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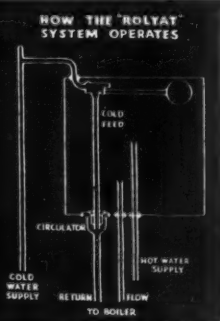


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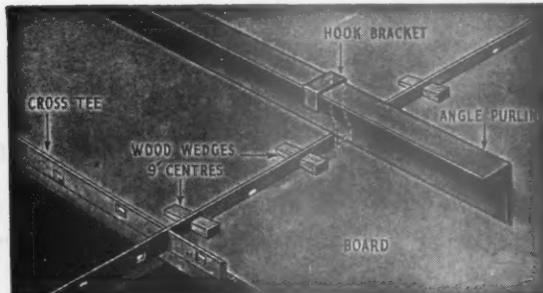
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## 1854

Napoleon III, at the Tuileries banquets which marked the zenith of the Second Empire, made use of "the rare metal aluminium" for cutlery. In the belief that aluminium would be of value for military equipment, he granted funds to further research, but it was not until many years later that the metal was produced in appreciable quantities.

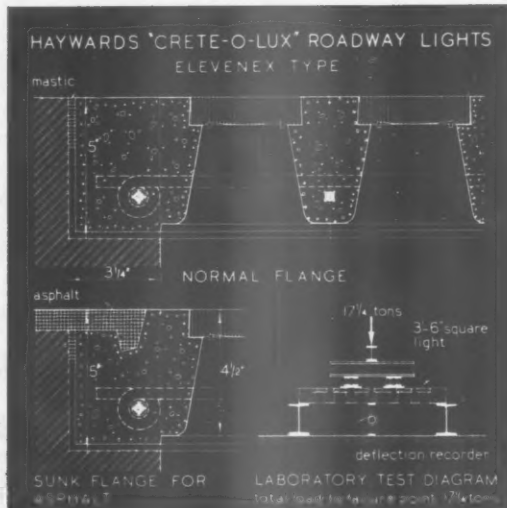
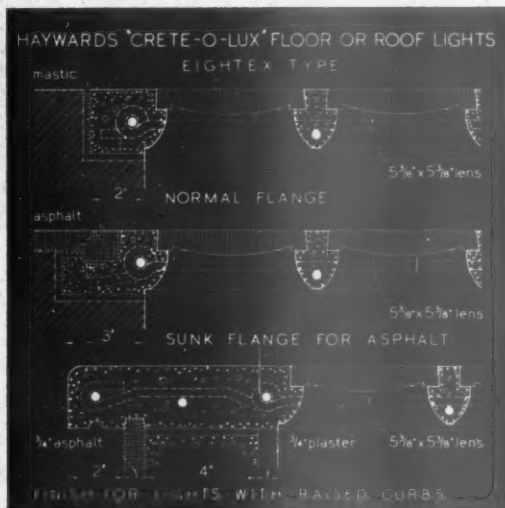
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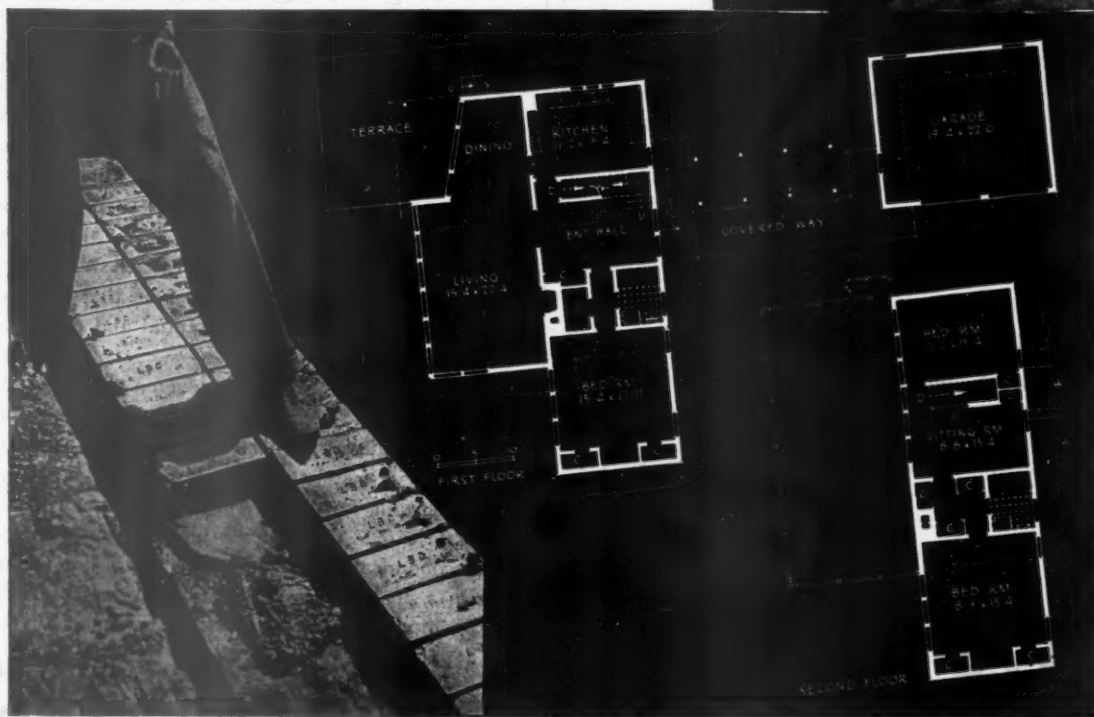
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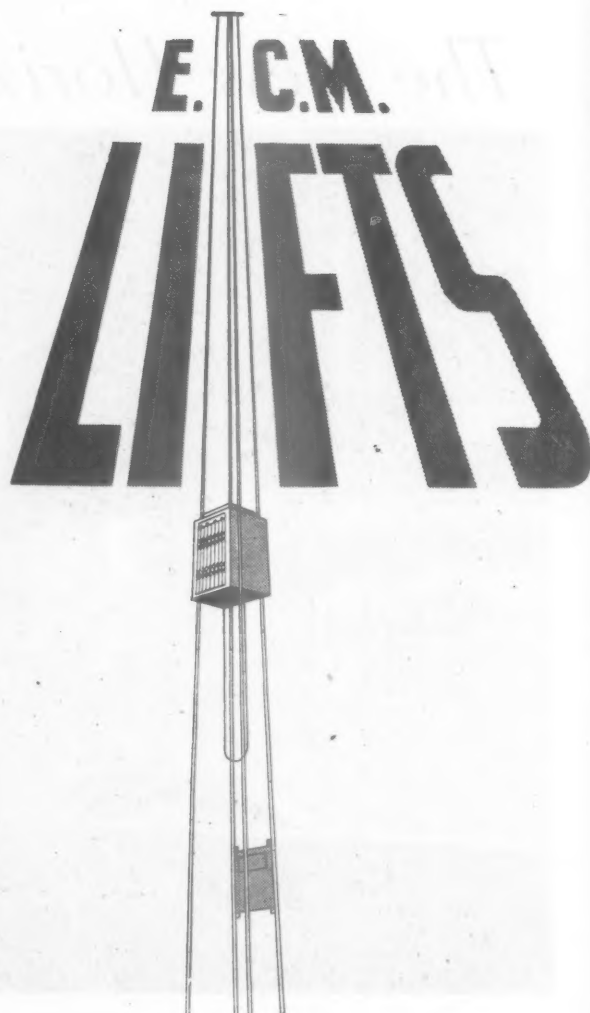
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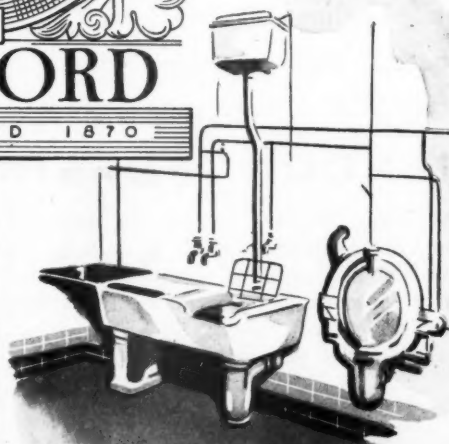
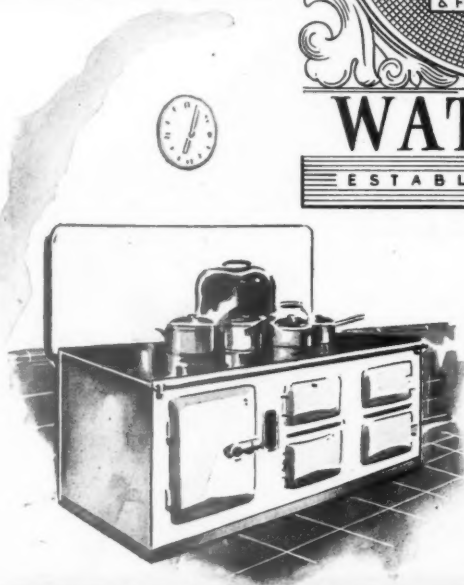
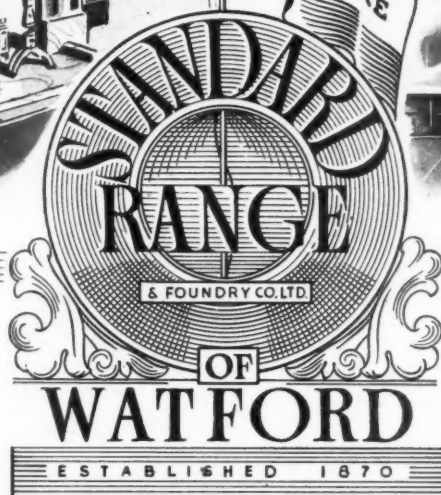
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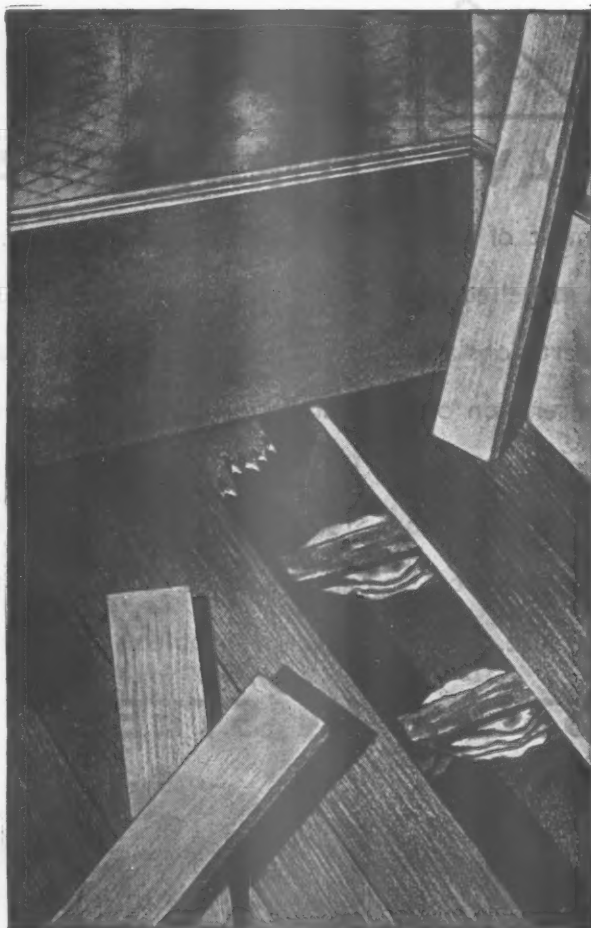
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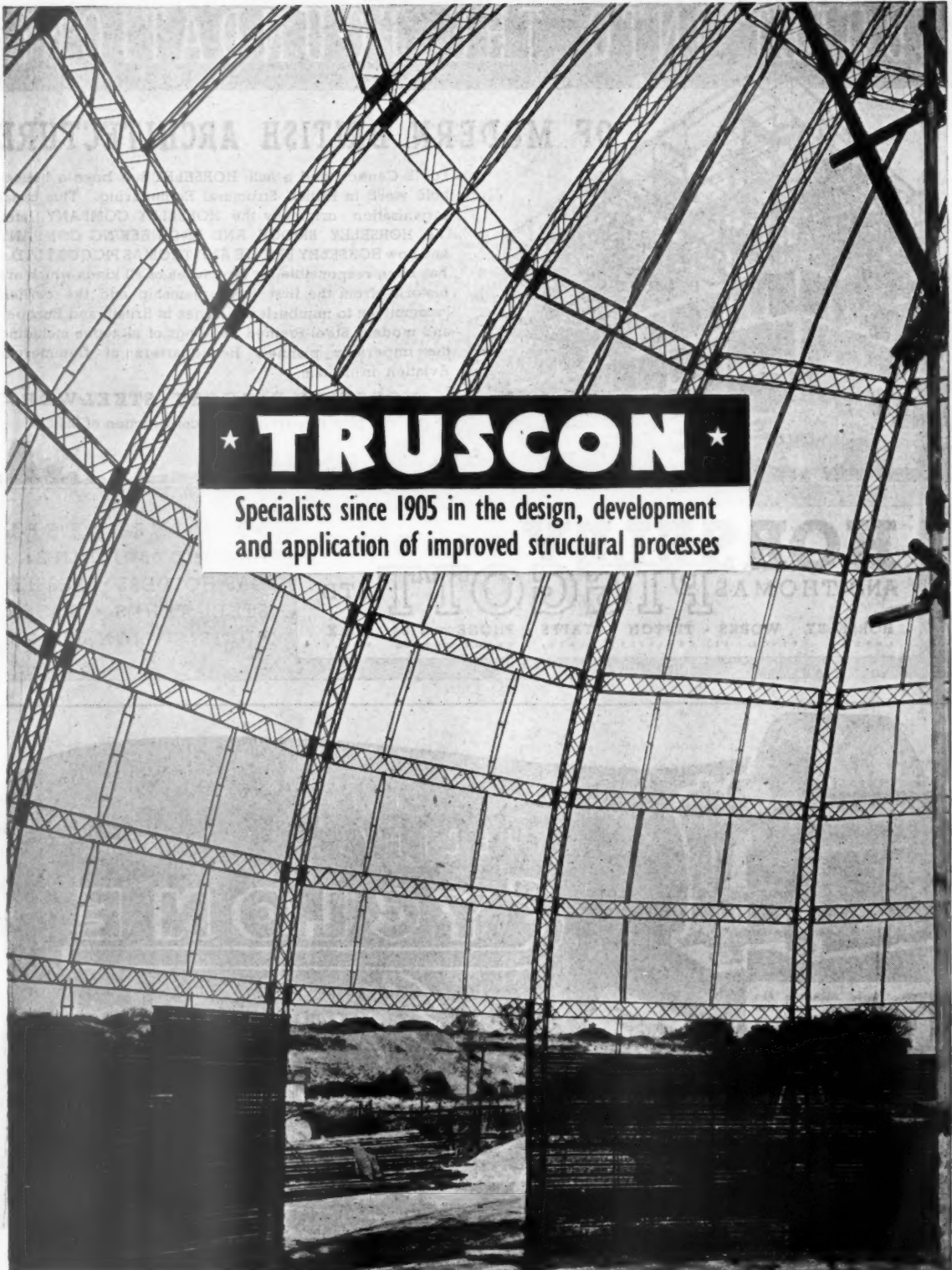
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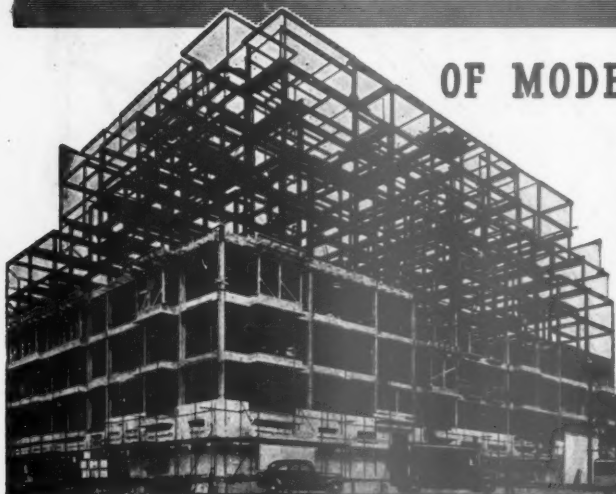
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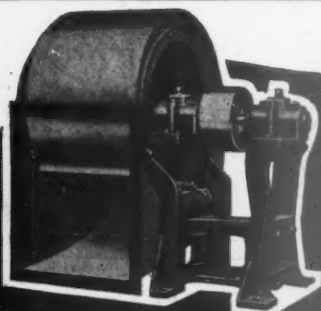
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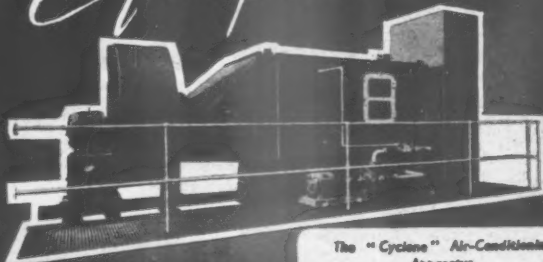


