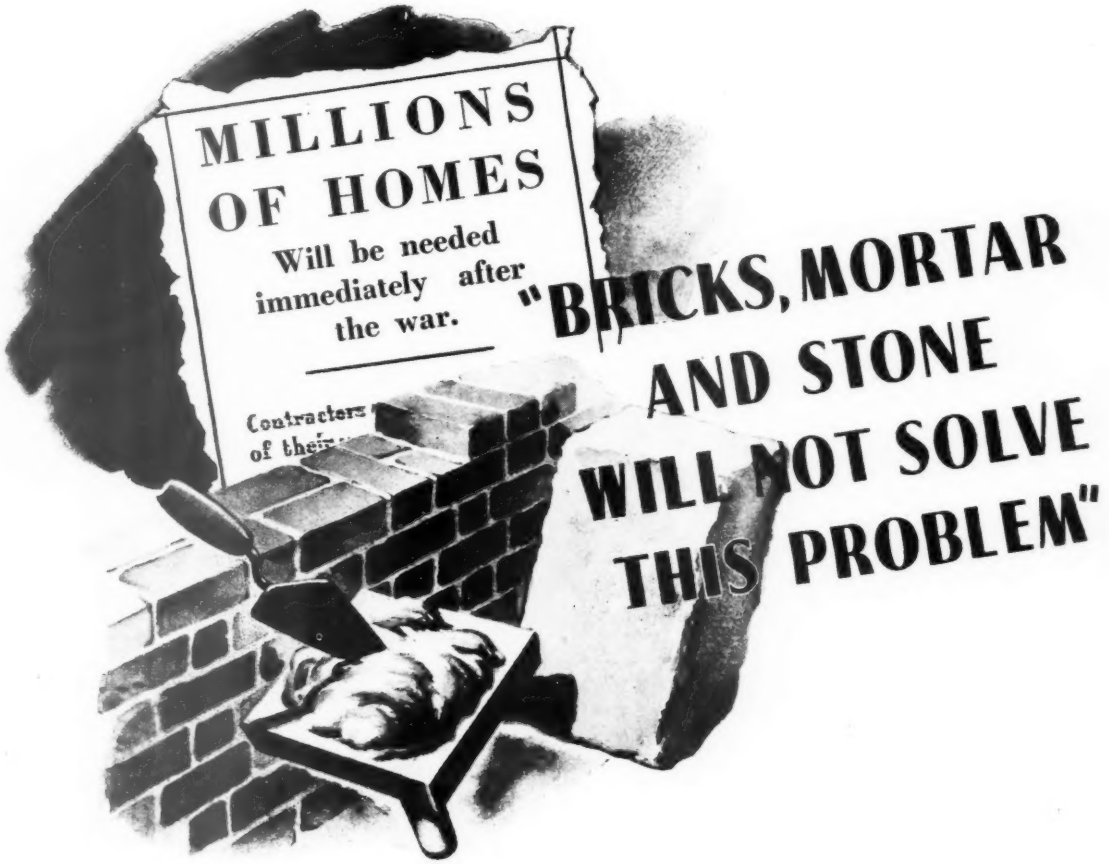
Alphabetical Index to Advertisers

Continued on page vi

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

Alphabetical Index to Advertisers—*Continued*

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



"The nation wants many millions of decent homes at the earliest possible date and at the lowest possible rent. It is obvious that 'bricks and mortar and stone' cannot alone solve the problem. The aim can only be achieved by organized mass production, by the improvement of our building technique and by the utilization of all available sources of labour and material" . . . says a leader writer in the ARCHITECTS' JOURNAL.

Because we have for some years held the same view, we have carried out extensive investigational and practical experimental work in modern methods of rapid construction, and in consequence we have been entrusted with the organization and erection of many prefabricated canteens, offices, farm buildings, hostels, day nurseries, etc.

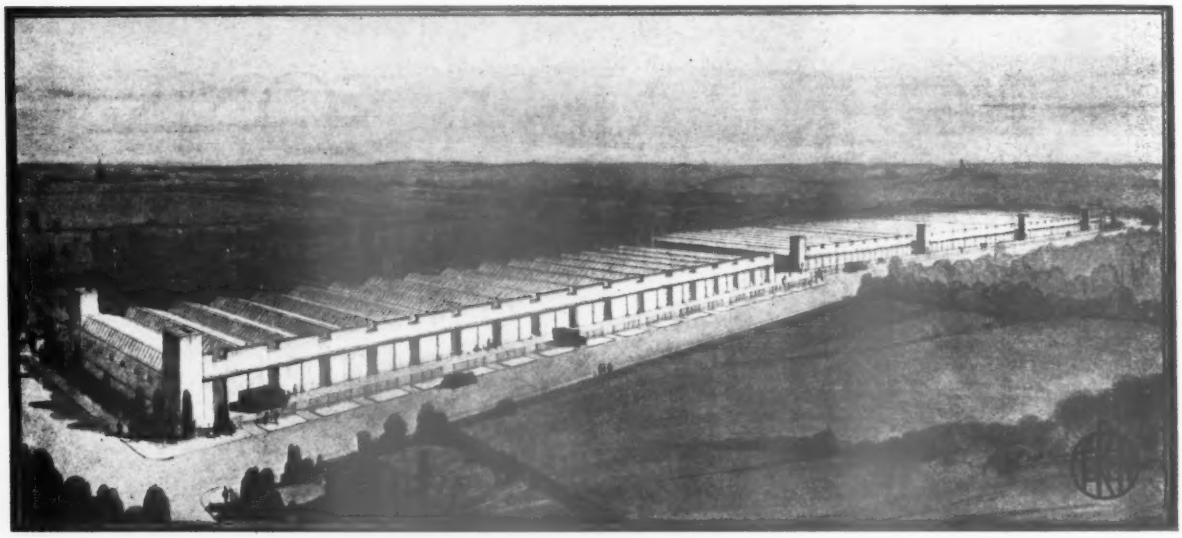
Though experimental work on structional assembly and on the detail design of internal equipment is well advanced, there still remains much to be done and for our part we are keen to collaborate with those architects, manufacturers and others who may be themselves experimenting in new methods of rapid construction.

PREFABRICATED CONSTRUCTIONS Ltd.

BUILDING AND PUBLIC WORKS CONTRACTORS

Contractors to The Ministry of Aircraft Production and Ministry of Works

12 GROSVENOR STREET, LONDON, W.1 Telephone: Mayfair 8306-1818



STORAGE BUILDINGS, IN A SOUTHERN COUNTY — *Mr. Thomas Braddock, F.R.I.B.A., Architect*

Built by

THE TOKEN CONSTRUCTION Co. LTD.

Building and Civil Engineering Contractors

22 PARK STREET, LONDON, W. 1

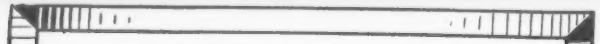
Telephone:
LONDON OFFICE
Grosvenor
3821
(6 lines)

AND

STATION ROAD, THATCHAM near NEWBURY, BERKS.

Telephone:
THATCHAM OFFICE
Thatcham, Berks.
3243
3275

ENQUIRIES INVITED FOR INDUSTRIAL BUILDINGS, HOUSING ESTATES, SEWERAGE AND WATER SCHEMES, ROADS, CONCRETE WORKS, EXCAVATIONS, LEVELLING AND SPORTS GROUNDS



Gaze's at your service

W. H. GAZE & SONS LTD.

BUILDING AND CIVIL ENGINEERING CONTRACTORS

KINGSTON-ON-THAMES

Telephone: KINGSTON 1144 (8 lines)
And WASHINGTON HOUSE 40-41, CONDUIT STREET, W.1

GAZES

FARM BUILDINGS

The above illustration shows part of a complete range of farm buildings, cowshed, dairy, calf boxes, loose boxes, stables, etc., in course of erection by Geo. W. King Ltd., in the Eastern Counties.

For over 17 years Geo. W. King Ltd. have specialised in building and equipping farm buildings of all descriptions.

The future of Farm Building and Agricultural Building Development is receiving urgent consideration, and King's stand foremost amongst those prepared to offer helpful advice and practical suggestions in this field. If you are contemplating the erection of any type of farm building, whether it be a complete range of buildings or a small implement shed, write to us for Informative Booklet B.D.43.

Below shows exterior view of cowshed to hold 40 cows; erected at the Ovaltine Dairy Farm at Aldenham. Rustic fletton bricks add a pleasing external appearance to a strictly utilitarian interior. Built and equipped by Geo. W. King Ltd. Architect: L. A. BOWDEN, Esq.

GEO. W. KING LTD. HITCHIN 960 (10 LINES)

HARTFORD WORKS — HITCHIN — HERTS

NORTHERN OFFICE: 22 PARLIAMENT ST: YORK. PHONE: 3593

Big Ben was placed in the Clock Tower in 1858 under the supervision of Mr. F. Dent. The dials are 23 ft. in diameter. The minute hands are of copper, 14 ft. long, and weigh 2 cwt. The hour hands are of gunmetal, 9 ft. long and weigh 6 cwt. The counter weights are almost 2 tons. 292 steps lead up to the top room, and winding is done by electric motor three times a week.

IF BIG BEN CUCKOO-ED... **ARENS** COULD BE THE CONTROLLING FACTOR

Did we hear the gentleman in the Club murmuring "Sacrilege!"

Seriously, though, we only took this liberty with the world's most famous clock as a graphic means of making our point—that when it is a question of control, however remote it may seem to you, ARENS is really on the spot.

Of course we can only supply you with ARENS WINDOW CONTROLS *now* if you have something really special in the way of priorities. But as a matter of academic interest we have an expert staff who will be delighted to give you technical details about Handles and Slides, Rack and Pinion Regulators, Screwed Regulators, and other Arens fitments. And an enquiry now *will* save time later.

