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Taking it ...

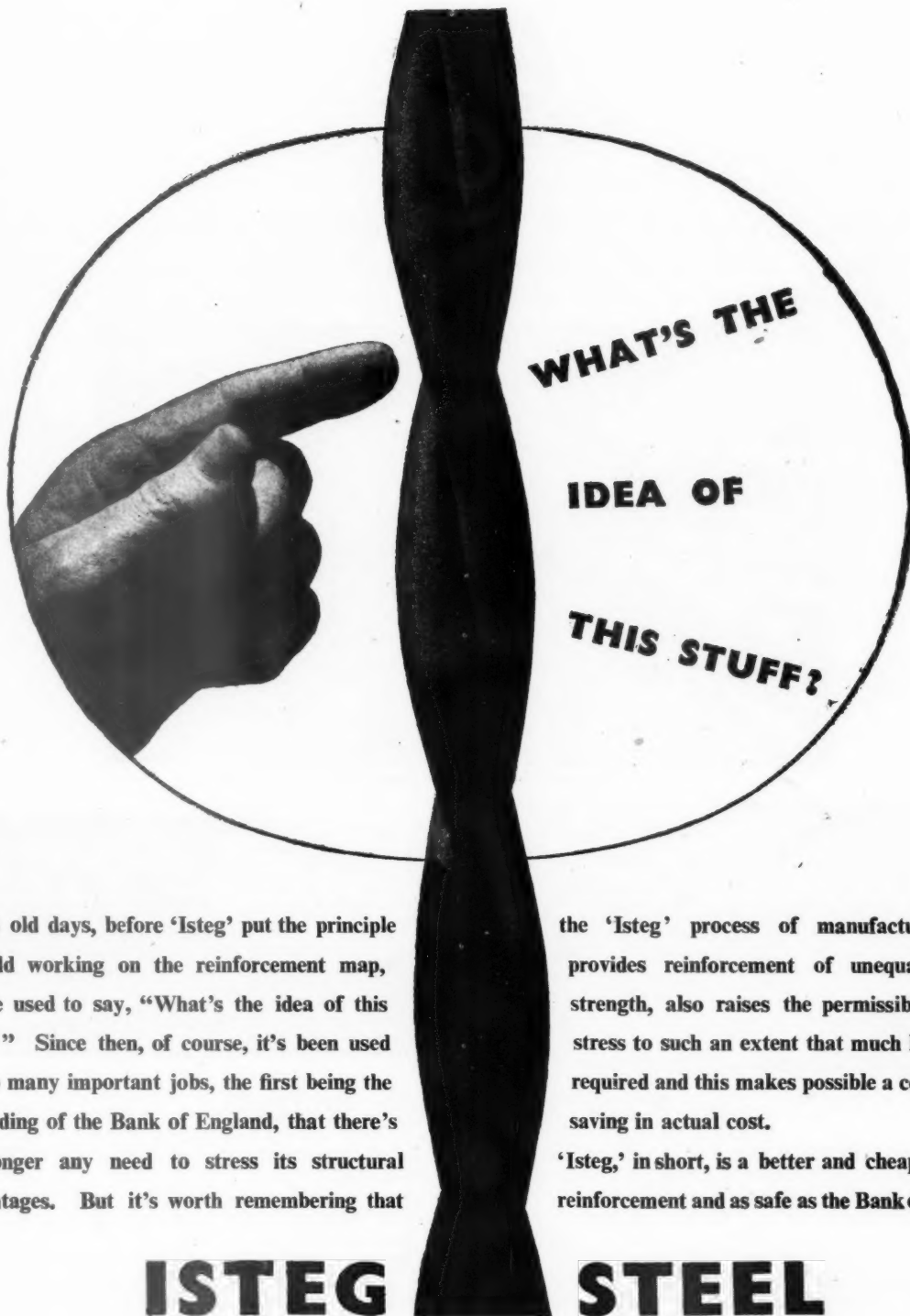


A tank must take hard knocks as well as give them. Heat, fumes, friction and violent jolts must be withstood by all parts of a tank—including, of course, parts covered with leathercloth. Indeed, not only tanks, but in fact every mobile unit of a modern army requires in some shape or form a leathercloth that can stand up to unfair wear and tear. That is why many thousands of yards of "Rexine" have been fitted into the bodies of modern service vehicles and their equipment. Much has been learnt from the constant research employed to ensure the production of durable materials that will stand the stresses and strains of active service. The fruits of this research will in good time be incorporated in peacetime Mural "Rexine" and Mural "Vynide" panelling cloths for interior decoration. I.C.I. will be able to offer an enviable standard of excellence in these materials for the coming days—and needs—of peace.



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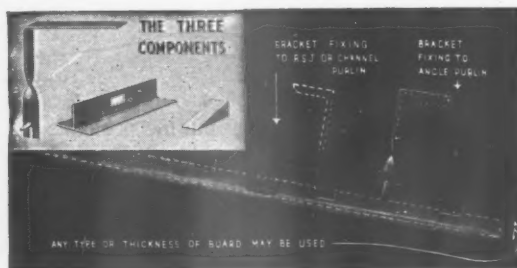
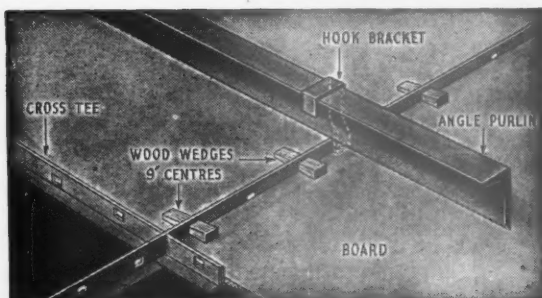


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Escalator Tunnels of St. John's Wood Underground Station. Architect: S. A. Heape.



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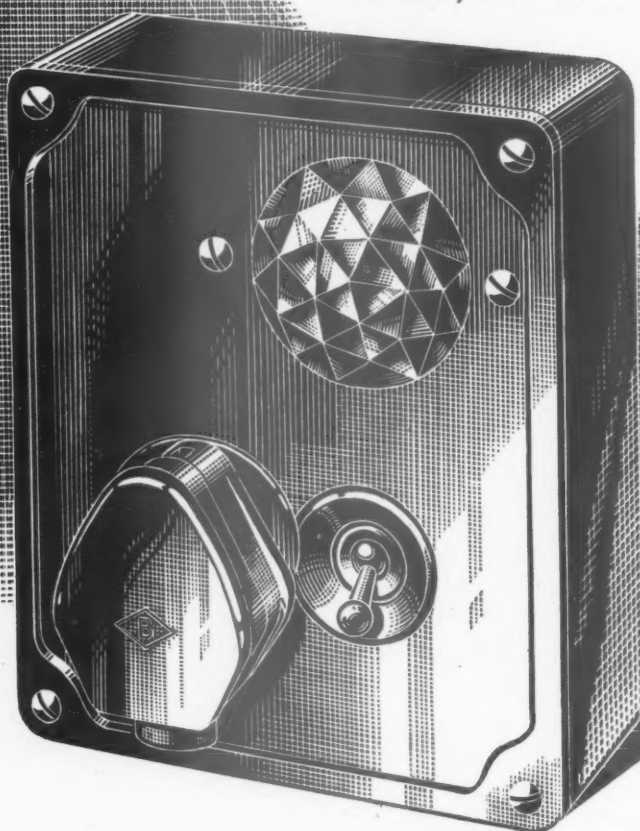
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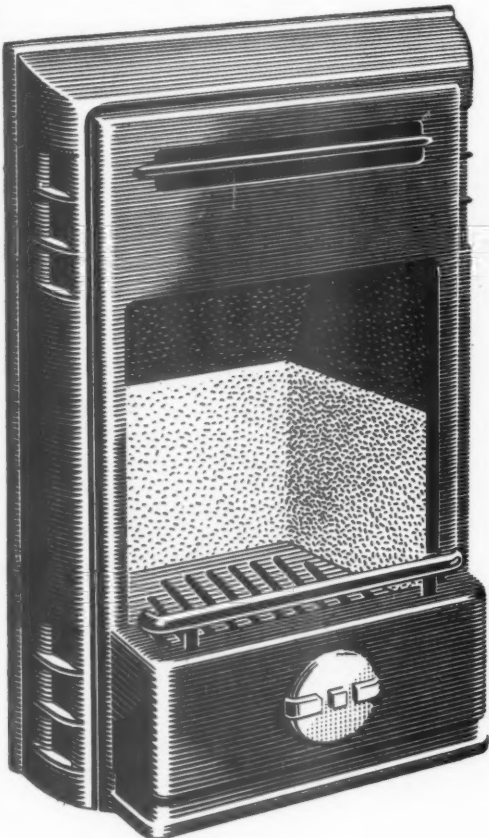
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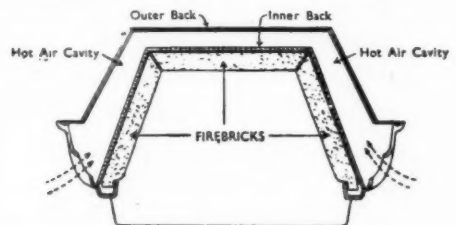
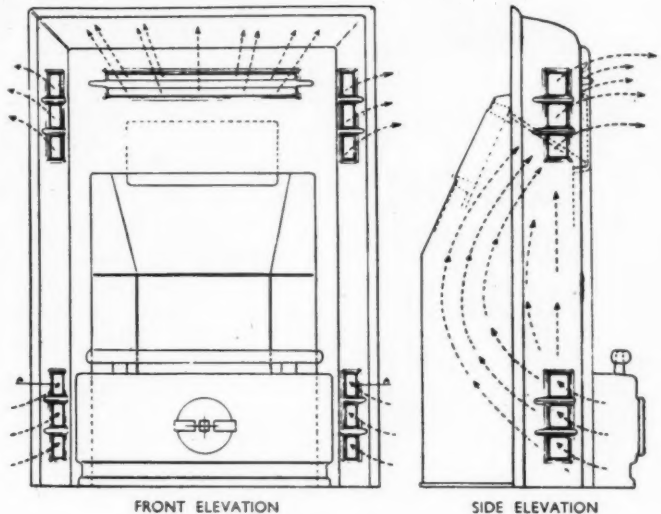
NEW-FASHIONED VISIBLE HEAT

EXAMPLE

A.I. "PROJECTOR" HEATING UNIT



SPECIFICATION: This is a self-contained interior grate, with double casing, which gives warmth on the convection principle. By carefully arranged air inlets in the sides and top of the unit, the heat from the fire is projected over the whole area of the room. The path of this heated air is indicated by dotted lines in the accompanying diagrams.



SECTIONAL PLAN A.A.
with bottom grate & fret removed

SIZES: Overall sizes: 25½" high x 18½" wide x 12" fire. Minimum size of existing fire opening required: 22" high x 16" wide. Clearance from underside of projecting lintel (if any) over fire opening to level of hearth must be at least 26".

FINISHES: Ebony black or coloured vitreous enamel, or "Alisheen" de Luxe enamel.

ADVANTAGES: The unit can be fitted to most existing fireplaces. It gives more heat per unit of fuel, and cuts down fuel consumption by approximately 40% over the ordinary coal fire.

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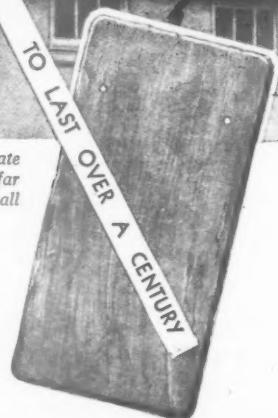
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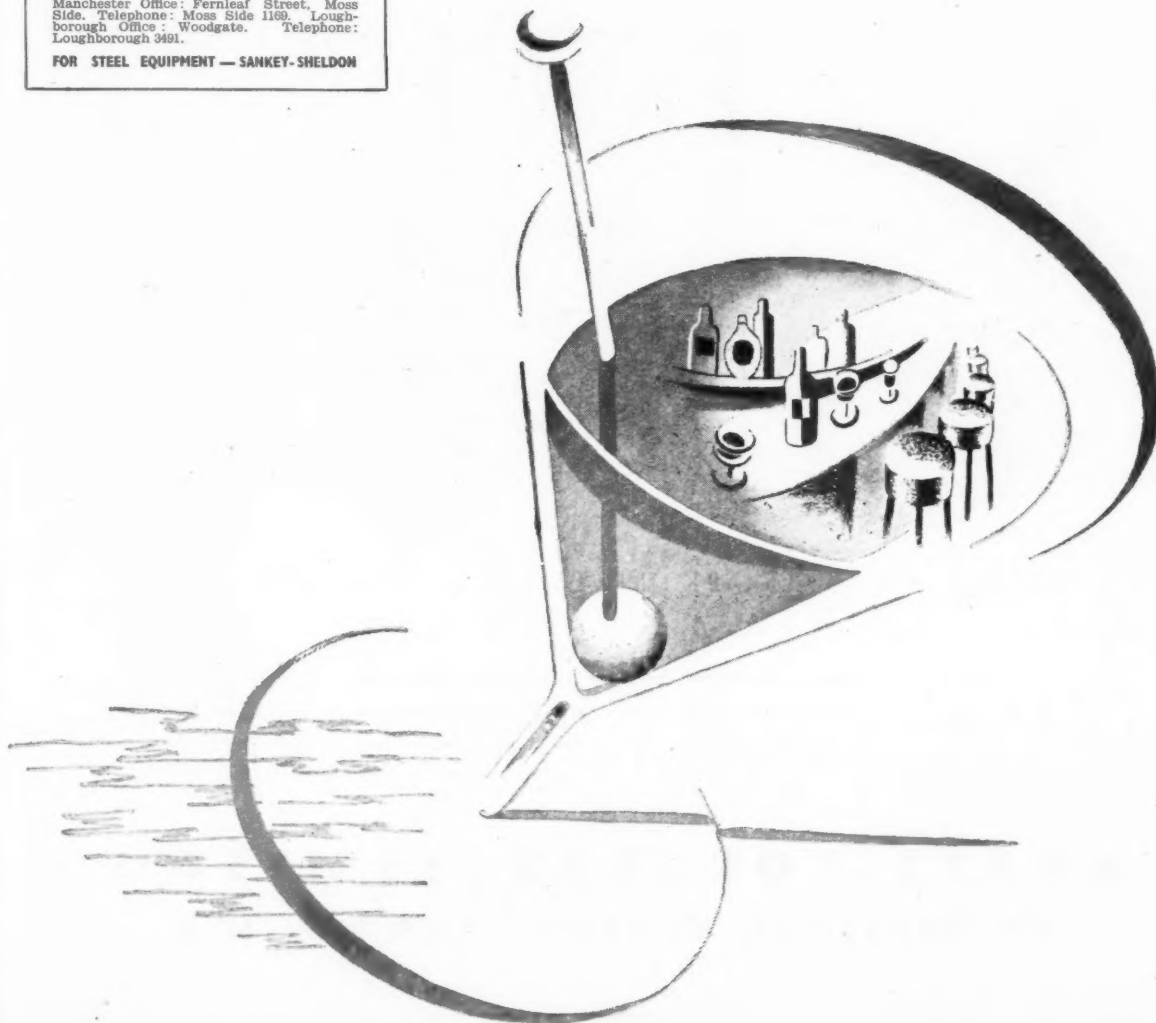
The cocktail bar is too young to be shackled to the past by tradition. It is still a growing idea, with possibilities of development extending beyond imagination — from the fashionable hotel bar, now firmly established, to bright refreshment centres at great new rail-termini yet to come; to luxurious reception lounges at airports serving the world; to meeting points in industrial and social communities which will

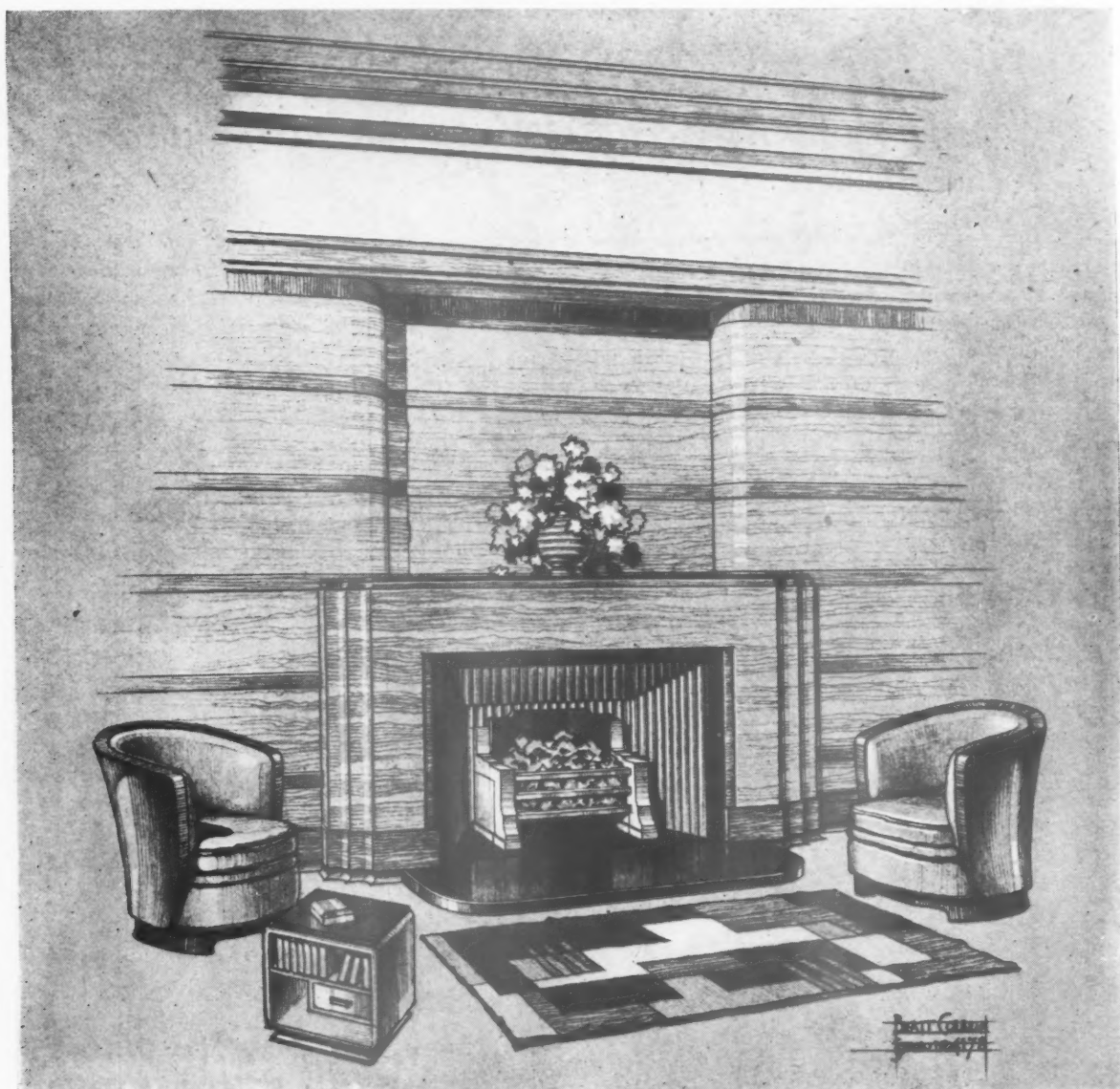
spring up everywhere. The size and form of these bars will vary infinitely, offering boundless scope to Architects, designers and craftsmen. We are specialists in the design, furnishing and equipping of hotels, bars, restaurants and, of course, shops. We work in any material, old or new and our highly skilled staff has long experience of working for and in close co-operation with Architects.