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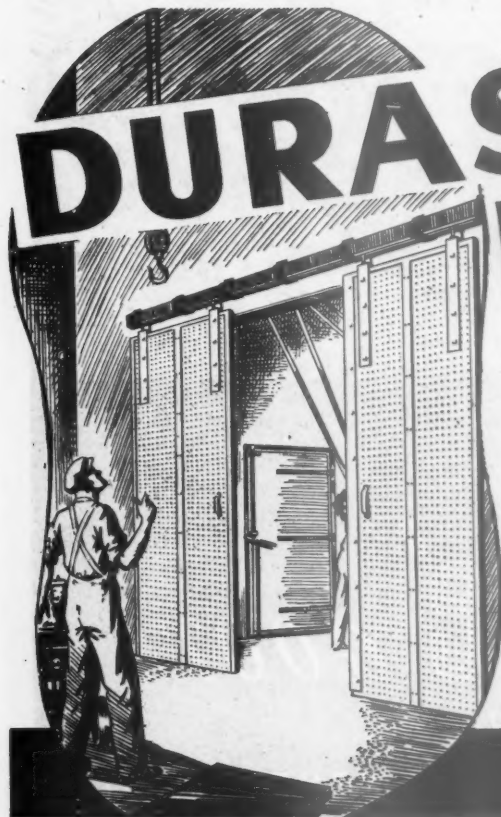
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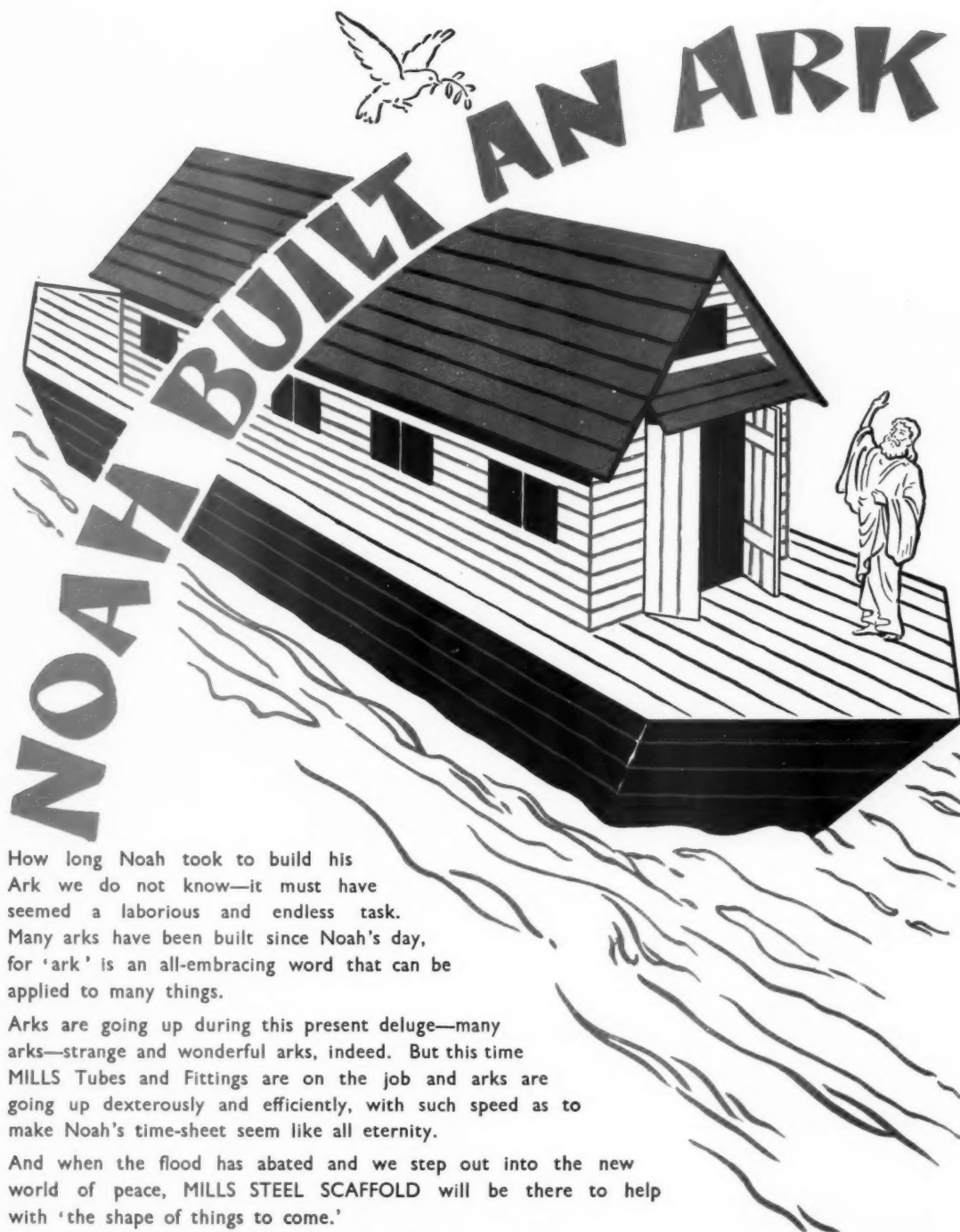


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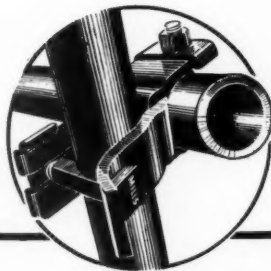
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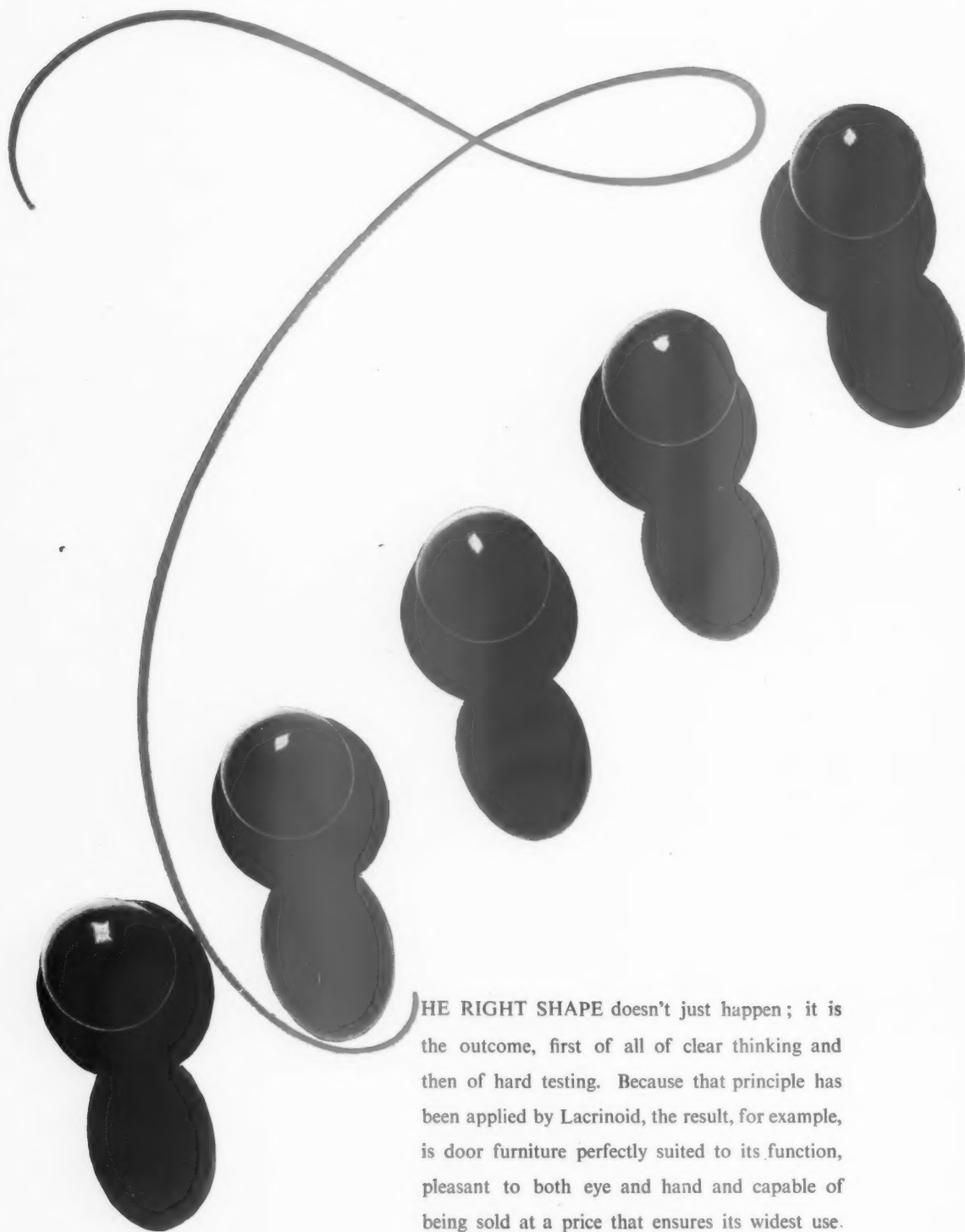
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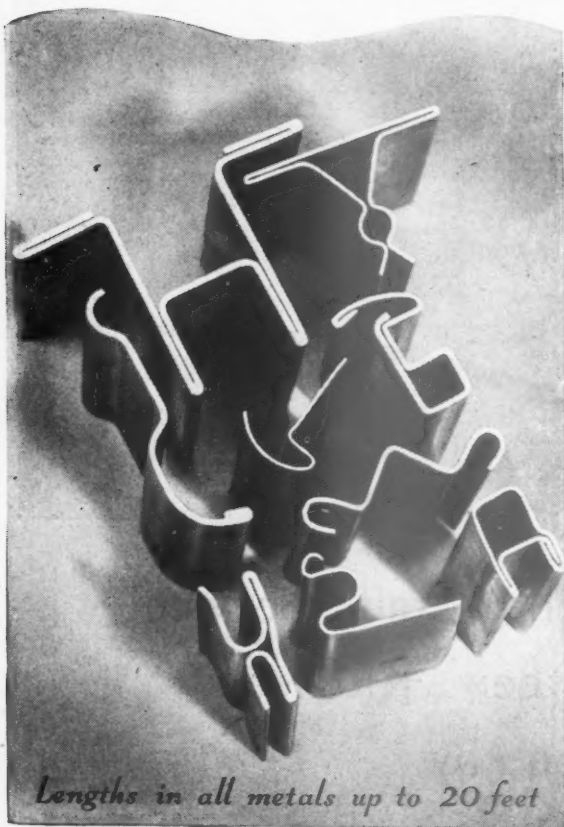


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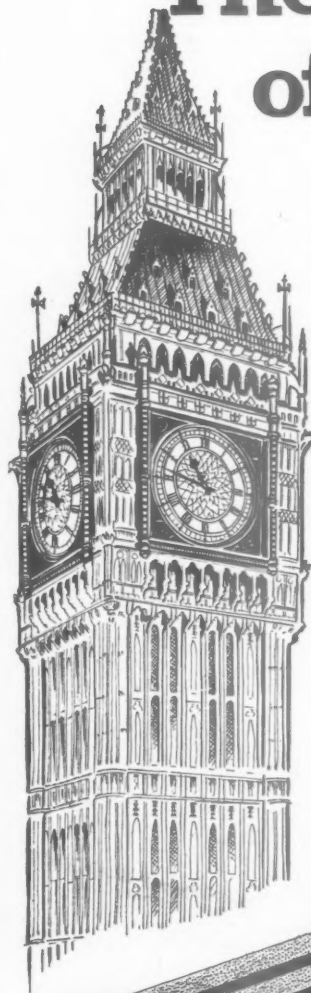
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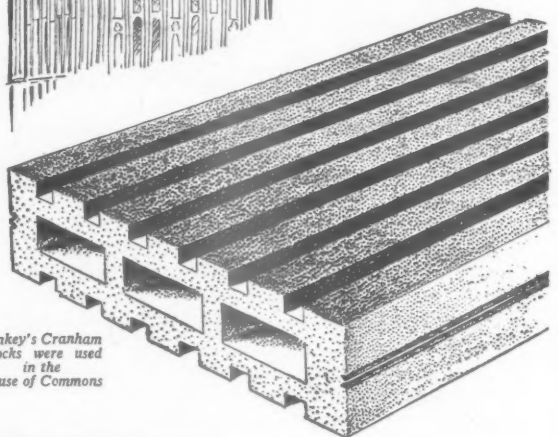
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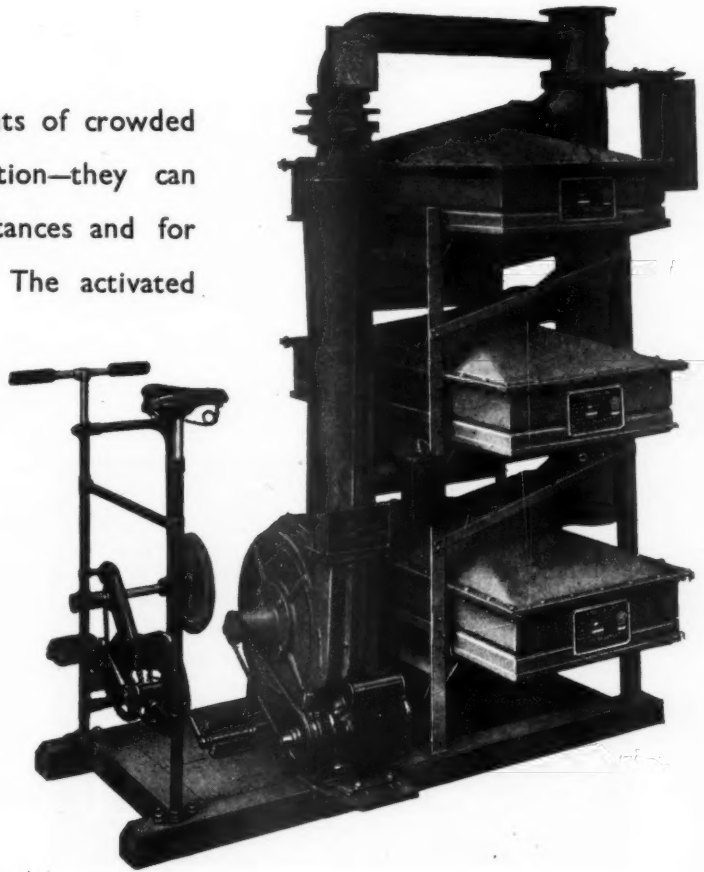


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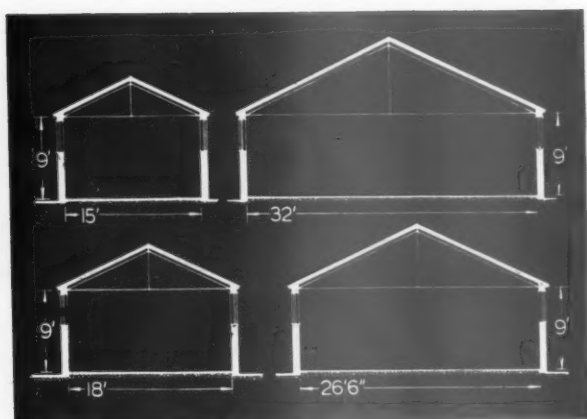
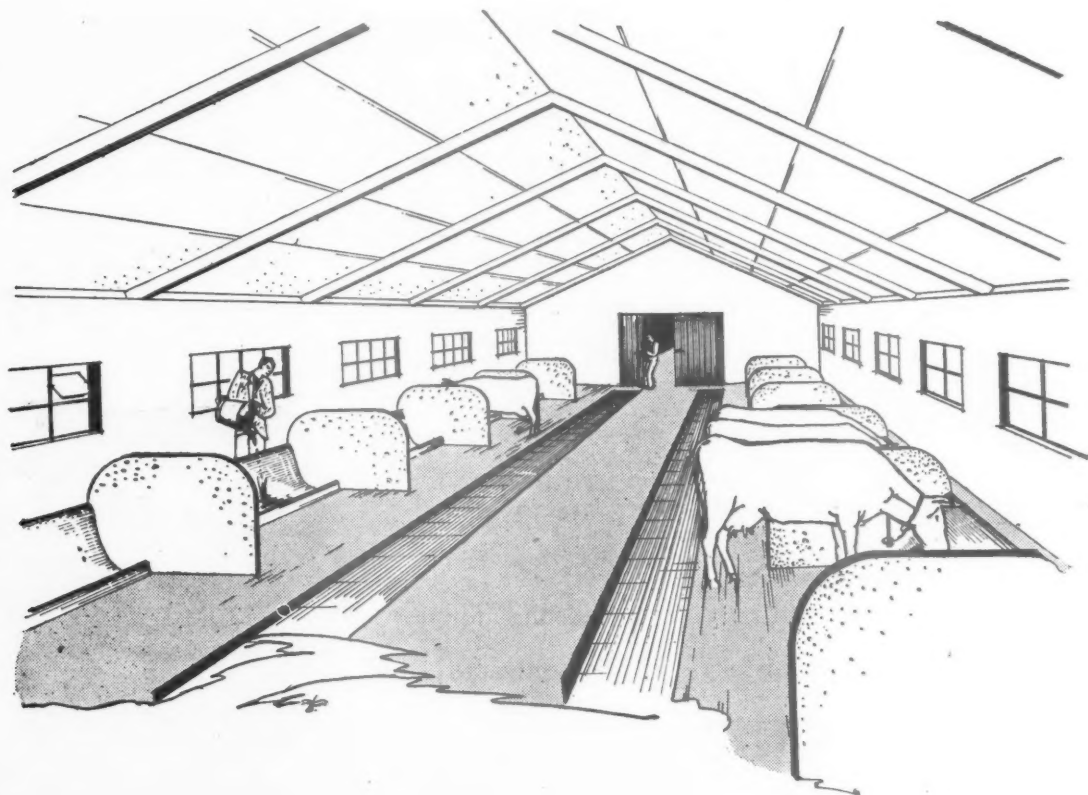
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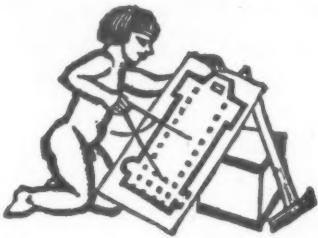