ARENS

Reg. Trade Mark

REMOTE CONTROLS

Approved by

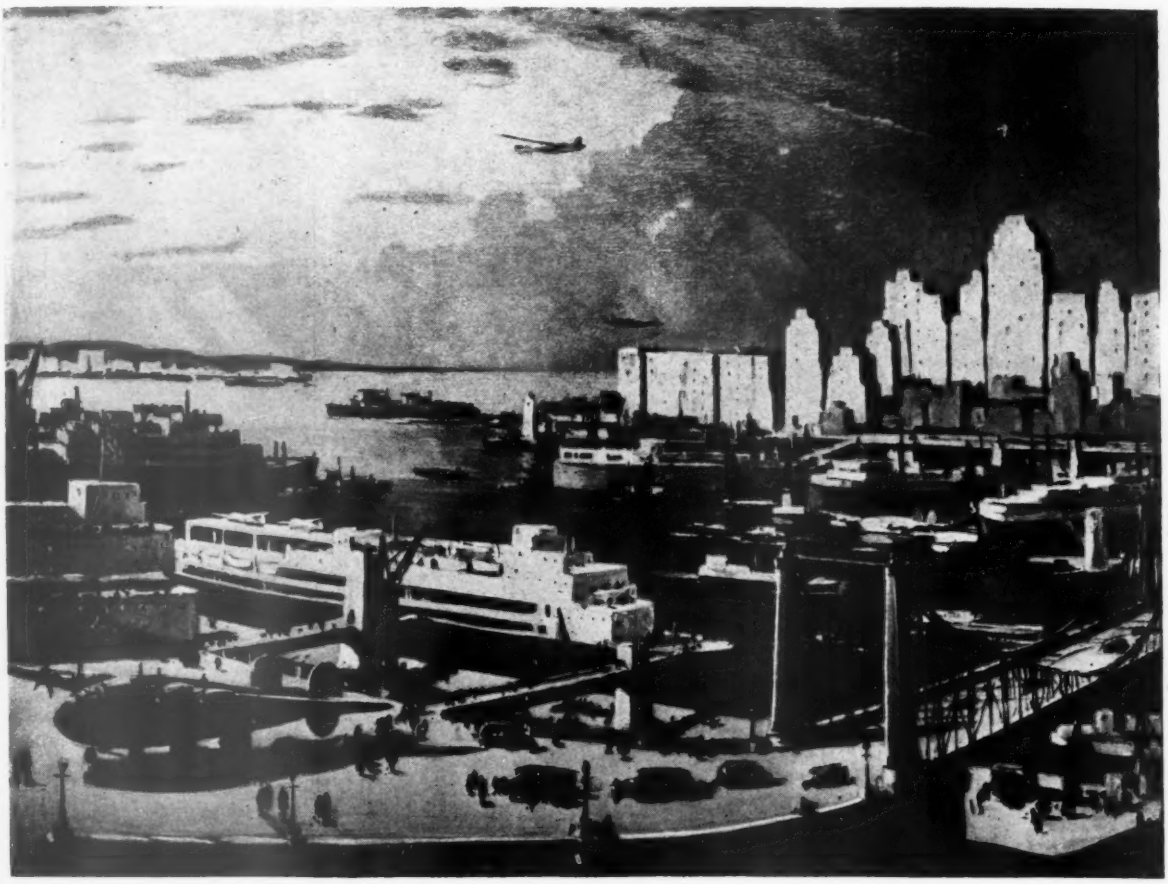
Admiralty *Ministry of Supply* *Ministry of Aircraft Production*
Ministry of Works *Ministry of War Transport*

ARENS CONTROLS LTD.

TUNSTALL ROAD · EAST CROYDON · SURREY
Telephones: ADDiscombe 3051/4 Telegrams: Unicontrol, Phone, London

831/3 WARWICK ROAD · BIRMINGHAM, 11
Telephone: Acocks Green 0786

The New Horizon .. 3



Original Painting by Charles Cundall, A.R.A.

"They built great ships and sailed them" sounds most brave,
Whatever arts we have or fail to have;
I touch my country's mind, I come to grips,
With half her purpose thinking of these ships.

JOHN MASEFIELD—"SHIPS."

Our nation has earnestly sought, in its maritime progress, to establish and uphold the freedom of the seas.

For centuries stout ships were launched and men sailed them to strange and distant lands. These pioneers put to sea with confidence and trust in those who designed and fashioned their vessels. Such is the proud heritage of courage and high endeavour which must exist so long as the spirit of liberty prevails.

THE UNITED STEEL COMPANIES LTD

Ships there will always be ; great ships, and men to sail them, with the added faith that the materials and construction are honourable traditions of scientific skill and superb craftmanship. And when the darkness of war has passed, swift and graceful ships will ply the oceans of the world, not only carrying their many cargoes, but also bringing an enduring friendship to all nations united under the flag of freedom.

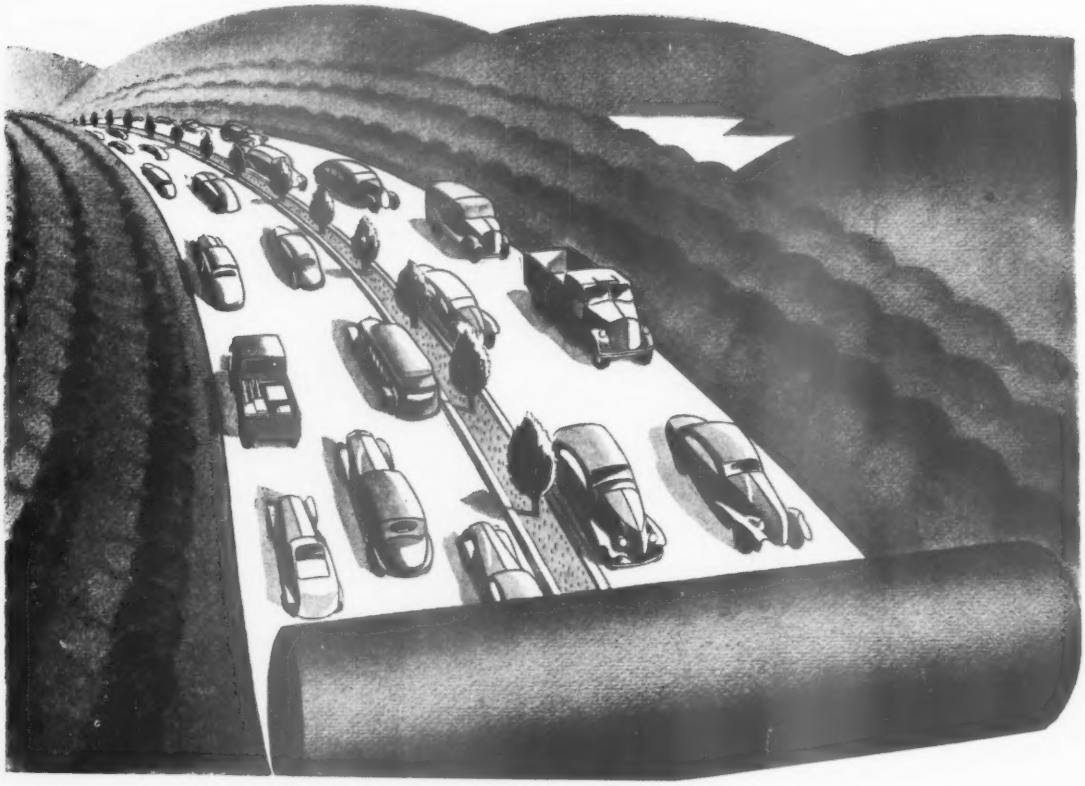
THE UNITED STEEL COMPANIES LIMITED

STEEL, PEECH & TOZER, SHEFFIELD
SAMUEL FOX & CO. LTD., SHEFFIELD
UNITED STRIP & BAR MILLS, SHEFFIELD

APPLEBY-FRODINGHAM STEEL CO. LTD., SCUNTHORPE
WORKINGTON IRON & STEEL CO., WORKINGTON
THE SHEFFIELD COAL CO. LTD.

THE ROTHERVALE COLLIERIES, TREETON
UNITED COKE & CHEMICALS CO. LTD.
THOS. BUTLIN & CO., WELLINGBOROUGH

U.S.P. 17



THE TECHNIQUE OF POST-WAR ROADS

Plans . . . blue-prints . . . theodolites . . . ranging poles . . . drainage levels—the tools of architect and surveyor. Broad white highways steadily unrolling over hill and plain . . . brilliant feats of road engineering . . . swiftly-moving cars . . . runways for yet more swiftly moving 'planes to ride the aerial highways . . . more concrete . . . more and yet more Sisalkraft.

Yes, the technique of post-war roads will demand concrete of a dense, hard set . . . dependent on moisture control in the mix . . . dependent, too, on Sisalkraft. For Sisalkraft will ensure even hydration . . . and as an underlay will retain moisture to circumvent honey-combing and exclude soil impurities.

Sisalkraft is not an emulsion impregnated sheet of brown paper. It is an unusually strong material (practically untearable), a fusion of pure bitumen and two sheets of extra-tough Kraft paper reinforced with crossed Sisal fibres; that is why Sisalkraft is consistently used by Government Departments, Municipal Authorities, and Public Works Contractors . . . and why Sisalkraft Standard Grade for post-war use will play such an important part in future reconstruction plans.

Write to-day (enclosing 1d. stamp) for full technical details.

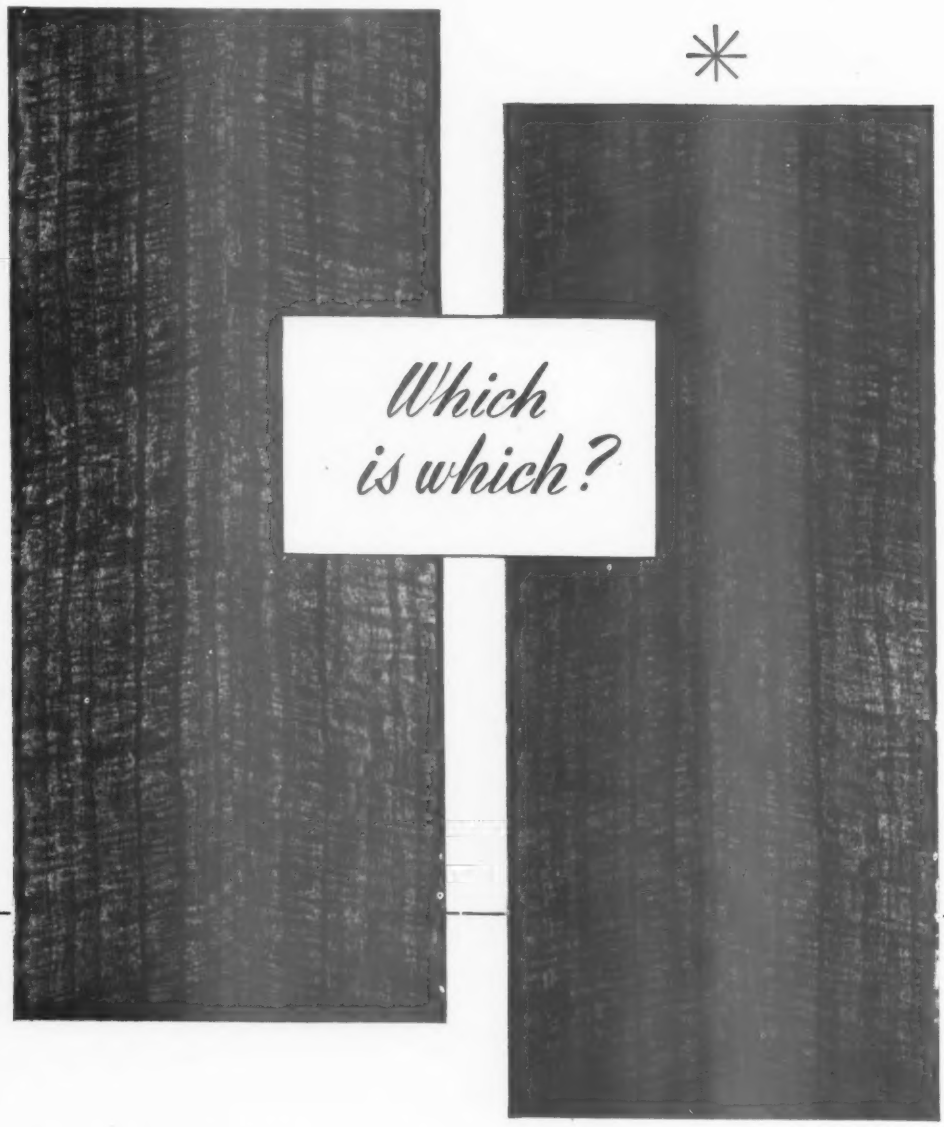
SISALKRAFT
TRADE MARK

J. H. SANKEY & SON, Ltd

TELEPHONE: HOLBORN 6949 (14 LINES)
TELEGRAMS: BRICKWORK ESTRAND LONDON

SOLE DISTRIBUTORS FOR BRITISH SISALKRAFT LTD
ALDWYCH HOUSE ALDWYCH LONDON WC2


"Staybrite"
for Rust, Acid, and Heat Resisting.
FIRTH-VICKERS STAINLESS STEELS LTD SHEFFIELD