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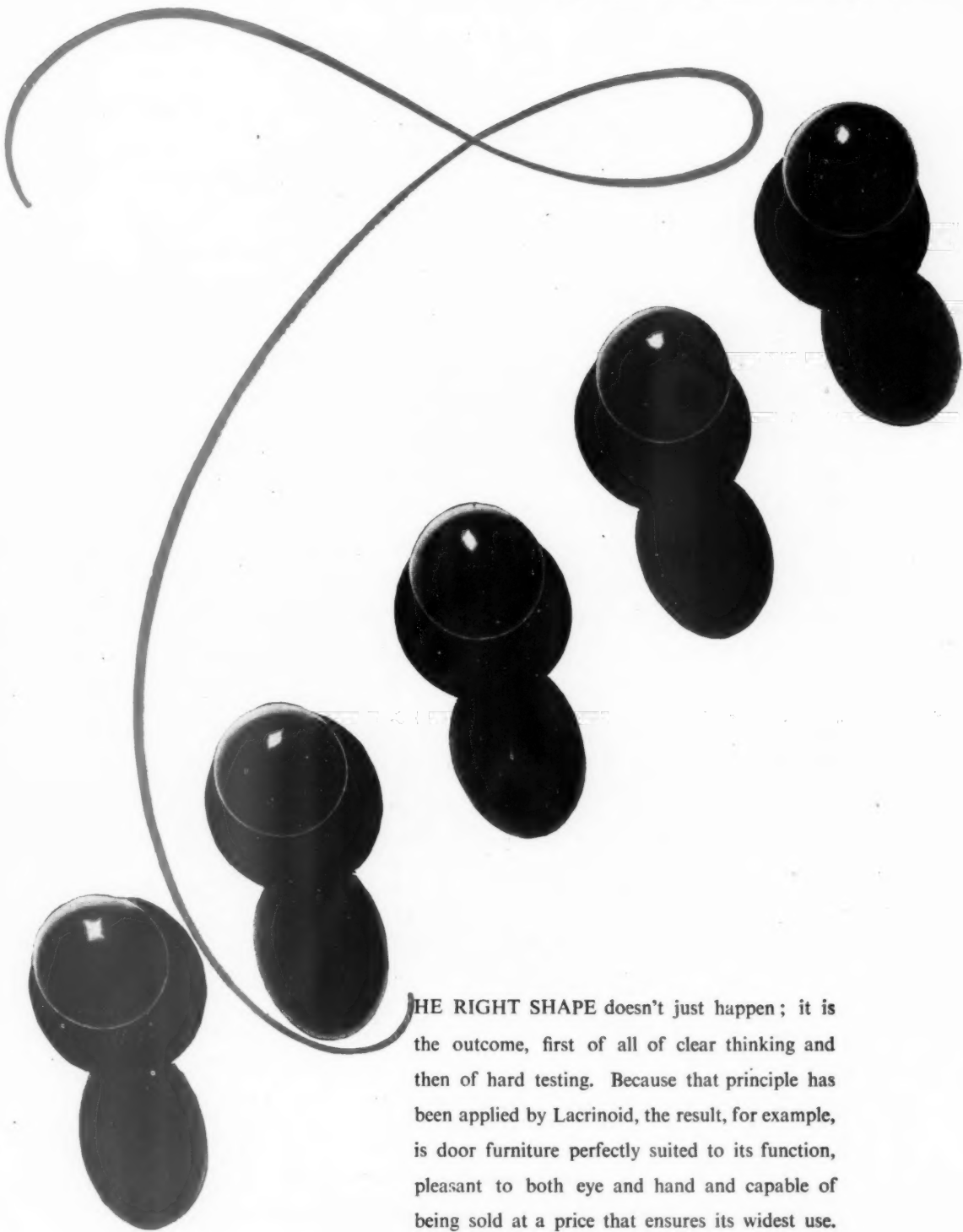


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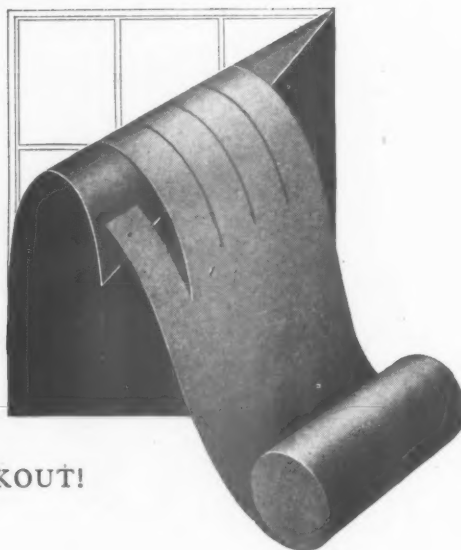
know not only how many lorries will be needed, but what and how much each lorry will carry on what day, when it will start and when arrive. They maintain more than 600 of those famous yellow lorries—the biggest haulage fleet run by any building organisation in the country. Their lorries range from 1-tonners to the latest 16 yd. waggons. And they keep in continuous action a 7 acre maintenance yard near London, a 10-acre at Glasgow, large depots at Cardiff Birmingham, Manchester, Nottingham, Newcastle, and mechanical engineers all over the country: so that every lorry is

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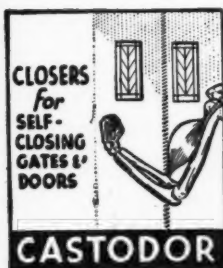


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Two-speed all metal lift entrance door. Sympathetically linked by steel arms fitted at all points with ball bearings, the leading panel runs at twice the speed of the other—giving full width opening—greater economy of space and silent and certain closing.

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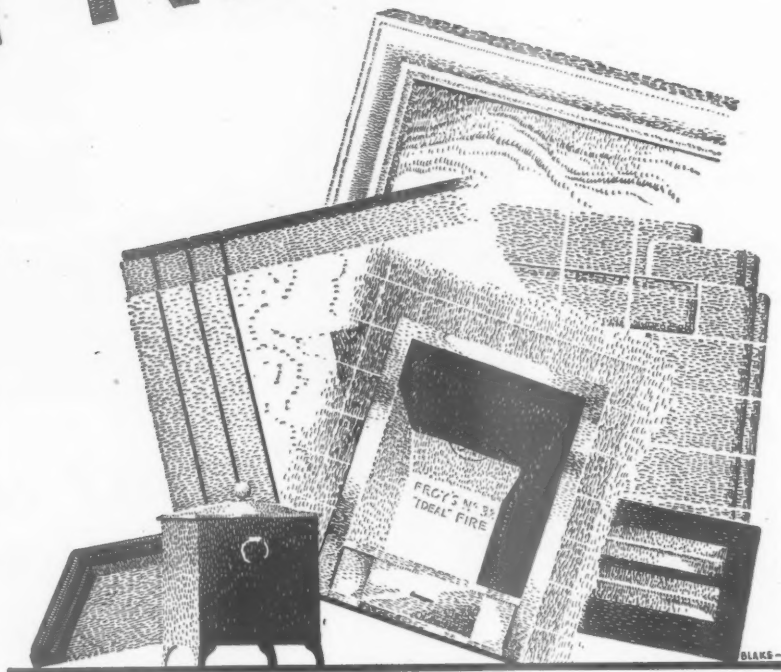
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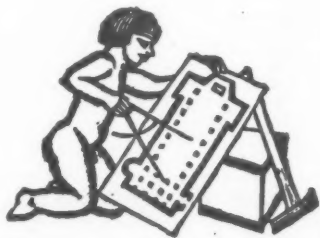
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In common with every other periodical this JOURNAL is rationed to a small part of its peace-time needs of paper. For this reason it is virtually impossible for Newsagents to accept new orders for the JOURNAL for the time being, and the Publishers are also now unable to enter new subscriptions. Intending subscribers should, however, send in their names either to their Newsagent or direct to the Publishers to be recorded on the "waiting list" when they would be advised as soon as a vacancy occurs. The annual post free subscription rate is £1 15s. 0d. Single copies, 9d., postage 2d. Special numbers, price 1s. 6d. are included in the annual subscription. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage extra. Goods advertised in the JOURNAL, and made of raw materials now in short supply, are not necessarily available for export.



DIARY FOR AUGUST SEPTEMBER AND OCTOBER

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

CARLISLE. *Living in the Country Exhibition.* (Sponsor, HC.) AUG. 24-SEPT. 2
Home from Home Exhibition. (Sponsor, HC.) AUG. 24-SEPT. 2

CATFORD. *Town House Exhibition.* (Sponsor, HC.) AUG. 10-19

HARROGATE. *Englishman Builds Exhibition* At the Art Gallery. Mrs. Hurrie, guide lecturer. (Sponsor, BIAE.) AUG. 10-13

LANDYBIE, SOUTH WALES. *When We Build Again.* Exhibition and film. At the National Welsh Eisteddfodd. (Sponsor, TCPA in collaboration with Messrs. Cadbury Bros.) AUG. 10-11

LONDON. *American Housing in War and Peace Exhibition.* At the RIBA, 66, Portland Place, W.1. The exhibition, prepared by the Museum of Modern Art in New York, brought here by the US Office of War Information at the request of the Council of the RIBA, tells the story of American housing before and during the war. Photographs, diagrams and text show the work of the US Government Housing Agencies and private organizations in the various fields of housing in cities and in rural areas. The exhibition demonstrates the high quality of the dwellings erected, the new materials and new methods of construction that have been used in wartime building. Many of the solutions and experiments are relevant to British post-war problems of providing housing for temporary occupation while permanent houses are going up. Pictures of several large schemes of permanent town building completed before the war and largely inspired by legislation and planning in Britain are also included. The designer of the exhibition at the Museum of Modern Art is Mrs. Mary Cooke, who worked for government housing authorities in Washington after her return in 1935 from Britain, where she worked with the architectural firm Tecton. AUG. 10-26

Discussion. *Re-housing in Europe.* At the RIBA, 66, Portland Place, W.1, in connection with the Exhibition American Housing in War and Peace. Chairman, G. L. Pepler. The Panel will include Arthur Ling and Major Sandford Carter. 6 p.m. AUG. 16

What is Modern Architecture? Public discussion. At the RIBA, 66, Portland Place, W.1. Sir Charles Reilly, honorary member of MARS Group, will preside and sum up. (Sponsor, Mars Group.) 6.30 p.m. AUG. 21

Miss J. G. Ledebuer, Secretary Dudley Committee. *Design for Post-War Dwellings.* At 13, Suffolk Street, S.W.1. (Sponsor, Housing Centre.) 1.15 p.m. SEPT. 5

G. L. Copping. *Unit Heaters.* At Institution of Mechanical Engineers, Storey's Gate, Westminster, S.W.1. (Sponsor, Institution of Heating and Ventilating Engineers.) 6 p.m. SEPT. 6

Professor Sir Alfred Egerton. *Trends in the Development of Heating Installations for Domestic Purposes.* At Institution of Mechanical Engineers, Storey's Gate, Westminster, S.W.1. (Sponsor, Institution of Heating and Ventilating Engineers.) 6 p.m. SEPT. 20

NEW MALDEN, SURREY. *The English Town: Its Continuity and Development.* Exhibition. At the Public Library. (Sponsor, TCPA.) AUG. 19-26

NORFOLK. *Your Inheritance Exhibition.* (Sponsor, HC.) AUG. 10-SEPT. 30

PEMBREY. *When We Build Again.* Exhibition and Film. (Sponsor, TCPA in collaboration with Messrs. Cadbury Bros.) AUG. 10-15

STOCKPORT. *When We Build Again.* Exhibition. (Sponsor, TCPA in collaboration with Cadbury Bros.) AUG. 19-26

STROUD. *Twenty Women at Home Exhibition.* (Sponsor, HC.) AUG. 10-12

Living in the Country Exhibition. (Sponsor, HC.) AUG. 10-12

SUDBURY, SUFFOLK. *The English Town: Its Continuity and Development.* Exhibition. (Sponsor, TCPA.) SEPT. 21-30

TORQUAY. *When We Build Again.* Exhibition and Film. At the Gas Company Showrooms, 112, Union Street. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) To be opened by The Mayor of Torquay (Councillor E. H. Sermon) at 2.30 p.m. on September 2. SEPT. 2-9

TOTTENHAM. *Good Neighbours Exhibition.* (Sponsor, HC.) AUG. 10-19

Home from Home Exhibition. (Sponsor, HC.) AUG. 10-19

New Homes for Old Exhibition. (Sponsor, HC.) AUG. 10-19

Rehousing Films. (Sponsor, HC.) AUG. 10-19

Town House Exhibition. (Sponsor, HC.) AUG. 10-19

N E W S

THURSDAY, AUGUST 10, 1944
No. 2585. VOL. 100

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

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

★★ means important news, for reasons which may or may not be obvious.

Any feature marked with more than two stars is very big building news indeed.

The Chadwick Trust offer a £250 AWARD FOR RESEARCH into the density per acre for houses in large towns.

In connection with housing and rehousing schemes, the Chadwick Trustees, desirous of facilitating investigation of the question of the reasonable maximum density range (per acre) for small houses with gardens, suitable especially for the intermediate and outer zones of large towns—with due regard to the amenities essential to a comprehensive town-planning arrangement—are prepared to offer an award of £250, to a man or woman qualified to undertake such investigation. The outline scheme for such research and the choice of a candidate for the award, to be approved by the Trustees. Those desiring to be considered for the award should make an application in writing to the Clerk to the Chadwick Trustees, 204, Abbey House, Westminster, S.W.1, accompanied by evidence of qualification and experience and a brief recital of the general plan of research proposed to be adopted. Applications to be received before the end of September.

The Duke of Buccleuch and Mr. Arnold Inman, K.C., have been elected HONORARY MEMBERS OF THE CHARTERED SURVEYORS' INSTITUTION.

STEEL

WORK

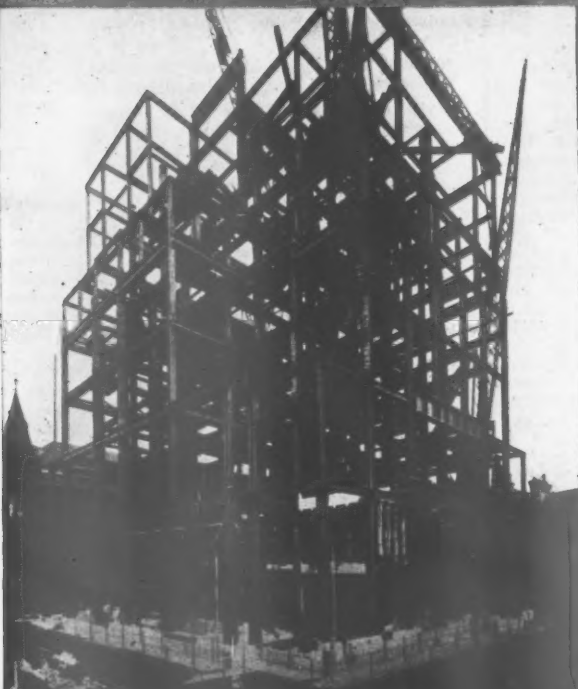


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from AN ARCHITECT'S Commonplace Book

LOCAL PLANNING IN THE CITY, 1282. [From London, by Sir Laurence Gomme. (Williams and Norgate, 1914)]. Extract from an agreement (1282) between the Dean and Chapter of St. Paul's Cathedral and the Mayor, which concerned the building of shops near the Cathedral wall. "... we doe promise by lawful stipulation that we shall make or cause to be made all maner of drops of water of the said shoppes to be tourned away towards the Kinges hieway, leaste any doe distille into the church-yearde or uppon the walls of the same, wheareby the same may receive hurte or to be made worse, and that we shall not permite butchers, poticaries, gouldsmithes, cookes, or comon women to dwell in the same shoppes . . . nor also shall suffer those which shall dwell in the said shoppes to burn any seacooles in the same or such other thinges which doe stinke."

The following decisions have been made by the London Building Industry Regional Joint Committee in connection with First Stage FIRST AID REPAIRS to War damaged houses.

