"Excuse this writing, Mum...."

He hopes she can read it . . . how's the garden — and Bill? He's thinking of home. He'll have a home one day . . . and lashings of light — yes, in his own home . . . when . . . For this man — and a million like him — new homes are in the planning. Homes to whose modern amenities Edgar's are ready to lend a long experienced hand . . . in installations for lighting, cooking and heating.

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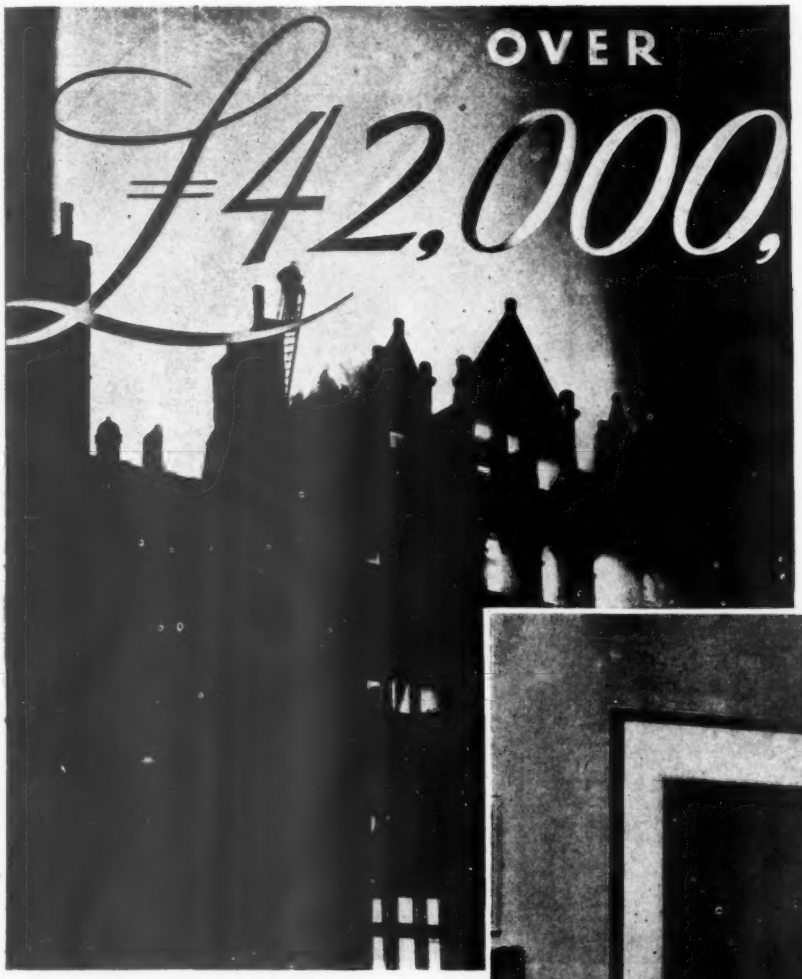
For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Educational Legal Notices, Miscellaneous, Property and Land Sales—*see* pages xxxviii and xl.



IS THE ESTIMATED COST OF FIRES DURING THE WAR NOT CAUSED BY ENEMY ACTION...

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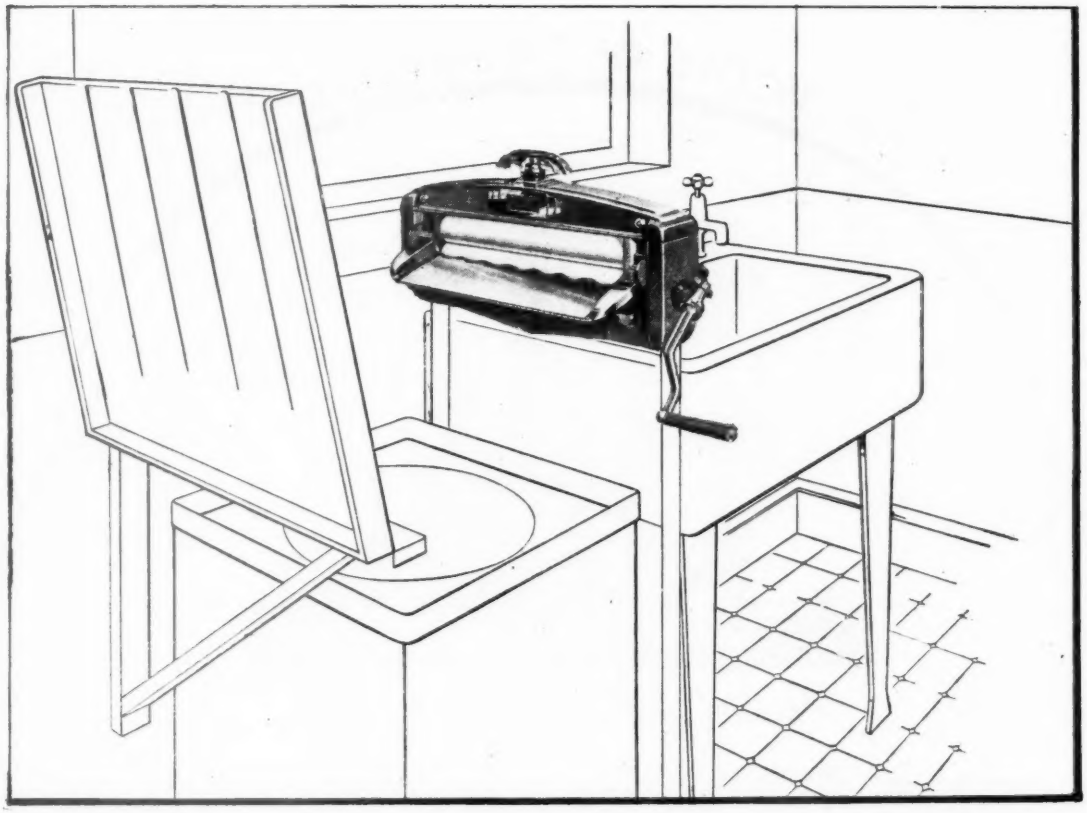

She dreamed .....

and in her dream time turned back thirty years. She was a housewife, busy with the weekly wash. With aching back and heated weary face she toiled between a sink she had to bend herself in two to reach, a copper boiling over a roaring roasting fire, and a monstrous mangle she barely had the strength to turn.

She woke .....

and there she was — a housewife, but of the pattern of today and tomorrow. With the weekly wash before her, nothing but the normal work of a normal day. With her pleasant kitchen, her just-right sink, her easy to use wash-boiler and her rubber roller wringer. What need had she to fear a back that ached, or a skin shrivelled by heat and exhaustion?

Modern woman demands a civilised standard for the kitchen where the biggest part of her work is performed. A survey undertaken to ensure that her standards are met has laid down what are the minimum requirements — the size and height of sink, the type of draining-board, the presence of wash-boiler. And always — room for a rubber roller wringer. The housewife herself will tell you *which* wringer — the Acme 55 — the BEST.

To plan a modern house without a modern kitchen would be like building a ship without an engine room. To fix the kitchen without equipment for the home laundry would be leaving the engine room bare of engines.

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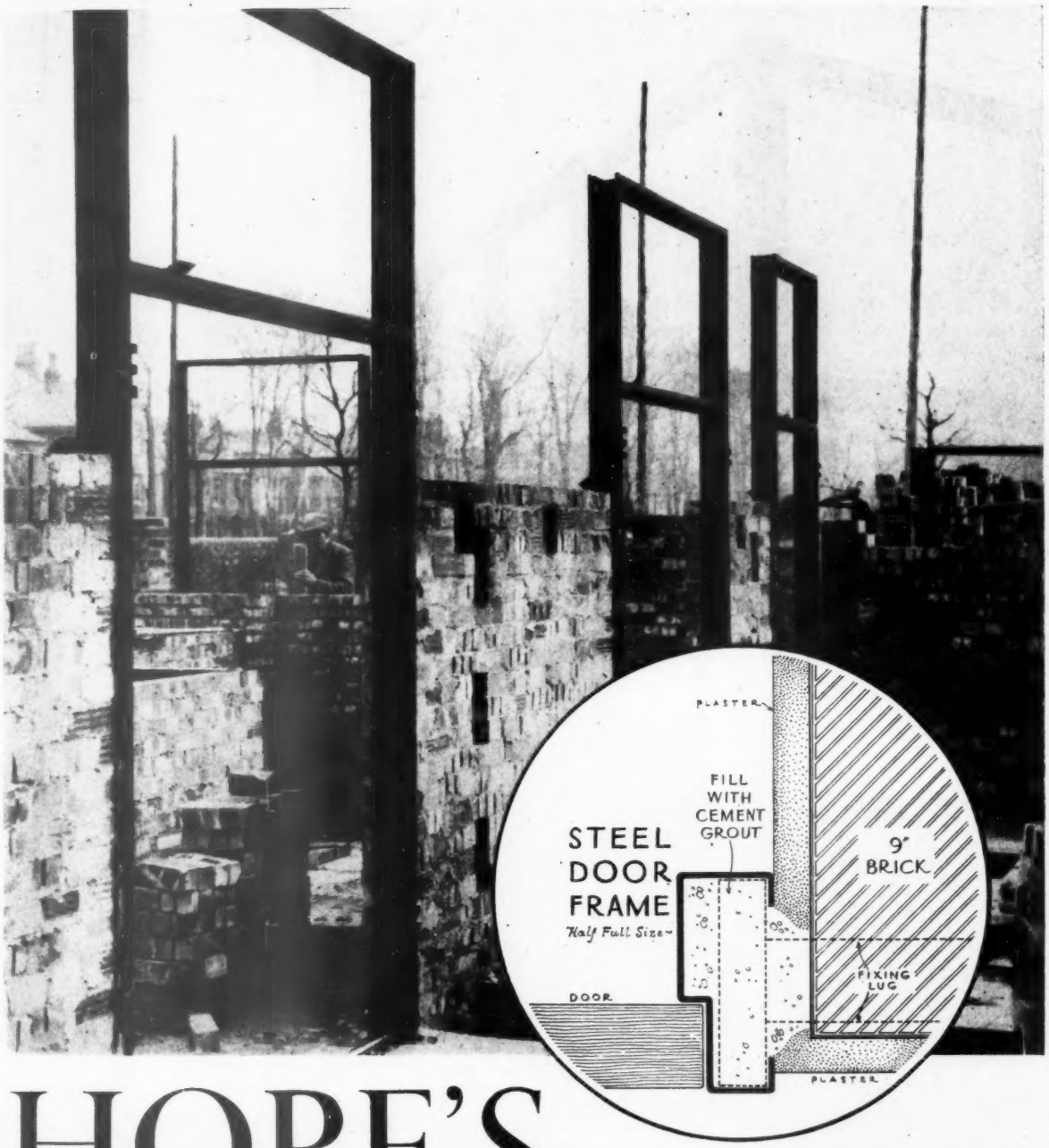
REBUILDING BRITAIN



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DECORATING—AND WEATHERPROOFING—WITH CEMENT PAINT

PAINTING the outside walls of houses for the sake of appearance only is one of those things which is just not done in war-time.

But when it comes to treating external wall surfaces to prevent the penetration of damp, the obvious course to adopt is to renovate and weatherproof at the same time. 'Snowcem' Cement Paint admirably fulfils this dual purpose.

It is, in fact, much more than a decorative paint. It virtually provides a cement 'shell' which is waterproof and, in common with all forms of cement work, the longer it stands the harder it gets and is therefore permanent.

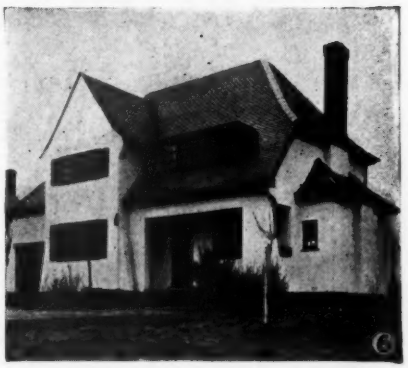
Although the illustrations on this page only tell half the story—that of appearance—they do show how drab, stained and disfigured walls can be made clean, bright and attractive and, on this score alone, 'Snowcem' will more than justify its use when war-time drabness is finished with.

The photographs show (1) a pair of houses with rough cast exteriors owned by Tettenhall Urban District Council; (2) after treatment; (3) a block of U.D.C. houses at Maltby; (4) the same with the old pebble dash stripped and the houses re-rendered with Portland cement rendering and painted.

(5) a house at Great Meadows, Prestbury; (6) after broken white 'Snowcem' had been applied to cement rendering; (7) a small industrial canteen at Brentford; (8) after 'Snowcem' had been applied to lime plaster on concrete blocks.

The last two illustrations are included to show that 'Snowcem' is equally suitable for interior decoration.

It is, incidentally, ideal in factories or farm buildings where hygiene and light are of paramount importance.



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When the Romans invaded Britain — builders landed with the soldiers.

They built stone houses, heated by hypocausts. Thus the Legionaries, exiled from Italian sunshine, were able to endure the British winter.

The hypocaust, a primitive form of central heating, is recognisable as a rudimentary function of Air Conditioning and its extensive use during the Romans' occupation of cold countries shows it to have been an important vehicle for the spread of civilisation.

There could be no better example of how protection from extremes of climate has helped a nation to make history.

The modern analogy to the hypocaust is the Carrier installation, producing in any enclosed space — in any climate, the atmosphere in which we may live and work with maximum comfort and efficiency.