✳ You cannot tell. Nor, at a glance, can we . . . . . The asterisk marks a "REPLICATE" door, but it is indistinguishable from the original fine veneer (on the left) from which it is reproduced. "REPLICATE" doors will make available the beauty of the choicest and most expensive woods in a durable finish, suitable for any building—after the war, of course.

'replicate' doors

frankly a reproduction.

F. HILLS & SONS LIMITED - MANCHESTER 17.

R.D. 7.

PLASTICS for door furniture

PLASTICS *is the name of a variety of substances, having a chain-like molecular structure, which at some period of manufacture exhibit plastic flow. Usually by the application of heat and pressure, the raw material is made to take and retain a desired shape. Some plastics are moulded directly into the final form, others are made into sheets, tubes and rods which are then manipulated or fabricated into the shape required. Plastics vary in substance from the finest of fibres and films to gears and bearings more durable than steel. They can be made in practically any shape and colour. In the supplying of household equipment of the future they will have a particularly important part to play.*

FUNCTIONAL ADVANTAGES

In designing the perfect, final form of door furniture in plastics, few if any limitations exist because of the nature of the material or of the processes of manufacture. The ideal shape can be achieved, in material able to withstand any likely strain without breakage or chipping, and capable of standing up to severe atmospheric and chemical conditions. For damp situations, in kitchens and bathrooms for example, the use of plastics reduces condensation and abolishes troubles arising from corrosion and defective plating. Smooth finishes permit no lodgment for dust or dirt. Plastics are low conductors both of heat and of electricity, qualities which add to their safety and pleasantness in use.

COLOUR POSSIBILITIES

No longer are plastics confined to dull browns, greens and black; instead, an infinite variety of shades is available—white, ivory and the pastel colours, together with the brilliant primaries, red, yellow and blue. Plastics are also made as transparent as glass.

It is now easy to produce colour harmony throughout the decorative scheme, the door furniture matching other plastic equipment such as cabinet handles, light switches and ventilator grilles.

ECONOMIES IN PRODUCTION

Plastics offer the economies associated with mass production, without however involving a rigid uniformity. Moulds, to justify their expense, must be put to extensive use, but new developments in mould assembly, together with the freedom to change colours during process, permit a great number of variations at very little extra cost.

COLLABORATION IN DESIGN

If the inherent advantages of plastics are to be developed fully, the closest collaboration is called for between the technologist, the architect and the industrial designer. Only thus can plastic door furniture be made functionally perfect, pleasant both to hand and eye and at a price which will permit its use by the greatest number.

FUTURE DEVELOPMENTS

Lacrinoid have been making door furniture and cabinet handles for nearly twenty years, but in preparing for post-war reconstruction they have approached the problem afresh. They have now in the blue print stage a range of door furniture which they consider is the most efficient that has ever been designed. Within a few months after the end of the war, production will start.

LACRINOID for plastics

LACRINOID PRODUCTS LTD · MOULDERS, MANIPULATORS AND FABRICATORS OF ALL PLASTICS · GIDEA PARK · ESSEX. *Telephone: Hornchurch 2981*

Flat roof by Briggs

The Embassy of the United States

Designed by R. W. Barton, Esquire, M.Inst.R.A., the Embassy of the United States of America in London is yet another famous building with a FLAT ROOF BY BRIGGS.

THIS small piece of American territory in London is covered, as would only be expected, by the finest roofing in the world—"CHALLENGE" Flat Roofing by Briggs. Much has happened since this famous building was completed. Briggs, like you, are now fully occupied in the National effort. But, in the reconstruction of the peace, Briggs will be able to offer you a technical organisation, strengthened by war-time experience and research.

William Briggs & Sons Ltd., DUNDEE

LONDON: VAUXHALL GROVE, SW8 · ALSO AT GLASGOW, EDINBURGH, LIVERPOOL, BRISTOL, ABERDEEN, NORWICH

Q. *"I intend using reinforced concrete, but is it possible to make further reductions in the weight of steel?"*

A. *Yes; and considerable reductions, up to 30 per cent or more if you use Square-Grip Reinforcement.*

Whether you are planning city buildings or factories, houses or flats, public utility installations or agricultural structures, all the usual advantages of reinforced concrete are obtained and some considerably enhanced with Square-Grip *work-hardened* steel Reinforcement. And, what is important, are accompanied by a very real reduction in weight of steel—30 per cent or more compared with ordinary mild steel bars.

This saving is due to the greatly superior strength and the physical characteristics of the scientifically twisted square bars from which Square-Grip Reinforcement is made in the form of meshes for slabs or rods for beams, columns or similar units.

IN A WORD . . .

. . . this is how SQUARE GRIP reinforcement saves the nation's valuable steel. Take, for example, a building of conventional steel construction which requires 1,500 tons of steel. Concrete reinforced by ordinary mild steel round bars would need 1,125 tons of steel, while concrete reinforced by Square Grip rods would only require 675 tons of steel.

. . . and this is because Square Grip rods have a working tensile strength 50% greater than mild steel round bars and a bond resistance many times more efficient.

Full technical data supporting these claims supplied on request.

SQUARE GRIP

THE SQUARE GRIP REINFORCEMENT COMPANY LTD.

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

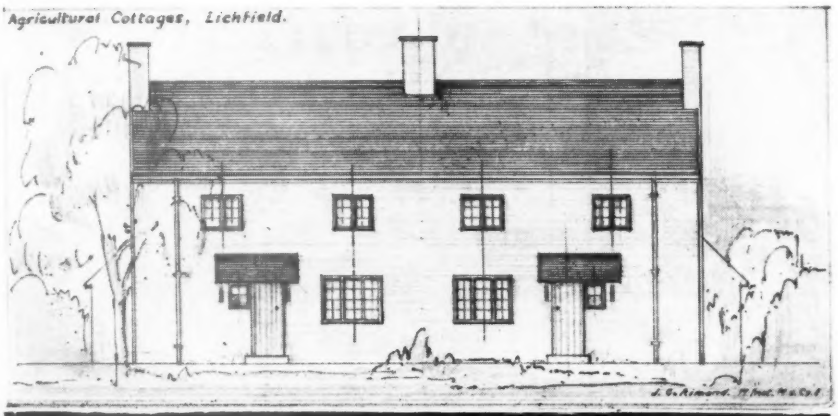
How many millions of windows will be needed once rebuilding starts? Does any one know? And how will they be produced? Magnet Joinery have the answer —an organised system of production so that timber is wheeled into the shop and goes in a straight line to become an unceasing stream of well-made windows

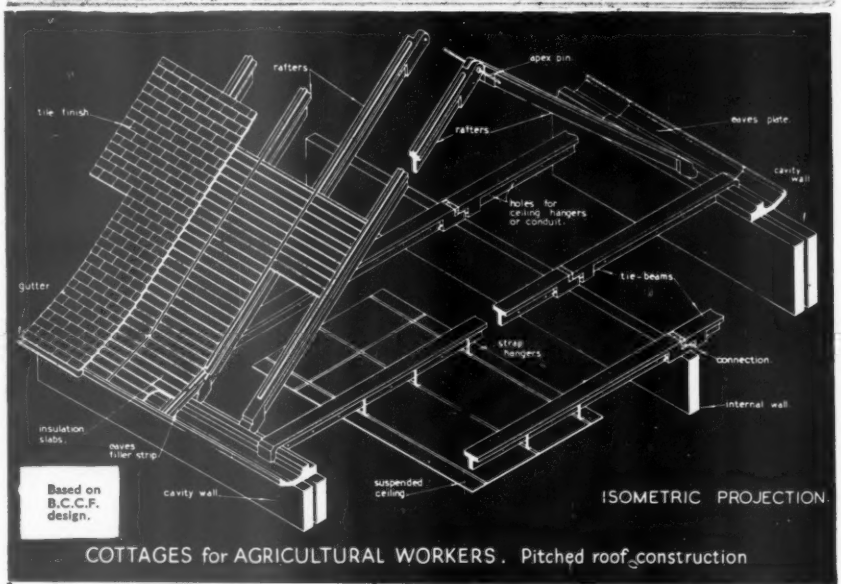
MAGNET JOINERY

WHITLEY STREET, BINGLEY, YORKS

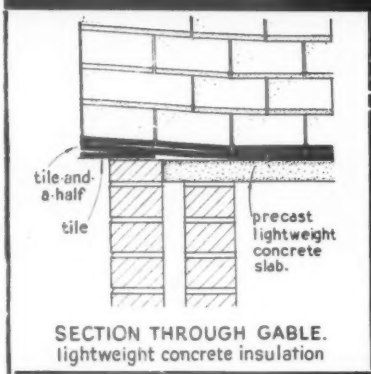
WEST THURROCK, GRAYS, ESSEX • ANNE ROAD, SMETHWICK, BIRMINGHAM

Stoneham and Kirk

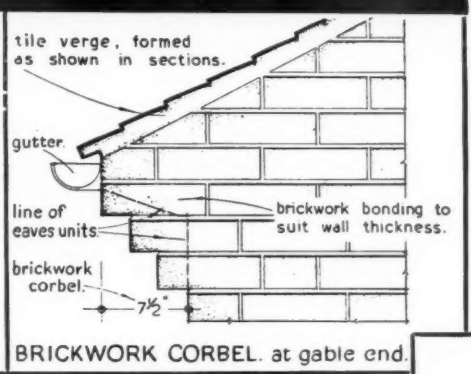




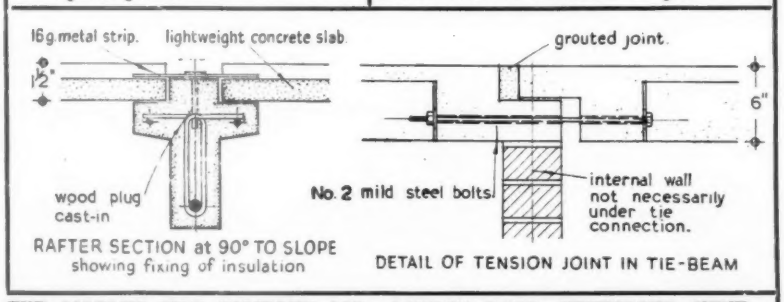
COTTAGES for AGRICULTURAL WORKERS. Pitched roof construction

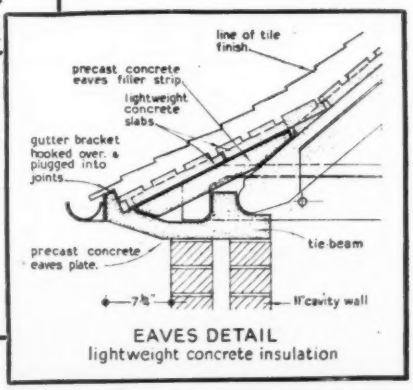


SECTION THROUGH GABLE.
lightweight concrete insulation



BRICKWORK CORBEL. at gable end.