Working Hours: With reference to the suggested sixty-five hours per week which we understand is to operate for the next three weeks for first-aid repairs to houses, we wish to bring to the notice of the Ministry of Works that it is the considered opinion of this Regional Joint Committee that the Government is ill-advised to press hours to the extreme because such hours will not produce the maximum output, and while we will co-operate with the decision made, we cannot do so without making this protest. Our considered judgment is that the maximum hours under present circumstances should not exceed sixty per week. **Lodging Allowance:** This Regional Joint Committee decides, in accordance with Rule 6 (a) F, that in the special circumstances of the present emergency men imported from the Provinces to carry out first-aid repairs to dwelling-houses shall be paid an allowance of 4s. per day. **Dirty Work:** Working Rule 2 (e): This Regional Joint Committee decides that first stage first-aid repairs to war-damaged dwelling-houses is dirty work within the meaning of Working Rule 2 (e). The definition of first stage first-aid repairs is the minimum amount of work necessary to make premises wind and watertight and safe.

Constructed for a film of Shakespeare's Henry V, a large MODEL OF OLD LONDON has been presented to the London County Council.

The model, presented by Two Cities Films Ltd., took nearly a year to complete and measures about 70 ft. by 50 ft. It is to a great extent based on Visscher's map view of London in the early seventeenth century, and shows a stretch of London north of the Thames from the Tower of London to Ludgate Hill, including Old St. Paul's, the City churches and Guildhall. Old London Bridge is reproduced with its 20 arches and drawbridge, and its high structures overhanging the parapets.

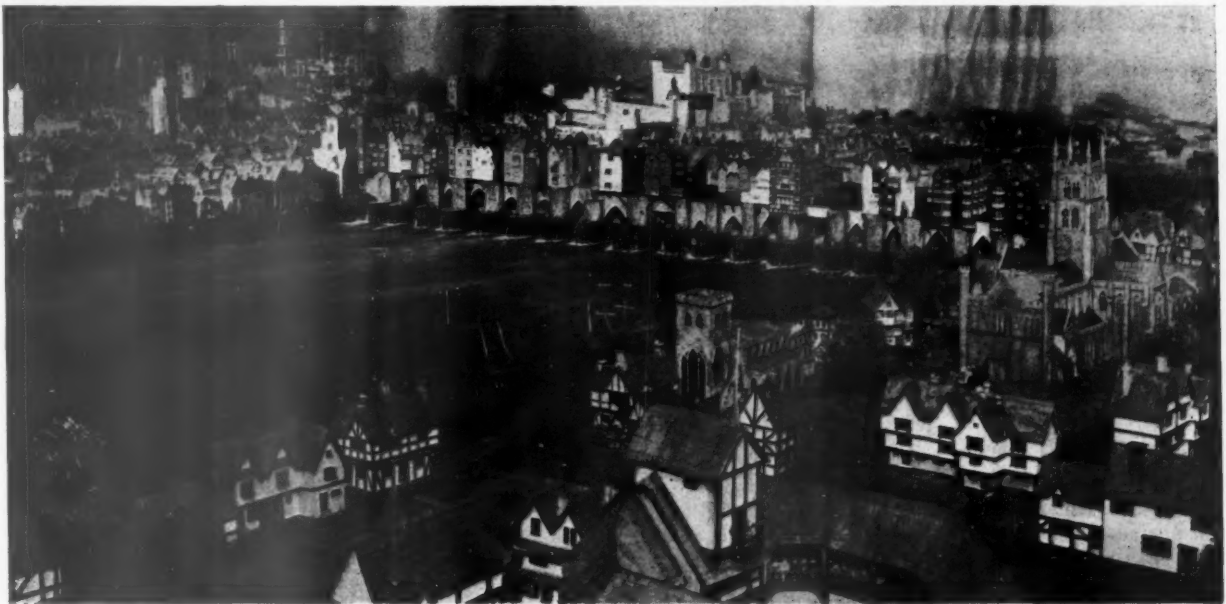
Mr. Walter A. Yates has been appointed COUNTY PLANNING OFFICER OF MERIONETH.

He is thirty-five and is at present deputy county planning officer of Denbighshire, a position he has held for the past five years. An associate member of the TPI, member of the Town Planning Officers' Section of the TPI, and an associate member of the Institution of Municipal and County Engineers, he has held the following previous appointments:—first planning assistant, Denbighshire (1939-42); first planning assistant,

Birkenhead (1935-39); town planning assistant, Kingston-upon-Hull (1934-35); assistant planning officer, Chorley, Lancs (1932-34); chief engineering assistant, Chorley (1928-32).

Lacock Abbey, one of the last religious houses DISSOLVED BY HENRY VIII, has been given to the Nation.

Lacock Abbey, Wiltshire, the Manor Farm and Lacock village have been presented by Miss Matilda Talbot to the National Trust. The gift amounts to more than 300 acres. The village, with its ancient tithe barn and 500-years-old houses, is one of the most unspoiled mediaeval manors in the country. There are still large parts, in excellent preservation, of the Augustinian convent founded in 1229 by Ela Countess of Salisbury. Later occupiers added buildings of their own period, so that the Abbey is now a blend of Early English, Perpendicular, Tudor, Gothic Revival, and early nineteenth-century adaptations. Lacock was one of the last of the religious houses to be dissolved by Henry VIII. It has been in the possession of the Talbot family for 200 years. One of them, Sir John Talbot, was wounded in the famous duel between the Duke of Buckingham and Lord Shrewsbury which Pepys describes in his diary. It was at the Abbey that William Henry Fox Talbot carried out the researches which led to the invention of photography in 1839.



A model of early seventeenth century London presented by Two Cities Films to the LCC. It was made for a film of Shakespeare's *Henry V*, and shows a stretch of London north of the Thames from the Tower to Ludgate Hill, including old London Bridge, old St. Paul's, the Guildhall and the City Churches. In the foreground, south of the river, is Bankside, at that time a centre of popular entertainment, with the famous Globe Theatre (where most of Shakespeare's plays were given their first performance); the Bear Garden and the ancient church of St. Mary Overy, now Southwark Cathedral, stand at the bridgehead. (See News item).



Si Monumentum Requiris . . .

The bomb-blasted desolation of the City poses many vitally important and difficult questions. Their adequate and imaginative solution is imperative if the rebuilt Square Mile is to be a fitting monument of the future to these five havoc years of suffering and endurance—a monument to which could aptly be applied Wren's famous epitaph in St. Paul's. Does the Report on the Post-War Reconstruction in the City by the Improvements and Town Planning Committee of the Corporation of London present such a solution? Our answer is contained in this week's

leading article, which makes a number of serious criticisms. Astragal, too, criticises the City Plan and asks if indeed it can truly be called town planning at all. Happily the City Plan contains only tentative proposals, and suggestions are clearly welcome, for the scheme has been presented merely as a basis for discussion. We still await a proper solution of the City problem, which cannot be solved if the satisfaction of purely parochial vested interests remains the first consideration. The whole Empire is concerned to obtain an imaginative and inspired solution.

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Not Michael Angelo himself could fit the new DURHAM POWER STATION buildings into their proposed setting, says Thomas Sharp.

In a letter to *The Times*, Mr. Sharp says: Almost all your correspondents on the subject of the proposed power station at Durham base their objection to the proposal on the ground that the building will mar the famous half-minute view from the railway. There are other and more important reasons. The buildings will be prominent in the view in many parts of the city. They will be seen from Palace Green, for example; and they will be right in the line of the view from the west door of the cathedral. They will also figure prominently in the whole series of views from public places on the bowl of low hills that rises just beyond the cathedral peninsula on the south-east, south, and west. These views of the cathedral are at least as fine as that from the railway. But while, in connection with the railway view, the objection to the power station is that it is competitive with the cathedral at the opposite end of a panoramic view, here the objection is that the view of the cathedral itself will be jeopardized; for from these places the chimneys, and probably the cooling towers, will be seen beyond the cathedral, lifting high above it, sometimes just to one side, sometimes rising grotesquely out of the roof, always confusing and destroying the nobility of its outline. What is chiefly wrong with the buildings is their scale in this setting. In some other place they may make a notable addition to industrial architecture. Here they can only be an outrage. It is useless to promise that some distinguished architect will be employed to dress them. Not Michael Angelo himself could fit them into this setting. (See ARCHITECTS' JOURNAL, July 20, p. 39).

Mr. William W. Wurster has been appointed DEAN OF THE SCHOOL OF ARCHITECTURE, MASSACHUSETTS Institute of Technology.

Mr. William W. Wurster, a California architect, has designed many notable buildings and large-scale housing projects. He succeeds Dean Walter R. MacCornack, who retired on July 1. Mr. Wurster's new post places him at the head of the country's oldest architectural school, which was established in 1865. It now includes a division of city planning and housing. One of Mr. Wurster's projects is the United States Housing Authority slum clearance project, Valencia Gardens, in San Francisco, which he designed in association with Harry A. Thomsen, junr. He also designed the Yerba Buena Club on Treasure Island for the 1939 exposition in San Francisco. Another example of his work is Stern Hall, a dormitory for women students at the University of California, which was designed in association with Corbett and MacMurray, of New York. His Valencia Gardens project and the Schuckl and Company office building, an example of a business building for a country town, have been chosen by the Museum of Modern Art as examples of significant American buildings of the past ten years. Carquinez Heights at Vallejo, California, and the Parker Homes at Sacramento are war housing projects designed by Mr. Wurster. In association with Franklin and Kump he designed Chabot Acres. Mr. Wurster was born at Stockton, California, in 1895. In 1937, Mr. Wurster went to Europe to study the modern English housing projects and the work of outstanding Scandinavian architects, including Alvar Aalto, of Finland. He then went to Germany to study the Frankfurt housing projects. His 20 years practice include the erection of 5,000 war houses.

THE CITY PLAN

THE Preliminary Draft Proposals for the reconstruction of the City after the war have now been published in a handsome gilded volume, of which 10,000 copies are to be printed so as to secure the widest possible publicity and discussion. The latter is badly needed. A distinguished contemporary* may have been unkind in saying that the proposals take account of everything except the future; but the fact remains that at first glance they do appear to look backwards rather than forwards, and considerable study is required to distinguish between alterations of feature and mere make-up; between characteristics of traditional value which are retained, and necessary improvements which it is not proposed to carry out. Apart from details and special sites, there were certain general lines of action which the *Improvements and Town Planning Committee* of the Corporation of London might have been expected to follow. First, improvements in communication for all types of internal and by-pass traffic, in face of the inevitable and prodigious increase of vehicles after the war; secondly, improvements in typical commercial and office accommodation, as regards convenience, working conditions and capacity; thirdly, improved services, including such things as car parking, heating and hot water, telecommunications, and fire hydrant supply; fourthly, improved settings for historic monuments and notable buildings, and a layout that would provide equally good opportunities for contemporary architecture; and lastly, improvements in amenity and recreation, of the kind suited to a crowded working population, by such means as the provision of a network of footpaths and covered ways, small and quiet open spaces, and an imaginative treatment of a unique and characteristic urban landscape.

Not one of these objectives is successfully pursued. The 80-foot wide Ring Route, which is the main feature of the Plan and is responsible for the overwhelming majority of the proposals for land acquisition, will give only partial relief to the City in that as much internal and cross traffic as before will thread its way to the knot at the Bank, and thence to Moorgate, Liverpool Street, Whitechapel and London Bridge. Nor is there anything in the Plan to show the way to an economical rebuilding of a typical block so as to provide well-lit and quiet offices, more easily accessible and better ventilated than those of old. Much play is made of the fact that existing services are complex, and costly to disturb; but no mention is made of improved services such as large-scale block heating to reduce smoke and coal wagon deliveries, or high-pressure fire mains that would prevent a repetition of the events of December 1940. In matters of architecture

*Manchester Guardian, July 29, 1944.

and civic design it looks rather as if there is a willingness to do what is proper, but a lack of knowledge, technique, and designing ability to demonstrate it. There is, for instance, a startling phrase which describes the City churches as being given "a prominence which they rarely enjoyed in the past." Since one or two of them are doomed to stand in the middle of small traffic islands, it is doubtful if Wren himself would have appreciated the funny side of them. About the environs of St. Paul's and the Tower opinions will no doubt differ, but it is questionable whether the axial spaces to be cleared north and south of the transepts of the Cathedral will in practice provide such effective vistas as would appear from drawings. (Mr. J. D. M. Harvey's perspective from a viewpoint on the proposed Southwark Embankment is persuasive but unreal.) There can hardly be any difference of opinion among architects about the unsatisfactory nature of the problems presented by the various roundabouts on the projected Ring Route; those at Ludgate Circus, Holborn Circus, Aldersgate, Moorgate, Bishopsgate, and the Embankment west of London Bridge would tax the ingenuity of Haussmann to make respectable. One can only hope that they are shown at present as traffic shapes only, which will be subject to further consideration.

There are no proposals for improving the forecourts of, or access to, Liverpool Street and Fenchurch Street Stations, nor—most mysterious of all—to Billingsgate Market, which is shown on its present site, wedged between the arterial ring road and the river. Incidentally, with one of those pedantic technicalities which make it so difficult for the public to understand a planning map, this stretch of the Thames, up to the boundary in mid-stream, is zoned as *undetermined*, no building being allowed without consent.

Such are, at first examination, the obvious defects and omissions of the Preliminary Proposals for the City of London. Their merit is that they are attractively presented; and their saving grace, that they are tentative. Evidently much has been learnt by the technical authors of the plan in the course of its preparation; and it may be that public criticism, and further consultation with the Royal Fine Art Commission, will rub off many imperfections and produce some ideas that are both practicable and imaginative. As they stand at present the proposals have the slightly incongruous appearance of partial fancy dress. The old black suit and bowler hat of the everyday city are decorated here and there with period trappings and touches of a more ceremonial costume. But the working garb seems likely to be neither renovated nor replaced.

No man of sense will underrate the stupendous task that faces the Town Planning Committee and the City Engineer in the reconstruction of the famous Square Mile; but it is nevertheless true that without vision even traditions perish. Here is a case where vision and commonsense have a unique opportunity to plan in concert.



The Architects' Journal
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N O T E S & T O P I C S

CITY OF LONDON PLAN

After three whole years of hard work the Improvements and Town Planning Committee of the City of London can come to no decisions upon the surroundings of St. Paul's, upon the extension of the Thames Embankment, upon the removal of the anachronistic meat and fish markets, upon the tidying up of the welter of main line terminal stations.* All that it can say with conviction is that the City requires a Ring Road and that many internal roads require widening.

This City of London plan represents a new departure in town planning. Elaborate and very beautifully drawn maps and perspectives have been excellently reproduced in several colours and are accompanied by so much high-sounding phraseology that the unwary reader can easily be trapped into considering this a town plan, comparable to the scheme already published for the County of London, Plymouth—or even Bristol. It is nothing of the sort.

All normal town planning schemes contain plenty of ground for criticism but, it is fair to assume that they have been drawn up with a view to providing the greatest possible convenience and amenity for the majority of the citizens of the area. The City of London plan has no such aim. It is simply

*Report of the Improvements and Town Planning Committee relative to Post-War Reconstruction in the City of London. (To be issued for purchase by the public at a future date).

designed to restore the rateable values of the City to their pre-war position, to maintain them and to increase them. In the pre-war minds of its authors high rateable values are apparently dependent upon three things—extensive street frontages, terminal railway stations and wholesale markets. No provision is made for adequate open spaces, for through passenger traffic or for the removal of the wholesale markets because, obviously, every open space would reduce the amount of ground available for building—and rating. Through passenger traffic might deter people from alighting in the City; and the removal of the markets—well, clearly, if they were not in the City they would not be able to pay rates to the City.

No decision is reached upon the environment of St. Paul's or the extension of the Thames Embankment. It is obvious that these are both matters of some sentimental concern to people outside City circles. Following many famous precedents, therefore, the statesmanlike course has been followed of relegating both, the one to an Empire competition, the other to a public enquiry. In other words, nothing can happen for a very long time. In the meantime the City trade, of course, cannot be hindered from its natural development and people will be allowed to build "subject to . . ." But the risk is small and, when any schemes do eventually emerge, there will doubtless be a host of rate-paying interests that will have used the intervening period to become well vested.

An interesting point, brought up at the Press Conference on the plan, was the unique position of the City in relation to land ownership. Several public statements (and a PEP broadsheet) have emphasized the large amount of land owned by the City of London. Yet the report on the plan states explicitly that the City owns scarcely any of the land required by them for street improvements. The purchase of this land, amounting to some 40 acres, represents the major part of the scheme, and a figure of £150 millions has been suggested as a

tentative estimate of the total cost over a period of some 25 years. This is a quarter of the sum mentioned in Parliament as the Treasury estimate of the total capital cost of the reconstruction of England—to be spent upon one square mile.

At the Press Conference the City Engineer reminded the audience that the City of London was in a unique position compared with other local authorities. It has two purses. Into one goes the receipts from its extensive estates and other properties, the proceeds of which are spent upon various City functions—including banquets. Into the other purse goes the rates from all properties—including those owned by the City itself. As a result, if the City, as a local authority wishes to use property owned by the City as a landowner, it buys the land from itself out of the rates—or, if there were any direct Government assistance, out of general taxation. This scheme may be an astute exercise in real estate management—but it is not town planning.

Further, in the words of the report, the purpose of the plan is "to see the return to the City at the earliest possible date of those businesses which have been displaced by enemy action." In the report, at the Court of Common Council, and at the Press Conference, it was definitely and repeatedly stated that this meant a return to a day population of half a million people which, it was planned, could be increased to 800,000. The report, however, contains a very interesting graph and a table showing the extremely close and consistent connection between the day population of the City of London and the total population of Greater London over the last three-quarters of a century. In other words, the Improvements and Town Planning Committee of the City of London—in direct contradiction to every important statement on public policy and to the Government reports—is planning that the population of Greater London should increase from the pre-war 8½ millions to about 13½ millions. Can this be called town planning?