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## DIARY FOR SEPTEMBER OCTOBER AND NOVEMBER

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

**BILSTON.** *Civic Survey Exhibition.* At Bilston Art Gallery. (Sponsor, Bilston Corporation). SEPT. 28-OCT. 7

**BUXTON.** *When We Build Again.* Exhibition and Film. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) OCT. 14-21

**DONCASTER.** *Homes to Live In.* Exhibition and Film. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) SEPT. 28-OCT. 8

**DURHAM.** *The English Town: Its Continuity and Development.* Exhibition. (Sponsor, TCPA). OCT. 5-18

*When We Build Again.* Exhibition and film. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) NOV. 11-18

**HERTFORD.** *Homes to Live In.* Exhibition. Land Army Tour. (Sponsor, BIAE). SEPT.-NOV.

**LONDON.** *Housing Centre Touring Exhibition.* At 13, Suffolk Street, S.W.1. (Sponsor, HC). 9.30 a.m. to 5.30 p.m. Saturdays, 9.30 a.m. to 12 noon. SEPT. 28-29

*Six-Day Course on Housing and Planning.* A course for Discussion Group Leaders at the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor, HC). SEPT. 28-30

*Plan for Plymouth.* Exhibition. At the Institution of Civil Engineers, Great George Street, S.W. The Plan for Plymouth is the work of Mr. J. Paton Watson, the engineer and surveyor of the city, and, Professor Patrick Abercrombie. The exhibition is arranged under six main headings:—Historic Plymouth, pre-war Plymouth, the region, communications, the city plan, and the park system, and there is a large map showing the zoning proposals for the city and region. SEPT. 28-OCT. 7

*Water Colour Drawings of H. S. Merritt.* Exhibition. At the Batsford Gallery, 15, North Audley Street, W.1. (Sponsor, Batsford Ltd.). Monday to Friday, 10 a.m. to 4 p.m. SEPT. 28-Nov. 3

*Kensington To-day and To-morrow.* An Exhibition prepared by the Housing Centre for the Kensington Borough Council. At 13, Suffolk Street, S.W.1. (Sponsor, HC). 9.30 a.m. to 5.30 p.m. Saturdays, 9.30 a.m. to 12 noon. OCT. 2-14

*F. L. Barrow. Plumbing.* At 13, Suffolk Street, S.W.1. (Sponsor, HC). 1.15 p.m. OCT. 3

*Lord Amulree. Water Supplies in Peace and War.* At the Royal Society of Tropical Medicine and Hygiene, 26, Portland Place, W.1. Chairman, Sir Will'm J. Collins, chairman of the Chadwick Trustees. (Sponsor, the Chadwick Trust). 2.30 p.m. OCT. 3

*J. E. Currie. Industry and the Post-War Building Programme.* At 2, Savoy Hill, W.C.2. (Sponsor, TCPA). 1.15 p.m. OCT. 5

*Terrace Housing Competition.* The National Housing and Town Planning Council invite architects and students of architecture to submit in competition designs for houses suitable for State-aided schemes in urban areas to be erected in terraces. Assessor: Louis de Soissons. Premiums: £125, £75, and a further £75 to be awarded at the discretion of the Assessor. Last day for submitting designs: October 12, 1944. No questions will be answered. Conditions may be obtained on application to the Secretary, National Housing and Town Planning Council, 41, Russell Square, London, W.C.1. OCT. 12

**NANTWICH.** *Homes to Live In.* Exhibition. At the Gas Showrooms. (Sponsor, BIAE). SEPT. 28-OCT. 1

**NEWPORT.** *Monmouthshire Industrial Exhibition.* At the Technical College, Newport. The exhibition is designed to show not only the wide range of the County's products, but also the resources and potentialities of Monmouthshire as a site for new post-war industries and for the expansion of existing undertakings. The opening ceremony will be performed by the Minister of Reconstruction, Lord Woolton. Enquiries concerning the exhibition to:—The Hon. Organiser, Monmouthshire Industrial Exhibition, County Hall, Newport, Mon. (Sponsor, Monmouthshire County Council, in association with the Newport Borough Council and local industrialists). OCT. 7-14

**NORFOLK.** *Your Inheritance.* Exhibition. (Sponsor, HC). SEPT. 28-30

**STRET福德.** *MANCHESTER. When We Build Again.* Exhibition and film. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) SEPT. 30-OCT. 7

**SUDBURY.** *SUFFOLK. The English Town: Its Continuity and Development.* Exhibition. (Sponsor, TCPA). SEPT. 28-30

**SWADLINCOTE.** *The English Town: Its Continuity and Development.* Exhibition. (Sponsor, TCPA). OCT. 24-Nov. 8

## NEWS

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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.

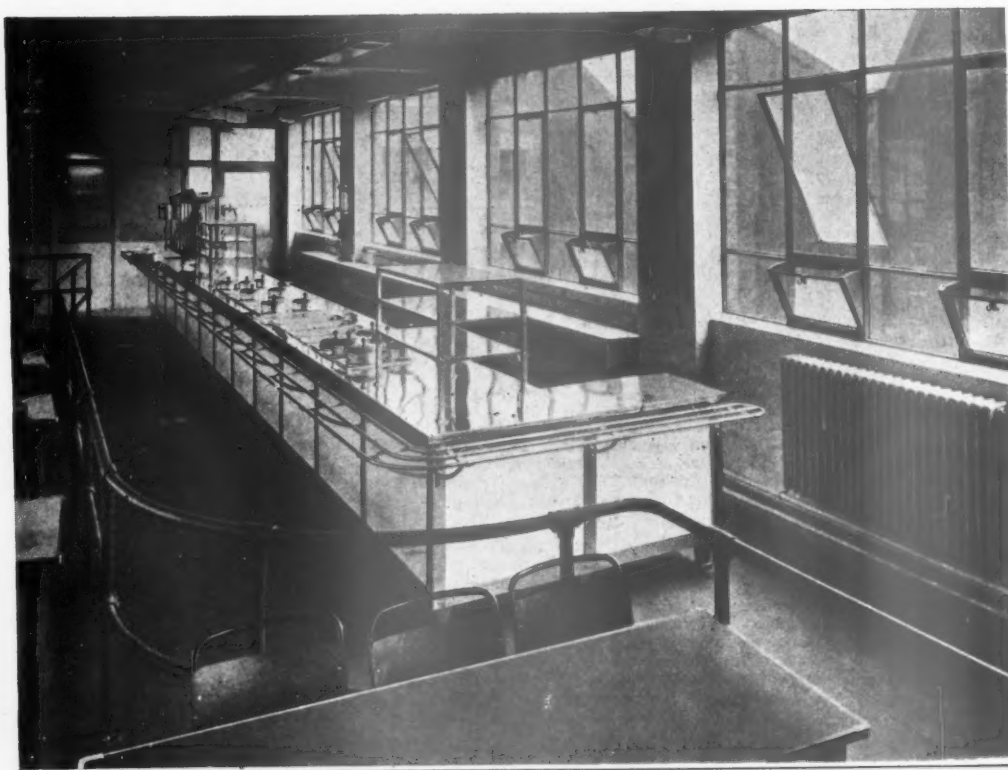
★★ means important news, for reasons which may or may not be obvious.

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

**The National Trust for Scotland has acquired THE HISTORIC ESTATE OF KINTAIL IN WESTER ROSS out of funds given by a generous supporter.**

For many years a stronghold of the Earls of Seaforth, the estate lies in the heart of the country of the Wild MacRae's—that clan invariably following the Seaforth banner in time of war. It is to be held and preserved for all time for the benefit and enjoyment of the nation. Extending to about 14,000 acres, the estate lies at the head of Loch Duich and is bounded on the south by Glen Shiel and marches with Glen Affric on the east and the estate of Inverinate and the Glomach property of the Trust on the north. It contains some of the grandest mountain scenery in Scotland, including such well-known peaks as Ben Attow, Sgour Ouran, and the Five Sisters of Kintail, all rising impressively from nearly sea level to heights of well over 3,000 ft. In accordance with the principles already adopted by the Trust for its Dalness estate, it is intended that the Kintail estate, subject to the provision near the main road of such camping sites, hostels, or other accommodation as may be necessary, will be kept in its present primitive and undeveloped condition, no paths being made or directional signs set up. The public will at all times have full right of access, the only restrictions being those necessary to avoid damage to farms and crofts. Deer stalking in its generally accepted term will cease. Deer, however, will be shot as far as is necessary to keep down numbers and conform to the requirements of the Department of Agriculture.

## CATERING IN THE NEW ERA



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# From AN ARCHITECT'S Commonplace Book

**FITNESS FOR PRE-RAPHAELITE PURPOSE.** [From The Pre-Raphaelite Tragedy by William Gaunt (Jonathan Cape)]. Yet with the discomfort went the theory that the artistic object should be "fit for purpose." It was a curious combination, though one that can be explained. "Fitness to purpose" from a Pre-Raphaelite point of view was a political statement. It meant the avoidance of waste because waste implied riches as opposed to wealth, and riches implied capitalism. Therefore "Fitness to purpose" was Socialism. It did not imply that it was, as it has since been interpreted, in a mysterious way ethical, to exclude all ornament or decoration that could be described as "unnecessary." If the emancipated socialist workman felt like covering every inch of a surface with a pattern, well and good: provided it was done of his own free will and pleasure in doing it.

**Hendon residents are asking the council to SAVE THE OLD CHURCH FARMHOUSE, which is at least four hundred years old, from demolition.**

The building and the farm were bought by Hendon Council in 1943 at a cost of £5,250, and it was then suggested that Church Farmhouse might be used as a borough museum. Recently it became known that the works committee were proposing to demolish the building and to use the site for a refreshment kiosk.

**The Brixton School of Building would be PLEASED TO RECEIVE TRADE CATALOGUES and general technical information from manufacturers of building materials and equipment for use by the staff and students and for reference in the school library.**

While it is realized by the School that many trade catalogues are in short supply at the present time, it hopes that manufacturers will place the school on their mailing list for future copies. Communications should be addressed to J. Kenneth Hicks, F.R.I.B.A., A.A.D.I.P.L., Head of the Senior Day School, Brixton School of Building, Ferndale Road, SW.4.

★

**The Victory (Ex-Services) Association (47 Bedford Row, W.C.1) has launched an appeal for funds to provide a £1,000,000 HEAD-QUARTERS FOR ALL EX-SERVICE MEN AND WOMEN after the war.**

The headquarters would be open to all ex-service men and women of the British Empire (irrespective of rank, race or religion), and of which Allied Naval, Military and Air Forces may become Honorary Members when living in or visiting London after the war. The building would be a permanent symbol of comradeship in war and fellowship in peace, and a place of reunion, remembrance, rest and recreation. The scheme will incorporate and extend the amenities hitherto offered by the Veterans' Association and Allenby (Services) Club. The project has the good wishes of the Admiralty, War Office and Air Ministry, and the active support of the British Legion. Representatives of the three fighting Services, the British Legion, the Dominions and India, and ladies and gentlemen well known

in public life have consented to serve on the Council to administer the Association. The scheme has the patronage of H.R.H. Princess Beatrice. The Victory (Ex-Services) Association Headquarters, in addition to the usual public rooms, lounges, etc., will contain entertainment rooms available not only for the many Old Comrades' Associations, which before the war held their functions in the Allenby (Services) Club, but also for the very many more similar bodies which will need such accommodation after the war. It is hoped to provide up to 300 bedrooms for ex-service men, and some 100 similar rooms for ex-service women. Facilities for endowing these bedrooms as memorials to the fallen will be open to relatives, regiments, associations, communities and corporations. A Welfare and Advice Bureau, administered by the Association, will be established. It may not be possible to commence construction until some time after the conclusion of hostilities, and to meet this contingency, additional temporary accommodation adjoining the existing Allenby (Services) Club premises will be provided. Negotiations are in progress for the acquisition of a freehold site in a central part of London.

★

**A Preservation Committee to act in close co-operation with the Society for the Protection of Ancient Buildings and the Suffolk Preservation Society has been formed TO GUARD LAVENHAM against post war spoliation.**

Composed of local inhabitants, the Lavenham Preservation Committee has been formed in view of the concern expressed in the House of Commons and by the President of the Royal Academy and by other influential bodies that post-war developments of all sorts may constitute a threat to the beauties of the town. Lavenham is a little unspoilt mediaeval town in West Suffolk. It has excited public interest for a long time.

**The British Council has selected Lacock in Wiltshire for the making of a photographic record to be widely circulated overseas of THE LIFE OF AN ENGLISH VILLAGE.**

Views will be taken by the British Council photographers of the abbey, which was the home of William Henry Fox Talbot, who invented photography independently at the same time as Daguerre, of the village children at school and play, of their elders at leisure, and of the village inn.

**Mr. E. B. Sawyer has been APPOINTED ACTING MANAGER OF THE LIGHTING SERVICE BUREAU in succession to the late Mr. H. Lingard.**

In addition to adapting the Lighting Service Bureau to war-time needs, he has been active in the industrial lighting field in connection with the National Industrial Electric Lighting Service which, with its headquarters at the bureau, has been active in improving lighting standards in war-time factories. He is senior training officer with the rank of captain in a Middlesex Battalion of the Home Guard.

**The freehold ground rent of BERKELEY SQUARE HOUSE, London has been sold by The Canadian Pacific Railway to Queen Anne's Bounty.**

The ground rent is over £50,000 a year, and the price paid by Queen Anne's Bounty is understood to approach £1,250,000. The site, covering much of the east side of the square, was bought by the CPR in 1930 with the idea of building a hotel. But in 1936 the company let the site. Sir Robert McAlpine and Co. erected the present building for Berkeley Square House Ltd., a subsidiary company of the United Investors' Co-operative Society. In 1938, the eight upper floors of Berkeley Square House were taken on lease for a long term by the Government. A rent roll of a little under £150,000 is now forthcoming from the building.

★

**Boston, Lincs., Rural District Council has received ONLY SIX APPLICANTS for its new farm workers' cottages.**

At a meeting of the Council it was stated that cottages completed six weeks ago at Kirton End and Amber Hill were still empty. Further cottages at Benington were also ready for tenants, and others at Leverton, Old Leake and Wrangle would be shortly. The Holland War Agricultural Committee, whose responsibility it is to find suitable tenants, has had only six replies to its advertisement. The rent of these houses is about 13s. 6d. per week, compared with 3s. to 5s. for the average farm cottage. Local labour requirements is another factor influencing the demand. The Council has decided to seek permission of the Ministry of Health to put in its own tenants, if the cottages are not occupied in the near future.



### *A Mediæval Maginot Line*

This is not a romantic lath and plaster film set, but a solid, practical piece of military engineering of the Middle Ages. It is the gate and drawbridge of the village of Entrevaux, which stands on the banks of the river Var near Puget Théniers, about thirty miles inland from Nice. The Var here flows through a stupendous gorge—the Gorge de Daluis—and Entrevaux stands on the edge of a sheer cliff, dropping vertically to the river far below and rising behind the village to a great height. There is

little in the village except what is visible here, and a small square behind it. Luckily few of the historic buildings of the south of France such as this have been damaged by the war, and even in the north the war damage is likely to be less than one feared it might be. Though some towns like Caen have been devastated, many such as Bayeux have escaped. In an article this week, Captain E. S. Watkins gives a first hand report of the extent of the damage he saw when he visited Normandy recently.

## RIBA ON HOUSING

★ *At the Institution of Civil Engineers, Westminster, an exhibition showing a PLAN FOR PLYMOUTH of the future was opened by Lord Astor, Lord Mayor of Plymouth.*

The Mayor of Westminster (Councillor M. G. Giles) presided. Lord Astor, who described himself as having "certain Bolshevik tendencies," said that old Plymouth, a city of 220,000 inhabitants, was completely unplanned; it had narrow streets, where accidents occurred, and was a wonderful illustration of how not to do it. During the air raids a good deal of the city had been wiped out. To rebuild the city the authorities had to be given power by Parliament. He hoped Ministers and M.P.s would see the exhibition and would realize the improvements required to the Bill dealing with town and country planning. Plymouth wanted to plan boldly, and according to modern ideas, to provide for the man who desired to take country walks with his wife and children. But it was extraordinary how long that idea took to get into the heads of M.P.s. The plan, prepared by Mr. J. Paton Watson, city engineer and surveyor, and Professor Patrick Abercrombie, was illustrated and described in THE ARCHITECTS' JOURNAL for May 4 last. The exhibition is open to the public until Oct. 7.