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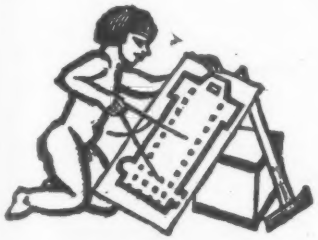
In common with every other periodical this JOURNAL *is rationed to a small part of its peacetime needs of paper. For this reason it is virtually impossible for Newsagents to accept new orders for the* JOURNAL *for the time being, and the Publishers are also now unable to enter new subscriptions. Intending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



DIARY FOR AUGUST SEPTEMBER AND OCTOBER

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

CANTERBURY. *Town House Exhibition.* (Sponsor, HC.) AUG. 3-8

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

Home from Home Exhibition. (Sponsor, HC.) AUG. 24-SEPT. 2

CATFORD. *Town House Exhibition.* (Sponsor, HC.) AUG. 3-19

HARROGATE. *Englishman Builds Exhibition* At the Art Gallery. Mrs. Hurrie, guide lecturer. (Sponsor, BIAE.) AUG. 3-13

LLANDYBIE, SOUTH WALES. *When We Build Again.* Exhibition and film. At the National Welsh Eisteddfodd. (Sponsor, TCPA in collaboration with Messrs. Cadbury Bros.) AUG. 7-11

LONDON. *RA Exhibition.* Weekdays 9.30 a.m. to 7 p.m. Sundays 2 to 6 p.m. Admission: One Shilling. AUG. 3-7

American Housing in War and Peace Exhibition. At the RIBA, 66, Portland Place, W.1. The exhibition, prepared by the Museum of Modern Art in New York, brought here by the US Office of War Information at the request of the Council of the RIBA, tells the story of American housing before and during the war. Photographs, diagrams and text show the work of the US Government Housing Agencies and private organizations in the various fields of housing in cities and in rural areas. The exhibition demonstrates the high quality of the dwellings erected, the new materials and new methods of construction that have been used in wartime building. Many of the solutions and experiments are relevant to British post-war problems of providing housing for temporary occupation while permanent houses are going up. Pictures of several large schemes of permanent town building completed before the war and largely inspired by legislation and planning in Britain are also included. The designer of the exhibition at the Museum of Modern Art is Mrs. Mary Cooke, who worked for government housing authorities in Washington after her return in 1935 from Britain, where she worked with the architectural firm Tecton. AUG. 3-26

Reconditioning England Exhibition, 1944. At St. Martin's School of Art, 109, Charing Cross Road, W.C.2 AUGUST 3-7

Edward Carter. *Painting and Sculpture in the USSR.* At 22, St. Petersburgh Place, Bayswater. (Sponsor, International Arts Centre.) 8 p.m. AUG. 4

Discussion. *America Plans for its Community.* At the RIBA, 66, Portland Place, W.1, in connection with the Exhibition American Housing in War and Peace. Chairman, Stanley C. Ramsey. British: Gordon Stephenson and G. A. Jellicoe. American: David Cushman Coyle. 6 p.m. AUG. 9

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

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

NORFOLK. *Your Inheritance Exhibition.* (Sponsor, HC.) AUG. 3-SEPT. 30

PEMBREY. *When We Build Again.* Exhibition and Film. (Sponsor, TCPA in collaboration with Messrs. Cadbury Bros.) AUG. 5-15

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

STROUD. *Twenty Women at Home Exhibition.* (Sponsor, HC.) AUG. 5-12

Living in the Country Exhibition. (Sponsor, HC.) AUG. 5-12

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

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

TOTTENHAM. *Good Neighbours Exhibition.* (Sponsor, HC.) AUG. 5-19

Home from Home Exhibition. (Sponsor, HC.) AUG. 5-19

New Homes for Old Exhibition. (Sponsor, HC.) AUG. 5-19

Rehousing Films. (Sponsor, HC.) AUG. 5-19

Town House Exhibition. (Sponsor, HC.) AUG. 5-19

WATFORD. *Living in the Country Exhibition.* (Sponsor, HC.) AUG. 8

NEWS

THURSDAY, AUGUST 3, 1944
No. 2584. VOL. 100

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 death has occurred of

Mr. EDMUND B. BALL.

A native of Norfolk, Mr. Ball received his technical training in engineering in Manchester. He won several science scholarships and the Whitworth Medal and Exhibition. After holding several managerial appointments in Manchester, Ipswich and Chelmsford, he spent three years in Italy as the technical adviser to the San Gorgio Company, and then was for several years in Shanghai as the commercial representative of several important British engineering firms. On his return to this country he became works manager of D. Napier & Sons, Ltd., London, and since 1918 he had been managing director of Glenfield & Kennedy, Ltd., Kilmarnock. During that period the company's engineering works had been greatly extended and the business developed, and many important contracts carried out in all parts of the world. In 1939-40, Mr. Ball was president of the Institution of Mechanical Engineers; he was the only engineer resident in Scotland ever to hold that office, with the exception of Robert Napier, the shipbuilder, in 1863. He was a Justice of the Peace for the county of Ayr. Mr. Ball was 71 years of age, and is survived by a son and daughter. His son, Mr. E. Bruce Ball, jun., has been joint managing director of Glenfield & Kennedy, Ltd., for the past year.

A cheque for £544 19s. 6d. is being sent by the London Master Builders' Association to the Lord Mayor in response to his appeal for THE FUNDS OF THE YMCA.

from AN ARCHITECT'S *Commonplace Book*

VIEWS OF DUBLIN: RIVER GUINNESS. [*From* The Seventh City of Christendom, *by Osbert Lancaster* (*in* The Cornhill, *May* 1944.)] On reaching the quays one realizes once again (with, if one is a Londoner, a salutary shock) how important a rôle a river can play in the rational and æsthetic development of a town. The English, as a race, seem curiously ashamed of their rivers, regarding them as regrettable and slightly indecent intrusions on the urban scene, to be concealed as completely as possible from the notice of the citizens by means of warehouses, factory buildings and high brick walls. Not so the Dubliners; they, like the Parisians and the Florentines, have made their river one of the principal glories of their city, concentrating upon its banks their finest public buildings and spanning it with a series of magnificent bridges. As rivers go, the Liffey is not remarkable, narrower than the Seine if more impressive than the Arno; but, thanks to the skill with which in the eighteenth century it was treated architecturally, it fulfils an æsthetic function comparable to that of the Grand Canal. Indeed, it is of Venice that one is immediately reminded as one takes one's stand on the Iron Bridge—far more vividly than ever one is at Bruges or Stockholm, or any of the other towns described in travel brochures as the "Venice of the North."

The Methodist Conference in Leeds approved the launching of an appeal for £500,000 for repairing and RE-BUILDING CHURCHES.

The funds are needed for repairing and rebuilding churches damaged during the war in Britain and oversea. This amount, it was stated, will include £50,000 as the Methodist quota to the British Council of Churches for rebuilding Protestant churches in Europe. It was reported that many churches have been damaged by flying bombs, and that damage to Methodist property overseas, particularly in China, Burma, and Italy, is estimated at £350,000.

★★

St. Paul's Cathedral, with vistas from every side, will preside over THE REBUILT CITY OF LONDON.

This is one of the proposals made in the Report on the City of London, presented to the Court of Common Council last week by the Improvements and Town Planning Committee. Other proposals are: A competition for the best layout of the cathedral precincts may be opened to the whole Empire. Wren's dome, symbol of the cathedral church of the Empire, will remain the dominating feature of the City panorama. Other churches, precious monuments and historic buildings will be given a new prominence. Their environment will be developed with respect for their architectural beauty. Control of building heights will preserve views of St. Paul's dome. Modern buildings conforming to a general design will give greater business capacity in smaller space, leaving more room for open spaces and residential areas. Through traffic will follow a ring route 80 ft. wide sweeping north and south round the City and leaving widened streets in the centre for internal distribution. Inside the square mile existing main streets, nearly twice their present width, will be connected to the ring route by one-way streets. Within the panels formed by the main streets, subsidiary streets will provide a local distributing system. These will be at least 30 ft. wide, with controlled two-way traffic. About 40 acres, or 10 per cent. of the total building sites, will be absorbed in new or widened streets. Bridgeheads will be improved to ease the flow of cross-river traffic. Private cars will be parked on their own premises. Many-storeyed garages will be built at key points. Commercial vehicles will load and unload at built-in loading docks. Lay-bys for public transport will keep stationary buses and trolley-buses and waiting passengers off the streets. Railway improvements are left to the railway companies. The possibility of removing the Ludgate Hill viaduct is left in the air. Apart from the already proposed £1,100,000 City of London airport at Fairlop, no new air transport undertaking is suggested. River front development is left to full public inquiry. An embankment from Blackfriars to London Bridge, with open views of St. Paul's and continued by a wide inland street to Tower Hill, is contemplated. Market areas will remain where they are, with extension and replanning of the markets themselves. (See also page 76).

How claims should be made for DAMAGE FROM FLYING BOMBS.

The following official information is issued for the public guidance. For war damage to land and buildings the War Damage Commission is responsible. The person desiring to claim should go to the town hall or council office in the area of the damaged property (or, in the case of evacuated persons, in the area in which they are now living) and ask for Form C.1. Application for the form direct to the offices of the Commission should not be made. C.1 should be filled in and posted to the Commission's Regional Office at the address given on the front page. The Commission will, as soon as possible, advise the claimant on any further step to be taken. Ordinarily, the form should be returned within 30 days of the damage, but a considerable latitude will continue to be allowed.

The following notice has been issued by the RIBA in connection with the EXHIBITION OF CONTEMPORARY BRITISH ARCHITECTURE.

Architects intending to submit exhibits for this Exhibition must send in *particulars of the* photographs, drawings or models they intend submitting, before *August* 11, though the exhibits themselves need not be sent before Friday, September 1. The Exhibition Committee have found that several architects had overlooked this requirement and were proposing to send in exhibits without prior notice. The correct procedure is to apply to the RIBA for an entry form and labels, to enter full particulars of proposed exhibits on the form and to return it at once to the RIBA.

Mr. Rex Whistler, the artist, has been KILLED IN ACTION in Normandy.

He was 39 years of age and as a young man of 21 made his name with the wall paintings for the refreshment room at the Tate Gallery. He won distinction as scenic artist and illustrator, and immediately before the war devoted himself to portraiture. He was well known for his period style drawings and paintings and for his scenery and stage costumes

The proposed ring route round the City of London. From the Report on Post-War Reconstruction presented to the Court of Common Council. The view, from a drawing by J. D. M. Harvey, shows the northern arm of the ring route between Holborn Circus and Aldersgate Street.

Basis for Discussion

On Wednesday, July 26, the Court of Common Council of the City of London accepted the *preliminary and tentative proposals* for reconstruction contained in the report of the Improvements and Town Planning Committee *as a basis for discussion*. The perspective above by J. D. M. Harvey is an eye-level view of St. Paul's from the corner of Shoe Lane and Fleet Street. The position of the Southern Railway bridge is shown faintly shaded, states the report, so that the effect of its *possible* removal can be visualised. The outline in the left-hand lower corner indicates the existing view from the same position and illustrates emphatically the visual disadvantage of widening merely for its own sake. The railway bridge which, at present, can be objected to as little more than a dusty and unsightly structure, does positive violence to the cathedral in the new proposal, even when only shaded. The most encouraging fact about the report is the willingness the authors have shown to accept constructive criticism, by presenting their proposals not as a final plan but merely as a basis for discussion.

The acquisition of HOUSING SITES FOR LONDONERS near Pinner, at Upper Tulse Hill, Lambeth, Wandsworth, St. Marylebone and in Essex has been approved by the LCC.

The report by the Housing and Health Committee stated that the development of the 153-acre housing site at Headstone Lane, near Pinner, provides for the erection of 1,270 dwellings, comprising five-room, four-room and three-room houses, and two-room and one-room flats. Based on building prices in 1939, the estimated total cost of the development is about £775,000. The one-room flats, intended for old people, will be in buildings of one storey only, instead of two storeys as hitherto. Garage accommodation is allowed for in respect of about 32 per cent. of the larger houses. The scheme provides for the reservation of land for schools, churches, a doctor's house, shops and a refreshment house. It is also proposed that the Cedars, the residence of the late owner of the site, should be retained for possible use as a community centre, and that about 13 acres of the gardens, with their rare trees and old lawns, should be reserved as an open space. This in turn would enable the tree-lined frontage to Uxbridge Road to be preserved. As long ago as November, 1942, the Council approved an estimate of £434,000 for the acquisition of two housing sites in Essex. It was not then in the public interest to disclose particulars, but it is now made known that the properties are situated on the eastern side of Aveley Village (urban district of Thurrock) and on the eastern side of Loughton (urban district of Chigwell). It is proposed to develop the sites as cottage housing estates with about 5,000 houses on each estate. Other housing sites recommended by the committee for acquisition and approved by the Council include 56 acres in Christchurch Road and Upper Tulse Hill, Lambeth and Wandsworth, for block dwellings accommodating 9,000 persons (the estimated cost of acquisition, clearance and partial development is £300,000); five acres in Barrow Hill Road and Huntsworth Terrace, St. Marylebone, for working-class dwellings, the cost of acquisition and clearance being estimated at £170,000; and three and three-quarter acres adjoining the Council's Barnfield Gardens Housing Estate, Woolwich, where the estimated cost of acquisition, clearance and partial development is £20,000.

Lord Hambleden has given restrictive covenants to the National Trust of about 4,500 acres of his Greenlands estate, one of THE MOST POPULAR REACHES OF THE THAMES.

The estate lies on both sides of one of the finest and most popular reaches of the Thames between Henley and Medmenham, and from both banks of the river extends as far as the eye can see to the skyline. It includes the stretch of Hambleden Valley up to and beyond Hambleden village, which is constructed of flint and brick, the traditional building material of this neighbourhood. Included within the covenants are three country houses of distinction, Hambleden Manor (Jacobean) and Kenricks (early eighteenth century) in Buckinghamshire, and Culham Court (about 1770) on the Berkshire side of the river. The implication of these covenants is that this large area of the Thames Valley close to Henley is permanently safeguarded against building or any injurious development. There already exist many public footpaths over the estate, which will continue to be open.

SITING THE PORTAL HOUSE

THE production of the Portal (or Churchill) House by the Ministry of Works implies a continuation into peace of the wartime principles of standardisation, bulk ordering and allocation to specific sites. This responsibility for supply and the resulting central control of standards is a very necessary and important step, but control should obviously be extended to cover general principles of siting and community planning. It is here that a government sponsored system of prefabrication can be of special value. Privately financed designs, however good, are at the mercy of the private builder, or the local housing authority as soon as they leave the factory, whereas the Ministry of Works houses could be issued as units of a well planned community of any required size. So far, however, the designers of the Portal House have given no indication of the type of layout they have in mind; there are many reasons why this is an important omission.

The success of any housing development depends equally on the standard of the individual dwellings and on the competence with which they are grouped into a complete community and fitted into the general pattern of town or country. Furthermore, as fixed site conditions normally influence the planning of buildings so, conversely, a fixed and rigid design demands a specific type of layout, to function most efficiently. The design of roads, services and planting should have been considered and definite proposals evolved. We have, in the Portal House, a prefabricated structure obviously capable of being improved but marking a great step forward in official housing policy. If its potential value is to be fully realised further action is necessary.

Public acceptance of prefabrication as anything more than a temporary expedient will depend largely on the merits of the final model of the Ministry of Works House and the skill with which it is sited. The outline of a programme for the Government Departments concerned might be as follows:

1. The present Portal House must be reconsidered. It must be improved functionally and æsthetically and made flexible enough to serve various family types and conditions of siting. It should set a very high standard for its privately financed competitors.

2. Its designers, in conjunction with the technical staff of the Ministry of Town and Country Planning, should make certain rules governing its use by local authorities and others. These should cover density, orientation, road widths and layout, public and private gardens, community buildings, etc.

3. Steps should be taken to ensure a high standard of ability amongst those responsible for actual planning and construction on particular sites.

An article on page 81 reviews some principles of housing estate planning which might form a basis for the general instructions suggested in paragraph 2 above. It also stresses the architect's particular qualifications for relating these

general requirements to local site conditions. If advantage is to be taken of the contribution architects can certainly make, there must be official support of his special claims. There are three ways in which this could be done:

First, by an insistence that local officials responsible for housing layout should have architectural qualifications.

Second, by the allocation of certain schemes to private architects on the lines which have proved very successful with wartime workers' hostels.