ASTRAGAL



LETTERS

(I. Shamah

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Organize an Exhibition

SIR.—The great interest shown by the public and architects and engineers in the Emergency Steel House erected by the Government behind the Tate Gallery, illustrates a great desire of the public for information on our new types of housing. It also shows that the public can contribute suggestions and improvements which are significant. Unfortunately, very few people could get to see the house.

The Building Research Station, the Directorate of Post-war Building, and the various Sub-Committees are carrying out work of vital importance in the realm of scientific housing. The Burt Committee is to be congratulated on its recent housing Report, which is a mine of information and lays the foundation for a real scientific approach to the problem. The Dudley Report, just issued, is also of great value. But in the main the greater part of practical research work is being carried out by private enterprise.

However, as Prof. Bernal and various other authorities have pointed out, one of the greatest defects of scientific research in this country is the great time-lag between the scientific discovery and its practical application. Therefore, the task of the Government is not only to develop the new ideas and material, and perhaps to publish these, but to bring this information home to the architects and builders, and the public in general, as quickly as possible.

The following suggestion may be of help:—That a large Scientific Housing Exhibition be held shortly after the cessation of hostilities. It should be sponsored by the Government, possibly through the formation of a committee consisting of representatives from the Ministry of Works, the Ministry of Health, the Building Research Station, the RIBA, the Housing Centre, the Trade Unions, Women's Institutes and the various Trade organizations concerned. The Exhibition could be held on some large site in the suburbs of London and the following would be among its objects:—

1. All the new types of houses now being erected in Coventry, Middlesex, Scotland, etc., by Government Departments or private firms should be situated at the Exhibition. In this way important comparisons could be made on the spot and the public and other authorities able to judge and offer their criticisms. Various types of pre-fabricated houses from USA and Sweden would also be erected.

2. All firms manufacturing housing materials, including aircraft and other firms

TWO HOUSES IN THE USA



These two recent houses in the USA by pioneers of the modern movement strikingly express the characteristic artistry, background and development of their authors. At the top is the Henry G. Chamberlain house at Weland, Massachusetts, built in 1940 by Walter Gropius and Marcel Breuer. Below is the Winkler-Goetsch house at Okemos, Michigan, built in 1939, by Frank Lloyd Wright. Compare the rational and European character of the Weland house with the more indigenous Okemos house, which bears the unmistakable Wright stamp with its perhaps somewhat strained horizontality. Through all art have run the two themes dubbed Classic and Romantic—always misleading and inadequate words which could be applied, nevertheless, as well to the respective work of Gropius and Wright as anywhere. In all the best design there is a blending of Classic and Romantic, of intellect and emotion, restraint and fantasy, discipline and freedom. Both are contained in these two designs, but their contrast is due to the different admixtures of the two elements contained in each—the one with its sophisticated roots of the Old World transplanted to the New, the other with its more spontaneous and purely American growth.

whose products may be of use, would be invited to exhibit their new materials, fittings, accessories, furnishings, etc., together with prices and standards of performance.

3. All cities, towns and regional districts would be invited to submit their proposed Town Planning Schemes, so that a more or less complete picture of the intended post-war development in Britain, and the proposed reorganized transport system, could be seen and co-ordinated.

4. Arrangements would be made for lectures, practical demonstrations and refresher courses to be given together with the Exhibition. In this way the full applications of the recent scientific developments may be brought home in a practical way to the architects, engineers, builders, borough councils, etc., who in the final analysis are the people that will carry out most of our permanent housing programme.

It is most likely that the cost of the Exhibition would be met by entrance fee and the renting of sites. Perhaps a number of awards in cash and certificates could be given for the best type of house, of materials and of town planning development shown. This would stimulate a competitive spirit to the best advantage. The Exhibition would indeed be a tribute to our victory and prove to the people that the Government meant to get on with the job of raising the standard of living. It would also be of great value to the Governments and authorities of the occupied territories of Europe, who will also have a great housing problem to face.

If the scheme is to be carried out at all, the site must be chosen now, and the houses which are being erected in various parts of the country should be erected on this site. Furthermore, all the preparations will have to be made for the Exhibition to take place as soon as possible after the war.

It appears that under present conditions it will be private enterprise that will carry out the greater part of our tremendous housing programme. If so, then private enterprise must be co-ordinated, assisted and guided by the Government so that it operates to the best advantage of the National interest. There is place for all types of houses made from different materials, such as concrete, bricks, timber, steel, plastics, etc., each suited to its own specific purpose or type, or of houses made from a combination of all these materials.

I. SHAMAH,

Managing Director, Prebuilt Constructions, London

Post-War Employment

SIR.—The Groups of the Organization of Service Architects in Ceylon have recently considered some of the problems of employment and conditions facing technical members of the Building and Civil Engineering Industries in the first post-war years. The following resolution has been unanimously ratified by members of the Groups.

"Various professional and technical Bodies of the Building and Civil Engineering Industries are preparing or making arrangements to prepare schemes for the post-war employment of their members at present in the Forces.

"This Organization suggests that in order to obtain the most effective and efficient working arrangement from all parts of these Industries for immediate post-war demands on personnel it is essential to set up a representative Board for re-employment of demobilized men. The representation of the Board should be drawn from the many professional and technical Bodies of the Industries and the work of the Board would be to prepare a comprehensive register of all available and potential technical men, in the various categories, necessary for any work of physical reconstruction. This Register and the co-ordinated advice of the Board to be available for the immediate reference of any Government department or private body."

Ceylon.

JOHN D. MAIDMENT,
Gen. Sec., O.S.A.C.

PHYSICAL PLANNING

A METHOD OF COMPARATIVE ANALYSIS DEMONSTRATED ON FOUR LONDON PLANS

What was feared to be no more than a post-blitz boom in town planning has now settled into steady and more stable progress both in its development as a technique and in the growing numbers of the public who have a lively interest in it and support it. A spate of town plans has been produced and while still largely indigestible in terms of public consumption, has been exhibited in County, City and Town Hall, in Academy, Gallery and Army Hut. But it is on the London plans, more than on any others, that interest everywhere has been centred. For London is a symbol, not only on account of its influence and position nor only on account of its fortitude in face of a severe war-time ordeal, but also because the problem of its future has inspired more constructive thought than any other city in the world. Four important bodies, Modern Architectural Research, The Royal Academy, The London Regional Reconstruction Committee of the RIBA and the London County Council, have, in that order, produced challenging plans for it, which have done much to advance knowledge of the theory and practice of town planning and of its nature as an essential part in the healthy growth of a town. With the publication of proposals for the City of London and with Professor Abercrombie's plan for the Greater London Region pending, a comparative evaluation of the various plans is urgently needed, if the town planner is not to be deadened under the weight of conflicting ideas and half-formulated solutions. In this issue we present a system evolved by two planners for assessing the merits of town plans. The four London plans, LCC, LRRC, MARS and RA are taken and, under six main headings with numerous subsidiary questions, are analysed. In this way, the authors aim to provide a yardstick, based on a logical appreciation of town planning principles, which will help in measuring the contribution not only of London plans but of plans for Everytown.

By **Eugene C. Kent** and **Felix J. Samuely**

MOST of those who saw the exhibitions on the replanning of London last year at the Royal Academy, at the National Gallery and at County Hall, must have felt somewhat uncomfortable as people do who travel in a foreign country without understanding the language spoken there. It must be admitted that the language used by town planners is not readily understood by the man-in-the-street. His only salvation, when looking at a multitude of maps and grandiose perspectives, is to try to find a detail of the plan concerning a district with which he is personally familiar and to discover what is to happen to that particular district. The main ideas governing the plan as a whole, the resettling of the population, the redistribution of industries, provision for open spaces, the suggested road and transport system—all these essentials he cannot possibly assess as one related picture. And how bewildering to find that a group of experts in one exhibition makes suggestions which in many respects differ from those made by a group of experts in another. The public are asked to give their opinions—but can they? What criticism, other than that of the most parochial kind, can anyone put forward without some training or guidance in the examination of plans?

Even architects and members of local authorities, although no doubt better equipped than the man-in-the-street to consider one aspect or another of the whole scheme, are not always capable of seeing the complete interrelationship of the parts or of judging whether the approach to the solution is basically right or wrong.

If one looks only superficially at the several plans for London which have been prepared by different groups during the last few years, the degree of change proposed is found to vary considerably between one scheme and another, also the stress on different aspects varies. It is on changes in the transport system in one, on magnificent vistas and imposing architectural solutions in another, on open spaces and on economic factors in a third and fourth—and so on. Who can possibly say, "This is a good scheme and that a bad one," or pick out the good points of each with the object of devising, on the basis of all the work done up to now, a final plan which would contain in essence all the positive characteristics of the different solutions?

We feel it might be desirable at this stage to set up some guiding principles in planning, applicable to existing as well as to new towns, which should enable anyone to get down to the essentials and take the measure of a plan and all that it

implies. By formulating definite questions grouped in tables and answering them for each of the plans considered, the essentials of each plan can be discovered on a comparative basis. It is obvious that an analytic approach to a plan cannot do full justice to it, for it merely shows the foundations on which the plan is based and not the creative work of disposition and redistribution. Nevertheless, through such an analysis, the creative aspect will impress itself, *prima facie*, more readily on the critical observer, and analysis will serve to determine whether the whole structure is sound, or whether a plan is merely a mirage.

Even with yardsticks such as the tables will provide, it will never be possible to arrive at a complete consensus of opinion about the comparative values of several plans for the same locality. For it depends a good deal on one's own scale of values, temperament and political bias whether one solution or another is preferred. But we should at least be able to recognize clearly why we praise or reject and what were the intentions and inhibitions of the planner or planners concerned, so that we shall be able to record our own reaction on the basis of real understanding—not just of disconnected details but of the thing as a whole.

The proposals for replanning London which we have attempted to examine in this way are the four most recent ones.* We have not included the Bressey Report, because, due to the limited terms of reference, it was concerned with the London Road system only and did not consider London's problem as a whole.

In 1938 the MARS (Modern Architectural Research) Group first published a plan for London. It was based on an attempt to recognize its essential functions and the needs of its very large community. The final scheme was the result of logical conclusions drawn from such recognition and applied in the light of certain principles of modern planning. This Master Plan was worked out by a number of architects and engineers in a private capacity who lacked the resources to carry out the necessary detail research.

In October, 1942, the Royal Academy (abbreviated RA hereafter) published their plan for the centre portion of London.† This was followed in May, 1943, by the plan prepared by the

*The Plan for the City of London has been published since this article was written and has not yet been taken into consideration.

†This Plan has since been supplemented by detail Studies of Communication problems Road, Rail and River in London, Country Life Ltd., July, 1944.

SKETCH DIAGRAMS: TRANSPORT AND LOCATION OF INDUSTRY

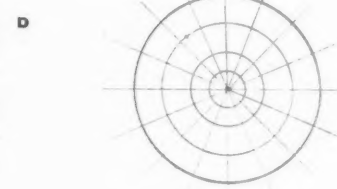
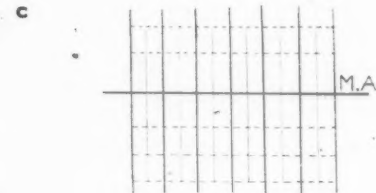
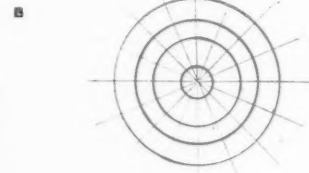
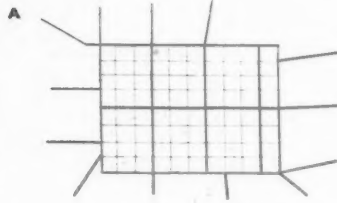
COL. 1. ROAD PLANS.

COL. 2. RAIL PLANS.

COL. 3. INDUSTRY.

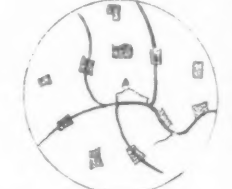
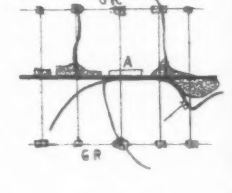
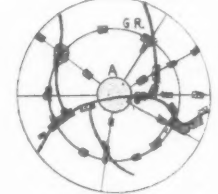
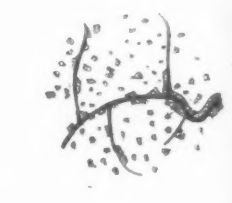
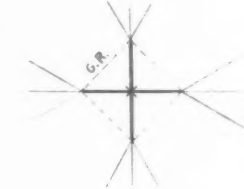
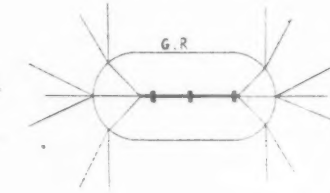
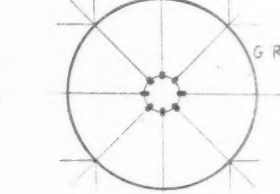
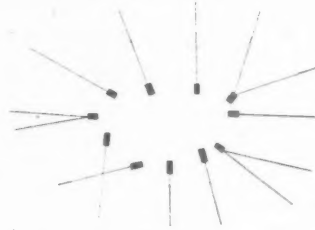
COL. 1. ROAD PLANS.

- A Grid. (Many American towns).
- B Star-Ring arrangement with inner circle. The centre is free of through traffic. (Theoretical).
- C Linear Arrangement. Those parallel to the main artery serve local traffic only. (MARS plan, also HighWycombe resembles it).
- D Star-Ring Arrangement. All radial roads converge in the centre. (Moscow).



COL. 2. RAILWAY PLANS.

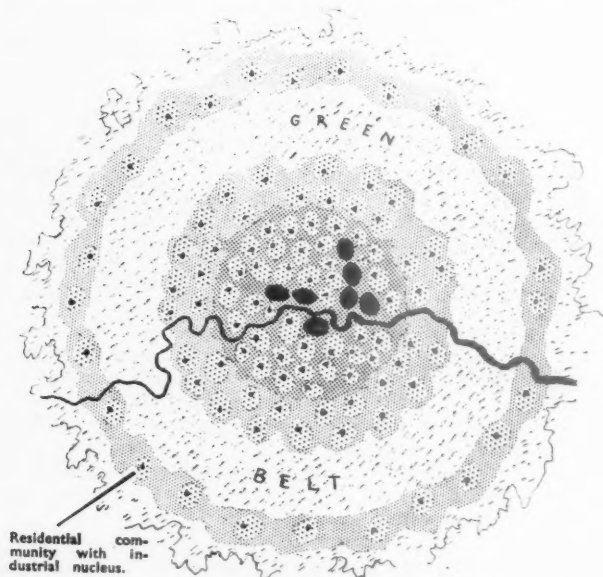
- A Independent. Every route has its own terminus. (London).
- B Inner Circle Arrangement. All railways converge upon an inner circle. An outer ring serves goods transport. (LCC and LRRC plans).
- C Linear Arrangement. All routes converge into one line. Several main stations. Outer ring for goods transport. (MARS plan).
- D Main Cross. All railways converge on two lines crossing in the centre. One main station. (Theoretical).



COL. 3. LOCATION OF INDUSTRY.

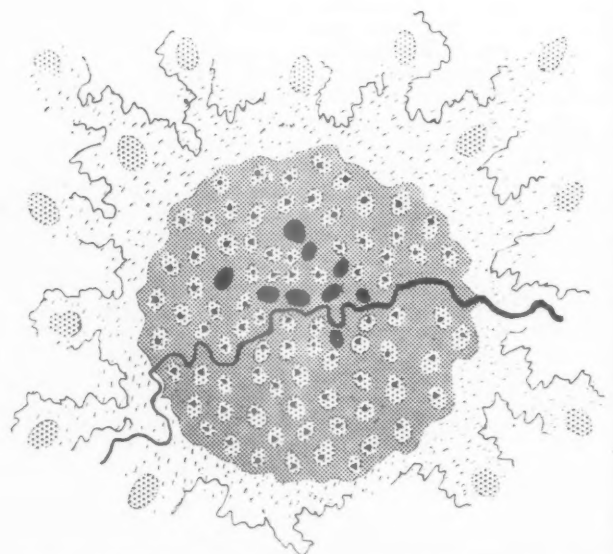
- A Uncontrolled—distributed in patches of varied size over the whole area. Density of industry is generally greater near the railway lines, rivers, etc. (London).
- B Combined into estates which conform with the radial road and rail development. (Theoretical).
- C Combined into centralised and decentralised estates, conforming with a linear road and rail development. (MARS plan).
- D Combined into estates, but the distribution of the estates themselves is haphazard. (LCC plan).

SKETCH DIAGRAMS OF TOWN STRUCTURES



LCC-EGGS IN A BASKET

Static in itself, extension only by saturnic rings, or dispersed satellites—all dependent and converging on one limited centre.



LRRO-SMALLER EGGS IN A LARGER BASKET

Static conception, extension suggested by satellites—pressure on centre only partly relieved.

London Regional Reconstruction Committee of the Royal Institute of British Architects (abbreviated LRRC), which was intended as an approach towards a master plan for the London area, as defined more or less by the boundaries of the Civil Defence Region No. 5.

Finally, in July, 1943, the County of London Plan, sponsored by the London County Council, was published, dealing strictly with the LCC area, and excluding the City and the outer suburbs of greater London.

It is obvious that these four plans are not fully comparable as they cover very different areas. The LRRC and the MARS plans deal more or less with what is usually termed Greater London, while the other two consider only part of it.

However, in spite of this disparity in the area covered by the various plans there is still plenty of common ground permitting comparison. In framing the questions contained in the following tables the intention has been to reveal in as concise a form as possible the essential points of interest in any plan. It is true that many more questions might be needed to cover

all aspects of a plan. But it is doubtful whether absolute completeness, even if attempted, would serve the purpose of clarifying the issue and allowing the critic to see a scheme as a whole. The questions listed below should be taken as sample questions only, pointing to the relevant issues. They have been framed simply to illustrate the method which we hope will prove helpful in assimilating and assessing the individual and comparative merits of a series of proposals, the subject matter of which covers so enormous a field.