★

*New residential areas wholly confined to one class of the community are BAD IN PRINCIPLE. In the interests of the nation socially the practice should be avoided in schemes for the future.*

This opinion is expressed by a committee of the London Chamber of Commerce, in a report on the Town and Country Planning Bill, which has been adopted by the Chamber's council. The committee thinks that the Bill's compensation provisions are likely to prejudice seriously owners of commercial and industrial property. It is also of opinion that the principle of public inquiry should be maintained wherever practicable, and that there is a real danger that fertile agricultural land might be inconsiderably taken for development purposes. The Committee recommends that a public inquiry should be obligatory wherever it is proposed to acquire agricultural and other forms of green land.

*In post-war building the old type of scullery and washhouse should be REPLACED BY A UTILITY ROOM, complete with laundry equipment and drying cupboard.*

This is recommended by the Women's Advisory Committee on Solid Fuel in their pamphlet: *Heating, cooking and hot water supplies for the post-war house*. Lady Egerton is chairman of this committee. It was formed in May, 1943, following a request by the coal industry for advice as to the features regarded by women as important in providing heating, cooking and hot water supply services in post-war building. The committee also recommends that covered fuel storage should be provided in post-war houses to take at least two months' supply of two kinds of solid fuel.

ON August 24, our leader reviewed the Report of the Dudley Committee on the Design of Dwellings. This has been followed in close order by a Report by the RIBA on Housing.\* These two reports, read together, add up to the same thing and bespeak a general unanimity of thought on the part of technicians. Here, once more, are the latter-day recipes for dodging the inter-war housing mistakes—avoidance of arid single-class areas lacking in communal facilities; alternatives to the ubiquitous semi-detached dwelling; the planning of neighbourhood units, community units, regional units; a rational attitude towards the provision of flats. It is all very well done on the theme, "planning is more than housing," the sentiments are impeccable, the matter ably and economically set down, and the crux of the argument is in the phrase "it is our view that the desired result can only be achieved by the application of a trained imagination."

The RIBA Housing Committee stresses its concern "with building costs and the improvement of standards. . . . The inclusion of the above facilities would raise the standard from 750 square feet to 950 square feet," says the pamphlet. Thus, the RIBA hoists its banner 200 square feet above the Tudor Walters' level (the level which saw us through the twenty inter-war years), and 50 square feet above that of the Dudley Committee. This is a political gesture of the first order. Space for living is one of the major issues of the period we are now about to enter. The Government, insofar as it has established any position at all up to this eleventh hour, is murmuring about the need to reduce standards and, indeed if one looks at the matter through the strictly orthodox and statistical eyes of an Elsas,† one can see little but reduced standards in the prospect. But the RIBA has no truck with such notions. Firmly and squarely it puts its foot on the side of the fence occupied by the expansionists and bases its report throughout on admirable and optimistic reasoning. Another point not to be overlooked is the stress laid on flexibility of approach. Rules intended as generalities are apt to become fixed standards, incapable in the official mind of variation; witness the unfortunate formula of 12 to the acre. Housing, as a whole, is at present too imponderable to change with changing times, and herein lies a problem not yet solved for the bulk of our housing is structurally sound but socially obsolete. It is imperative to find ways of rebuilding that will not perpetuate our present half-assimilated thought and we welcome the new and more flexible density proposals and proposals for zoning for light and air. We welcome, too, the more sympathetic aptitude towards new methods of building which, we hope, expunges the ill-advised statement on this subject put out by the Institute some time ago. Housing at the right time, and cost, and place, and of the

\* *Housing: A Report of the RIBA* (18s. od.)

† *Housing Before the War and After* by M. J. Elsas (P. S. King and Staples, 1942, 5s. od.).



right kind. Technically we have achieved a sufficient level of agreement in these problems and they are now awaiting solution on the political plane, a solution that cannot be withheld much longer.

The back-room boys have not been wasting their time during the past five years. Technical advance, stimulated by war needs, has been enormous, not least in building knowledge. The technician points to those high standards of living which, as a result of his work, have now become possible. In planning and housing, we know, broadly, what should, can, and must, be done. The RIBA report on Housing is but one of many clear contemporary signs that this is so.

But there is a wide gap between the latest knowledge and its application in practice. The bridging of that gap is a socio-economic problem, and nothing but that. Must the architect, the technician, the planner, therefore, now advance out of his particular sphere of pure technics into the political sphere, if his efforts are not to be frustrated, boycotted, shelved? That is a question he can answer only as an individual with a far clearer vision of the future than Local Authorities and Government now possess.



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## O T E S & O P I C S

### FIRST AID REPAIRS

The hope that house repairs will be completed by the end of the year has, of course, now been definitely abandoned, since the doodle bugs have nearly doubled the previous damage by raising the figure of houses hurt by bombs since the war began by some 1,200,000.

However, with the recent appointment of Sir Malcolm Eve as Lord Woolton's chief of staff on London bomb repairs, the job is now, we hope, under control. The aim apparently is to make all damaged houses at least wind and weather tight by the end of the year.

But extended first aid repairs are likely to go on for many months, and indeed probably for some time after the war is over. Extended first aid means permanent repair—at least in theory. About 50 million square feet of glass will eventually replace linen and other temporary window coverings. 150 million tiles and slates will be needed in place of the sheets of asbestos and felt. 200 million square feet of wall-board will also be required, and half a million new window frames. This will be a difficult job, for skilled labour, especially in the tiling and slating trades, is desperately scarce.

An ingenious design for a standard window casement that can be quickly produced in quantity has been devised to aid MOW in its repair work. Models have already been prepared and demonstrated. It is made in three standard heights, and at each end has an upright which can be moved to suit different widths of opening. This upright, which is grooved and tenoned into the top and bottom members, is fixed at the required position, and the projecting ends of the horizontal members are sawn off. Each window has a central opening casement of fixed size. There are no glazing bars, and the section mouldings are very simple. They can be run off easily by machine in millions of feet and cut to lengths. Rather a crude piece of work,

perhaps, but it should serve a useful provisional purpose.

### SIMPLE OUTLINES

Anyone who has tried to compress an Outline of Town Planning into 8,000 words will regard Dr. H. V. Lanchester's booklet for the RIBA\* with a sympathetic as well as a critical eye. It is remarkably free of jargon, but perhaps for that reason reads in places very like a fairy tale. I particularly liked "Disused quarries or other irregular sites can sometimes be adapted for use as zoological gardens. . . ." It reminded me of an old-fashioned guide book containing *One Hundred Useful Phrases*, not the least useful of which ran: "Stop a moment! Our postillion has been struck by lightning."

In other places in this outline of studies occur superb sentences designed to blow any examination paper to the winds. Thus, under *Improvements and Reconstruction* is written: "The existing Town Planning Act and other measures dealing with this aspect do not fulfil the present requirements, and it is obvious that the findings of the Barlow, Scott, Uthwatt and Beveridge reports . . . make it impracticable at the moment to consider reconstruction on the basis of existing regulations." I only hope that when I sit for an exam. in Planning Law—which I suppose we must all come to one day—Dr. Lanchester will be the examiner.

In spite of the peculiarities imposed by its form and small compass, the booklet has a breadth of approach which will at least attract the student on his subject. Only in the schedule of requirements for Civic Surveys is the hand of the unreformed syllabus-writer apparent. Economics is one of the fifteen headings; it includes "agriculture, transport, import and distribution, collection and export, personal locomotion, wages in relation to money values, types of employment, changes in industry and methods, seasonal trades, finance." This is heavy going, even as an outline; but generally the advice given, though broad, is simple and sagacious.

The most sagacious of all—or is it, perhaps, satirical—is that contained in

\* *Outline of Studies in Town Planning* (RIBA, 1s. 0d.)



the very last sentence: "... it will be well to cultivate a lively interest in Government procedure, as considerable changes appear to be imminent."

#### WHAT'S IN A NAMEPLATE?

The makers of Coventry-Eagle motorcycles are offering cash prizes for an improved design for a nameplate, applicable to all their publicity material and, presumably, to their products as well. Only a few weeks ago, Radiation announced a similar competition for the best nameplate for their gas-stoves and other domestic appliances. Obviously, a firm's nameplate *should* be of good design, and the tendency is all very well as far as it goes, but it doesn't go half far enough.

If one did not know that many manufacturers were preparing to use design more ambitiously in their post-war development, one would say, God help British industry. For what is the use of a well-designed nameplate if the product it ornaments is not itself well-designed? Why not call in the help of outside designers to instil new life into the products of British industry, not merely the labels on them? If you desire evidence of the need for enterprise here, as Wren's epitaph says

to the rubberneck, just look around. The trouble is partly due to the lack of status of the industrial designer. It used to be said that the author of a play was a man whose name was printed in the programme slightly smaller than that of the firm supplying the cigarettes or the antique fire-screen in Act 2, Scene 2. Yet even this is an honoured position compared with the industrial designer's, who in the past rarely got even a mention in the smallest type in the advertisements of a manufacturer for whom he worked.

There are signs that the increasing importance which intelligent manufacturers are now giving to design includes some recognition of the designer's name. Two straws that show the way the wind's blowing, in widely separated fields, are these:—(1) A dress advertisement advising the shopper to look for this label: BERKERTEX, Bond St., London. Designed by HARTNELL. (2) An advertisement of Lagonda Motors which proclaims: "The products of Lagonda and the designs of W. O. Bentley have always been fine fast cars . . ."

ASTRAGAL



## LETTERS

Edward Narracott, A.R.I.B.A.

(Flight Lieut., RAF)

I. E. Anderson

Peter Moble

Ivor L. James, L.R.I.B.A.

Sir Noel Curtis-Bennett,

K.C.V.O.

(President, Guild of Master Motorists and Civil Service Motoring Association)

### Competitions

SIR.—I am one of the many in the Forces left behind in the wake of the Middle East theatre of war, still with plenty to do but with more time to think of one's future and to turn to such things, once again, as architectural competitions.

You can imagine my disappointment when I discovered in all the conditions of the competitions for which I applied, that there was shown a lack of consideration, as regards the closing date of the competition, for the fellow in the Forces stationed abroad. Let me cite a particular case:

On June 27, 1944, I wrote to the Timber Development Association for the conditions of a competition in connection with the design for timber houses, following a notice I read in the *Architects' Journal*, dated May 11, 1944, which I had just received.

The conditions of the competition reached me by surface mail on August 29, 1944, and I read with dismay that designs would not be accepted after Saturday, September 30, 1944.

If consideration is to be given to the architects abroad, and there are hundreds belonging to the younger schools, then surely it would not be asking too much to introduce, purely as a wartime measure, an arrangement whereby full conditions of competitions are included with the publication of the professional journals, either in the form of a loose pamphlet or a detailed notice.

Such a facility would save untold time



A surrealistic sketch from real life in Northern France, sent to Astragal by Anthony Cox, a young architect now serving as a lieutenant in the R.Es. An article on pages 235 to 238 further describes post-battle conditions in Normandy.



# PHYSICAL PLANNING SUPPLEMENT

Since the publication of the County of London Plan in July, 1943 (A.J. 15-7-43, p. 39) the twenty-eight Boroughs in the County have each recorded their comments on the plan as it affects their particular area. Many show an understanding of the essential national-regional-local approach to planning which is encouraging for the future of London. In the following article Mrs. McAllister outlines the main points of their criticism. Planner's Scrapbook presents the latest move in the Battle of Birkenhead.



## THE LONDON BOROUGHS AND THE LONDON PLAN

by Elizabeth McAllister

Nearly all the twenty-eight Boroughs within the County of London preface their comments on the LCC Plan with praise for the plan as a whole, and with tributes to Professor Abercrombie, R. H. Forshaw and their staffs for the resource and skill with which they have tackled a vast problem.

Some of the Boroughs, including those as diverse in character as Kensington, Hackney, Camberwell, Poplar and Woolwich, have moved far from the parochial rut in which local authorities are so often accused of sticking, and approach the problem nationally. This does not, however, make them less zealous in their care for local detail or local tradition than some of their neighbours who take the narrower view.

Mr. Dalton's announcement in March that "the main ideas of the Barlow Report have been accepted," has no doubt gone some way to meeting these Borough's criticisms that until the Government acts on the recommendations of the Barlow Commission and establishes control of the location of industry, the realistic planning of London is quite impossible. But the ambiguous announcement by the President of the Board of Trade does not, even when read in conjunction with the Planning Bill and White Paper, give these Boroughs the clear cut planning policy for which they ask and into which they want a London Plan to fit. Nor will the Royal Borough of Kensington, which takes the view that "the future population of London should be determined by a National Planning Policy," be encouraged by the ominous phrase in the last paragraph of the recent White Paper, on Control of Land Use, which says: "It is not proposed that a single master plan should be devised by the Government."

Woolwich Borough Council, too, is of the opinion that "final planning for the County of London is not possible until a national planning scheme and a Greater London planning scheme have been drafted," and urge the Government to set up a National Planning Committee. Woolwich thinks that to leave the City of London out of the London Plan "is absurd," a remark which is equalled in brevity by the Camberwell Borough Council on the proposal to provide an industrial area for Dulwich Village. The crushing comment on that is—"We think its provision may be an error on the part of the draughtsman."

Some of the Boroughs flatly turn down major road schemes in the Plan, as they affect their localities, and in several cases these schemes will be impossible to carry out if the opposition of the Boroughs is sustained. Marylebone, Chelsea, Westminster and Holborn are particularly critical of the road plans. The schemes to turn Regent Street and Oxford Street into shopping precincts with no through traffic, meet with violent opposition from Westminster. The Chelsea Society supports its Borough, and says that the Plan

"extols the mellow charm of our Borough, emphasizes its historic value, and singles out its treatment of the river front and tree-lined embankment as a shining example of how the Thames should be respected . . . (but) proposes to mutilate its historic Physic Garden, to make a huge traffic way along part of that river front, and to violate the site on which it is hoped Chelsea Old Church will be rebuilt."

There is considerable anxiety about the housing densities proposed in the Plan expressed in population per acre. While most Boroughs accept the need for a proportion of flats, there is considerable opposition to flats of more than three storeys, and almost universal opposition to flats of more than seven storeys, accompanied by a general demand for a much greater proportion of houses. Poplar, Camberwell, Lambeth, Kensington and Woolwich are all so firmly convinced of the desirability of more open space and lower housing densities, that they would be prepared to lose more population than the Plan suggests. Stepney, on the other hand, is reluctant to accept either a density as high as 136—or to lose population. Deptford, too, is confused by the demands of the open space—density—population triangle. Fulham and Chelsea are the only Boroughs to ask for a higher density than the plan proposes. There is a widespread acceptance of the idea of defined communities and neighbourhood units.

The Port of London Authority has made no public announcement on the Plan, but the views of its Chairman, the Rt. Hon. Thomas Wiles, appeared recently in the *P.L.A. Monthly*. Mr. Wiles' views on the London Plan as it affects his Authority are contained in these two sentences: "The means of livelihood must take precedence over the problematical attractions of riverside gardens," and "ship-owners . . . are convinced that interference with the traditional use of the river frontage would be seriously detrimental to trade." Most of the riverside Boroughs, on the other hand, welcome the proposals which give Londoners access to their greatest open space. The Boroughs are anxious to do everything they can to encourage Londoners to become "river conscious."

Lambeth alone of all the Boroughs deserves a bouquet for publishing its comments on the Plan in pamphlet form (6d.). The war, we know, makes publications difficult, but surely here is an admirable opportunity for a good piece of public relations work between the Local Authorities and the Borough Populations. Interest in the history and development of one's local Place has been too exclusively the interest of the Local Authority Committee, the over-sixties and the middle-class dilettante.

**1. BATTERSEA :** Considers that the minimum accommodation for a man, wife and one child should be three rooms and not two as suggested; does not comment on the fact that it is proposed to decentralize 28 per cent. of the population in the part of Battersea north of St. John's Hill and Lavender Hill; thinks that additional open space beyond that proposed in the Plan, particularly in the Shaftesbury Estate, is necessary.

**2. BERMONDSEY :** Accepts general framework of the Plan; is in consultation with local industrialists re location of industry; makes no comment on housing, density or zoning proposals.





Above is an aerial view of London with the County Boroughs numbered in alphabetical order. C marks the City of London. Left is a key map showing the County boundary with the County Boroughs named and numbered. On the facing page is a map showing the road proposals embodied in the County Plan, which have been criticized by many of the Boroughs.

**3. BETHNAL GREEN :** "Much more evidence is required to justify large proportion of tall blocks of flats proposed (as high as ten storeys)"; considers that at 136 to the acre "it may even be possible to reverse the figures of 38 per cent. of population in two or three storey houses and 62 per cent. in ten storey blocks of flats; recommends five storeys as maximum height for flats with lifts above three storeys; accepts principle of social regrouping.

**4. CAMBERWELL :** Expresses hope that Parliament will pass legislation "sufficient in scope and wide enough in application" to enable planning authorities to implement their plans; asks that the Metropolitan Plan should be linked up with a regional plan and related to the framework of a National Policy; emphasizes that "the principles of decentralization of industry and population cannot be adequately worked out within the limits of a Metropolitan Plan." The Council is in sharp conflict with the authors of the Plan on the question of density: a density of 100 would not be opposed, but consider that higher densities involving a considerable number of many-storied flats "would be out of keeping with the wishes of the majority who prefer to live in houses"; considers that the dispersal of population should be dependent upon the prior dispersal of industry; prepared to lose some of present population, and would not desire to retain all existing industry; opposes the provision of an industrial area near Dulwich Village, and adds: "*we think its provision may be an error on the part of the draughtsman.*"



**5. CHELSEA :** Very strongly opposed to "A" ring road unless carried underground; strongly opposed to "Y" road which would "ruin the residential amenities" and create a dangerous junction on reaching the Embankment; opposed to four acres per 1,000 open space, which would mean increase in rates of 2s. 6d. for 60 years; considers permissible density should be 136 persons per acre instead of 100, and that proportion of two-thirds flats to one-third houses would be preferable for the Borough.