Third, by the appointment of local panels of persons with particular knowledge and training in problems of visual relationships such as architects, artists, landscape architects and industrial designers who would advise on questions of visual planning in their area. These consultants might be appointed by the Ministry of Town and Country Planning and work on a part-time basis, being paid a reasonable retaining fee by the local authority concerned.

Unless encouragement is given to good layout and landscaping by enlightened official recommendations backed by qualified local knowledge we can look forward, however well designed our prefabricated houses, to post-war estates which will be quite as repulsive and inconvenient to live in as the worst efforts of the pre-war speculative builder.

The Architects' Journal

War Address: 45, The Avenue, Cheam, Surrey

Telephone: Vigilant 0087-9

NOTES & TOPICS

ANTI-SOCIAL SURVEYS (Umbrella in Bath Tub Section)

Since writing my note about Mr. Denis Chapman's lecture on Social Surveys, I have been shown a copy of *Family Behaviour*—volume four of a series published by the John B. Pierce Foundation of America. It consists of an investigation into the sleeping, washing, dressing and elimination activities of about 120 American families and, needless to say, it is an absorbing volume—who after all can resist a peep into a private life? Here are some of the more light-hearted conclusions taken at random: 36 per cent. women close the door when dressing; 29 per cent. men stumble over bedroom furniture; 24 per cent. women sleep on their stomachs with one leg hanging over the side; three wives and three husbands report falling out of bed; six wives confessed to sleeping nude—sixteen confessed that they would *like* to but didn't. ("Here," says the John Pierce Foundation sternly, "we have clear-cut evidence of an inhibition.")

★

Some of the report is written in the tiresome jargon of the sociologist, e.g. "The most important item in connection with sleep is the bed." We are also told—and we don't wish to be reminded of it, frankly—that husbands often snore and wives occasionally bite their nails. Some of the information is bewildering, e.g. "Two women report keeping their triple mirrors in an attic. Possibly the third woman in Group A would keep her's in an attic—if she had an attic;" or "40 per cent. husbands lay out their clothes at night—one does so because he is a volunteer fireman." Most startling of all revelations to me, however, was not the inhibited nudes, the stumbling, snoring husbands—nor even the woman with a triple mirror but no attic—for we've all met *those* people before—but the announcement that in America a large percentage of people keep—what do you think—in their baths? Not coal, but umbrellas. And if you don't believe it, there's a large photograph of an umbrella sitting in a bath.

★

Don't, however, think this is just a giggle-book. There is much serious research behind it and, more important still, an attempt is made to winnow out the essential information and to form conclusions which are useful to the architect.

AIRCRAFT AND MOTOR BIKE DESIGN

I was recently shown over a York transport aircraft. It is a new design, developed by the manufacturers of the Lancaster bomber, and it illustrates how little progress we have made in the basic conception of passenger travel by air. The two enemies of air travel are noise and boredom. Noise had been dealt with, to some extent, by the panelling of the body. Boredom was left alone. The passenger seats were arranged as in a railway coach, rows of three, all facing forward, with little or no view to the side and none ahead. It is not good enough. In ten years time, no doubt, we shall look back on the York as a rather pathetic old thing, but the sooner designers get busy on the problem of keeping the air passenger from throwing himself out of the window from sheer exasperation the better. After all, there is quite often something interesting to look at, while you are flying over land.

★

Another mechanical instrument which designers seem to have left severely alone is the motor-cycle. It is still, in essentials, the old pedal cycle with an engine fastened in the middle of the frame. It is quite true that the majority of sales of the things were, before the war, made to young men more interested in speed and road-holding qualities than in anything else, but it is, surely, always a mistake to underestimate the capacity of

your market to appreciate a first class design. It is all the more noticeable now. The motor-cycles one sees around are mere collections of tin boxes, leather bags, lamps, and wind-screens stuck on to the old frame wherever there is an odd piece of space to spare. The Americans have now started adding their tin boxes to the front forks.

*

Some designer ought to sit down and think out, with the resources of the pressed steel industry in his mind, how to make a really functional motor-cycle. He may be able to hit on something that would sweep the markets of all the world when the war is over. It would at least be a relief from designing yet another streamlined toothbrush.

FINE BUILDING AND COARSE LIVING

I have just read Max Fry's happy summary of the architectural point of view ("approach" was the fashionable word) which developed between 1919 and 1939.* Looking back, it seems to me there were really two points of view growing together.

*

The first was the attempt to wring beauty out of the very programme of a building without resort to adventitious aids. (Less paint and powder, and more of the balanced diet, my dear.) The second was the growth of Public Welfare as the architectural driving-force, to an extent comparable with that of the Medieval Church or Baroque Aristocracy. (A healthy Body Politic, and not so much prayer or prattle).

*

Each was an idea already well advanced, but while Housing had previously been associated with a sort of Queen-Anne-for-All movement, Modern Taste had grown up among the more exclusive of the art-conscious. The marriage of these two ideas was preceded by shy advances from both sides. On the one hand the pure modern house looked a little silly among the architectural *frou-frou* of existing cities, so the architects called for a larger-scale clean-sweep. On the other hand the housing enthusiasts were glad to be able to devote money that had gone on the styles to more practical uses.

*

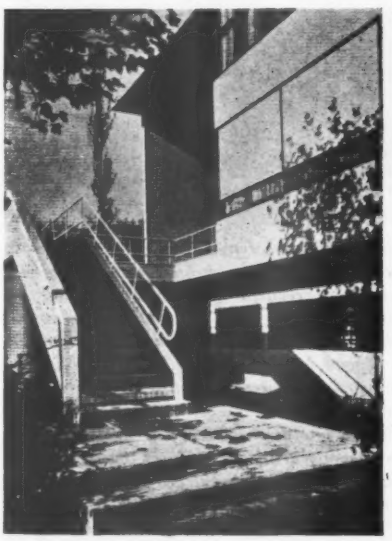
Will these two live happily ever after? Fry seems to think so, though he does not express himself in these terms. Whether the union is blest with offspring, whether the tree bears fruit, remains uncertain.

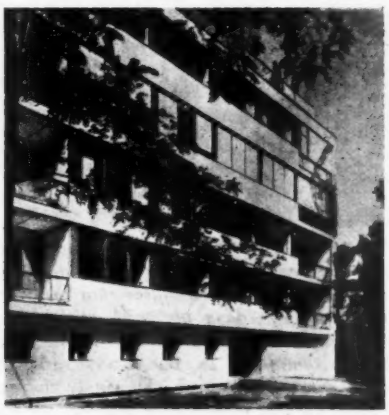
*

Fry does not say much about this. My own view is that success depends on the emergence of strong individual city architects and such like, capable of carrying public opinion with them—to coin a paradox, a Breed of Master-Servants. I hope Max Fry is one of them.

ASTRAGAL.

**Fine Building* by Maxwell Fry (Faber & Faber 15/-).





Illustrations from Fine Building *by Maxwell Fry. Left, Villa at Garches by Le Corbusier and Jeanneret. Right, flats at Basle by Otto Senn and Rudolf Mock. See Astragal's note above.*

LETTERS

J. Cunningham, A.R.I.B A.
Ronald O. Phillips
Arthur Welford, A.R.I.B.A.

Durham and Lincoln Power Stations

SIR,—With regard to the protests against the erection of power stations at Durham and Lincoln. A power station, from the town planning viewpoint, should be classed as a Special Industrial building, i.e. one which by reason of its processes is liable to be productive of obnoxious conditions, and it therefore requires zoning as such. In addition, for reasons of amenities and æsthetics, it should receive careful siting and treatment both in an engineering and architectural sense. Unfortunately, in these respects, statutory undertakings are exempt from town planning by-laws, and it is merely through reliance on the voluntary co-operation of those who commission such work that any results at all are to be realized.

In spite of research into smoke washing, dust precipitation and so on, residents near a power station still have the hazard of ashes, smuts, raw coal dust and vapour from cooling towers. There is also periodical disturbance from escape steam and turbine hum. My experience has shown that wide separation of such industrial and residential districts is still necessary.

Aesthetically, both the cities of Durham and Lincoln have much to fear from the proximity of a generating station. I have yet to see in Britain a station which could rightfully be classed as a good example of collaboration between architect and engineer. We have on the one hand the "as cheap a covering as possible" type and on the other the "get an architect to put some fancy brickwork and a few frills on" class. The structural expression is far from being so developed as the extremely organic form of the plant which it protects. Underlining this is the report from Lincoln that the towers will bear "a certain amount of architectural ornamentation which will provide relief from the regular lines." This view of an architect's function as being that of tinkering with an at least honest if unshapely engineering form by adding trash is, to put it mildly, rather archaic.

From a number of years' experience on the architectural and civil engineering aspects of power station design, I found that it was a difficult matter to obtain acceptance of national design and siting. Until state control is more stringent, such stations should be segregated from towns and residential areas.

Canterbury J. CUNNINGHAM.

The Churchill House

SIR,—I refrain from making any direct comment on the Churchill House because I think it is evident from the innumerable suggestions that you have published in your JOURNAL that there is a very wide range of opinion on the subject. To my mind this is of considerable importance. It emphasizes the fact that MOW intends to produce a bureaucratic solution to the housing problem; by which I mean a solution that saves any thinking once it has been reasonably approved by interested parties.

Would it not be far more suitable to prefabricate units such as kitchens, bathrooms, cupboard units and structural panels with a common width factor of perhaps 3 ft. 0 in. and a standard height. This would allow the Government a chance to put into practice many of the theories propounded in the HMSO publication *Standardization in Building*. This system could be subsidized and supported by the Government as simply as the Churchill House scheme. If this system were adopted prefabrication would attain the object which the Swedes and the Americans have gained. This object is to use a pre-assembly made unit base for a large proportion of the work in order to hasten erection, cut costs and free the planner from conventional chains. But it does not include the intention to produce stereotype plans, in fact it goes a good way in the opposite direction. The report of Mr. Frank Lee, of Enfield, reported in your issue for July 20, which says that a house, similar in size to the Churchill House built of brick, can be produced for the same cost, should be noted: with the use of standard units, time and cost for the house could be reduced. At the same time conservative tenants who object to new-fangled constructions could be satisfied.

The mass and individual siting of these houses should be deeply considered. The houses must be kept together and not allowed to wander off between other types of construction—brick, concrete or timber—but be well grouped. On no account must this siting become at all like the post-1918 estate at Peacehaven. A good deal of information on the siting of small buildings can be gleaned from a study of several army hutment positions, although the purpose is different (camouflage). The ugly and clumsy huts, when set in the fringe of a wood, or in a clearing—positions with fine natural backgrounds of trees, become as much a part of the landscape as the trees themselves. This principle could be well applied to the simple and tidy prefabricated type of house.

ROLAND O. PHILLIPS
(2nd Year Student),
Medway School of Art
(Dept. of Architecture)

Eastgate,
Rochester

SIR,—Cottages for the aged may have one bedroom, sometimes two; for a family never less than three, sometimes four. This has been an axiom with local authorities ever since they began building cottages.

The Churchill House is not suitable, in some respects, for the aged; in fact it must be assumed that it is intended as a family dwelling for a period of at least ten years, in which case the provision of only two bedrooms puts back standards for at least a quarter of a century.

The plan of the house is inadequate, and any attempt to vary it does not remedy its primary defect.

ARTHUR WELFORD.

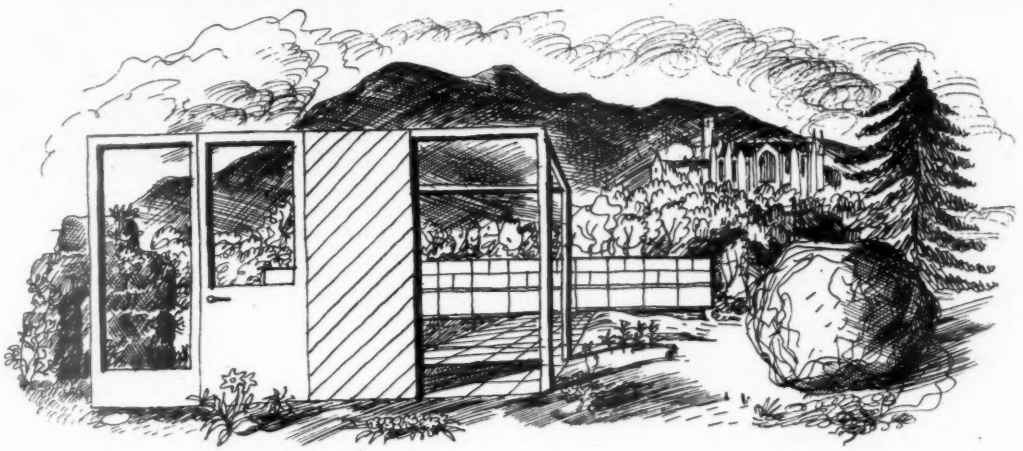
Woodbridge

A REMODELLED NEWS THEATRE

In remodelling the front elevation and auditorium of this news theatre, contractors' deliveries and the removal of debris had to be done without interfering with the right of way serving the emergency exits and the street parking regulations in the congested main, High Street of Birmingham. Furthermore, the clients stipulated that the work must be executed in a fixed time and that during the remodelling the theatre should be open seven days per week without missing a single show. Building operations, therefore, were limited daily to the hours of 11.30 p.m. to 10 a.m., by which time all work had to be left, so that the public had free access and the auditorium was at least superficially complete. In view of these restrictions it was decided to leave the existing facade, in the main, the new elevational treatment being designed to mask completely the earlier work. New steelwork was inserted with stanchion bases 10 feet below footpath level to span the new opening, in place of the earlier double archway entrances. This opening with a slip surround of faience is flanked by black glass piers each containing poster frames, one of these forming the emergency exit from the operating unit. Over the entrance is a cantilevered reinforced concrete canopy incorporating glass lenses to give natural light into the entrance hall and artificial lighting troughs in the soffit. Over the canopy and flanked by brickwork in 2 in. orange facings is a glass brick screen with faience covered steel mullions. The architect was Cecil E. M. Fillmore, F.R.I.B.A.

★This supplement started out with a series of articles on the groundwork of physical planning. Now that chances of realization are drawing near, it will try to record notable developments in theory and practice so that they may be assessed in relation not only to other aspects of physical planning but to the whole picture of national reconstruction.