The tables are listed under six major requirements which we suggest any town plan should fulfil:

- A** To fit into a national and regional pattern of reconstruction.
- B** To preserve and develop the individual character of a town.
- C** To establish an organic pattern for development.
- D** To provide for the private life of the citizen.
- E** To cater for the collective needs of the community.
- F** To be practicable.

A TO FIT INTO A NATIONAL AND REGIONAL PATTERN OF RECONSTRUCTION

THE SETTING: Towns cannot be planned as though they were isolated units. They have to play a part in, and are influenced by, their cultural and economic bonds to the region, the nation, and even the world.

SCOPE OF SURVEYS: In an environment of complete stability this part could be assessed by establishing surveys of existing conditions. In actual fact, while such surveys are still essential, they have to be supplemented by a schedule of variations to be expected.

ASSUMPTIONS TO SUPPLEMENT KNOWLEDGE: With regional and national planning still in an embryonic stage, lack of official guidance as to such variations must be made good by assumptions, which must be clearly stated.

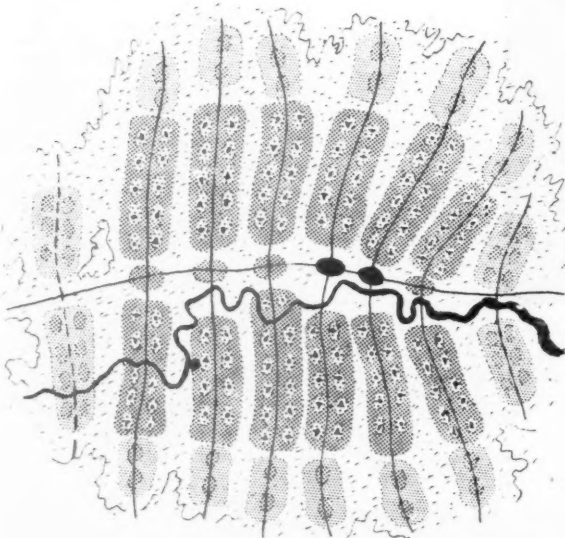
A1 Has a survey been carried out, and does it give a complete picture of the existing town?

The sociological structure mentioned in the second question below refers to the size and age composition of different families. An investigation of this kind is particularly important when deciding upon the types of dwellings to be provided.

The survey of existing facilities is one of the necessities of a plan, in order to find out the shortcomings for further development.

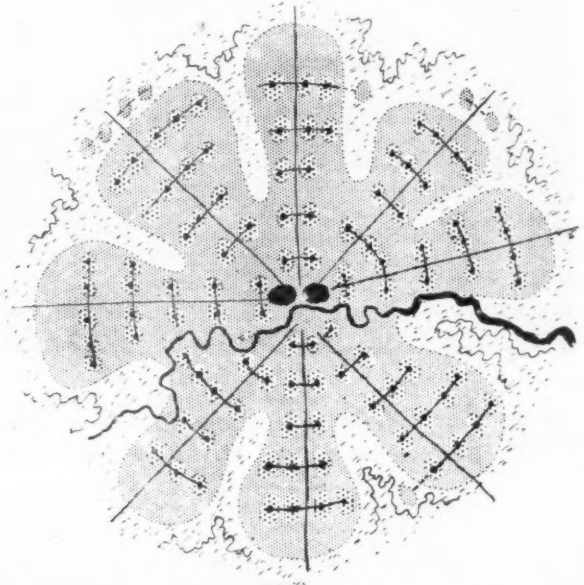
The occupational survey should contain the types of factories in which work is carried out, the number of people employed on work which could be saved by better planning, time taken up in travel to and from work, etc.

In order to have a traffic system that works as a whole, it is important to find out the economics of each section of the track or road. Very often, it will be found that an apparent overall profitable working comes from only a small part of the system, while the remainder actually runs at a loss. Such a survey can be the basis of a completely reorganised transport system.



MARS-PARALLEL CLUSTERS

Theoretically limitless linear development (dynamic)—not necessarily dependent on one focal point.



UNPUBLISHED-RADIAL CLUSTERS

Theoretically limitless development (dynamic) but dependent and converging on one limited centre.

The position of warehouses is of the greatest importance to the economics of goods transport. A Survey of these should include floor space, arrangement, loading facilities, siting in relation to transport, the number of warehouses through which certain goods have to pass between the factory and the retailer, and the average distance between the warehouses involved.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|---|--|------|---|-----|
| 1 | Has a survey been made of Population : (a) Present numbers and density ? | Yes | No | No | No |
| | (b) Fluctuations in growth and density ? | No | No | No | No |
| 2 | Housing requirements :— (a) The sociological structure ? | Yes | No | No | No |
| | (b) The number of families living in houses with gardens ? | No | No | No | No |
| | (c) The number of families having adequate, too much, or too little living space ? | No | No | No | No |
| | (d) Percentage of area covered by residential buildings of different height categories ? | For certain districts | No | No | No |
| | (e) Area of private gardens and of private open spaces around flats ? | No | No | No | No |
| 3 | Public open space :— (a) Existing Parks, Commons, etc. ? | Yes | No | Yes | Yes |
| | (b) Existing Sports Grounds and Playing Fields ? | Yes | No | No | No |
| | (c) Any other natural features that could be used for purposes of recreation (lakes, rivers, sea coast) ? | The banks of the Thames have been surveyed in great detail | No | No | No |
| 4 | Existing establishments for religion, culture, entertainment, etc. (Churches, theatres, cinemas, concert halls, libraries, public houses, hotels, etc.) ? | No | No | No | No |
| 5 | Education and Health. (Nursery and Junior Schools, Senior and advanced Schools, General and specialised hospitals, clinics, private medical services) ? | No | No | No | No |
| 6 | The occupations of the citizens, comprising also conditions of work, time of travel, etc. ? | Yes | No | Statistics got out based on census of 1931 | No |
| 7 | Existing transport facilities referring to : (a) Road and rail layouts ? | Yes | Yes | No | No |
| | (b) Density of traffic ? | Yes | No | No | No |
| | (c) Sectional economics of transport systems ? | No | No | No | No |
| | (d) Congestion of vehicles ? | Only for certain points | No | No | No |
| | (e) Congestion of passengers ? | No | No | No | No |
| | (f) Accidents ? | Yes | No | No | No |
| | (g) The purpose of travelling ? | No | No | As exact figures were not available, an estimate was made | No |
| | (h) Goods transport ? | No | No | No | No |
| | (i) Position of warehouses ? | No | No | No | No |
| | (j) Reloading of goods ? | No | No | No | No |
| 8 | Places of interest :— (a) Historic buildings ? | Yes | No | No | No |
| | (b) National Parks ? | Yes | No | No | No |

A2 Have definite assumptions been made as to the future population numbers, and the part to be played in the national economic set up?

Assumptions to be made refer to the following items :

- Population.** What changes in numbers and composition of population can be expected within the next 50 years ? What changes in average size of family ? Will present trends of migration in and out of the country, and within the country, continue, e.g., affecting growth of London ?
- Foreign trade.** Will Britain continue to export manufactured goods and import the bulk of her foodstuffs ? Will her export trade be mainly with European countries, or with the Empire, China and/or South America ? (This has great bearing on the future of London and all East Coast towns).
- Staple Industries.** Will, for instance, coal remain of paramount importance ? How will cotton, shipbuilding, steel, machine tools be affected ?
- Location of Industries.** Where will the main centres be ? Will any rearrangement have an influence on the Port of London traffic or any other transit traffic ?

(e) **Transport.** How will this be organized in this country and what part will this country play in the world system (particularly with reference to air lines)? What will be the development of the ports and where will the principal airports be situated? Such assumptions must not merely show the trend, but must be accompanied by substantial details, provided by experts. **None of the four plans contains any definite assumptions.** It is therefore at present of no consequence to ask detail Questions.

B TO PRESERVE AND DEVELOP THE INDIVIDUAL CHARACTER OF A TOWN

The individuality of a town is made up of a number of factors such as the following.

GEOGRAPHY AND CLIMATE: Any plan which disregards natural features cuts right across the natural development of a locality.

HISTORY: The continuity of a town demands, through appreciation of the past, the preservation of historic buildings, but the term should not be used indiscriminately. A slum remains a slum even though through age it has become picturesque and is architecturally of some merit.

CHIEF OCCUPATIONS OF INHABITANTS: Has great influence on outlook of individual citizens and therefore on character of town as a whole. Pleasant and efficient workplaces go far to create and maintain a healthy civic spirit. A just appreciation of industrial requirements is therefore a matter of first importance.

TRADITIONAL WAYS and standards of living, the general level of civilisation (as expressed in health and educational standards, opportunities for leisure pursuits and social life).

B1 Has an investigation been made into the outstanding and lasting characteristics of the town?

Unless the outstanding characteristics of a place have been clearly defined, all talk of the **genius** or **personality** of a place cannot help the planner in any concrete way.

The distinction between really lasting features permanently determining the character of a locality and characteristics of a more transient development, often not worth encouraging, is of particular importance to the planner.

This distinction may in some cases not be quite easy. The **cellular** growth of London is a case in point. The retention of the **existing** cellular structure has been recommended in some cases not so much because it is considered an outstanding and lasting characteristic, but because more sweeping changes were thought too costly and too radical; if sweeping changes are ruled out a development around the old village nuclei remains the only possible solution.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|---|---|---|---|---|
| 1 | Has an investigation of this kind been made at all? | Yes, it is the most comprehensive survey made for London so far | Yes, but mainly into geographical, historical and social features | Mainly into the geographical, political and commercial aspects | No, as London as a whole has not been considered |
| 2 | If so, in the case of London, have the following aspects been duly stressed? (a) The unique centre of Shipping, Finance and Commerce (Port of London and City) (b) London the metropolis, seat of Government and Capital of the Empire (Westminster, West End, Theatreland) (c) Historic London (architectural monuments, parks, etc.) (d) Natural amenities (the River Thames, the Hills of the Northern bank, etc.) | Yes, although the full implications of the administrative and commercial centre are not expressed (City not included in Plan) Yes, these functions are traced to their traditional location Yes, a point is made of preserving important monuments The River: Yes The heights: Not to the same extent | Not fully, but by developing a new scheme for the docks and a Central Airport there, the importance of London as a World transport centre has been stressed Yes, in general terms as the Plan does not go into very great detail | This is one of the basic aspects of this plan Yes, separate areas (although not the traditional ones) have been allocated to these functions The preservation of historic monuments has not been mentioned Vague about river, but brings out other geographical features | No. See above Yes, by suggesting impressive avenues, vistas, etc. Yes, by framing in historic buildings by new ones in a similar style, hoping thus to bring them out to their best advantage The River: Yes |
| 3 | What is the planner's reaction to the peculiar cellular growth of London (the metropolis of sprawling overgrown villages) | To retain and develop it, by the recognition of the community structure | To reconstitute urban areas and accentuate them by distinct limitation | Largely disregarded | Not considered |

B2 Does the plan develop the character of the town or does it run counter to it?

Developing the character of a town can only mean that everything should be done to give proper facilities to those activities by which a town prospers, to underline and utilise to the best effect all natural amenities and to preserve the really outstanding historic monuments.

If a plan runs counter to the genius of a place it would not do enough of what is outlined above or would actually destroy what is characteristic of the place to-day and capable of retention and development.

The means which a planner employs to develop the character of a town are not merely architectural, but consist in the first place of a proper general disposition of use zones. These cannot be determined without a close study of the social and industrial structure, present and future, of the place and without an open eye for the gifts which nature and the work of past generations have bestowed on it. It is only when these big decisions have been made and implemented, that the details of architecture and landscaping come to the fore.

If all this is done properly the result ought to be a strong feeling for London as a whole among all its inhabitants, coupled with a highly developed neighbourhood loyalty. Such loyalty alone, without a feeling for the big city and the surrounding country, would breed a very undesirable, limited outlook.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|--|---|--|---|--|
| 1 | Does the planner consciously aim at developing a feeling for London as a whole (based on a clear conception of its essential characteristics)? In order to achieve this does he (a) introduce zoning for use | Yes, no uncontrolled mixed development is to continue | Yes, this is a stated policy shown in a sample development | Very rigid zoning recommended | Not considered |
| | (b) within use-zoning build up a system of integrated units | Units yes, but not markedly integrated | No integration of units considered | Yes | No units suggested |
| | (c) bring to better effect natural amenities and historic monuments, or does he in fact | Yes, the river in particular | The large areas of new or reclaimed open spaces enhance existing amenities | Natural amenities, yes, no mention of historic monuments | Yes, St. Paul's Cathedral has received particular attention |
| | (d) reduce the feeling for the town to parochial loyalties? | There is some danger of this happening | Parochial loyalty is bound to be stronger, as units are very strongly segregated | No, as there is a visible system of town structure | No, as the monumental character of London has been particularly underlined |
| 2 | Is there any approach from the social angle to this question of the character of the Town? | Yes, for instance, a careful study of occupations in the various boroughs has been undertaken | The need for social studies has been duly stressed | An attempt has been made to assess the occupational structure of London as a whole (based on 1931 Census) | No |
| | Or does the planner rely for any consciousness of civic pride on the effect of past and modern architectural achievement? | No; predominantly | Not expressly; very little architectural detail | No | Yes |

C TO ESTABLISH AN ORGANIC PATTERN FOR DEVELOPMENT

COMPONENT UNITS: It is now generally recognised that one of the foremost tasks of the town planner is to break up the amorphous sprawling mass of buildings constituting a modern town into suitable units, each of which has a definite function to fulfil, is in size not beyond easy appreciation, and has clearly noticeable boundaries and convenient transport connections.

PATTERN: Such units, organically grouped and separated by larger or smaller areas of open space (which in turn would also be designed for specific uses) should establish a pattern for development, comparable to the cells in a living organism.

C1 Has any attempt been made at systematically dividing the town into clearly defined units?

Component units may be residential neighbourhoods (lately termed precincts), shopping districts, industrial units, administrative quarters, etc.

Traffic penetrating units should only serve local interests.

Strong barriers, such as rivers, railways (except in tunnels or cuttings) and main roads tend to seal off units from the rest of the town or country-side and should therefore not completely enclose units.

In any larger town, composed of a number of such units, these should be so arranged and constituted that they supplement and integrate one another. Only by systematic integration can a feeling for the town as a whole be preserved or created.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|--|--|---|--|-------------------|
| 1 | Has an attempt in this direction been made at all? | London is divided into the existing boroughs sub-divided into neighbourhood units | Strips of open space enclose built-up units which are not everywhere identical with existing boroughs | A systematically graded structure of units has been proposed | No |
| 2 | If so, has a definition of such units been given? | Yes, in most cases main roads are suggested as boundaries | Green spaces mostly form boundaries | Districts are separated by very wide open spaces, smaller units by correspondingly smaller ones | — |
| | (a) In the geographical sense (green spaces, railway lines, main roads, waterways, etc., as boundaries)? | | | | |
| | (b) In the functional sense (using zoning within units or special purpose units)? | Both forms occur | Yes, as shown in the one developed example | Mostly special purpose units | — |
| | (c) Has through traffic been diverted from units? | Yes | Yes, a declared main principle | Yes, very strictly | — |
| 3 | Has correlation and integration of units been sought (public services distributed among them according to the needs of the town as a whole)? | No functional integration of neighbourhood units, only retention of traditional centralisation (theatreland, administration, etc.) | Newly created units are correlated only by transport, and large physical barriers on all sides do not support integration | The town is sub-divided into districts, boroughs, neighbourhoods and residential units, each with distinct functions | No units proposed |

C2 Does the proposed cellular structure permit any extended growth of the town or can the new structure be maintained only on the basis of rigid control?

While in the national interest the control of the movement of the industrial population appears necessary, it is hardly desirable that for this reason any reconstruction proposals for individual localities should provide one—and only one—avenue for development. Replanning in practice should never require too rigid and lasting control and lead to some final stage beyond which no further growth is possible without fresh complications. While we may only be planning for the next 25 years, during which no such complications may be expected, life will go on and after that time demands may have to be satisfied very different from those conceived to-day. Any reconstruction pattern—cellular or otherwise—should therefore be adaptable to changing conditions of life and leave the necessary margin of freedom; it should be dynamic, not static.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|--|--|---|---|-----------------------------|
| 1 | Is the system of units proposed possible only under conditions of control of industrial development and of population numbers (in units)? | The whole system of units as proposed is based on the assumption that population numbers can be controlled and densities prescribed | Same as LCC but more rigid control of industry | Rigid control of industry and density, but flexibility of total numbers | No system of units proposed |
| 2 | If continued growth is possible, is such possibility exhausted in a measurable space of time? | | | | |
| | (a) Within each precinct? | Yes | Yes | Yes | |
| | (b) For the whole town? | Yes (refers to LCC area only) | Yes, unless transport is completely reorganised | Theoretically No | |
| 3 | If continued growth is impossible or must eventually come to an end (within the suggested framework of development) what method—if any—is proposed for dealing with any surplus population? (Satellite towns, migration to other parts of the country or emigration overseas?) | I.—Satellites within the Metropolitan Traffic Area II.—Outer Satellites within a 50 mile radius III.—Dispersion remote from the Metropolis | Satellite towns | An extension of the proposed idea of independent district units is possible by the later addition of such units. Also by satellites outside each district | No system of units proposed |
| 4 | Would the system proposed remain workable with very different population numbers from those now assumed? | Not with larger numbers | Not with an increased population | Yes | |

D TO PROVIDE FOR THE PRIVATE LIFE OF THE CITIZEN

BENEFITS TO THE INDIVIDUAL: In a well-organised community everything should be designed to benefit the individual citizen as far as this is compatible with the general welfare of all, and with the available means.

BALANCE OF REQUIREMENTS: In each of the individual's main spheres of life, his home, his work and his recreation, planning is needed to strike a proper balance between possible extreme individualist tendencies and restrictions imposed by social, financial or political considerations.