**6. DEPTFORD:** Says that proportion of houses to flats should be increased, yet demands more open space within the borough "even at the expense of the density of population."

**7. FINSBURY :** Density of 200 per acre would give Finsbury a population of 36,577, a reduction of 20,383 on 1938; 146 acres open space are required as against 19 now existing; Council agrees with population reduction "if better housing conditions and open space amenities are to be secured." Proposed 36,000 population "would appear to be reasonable," but even with reduction, whole of population south of Pentonville Road would have to be housed in blocks of flats, 75 per cent. of which would be seven to ten storeys. Densities proposed are accepted; at present overcrowding is reduced by evacuation, but if substantial proportion of evacuated population returns to Borough, overcrowding "will become as acutely urgent as ever"; favours erection of modern blocks of flatted industrial buildings to solve one aspect of space problem.

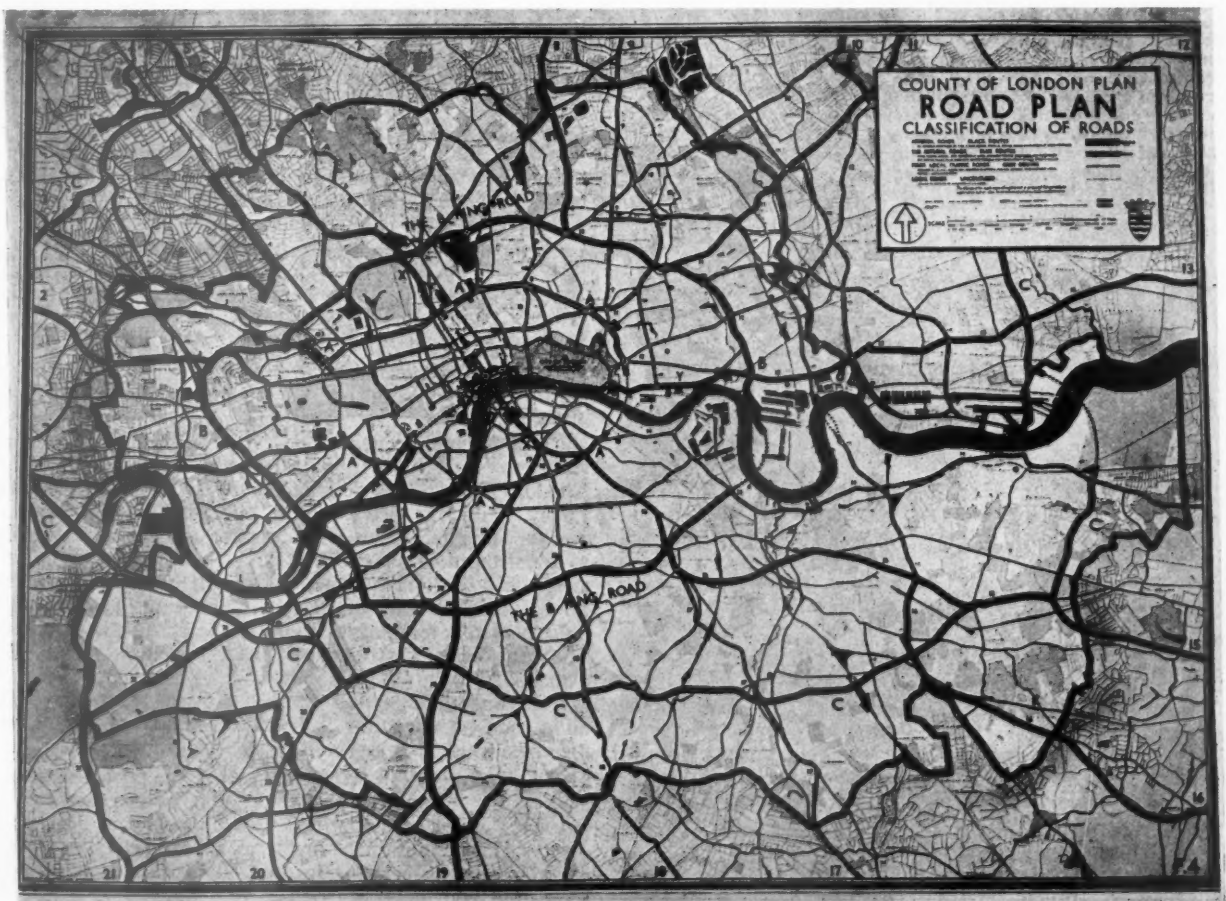
**8. FULHAM :** Thinks that a population density of 136 persons per acre should be adopted for Fulham as against proposed 100 persons per acre suggested in Plan.

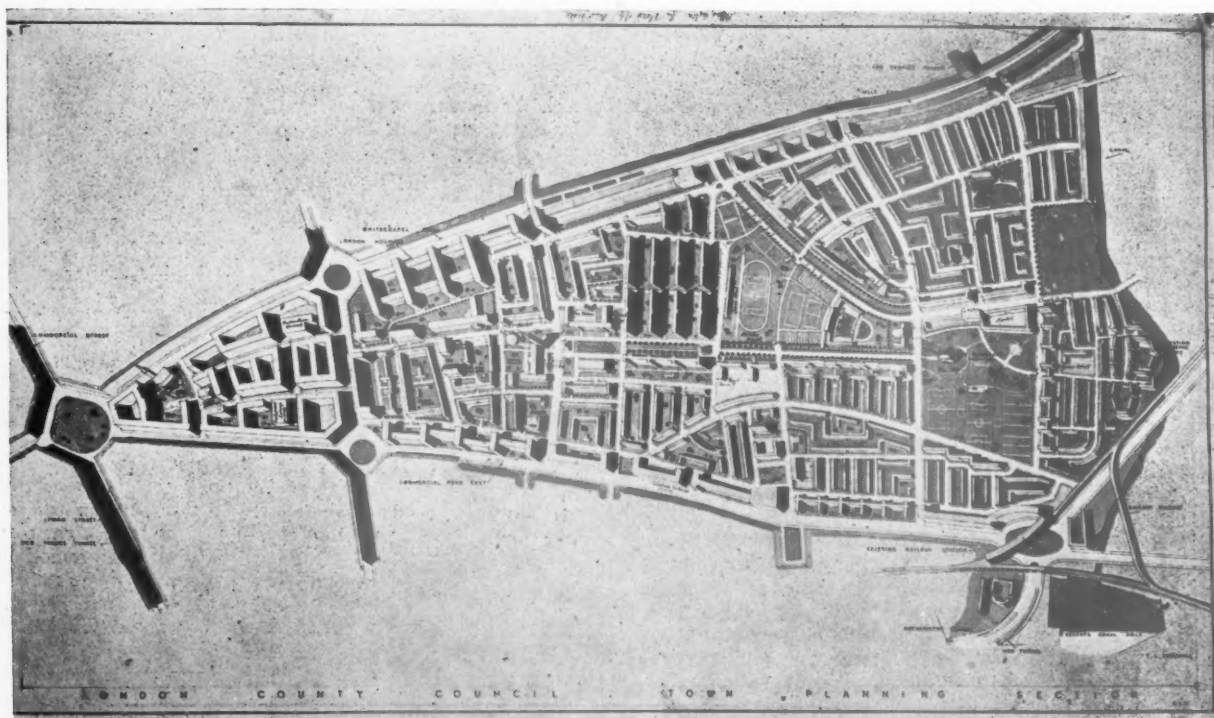
**9. GREENWICH :** Has informed the London County Council that it is in general agreement with the principles contained in the Plan, but will not be able to make detailed observations until more precise particulars are received, together with large-scale plans of the proposals as they affect the Borough. A report has been prepared by Councillor Binns.

**10. HACKNEY :** Accepts principle of decentralization "if increased living amenities are to be provided"; of the opinion, however, that the same positive directives should be applied to industry as to population "for the reason that decentralization of population without industry will result in even greater traffic chaos and waste of time in daily travel than at present"; considers that four acres per 1,000 should be minimum open space; takes "strong exception" to the proposal to have blocks of flats eight to ten storeys high, which are said to be completely unnecessary. Density of 100 per acre accepted for Hackney.

**11. HAMMERSMITH :** "Strongly deprecates" suggestion that large areas of the Borough should have density of 200 persons per acre, and should be used for building of flats of from eight to ten storeys; protests against inadequate accommodation standards in Plan; suggests that "standard adopted for rehousing is considerably below that in the Borough's estates."

**12. HAMPSTEAD :** Draws attention to close relationship between proposals to decentralize population and need to decentralize industry; suggests maximum density of 50 persons per acre for Hampstead and other outer areas of the County (as against 100 proposed in the Plan) and 200 persons per acre for central areas. Is opposed to some of the road proposals in the Plan and makes detailed suggestions.





Above is an axonometric view of the suggested layout of an area in Stepney between Mile End Road and Commercial Road East. Housing is based on a nett density of 136 persons per acre. Industry is tidied up and regrouped round the edges on the main roads. Below is a diagrammatic map showing the proposed grouping of several of the existing communities in the East End and South Bank area into clearly defined units, with schools, public buildings, shops and open spaces allocated to each.



**13. HOLBORN :** Says legislative power to deal with decentralization of industry as well as population will be necessary; erection of blocks of flats exceeding seven storeys "does not commend itself to us"; "we are of opinion that standards of floor space as recommended by Medical profession should be observed"; all new buildings should be easily convertible for air raid protection and ground floors should be of sufficient strength to withstand a crash load; criticisms are made of road plans.

**14. ISLINGTON :** Accepts need for flats in immediate post-war planning, but is opposed to flats above four storeys; considers Plan's proposals for distribution of open space within the Borough are "ill-advised."

**15. KENSINGTON :** Generally approves and welcomes the Plan, but regrets Government has not acted on recommendations of Barlow Commission; advocates "early and substantial decentralization" and "criticizes the County of London Plan . . . because it would stabilize the present population of London, diminished as a result of bombing and other war causes, and does not contemplate that substantial removal of industry and population" recommended by Barlow. "We cannot state too strongly our view that the future population of London should be determined by a National Planning Policy. "In our view . . . the London Plan . . . does not go far enough . . . special measures are urgently required to arrest the flow back to London of population immediately after the war—unless regulated—might prevent the realization of even the moderate proposals of the London Plan; objects to redevelopment at 200 to the acre as not desirable since this density would completely exclude terrace and detached houses. It is pointed out that the population of the Holland ward would be raised from 18,000 to 45,000 all in eight- to ten-storey flats . . . "we cannot think this is the considered intention of the planners."

**16. LAMBETH :** Does not favour the proposed density of 200 per acre and favours 136 to the acre, which would provide for 67 per cent. flats up to seven storeys and 33 per cent. houses; to achieve this density would accept further decentralization; welcomes scheme for river front and the South Bank.

**17. LEWISHAM :** The Council approves of the plan as a whole and welcomes the proposed re-establishment of communities. Strong exception is, however, taken to the running of radial Road 16 across Blackheath. This it suggests "is fundamentally wrong from all points of view." Other amendments are suggested in the road proposals. The Council states that the parts of the Borough which require re-development can be rebuilt "without the necessity for any great number of flats provided that the final population of the Borough is understood to be in the neighbourhood of 238,000 and not more than a quarter of a million."

**18. PADDINGTON :** Notes that Plan "involves increase in density in the area north of Hyde Park to 200 persons per acre"; according to density zoning population of Borough should be 100,000 (pre-war actual 138,000), yet Plan provides for "an unexplained figure of 130,000; recommends that 50 years' plan be made a 25 years' plan; approves four acres per 1,000 open space proposals; draws attention of LCC to the fact that "if proposed densities are adopted no means are indicated for re-housing surplus population."

**19. POPLAR :** Approves Plan in general; considers greater decentralization of population from the Borough may be necessary in order to achieve an adequate housing standard; urges that blocks of flats should be kept to a minimum, and that proposed density of 136 persons per acre should be reduced to 100 per acre; considers that further research should be undertaken in order to adjust the balance "between the industrial proposals and the residuum population." Makes detailed suggestions on road proposals.

**20. SHOREDITCH :** The plan is welcomed and is approved in principal.

**21. SOUTHWARK :** Congratulates authors on this "excellent publication"; favours community grouping—"no effort or reasonable expense should be spared to foster the community outlook and raise the standard of living conditions of the inhabitants of the units"; industry must be restricted to definite areas; land in Northern area should be brought into public ownership to ensure proper development and "to ensure that the enhanced value of the property beyond the scope of the ordinary betterment provisions of Town Planning legislation, is available for the benefit of the public as a whole." If Borough is to retain pre-war population greater part will have to be rehoused in flats, although "we sympathize with the desire to provide a cottage type of development, as we feel that every family is entitled to expect to obtain ultimately its own house and garden"; does not, on the other hand, agree that population of Borough should not exceed 80,000.

**22. STEPNEY :** Considers that it is possible to provide houses with gardens for 60 per cent. and not 40 per cent. of the population, while at the same time providing accommodation for 130,000 persons (pre-war 200,000) as against the 94,000 proposed in the Plan; reluctant to accept reduction in population proposed; against high proportion of flats; proposes reduction of open space proposed, by 50 per cent., in view of proximity to the river.

**23. ST. MARYLEBONE :** "Without policy of controlled decentralization of population and industry, desired amenities and living conditions cannot be provided in many areas"; all private squares should be made available as public open spaces; considers "A" ring road "entirely unnecessary and grossly extravagant"; while Borough is proposing to substitute blocks of

flats for workers in offices, factories and shops "we think it would be disastrous" if the whole of the Borough were developed as suggested by the Plan.

**24. ST. PANCRAS :** Has 507 acres of public open space, 20 per cent. of total equal to three acres per 1,000 of population as against London average of two; decentralization necessary for "an improvement in the living conditions of the inhabitants," but doubts whether amount proposed is necessary or desirable; suggests rehousing on southern part of Parliament Hill Fields with compensatory open space elsewhere; recommends "highest possible percentage" of two- or three-storey houses.

**25. STOKE NEWINGTON :** Plan provides for population of 50,000 compared with pre-war 50,250; whole of Borough falls into 100 persons per acre zone, and suggests 60 per cent. dwellings and 40 per cent. flats; considers it should be possible to provide, over large areas, a greater proportion of houses; on basis of four acres per 1,000, Borough needs an additional 143 acres.

**26. WANDSWORTH :** Has taken "the strongest exception to the proposed change in the method of residential zoning, as in our view it would enable too great a provision to be made of a form of development (*viz.*, blocks of flats), which is not favoured by a large section of the community and does not, moreover, provide the same effective control over development as does the specific density zoning for dwelling houses"; new zoning applied to Wimbledon Common area would in Council's view "rob the residents of the amenity protection now provided and almost amount to a breach of faith"; would approve of density of 20 houses to acre, but disapproves of density calculated on population basis.

**27. WESTMINSTER :** Commends the Plan as "an outstanding piece of work"; Government area should be extended along Carlton House Terrace and in the neighbourhood of Trafalgar Square; unable at the moment to express an opinion on density of 136 per acre or on proportion of flats to dwelling houses this will allow, as Borough Council intends to examine question in greater detail. Further open space should be provided in Pimlico; approves clearance of wharves at Pimlico; conversion of Regent and Oxford Streets into shopping precincts would be "gravely prejudicial . . . very inconvenient . . . and cause serious injury to the West End"; fullest support for Abbey and Parliament amenities proposals; proposal to decentralize Covent Garden "should not be entertained except on proof of overwhelming public advantage"; undesirable to fix "such a high density as 200 persons to the acre or to approve of the erection of eight- or ten-storey flats"; proposal to erect a substantial number of flats would "damage distinctive character of the residential portion of the West End," and "would not serve the best interests of London."

**28. WOOLWICH :** Has forwarded a number of proposals to the London County Council and the Metropolitan Boroughs Standing Joint Committee saying: (1) That final planning for the County of London is not possible until a National Planning Scheme and a Greater London Planning Scheme have been drafted; suggests (a) the Government be urged to set up a Central Planning Authority without further delay, and (b) that pressure should be made for publication of a Greater London area plan. (2) That proposals in the County of London Plan provide for too much housing in flats; national planning of Industry should make possible a larger decrease in the population of London than is suggested in the Plan, and therefore (a) suggested ultimate population of the County of London is too large, (b) provision of large numbers of



huge blocks of flats in the outer Boroughs is both undesirable and unnecessary, (c) in Woolwich the bulk of the flats generally should not exceed three storeys, and (d) the nett density of 100 persons to the acre is high and should be reduced to 65; wants an extension of riverside promenade,

## PLANNER'S SCRAPBOOK

### REILLY FIGHTS ON

Those who have watched the Birkenhead battle of the plans and have admired the professor for tackling the goliath of unimaginative suburbanism will be well pleased to hear that Reilly is far from beaten. In the correspondence published below, he gives us glad tidings, of a unique architectural by-election. He is rallying his forces for the next and more important round. He even tries to harness the support of the RIBA, but finds that august body disappointingly olympian and above the strife of the mortals.

Sir Charles Reilly to the President of the RIBA on August 17, 1944.