PHYSICAL PLANNING SUPPLEMENT



SITING the factory-made house

by Tom Mellor

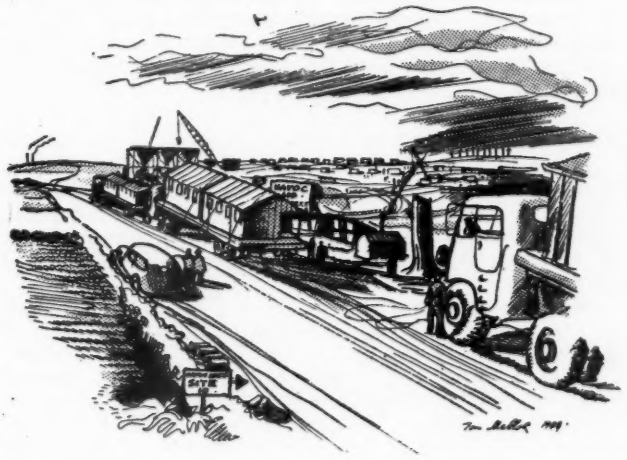
The problem of the visual planning and siting of the 250,000 temporary houses which are to be provided by October 1, 1947, and for which the Government has made the sum of £150,000,000 available to the Minister of Works, is one on which central guidance will need to be given. Tom Mellor puts forward his proposals in this article and points out that unless there is such guidance we shall be in danger of producing rapidly expanding belts of rusting suburban slums around our cities.

For many years progressive architects and designers in Britain have pointed out the advantages of prefabrication for house construction. American, Swedish and German examples have been illustrated and discussed in the architectural press and students have chatted knowingly about dry construction, eliminating site work and the mass production of good design and built-in gadgets for everyone.

Now that prefabrication is almost here and we've seen the Portal (or Churchill) house and various privately financed efforts, there are signs of a falling off in enthusiasm. The enthusiasts of 1930 who went about repeating that a house was a machine for living in, have now in the Portal house, 1944, a real machine—though perhaps only for existing in—and are not quite sure what to think about it; some of them have even pointed out that it doesn't really look like a house!

danger ahead

Many things have contributed towards this change of front: it would be unkind to particularise some of them, but certainly one important factor is that the war has scattered over rural England many thousands of extremely functional and very repulsive prefabricated huts. Again, anyone who has been over a large aircraft assembly plant can imagine the vast spate of stamped, pressed and spray-painted dwellings that could be produced cheaply and efficiently and sold so easily to speculators or local authorities. If he has also visited aerodrome sites he can imagine the armies of bulldozers, scrapers and trenching machines churning vast areas into seas of mud and the neat but quaintly curving concrete strips growing and spreading over the land till the converted tank carriers arrive, each with half a dozen "houses" hot from the production line. And if he has eyes and has been in England at all since 1940 he can imagine what the result will be like to look at and to live in.



design control

We should, however, have learned something after 200 years of industrialization. Obviously, we should have learned that our only hope is competent control of industrial production for the public good. In terms of mass-produced housing this means that architects and planners must be given adequate power and responsibility to control the design and siting of the houses that industry will produce.

There are some signs of control at the regional, and even at the local planning levels, but nothing much has been said about what is perhaps the most important part of the problem ; the detail design of neighbourhood units and their grouping into complete communities.

It is here that the architect's training and particular interest in the visual and humanitarian as distinct from the geographical or engineering aspect of planning can be most valuable.

The problem is to organise standardised housing units of either prefabricated or in-situ construction into workable and economic communities which are æsthetically pleasing.

functional requirements

All these factors are interrelated and the final solution is sure to be a compromise, though we can only reach this solution by examining each aspect separately.

A considerable study has been made of the *functional requirements* of housing areas and certain standards have been generally agreed. These can be summarised as follows :

(1) The planning and structure of the individual dwelling units must be sound ; they must be properly orientated and sited to ensure maximum freedom from overlooking.

(2) Each house should have an adequate area of private open space directly accessible from the living rooms.

(3) The layout of services should be efficient and economical and all services likely to need repairs or alterations should be easily accessible.

(4) The estate road system should be designed to discourage through traffic, whilst providing adequate access, and the roads should be of suitable width for their various purposes.

(5) A footpath system independent of roads should be provided between houses and schools, shops, community buildings and open spaces, and should permit journeys between all these without crossing main traffic routes.

(6) Community buildings and public parks and play areas should be provided with regard to the requirements of both sexes and all ages, and their siting and spacing should be such as to make them easily accessible from every house.

So much for functions. There is still room for any amount of variation and argument, but we have at least some basis to work from. We can also be reasonably definite about the economics of housing. The rents, rates, fares and other charges must bear a proper relation to wages and the cost of living.

the visual problem

It is much harder to define what is likely to make a housing group æsthetically pleasing. It is so hard, in fact, that we can only find perhaps a hundred stock photographs of pretty pieces of new housing to show as good examples and most of these depend on the relation of sunlight and shadow and existing trees.

Much thought has, however, been given to the problem, and we can now see that a number of apparently unrelated activities have a bearing on it and are beginning to fit together.

Thomas Sharp and others have analysed the gradual evolution of English town and countryside and described the decay of the English tradition of town building and the practical disadvantages and visual incoherence of garden-city housing. Through their works we have come to value the quiet Georgian streets of country towns, and to recognise that the beauty of English villages lies in their direct planning and simple spatial composition rather than in the quaintness of their cottage architecture.

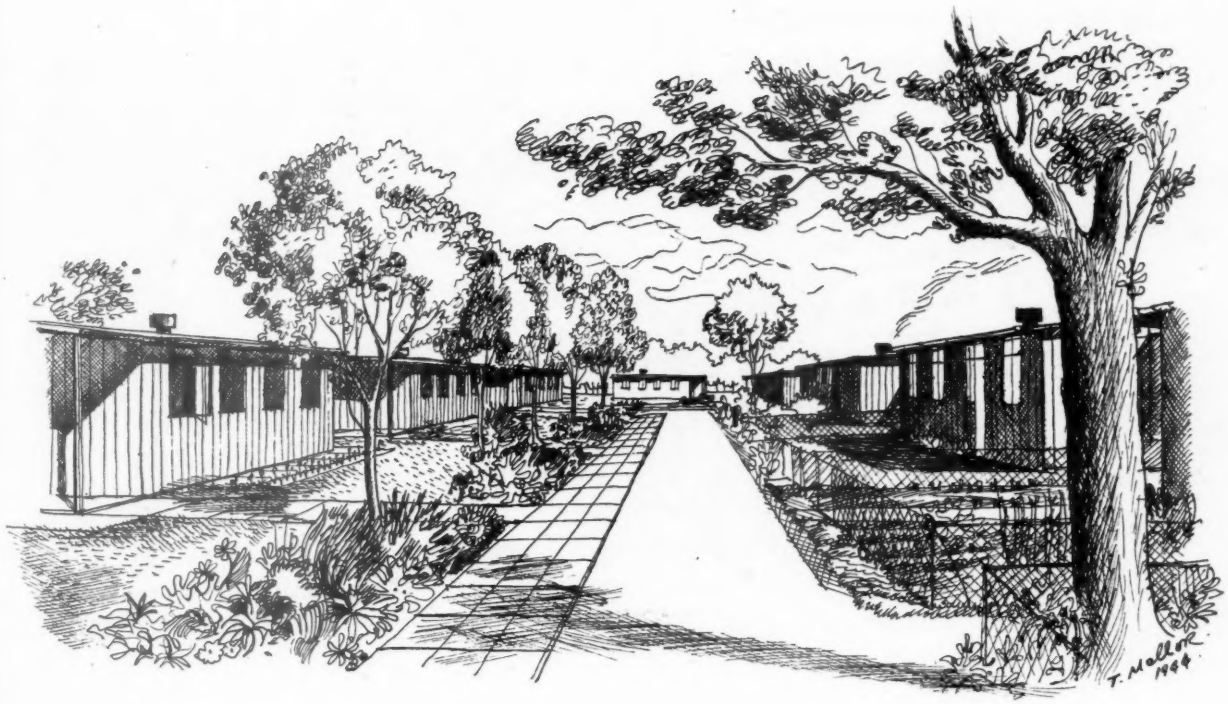
We have learned also from the Surrealists and particularly from those English painters who, influenced by them, have seen with a new vision the delights and curiosities of the English scene.

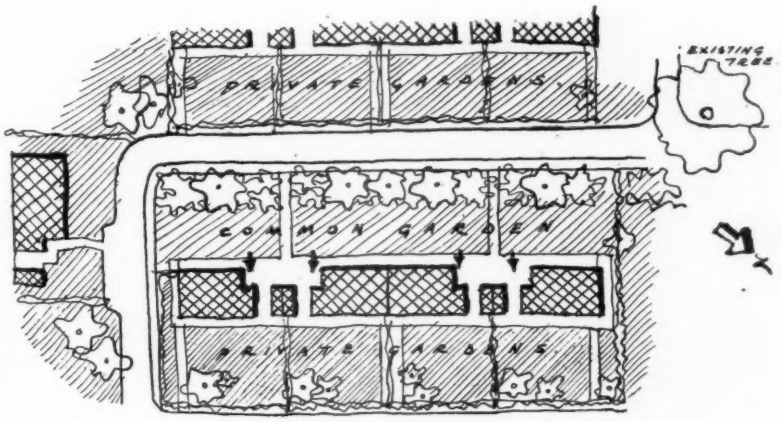
The *Architectural Review* deserves credit for relating their

Inverary—in the English tradition. Direct planning and simple spatial composition. (From *English Panorama*. Thomas Sharp. J. M. Dent, 7s. 6d.).

Equivalents for the Megaliths by Paul Nash, a painter whose compositions in the landscape have much to teach the visual planners of our post-war environment. (From *Paul Nash*. Penguin Modern Painters. 2s. 6d.).

War workers hostels in the North-West, by the Grenfell Baines group of architects, of which the author is a member. One of the many successful war-time experiments in grouping temporary structures.





Proposed layout for Portal Houses. All living rooms face south-west ; there is a common garden on the south (approach) side screened by a shrubbery and new trees, and a small private garden on the north ; the kitchen door would open into this for hanging out washing, etc. All roads, services and planting would serve the later scheme of permanent housing. Existing trees are retained and incorporated in the layout.

work and that of the eighteenth century landscape designers, to contemporary problems of urban reconstruction, and also for opening our eyes to much previously neglected English architecture of great æsthetic interest.

War conditions have given many architects experience of the siting of standardised units and have concentrated the designer's skill on the problem of relating these units to each other and to the landscape, often with interesting results. Camouflage again has given us a new interest in buildings and their surroundings and a wide experience of the effect of colour, texture and planting.

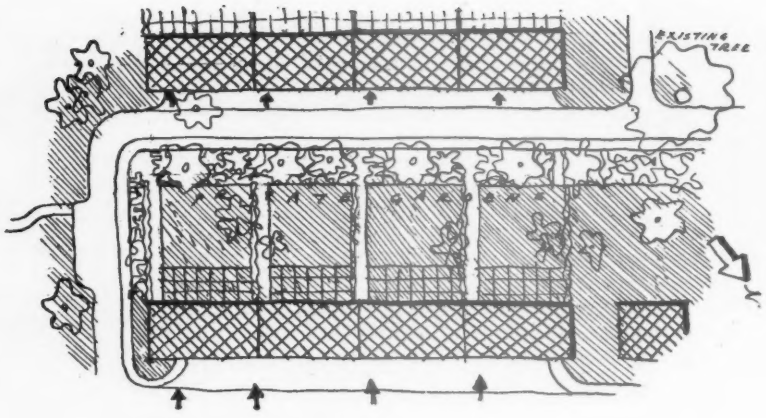
visual planning

We have, therefore, a basis from which we can formulate general principles to be applied to the *visual planning* of housing areas. These are :

(1) The community must be co-ordinated into one or more easily appreciated visual relationships. That is, anyone walking about in it should, at any one time, see a simple and pleasing pictorial grouping of buildings, gardens, trees and open space.

(2) These constantly changing " pictures " must each contain a balanced proportion of contrasting shapes, colours, and textures. The complicated forms of plant life must be placed carefully to be seen against the plain surfaces of buildings. Rough stone and polished glass, open lawn and shrubbery, the simple horizontal lines of buildings and the vertical complex forms of trees, dark green leaves against white walls, all these and many other possibilities must be used in proper relation to the whole composition.

In addition the planner must be willing to make full use of existing site features. Trees, ponds, and variations in level are easily appreciated assets, but the visual possibilities of old walls, gate posts, the Victorian villa on the corner, and even the free-standing facade of a bombed workshop or the chimney of an abandoned



Proposed layout for permanent housing on the same site. Terrace blocks with flats in open space beyond. The houses would be completed before the Portal houses were demolished. All entrances would be from the north. There is a large private garden on the south, and portions of the Portal House floor slab form a terrace.

brickworks must be seriously considered.

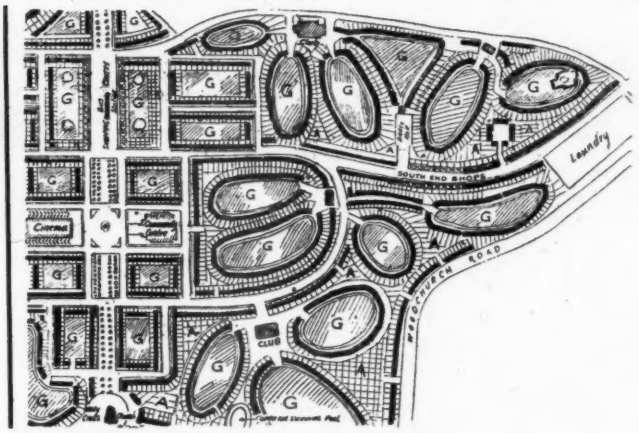
(3) The elements of the picture should be such as to satisfy our ideas of well-being: there must be large windows, flower boxes, lawns and trees, flowers and sufficient open space, and the whole community must have an atmosphere of domesticity, of freedom from traffic noise and confusion. In short, the functional requirements previously outlined must be visually expressed.

conclusion

To summarise, we can say with confidence that the functional, economic and æsthetic problems of community planning can be solved; and that they must be solved if mass-produced housing is to be successful. We have the knowledge and ability; we must see that they are properly used. Otherwise industrialists and contractors will devote their vast resources of man-power, plant and organising ability to producing, with the best of intentions, rapidly expanding belts of rusting suburban slums around our cities.

BIRKENHEAD: Community versus Segregation

A plan for the satellite estate outside Birkenhead would seem but a small incident in the big game of planning. Yet a great deal of publicity is already attached to the happenings at Birkenhead. For here occurred a memorable clash of ideas, no more and no less than a preliminary skirmish, in which the opponents gauge each other's strength. Who proved the better armed ? The city engineer, with fusty statutory planning, or the professor wielding the explosive of community living ? In the council room it was voted that orthodoxy should remain inviolate, but in the streets there are signs that the spirit of adventure is not lacking. Soon the battle will be joined on a much vaster field, and Birkenhead should provide an object lesson for the final disposition of the forces.