EAVES DETAIL
lightweight concrete insulation

Pitched Roof in Reinforced concrete by Marley

(BCCF System)

★ ★ ★

eliminates timber

★ ★ ★

costs NO MORE than a flat roof and very little more than a timber pitched roof

★ ★ ★

quickly erected with the minimum of skilled labour—man hours are reduced ⅓rd to ½

★ ★ ★

uses no more steel than a flat roof (1 lb. per foot super measured on the flat)

★ ★ ★

will take any kind or size of tile or slate

★ ★ ★

system can be supplied for scaling roofs

★ ★ ★

MAY WE SEND YOU FURTHER DETAILS ?

THE MARLEY TILE COMPANY LTD., LONDON ROAD, SEVENOAKS, KENT

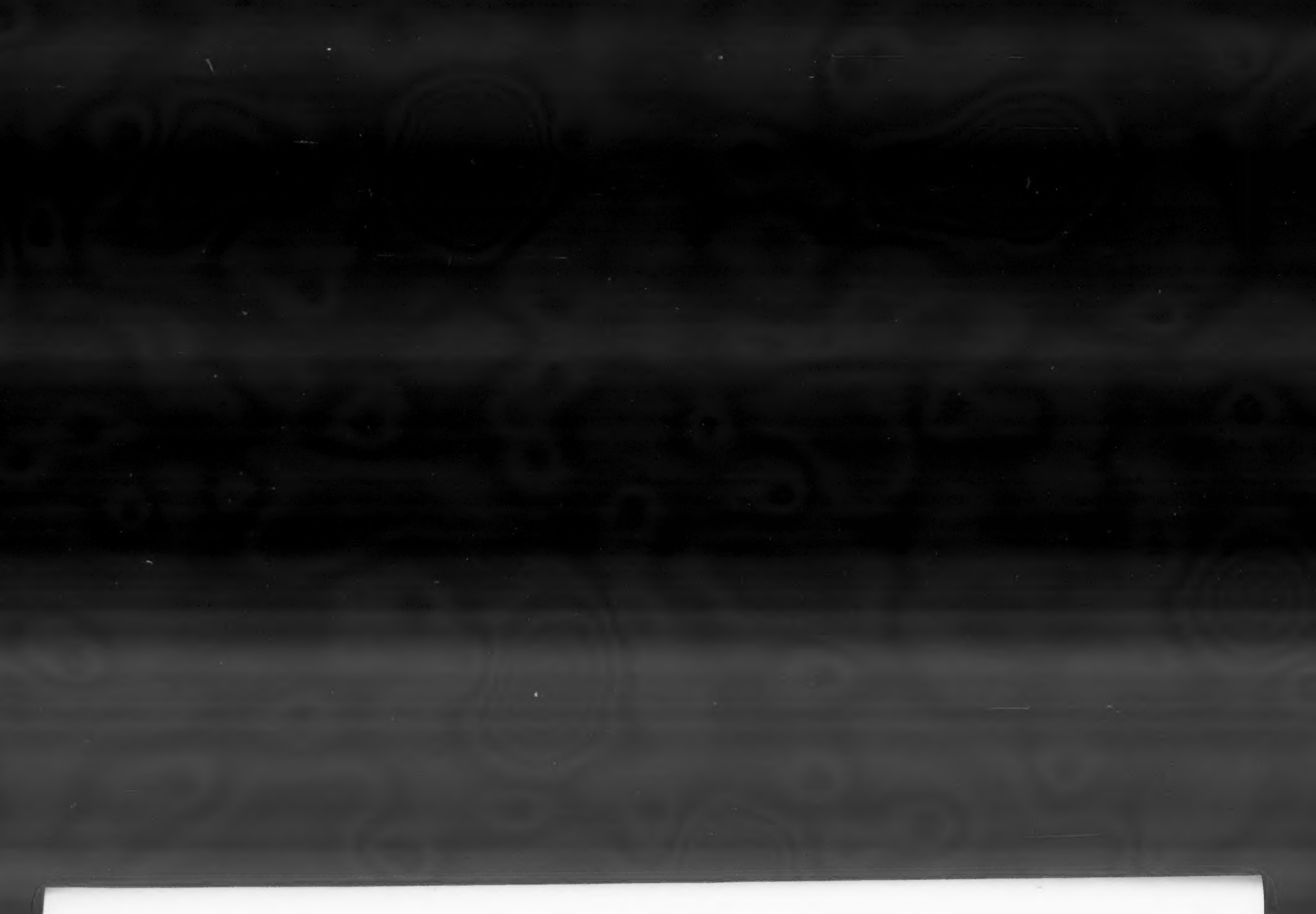
Works throughout the Country Telephone and Telegrams: Sevenoaks 1251

"I've failed for Connolly's!"

"They said I was a nice, good boy—but not *quite* up to their standard! Something about a slight blemish in the skin! And mother had licked me all over so carefully! Now father'll lick me too . . . . only harder!"

Connolly LEATHER

CONNOLLY BROS. (Curriers) LTD., CHALTON STREET, EUSTON ROAD, LONDON, N.W.1



"In what time . . . ?"

When insulation of a building is considered the question must be asked—and answered—"*In what time will the resulting economies repay the extra cost (if any) of the insulation?*" The answer will depend on construction, cost of insulation, cost of heating plant, price of fuel, temperature requirements and so on.

The following table is compiled from Table 1 and Chart 2 of Bulletin No. 12—"Thermal Insulation of Buildings," issued by the Ministry of Fuel and Power. It relates to the lining of typical wartime constructions with ½ inch Insulating Board, with air space. "Cost of insulation" figures are per 1,000 sq. ft.

Construction	Thermal Transmittance			Increase or decrease of cost of Insulation over Savings on Heating Plant	Number of years in which fuel saving pays for extra cost of insulation
	Uninsulated	Insulated	Reduction		
Corrugated iron roof	1.5	0.32	1.18	£24 Saving	—
Corrugated asbestos cement roof	1.4	0.32	1.08	£17 10s. „	—
Corrugated iron wall	1.2	0.31	0.89	£6 „	—
Corrugated asbestos cement wall	1.15	0.30	0.85	£4 „	—
¼ in. Flat asbestos cement wall	0.89	0.28	0.61	£12 Extra	1½ years
4 in. Concrete roof	0.68	0.26	0.42	£24 „	4 „
4 in. Concrete wall	0.64	0.25	0.39	£25 „	5 „
4½ in. Brick wall	0.64	0.25	0.39	£25 „	5 „

In practically all heated "single-skin" buildings the savings in initial cost of central heating plant outweigh the cost of insulation, as the savings in labour in manufacturing and installing heating plant exceed the labour used in insulation. In all types of buildings in general use today the money saved on fuel repays the extra cost of insulation in a few years.

". . . and with what efficiency ?"

But there is another aspect of insulation—probably of greater National importance—*its effect on the efficiency of workers.* If, through inadequate or badly distributed warmth, or cold draughts precipitated by uninsulated surfaces, the output of workers in factory or workshop is reduced by 5% during the cold months of the year, the loss is equal to one week's output per annum. How many times would the value of one week's output exceed the cost of adequate insulation ? . . . . and can the country afford to lose the output ?

Supplies of ½ inch Insulating Board are available for insulating approved buildings of essential character. We welcome enquiries for lining new or existing buildings by our latest SPECIALISED CONSTRUCTION methods. Our advice is at your service.

For the post-war house . . . . . .

The M.15 Electrolux Refrigerator can be built into a kitchen fitment at any height, or fitted in under the draining board, that is, at floor level. It can be seen at The Building Centre, London, and in many experimental post-war houses and kitchens. Write for our "Better Kitchens" leaflet.

Is noiseless and without moving parts.

ELECTROLUX LIMITED

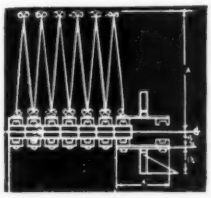
Works: LUTON, BEDFORDSHIRE *Tel:* LUTON 4020

Stoneham & Kirk.

FACTORY FIRE

Production held-up, the steady stream of work halted. Fire has broken out in one section of a factory and is spreading—*was* spreading—for a fire-resisting collapsible shutter gate, a Bolton Gate, was rolled across, and the fire localised and put out. Wherever there is a doorway, there's a Bolton Gate suitable for it. Ease of operation of these gates, strong and yet light—is an important factor in speedy control. They're made to last as long as the building, are fire resisting, keeping heat in and draught and vermin out, and as the opening need never be larger than necessary, they retain the maximum amount of heat. These are the jobs that Bolton Gates are doing—pulling their weight on the factory front—they're good-looking too—a point worth noting for the times when appearance as well as efficiency is to be considered.

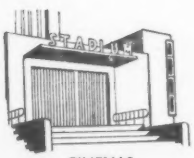
The diagram illustrates clearly how Bolton Gates operate. Simplicity and efficiency are the keynote. You cannot go wrong with a Bolton Gate. Would you like a catalogue—they're available on request.



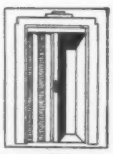
Telephone: Bolton 4240 (2 lines)
Telegrams: "Gates" Bolton, Eng.

