, let me summarize some of the arguments I have put forward for your consideration; and, lest you should think planning a somewhat dull subject from my inexpert selection of facts about towns and cities, let me just mention by name a few of the interesting possibilities which I have not had time



to dwell on.

I have emphasised the importance of combining the long-term plan and the short-term programme; of putting some goods in the window, so to speak, for the pleasure of those inveterate shop-gazers—the public; of preparing detailed development plans on which to base the statutory town planning schemes, in which process some very important and interesting architectural opportunities arise.

I have mentioned the tendencies toward better organization of the plans themselves, in regard to community development, traffic systems, use-zoning, and the regional pattern; and indicated the wide differences in some of the functions of towns.

I have touched on the idea of forming zones or areas of architectural amenity in towns, in the same way as national parks may be advocated for the country; not as areas of preservation, but as zones where amenity of a particular kind has precedence over certain other interests, for the reason that we consider it worth while and are prepared to pay for it. But I have not discussed *smokeless zones*, nor the complementary idea of installing really large-scale central or district heating plant in areas where a high heating density prevails.

I have not mentioned the architecture and layout of the city block, with the possibilities of improvement in daylighting, in the reduction of noise, in fire prevention, and in the more rational use of space, which alternatives to the courtyard type of plan open up.

I have hardly touched on open spaces, tree planting, or the place of avenues, vistas or monumental streets in the town plan. I believe that these graces are dependent on, and perhaps a part of, the essential elements—the average town house, the average city office, the necessary centres, and the traffic links between them.

Most serious of all, I have never once mentioned *The Location of Industry*. Perhaps that is the only merit which I can honestly claim for this very long lecture."

TRADE NOTES

WOOD WOOL BUILDING SLABS

The facts so far established about the qualities of wood wool building slabs are summed up concisely in a booklet issued by the Wood Wool Building Slab Manufacturers Association. The products dealt with are made by four leading manufacturers, who agree that, in these days of research and experiment, those responsible for building should be offered an impartial choice in selecting the most suitable brand of wood wool slab.

Three types of wood wool slabs are produced: 1, normal quality, most used for general purposes, especially where thermal insulation is the main consideration. These can be used for permanent shuttering, partitions, walls and ceilings; 2, special quality, of higher strength than the normal quality and intended primarily for permanent shuttering or floor or roof construction; 3, slabs, reinforced longitudinally with timber battens built into the slab during manufacture, suitable for use in roof construction.

These slabs are claimed to have given good service in the field of thermal and sound insulation, in addition to their many other uses in all types of building construction. They are used in all thicknesses in the erection of buildings for walls (interior or exterior), for partitions, for ceilings, for roofs. The thicker varieties are commonly used for free-standing, non-load-bearing, internal partitions and, when plastered, are said to provide a very high resistance to the passage of sound.

Another use is for exterior wall units in huts, and for wall construction in the recently developed unit hut. When used in this manner as external walls, with the plaster on both sides, they are claimed to provide an excellent form of weather resisting insulated wall. Wood wool slabs have been sponsored by MOW for use as roof decking in the universal hut. In normal times, wood wool acoustic tiles are said to be widely used in the auditoria of cinemas and theatres, also in churches, to correct hearing conditions. It is also claimed that when used as permanent shuttering to the inside surfaces of external walls and roofs they provide an excellent bond for the concrete and a good base for all types of plasters, in addition to providing sound and thermal insulation.

Instructions, with drawings, are given for the erection of the slabs for various purposes and specifications for the application of lime plaster. Copies of the booklet can be obtained from the Association at 21, St. James's Square London, S.W.1.

OBITUARY

We regret to record the death of Mr. William Ikin. He was associated with Messrs. Bratt Colbran Limited, fireplace specialists, for nearly forty years, first as a salesman and later as a director. During this period he became well known to many hundreds of architects who came to rely upon his unfailing knowledge and readiness to advise upon fireplace detail.