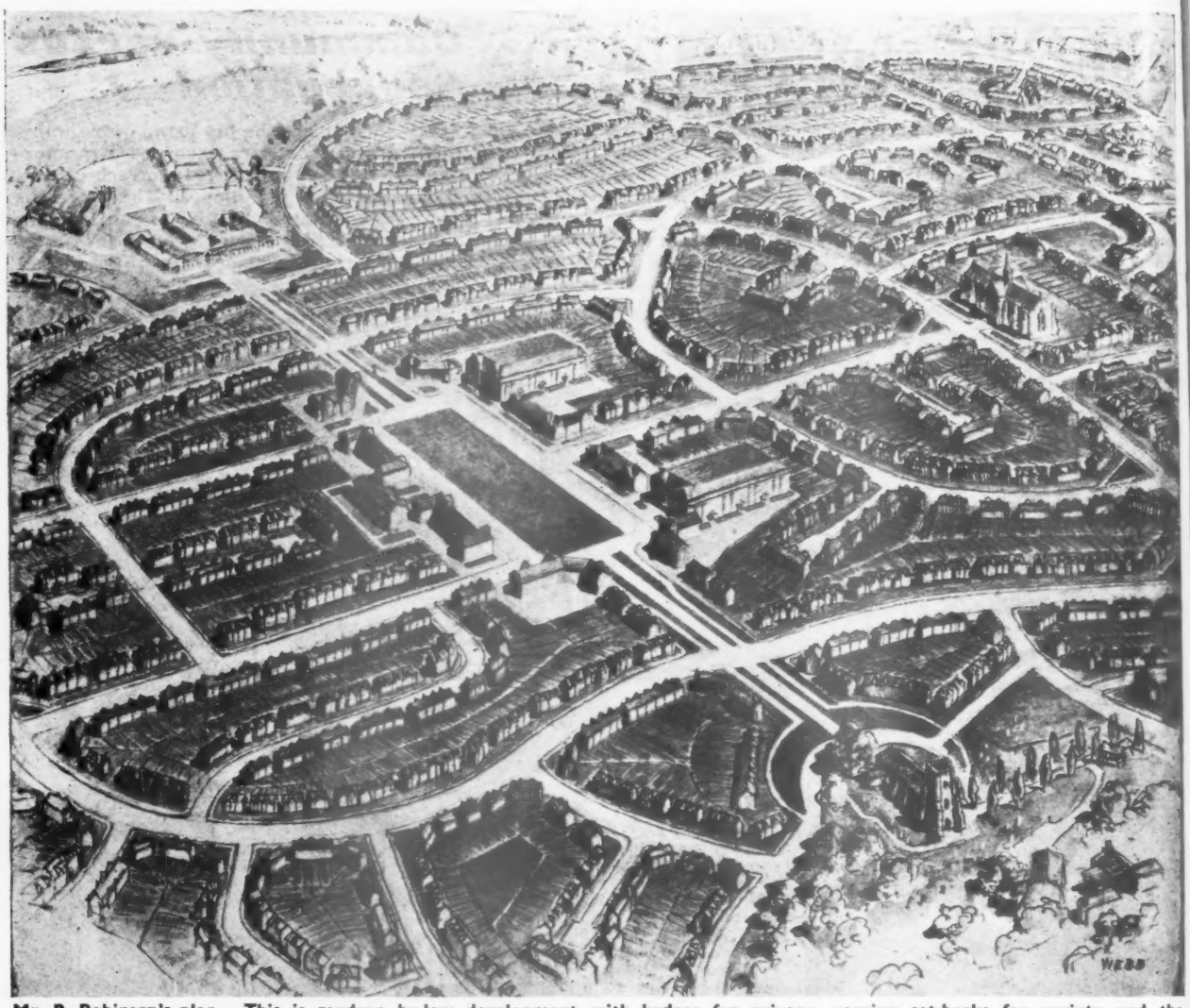
Mr. B. Robinson

While many parts of England longingly await just one plan in which the people can see what sort of shape their village or town will take after the war, the future inhabitants of the Woodchurch Estate outside Birkenhead have two. One by Mr. B. Robinson, Borough Engineer and Surveyor, and one by Professor Sir Charles Reilly, the Planning Consultant to Birkenhead. The plans so clearly illustrate a problem which in one form or another is likely to appear where plans are yet only half-formulated or not formulated at all, that Birkenhead may well prove a test case. For this reason it is worth keeping an eye on Birkenhead, and following its story closely.

Sir Charles Reilly

Few nowadays will deny that the British slum of the by-law era is a blot on our social honour. However, the miles of dingy, treeless streets with inadequate sanitation and an everlasting pall of soot hanging over them, only make more remarkable the strong current of neighbourliness which runs through the people's life, the bursts of real gaiety they show on the occasion of a national or local celebration. To attribute these qualities merely to their all being in the same economic boat is not enough: put them in a mammoth block of council flats with access galleries and clearly defined play spaces, and the outward signs of a vital community life speedily diminish. The key to this social gusto is found in the dismal by-law street. Here, on the front doorstep, is a playground for children and parents, a meeting place for lovers and a trading place for merchants. Some grasping nineteenth century industrialist abetted in law by a criminally unimaginative nineteenth century civil servant has, in fact, provided the means to a really vital social expression, a dangerous, squalid and utterly inadequate means, it is true, but one that is a lesson for the twentieth century town planner.

Before this lesson can really be learnt it is necessary to see the other side of the picture—the picture that too many town planners have taken for a model: the suburban *paradise*. Its outward physical expression is of overpowering neatness and spaciousness compared with the by-law slum; the houses are " different " but this is a trick of salesmanship, reflecting hardly at all the personality of the hire-purchaser, whose inner self must find expression in communion with nature in the front and back plot, where his neat privet hedge encloses him from the responsibilities of a community life for which work and spare-time horticulture give him no chance. This is an environment which has provided (with the aid of the building society) a profitable hunting ground for one of the worst aspects of private enterprise. Through it, like a submerged U-boat, glide dismal neuroses, the result not only of overburdening debt, but also of ruthless physical segregation. The sanitation and spaciousness are advances indeed, but the layout of this superficially prosperous middle-



Mr. B. Robinson's plan. This is modern by-law development, with hedges for privacy, varying set-backs for variety and the accent on exclusiveness rather than community.

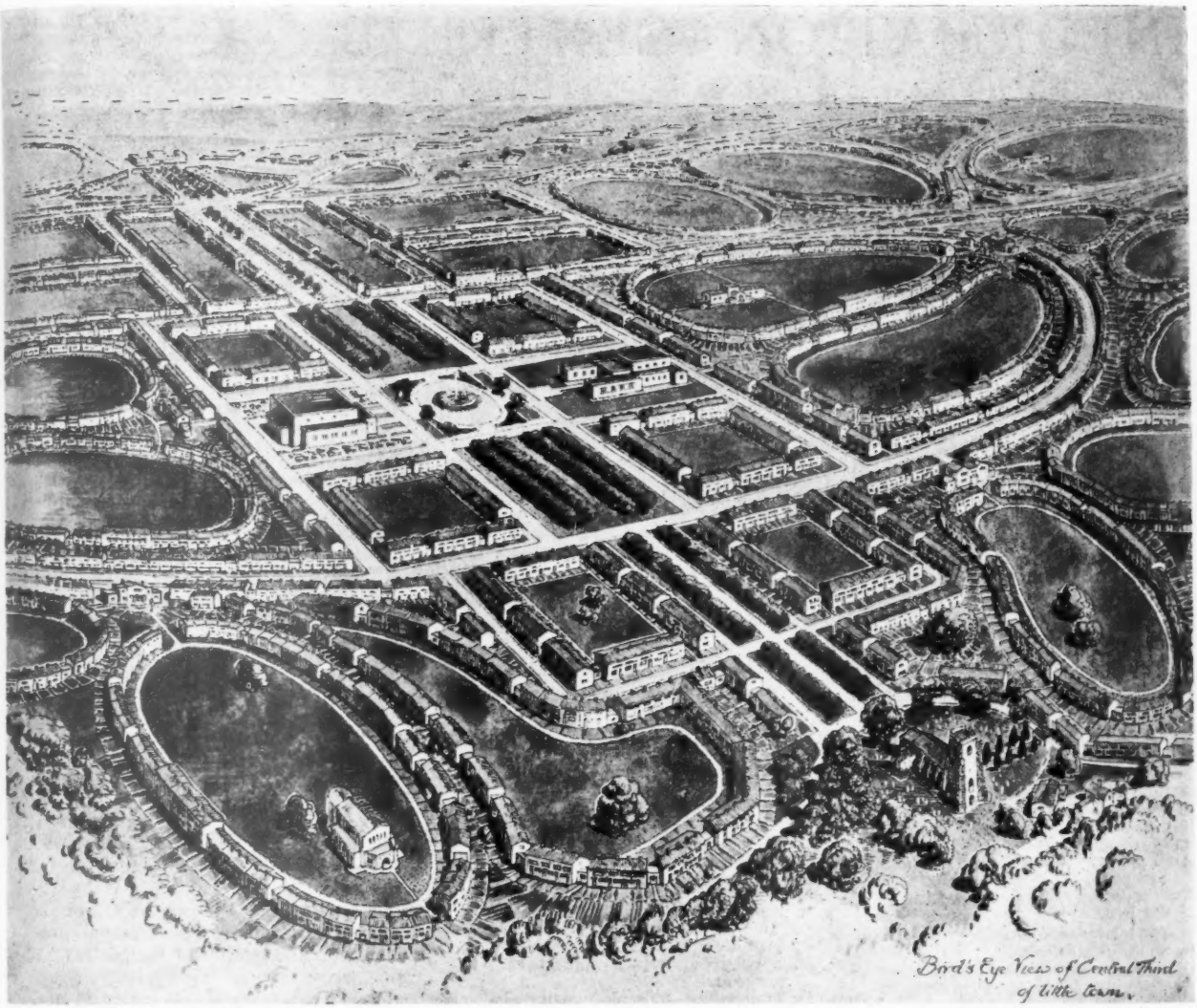
class environment has condemned its inhabitants to a life lacking the vigour and cohesion which comes from a community of real neighbours.*

Although these lessons for a town planner are drawn from the circumstances surrounding two extremely diverse sections of the community, it has been evident between the wars that the schemes produced by town planners for the reconstruction of slum areas, which are backed up by current town planning legislation, tend too frequently to follow the example of "speculative planning" for the middle class and thus to destroy the only encouraging social factor that exists in slum life. It is a fact that a large proportion of town planners while abhorring the sun-ray gateposts and the shoddy half-timbering, have admired the superficial amenities of twelve to the acre, the tiled bathroom and the hot towel-rail. They have failed to look below the surface, to see people's social, as well as their individual, needs. Now that the town planner is coming into his own, and may well be consulted on the layout of private as well as public enterprise housing, he can no longer afford to miss this important sociological aspect of planning —even if it does plunge him into heated controversy with local councils.

Tom Mellor has considered the community design aspect of the grouping of houses in Siting the Factory-made House on p. 81. The Battle of Birkenhead raises the sociological issue—the community planning aspect. Its main interest to planners is in the rival principles which it so well illustrates. The plans, above, are for a satellite estate outside Birkenhead to house about 10,800 Merseyside workers, whose homes are either blitzed or blighted. On the one hand is Mr. B. Robinson, Borough Engineer and Surveyor to the Birkenhead Town Council. His plan is based on the orthodox principles of all the relevant by-laws, the Town Planning Act Schedule, the requirements of the Regional Authority, and the Town Planning Model Clauses issued by the Ministry. Density is about twelve houses to the acre, built in blocks of two, or in terraces up to eight. Each house has a garden, no garden is less than the minimum plot size; allotments are also provided, one for every 25 houses. There is a central shopping and social area laid out round a rectangular square. Roads have been designed with grass verges, shrubs, trees and gradual curves, and have been planned so as not to infringe by-laws, except where relaxation is permitted under the Town Planning Act Schedule. The houses, states the report, all of which front on to roads, will be set back to varying building lines, not only to permit pleasing architectural effect, but also to add to the amenities of the estate by hedging and front gardens, so affording the occupiers a desirable measure of privacy.

Here, then, is suburbia according to the letter of the law, and the spirit of every "spec" and most public enterprise estates built between the wars: hedges for privacy—varying setbacks for variety—the accent on exclusiveness rather than

*See *Anthropological Report on a London Suburb*. Charles Duff. Grayson and Grayson, Ltd. 2s. 6d.



Professor Sir Charles Reilly's plan. The houses are grouped around forty-four squares and potato-shaped greens, with club-houses between. This is a plan for neighbourly living. *(Photos by Picture Post).*

community. No one will deny that it is a vast improvement for Merseyside workers, and no doubt all would have been satisfied, including the Labour members of the Birkenhead Council, had not Professor Sir Charles Reilly, Planning Consultant to Birkenhead, one day seen the estate plan lying on Mr. Robinson's desk, and decided to have a shot at producing an alternative plan of his own.

This plan, which is shown above, is described by Sir Charles Reilly as being a plan for neighbourly living in the traditional English manner. Its forty-four squares and potato-shaped greens appear to be a cross between the English village green and the modern concept of the neighbourhood unit which has been so skilfully developed in the USA. At a meeting in the Birkenhead Town Hall, Sir Charles Reilly described some of the advantages of his scheme, where the women can work while their children play in sight and safety, where they can see their neighbours across the green and walk over and talk to them at any time. He suggested that, since the houses are closer together, it makes a system of district heating more possible and that the Garchy system of refuse disposal might be feasible. The boys, he said, with an average of one boy to each of the forty houses, say, to a green, will start their social life on the scale of a boarding house in one of our public schools, such as Eton or Winchester . . . as they grow up they will belong to their green's cricket team or football team and play against and make friends with members of the teams of the other greens. So the girls with their hockey and tennis, and the older men with their bowls. For the quiet side of life there are the small gardens at the back of the houses and the footpaths which link the greens. These paths, he thinks, will prove to be the Lovers' Lanes until the lovers get into the greenbelt and Wirral at large.

This alternative plan, then, shows a clear understanding of the English working man's aptitude for getting together with others and creating a vigorous community life—when his physical environment gives him the chance. The by-law street, the dismal background to the gusto of community life in the slums, is here expanded into a green. Clubhouses are provided where several greens join. Whether the greens will soon be ruined and turn into an expanse of hardened mud, where footballs whizz past the noses of the incautious, as the opponents of the plan maintain, is doubtful. But as Sir Charles Reilly explained at the end of his speech in the Town Hall, all he has so far been able to do is to trace over the Surveyor's plan. He has not had the facilities to put forward detailed planning proposals. The possible ways of applying the community principle to the grouping of houses and flats are unlimited. Although the Reilly plan has been rejected by the Birkenhead Council by 31 votes to 24 (the 31 rejectors were all Conservatives) and the Robinson plan has been forwarded for approval to the Ministry of Health, the people of Birkenhead have, at least, had the principle of community planning graphically explained to them by one of the most stimulating and dramatic figures in the architectural and planning world and, what is more, outside their council have shown themselves, by a large majority, in favour of it.

INFORMATION CENTRE

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

PHYSICAL PLANNING

1549 Standards for Recreation

STANDARDS FOR RECREATION. (*National Recreation Association, New York.*) Proper recreation facilities are essential to city life. Pamphlet indicating standards of distance, position, size and equipment that should serve to assess present position in towns and determine their future needs.