BOLTON GATES
"Always a fitting Close"

BOLTON GATE CO. LTD.
Bolton, Lancs., England

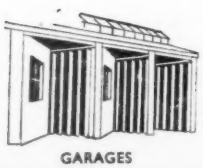


CINEMAS

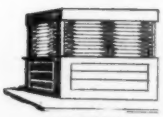


LIFTS

HANGARS



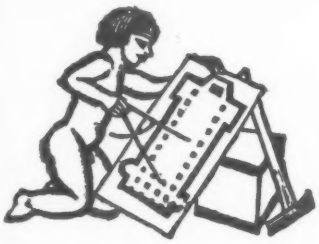
GARAGES



CANTEEN COUNTERS

dm 1029

In common with every other periodical this JOURNAL *is rationed to a small part of its peace-time needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the* JOURNAL. *Newsagents now cannot supply the* JOURNAL *except to a "firm order." Subscription rates: by post in the U.K. or abroad, £1 15s. 0d. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage 1s. extra. Goods advertised in the* JOURNAL, *and made of raw materials now in short supply, are not necessarily available for export.*



DIARY FOR JANUARY, FEBRUARY AND MARCH

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.

CAMELFORD, Cornwall. *Twenty Women at Home Exhibition.* (Sponsor, HC.) JAN. 22-31

CROYDON. *Homes to Live In Exhibition.* (Sponsors, HC and CEMA.) JAN. 29-30

DICKLEBURGH, Diss. *Twenty Women at Home Exhibition.* (Sponsor. HC) JAN. 20-FEB. 8

EASTCHURCH. *Living in Cities Exhibition.* (Sponsors, HC and CEMA.) JAN. 20-31

ERITH, KENT. *When We Build Again.* Exhibition at the Electricity Showrooms, (Sponsor, TCPA.) JAN. 29 to FEB. 5

GLASGOW. Meeting to inaugurate a new District Section of the Institute of Fuel. At the Royal Technical College, Glasgow. The President, Dr. E. W. Smith, will give an address on *Education in the Fuel Industries*, followed by a discussion. Professor A. M. Bryan will take the chair. 5.45 p.m. JAN. 21

HYDE, Cheshire. *Twenty Women at Home Exhibition.* (Sponsor, HC.) JAN. 20-22

LONDON. *Colour in the Home.* Exhibition at the Royal Academy, Piccadilly, W. There are units representing dining, sitting, nursery and bedrooms, colour in everyday ware, and some building materials such as paints. There are also suggestions for the interior decoration of civil aircraft. (Sponsor, British Colour Council.). JAN. 20 to FEB. 26

Yugoslav Exhibition. At the Royal Academy, Piccadilly, W. Sponsored by the Royal Yugoslav Embassy and the British Council. The purpose of the exhibition is to make the style and way of living of the Yugoslav people better known to their British allies. Exhibits include costumes from areas in Yugoslavia where there have recently been pitched battles, and frescoes copied from the walls of Yugoslav monasteries and churches, since destroyed by the Germans. Some of the frescoes were discovered only comparatively recently. For centuries they had lain hidden behind coatings of plaster with which "restorers" of Yugoslav churches had covered them. A room is devoted to textiles which include goats' hair embroidery and carpets, and a small section to painted beehive fronts to which Yugoslavs (the inventors of the modern sectional type of hive) give as much attention as is paid in this country to the painting of inn signs. American museums have lent sculpture, paintings, costumes and embroideries. Mondays to Fridays, 10 a.m. to 5 p.m., Saturdays, 2 p.m. to 5 p.m. JAN. 20 to FEB. 13

County of London Plan. Light Touring Exhibition, prepared in collaboration with LCC by Ernö Goldfinger and Ursula Blackwell. At 13, Suffolk Street, Haymarket, S.W.1. JAN. 20-FEB. 12

G. L. Pepler. *Work of the Inter-Allied Committee for Physical Planning and Reconstruction.* At 13, Suffolk Street, Haymarket, S.W.1. (Sponsor, HC.) 1.15 p.m. JAN. 25

NFBTE Annual General Meeting. At Connaught Rooms. JAN. 26

Federation of Master Builders. Luncheon Meeting, preceding Annual General Meeting. At Connaught Rooms, Great Queen Street, W.C.2. Guest of Honour: The Rt. Hon. C. R. Attlee, M.P., P.C., Deputy Prime Minister. 12.45 p.m. JAN. 27

Dr. Fenton, Medical Officer of Health, Kensington. *House Conversion into Flats: the Need for Legislation to secure Satisfactory Results.* At 13, Suffolk Street, Haymarket, S.W.1. (Sponsor, HC.). 1.15 p.m. FEB. 1

John Gloag, *The Selling Power of Good Industrial Design.* At Royal Society, Burlington House, Piccadilly, W. Buffet lunch 2/6 from 12.45 to 1.30 p.m. Talk and discussion, 1.30 to 2.30 p.m. (Sponsor DIA) FEB. 2

E. C. Goldsworthy, on *Light Alloys in Post-war Britain.* At Royal Society of Arts, John Adam Street, Adelphi, W.C.2. 1.45 p.m. FEB. 2

John Dower, on *Planning and Landscape.* At Essex Hall, Essex Street, W.C.2. 2.30 p.m. (Sponsor, TPI.) FEB. 3

Film Evening. Films selected by Paul Rotha, who will give an informal talk. At 34-36, Bedford Square, W.C.1. 6 p.m. (Sponsor AA). MARCH 14

NEWPORT. *Rebuilding Britain Exhibition.* At Museum and Art Gallery. JAN. 24-FEB. 5

OXFORD. *Conference on X-ray Analysis.* Under the auspices of the X-Ray Analysis Group of the Institute of Physics. Details will be circulated shortly to members of the Group and will be sent to non-members on application to Dr. H. Lipson, Honorary Secretary of the Group, c/o Crystallographic Laboratory, Free School Lane, Cambridge. Conference open to all interested, but it may be necessary to limit the number of non-members of the Group for whom accommodation can be provided. MARCH 31-APR. 1

SHEFFIELD. *Your Inheritance Exhibition.* (Sponsor, HC.) JAN. 22-29

NEWS

THURSDAY, JANUARY 20, 1944
No. 2556. VOL. 99

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.*

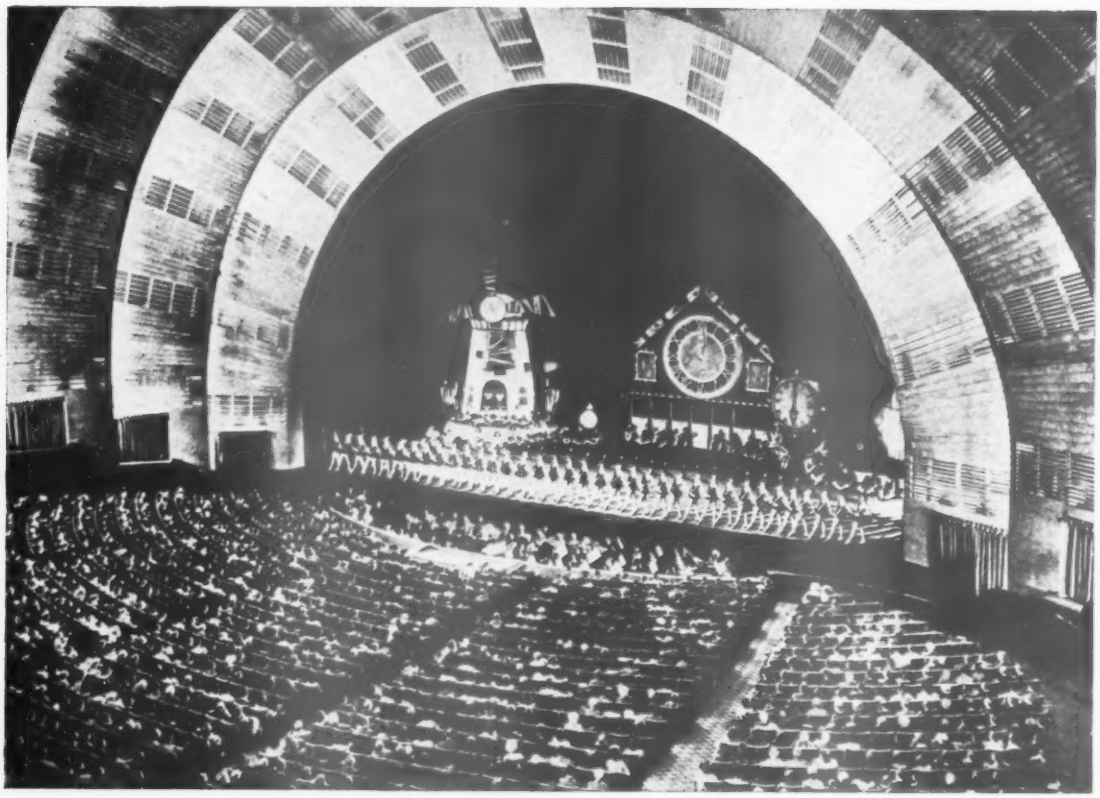
Any feature marked with more than two stars is very big building news indeed.

Renfrewshire County Council HOPES TO BUILD 2,259 HOUSES in five years.

These will form the first building programme of the county. A résumé now being prepared of the most suitable types of houses for the different districts is to be submitted to the Housing Committee. Dalkeith Town Council has approved the erection of 56 houses.

Approving the County of London Plan, Southwark Borough Council Town Planning Committee CALLS FOR THE ACQUISITION OF ALL PROPERTY for redevelopment, from London Bridge to the western boundary of the borough.

This acquisition, the Committee says, should extend southwards from the river to Southwark Street and Stamford Street. The Committee also calls for the extension of the Underground from Elephant and Castle to Camberwell Green to relieve congestion. Nearness to the City and West End creates a housing need which can be met only by building flats. But the Committee feels that certain areas of the borough lend themselves to the erection of houses. In many parts of the borough the subsoil precludes construction of tall buildings unless expensive methods are used.



RADIO CITY MUSIC HALL

What thousands see, millions hear . . .

There will always be thousands who will go to the theatre — but there will always be millions who cannot go. Catering for the million is the twentieth century slogan for entertainment, and Radio City, New York, is a preview of how it will be done. It is a magnificent building — a true product of the age — vastly interesting to architects and engineers and builders for a hundred reasons other than its theatres. But the theatres are the subject of this short review. There are three of them in Radio City — the Music Hall, the Center Theatre and a newsreel cinema. The largest is the Music Hall, accommodating 6,200. Its greatest modern feature is the huge proscenium arch 60 ft. high, illustrated above. The stage is 144 ft. wide and 62 ft. deep.