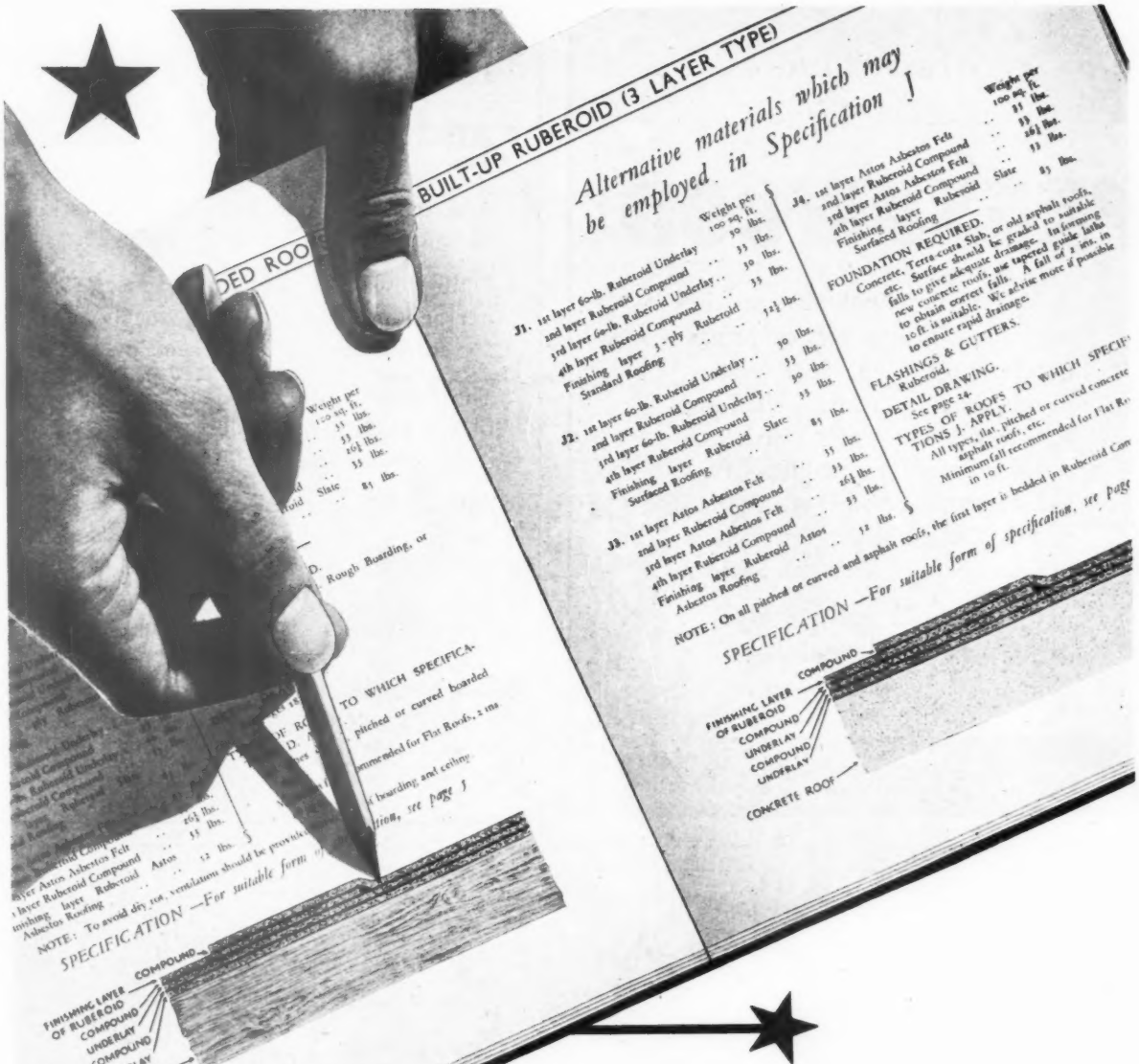
DIARY

Friday, March 19.—English Joiners Manufacturers' Association. 12.45 p.m. Luncheon at Claridges. Sir William Jowitt on "Post War Problems."

Saturday, March 20.—RIBA Rebuilding Exhibition, National Gallery. 2.30 p.m. "Architecture and Planning." By W. H. Ansell, P.R.I.B.A.

Tuesday, March 23.—At Housing Centre. 1.15 p.m. "The Reorganization of Local Government." By J. H. Warren, Town Clerk of Slough, Chairman NALGO Reconstruction Committee.

Wednesday, March 24.—CSI. 2 p.m. "The Scott Report as it Concerns the Agricultural Industry." By J. A. Arnold-Forster. "Planning in the Location of Industry." By J. P. Rhys.



STANDARD SPECIFICATIONS FOR EVERY TYPE OF ROOF

This publication entitled "Standard Specifications for Ruberoid Roofs" provides Architects and Engineers with a comprehensive reference to the best methods of weather proofing all types of wood or concrete roofs

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

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 & Planning.

RUBEROID ROOFING

THE RUBEROID CO., LTD., 1, MEADOW MILLS, STONEHOUSE, GLOS.

ARCHITECTS AND ENGINEERS ARE INVITED TO WRITE FOR A COPY OF THIS RUBEROID PUBLICATION No. 326 ENTITLED "STANDARD SPECIFICATIONS FOR RUBEROID ROOFS."

CLASSIFIED ADVERTISEMENTS

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

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

Public and Official Announcements

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

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

Architectural Appointments Vacant

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

JUNIOR ASSISTANT required at once. Apply, giving full particulars, to W. H. Saunders & Son, Architects and Surveyors, 11, Portland Street, Southampton. 869

ASSISTANT to take over all clerical work in small General Contractor's Office engaged on M.A.P. Contracts. State experience and salary required. Box 872.