Standards for the Neighbourhood Playground

1. To reach a playground no person should have to walk more than one-quarter mile in densely built-up neighbourhoods; one-half mile under most favourable neighbourhood conditions.

2. Each city needs one acre of playground for each 800 of the present and estimated future population.

3. Size of playground needed varies with neighbourhood population.

Population of neighbourhood		*Size of playground needed*
2,000	..	3.25 acres
3,000	..	4.00 acres
4,000	..	5.00 acres
5,000	..	6.00 acres

4. The playground should provide most of the following features:

- Corner for pre-school children.
- Apparatus area for older children.
- Open space for informal play.
- Surfaced area for court games such as tennis, handball, paddle tennis, shuffleboard, volley ball.
- Field for games such as softball and modified soccer, touch football, mass games.
- Area for story-telling, crafts, dramatics, quiet games.
- Shelter house.
- Wading pool.
- Corner for table games and other activities for old people.
- Landscape features.

Standards for the Playfield

1. A playfield within half-mile to one mile of every home, depending on population density and ease of access.

2. For the city as a whole, one acre of playfield for each 800 of the present and estimated future population.

3. Size of playfield, 12 to 20 acres or more. A playfield is needed for at least every 20,000 of the population.

4. The playfield should provide most of the following features:

- Separate sports fields for men and for women—for such games as baseball, football, field hockey, soccer, softball.
- Courts for tennis, boccie, horseshoes, shuffleboard, roque, paddle tennis and other games.
- Lawn areas for such activities as croquet, archery, clock golf.
- Outdoor swimming pool.
- Theatre or band shell.
- Fireplace, table and benches for small group picnics.
- Recreation building.
- Children's playground.
- Running track and spaces for field events.
- Centre for day camping.

Standards for Indoor Recreation Centre

1. A building within half-mile to one mile of every home, depending on population density and ease of access.

2. A building for at least every 20,000 of the population, regularly open for community recreation use throughout the year.

3. Desirable facilities include:

- Gymnasium, with seats for spectators, lockers and showers.
- Assembly hall or auditorium with stage.
- Lounge or room for informal reading and quiet table games.
- Arts and crafts workshop.
- Room for active table and other games.
- Two or more club or multiple-use rooms.
- Social or play room.
- Snack bar.
- Kitchen.
- Office.
- Service and storage rooms.

Standards for general Indoor Recreation Facilities

Recreation interests of communities vary but in general every city needs in public buildings of various types:

- Gymnasium for each 10,000 of the poulation or less.
- Auditorium or assembly hall for each 20,000 or less.
- Social room or play room for each 10,000 or less.
- Lounge for informal reading and quiet games for each 10,000 or less.
- Game room for each 10,000 or less.
- Arts and crafts workshop for each 10,000 or less.
- Club or multiple-use room for each 4,000 or less.
- Indoor swimming pool for each 50,000 or less.

In applying these standards to your city, count all facilities generally and regularly available to community recreation use, whether in recreation buildings, schools or other structures.

MATERIALS

1550 Plastics

PLASTICS, SCIENTIFIC AND TECHNOLOGICAL. *H. R. Fleck, M.Sc., F.I.C.* (*Temple Press*, 25*s.*). Comprehensive handbook, intended as companion to monthly publication *Plastics*, presupposes some scientific knowledge on part of reader. Covers history, raw materials, chemistry, theory, manufacture, testing, etc. Fully illustrated.

Plastics has become a word at which the average hack journalist sees, if not red, at least a picture of many and fantastic colours. Extravagant claims are made that they will replace glass, wood and fabrics in the coming plastics age, and many books concerned with "selling" plastics have not presented fairly enough the drawbacks as well as the potentialities, admittedly great, of these new synthetic materials. They have at least cleared up one misconception by stressing that plastics must be judged solely on their own merits and not as Ersatz, which notion the Germans used as a propaganda trick to mask their very effective use of these new materials for the Wehrmacht.

The book is written from the point of view of the plastics chemist and producer rather than from that of the engineer or architect, who will find little mention of the methods of using plastic materials, after having learnt that they must not be treated as substitutes for the older materials. But for this a handbook of engineering plastics and the literature issued by the manufacturers are more appropriate (Recommended: *Handbook of Engineering Plastics*. D. Warburton-Brown [Newnes]). Some important allied topics are dealt with fully, for example adhesives, paints, synthetic fibres and textiles, films, and the use of plastics in conjunction with established materials—glass (e.g., as cements, and in safety glass), metal (e.g., as corrosion-resisting coatings), and wood (e.g., in plywood)—whose importance in this war and in post-war reconstruction, more particularly in prefabricated housing, cannot be over-estimated.

This handbook fulfils a present need, for the plastics industry is developing rapidly into something of major importance. Mr. Fleck has compressed a considerable amount of information into a comparatively small volume, and together with a handbook on engineering plastics this should be a valuable aid towards a good basic knowledge of this important subject. Unfortunately, the secrecy that industrial competition demands has prevented the recording of many recent developments of importance, but the book for its size (300 pages) is remarkably detailed.

1551 Pocket Book for Builders

FOWLER'S ARCHITECTS', BUILDERS' AND CONTRACTORS' POCKET BOOK. (*Scientific Publishing Co., Manchester*; *Third Edition*, 7*s.* 6*d.*, *or* 8*s. post free.*) 995 pages of text. Contains much useful information on building materials, building practice and bye-laws. Special Appendix summarises government, professional and technical statements so far issued upon national planning, supply and control of material and recruitment and training of personnel.

1552 Standards in Building

THE USE OF STANDARDS IN BUILDING. *First Progress Report of the Standards Committee of the Ministry of Works.* (*HMSO*, 1944, 6*d.*) Scope of the Standards Committee. Consumer and producer requirements. Programme of work. Prefabrication. List of materials and components. Building drawing office practice.

The standardization of building materials and components is one of the most effective ways of securing efficiency and economy in building.

The Committee was appointed with the following terms of reference: "To study the application in building of standard plan elements, standard specifications and building components, and methods of prefabrication, with the particular object of ensuring:

(*a*) Economy in the use of material in the post-war period;
(*b*) simplified and speedier procedure and construction; and
(*c*) wherever possible, improved quality and design.

"To make recommendations for such standards as well as for standards for terminology and consumer requirements; to collect, review and correlate recommended standards put forward by Study Committees of the Directorate of Post-War Building and

to draft material for the British Standards Institution and the Codes of Practice Committee of the Ministry of Works, to be used in the promulgation of official British Standards and Codes."

The report contains the list of materials and components for which recommendations were agreed up to November 30, 1943 ; 12 typical drawings are included.

An Appendix on the Scope of Prefabrication indicates the lines on which the Committee has approached this subject. Prefabrication has been assumed to mean the production under factory conditions of components which may be used in building; also the pre-assembly of such components into complete units of a building. It was extensively practised before the war. The development during the war of new techniques and new materials is likely to accelerate the trend in the direction of transfer of processes to factories. Factory production reduces the use of manual labour, facilitates repetition of any particular component and assures the fullest use of the machine itself. It allows a more exact control of quality and greater precision of workmanship, extends the field from which labour can be drawn and enables such labour to be used independently of weather conditions.

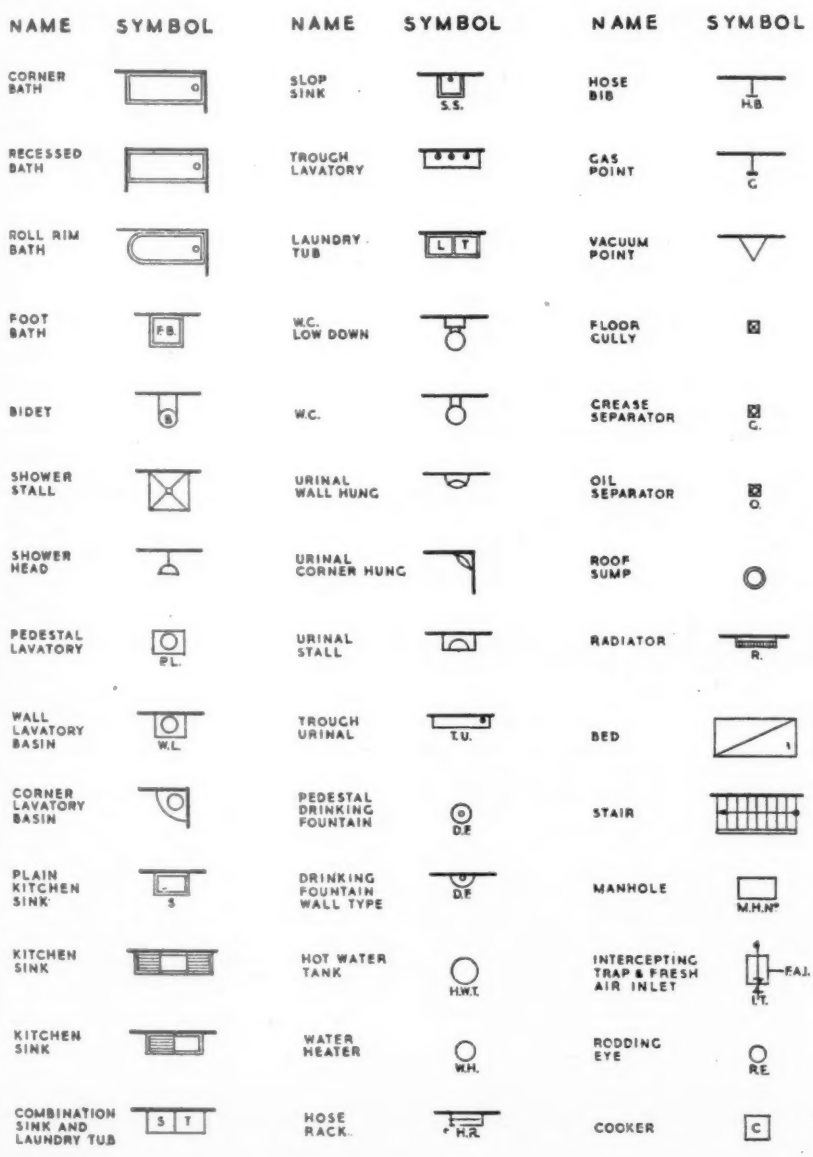
There would be no justification for any new substitutes or alternative method or material unless they secure at least one of the following advantages :

(*a*) Reduce cost ;
(*b*) reduce time ;
(*c*) draw on additional labour and material resources to supplement the normal ;
(*d*) improve standards without adding to the cost.

The possibilities of prefabrication have been following a rising curve. The primitive mud hut is 0 per cent. prefabrication ; the motor car trailer approaches 100 per cent. prefabrication.

The programme of the Standards Committee is proceeding on the following lines :

(*a*) Recommendation for standards for components ;
(*b*) recommendation for methods of assembly of components in the factory and on the site ;
(*c*) considerations of designs of complete units more fully employing prefabricated methods.



Architectural graphical symbols from The Use of Standards in Building, *illustrating the section on* Building Drawing Office Practice. *See No. 1552*

LIGHTING

1553 Lighting Public Buildings

LIGHTING OF PUBLIC BUILDINGS. *W. T. F. Souter.* (*Trans. Illuminating Engineering Society* (*Eng.*), *January*, 1944, *p.* 1.) Summary of lighting practice in several types of public buildings. Paper not constructive but gives understanding of problems of lighting engineer faced with architecture in transition.

In this paper is summarized modern lighting practice in schools, public libraries, galleries, museums, hospitals and meeting rooms and concert halls.

There is a general note on lighting and architecture at the end, and a report of the discussion on the paper.

It is impossible to summarize this paper, because it is itself a summary. And in this respect it is one of those papers which seem to fail of any purpose by attempting too much. It describes in effect the outward appearance of quite a few examples of buildings built or re-lighted in recent years, but there is very little constructive criticism, and the examples illustrate so many different approaches that one is at a loss to find the general principles upon which lighting engineers base their design.

Among the outstanding questions raised in the mind of a reader will be the matter of contrast. We have been told so many times that the eye depends on contrast for its ability to distinguish objects that it is puzzling to find engineers praising so highly the shadowless and contrast-free indirect systems which are illustrated.

Then there is disturbing evidence of the attempts among lighting engineers to attune themselves to the æsthetic outlook of the contemporary designer, without any great success. There is a superficial kow-towing to a modern " style " with emphasis on lighting " effects " as part of the " architecture." Particularly, flush panels are singled out as being modern architectural features, though they give lighting of the direct rather than the indirect character much praised elsewhere.

In other words, the architect will read this paper with some puzzlement so far as lighting is concerned, but he may gain in understanding and sympathy for the lighting engineer faced with an architecture in transition.

1554 School Lighting

POST-WAR SCHOOL LIGHTING. *J. J. Neidhart.* (*Lighting and Lamps*, *February*, 1944, *p.* 20.) General plea for high foot candle levels in schools, with some suggestions for fittings and wall and ceiling tones. Defective eyesight through bad lighting not proved.

The author discusses first the conservation of eyesight in children. He gives, as arguments for good lighting, that 22 per cent. of all school children have defective eyesight and that in better lighted schools children advance more rapidly. The latter researches are not widely accepted in this country as being sound, but the figure of 22 per cent. defectives is generally agreed. The deficiencies are not entirely due to poor lighting, of course, and in fact it is not yet known whether any great part of bad eyesight is due to bad lighting. It may equally be due to hereditary causes, bad nutrition, poor posture and other diverse causes.

The author recommends a service minimum level of illumination of 20 ft. candles for classrooms, together with photoelectric cell control to turn on the light when daylight drops to undesirably low levels. He obviously favours totally indirect lighting as giving uniform illumination though he appears to

overlook the dull appearance of the lower parts of the room which results. This is due mainly to the fact that our eyes adjust themselves to the brightest thing in view—in this case the ceiling—and everything else is accordingly darker. It is well shown in the three illustrations accompanying the article. In the two upper rooms, the fittings send light both up and down, and the rooms are very pleasant. But in the lower view the units are totally indirect, and the desks seem very poorly lighted.

For decoration it is recommended that the ceiling be an eggshell white with a reflection factor of 80 per cent. and the walls of light colours with reflection factors of 50-60 per cent.

HEATING and Ventilation

1555 — *District Heating*

DISTRICT HEATING. *P. A. Kaufmann.* (*Electrical Times, February* 24, 1944, *p.* 228.) Advantages. Survey of special factors involved in district heating. Figures of cost.

The advantages of district heating are (*a*) reduction of atmospheric pollution; (*b*) convenience to the user; and (*c*) economy in fuel. The author believes that district heating could be provided in existing towns; and also that the English climate is more favourable than the American for this type of heating.

One question is whether district heating should be combined with power generation. The latter has been the practice in Europe, and in America, where live steam has been mostly used, there are signs of a change. In Russia and on the Continent, the trend is towards by-product power generation by high-pressure stations or by high-pressure topping installations added to low-pressure condensing sets.