Unquestionably theatres of the future will not accommodate more people than they do today. The intimate atmosphere created by limited size is necessary to the audience and absolutely essential to the players. As in Radio City however, theatre design for the music hall type of entertainment will be different from the design for the Play, for the music hall show lends itself to a more spacious auditorium. The principal features all theatres will need in common are improved stage design, probably sliding rather than revolving, and better — much better — accommodation for artistes and scenery. Finally, of course, provision for broadcasting to the million will call for fresh approaches to acoustics and other problems. And what of television?

for Steelwork in theatres of the future

Boulton & Paul Limited

STRUCTURAL ENGINEERS

NORWICH • BIRMINGHAM • LONDON

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

EDITORIAL NOTE

This issue of the JOURNAL is different in character from previous New Year issues. The most noticeable difference is the lack of illustrations and descriptions of the buildings of the year. There have naturally been very few to illustrate, since most building has been for war purposes and cannot for security reasons be published at the present time. But there is another reason. This double number is intended to be a useful reference to, and index of, both the year's events and of the past year's issues of the JOURNAL itself. It is designed particularly with the object of keeping architects now in the forces *au fait* with what has been happening in planning and building during 1943.

★

By demobilization and training schemes, the Government proposes to raise a 1,250,000 *POST-WAR BUILDING ARMY.*
This is revealed in a report issued by the Joint Conference of the RIBA, the National House-Builders' Registration Council and the Building Societies' Association. Urging the earliest practical planning of the post-war programme of 4,000,000 houses in ten years, the report says the time is passed for pious hopes, theorising and statistics. Private enterprise is being severely handicapped in making plans because of Government policy delay. Here are other points from the report: There is scope for the development of prefabricated standard fittings. Before any prefabricated or other house is licensed it should be tested by scientists, such as those at the Government building research station at Watford. There should be an open mind on the subject, but prefabricated—and indeed all—houses should conform to three principles by being pleasant in appearance, soundly built and satisfying an adequate standard of performance and comfort. The Englishman much prefers his home to be built of the traditional materials of brick, stone, concrete, tile and slate, etc. Simplification of legislation is of real importance. One application by a building owner, accompanied by the necessary duplication of plans, to one appropriate authority should be sufficient, instead of the seven to eleven authorities. Availability of materials is not likely to cause delay.

A protest by Mildenhall (Suffolk) Rural Council against SUNDAY WORK ON FARM WORKERS' COTTAGES in winter has been overruled by MOH.
The council had decided not to approve Sunday work in their area, but the Ministry has insisted upon its instructions being carried out, in view of the need to accelerate progress.

★

The Dublin Corporation invites COMPETITIVE DESIGNS FOR A TUBERCULOSIS SANATORIUM to accommodate 320 *patients at Ballyowen, Lucan, County Dublin.*
The competition is open to all qualified architects who are members of: the Royal Institute of the Architects of Ireland, the Royal Institute of British Architects, the American Institute of Architects, registered architects in any of the above countries who are members of a similar body or society elsewhere. The assessors are: Messrs. Harry Allberry, A.R.I.B.A. (chairman), Vincent Kelly, B.ARCH., F.R.I.B.A., President, RIAI, John Murray Easton, F.R.I.B.A., Ralph Byrne, F.R.I.A.I., and Dr. A. J. Walsh, M.B., CH.B., D.P.H., Resident Medical Superintendent, Crooksling Sanatorium, Co. Dublin. The premiums are: £500, £350, £250, £150. Applications for the conditions should be made to the City Manager and Town Clerk, Corporation of Dublin, Public Health Department, Municipal Buildings, Dublin, and should be received by him not later than March 13, 1944. A deposit of £3 3s., made payable to the City Treasurer, Dublin, Ireland, should accompany the application. Deposit will be returned on receipt of a bona fide design or on the return of the conditions.

Considerable inroads into the country's supplies of standing timber have been made by the HEAVY TIMBER FELLINGS FOR WAR PURPOSES.
The Home Timber Production Department of MOS desires that the inevitable damage to woodlands should be as small as possible consistent with the maximum war effort. With this end in view, a consultative committee has been appointed for England and Wales. The committee will consist of: Central Landowners' Association, Lord Phillimore; Home Grown Timber Marketing Association, Col. H. C. Elwes; Land Agents' Society, Mr. W. N. Marriott; Royal English Forestry Society, representative not yet announced; Chartered Surveyors' Institution, Mr. R. W. B. Newton; the Land Union, Lord Brocket.

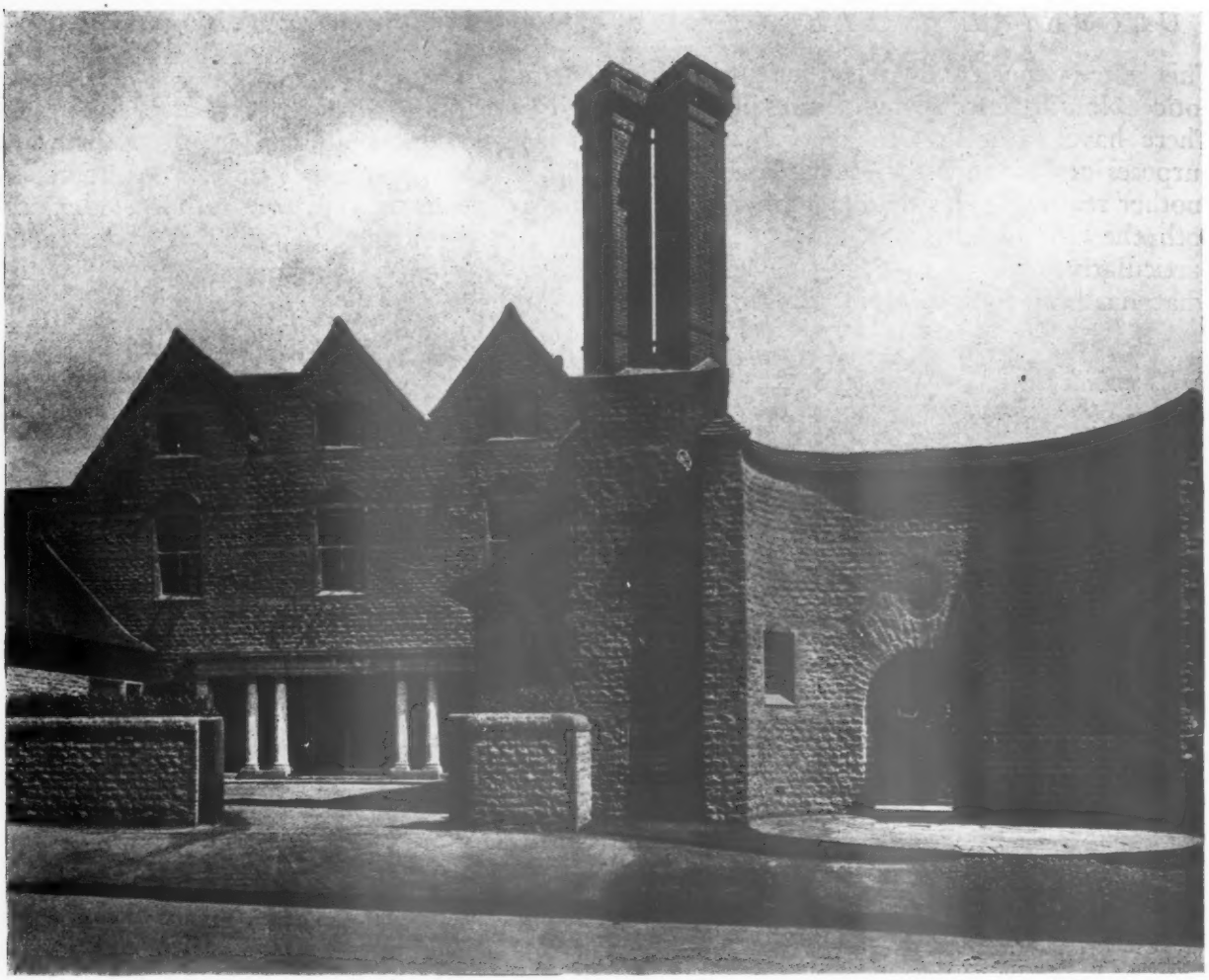
Mr. Leslie Wallis, President of the NFBTE, declared at Gravesend that the proposed qualitative REGISTER OF BUILDERS would protect the little man.
It will also, he said, do a great service to the public by barring the bad builder from the industry. As the public becomes aware of the difference in the quality of work done by a registered and an unregistered builder the latter will surely be driven out of business.

Docking (Norfolk) Rural District Council has decided on a MEANS TEST FOR TENANTS of the new farm workers' cottages.
The council has fixed the standard rent of the ten cottages, now nearing completion, at 13s. a week. Candidates who say this is too much will have to prove that they are unable to pay, when they will be granted a deduction of up to 3s. a week. Another Norfolk council —that of Walsingham—has fixed the rent of its cottages at 10s., including rates, which is less than the rent suggested by MOH.

Eastbourne Post-War Reconstruction Committee DOES NOT WISH TO SEE ANY CHANGE in the character of the town.
The first need, says the Committee, is to restore the sea front. Other suggestions are a solarium and café, new bathing chalets to replace huts, a bathing pool, underground car parks, the rebuilding of the Winter Garden, the continuation of the chief avenue from the sea to the centre of the town, the rebuilding of the area of the town and replanning of a large part of the west end. The report of the Committee, which also includes a number of suggestions from local organizations, will come before the Town Council in February.

Mr. W. P. Hildred, Director General of Civil Aviation, stated that as yet there is NO FIXED POST-WAR POLICY IN REGARD TO CROYDON AIRPORT.
So says a deputation which has been to the Air Ministry about the use of Croydon airport after the war, in a report to the Beddington and Wallington Council. Mr. Hildred had said that Croydon can never be made a super airport, for which perhaps 4,000 acres might be required. The most that can be hoped for Croydon will be an inter-continental station, though on its present basis one of the two smallest types will be all that can be expected.

Councillor Paul Cadbury said that, after London, BIRMINGHAM HAS THE WORST PROBLEM area in the country.
Speaking to the Midlands Joint Town Planning Advisory Council in Birmingham, he said that Birmingham, the Black Country, Wolverhampton and Walsall forms an area with something like 25 different local authorities covering more than 2,000,000 people and an urban spread as large as London. Either the council must find a solution themselves or leave the central authority to order them hither and thither. Some of us feel the Government is desperately slow in formulating legislation in town planning, he said. We are losing our opportunity to shape the country as we would wish.