D1 Has an investigation been made into the social structure of the community with a view to providing for each individual the kind of dwelling best suited to him?

The social structure of a Community is expressed in the average numbers of households of different sizes and composition, i.e. how many families with one, two or more children of the various age groups, how many childless couples with or without expectation of children, how many singly living people requiring separate dwellings, how many elderly people in need of care, etc. Social surveys are required to provide these figures.

On the basis of such figures a fair assessment of the most suitable types and the right number of dwellings for each category should be possible. The decision will be influenced by traditional preferences, which are in this country on the whole in favour of the house and private garden. But there are distinct categories that will prefer a flatted dwelling, particularly if it is well designed and equipped and fitted with lifts in the case of blocks higher than three stories.

The structure of the individual family is subject to considerable change within a space of 10-20 years, during which children grow up and leave their parents' homes. It should be possible for each household to move freely and within the familiar neighbourhood into another type of dwelling when the original one has outlived its purpose. This will mean a mixture of all relevant types in each neighbourhood unit.

It is one thing to start off with the facts of the social structure of a Community (as derived from a Social Survey) and with generous standards of open spaces per person and thus to determine the resulting density—and quite another to assume at the outset several fixed density figures and stating what each of these means (a) in terms of ground coverage for varying percentages of houses and flats (of different storey heights) with constant standards of open space and (b) in terms of the necessary transfer elsewhere of part of the existing population which becomes surplus under the assumed new density. The second procedure cannot be regarded as fully satisfactory, if the decision as to the numbers which have to be transferred is not governed so much by the social and biological aspects of the problem (the human approach) as by the question how far it is reasonable to assume decentralization of industry, which is the condition for the transfer of people (the realistic or political approach). For surely the health and happiness of the inhabitants ought to be the only decisive guide to the measure of control to be imposed on the location of industry.

Difference in income levels form a strong bar to the mixture of families purely on the basis of their size and age composition. Class snobbery may become less with more equality in educational opportunities. The planner has to decide whether or not he should promote continued segregation of income groups.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|--|---|---|---|---|
| 1 | Has a social survey been specially undertaken, or has some existing survey been used? | Yes, specially undertaken | No, what figures have been used were based on the 1931 census, Civil Survey of London 1918, etc. | No, main sources of information: London Statistics and New Survey of London Life and Labour | Apparently neither |
| 2 | Has an allocation of definite types for definite categories of households been proposed? | Yes, but on the basis of fixed densities, not so much on that of social requirements | No | No | No |
| 3 | Upon what housing standards has the plan been based regarding (a) net density of population? | 3 densities are proposed, of 100, 136 and 200 (3.6 persons per average dwelling) | 5 densities are proposed 0-20, 21-45, 46-70, 71-110 and 110-160 per acre | 3 density zones of 50, 75 and 100 proposed | No details stated |
| | (b) Size of dwellings? | Only minimum average ground coverage and frontage given | No details given | | No details stated |
| | (c) Size of private gardens | Only distance between blocks stated, garden and allotment sizes left to later detail planning | Varying sizes of gardens no figures given. The need for allotments stated in general terms | No details stated, but sample borough shows ample distances | No details stated |
| | (d) Open space around flats | | | | |
| 4 | Has a suitable mixture of types been suggested within every residential unit? | Only for densities of 100 and 136, not for units with a density of 200 | Yes | No, only for densities of 75 | The need for flats and houses is expressed, but no planned relationship has been worked out |
| 5 | Is there to be a segregation of classes in separate neighbourhoods or in parts of such? | The question does not appear to have been tackled | The avoidance of class-neighbourhoods is to be achieved by improving amenities, defeating monotony of appearance and layout | The matter is not discussed | No mention of this problem |

D2 Have General Principles of an educational policy been assumed and a clear programme of sites, types and effective ranges of schools been worked out, with the aim of giving equal opportunity to every individual?

Equal educational opportunity for every individual is not only a question of school fees and the throwing open of all types of schools to all sections of the population; it is just as much a problem of an even physical distribution of the necessary schools over a given district.

Each type of school serves a definite population figure and this relationship can in the case of nursery, primary and secondary schools be well expressed in terms of space (maximum walking or cycling distances from the homes). Thus, once the general set-up in education has been assumed, the types and numbers of schools for a particular urban area can be determined.

Nursery, Primary and Secondary School children should never have to cross any road with fast-moving traffic.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|---|---|---|--|--|
| 1 | Has a definite educational set-up been assumed to govern school-siting? | Yes, as far as is possible without sufficient knowledge of post-war educational needs | Yes, in very general terms | Yes, in connection with the integrated system of Housing Units | The plan does not deal with the planned provision of schools, <i>qua</i> schools (except with the University, etc., as architectural features) |
| 2 | Have ranges of influence for each type of school been worked out? | Mainly for the junior school, which determines the size of the neighbourhood | They have been mentioned but not worked out | Such ranges have been assumed for all main types of schools | |
| 3 | What average size of classes in schools has been assumed? | Apparently 30 (junior school) with two classes for every year | Nothing mentioned | 30 children per class | Not mentioned |

D3 Does the plan provide, on the basis of a definite policy, for PREVENTIVE and CURATIVE HEALTH SERVICES available to every individual?

Although a large section of the medical profession appears to be at present opposed to State interference and direction in matters of health, this does not mean that the profession will not readily co-operate, when, at long last, a unified system for the provision of medical services, both curative and preventive, and available to every individual, is instituted in some form or other.

Such public health services for all will require a network of numerous buildings from which these services are to be administered. Of what nature these buildings should be, what space they require, where they should be sited and what number of people each of them should serve cannot be surmised before the outlines of the national health system have been established and translated into certain standard requirements.

In these circumstances no planner can at present do more than make tentative suggestions for the siting of hospitals, clinics, welfare and health centres, maternity homes, surgeries of general practitioners or groups of such, laboratories, etc., and their correct distribution over a given area must remain largely a matter of speculation.

All the London Plans considered here have obviously been handicapped by the lack of official and expert guidance on this question of public health services.

The LCC Plan, in a short paragraph, deals with hospitals and the necessity of finding better sites for them outside their present cramped, unhealthy and noisy positions. It suggests that some of the big hospitals be moved into the open spaces adjoining the B-Ring road. But in the Stepney Redevelopment Plan the important London Hospital is retained in its present position in Whitechapel Road, although this is classed as a Sub-arterial road and an industrial area borders on to it just opposite the Hospital. There is no mention of any general reorganization of public health services.

The LRRC Plan recommends clinical facilities linked with district hospitals and stresses the need for the correct positioning of all clinical services, to make them available to all members of the community within a reasonable distance. It also suggests that clinics and health centres should be near shopping centres to avoid unnecessary journeys in several directions for housewives and others. But it does not foreshadow a fully co-ordinated network of health services.

The MARS Plan does so, but in very general terms and no definite siting proposals have been put forward, except that hospitals serving a borough of 50,000 inhabitants are placed in the large open spaces between the districts (600,000 inhabitants).

The RA Plan does not mention hospitals or health services, except in connection with Hyde Park Corner, where St. George's Hospital is retained in its present rather unfortunate position.

It is important that every general appreciation should stress the need for a complete system of medical care, forming as integral a part of the standard public services of the future as, say, the system of compulsory and voluntary education.

D4 Have the individual's needs in regard to his workplace and his recreation received some consideration?

Every worker needs to live within easy reach of his work although home and workplace should be in entirely separate areas (change of scenery).

The labour market should be sufficiently varied to allow free choice of work.

Working conditions should be technically the best that it is possible to provide—good ventilation, light, sanitation, heating and pleasant surroundings.

In regard to Recreation it is the planner's job to make provision for the greatest possible variety.

There should be facilities for individual and for group activities of all kinds (reading, studying, handicrafts, walking, etc., on the one hand, games, sports, club life, performances, lectures, etc., on the other hand).

All these individual needs can, under modern conditions, only be satisfied as common needs and are therefore dealt with in Sections E.5 and E.6.

E TO CATER FOR THE COLLECTIVE NEEDS OF THE COMMUNITY

COLLECTIVE ACTION FOR TYPICAL NEEDS: Much of what constitutes a civilised life can only be supplied through collective action, but in catering for the needs of the majority it is not always possible to satisfy completely every individual. The planner must find out which needs are typical for a large number and revise his findings from time to time.

STANDARDS OF CIVILISATION: Civilisation is a process of growth, and every generation comes forward with a new set of demands. At present some of the main factors determining the degree and character of civilisation in a community may be expressed in terms of social and political standards (education, health, public utilities, transport of goods and people, administration, opportunities for work and for leisure, composition of households, living habits, etc.).

PROCEDURE FOR PLANNING: The planner must weigh up these factors one by one and justify his decision in favour of any one, if several are in competition with one another, and a compromise must be sought.

DENSITY AS AN EXAMPLE: Taking the problem of density as a case in point, he can either start off with a fixed maximum over-all density and model all other requirements on this, or concentrate on other factors and let the density work itself out. Finally he can explore both avenues in parallel and suggest a reasoned solution midway between the two. This, we suggest, is the proper way of approaching this or any similar problem.

E1 Have education and health requirements been considered and allowed to influence the plan?

The school system is a basic factor in the planning of communities.

Schools should be located either on the fringes of residential areas or in open spaces, near the playgrounds. Nursery, primary and secondary schools should be so placed that long journeys, the crossing of main roads and heavy traffic are avoided. Ample playing fields, pleasant surroundings, improved laboratory and workshop accommodation and increased space generally, are important.

Public lecture halls and ample branch public libraries, etc., easy of access, and a larger library in each neighbourhood unit, containing more specialized books, are essential needs for adult education.

The most important service to health can be rendered by planning a town so that it provides healthy living conditions. These depend mainly on the following factors:—

- Standards of density. This involves living space, individual elbow room, privacy, hygiene, proportion of open space to built-up area, spacing between buildings, minimum angles of light for high buildings, distance between buildings to allow for green spaces, and is expressed in average number of people per acre, or 50 or 100 acres (over-all density).
- Siting. Advantage of high dry ground, sufficient sunshine, use of natural amenities, location of industry and its separation from housing.
- Elimination of external, detrimental influences. Abolition of air pollution, or avoidance of neighbourhoods with polluted air, use of trees as screens, avoidance and elimination of noise, no long journeys to work and shopping centres.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|--|---|--|--|--|
| 1 | Has a general educational system been defined as a basis for planning and has such system been co-ordinated with the planning units? | The system of nursery schools has been defined but the higher grades have not been mentioned | No | Assumptions have been made but no system has been clearly defined | Neither health nor education services have been considered |
| 2 | Have schools been sited consciously (a) For suitable distances from furthest homes? | Yes, for Junior Schools | This is intended | This is implied | |
| | (b) For favourable development of all school activities and a healthy position? | Not all: Games fields assumed centralised at a distance from the school, these often very close to residences, too much so, for effective separation | This is not specifically mentioned but implied. | This is implied | |
| | (c) For effective separation from living areas? | | Not mentioned | Not stated, but obvious for all schools, except Nursery and Elementary School | |
| | (d) For avoidance of traffic on all approaches? | Yes | Yes | Not specifically mentioned but implied | |
| 3 | Have the effects of siting residential districts been studied, and have these areas been confined exclusively to healthy sites? | The existing nuclei are kept and the question of new sites has not been considered | All sites are improved by additional green spaces but no special study has been made | Residential areas have been re-sited on high ground only. Thames and Lea valleys have been kept clear | |
| 4 | Has the density of population been arrived at from a consideration of public health or have other points had greater influence? | The density has been arrived at from consideration of existing population of LCC area and the desire to reduce migration | Density has been based on that of greater London, and has allowed the planners sufficient latitude to consider what is suitable to the individual, or the basis of health requirements | As for LRRC | |
| 5 | Have any steps been taken to avoid pollution of the air and to keep residential areas free from noise? | In small degree by the arrangement of precincts which are not open to through traffic. By the rearrangement of industry some areas will be free of industry and its attendant discomforts | By planning through traffic through extensive green spaces noise will be cut out as much as possible | The very strict segregation of industrial and residential zones as well as the separation of through traffic from residential areas should have the maximum effect | |
| 6 | Have health services been planned in detail? | No | No | No | |

E2 Has the Distribution of Goods with all its Ramifications been duly considered?

Goods distribution involves all wholesale and retail trades, industry and commerce. It depends on the transport of raw materials and commodities. The simpler the distribution system, the fewer people are required to run it and the more are available for production, so that the standard of living increases automatically.

Factories should be easily accessible both for delivery and for reception of goods. It is in the interest of the town as a whole that correct location of industry should be enforced, regardless of individual preference (often only based on tradition). The rebuilding of a factory with all modern conveniences, on an industrial estate outside residential quarters will always be advantageous, both to the individuals concerned and to the community. Industries producing goods for export should be within easy access of their port. All others should be on special branches of the transport arteries so that goods traffic does not disturb local distributive and passenger traffic.

Bulky goods require water transport, other mass products need railway connection; road transport allows more individual treatment. The optimum distance between local goods station and retailer depends on the size of a town. The larger the town the smaller the economic distance.

The siting of retail shops is an important problem. Each article has a minimum number of potential customers in a given community. This fact governs the suitable size of shops and their grouping into local and larger shopping centres, convenient not only to the customer but

also for the delivery of goods to retailers, allowing for minimum interference with other traffic. Goods distribution if properly designed will result in a great amount of actual saving within a comparatively short time. The saving thus effected can go a long way towards meeting other costs caused by replanning. Only a comprehensive scheme showing diagrammatically all components of goods distribution (location of industry, transportation of goods, warehouses, position of retail distribution centres and their capacity) will allow the merits of the schemes as a whole to be fully assessed.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|--|---|---|--|-------------------------------------|
| 1 | Has a complete distribution scheme been worked out? | No | No | No | This aspect has not been considered |
| 2 | Has a suitable location of industry within the town been worked out, and is the plan efficient in this direction? | The need for proper location is recognised in general and attempts have been made to do this by arranging trading estates, but no research has been carried out on the requirements of various industries and the problem of decentralisation has been evaded | The problem has been recognised but not dealt with in detail | Definite areas are allocated to special types of industry but no detailed study has been made | |
| 3 | Is such location based on: (a) The Labour Market? | In order not to interfere with the existing residential distribution of workers decentralisation and concentration of industry in trading estates has not been carried further | The problem has not been dealt with | In general, by arranging residential areas opposite to industrial areas | |
| | (b) The reception of raw materials? | In general, industry has been placed near main roads but no provision has been made for goods arriving by rail or water | Not dealt with | All industry is placed either near the main artery or near main goods stations with service tracks | |
| | (c) Good connections to markets? | No direct provision has been made. An elaborate system of through roads and rings is useful where goods are transported by road. A railway goods ring is provided but not connected up | A railway goods ring has been arranged, but the problem has not been dealt with in detail | See point (b). Also shopping centres are connected by direct underground road and rail traffic with market halls, goods stations, etc. | |
| 4 | Has a suitable policy as to location of warehouses for imported, exported and transit goods been worked out and is it substantiated in the plan? | A certain amount of reconstruction of dock areas is suggested, but the exigencies of warehouses have not been considered | No particular mention is made of the problem of warehouses | A general policy has been worked out involving industrial and consumer goods stations, market halls, etc., but no details have been given | |
| 5 | Have such warehouses been situated so that no goods traffic need go through residential or administrative areas? | The arrangement of precincts would keep goods traffic away from secondary roads in residential areas, but no improvement is to be expected for main roads | Same as LCC but as the main thoroughfares are embedded in green space with fly-over crossings the problem is solved for the outer districts. No improvement can be expected in the centre | Goods traffic is completely separated from residential and administration centres to the extent that the goods approaches to the shopping centre are underground | |
| 6 | Has a distribution scheme for wholesalers and retailers been worked out, assigning suitably sized shopping centres to various units? | Shopping centres have been planned for neighbourhood units, but not worked out in detail. Larger shopping centres have not been mentioned | As for LCC | Shopping centres for various units have been mentioned but no details of size and scope are worked out | |

E3 Is there a comprehensive scheme, correlating all means of transport, with a view to cutting out as much unproductive effort as possible?

The fact that certain branches of transport are controlled by statutory undertakings must not prevent the planner from considering the problem of communications as a whole. Where such reservations are made, this must necessarily detract from the value of a plan.

The larger the town the more important is its internal traffic; for small towns external transport is more important. Only very large communities justify more than one focus of external traffic. Such focuses (railway and coach stations, airfields, docks) should never rely on intermediate road services for interconnection. For small towns many ill effects can be remedied by forming a by-pass. For London it is more important that the railway termini should be incorporated into the internal road and rail traffic system. Merely arranging an independent ring railway and/or road connecting existing main stations cannot be considered a proper solution.

Railways can deal with large numbers more easily, roads can be more individual. In England with its high traffic and population density, and particularly in the London traffic area, railways will always be more important than roads (in a well planned traffic system), whereas, for instance, in many parts of America the opposite is true.

Each road or railway has a certain economic traffic capacity. Before the war London's main roads were loaded far beyond this limit, while the railways (with the only exception of the tubes in the peak hours) have always worked far below their capacity, i.e. just as uneconomically.

Congestion in our towns is invariably due to:—

(a) over-loading of roads (not railways);

(b) traffic streams on roads moving in different directions or at different speeds and interfering with each other.

The first can be relieved by transferring the people and goods from the roads to other channels of transport, and by proper location of industrial and residential districts, the second by means of a road plan designed for proper discrimination of functions.

The number of people using the road or railway systems depends on the quality of the services available. By improving the road system the number of road users is increased, and the same applies to the railways.

Unimpeded traffic flow on roads depends on the manner in which crossings are dealt with. Any arrangement other than fly-overs causes a certain amount of delay, but traffic lights not less than 300 yards apart, and properly synchronized, cause comparatively little obstruction, if all vehicles have approximately the same speed. Roundabouts, suitable as they are for rural districts, and for secondary urban roads, have a capacity far below that required for the crossing of main roads, and their misuse leads ultimately to ever-increasing congestion. A combination of traffic lights and roundabouts, with their vastly different tempo, leads to chaos.