The author has made a detailed examination of the costs of (*a*) a pure heating station; (*b*) a heat and power station with heat accumulator; and (*c*) a high-pressure topping installation. The figures show that any form of district heating can compete with other forms of heating. The load factor affects the various types of station in different ways: with a topping installation the cost of power generation is almost independent of the load factor, and is lower than the price paid by the CEB. This type of plant appears the most economical.

It is not possible to discuss capital charges in detail, since they largely depend on distribution and load density. The latter may vary from 68 therms per ft. run (Germany) to 1,369 therms per ft. (Saratov). Topping installations appear best from the point of view of the ratio of annual revenue to capital invested.

A further difficulty is to balance the heat and power demands, but this can be minimized by the use of heat storage.

1556 — *Radiant Heating*

DESIGN AND PRACTICE OF RADIANT HEATING. *P. Hallock.* (*New Pencil Points, December*, 1943, *p.* 69.) Main advantages of radiant heating. A few practical details for installation of floor heating.

The author briefly discusses body heat loss, pointing out that evaporation of moisture from the skin and lungs is responsible for about 20 per cent. of the total. Losses by radiation and convection, which together amount to 80 per cent., are the most important. The author states that the feeling of comfort is increased as the convection loss is increased in relation to the radiation loss; consequently the most comfortable conditions are obtained with radiant heating, in which the convective loss is aided by the low air temperature. The lower air temperature also tends to increase the losses by evaporation, thus giving comfort over a wider range of humidity.

It is also necessary to ensure a uniform distribution of heat. A single high-temperature radiant source gives a non-uniform distribution, and although there is a large proportion of radiant heat, the feeling of comfort is rather low. In radiant heating systems, of the extended surface type, convection currents and air temperature are reduced, as compared with radiator systems, by increasing the surface area of the heating elements. The higher the proportion of radiant heat, the less the need for air-conditioning, as people are comfortable within wide ranges of humidity. Radiant heating also gives quicker warming of the body. In practice it is not possible to heat all the surfaces of a room, and the heating panels are usually confined to the floor, ceiling or some walls.

The author goes on to describe the method of calculation of radiant systems, the method involving a trial and error estimation of the air temperature and mean radiant temperature necessary for optimum comfort. (It may be noted that recent English research has suggested that the traditional methods of calculating heat losses would not involve serious error in the amount of heating surface installed.)

For floor heating systems, the main supply lines should run round the outside walls, to counter down draughts; and a small coil may be placed beneath large single glazed windows. Floor coils are usually covered with concrete, and any desired floor finish may be employed. If the floor construction is of wood or metal, the coils should be laid between the joists. For temperature control, an air thermostat is preferred.

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.*

1557 — *Women Builders*

Q *I have been asked to collect information about the future employment of women in the building industry. From various allusions in the press and on the BBC a few months ago, I rather think the question has been discussed. Is this so? If so, could you tell me whether any definite statements were made on the subject?*

A As far as we are aware no formal discussions have taken place between high authorities in the building industry on this subject, and if they have, the conclusions reached have not been published.

There was a conference on *Women in the Building Industry* arranged by the Women's Engineering Society and the Electrical Association for Women, at 20, Regent Street, London, S.W.1, on April 20, 1944. At this meeting the following resolution was passed unanimously:

> "In view of the anticipated shortage of labour in the building industry arising from housing schemes adequate to the needs of the nation, the Government should consider the provision for women of training facilities in appropriate trades in the building industry, and the trade unions concerned should introduce any modifications necessary in their rules and practices to facilitate the employment of women trainees."

We suggest that you get in touch with the two associations responsible for this meeting, at 20, Regent Street, London, S.W.1.

SOCIETIES AND INSTITUTIONS

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

TCPA

Sonia Dresdel

At 2, Savoy Hill, W.C.2. Lunch-time meeting of the Town and Country Planning Association. Talk on TOWARDS A REAL NATIONAL THEATRE, by Miss Sonia Dresdel. Chairman: Lewis Casson.

S. Dresdel: We talk of building a National Theatre in South Kensington. Characteristically we have talked about it for a very long time. I do not need to tell any audience of town and country planners how long is the passage of time between the drafting of a scheme, or the birth of an idea, and its realization in our physical environment. But suppose we had a National Theatre building in South Kensington—and we ought to have such a building somewhere in the new London—how much influence would that exert on the miners of the Rhondda Valley, on the steel workers of the Midlands, or on the fisher-folk of the North-East of Scotland? It's hard to say what the indirect influence would be. But it is easy to say quite certainly that the direct influence would be negligible. The fact is that over thirty-five million people in this small island have never seen *one* play in the whole of their lives. If one were to attempt to calculate the number of people who have never seen a *decent* play, the number would be very much greater still. That is a thought to make those of us who value the idea of an intelligent, educated, cultured community almost despair. It is a thought that might shake the Minister of Town and Country Planning, the Rt. Hon. W. Shakespeare Morrison, into changing his middle name to Snodgrass.

Let us look at one or two other alarming facts. Four out of five of the population of England and Wales live in towns. Only one town in every fifty has a proper theatre. How, under such physical conditions, can we have a *real* national theatre, a theatre which is truly national and not national in name only? The theatre in England to-day is the preserve of the big towns and, to a large extent, the

preserve of London. It is, to a large extent again, the preserve of the West End of London, and of the well-to-do. (Who, but the very comfortably off, can afford the price of a West End stall to-day? Certainly not those who live in East Ham or Bow.) Yet so strong is the pull of the lights of London, so glamorous is the legend of the attraction of the West End shop, the West End restaurant and the West End theatre, that London doubled its area between the wars and added over a million to its population. The factories—and what factories—that litter the Great West Road; the mile upon mile of sham Tudor houses which form vast dormitory suburbs, are the tangible and unspeakable result of this lure of London. Now that lure consists, as I have said, very largely of London's shops, London's restaurants and London's West End theatres. And to that list one might add London's galleries—particularly the National Gallery and the Tate Gallery—and London's parks—St. James's, Hyde Park and Regent's Park. (And it should be noted, incidentally, that these parks are national in the sense that they are maintained not by the ratepayers of London, but the taxpayers of Britain.)

I do not say it is wrong that people should be attracted by these things; obviously it is natural and right. What I think does follow is that if we are agreed that London is too big and that the mere size of London makes it a menace to the good life (whether economically or socially) of our regional capitals and to the smaller towns throughout Great Britain, then something must be done about it. We must, in short, reverse the trend. We must see that by wise schemes for the location of industry, this monstrous growth of London is arrested, and that a more vigorous, diversified, industrial life is secured throughout the country in these smaller towns. We must, as a source of inspiration, build new towns as well designed and as well equipped as our town planners, our architects and our sociologists know how to make them. We must, in short, shape our physical environment on the best possible pattern, first nationally, second regionally, and third locally. And that, too, will constitute a reversal of the trend for, as I understand it, planning in this country has always proceeded traditionally but illogically from the local plan upwards to the national plan.

But even when we have put our plan into operation and when all the people are living in good, well-equipped, spacious houses in beautiful towns and our countryside is no longer the playground of the speculative builder, but the scene of a vigorous and prosperous agriculture, what then? Men cannot live by bread alone, and even if *man* can live in a Portal house, dumped down with no relation to work, to education, or to social and cultural centres, it is certain that he, his wife and two children cannot.

The physical expression of our planning is most important, but any plan which does not aim at satisfying the *inner* life of man and the spiritual side of his nature, is not planning at its best—although it may be planning of a kind, totalitarian planning for instance.

Planning then, as I see it, must provide for the decentralization of the arts as well as of industry. The magnetic power of the metropolis can only be balanced by the provision of equally good shops, equally good restaurants and equally good theatres and other cultural buildings in the regional capitals. The populations of our smaller towns can only be transformed into vigorous, thriving communities by the provision of facilities for recreation and for cultural entertainment, which should be different from that provided by the larger towns only in scale, not in quality.

The population of our countryside, awakened to and aware of the possibilities which a scientific age offers to the mass of people everywhere, are demanding and are entitled to expect, that rural seclusion should not mean rural isolation—an existence cut off from the main stream of our time.

Now all this would be incapable of fulfilment if the people of this country were unresponsive to the stimulus of art. In fact, the people of this country *are* interested in art in all its forms. It is a mistake to imagine that even ballet has remained the cult of long-haired men and short-haired women. The cotton workers of Manchester and Bolton have watched the Vic-Wells Ballet enchanted, with as much enthusiasm as any audience at the Sadlers Wells Theatre. When Mr. Ernest Milton and I were playing Shakespeare together at the Old Vic, and we took the *Merchant of Venice* to the remote corners of our forgotten industrial hinterland, the audiences responded with a sincerity of feeling that was a profound stimulus to the players. It was obviously a moving experience for them—and consequently for us. We played to the miners of Durham and Northumberland—to people who had never seen a play before and who were obviously spellbound by the beauty of Shakespeare's words and by the colour of the presentation. We purposely dressed the play in the brightest and most beautiful costumes possible. And what a stirring contrast the lighting and rich, warm colours made to the grey drabness of the normal surroundings of the audience. Most of the villages we played in were indescribably dismal.

All this is merely to say what is well known—that CEMA has not only done a magnificent work in three or four years of war, it has done it with magnificent success.

We need, therefore, have no fear that this movement to decentralize the arts will be something thrust upon the people. The people from Land's End to the most remote corners of the Highlands of Scotland are hungry for art in all its forms—for plays, music, ballet, painting, sculpture, poetry; for all the things that kindle the spirit of man and awaken in him the poet and the creative artist. They are hungry not only to receive, but to give. And that is very important.

Given the right environment, people will want more and more to choose the right things and do the right things. The Americans have an expression to the effect that in tackling anything of social significance, one must "get down to the grass roots." The grass roots for the theatre and the arts in Britain are all right. But "the hungry sheep look up and are not fed."

What then is needed if we are to have a truly National Theatre? First, we must have in every town of ten or fifteen thousand population and over a community building catering for many different kinds of social activities; having a library and reading room, a gymnasium, a hall for public meetings and a smaller room for committee meetings, play-reading circles and so on; having an excellent café and restaurant, and having an intimate theatre with a properly equipped stage of a reasonable size and with adequate dressing-room and box-office accommodation. The whole building should be surrounded by a really charming garden or park, which should, as a matter of course, be landscaped, so as to provide facilities for open-air performances in summer.

If every moderate-sized town had such a building, nine-tenths of the battle would be won. Whether such a building should be associated with some other essential service of the town—with a health service or an education service—is a matter for discussion. Whether such a centre should take the form of *one* building or a group of buildings is also a matter for discussion—no one would suggest that all towns should follow one set pattern in providing a home for the arts. Artistes cannot perform without the means for presenting a performance. But assuming such provision is made, what then?

We need to organize our theatre in such a way that the finest performances are available in all parts of the country. That will demand of our greatest artistes a willingness to tour, not to rest content with the laurels of the West End, but to bring their finest work to the provinces. The best artists—the greatest members of my profession—have always been willing to do so. But, it will be argued, it is not a commercial proposition to take the greatest plays to the smaller town. Of course it isn't. But it is not always a commercial proposition in the great cities either. It certainly wasn't before the war.

A living National Theatre cannot and should not be run without regard to financial considerations. The spectacular and spectacularly successful productions which make considerable profits should help to pay for productions of greater artistic merit which may incur a loss. As to subsidies, I am not against them. We had to subsidize opera, so why not a subsidy for the theatre, for ballet, for music and for art? I am not forgetting that the theatre is an industry as well as an art. We must be reasonable and see to it that those who have already, out of their private initiative, invested money in the theatre do not find themselves subject to undue competition from the subsidized or part subsidized National Theatre.

The theatre is the fusion of two elements—the players and the audience. The one is necessary to the other. The purifying effect of great tragedy was a commonplace to the ancients; the therapeutic value of a good laugh is recognized by every physician as well as by common sense. Let us, therefore, have more playhouses, more players and bigger and better audiences in *all* the towns of Britain, not just in one or two big cities—the Theatre, Music and all the Arts reaching out so that all, no matter where they live, may have an opportunity of coming under its influence and of feeling its magic.

TCPA

F. J. Osborn

At 2, Savoy Hill, W.C.2. Lunch-time meeting of the Town and Country Planning Association. Talk on NATIONAL PLANNING, THE IMMEDIATE PROGRAMME, by F. J. Osborn, Chairman of Executive Committee of TCPA. Chairman: John A. F. Watson.

F. J. Osborn: We do not want the Government to do a single thing, we do not want them to come to a single decision on post-war policy, that can be postponed till the crisis of the war is over. But we ask them to realize that to pursue this great housing policy without expressed statement as to the pattern of town and country arrangement at which they are aiming, is not really postponing a decision at all. Given the housing policy, it is a decision which cannot be postponed. In other words, no decision, if I may be paradoxical, is a decision. It is a decision to let the old forms of town development continue.

We want the accidental decision reversed, by the taking now, while there is still just time, of a conscious decision. Realizing that it involves issues of technique that will take time to work out, we do not ask for a detailed programme. What is imperative at this stage, to save a most dangerous situation, destroying everybody's hope of really satisfactory towns and countryside, is a decision of principle.

The situation would be met, without irretrievable damage, if the Government would now make a statement that it accepts the essential porposals of the Barlow Report in principle, and will carry them out to the extent found, on further examination to be practicable. The proposals, which are now widely accepted, incidentally by the reconstruction committees of the three great political parties, are as non-controversial as any definite policy can be, include:

1. A National Plan with adequate power to the Ministry of Town and Country Planning to carry it out.
2. Decentralization of industry and population, involving:
   (*a*) The rebuilding of congested cities carried out at lower density and with less concentration of workplaces.

(*b*) Promotion and encouragement of new urban developments, not in suburbs of large cities, but in enlarged village units, and extensions of the smaller towns and in garden cities.

3. Better balance of industry throughout Great Britain.

4. Encouragement to new industries to settle in approved areas, rather than in congested cities. Planners are not proposing dictation as to where firms shall go, or which people shall work for them, or where individuals shall live. A combination of restriction where there is too much industry and business, and encouragement where we want people to work and live, will provide great changes in a period of years, without making anyone feel that he has been moved ruthlessly where he does not want to go.

5. The blitzed areas and the housing shortage must receive prompt attention. Nothing suggested by planners will delay that. All we want is that the speed and energy to be applied to housing shall be applied within the framework of a good and definite town and country planning policy.

Certain financial measures will be necessary. The actual cost of building and rebuilding will be no more under intelligent planning than under a policy of drift. In the long run it will be less. The cost will be heavy in any case. We must see that we get the best value for our money.

The compensation and betterment question cannot be evaded if we are to have any sort of planning at all, and I trust the Government will commit itself to the principle that compensation and betterment should be dealt with under a national system. The matter cannot be dealt with locally if we are going to make a serious effort at decongestion, decentralization and the protection of the country belts around cities.

This immediate programme, I suggest, however, does not require the immediate production of a Bill dotting all the i's and crossing all the t's as to the methods of control of location, standards of density, compensation and methods of encouraging new towns.