[Photo : Country Life

The End of an Epoch

On the first of January, 1944, a great architect died, and five days later a funeral service to his honour was held in Westminster Abbey. With Sir Edwin Lutyens a whole age has passed, for he belonged to a period when the architect built almost exclusively for a privileged minority and for the prestige of the society on which it depended. Nevertheless, the most prejudiced cannot deny that, considered within the context of his own age and *Weltanschauung*, Sir Edwin's architecture was great architecture. With the hope of early victory, and the prospect of a new world order in the days of peace to come, Sir Edwin's passing is a symbolic event. It marks the end of an epoch. Never again shall we see the erection of those great country mansions in their spacious garden settings, built with the fine traditional craftsmanship that is vanishing, and in whose eclectic design Sir Edwin was so brilliant a master. The picture above shows such a house—Tigbourne Court, built in 1899 ten years after he started practice. It stands at Witley, high on the Godalming-Petworth road. The pillared porch set back between projecting wings which end in two bold concave curves, the walls of Bargate stone, broken by courses of tiles, the bold brick chimney stacks and the careful detailing typify the dignity, the sense of gaiety and generosity and, above all, the feeling for texture and form of all Lutyens's domestic architecture. This example has been chosen as a frontispiece to the New Year issue of the JOURNAL both in memory of a great man and as a symbolic contrast to the rest of the JOURNAL, which is itself, in a sense, a symbol and a symptom. The following pages are largely technical and informative, the subject of planning occupies considerable space, and a special article deals with the developments of the year in low-cost housing. The pages are concerned essentially with the future, and with the events of a year which in the planning and building spheres have been largely concerned with the future. They imply that the coming age will be above all, a technical one, an age of large-scale planning and mass-production. The architect in future will work less for a personal client, as those of Lutyens's generation did, than for the whole community, under entirely different social and economic conditions—not for the few but for the many, emancipated at last by the Machine. This does not mean that there need be a sameness and lack of personality in the new architecture ; the architect as a designer has himself been emancipated by the Machine, for through its intelligent use, his scope is vastly increased. An epoch has passed and, for better or worse, can never return. The war itself violently articulates that fact. By using with full knowledge the splendid tools in the box that science can provide, and combining that knowledge with art, the architect is now in a position to better to an enormous extent the whole squalid environment that formed the background of Sir Edwin's brilliant work.

NEW YEAR MESSAGE FROM THE MINISTER TO THE ARCHITECTS' JOURNAL

IN 1943 the Building Industry made another great contribution to the national war effort despite a further substantial call-up of its personnel, and it is entitled to survey with pride its achievements thus far. It has been the greatest building task ever tackled in Great Britain, and, as I stated a year ago would be the case, the problems met in 1943 were the most difficult yet faced. The task included a total programme of capital installations amounting to more than 150 million pounds for our American Allies and, of this, work to the value of no less than 92 million pounds had been completed by June 30.

As we turn to 1944 with high hopes of victory, the Industry still has an important contribution to make to war building. The programme now being undertaken is vitally important and there is not a moment to spare.

But as the Prime Minister has indicated more than once, we are now justified in looking forward and in surveying the field of post-war building needs. Food, Work and Homes were the three primary post-war objectives advanced by Mr. Churchill. On the Building Industry will fall the responsibility for providing the Homes in which will be born the future generation of our race. The Industry is applying both brains and experience, so far as can be spared, to ensure workmanship which is swift, sound and economical, and to secure the use of the latest knowledge of methods and materials.

When peace comes, the Building Industry will again be first off the mark, to house the people and enable the peacetime industrial machine to restart. We will all do our best to be ready.

PORTAL

ASTRAGAL'S Review of 1943

JANUARY

The year 1943 opened in an atmosphere of discord and frustration. At home there was a Cabinet reshuffle of minor posts—was ever a word more appropriate for the occasional re-arranging of these featureless and pasteboard personalities?—and abroad our armies in the Far East and in Tunisia were as bogged down as were the negotiations between Generals Giraud and de Gaulle. The building industry looked like losing another 30,000 men; the ARCHITECTS' JOURNAL's attempt to call its new intelligence service Tabloid Technics was frustrated by Messrs. Burroughs & Wellcome (patentees of the word tabloid), and a magistrate showed his opinion of contemporary home life by sentencing a juvenile delinquent to live with her parents for six months.

The Government announced plans for reconditioning 80,000 war-damaged houses, while the Germans started demolishing the old port of Marseilles. Mr. Churchill met President Roosevelt in Casablanca. People talked either about their Fuel Target or "War and Peace."

FEBRUARY

On February 5, Mr. Ernest Brown, blissfully ignorant of the long road which was to lead to Hildenborough, announced that 3,000 landworkers' cottages would be built in time for the harvest, and warned local authorities to be ready with their post-war housing programmes. A week or so later the agricultural cottage plans were published. Officially described as "the fruit of 20 years building experience," they showed in fact the minimum of imagination, technical or æsthetic, and their poverty of invention inspired a rush of readers' plans to the technical press.

Sir William Beveridge opened the RIBA exhibition at the National Gallery. This show, criticized by some for over-elaboration and pomposity, was nevertheless an exhibition for the profession to be proud of—objective, practical and based on sound sociological lines.

It was announced that the 18th century houses of Abingdon Street were to be demolished as unsafe, and Lubetkin's Lenin memorial in Finsbury was defaced.

The Russians weren't doing so well, there were setbacks in Tunisia, fuel was short, Winston Churchill had pneumonia, and Germany announced the official closure of breweries. For all the belligerents it was an unhappy month.

MARCH

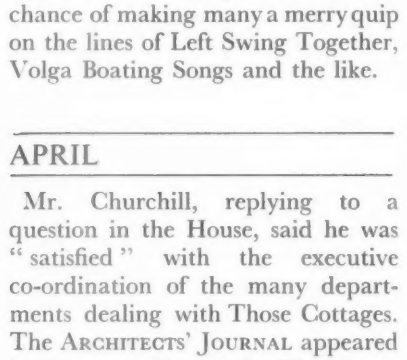
In a broadcast the Prime Minister sketched out his ideas for a four-year plan for Great Britain, and the Government produced a first class White Paper on Training for the Building Industry. An inter-departmental committee (MOW and MOH) was set up to study new methods of house construction, MOW announced a grouping scheme for small builders, and the BOT produced a shockingly designed catalogue for utility furniture.

The RIBA exhibition continued to draw large crowds (though not so large and enthusiastic as those persons thought who mistook the destination of the National Gallery canteen queues), and the Royal College of Physicians issued a memorandum recommending the placing, for health reasons, of w.c.'s in bathrooms.

The weight of RAF raids on Germany increased, and in London 178 people were suffocated to death in a fantastically horrible shelter accident. Hitler broke a long silence and Eton College announced that material for school sports' scarves was in future to be made into bandages for Russia—an event unrecorded by cartoonists and columnists, who thereby missed the chance of making many a merry quip on the lines of Left Swing Together, Volga Boating Songs and the like.

APRIL

Mr. Churchill, replying to a question in the House, said he was "satisfied" with the executive co-ordination of the many departments dealing with Those Cottages. The ARCHITECTS' JOURNAL appeared in its new and now familiar cover, the RIBA announced there would be no election, the Codes of Practice Committee issued its first report, and the War Damage Commission revealed that it had paid out £100,000,000 for repairs to blitzed property.



Brick Companies announce large profits during the year, and the Simmonds Brick Industry Report remarked acidly that "the industry had not yet found it necessary to seek the highest pitch of technical

efficiency in order to satisfy its market."

The LCC decided to remove the temporary Waterloo Bridge, and Mass Observation revealed that half the housewives interviewed were broadly satisfied with their kitchens—a more than usually meaningless conclusion, for how many of those housewives had even seen a picture of a modern kitchen?

Hitler called a conference of Quislings and there was a split in Polish-Soviet relations, but good progress was reported from Tunisia.

The spate of war books by American war correspondents increased in vigour and sparkle; most of them were irresistibly readable, though in nearly all of them the battles for scoops waged with rival journalists—with Ed and Mike and Jo—up and down the corridors of luxury hotels seemed at times to rival in importance and intensity the battles between armies outside in the heat and the dust.

MAY

The corn was now green in the fields, but no tenders, it was revealed, had yet been received for Those Cottages which were debated this month in the Lords.

Tunis and Bizerta fell to the Allies on the day Italy celebrated her Empire Day. The Eder and Mohne dams were breached in a dramatically successful raid by Lancasters of the RAF, Mr. Churchill arrived safely in Washington, and de Gaulle and Giraud announced agreement. At home, a Miss Tipple, described as a barmaid, was fined 10s. for appearing at a dance in the uniform of a Cameron Highlander. Despite American coal strikes and an Argentine rebellion, things were looking brighter.

JUNE

Tenders were now coming in for Those Cottages. No quantities had been provided and prices varied so considerably that the Government announced that MOW would undertake the construction of the houses if satisfactory arrangements could not be made locally.

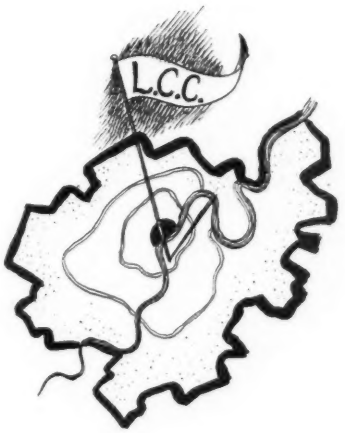
The LRRC London plan was exhibited at the National Gallery, and the CISPH issued its first report on prefabricated housing. The first anti-control rumblings from property owners' associations and building societies began to echo from their gilt-lined caverns. (The angry cries of "blatant confiscation" and "mortal blows against enterprise," came, it will be noted, not from the inoffensive private householder, but from the big corporations and real-estate magnates.)

The King visited Tunisia, the Prime Minister returned from Washington, and Lord Wavell was appointed Viceroy of India.

The islands of Pantellaria and Lampedusa fell to Allied arms.

JULY

Work started this month on the first pair of Those Cottages, and MOW announced that revised



plans (by Mr. Kenyon) were now available. A Standard of Wartime Building was published, the Hydro-Electric Development (Scotland) Bill, 1943, was passed, laying the foundations (we hope) of a TVA in kilts, and the Royal Fine Art Commission, greatly strengthened on the architectural side, was officially described as "the ultimate authority in matters of taste."

The big architectural event of this month, however, was the publication—in very handsome form—and public exhibition of the Forshaw-Abercrombie Plan for London—a beautifully produced, carefully considered, imaginative, flexible and realistic piece of work.

The war was going well. Sicily was successfully invaded by Allied forces, progress was reported from the Pacific, the German offensives in Russia were smashed, and—best of all—Mussolini, "Hitler's utensil," resigned, an exciting event which distressed only news-editors, as it occurred a few minutes too late to catch the early morning editions.

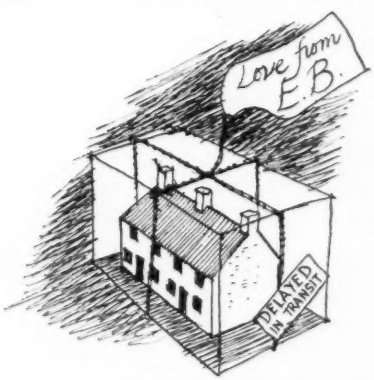
AUGUST

The Government announced new powers would be granted to local authorities for requisitioning empty houses — not excluding Londoners' week-end cottages. THE ARCHITECTS' JOURNAL published the first Planning Supplement, and MOI opened the fascinating and boldly designed Army Exhibition in Oxford Street.