Dear Mr. President,

I have just been informed by the Vice-Chairman of the Town Planning Committee of the Corporation of Birkenhead that you have now nominated, at the request of the Birkenhead Council, an architect, my friend and old student, Herbert Rowse, to supervise the designs of the 3,000 odd buildings for the new satellite town of Woodchurch. When I called to see you in the matter I explained that there was considerable controversy here over the layout of this new town, whether it should be on ordinary suburban lines as suggested by the Borough Engineer in his plan for the town or on community ones as suggested by me, the town planning consultant to the Borough, in mine, and that by a strict party vote the Conservative Members of the City Council, who have a small majority, had voted for the Engineer's plan. The Labour Councillors, who may be said to represent more directly the future inhabitants of the new town, which is to take the overspill from the crowded working class areas, were and are equally solidly for mine. They go further and say the matter is not finally settled and will not be until after the next municipal election, which they now anticipate will be held before Christmas. At that election community planning versus suburban planning, that is planning with the houses in the main looking towards one another across open greens instead of looking away from one another on curving roads and each hiding behind its little private hedge, will be the main issue. At any rate the well organized and led Labour Party here inform me they intend to do their best to make it so. It

should be a grand election.

Under these circumstances it seems a pity the appointment of the supervisory architect was not held up as I suggested. I am afraid it may now appear that the RIBA is on the side of suburban against community planning, and that it favours too the Borough Engineer's type of plan with its pairs and groups of houses scattered about on curving roads, exposing their backs and sides, the sort of plan indeed which has already destroyed such vast areas of the countryside, rather than a comparatively compact one, and further, that it supports a borough engineer's one against an architect's. You may say that the appointment of a supervisory architect for the buildings has nothing to do with the layout plan, but good buildings on a bad plan can never make a good town, however good their architect may be. Rowse's appointment by you at this moment, or that of any architect, to carry out the Borough Engineer's middle class, suburban ideas is, I suggest, to prejudice the issue and to put the Institute on what, I venture to think, the majority of architects, certainly the majority of the younger ones, will consider to be on the wrong side of the controversy. After a public election has been held as to the type of plan Birkenhead really wants, probably the first of its kind in the history of elections in this country and possibly in the history of architecture too, it would be a very different matter.

Yours sincerely,

C. H. REILLY

My Dear Percy Thomas,

May I publish the above with your reply? I am sure the latter will explain that the RIBA does not favour suburban planning at the expense of community planning. Did you see Robinson's plan? If so, you will know it is exactly the type of plan the speculator produces to sell houses to the middle class, whereas a Corporation under the Housing Acts may only build houses to rent to the working class.

Yours,

C. H. REILLY

The President to Sir Charles Reilly on August 22, 1944.

My dear Reilly,

In reply to your letter of the 17th inst., I am afraid that I cannot agree with your views on this subject.

The position, as I see it, is

quite simple. The Town Clerk of Birkenhead wrote to me informing me that his Council had approved the lay-out of an estate at Woodchurch, Birkenhead, which included the immediate post-war erection of some 550 houses, and requesting me to "recommend an architect to advise on the design of the houses and buildings to be erected on the estate."

Whatever differences of opinion may exist as to the design of the lay-out of the estate, they do not, to my mind, affect the position. A Public Authority, having decided upon a course of action, and, through its Town Clerk having approached the RIBA to help them in the appointment of an architect to advise on the design of the houses and buildings, we have, in my opinion, no possible alternative but to comply with their request, and indeed to be very grateful that they consider the services of an architectural adviser necessary.

Yours sincerely,

PERCY THOMAS

Letter from Sir Charles Reilly to the President of the RIBA, 24th August, 1944.

Dear Percy Thomas,

Thank you for your letter of the 22nd which has reached me in the country. You do not

say whether I may publish it together with mine, but I shall assume you mean that, if I do not hear from you to the contrary by the time I reach my office at Birkenhead on Thursday next, August 31st I leave here on Wednesday.

Yours sincerely,

C. H. REILLY

Letter from the President of the RIBA to Sir Charles Reilly, 29th August, 1944.

My Dear Reilly,

I have no objection to your publishing the correspondence—though I must say I cannot for the life of me see any reason for doing so!

Yours sincerely,

PERCY THOMAS

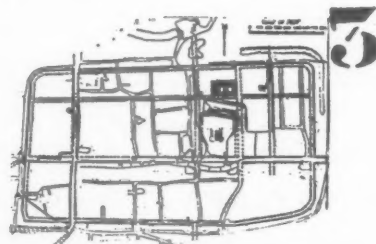
It is evident that the President's reply was a model of correctness and that Reilly in asking him to enter into the dispute has demanded the impossible. But it is equally evident that Reilly, who is fighting the battle for all planners, has little hope of receiving support from the representative body of the planning profession. Perhaps he would do well to look for assistance elsewhere in quarters that are less magnificent but more likely to take an active part in the planning struggle. What about the maquis at Ashley Place?

## PLANNER'S QUIZ

### THE ANSWER TO THE LAST PROBLEM

New Orleans, USA—19th century. Typical example of American chess-board planning with no character zoning and no regard to geographic features; its sole advantage being convenience in disposing of parcels of land to real estate developers. The particular confusion in the pattern here is caused by the winding of the river.

Can you place this town pattern? Its historical background, the form of social organization underlying it, the town planning approach employed, the locality?



Answer in the next Physical Planning Supplement.



*To what extent have the towns of northern France, and in particular of Normandy, been devastated during the past three months? Is Caen completely ruined? What of Caen's Cathedral of St. Pierre? Has Bayeux really escaped unscathed? How have the villages fared? What did the Normandy landscape look like when the fire of battle had passed, and what was life like there? Here, Captain Watkins, who recently toured the north of France in the wake of our advancing armies, answers these questions with first-hand knowledge.*



## BAYEUX

had the

## BREAK

[By ERNEST WATKINS]

I had never been to Normandy before. All my previous journeys in France had started in Calais or Dunkirk and spread east or south-east. So, when I stood on the deck of the LST and watched the outline and then the detail of the country around Courseulles become clearer, I had no preconceived notions of what I was going to see. It was July. The early morning was misty. In fact, it was nearly mid-day before it cleared sufficiently for us to see any distance at all. By then, we were close in to the shore. What I found was partly the France I knew, on the east of what was then the bridgehead, partly another England, in the west.

I landed in an amphibious truck on a beach of sand. At first the only visible traces of the assault were one or two wrecks, LCT's and assault craft. The German obstructions had been swept up, their strong-points merged into the line of the dunes; the scattered houses were apparently intact, even the spires of the churches seemed to be whole. It was only when you came close to village or cottage or spire that you began to see that all was not quite as perfect as once it had been.

But war is a chancy business. I doubt if even the Supreme Command itself could,

on June 1, have laid you any odds as to whether Caen or Bayeux was the more likely to be damaged in the coming month. Bayeux escaped. Caen did not.

Bayeux was none the less a fantastic sight. Until the battle for Normandy was over, it was the one big town in the British area. In peacetime it must have been a very quiet, and probably very dull, market town, lying in a dip in the low hills, on a river, dominated by its cathedral and possessing one main tourist hotel, the Lion D'Or. The cathedral is splendid Norman. Around it are a few streets of old French houses, their high walls hiding them from the road, magnificent wrought iron gates giving a glimpse of a garden of trees and shrubs but none of the house itself. Or rows of three and four-storey houses each with a small shop underneath, reserved, plain, inhabited by people whom you felt were interested solely in their neighbours and their town, nothing else. Paris is a long way from Bayeux. The one or two smart new shop-fronts in the main street only emphasized that.

The invasion thrust into this town an avalanche of troops. Every evening the main streets were solid, five abreast, with British soldiers. The roads were blocked with never ending convoys. And there was nothing to do. The cafés remained closed because they had so little coffee. By the time I got there all the alcohol had been finished. I drank the last of one earlier arrival's bottle of calvados. I heard that in Cherbourg there was a black market in which calvados was already up to 300 francs a bottle. (It may have been true: Cherbourg struck me as a place in which a black market, in anything, would first arise.) And until NAAFI produced its famous reputed quart there was no beer. With nowhere to sit and nothing to drink, there really was nothing to do in Bayeux.

Except, of course, work. It was only when you sat down and thought that you realized how much work had been done and how little time had been spent in doing it. Most of Normandy is not unlike Cheshire. Imagine that the Dee in Cheshire is the line of the coast. There are some minor variations. The sandstone in Normandy is yellow and is hard enough to be used as the local building stone. There are almost no brick buildings and no black and white timbered houses, only solid stone houses, clustered in tight little villages along a short stretch of road, with orchards at the back, often a magnificent Norman church, occasionally a grand chateau in the best style. But the landscape is very like Cheshire. The fields are hedged. There are very English copes of very English trees. The lanes are narrow and cut down deep and wind in an irregular English fashion. You think it is England until you realise that, dutifully

as you have admitted that Normandy might be full of Norman churches, you are still insular enough to be surprised that those who introduced so much that was Norman into Britain, had, when they sailed in 1066, the same kinds of fields and woods at home, as those they proceeded to make in Britain.

That country became the battlefield. Such a phrase can create quite a false picture, because what happens to a countryside when you fight through or over it depends almost entirely on how long the battle lasts. Take the coast fringe first. The fighting there lasted about a day, but was heavy because normal artillery was replaced by much heavier naval gunfire. In that area you will find that most of the houses have one or more shell holes. A room has gone, the roof has been pushed sideways, the tiles are shaken loose and spilt over the garden, one wall or another is pock-marked by bullets. But, roughly speaking, in any one village, about 60 per cent. of the houses will be habitable (unless it rains too hard), and very few of them will have completely disappeared.

Oddly enough from the ground you see the damage to the houses and imagine that the countryside itself has escaped. From the air the houses look intact, and you see for the first time the bomb-craters that fringe the coast.

When I was in Normandy, the depth of the bridgehead varied between fifteen and twenty miles. Towards the west, around Bayeux, the first rush after the landing had carried us most of fifteen miles before resistance stiffened. In the east, the belt of ground that was occupied rather than taken by battle shrinks to five miles. Inside that belt there is very little damage. On the southern fringe are the real battle areas, the country that contains Caen, Fontenay, Tilly-sur-Seulles and Villers Bocage. But imagine that, in July, you were setting off from the beach to visit the forward area around Tilly. What would you have seen?

The beach itself had become no more than a transhipment area, where goods are taken from one container, the ship, and dropped into innumerable smaller ones, the trucks that are to take them into the beach dumps for sorting. The first thing you noticed was the improvement in the roads. Formerly there had been but one main road, that from Caen to Bayeux and on to Cherbourg, running laterally across the front, and several not quite so wide, but still roads of good tarmac surface running north and south. But these subsidiary roads were too narrow for two lines of military traffic. They had to be widened, and they were, usually by filling in the ditches and building up the shoulders with the soft yellow stone. There was hardly a road without its gang of Pioneers



War devastated Montebourg in the Cherbourg Peninsular.

working somewhere along its length at this essential job.

Those were the roads for wheeled vehicles. Tracked vehicles were kept off the roads altogether. For them, a system of tracks had been marked out, simply a scraped line down an open field or torn through an orchard, skirting each village and reinforced, where necessary, with a wire netting surface.

The next thing that leaped to your eye would be the system of direction and location signs. At first sight, those were incredibly confusing, but, once you grasped the system, you could hardly lose yourself. The biggest signs were those marking the way to Army HQ, but every unit seemed to have its own means of identification. It is common throughout the Army. Base units rely on their number and initials. "No. 1 BAD" is No. 1 Base Ammunition Depot. But all Divisions and higher formations have their own sign, a tiger's head, for example. That identifies the formation. Again, each arm or service has its own colours. Red and green, divided diagonally on a square, are the colours of the RASC. And each unit in a Division has its own serial number, and the corresponding unit in another Division has the same number. Similarly, if you pass a camp (or, more likely, a gap in a hedge), outside which certain signs are displayed, you know that that is the temporary home of the company. It makes life much easier, particularly as the same signs appear at night in the form of a shaded oil lamp.

Then there were the innumerable additional signs of what must have been the best controlled traffic area in the world. Diversion signs, one-way street signs (some of the village streets are so narrow that a one-way traffic circuit was essential), even signs requesting you to make no dust as dust clouds are shelled, existed everywhere, supervised by the Military Police. And, if you did lose your way, in spite of everything, at every crossroad there would be a traffic policeman on duty, standing all day in clouds of dust often thick enough to be the equivalent of a London fog.

You drove south. You crossed the main Caen-Bayeux road, usually, then, a solid traffic block, even though the enemy front line was no more than three miles away. Such is the advantage of complete air cover. And, as you drove towards Tilly, you came into a country much more like England again. Little, flat valleys, with steep sides covered with orchards and woods. More arable land, hedged in, and fewer of the wide cornfields. And there were more signs of war.

At first you noticed that it seemed to be only the church that had suffered. Sometimes the spire had been completely wrecked, sometimes it was merely punctured with a few shell-holes, bright

yellow circles on the more weather-beaten stone. That was because, there, only snipers had been left behind to delay the advance, and they invariably seemed to choose the churches as their vantage points. But, further south, the villages themselves were battered. Here a gable end had gone, there half a roof had been blown away. Sometimes the cottage had been burnt out. But the traces are not very noticeable. Everything had been cleared from the roads, and the hedges and trees and the standing corn seemed unharmed.

But, gradually, you noticed that the Army signs had disappeared, and that there were far more broken branches and dying leaves along the sides of the road. The telegraph poles and wires were wrecked, and the wire still lay around untidily in coils. There were holes and scars on the surface of the road, only roughly filled in.

Suddenly you realised that you hadn't seen anything move for a long time. The fields were empty, no one on the road or in the last village. Not even a cow in a field. Then probably you saw your first dead cow, swollen, its legs pointing ungainly into the air, its hide wet and dull, without the sheen of the living beast. Then you smelt death, and that smell remained with you.

You moved further forward, uneasily now. Ahead a thin cloud of smoke drifted slowly up from a wood on a hill, the broken branches alongside the road were quite fresh, the craters in the road had not even been roughly filled in. A hundred yards ahead there was a shattering crash and a light cloud of bluish-grey smoke that faded away almost at once. You stopped, and a voice from someone quite invisible in the hedge alongside you said, urgently, "Get down, you fool, they're mortaring this road."

You had reached a forward area. Of all villages, Tilly-sur-Seulles is perhaps the worst in Normandy to see. It was fought over and through for several days. Originally, it must have been a very pleasant little place, with a large square, of grass, in the centre, lying on the dip into a little valley, and with a picturesque chateau a quarter of a mile away to the east. All the houses were of stone, old, close together and with a certain eighteenth century style.

When I was there there wasn't a complete house left. Not even a house that could have been repaired. Fire had finished off the work of the guns. Sappers were pulling down the ruins and smoothing them flat with a bulldozer. Tilly lies at the junction of several roads, and the Sapper Subaltern told me it was intended to make a circular roundabout in the middle of what had been the square. He said they were going to call it Piccatilly Circus and, instead of Eros, put up again the statue of Joan of Arc that had formerly stood on a pedestal in the square.

I found the statue. It was lying on its back on one of the few remaining square yards of grass. It was cast iron, and a shell fragment had knocked out the whole of the left breast. I felt it must have been one of ours, knowing our unfortunate record with Joan of Arc.

Cherbourg is an example of another kind of destruction. The old town, round the inner harbour, was hardly damaged. The church on the Place Napoleon had simply one hole in the roof, and Napoleon himself on his pedestal, undeservedly enough, had been luckier than Joan, and escaped intact. The town was obviously prosperous. It had been liberated a month when I was there and had settled down to an American occupation. There were bowls of cream and piles of yellow butter in the shops, and Camembert cheeses in scores, and in the market place was one of the best displays of cut flowers for sale that I have seen outside the West End of London. You could buy lengths of tweed and the speeches of General de Gaulle. It looked very contented.

But the harbour had been scientifically wrecked. Here was no casual destruction. Every ounce of explosive had been made to do its work. The main quays had wide segments torn out every fifty yards. Wherever there was a channel in the main anchorage a ship had been sunk in it. And the Maritime station, alongside the main pier for Atlantic liners, had been shattered at either end, the steel supports of the concrete piers and arches cut away. Architecturally, I felt it was no permanent loss to France, for it dates from the time when French concrete design seemed to have been not yet free from the influence of the Loire chateau style. But it will be a long time before you disembark at Cherbourg into anything more substantial than a temporary shed.

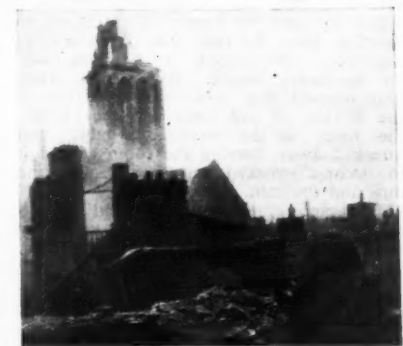
The destruction in the harbour area had not been one-sided. The Germans had built an anti-tank wall all around it, and studded the wall with singularly ugly concrete shelters, massive things of reinforced concrete, with walls 6 ft. thick, and a roof, even thicker, resting on steel girders. One of these had had a direct hit, probably from a bomb. The walls were



Left below, the interior of the typical village church at Carpiquet, wrecked by shells. Right below, a procession outside unscathed Bayeux Cathedral on July 14 when British troops joined with the liberated population in the Bastille Day celebrations.