Having taken these decisions of principle, the Government will not only release a lot of local and private energy, now frustrated by complete inactivity, it will also greatly expedite ministerial work in preparing the urgently needed legislation and close a tiresome and prolonged controversy on a question to which, in the end, there can be only one sensible answer.

AIA

John Gloag

At the National Gallery, London. Meeting of the Artists' International Association. Paper on DESIGN FOR INDUSTRY read by John Gloag.

J. Gloag : It is a startling and unfortunate truth that if every man and woman who practises the graphic or plastic arts, or whose work is concerned with that large field of activity described under the heading of Design, were to die to-morrow, there would be no appreciable difference in the conduct or character of contemporary British industry. The disappearance of the artist would be noticed in the distributive trades, but the course of industrial production would be largely unaffected, and the directors of industry would be largely undismayed, if not completely indifferent to what I, and everybody else in this room, presumably, would regard as a disaster of the first magnitude.

Such indifference is not confined to industry. If the disaster which I have mentioned should occur, the general public would also be unaffected. The press would take note of it : there might be a third leader in the *Times*, a scholarly middle in the *Spectator*, and the *New Statesman* would no doubt have some constructive suggestions to make ; but to large sections of the press it would be a good news story—nothing more.

Now, why is Britain afflicted by this indifference to the life and work of the artist ? Some weeks ago, the Director of the National Gallery, Sir Kenneth Clark, wrote a most informative and lucid article in the *Sunday Times*, on patronage and art. Few men living to-day have done more for art education than Sir Kenneth Clark, and he speaks with an authority to which few other people can pretend. He gave, in his article, two examples of industrial patronage for art and design. He spoke of the work of the late Frank Pick, who was unquestionably the greatest patron of industrial design who ever lived in this country His influence expressed through his work for London's Underground Railways and public vehicles, was immense ; it still remains. Sir Kenneth mentioned the name of Mr. Jack Boddington, who, through the Shell organization, has extended far-reaching and stimulating patronage to the graphic arts. Now, Sir Kenneth Clark's article was followed by a volume of correspondence, and I am taking the liberty of quoting a letter written by Mr. Michael Rothenstein, which went to the root cause of our national indifference to the things which are seen. Mr. Rothenstein pointed out that much could be done to encourage talent and the appreciation of art if only the general public had any positive feelings at all on artistic values. He went on to say (and I am quoting his words as they appeared in the *Sunday Times* on April 9) :

" The artist, unlike the doctor; for example —whose advice is sought on all matters connected with bodily health—has no particular status : indeed, he is thought of as playing a quite superfluous role. But were it possible to imagine a society which had learned to use its eyes, which was thoroughly educated in appearances, and was therefore sensitive to its surroundings, we should see the artist forced to open his studio door at recognized hours for consultation on questions of design. Should the town hall be colour washed ? Is it permissible to put steel furniture in a Tudor sitting-room ? How should the main square be decorated for the Salute the Soldier campaign, etc. ?

" If people felt at all positively about any of these things we should have the needful starting-point. But, alas ! they don't, as we all know. One need hardly comment on the extreme insipidity of the newer public-houses and cinemas, for instance ; yet these are the most frequented places of public enjoyment. " Taste springs from a desire for an environment at once ordered and expressive ; it answers an essentially creative need. But ever since the industrial revolution human creativity has suffered a steady decay."

Mr. Rothenstein, you see, has identified the real trouble, when he says that the general public are without positive feelings on artistic values, and, as an inevitable result of the public's deficiency, the artist has no particular status.

In what previous period of civilization has the artist lacked status ? In what previous period of civilization has the practice of the arts been ignored, and the very work of the artist unknown, and even unsuspected ? Only in those periods when what we know as civilization has been submerged in the murk of barbarism. Not since the Saxon and Jutish savages overthrew the Roman province of Britain in the fifth century have we endured a period when the populace lived their lives uninfluenced by and unconscious of the arts.

In the damage it has wrought, in the ignorance it has promoted and sustained, the industrial revolution may be compared, not unjustly, with the ravages of the barbarian invasions of fifteen hundred years ago. Like causes beget like effects. The few civilized people who lived out their precarious and broken lives in fifth-century Britain, must have looked back with longing to the peace, prosperity and culture of the Roman province. Precisely the same nostalgic longing for the past overtook cultivated men and women in the middle years of the nineteenth century. Artists and designers turned away from industry : they looked back to the past. They even started handicraft revivals. They made little or no attempt to understand this queer, monstrous, barbaric thing called industry, that was bringing great riches to their country, but which was repellently ugly, dirty and careless, and controlled by men as indifferent to civilized values as the Saxon barbarians had been.

What then could the artist do, except draw aside the hem of his garment, fearing contamination ? Thus began the rift between art and industry, which widened, decade by decade. Gradually, the idea became established that the artist, the man with the trained imagination, was a man apart : he had nothing to do with life, and of course nothing to do with business, commerce or industry. Most artists encouraged this belief. The results are before us : to repeat Mr. Michael Rothenstein's words : " The artist now has no particular status."

Although some people, generally the buyers of retail stores, are prepared to claim with complacent confidence, that they know what the public wants, it is a preposterous claim, because nobody knows ; and, because they lack positive feelings about artistic values, the public itself doesn't know what it wants, although it very often knows emphatically what it *doesn't* want, as shopkeepers and government departments are constantly finding out, somewhat to their irritation. I know that the public buys things of good design, though not nearly so often as they buy things that are either badly designed, or are not designed at all. Maybe this is because the supply of well-designed things is far too limited. Some great industries have worked productively with designers, and the results have been commercially successful. But we have to go a long way with education ; and the education of the public, which must of course begin in the elementary schools, should include training which will enable them to enjoy the pleasures of visual experience, and will restore to the British people full use of the sense of sight, which they enjoyed with such splendid thoroughness in the last great Golden Age of design, which lasted from the Restoration of Charles II to the death of William IV.

For nearly one hundred and eighty years, we enjoyed a period of unexampled coherence, graciousness, and functional fitness in the design of nearly everything concerned with the environment of life. That could happen again, but it can't possibly happen completely for at least a century, though we could start work on the task of restoring national taste now. We have, during the next few years, a wonderful opportunity for civilizing this commercial machine age of ours. Remember, that in the not very distant future, we shall have a new sort of public, living side by side with the existing public and differing vastly from the public we knew in the 1930's. Men and women will be coming home with service experience ; they will be returning with a desire to make homes of their own, but they will have heard a great deal about the sort of homes they could have ; the sort of homes that industry could provide for them. Many of them will have exchanged views with their American comrades, and they will have heard how much easier life is in America because of the enormous abundance of well-designed, labour-saving objects in nearly every house, however small, in nearly every apartment, however cheap. In the United States, industry has come to terms with the designer, and the designer has discovered how he can become a real partner in the business of industrial production.

I contend that, with this new public in prospect, and with education planned far ahead—not in the short life of a mere Parliamentary session—but education that will reach out four, five or six generations ahead : if then, such education is planned, and the public in the near future, is given an oppor-

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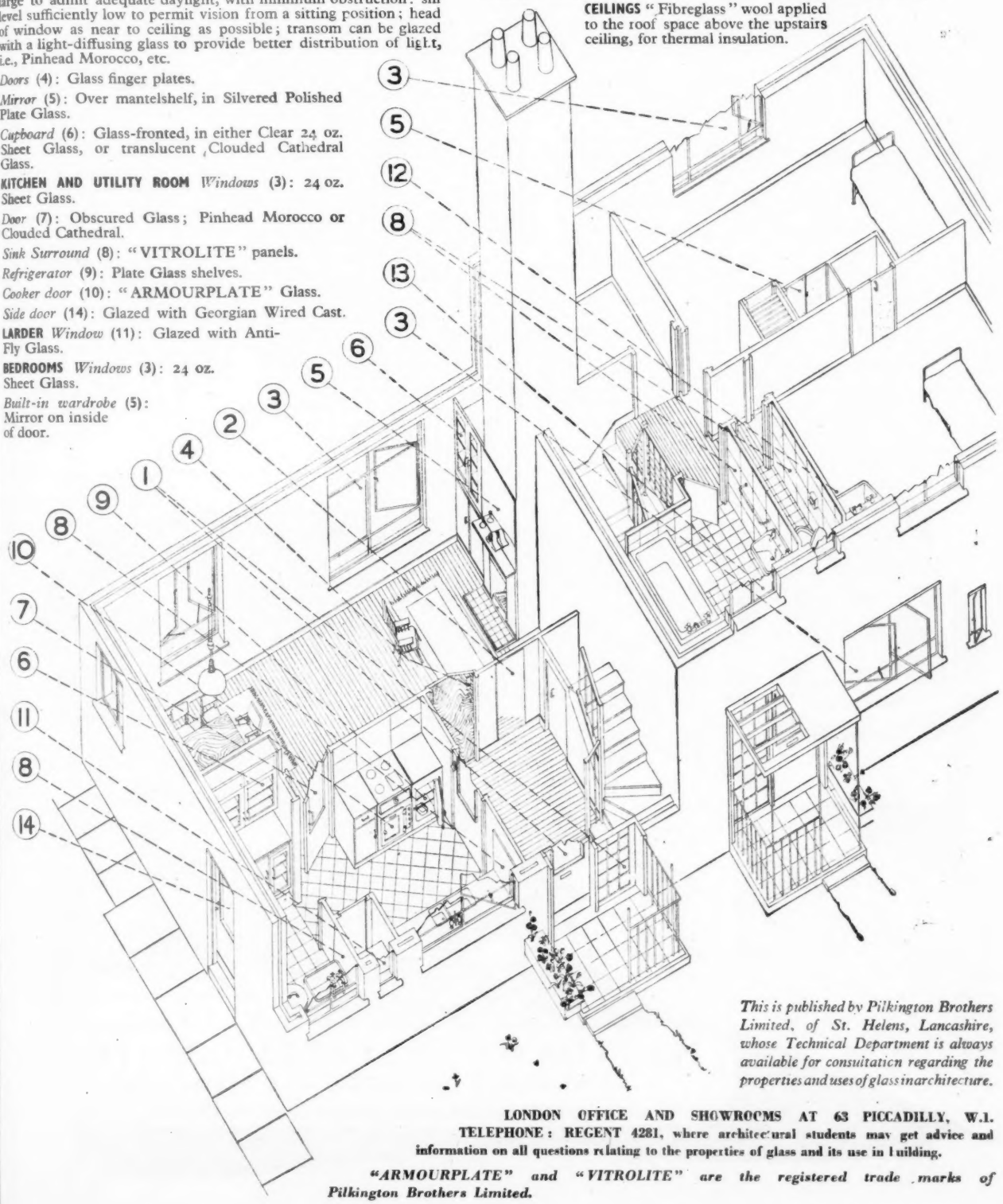

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tunity to buy things of good design, we shall regain, as a nation, all the critical values we have lost during the past century, and our designers will then be able to serve industry adequately and fruitfully.

There are two divisions of industrial design, and I put them in this order of importance :—

1. Design which is concerned with the *form* and *function* of a manufactured object and which determines the selection of materials and fabricating processes. It is for this division that the industrial designer works primarily, though his interest and activity are often carried into the second division.

2. Industrial decorative art, which is concerned with the creating of *decorative patterns* and the use of colours and textures in relation to such patterns. Many capable artists are attracted by the opportunities this division affords, though it should be understood that creative ability successfully expressed in the practice of industrial decorative art is not necessarily a qualification for the far more exacting needs of the first and principal division. Industrial design demands a different, though no less imaginative, type of mind.

These divisions are suggested to me by the practice of the National Register of Industrial Art Designers, who classify work under two headings : (A) Designers of *Shape*. (B) Designers of *Decoration*.

The need for good design will be pressing, because we are now in a new phase of industrial development, which began after the first world war, and has, since 1939, been greatly intensified. Steam, iron and steel dominated the industrial technique of the last century ; electricity, plastics and light alloys now form a new association of power and materials whose economic employment requires a corresponding association between design and industry.

This second industrial revolution through which we are now passing, is largely unrecognized. But some manufacturers have identified this new revolution in industrial technique. Many manufacturers have been conspicuously successful in the partnerships they have worked out with designers. Let me give some examples : In the first division of industrial design, we can place such well-known articles as the Murphy Radio sets, designed by Gordon Russell and his gifted brother, R. D. Russell ; the famous electric iron designed by Christian Barman for HMV Household Appliances ; the Otto stove designed by Raymond Loewy, that great American industrial designer, and Charles Scott, for Allied Ironfounders Ltd. ; the Aga heat storage cooker, originally designed by Dr. Gustaf Dalén ; the radio sets in moulded plastics designed for E. K. Cole Radio Ltd., by Misha Black, Serge Chermayeff and Wells Coates.

In the second division, industrial decorative art, I would refer to the work of the late Eric Ravilious for Wedgwood pottery, to Keith Murray's work for the same firm, and his designs in domestic glass for Stevens & Williams Ltd., and to the decorative treatments carried out for Pilkington Brothers Ltd. on various forms of glass, by Kenneth Cheesman, Sigmund Politzer and Hector Whistler, and to the glass patterns designed for Chance Brothers & Co., Ltd., by Paul Nash and R. A. Duncan. I have only mentioned a few names and examples. Manufacturers who employ such designers certainly regard design as a business operation.

Now, before I sum up the various aspects and prospects of design for industry, I have something to say about nationality in design. These papers are read under the auspices of the Artists International Association. In Britain, we have a great tradition of giving hospitality to foreign artists : long may it thrive and continue. The work of artists and craftsmen from other lands has, generation after generation, enriched our capacity to produce goods. The expulsion of the Huguenots from France in the latter part of the seventeenth century, which retarded the development of French industry, greatly increased our own prosperity and industrial ability. Both this country and the United States have gained incomparable assets in skill and knowledge as a result of the intolerant folly of contemporary dictators, who are far less civilized than Louis XIV, but just as silly. But, there is great artistic and commercial virtue in the preservation of national character in design. Some designers and writers talk about an international style, and suggest that certain forms almost inevitably arise from the use of certain techniques and materials ; and by the unimaginative, this is naturally hailed as a blessed doctrine. I would merely point out that nationality may be expressed with imagination ; that nationality in art can be an inspiration, though in other directions, as we are witnessing at the moment, it can be the greatest curse that has ever afflicted humanity.

If the artist, or as I prefer to call him in connection with industry, the designer, is to play an effective part in reconstruction, he must be prepared to collaborate with the manufacturer as a partner, to assert his right to be regarded as a technician, for he is just as much a technician as the research chemist, or the production engineer, or the sales executive. He must be prepared, in collaboration with manufacturers, to undertake design research work. The manufacturer must recognize design as a basic operation, not as an after-thought. Both designers and manufacturers should realize that there is a new public, attuned to change and receptive to new ideas—that new public is now growing up and will be establishing itself in the post-war world. Manufacturers, in particular, should remember that people everywhere are expecting, and have even been encouraged officially to expect, a more agreeable environment, and better and more convenient things for their daily use.

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