A complete transport plan, showing in detail everywhere density and means of traffic, both internal and external, must be regarded as an absolutely essential feature of any replanning scheme.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|---|--|--|--|--|
| 1 | Has the mutual influence of various transport systems been investigated? | No | No | No | No |
| 2 | The number of people on the roads should be the minimum possible. Has this principle been clearly stated, and what methods have been suggested to obtain such minimum? | No | No | The principle is not actually stated, but the traffic is planned on this assumption | No |
| 3 | Has any attempt been made to co-ordinate internal and external traffic by : (a) Providing one or several main stations through which every long distance train must pass, and which will be connected with the suburban rail system and the road system? (b) Arranging all main stations on a ring which is directly connected to the suburban rail system? (c) Arranging all main stations on a ring road? (d) Correlating main radial road arteries and main railway stations? (e) Providing facilities for goods traffic to proceed by rail to residential districts and there to be reloaded to road vehicles? | Only two of the present termini are omitted, otherwise to-day's railway system is unchanged | Termini are replaced by loops. In some cases combining two stations. No main stations are provided | Every long distance train passes the three main stations | Present day termini are moved out of the town and of easy reach of the traveller |
| | | A ring system touches the termini, but is not part of the suburban system | A ring system has been arranged, which is part of the suburban system | No ring system, as the suburban main artery touches main stations | There is a ring road but no connection to the suburban system |
| | | Ring roads are independent of the railway system | The central ring is combined with the ring road | No ring road | Yes |
| | | No | No | Yes, through the main artery | No |
| | | Yes, by providing the B-ring to run parallel to the main goods ring | Not mentioned but could easily be arranged | Yes, by connecting local shopping centres and market halls directly with goods stations | The tendency to further decentralise main termini actually makes them even more inaccessible |
| 4 | Have public conveyances of all types been correlated to form a complete traffic net, using every conveyance to its best advantage? | No | No | No | No |
| 5 | Has any attempt been made to reduce the time spent by the individual either on private or business travel, other than by properly organising the traffic? (a) By siting of industry and decentralisation? (b) By arranging proper rail connections? (c) By making road and rail systems easily accessible from all places of work? | As much as is possible in the general framework. Living areas are kept near the places of work | The problem has not been dealt with in any great detail | Each district is co-ordinated to a certain group of work (industry, administration, commerce). | No |
| | | Suburban rail connections are not substantially improved | The plan is based on existing connections | Completely unified rail system allows connections with simple interchange | No |
| | | This problem is not dealt with | Access is not considered in detail | This is one of the basic points of the plan | No |
| 6 | Is the railway net as suggested in the scheme, likely to be used to its maximum capacity and with minimum running costs? | The suggested railway net is no decided improvement on existing conditions | Likely but not fully investigated | This is the declared object, but whether it is achieved cannot be determined owing to lack of detail | No |
| 7 | Have arrangements been made to produce an unimpeded traffic flow on the main roads? (a) By separating through traffic from local traffic? (b) By providing fly-over crossings? (c) By the arrangement of traffic lights? (d) By means of roundabouts? | Special arterial radial and ring roads are arranged but real separation is achieved at only a few points | Yes | Yes | On ring road only |
| | | For part of the B-ring road only, and one crossing in the centre of London | Yes, except in the centre of London | Yes | On ring road only |
| | | Partly | For secondary connections only | No traffic lights | Not mentioned |
| | | Roundabouts are used almost everywhere for main road crossings | For main road crossings in the centre part only | No roundabouts | Yes |

E4 Has the idea to separate clearly through traffic from built-up areas been accepted and strictly adhered to?

The obvious advantages of a complete separation of through traffic and built-up areas are:—

Greater safety for pedestrians and vehicles.

Greater speed and continuity for traffic.

Quiet in precincts.

Greater scope for architectural treatment.

Fast moving traffic is a very recent complication of town planning. Architecturally, a town can only gain by giving visible effect to the segregation of functions—no streets lined with buildings for any fast moving traffic.

Different levels for any length of road form too definite a boundary, just as railways do, and it is better to confine these differences to crossings. Only by embedding the arteries in green spaces can complete separation be achieved. Where this is not possible, riparian frontages should be avoided by building up, but at right-angles to, the main roads. This expedient, however, should only be used for secondary roads.

Crossings of main thoroughfares inside a city are a touchstone for the planner's outlook. A planner who uses main thoroughfares for the display of architectural frontages will invariably resort to roundabouts of various design, irrespective of their traffic value, in order to form open squares as monumental features. The planner who wants to separate the traffic from the rest of the town will give preference to fly-overs, amplified where necessary by simple traffic lights, spaced so that they do not interfere with each other. He will restrict the use of roundabouts to those areas where the crossing of two continuous traffic streams are not to be expected.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|--|---|--|--|---|
| 1 | Have roads been classified according to their use? | Yes | Yes | Yes | No, except for the ring road. |
| 2 | Has the principle of separation been accepted? | It is the declared policy for main arteries | This is a basic feature of the plan | As LRRC | For ring road only |
| 3 | Has the above principle been implemented in the plan? | Only partly; for large sections of the B-ring, but not for other arterial roads, except where they are underground | Yes | Yes | Within the above limits, but not at such points as Hyde Park Corner, Tower Hill, Victoria, etc. |
| 4 | What effective means of separation have been employed? | | | | |
| | (a) Any organisation of "precincts" closed to through traffic, and with as few connections to the main traffic system as possible? | Yes | Yes | Yes | No |
| | (b) Complete separation of main arteries by the provision of riparian green spaces? | Only for parts of the B-ring | This principle has been adopted for the outer districts but not in Central London | All arteries run through green spaces | No |
| | (c) Avoidance of riparian frontages? | Although stipulated for the main radial roads and the main east-west, north-south arteries, the principle is not adhered to. Most flagrant violation is at Waterloo | No need, because all roads, except those in central area, run through green spaces | No need, because all through roads run between green spaces | No |
| | (d) Arrangement of different levels? | For parts of the B-ring and main radial roads | Only for crossings | Only for crossings or where topographical conditions require it. (Not worked out in sufficient detail) | Suggested for ring road, but not carried into effect in the examples given |

E5 Has a picture of the future occupational structure of the town been drawn up, and have all influences determining the siting of all work been duly considered, and its adequate distribution over the given area been worked out?

No community can be well-balanced without opportunity for all to work. Planning to bring this about presupposes political and economic measures beyond the control of the town-planner. His task in this respect is to translate such measures into terms of physical planning, i.e. to see to it that industrial demands and labour market supply balance within the confines of the planned or re-planned town.

Three types of occupation have to be distinguished: (A) Service occupations, retail shops, domestic work, local tradesmen, artisans, market gardeners, local administration. (B) Manufacture, including light and heavy industry and certain types of office work. (C) Administration and distribution (commerce, transport, etc.). The importance of group (A) increases with the size of the town. For large towns or town units production for internal consumption is to be included. Such production, although segregated from residential areas, should be well distributed to equalise demands of labour. Group (B), and in large cities group (C), require greater concentration. London as the capital of the Empire requires a separate commercial-administrative centre.

An analysis of the economic structure of the town, based on the grouping of occupations, is required to assess future development. The decentralization that has taken place during the war will have an influence on the distribution of occupations. The introduction of new industries into the London area, and the enormous amount of technical training given to millions of men and women in the armed forces and elsewhere, will make it possible to reduce the distribution and increase the productive trades, if the advantage is properly followed up by planning.

London being the heart of the Empire and the greatest port for incoming goods, is particularly sensitive to changes, and its position opposite the Continent makes its trade and industry very much dependent on its commercial links with the rest of Europe. If, as has been assumed, trade with the Continent will greatly increase after the war, this will have a considerable effect on the London of twenty years hence, and this tendency may work in an entirely different direction from the pious hopes of a reduction in London's population.

In large towns the problem of time lost in travelling to and from work (pendulum traffic) is important. Traffic concentrated on a few lines is easier to deal with than scattered traffic that defies organization. Industrial estates, linked up with definite units of residential areas allow for the introduction of concentrated and organized fast traffic, while the distance loses its importance.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|--|--|--|---|----|
| 1 | Has an occupational survey been made referring to pre-war employment? | A very detailed survey has been made based on the statistics of 1938 | No | A general survey has been made based on the census of 1931 | No |
| 2 | Have the influences which tend to change this survey been assessed, and have clear cut assumptions been made for future planning? | Nothing is mentioned | As LCC | The need is appreciated but nothing further has been done | No |
| 3 | Have the requirements of all industries with regard to markets, sources of raw material, goods transport, labour, been studied and an optimum siting plan given? | Industries are arranged only within neighbourhood units. No attempt at a planned general distribution has been made | The importance of the problem is mentioned but nothing further is done | Industries have been divided into three groups and located in accordance with their requirements. No detailed arrangement has been worked out | No |
| 4 | Has the question of the relation between industrial and residential areas been considered? | To improve residential areas, the collecting of industries into industrial estates has been considered | As LCC | Industry is everywhere separated from residential areas, even local industry | No |
| 5 | Improving the layout of industry :— (a) Has all industry been separated from residential areas? | Yes, for all areas scheduled for reconstruction | Yes | Yes | No |
| | (b) Have industrial estates been visualised for suitable types of industry? | Yes | Yes | Yes | No |
| | (c) Has that concentrated industry been placed within easy reach of the goods system, and has allowance been made for the character of the goods to be moved bulky, perishable, etc. | Not everywhere. No reference made to character of goods | Yes, this is the intention | Yes, although not worked out in detail | No |
| | (d) Have measures been taken to provide a sufficient variety of industry on each estate? | The point is given prominence | Not mentioned | Not mentioned | No |
| | (e) Has special transport been planned for workers to reach industrial estates? | The problem is hardly tackled | No details are given, but the problems are visualised | The problem is given prominence | No |
| 6 | Have specific requirements of administration and commerce been investigated? Has it been stated what percentage of this must be local and what percentage central? | Not mentioned | Not mentioned | Separation of local and central administration has been visualised, but no detailed investigation has been carried out | No |
| 7 | Has allowance been made in the design of neighbourhood units, etc., for local administration? | Yes | Yes | Yes | No |
| 8 | Have adequate suggestions been put forward for centralised administration? | No. The city is not included in the plan, and of the West End only the Westminster precinct has been dealt with, and not as a specific office district | Not mentioned | General suggestions have been put forward but not detailed | No |

E6 Has a clear policy been worked out to cater for leisure requirements, covering the layout of open spaces, provision and proper planning of community centres and other places of entertainment, recreation and learning?

The town planner has to provide the facilities for leisure; the citizen can then make use of them as he pleases. Whether he is able to employ his leisure time profitably depends greatly on the organization of the community and on the attractiveness of the facilities provided. Leisure can be considered under two headings:—

- (a) Physical recreation.
- (b) Cultural leisure.

Physical recreation includes Walking, Sports, Gardening, and other spare time hobbies. They call for plenty of open space, preferably an interconnected green belt for small towns, strips of open land for large ones—sports fields suitably situated, garden space of the right size for those requiring it, etc.

In Greater London, only a small percentage of the area is really built on. By reorganizing this area it should be quite simple to obtain the necessary green spaces. Their benefit is so firmly acknowledged that the town planner should really go out of his way to provide them and not attempt to keep to any set minimum. To give the maximum advantage, green spaces must be reasonably close to all residential districts.

In London a green belt is of no value to most of its inhabitants. It benefits only the wealthy, who can afford to travel out to it.



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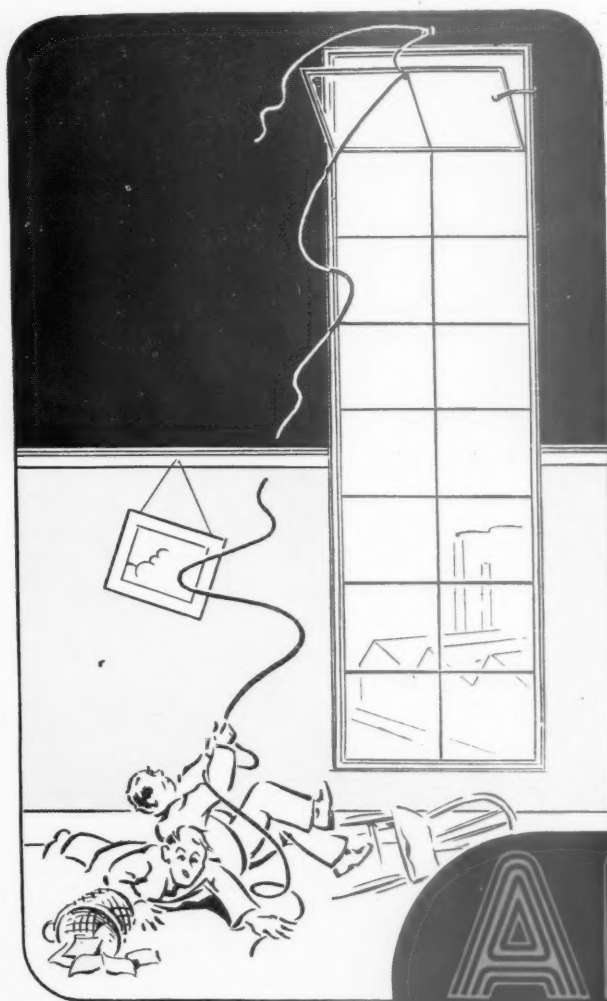
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Cultural leisure calls for churches, libraries, cinemas, theatres, adult education classes, museums, concert halls, clubs, etc. The need for social centres to promote social life is now generally accepted. They should contain all the facilities for cultural pursuits, but also clubs, gymnasia, workshops, etc.

The grouping together of public buildings of this kind in one camp or centre not only provides a neighbourhood with an architectural focal point but it also simplifies social life.

It is not only the Neighbourhood Unit that requires a community centre. A town consisting of several Neighbourhood Units should have in addition a centre of higher order, catering for wider and more specialized interests. In a town of several millions, centres are thus necessary on an ascending scale. London of course has already a supercentre of theatres and cinemas, but this is at present so entangled with offices, shops and other commercial buildings that the reorganization of this district seems essential.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|---|--|--|--|---|
| 1 | Has a survey been made by the town planner, assisted by statisticians, medical and educational experts to ascertain the leisure requirements of the people? | Only with regard to playing fields | No | Attempts at assessing leisure requirements have been made, but no definite scheme worked out with experts | No |
| 2 | Have standards for open spaces been obtained from experts, and has the name of the authority been given for: (a) Public green spaces required? (b) Sports Grounds, etc.? | 4 acres per 1,000 people allowed, but no authority given No | No standard given, but complies with the requirements of the National Playing Fields Association (7 acres per 1000) No | No standard given, but ample allowance made No | No No |
| 3 | Have sufficient green spaces been provided, at reasonable distances from residential districts? | Yes, particularly for those areas scheduled for complete rebuilding. Some of the Green Spaces on either side of main roads are rather narrow, and will be less effective than their area might suggest | Provision of Green Spaces is one of the main features of the plan | As LRRC | No |
| 4 | Has provision been made for people to get out into the open, away from the town? | The problem is considered, but apart from the introduction of arterial through-roads, nothing is done. Connection of green spaces not quite satisfactory | Yes, by the provision of continuous green spaces reaching every housing district | Yes, by the provision of continuous green spaces reaching every housing district | No |
| 5 | Have community centres been taken into consideration, combining restaurants, libraries, theatres, etc., and has the planner seen to it that they are reasonably close to residential areas? | Community centres are provided for neighbourhood units. They are not worked out in detail and none are scheduled for groups larger than neighbourhood units | As for LCC | The problem has been touched on in principle but is not worked out in detail. Community centres are intended for neighbourhood units (6,000 people), boroughs (50,000 people), and districts (300,000 people), and are more a group of buildings for cultural purposes than a mere social centre | No |
| 6 | Have sufficient sports fields been laid out, and are they in the neighbourhood of schools? | Yes, but playing fields are centralised, away from schools | Details have not been considered, but the layout is flexible enough to accommodate them | Details have not been considered, but the layout is flexible enough to accommodate them | No |
| 7 | Is there a clear-cut policy giving gardens to those who want them, and allowance for allotment space or communal gardens for those who do not require individual gardens? | A very exact survey has been made into the sociological structure of the population and conclusions drawn up about the gardens required. As only the LCC area is replanned, and because an attempt has been made to keep the population distribution more or less the same as it is at present, the lessons of the survey have not been put into effect. The supply of gardens will not equal the demand | The policy about gardens is not clearly expressed, but since the built-up area of each unit is considerably reduced, and only a small proportion of the people are to be housed in flats, a considerable part of the present population must be transferred elsewhere before those remaining can enjoy the form of garden they require | No exact survey into the requirements has been made, but the policy has been stated—of providing as many gardens as are required (approximately 66 per cent. to have individual gardens) | No |
| 8 | Have arrangements been made for open-air entertainment, particularly to keep the crowds away from residential areas? | No | No | No | No |
| 9 | Has allowance been made for sufficient variety of entertainment? Has it been appreciated that London is the amusement centre for the U.K. and the British Empire, and is an entertainment centre planned? | The variation of entertainment has not been considered in detail. A centre is planned around Leicester Square, extending to the other side of the river | No. This problem is not mentioned | A new cultural centre is planned near Waterloo | The Covent Garden area is scheduled as an architecturally impressive entertainment centre |

F THE PLAN MUST BE PRACTICABLE

ECONOMICS: It must be economically possible to carry out the plan.

PRACTICABILITY: The execution of each part of the plan must be technically possible, and life should not be crippled during its execution.

F1 Has an approximate estimate of the cost of the scheme, or its early stages, been considered and made known, and has any attempt been made to assess the value of the advantages gained?