Architectural Appointments Wanted

DRAUGHTSMAN, experienced all classes of architect's work, requires spare-time work, complete drawings carried out from rough sketches, moderate fees. Write Box 50.

DRAINAGE ENGINEER.—Specialist in purification works. Requires part-time jobs. Box 52.

ARCHITECTURAL AND LANDSCAPE ARTIST. Experienced all classes of Architectural and Survey Drawings, requires spare time work. Complete drawings carried out from rough sketches. Survey and site plans, Axonometric and Perspectives and Tracings. Box 56.

ARCHITECT'S ASSISTANT, present salary £359, requires position in town on or near coast (health). Preferable replanning work. Box 57.

PALESTINIAN requires an architectural job. Box 58.

JUNIOR ARCHITECTURAL ASSISTANT, Probationer, R.I.B.A. 19 years old. Exempt military service, seeks progressive position in architect's or similar office—if possible on work of national importance, in London or Liverpool areas. Knowledge of architectural draughtsmanship and building construction. At present taking course at approved school. Write for full details. Box 59.

ARCHITECT, B.Arch., A.R.I.B.A., A.M.I.Struct.E. Wide experience of carrying out large Municipal and other building schemes to completion. R.I.B.A. Medallist. Appointment sought in Northern area. Box 60.

YOUNG VIENNESE ARCHITECT seeks employment as Assistant in London Area. Five years experience, Diplomas (Technical College and Academy of Arts), First Part RIBA Final—18 months with local authority. Box 61.

A.R.I.B.A. offers part-time assistance. Wide experience of structural and war damage surveys, working drawings, perspective, etc. London area. Box No. 64.

YOUTH, just turned 17, seeks a progressive position in a drawing office, preferably Architects', in London area. Knowledge of draughtsmanship and building construction. Studying at Northern Polytechnic. Entering for City and Guilds exam. Box 66.

REGISTERED ARCHITECT (42), first-class man requires post in National Service. Full knowledge of heavy industrial work (including war-time construction, hospitals, domestic). Can handle procedure with Ministries relative to M.O.S. and C.D. Acts. Complete knowledge of A.R.P., etc. London or Provincial post. Salary by arrangement. Box 65.

ARCHITECT, experienced in carrying through works complete, requires position as Manager, London area. Box 67.

SENIOR ARCHITECT (51), qualified and with good general and housing experience, wants post in South Midlands (Oxon, Bucks or Worcs). L.A. or private architect only; no contractors or factories. Box 68.

Classified Advertisements continued on page xliv.

YOUTH (17), seeks progressive post in Architect's office; good education and has matriculated; is preparing for R.I.B.A. Inter. Some knowledge of design, construction and draughtsmanship. Folio of work for inspection. London or S.E. England area preferred. Box 69.

CHARTERED ARCHITECT, A.R.I.B.A., T.P.I. Final Exam. (age 25), exempt from military service, six years' experience all types of work, including schools, clinics, factories, offices, A.R.P. reconstruction, etc., requires responsible position, London or N.W., Home Counties. Salary about £400 p.a. Box 70.

REGISTERED ARCHITECT requires part-time work (evenings). Preparation of working drawing, perspectives, etc. Box 868.

ARCHITECTURAL ASSISTANT (age 23), school trained, 6 months' experience in private office, seeks position in an architects' office on work of National importance. Not liable to Military Service. Box No. 71.

ARCHITECT AND SURVEYOR, I.A.A.S. (38), exceptional experience of varied war-time factories in different parts of the country. Canteens, hostels, camouflage and A.R.P. requirements. M.A.P., M.O.S. and private contracts. Design, equipment, supervision, costs and accounts. Box 72.

DRAUGHTSMAN (age 23), discharged Forces, requires position in London area, 8 years' experience in the preparation of 1/8th scale working drawings to F.S. details for garages, domestic buildings, etc., also of work of a factory nature, including electric power stations and sub-buildings. Box 73.

A.R.I.B.A., prize winner in R.I.B.A. Industrial Housing Competition, having fourteen years' experience with Local Authorities, and specializing in housing, is immediately available for a temporary appointment to assist with post-war housing and site planning proposals. Box No. 74.

ARCHITECTS, A.R.I.B.A., A.M.P.T.I., with wide experience in up-to-date housing, commercial and industrial buildings, hospital, etc. offer assistance for any work which can be dealt with in own office Box 75.

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.

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.

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.
Short Term Wartime Tuition Arranged.
Courses by Correspondence and Personal in Studio.
115, Gower St., London, W.C.1. Telephone . Euston 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

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.