Above, Caen immediately after occupation by British and Canadian troops on July 9. Large areas of the town are in ruins from bombing and shell fire. The damaged Cathedral tower is on the left. Right top, a view of the Cathedral, the exterior of which has largely escaped. Right centre, mopping up snipers in Caen. Right bottom, a street in Caen before the war looking towards the Cathedral.



burst outwards and the roof had settled down nicely on such occupants as it had contained at the time. I have no doubt that this collapse came as quite a surprise to them. But the whole harbour area was a standing example of the ultimate danger of strong-points. The anti-tank wall had been useless, for the tanks had come up from the other side. And as for the concrete boxes, their embrasures could command only a small arc and, once inside, who would never have ventured out until the attack was over—at which point it would be advisable to do so with the hands raised.

They say you can put the whole of the population of the world into the Isle of Wight, and there were times, in the bridgehead as it was then, when you wondered at the number of people there and times when you wondered at the empty spaces that were still left. Of course, no one presumed that German aircraft would never visit them by day (they came over bombing most nights), and everyone dug themselves in as soon as they moved into a new location, and saw to it that their trucks and shelters were properly camouflaged. But the unexpected things cropped up in the most unexpected places. A cornfield would contain its neat piles of 500-lb. bombs for the RAF as well as its stacked corn. Or you would hear the roar of an aircraft engine and see a cloud of dust, and up from another cornfield would come a Typhoon, taking off with its rockets under its wings. The control tower for that airfield was a caravan and the aircraft were dispersed in the uncut wheat.

But it was not only military equipment that you could see. I spent one day at a rest camp by the sea. It was in a farmhouse in a cleft between the sandstone cliffs. Half a mile away was a German coastal battery. It had been heavily bombed the night before D-day but, although there were

craters just short of the farm, nothing there had suffered save from blast. The occupants had long since disappeared.

There was a bathing beach, fishing in the local smacks (hired for the occasion), horse-riding (on German ex-cavalry or artillery horses), a cinema, a big NAAFI, and an open-air stage (I just missed George Formby's visit). At the bottom of the cliff some ingenious squad had rigged up a temporary but very good hot shower. The sea was blue and the shipping, dimly visible, further down the coast, through the heat haze, gave the cove an air of seclusion simply by the contrast. There was only one thing to remind you of the war, but that one thing was enough. The whole place was in the middle of one big minefield. There were mines all around the battery. The scrub-covered cliffs were mined. The hedges were mined. Only the roads and some of the fields further inland gave you any feeling of safety. The signs indicating the mines hung everywhere. There was no need to worry about people straying from the few paths to trespass. A little carelessness and your holiday would come to an abrupt and permanent end.

The men came there from all the fighting units. They had three full days, with the minimum of military discipline. If they didn't want to get up, they could stay in bed. There was even a laundry of local girls who did all their washing the first day they arrived. The camp contained about 850 men at a time. They slept in tents, but otherwise it was very like a holiday camp (save for the absence of girls)—except that it was rather more needed than most. Bomb-happiness, shell-shock, call it what you will, is generally fatigue, and three days in a camp like that would save many from a much worse and much longer rest.

But to go back to Caen.

I saw it first very shortly after I landed.





Above, the village of Lebiezy; a scene reminiscent of the last war. Right bottom, a sketch of the ruined tower of Caen Cathedral by the author.

about a week after we had taken Caen itself, but when the Germans were still just across the river that runs through the middle of the town, dividing it from its southern suburb, the Faubourg de Vaucelles. I set out from Ouistreham, a small town on the coast at the mouth of the Orne River and the canal from Caen to the sea. Ouistreham had been the most easterly point of the original landing. You would have guessed it had been something of a fashionable seaside resort before the war. The streets are lined with trees, the buildings range from fairly big hotels to the small seaside villa, of the kind that are named Clovelly or Craig-y-don in the corresponding towns in England. Here, again, most of the larger houses are stone. The cheap bungalows are built of hollow tiles, very flimsy, and ill-adapted to withstand shellfire. There are some shops but more cafés, called Jack's Bar, or some such name. A few of them were open. So were the ladies' hairdressers. They always seem to be the first shops to start again, for obvious reasons when you come to think.

But Ouistreham was almost deserted. The Germans were just across the river, and those who had evacuated the town had not returned. But the main roads had been tidied up and the bomb craters filled in. Driving down the road you didn't see the superficial damage, only the big gaps made by the heavy bombs. It was only when you stopped that you could see, behind the foliage of the trees and the shrubs, the holes in the houses, a gable end knocked away, leaving the room behind it to become streaked and shabby with the dust and the rain.

The bomb craters were rimmed around with greyish clay. These were very different from the craters further inland, where the clay was yellow and each crater looked fresh and raw. One bomb had dropped in front of a big school. It had left the structure intact but had blasted everything movable away. It was a new building, with wide windows, the outside plaster painted bright yellow and crossed with bogus oak beams. The place was big enough to carry that off, and you couldn't help thinking that it was a pity that such a building had had so short a life.

But I did not want to stay in Ouistreham, so we took the road by the canal to Caen. About two miles along it you reach the glider country. They are still in the fields, as they landed on June 6, gaunt, angular machines, painted black, with the white identification bars on each wing. Some were badly damaged, some you would have said could have been flown away again after a few simple repairs. They seemed to stand out as a perfect example of the extravagance of war. The paint on them was still fresh and unmarked, they looked so carefully made, yet, in the end, they

had been built for just this one flight, and after that they lay abandoned in a field, simply obstacles to the harvest. You felt that they ought to be used again, if only to justify their original cost.

We went on, through Benouville, where the Airborne Division had captured the Orne bridges intact (and renamed one Pegasus Bridge, after their Divisional sign), and Blainville, then turned off the main road to the right as the last stretch into Caen was still under enemy observation and fire. The lane to the right was very like an English lane, thorn and bramble on either side and flanked on the left by a cornfield, on the other by a pasture. But an aircraft had recently crashed at the corner of the pasture, singeing the hedge and littering the field with odd scraps of shiny and twisted metal, and in the corn a battery of Canadian medium guns were digging in their 5.5s. The lane led up a rise to the village of Lebiezy, in which we should turn left again for Caen.

Lebiezy had been a German strong-point in the attack of a few days before and had been shattered by the bombardment. About one wall of every cottage was still standing. The high wall surrounding the park of the chateau was full of holes. The chateau itself had been gutted. Oddly enough, at the crossroads, facing the chateau gates, was quite an extensive factory, with a big machine shop. It was a litter of broken lathes and shafting, the corrugated iron of the walls and roof blown away or twisted, the machinery rusted and useless. It was difficult to tell the shop from the pile of scrap metal in one corner of the yard.

But, somehow, the village was no surprise. It was infinitely more badly damaged than anything I had then seen, but it corresponded with the mental picture I had made of that kind of scene. Perhaps the origin of that sense of familiarity lay in its resemblance to pictures of French villages in the last war. It was very like them, battered, deserted, but still a village.

It was quite empty. One MP on point duty at the crossroads. No one else in sight, not an animal, not even a cat.

We turned south for Caen. Beyond the village the devastation ceased and we were back in the cornfields, and standing corn can hide so much. There were only the broken poles by the roadside and the occasional shell crater. The road ran level and straight for about a thousand yards, then turned right and then left, as it led down into the northern suburbs of Caen. There were some more yellow bomb craters in a potato field on our left, and over by the hedge I could see a burnt-out tank, already a yellowish red where rust was replacing the burnt-away paint. Then we were running down a most uneven track between two lines of irregular tree stumps. On either side was a wilderness of bomb craters.

It was not until we had gone two or three hundred yards that I realized that we were driving through what had once been a built-up area. I saw about a third of a house, standing ten yards back from the track. In front of it was a mound of rubble and debris of every description, and the mound was surmounted by the twisted remains of a saloon car. The house looked as though it had been smashed to pieces by a giant crowbar, and that it was pure chance that any portion of it still stood. It had been rather a solid villa, devoid of style. You could see, from the glimpse you had of its inside, that it had been filled with the usual heavily ornate and varnished furniture of a French provincial town. That made it much worse. A thing of beauty, although dead, will have some of its grace and form left. This house left one with nothing but a feeling of shame and embarrassment.

This had been a suburb of Caen. Now it

was a wilderness of craters. There were literally nothing but craters. On either side of the road they overlapped and merged into one another, a churned mass of grey soil, grey timbers, grey mattresses and shattered furniture. The whole area was smeared with a film of grey dust. It was the most shocking sight I have ever seen. Destruction had been reduced to an affair of mathematics.

Further into the town some streets were, by comparison, virtually intact. Caen reminded me faintly of the older portions of Edinburgh, the same high stone houses and narrow streets, and though the buildings might be holed, missing half a roof, lacking a side wall, they were still recognizably houses. But in the centre of the town destruction was again complete. The cathedral had been burnt out, but looked as though it could be restored. Beyond it, to the river, the business and port area had been destroyed, apparently by fire. Houses, warehouses, shops had just fallen apart into a confused mass of fire-blackened concrete, distorted girders and broken and isolated walls.

I stopped the car and there was silence. Down by the river some mortars were firing. The sound of the firing and of the explosions of the answering fire echoed round the streets, losing all sense of direction. Behind the town the guns were firing over it. All these sounds only emphasized the silence. The wind made little spiral clouds of black dust. One hanging sign, over what had once been a chemist's, swung in the wind. It, too, made no sound. There seemed nothing in Caen to make any sound. Just up one side street I saw a civilian. He was short and dark, and dressed in dirty overalls. He stood silent and motionless outside a partially damaged warehouse. On the wooden door, loose from its hinges, had been scrawled in French, in chalk, "Temporary Mortuary. Danger of Pestilence."

We left Caen by the main road for Bayeux, leading out to the west. In the western suburbs there were still some inhabitants, as well as the Canadians at the dressing stations along the road. That section had been more fortunate. It had only been shelled, not bombed.

Then we were in the country again, among the corn, and the medium guns on our left, near the railway cutting, were in action, firing away to the south. The sun was coming out and the overcast overhead was beginning to break up into individual clouds sailing up from the south-west. It was much more noisy out there, where the guns were, but the noise was a great relief.







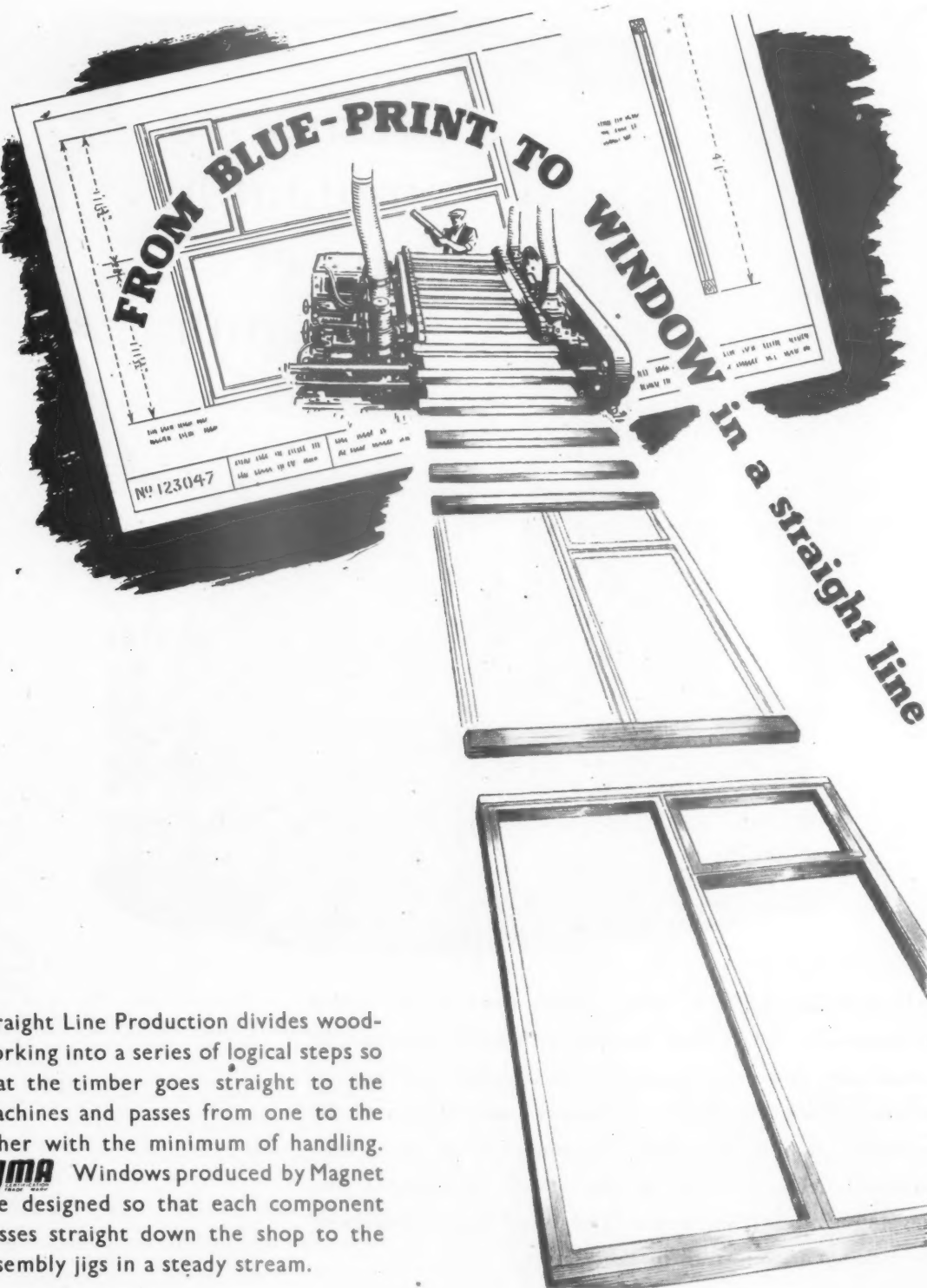
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# INFORMATION CENTRE

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

## MATERIALS

1612

Glass

GLASS IN ARCHITECTURE: THE MAKING OF GLASS. *John Gloag*; WHY IS ARMOURPLATE GLASS TOUGH? *E. M. S. Wood*; STRENGTH THROUGH GLASS. *R. H. Sheppard*; GLASS IN THE BUILDING STRUCTURE. *Howard Robertson*; GLASS PLUS DAYLIGHT. *G. Grey Wornum*; GLASS FOR SPECIAL PURPOSES. *Christian Barman*; THE SURFACE TREATMENT OF GLASS. *Kenneth Cheesman*; (Official Architect, June, 1944, pp. 257-273). Special number devoted to glass. Manufacturing technique. Practical and aesthetic applications to building. New structural and decorative uses.

Glass, like plastics, has emerged as one of the most versatile materials of the recent years. Improvements in the methods of manufacture have brought about great changes in the very qualities which have been regarded as characteristic of glass. Glass, as it has been known for centuries, is brittle, and its tensile strength is low. Yet it has become possible to use it for floors and walls in positions where it has to resist a considerable amount of impact. It has been used for thermal insulation. The control of the composition of glass and the development of special qualities for different purposes has now reached such a high degree of accuracy that it can be selected for the particular function it is called upon to play in a building.

Perhaps the most important special type of glass, manufactured for different purposes, is Armourplate glass. By a special process of heating and chilling ordinary plate glass, initial compressive stresses are introduced in its surface. When the process is controlled with due precision the magnitude of the compressive stresses thus set in the surface layers is not less than three or four times the magnitude of the tensile stress which would be sufficient to cause fracture. Before the toughened glass can be broken it must be loaded until first this compressive stress has all been absorbed and, in addition, its natural tensile breaking stress has been set up. Thus its strength to sustain a load has been multiplied by four or five, and it can be loaded until it will bend or be deformed four or five times as much as in its normal state.

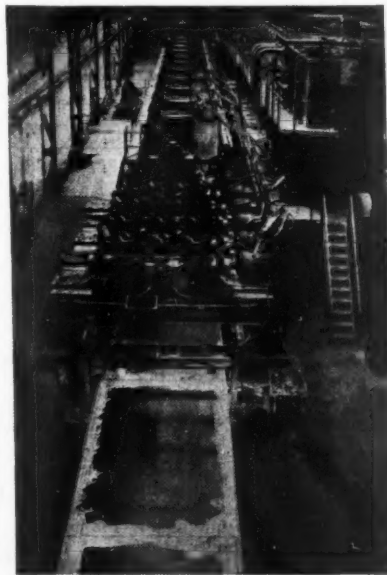
This increase in strength has opened up to designers possibilities totally at variance with the traditional use of glass. Doors and windows in which glass is used as a material complete in itself without framing in wood or steel have been employed. It has become feasible to weld steel direct to glass, so an all glass door may have a steel handle. Panel walls and partitions may be made of glass and rigidly connected to steel frames. New possibilities in panel construction have been created through glass-bricks.

Their manufacture results in an air space being left in the centre of the brick, which is virtually in two halves. They thus have a degree of thermal and sound resistance while retaining a large measure of translucency. The term "bricks" though is misleading. They are not capable of carrying a superimposed weight in the sense of masonry construction, but they are most suitable as a panel infilling where transverse strength may be required together with a general diffusion of light (for instance, as infillings to corridors with a north exposure).

The modern development of glass lens has concentrated on their use in framed structures. There is quite literally no limit to the sizes, curvatures and shapes which may be developed. Transverse strength can be developed for almost any given purpose including blast, and hence it has been used extensively in wartime construction. It is essentially a framed method of construction.