The initial capital outlay has to be compared with the capitalized economic advantages which will continually accrue. Some aspects, such as the saving in time and energy due to improved travelling facilities, can easily be measured in £.s.d. But it is more difficult to assess increased standard and expectation of living, improved education, etc. However, if some standard of measurement could be established, all these effects might be translated into terms of capital increases. Reasonable planning will, in most cases, show economic advantages which far outweigh initial costs.

Immediate economic advantages mainly accrue from improved transport and goods distribution. Most other results will not be apparent at once but will benefit the next generation. In large towns, where transport and goods distribution are an important item, their reconstruction should be given preference.

Any reorganization of transport, improved location of industry, etc., invariably causes a considerable rise in the value of the land. This increase is a real value which can be appreciated whether the land is nationalized or not.

Improvement in health and education standards increases industrial output. The same effect results from a reduction in the labour and time required for goods distribution.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|---|-----|------|---|----|
| 1 | Have actual building costs been estimated? | No | No | Very approximately | No |
| 2 | Has the increase in value of the ground been estimated? | No | No | It is mentioned, but no figure is given | No |
| 3 | Has the increase in productivity for the community been estimated? | No | No | No | No |
| 4 | Has an attempt been made to assess the rise in standards of living, the increase of leisure, in terms of an economic value for the whole community? | No | No | No | No |

F2 Has sufficient thought been given to the working out of reasonable stages for the procedure?

Reconstruction will invariably interfere with the normal life of the town. The population of any district to be rebuilt must be transferred. If people wish to return to the same district they will have to be moved twice.

Demolition and rebuilding must not cripple the life of the town. Transport and public utility services are easily thrown out of gear and special arrangements must be made for railways, sewers, etc., which cannot function if part of them is paralysed.

Rebuilding should start simultaneously at a number of separate points on a sufficient scale for modern methods to be employed, but far enough apart, not to interfere with other districts.

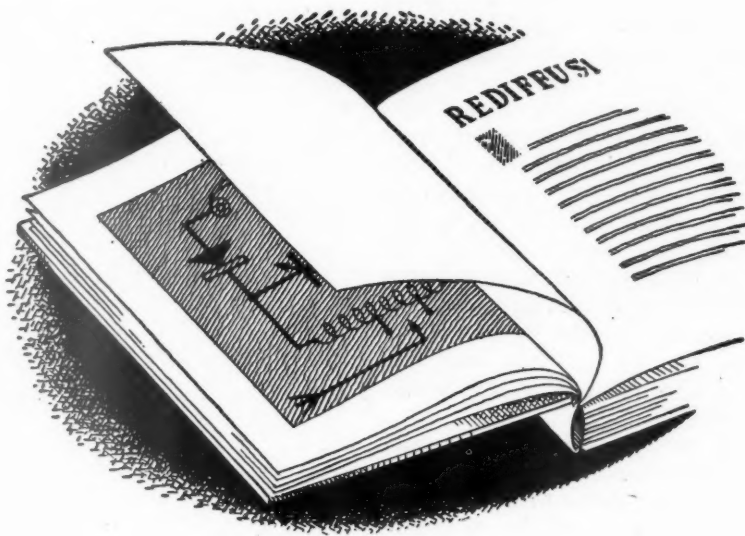
The time of reconstruction should be divided into stages, so that progress can be reviewed at the end of each period. Each stage should be short enough to avoid the danger of a change of circumstances interfering with its complete execution, but within this limit the longer the stage the better. The complete programme is merely to give direction to the work.

The programme of each stage must set out the time, labour and materials required. If a national plan exists a central authority would provide the necessary guidance.

For psychological reasons a definite step in reconstruction should be reached at the end of each stage. Continued planning depends on early successes, measured materially and by public assent. The economic advantages gained by the earlier stages can substantially help to finance the rest of the programme.

Incidental effects have to be considered in detail. Intelligent planning can balance the supply and demand for labour in all trades. During the period of reconstruction certain trades (particularly those of distributive nature) will decline. Allowance must be made for the absorption of labour from these trades.

| No | QUESTIONS | LCC | LRRC | MARS | RA |
|----|---|----------------------------|------|------|----|
| 1 | Have stages for procedure been clearly defined: | The first two stages | No | Yes | No |
| 2 | Has a plan been worked out for the first stage, showing: | | | | |
| | (a) The movement of the population? | No | No | No | No |
| | (b) The variation in transport? | No | No | No | No |
| | (c) The amount of labour required? | No | No | No | No |
| | (d) The amount of materials required? | No | No | No | No |
| 3 | Have more detailed arrangements been worked out for the rearrangement of: | | | | |
| | (a) Housing? | Yes, for certain districts | No | No | No |
| | (b) Transport (road and rail)? | For 11 main roads | No | No | No |
| | (c) Industry? | No | No | No | No |



Opening of Chapter iii

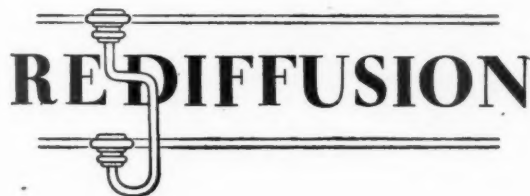
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CONCLUSION [continued from page H4]

We deliberately refrain from any detailed summing up, as the conclusions which will be drawn from these tables depend on the importance attached to the different aspects considered. One fundamental question is of particular interest when looking at the plans as a whole: is it more important to base the future London on the existing community structure, or to aim at the best workable town with attendant benefits to all inhabitants? Both the LCC and the LRRC plans are based on the idea of developing the existing nuclei of social life, while the MARS plan consciously sacrifices the existing structure in order to demonstrate on what lines a complete renewal might develop. If one studies closely and approves of the extent of rebuilding suggested in the LCC Plan, one can hardly condemn the MARS Plan as impracticable merely because it is too radical.

Another point worth mentioning, in conclusion, is the possibility of one plan supplementing another. The tables indicate, for instance, that the LCC Plan is excellent in its surveys and the assembly of facts, and has also done most valuable spade work on the question of neighbourhood units. On the other hand, where open spaces and transport are concerned, the LRRC and the MARS plans seem to have found more effective solutions, and the latter in particular shows a higher degree of co-ordination and integration of all the various plan

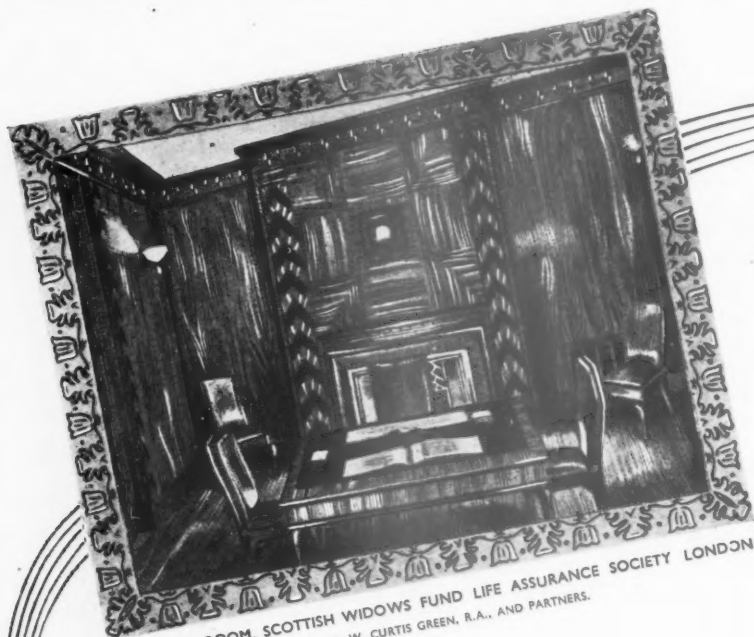
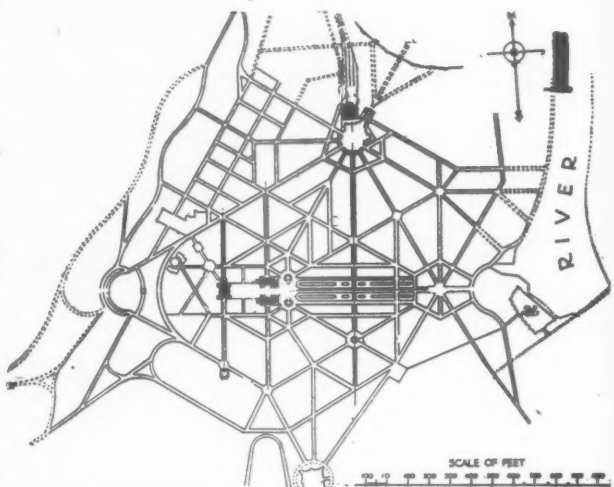
elements. Much of what may be superior there could surely be incorporated into the LCC Plan even if the latter may otherwise be more generally approved and eventually accepted.

The LCC plan was published in The Journal, July 15, 1943, p. 39, and in the Architectural Review, August, 1943.

The LRRC plan was published in The Journal, June 10, 1943, p. 380.

The MARS plan was published in The Journal, July 9, 1942, p. 23, and in the Architectural Review, June, 1942.

The RA plan was published in The Journal, October 22, 1942, p. 264. (Revised plan) May 13, 1943, p. 316. (Revised road plan) May 18, 1944, p. 367.



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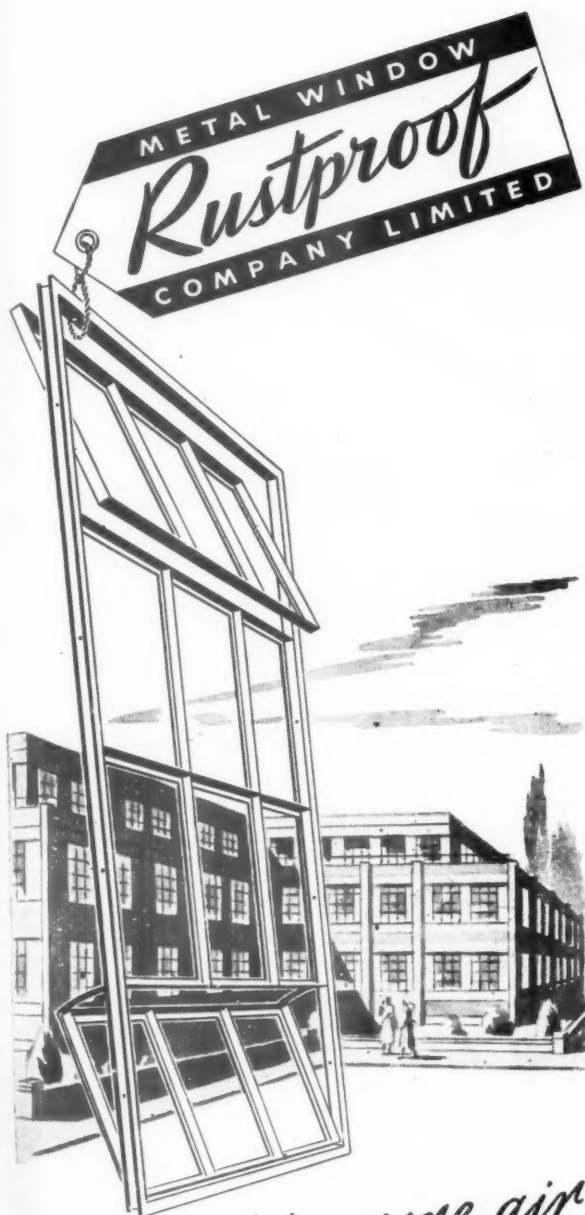
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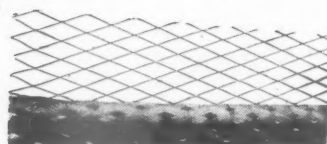
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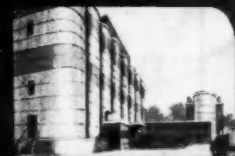
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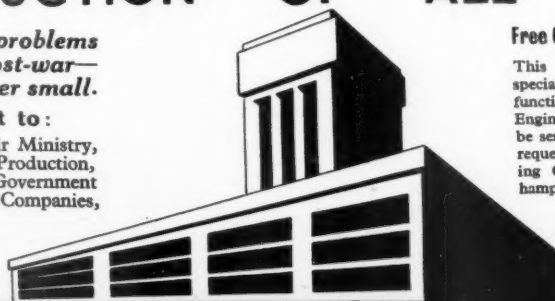
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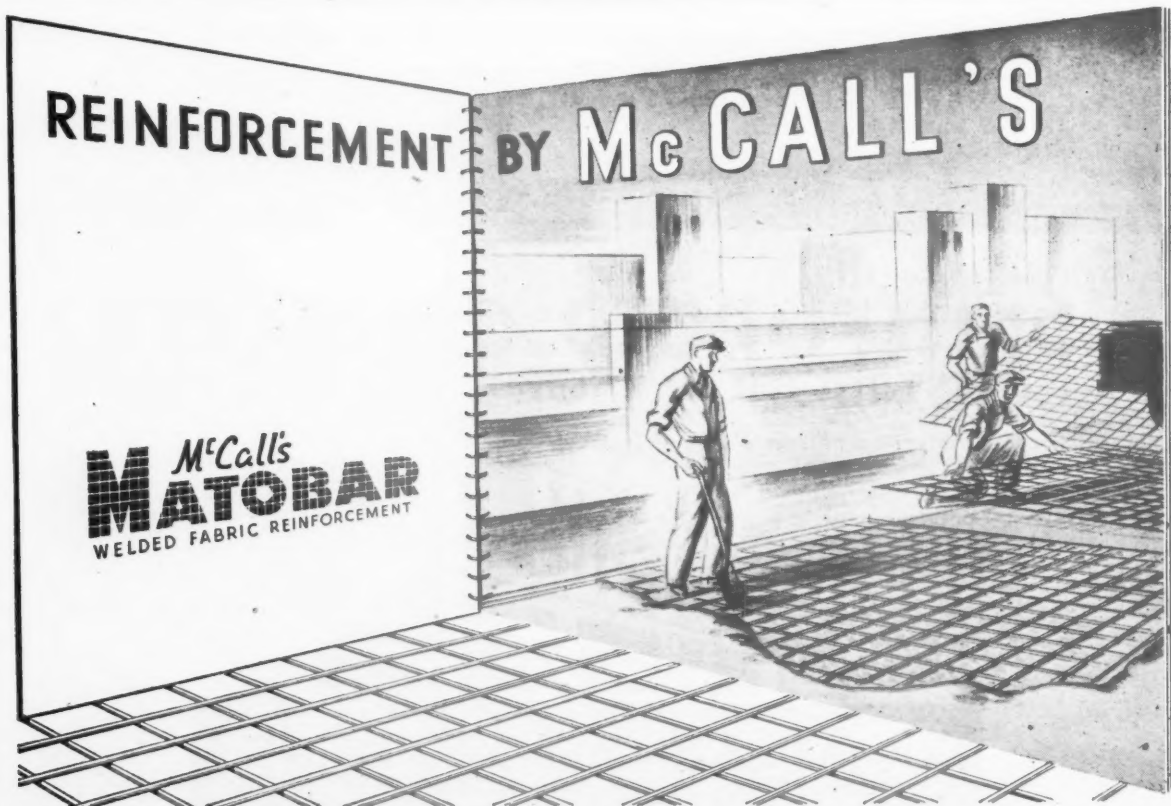




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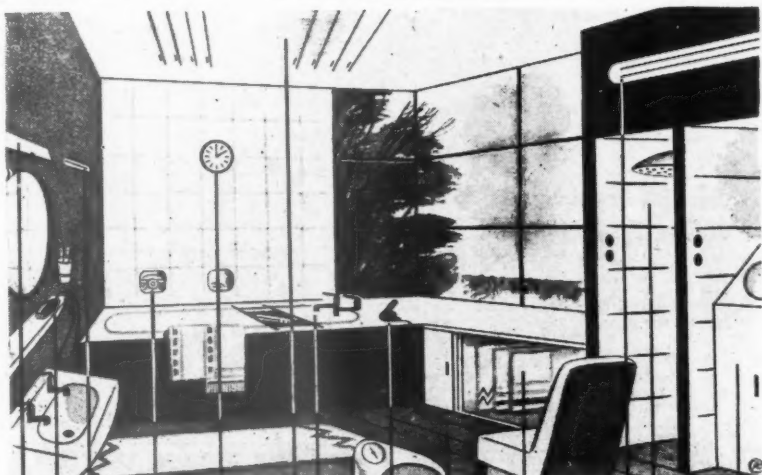
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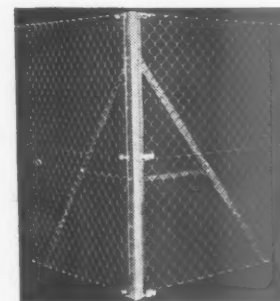
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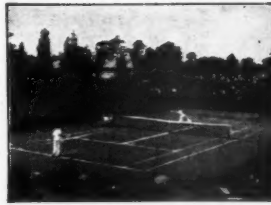
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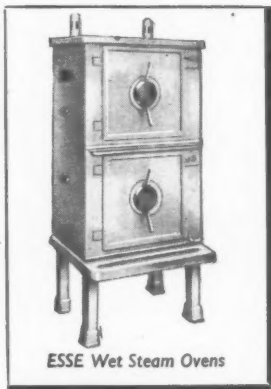
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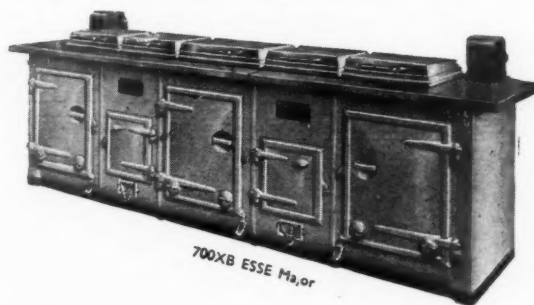
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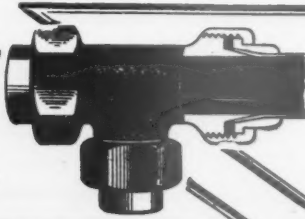
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