Another important development of recent years has been the introduction of glass derivatives which have a high thermal value. If light transmission can be combined with thermal insulation one of the disadvantages of glass construction will have disappeared.

There are a number of other glasses for special purposes with a wide range of uses. Also glasses with a variety of surfaces to provide different conditions of illumination. In all these fields the possibilities of the material have only just begun to be exploited.



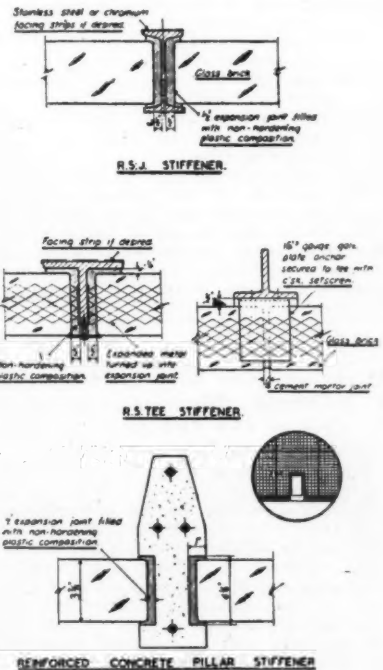
Left, original type of continuous grinding and polishing machine used in the manufacture of polished plate glass. The glass passes slowly through a battery of grinders and polishers emerging at the far end as polished plate glass. Right, Insulight glass bricks showing typical vertical stiffener. See No. 1612.

The structural use of glass gives the modern architect tremendous resources. He can utilize the structural frame as well as the panels of his building for lighting. He can, through the structure, control and vary the quality of the light. The conception of the interior design of buildings has markedly changed as a result. Columns and beams, partitions and walls can be designed so that divisions disappear.

This variety of uses, the flexibility which glass imparts to design, makes the material peculiarly subject to possible use and abuse. Examples of buildings (for instance exhibition pavilions) where the injudicious use of glass has made the interior an inferno, are not difficult to find.

On the other hand, the great number of cases where glass has been imaginatively used show the great practical and dramatic possibilities offered by glass for building purposes. The article, *Glass in the Building Structure*, gives descriptions and illustrations of some fine examples of buildings of both, when the use of glass governs and dominates the composition, and when it is definitely subordinated to the solids of the wall surfaces. An example is the Garage Marbeuf in Paris, a showroom for motor-cars with the cars staged in galleries visible from the street through what corresponds to a gigantic proscenium opening, the man in the street being in the position of the spectator in the stalls; a proscenium filled with glass, huge sheets of it, with glazing bars specially sectioned for wind bracing. In the famous Church of Le Raincy in Paris the light comes from innumerable small panes of glass set in the clever concrete geometry of the patterned windows which are continuous round the church; as a result the interior of the church glows with light, coloured light, ranging through yellow, carmine and azure; a magnificent demonstration for glass, glass creating the dominating effect.

In the very fine modern architecture of pre-war Holland the possibilities of glass were well grasped. The walls of a semi-circular staircase hall of an Amsterdam





school (designed by Dudok), are made of glass bricks throughout the entire height and round the greater part of the semi-circle. These glass bricks are not interpolated; they are a basic feature of a modern structural conception.

Glass brick walls and glass screens may have great promise in large private houses, in clubs, restaurants, hotels, shops and other types of building where facilities for wide and deep vistas may at times be a precious asset in the utilization of the "carpet space."

In spite of all the progress, present day uses are still tentative; we have not yet emerged from the transitional period. But it can confidently be expected that the structural developments of glass are likely to be widely extended, and that in this field, as in others where modern materials are employed, scientific research will have much to say in the design of buildings in the future.

## LIGHTING

### 1613 Work in USA

THE WORK OF THE AMERICAN ILLUMINATING ENGINEERS. (*Illuminating Engineering*, December, 1943.) Report of American Illuminating Engineering Society. 'Some discussion of its work.

### 1614 Fluorescent Sources

FLUORESCENT SOURCES AT WORK. R. D. Bradley and F. B. Lee. (*Illuminating Engineering*, January, 1944, p. 13.) Relative economies of hot and cold cathode fluorescent lighting.

The author examines the relative costs and advantages of large-scale hot and cold cathode installations. He comes to the conclusion that the hot cathode (normal) types has advantages in the following respects:—

1. Lower wattage.
2. Lower initial cost.
3. Less stroboscopic effect.
4. Less light loss per outage (i.e., per burnt-out lamp).

The cold cathode lighting (high voltage) has also certain advantages, viz:—

1. Instant starting.
2. Long life.

The long life of cold cathode compensates the lower wattage of hot cathode to some extent, but the author indicates that the latter is at present nevertheless the cheaper installation. The paper does not give the impression of absolute impartiality, however.

### 1615 Roof Glazing

DAYLIGHT CUTS FUEL CONSUMPTION. P. A. Ottman. (*Electrical Times*, April 13, 1944, p. 43.) Generous roof glazing shows overall fuel economies.

This article has its origin in the Ministry of Fuel and Power's 10 per cent. cut in the electricity allowed to industry in the Spring of 1944. It draws attention also to the fact that the Ministry of Supply at the same time expressed its willingness to consider schemes giving up to 15 per cent. roof glazing. It then makes an estimate showing that with this amount of glass the fuel saving on light, with an increased allowance for heat loss provides at least economies of an equivalent order to those demanded by the Minister.

### 1616 Science and Lighting

THE PLACE OF SCIENCE IN THE ART OF LIGHTING. R. O. Ackerley and A.

MacDonald. (*Transactions of the Illuminating Engineers' Society*, London, March, 1944, p. 45, and *The Architects' Journal*, March 2, 1944, pp. 178-179.) Formal conversation on scientific and art relationships in lighting given at a joint session of architects and lighting engineers at the RIBA.

## HEATING and Ventilation

### 1617 Wiring

WIRING POST-WAR HOUSES. E. W. Faithfull. (*Electrical Times*, March 30, 1944, p. 370.) Comprehensive discussion of house wiring for future conditions.

An article mainly for internal consumption among engineers, but of good "conversational" interest for architects.

The author estimates the total load in future houses to be of the order of 25 Kw., with a probable maximum of 9 Kw. operating at one time. There is a somewhat technical discussion of detailed proposals for a fuseboard, followed by short notes on lighting, cooking and heating. The author favours the ring-main as being neater and lighter than orthodox pre-war wiring. Screened sockets without switches are suggested as being safe and cheap as well as robust, for, being without moving parts, they are nearly indestructible. Fused plugs are also advocated for safety and simplicity.

### 1618 Fused Plug

DOMESTIC STANDARD FUSED PLUG AND SOCKET. (Dorman & Smith, Ltd.) Commercial fused plug and socket.

This pamphlet describes a new standard fused plug and socket developed by Dorman & Smith, of Manchester. It is, in fact, the *fait accompli* while a lively discussion about fused plugs is proceeding inside the industry. The plug is designed for 13A, but will take 15A without trouble. In size it is smaller than normal, 1½ in. by 1½ in. deep, with the pins close together. The fuse is in one of the pins.

### 1619 Domestic Equipment

DOMESTIC ELECTRICAL APPARATUS. (*Electrical Review*, March 3, 1944, p. 295.) General trends in electrical equipment and its influence on some aspects of house design.

A general discussion of house problems, bringing the designer and the electrical industry into a well-balanced relationship. Several trends which have been speculative, in a sense, are confirmed. For instance, the old cooker is disintegrating, even to the extent of boiler plates becoming independent sauce-pans. Washing machines apparently cannot yet be brought down to the cost acceptable for those who need them most. (Incidentally, of machines now in use, three-quarters are in the North of England.) Electrical water heating is foreseen as having a big future, as is the mixing machine, but not the dish washer.

### 1620 Kitchen Equipment

ELECTRIC KITCHEN EQUIPMENT. (*Electrical Times*, March 2, 1944, p. 256.) Suggestions for standard kitchen units, including electrical equipment.

Obscurely tucked away from the interested eyes of designers is quite an interesting development of metal kitchen equipment. It has been suggested by a Mr. James Peers, of Bath, and consists of twelve metal units from which it is said that over a hundred different arrangements can be devised. Each assembly of three units is complete in itself, but can subsequently be extended. Each electrical unit is independently controlled.

It is stated that arrangements for production of some of the sections are well advanced.

Quite clearly a good deal of ingenuity has been expended on this piece of design, and one can only regret that no attempt seems to have been made to bring it into line with certain fairly firmly established dimensional standards for modern kitchen design, such as the provision of toe space, and the depth from front to back.

### 1621 Refrigerators

REFRIGERATORS. (*Leader in Electrical Review*, March 3, 1944, p. 287.) Statement of electrical industry policy and action for supply of domestic refrigerators.

The need for refrigerators in this country is frequently debated, but Sir Jack Drummond (Food Ministry Scientific Adviser) has made up his mind that they are desirable, and links them with other developments of quick freezing, refrigerated transport, communal food storage and refrigerated methods in dehydration. The electrical industry views refrigeration as essentially an electrical undertaking, and has therefore put in hand the design of a standard household refrigerator of adequate size and has secured the support of electricity supply authorities who will have to service them.

## QUESTIONS and Answers

THE Information Centre answers any question about architecture, building, or the professions and trades within the building industry. It does so free of charge, and its help is available to any member of the industry. Answers are sent direct to enquirers as soon as they have been prepared. The service is confidential, and in no case is the identity of an enquirer disclosed to a third party. Questions should be sent to: THE ARCHITECTS' JOURNAL, 45, The Avenue, Cheam, Surrey.

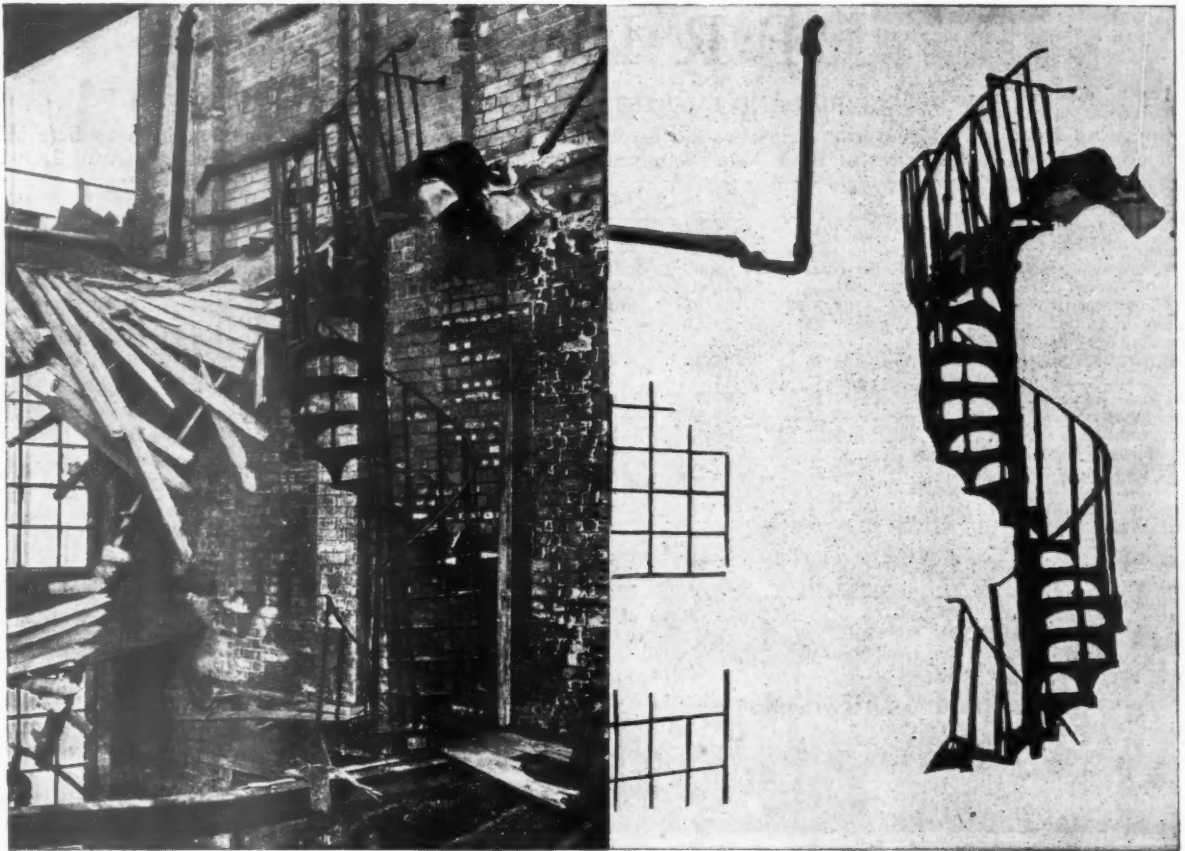
### 1622 Model Making

Would it be possible to obtain copies of the articles on the subject of Architectural Model Making which appeared in THE ARCHITECTS' JOURNAL as follows: July-Dec., 1925, pp. 543, 692, 752, 784 and 871, and Oct. 1, 1936. Could you inform me of any standard works on the subject? I believe that an article on Model Making by S. Jordan appeared in Architectural Design and Construction, Vol. 7, 1935, p. 534.

A A standard work on the subject of Model Making is *Models of Buildings: How to Make and Use Them*, by William Harvey, published by The Architectural Press.

An article on Model Making by S. Jordan did appear in the periodical *Architectural Design and Construction*, Vol. 7, December, 1937, p. 534, but we understand copies of this are not now available. The back numbers of THE ARCHITECTS' JOURNAL mentioned in your letter are now out of print.





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BASIC MATERIALS	Increase over pre-war prices at end of							
	Jan. 1944	Feb. 1944	Mar. 1944	Apr. 1944	May 1944	June 1944	July 1944	Aug. 1944
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Portland cement .. .. .	+41·46	+41·46	+41·46	+41·46	+41·46	+41·46	+41·46	+41·46
2-in. Unscreened ballast ..	+108·70	+108·70	+108·70	+108·70	+108·70	+108·70	+108·70	+108·70
Fletton bricks (at station) ..	+29·73	+29·73	+29·73	+29·73	+29·73	+32·43	+32·43	+32·43
Stoneware drainpipes (British Standard) (2 tons and over) ..	+43·75	+43·74	+43·75	+43·75	+43·75	+43·75	+43·75	+43·75
Roofing tiles .. .. .	+45	+45	+60	+60	+60	+60	+60	+65
Steel joists (basic sections) ex mills	+47·5	+47·5	+47·5	+47·5	+47·5	+47·5	+47·5	+47·5
Lime greystone .. .. .	+43·53	+43·53	+43·53	+43·53	+43·53	+43·53	+43·53	+43·53
Sheet lead .. .. .	+65·22	+65·22	+65·22	+65·22	+65·22	+73·91	+73·91	+73·91
Iron rainwater goods and soil pipes	+32·5	+32·5	+32·5	+32·5	+32·5	+32·5	+32·5	+40·5
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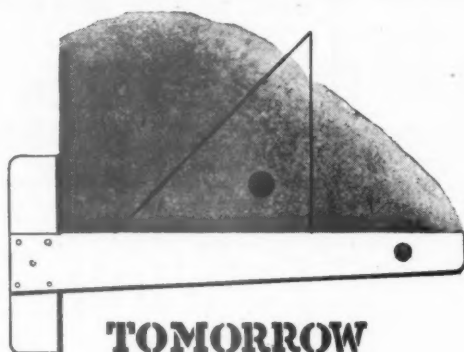
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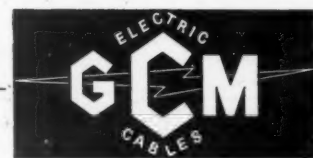
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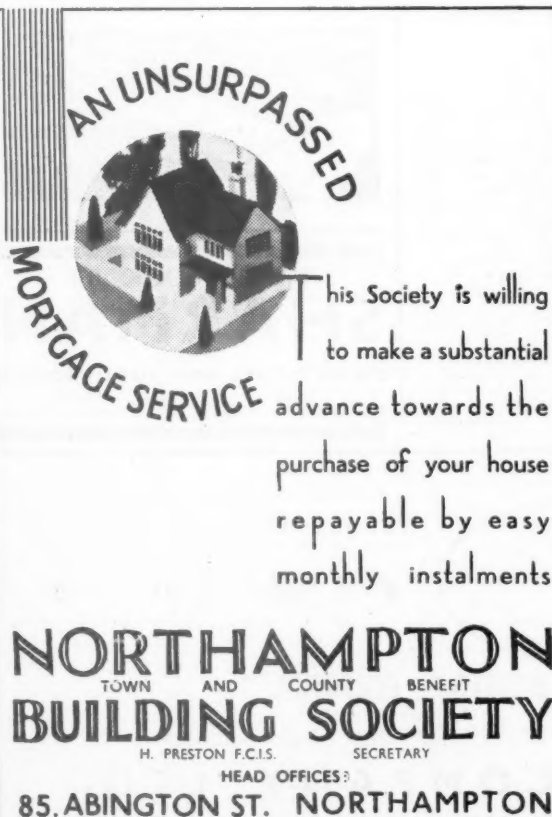
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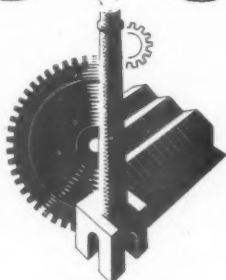
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