Great holiday crowds left the towns for Bank Holiday—the discomfort in the trains being greatly increased by the number of seats occupied by reporters from the daily press, sent by their editors to report on travelling conditions. Mr. Churchill and Mr. Roosevelt met in Canada, and Mr. Brendan Bracken caused a minor crisis by referring to Hess as an "overgrown Boy Scout." Raids on Germany increased in number and weight, King Boris of Bulgaria died, Kharkov was captured by the Russians.

SEPTEMBER

Mr. Ernest Brown, arriving at the head of a convoy of 48 cars, opened at Hilbenborough the first



pair of Those Cottages to be completed, and was photographed peering into a kitchen oven. MOW announced the despatch of a

mission to America, and the Abbey Road Building Society announced amalgamation with the National Building Society. Hadrian's Wall was reported to be falling down, and the South Kensington site for the National Theatre was declared "probably abandoned." Messrs. Lindsay Parkinson acquired Wentworth, Surrey, some Birmingham business men bought a large part of Paignton, Devonshire, and some London speculators were reported to be staking claims in Dover.

From the war fronts the news continued to be excellent. On the anniversary of the outbreak of war, Italy was invaded, and within a few days had surrendered. By September 30 Naples had fallen, and our troops were bivouacking in the new ruins of Pompeii. Mussolini, it is true, had been kidnapped by German, rescuers from his prison (looking in his "civvies" as blue-chinned and furtive as any Soho corner-boy)—but the Allies had done the same for Croce—a cultural if not a strategic *tu quoque* for our arms. The Soviet armies were advancing to the Dnieper, and a patriarch was elected to be archbishop of Moscow in time to act as host to the Archbishop of York.

In Southend a soldier liquidated his father by placing an anti-tank mine under his bath chair.

OCTOBER

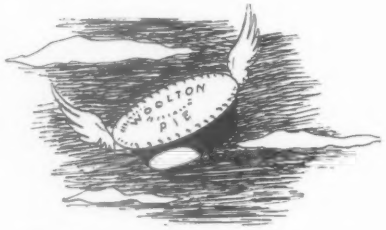
The House listened to a brilliant speech from the Prime Minister on the rebuilding of the chamber. In Mr. Churchill's opinion (and he gave good arguments in support of it), be it ever so stuffy and inconvenient, there's no place like home.

There was strife in the Balkans and famine in Bengal, but Portugal had presented us with the Azores, and Italy had declared herself co-belligerent. Immediately the papers were filled with photographs of young male Italians giving the V-sign from the doorways of well-equipped barbers' shops or watching with the most courteous interest the efforts of our soldiers to unload stores or get a lorry out of a ditch.

German film-fans stationed at Nantes suffered a tangible impact from a star's personality when that town was bombed by Clark Gable in a Flying Fortress.

NOVEMBER

The timely and politically astute appointment this month of Lord Woolton as Minister of Reconstruction was so universally welcomed that the fact that he had no powers was (and doubtless this was intended) completely overlooked. His duties at present, it was announced, were to be exploratory and—shades of Inskip !—co-ordinating. Nevertheless, the news was encouraging. Pie in the Sky, one felt, so long as it was Woolton Pie, was likely to come to earth.



The Cabinet changes (it was farewell to Mr. Ernest "Those-Cottages" Brown), the fall of Kiev, the successful Moscow conference, and the bombing of Berlin were the cheerful highlights in a month otherwise marked by disputes and general ill-temper symptomatic no doubt of war weariness. The TCPA launched into a confused attack on the LCC Plan for London, and the RIBA Short Life Housing Memorandum roused proportionately as big a storm of indignant protest as the release of Mosley. No document since the Zinoviev letter has probably aroused such instantaneous reactions. No wonder, for it was a blundering and inaccurate piece of work which, had it been read or understood by the public, might have pushed the profession straight back into the Never-Never Land from which it was just emerging.

Despite industrial strife in this country and the USA, the war news continued good—so good that at least one financial headline read "Danger of Peace," and a prominent stockbroker was reported as saying that "only a really bad bit of war news could restore the markets."

DECEMBER

From the cautious forecasts of the King's Speech and from hints dropped by various Ministers at official luncheons, it appears that we can expect some degree of physical planning legislation in 1944. Even if we had no White Christmas we might look forward in fact to a White Paper Easter.

The RIBA issued a second and more responsibly worded memorandum on prefabrication, and said farewell to its loyal and hardworking secretary, Sir Ian MacAlister—farewell, it was suggested by a correspondent of the JOURNAL, to a period as well as to a secretary. It was a great month for writing to the papers, and the correspondence columns flamed with lively argument over the TCPA, the County of London Plan, Oxhey, the notorious RIBA memorandum, and Sir Ian MacAlister.

Towards the end of November the noteworthy absence from public appearance of Mr. Churchill—("after all," as one M.P. remarked, "you cannot visit the Zoo every day without noticing that the elephant is gone")—was explained early in December by his turning up in Cairo and Teheran, where, after a series of conferences held in an atmosphere of great affability (except among newspapermen who had been "scooped" by less scrupulous colleagues), he gave the Allied Nations a nasty turn by developing a sharp but short bout of pneumonia. There was a revolt in Bolivia and 'flu epidemic in Great Britain. The first trial of war criminals was held at Kharkov, and Stalin announced that the Internationale was officially scrapped.

Our Russian Allies continued to advance, the RAF and American raids on Germany increased in strength and frequency, and the Navy celebrated the end of 1943 by sinking the Scharnhorst and three German destroyers. An exciting, anxious, but on the whole encouraging year has finished in an atmosphere of optimism undispelled by war weariness, rocket guns and the housing shortage.

Let's hope 1944 will justify that optimism.

PHYSICAL PLANNING

Diary for 1943

JANUARY

THE opening days of the New Year found British citizens in a very

unusual situation. A month before, after a long period of planning malnutrition, a Lord Mayor's Banquet had been put before them, followed closely by quite a number of tolerable meals and the promise of more as required. Digestion was still in progress, but citizens in general appeared to feel very much better and ready to believe in a permanent improvement of diet.

The Beveridge Report was only a month old, and was still being trumpeted round the world with every official blessing, and the world's opinion of it was still being quoted in the Press. Also a month old was Sir William Jowitt's announcement that a new Ministry of Town and Country Planning was to be set up.

The news that Mr. W. S. Morrison was to be the new Minister and Mr. H. G. Strauss its Parliamentary Secretary had been published on December 30, and the strengthening of the Royal Fine Art Commission on New Year's Day.

There were certain headshakings. It was hoped that Mr. Morrison had not been put in to keep the seat warm until someone of importance had time to look after the matter.

Before the end of the month, the Minister of Town and Country Planning Bill was introduced, and before such evidence of deeds following hard on words, the doubters lost adherents. A provision in the Bill to allow the Ministry to hold land in perpetuity, was thought to show that the Government meant business over Uthwatt.

FEBRUARY

A model of a satellite town designed by Mr. Thomas Sharp was put on show at the Building Centre in the first week of February. It was a nice town, though purists complained that it was short on pubs and shops round the corner.

At the end of the month (an excellent piece of timing) the RIBA *Rebuilding Britain* Exhibition was opened by Sir William Beveridge (another excellent choice) and Sir Kenneth Clark. This exhibition was argued about a great deal by architects. Its design was said to have been too competent, slick, self-satisfied ; it was said to have only a collection of pious hopes as a story ; and much else. But these things were also strenuously denied and, in any case, were the views of semi-experts. There is no real doubt that the exhibition's interest for the public was very considerable, and that it contained the message that architects desired to take part in physical planning and were capable—granted the necessary humility and self-preparation — of a contribution of great value.

The Minister of Town and Country Planning Bill passed quickly to the House of Lords.

MARCH

The National Federation of Property Owners, representing 200 property owners' societies, published their views on Uthwatt. These were unfavourable.

The Minister of Health told local authorities to be ready to be quick off the mark with post-war housing and, in the meantime, to decide on sites for a first year's programme. A number of local authorities thought this recommendation too bland altogether and cries of " What about Uthwatt? " were clearly heard.

At this point Mr. Churchill broadcast on post-war policy, and described his Four-Year Plan. The public was reassured and felt that action would not be long delayed.

APRIL

At the beginning of April, the Ministry of Town and Country Planning moved into new quarters and began independent existence ; and as those quarters were the former Caledonian Club, the Minister at least felt at home.

M.P.s felt that the new Ministry should be put to trial by Parliamentary Question ; Mr. Bossom was, of course, given pride of place, and asked Mr. Strauss if he knew how badly local planning officers had been paid. Mr. Strauss demurred ; but at any rate the Ministry's own Regional Officers were given £900 a year to keep malnutrition away.

Public opinion seemed at the time to be quite eaten up with a desire for action, and Sir Willian Jowitt had another rough time over the old question of which Ministries were responsible for which parts of post-war planning and who co-ordinated them. This led to another reconstruction debate (April 24), in which Sir William was in trouble again.

Professor Patrick Abercrombie received the Howard Memorial Medal from TCPA.

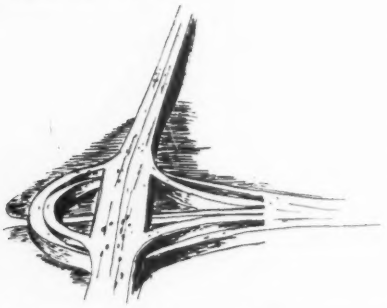
MAY

The Town and Country Planning Bill, 1943, was introduced and at the second reading (May 11) came under heavy fire for its limited scope. It was called a miserable sprat and a very slow-motion picture; Mr. H. G. Strauss pointed out that the Bill was a preliminary to legislation of wider range which would follow.

JUNE

The Town and Country Planning Bill, 1943, was read a third time

in the Commons and went to the House of Lords.



Mr. Noel Baker, Parliamentary Secretary to the Ministry of War Transport, described the post-war programme of his Ministry. It included a number of motorways with complete segregation of traffic, much improvement to other roads, and would take about 30 years. MOWT and MOTCP also announced the establishment of a committee to enquire into the design of urban roads. The committee's 12 members did not include Commissioner Tripp and its appointment excited no enthusiasm.

The London Regional Reconstruction Committee's Exhibition opened at the National Gallery. Its regrouping of communities into reasonably compact areas separated by a green meshwork was exceedingly interesting as an exhibition of principle by which London could be remade, but its treatment of some inter-war development was more gratifying to architects than to some others likely to be interested.

Lord Portal, Minister of Works, speaking on the White Paper on training in the building industry, said that twelve years' work could be guaranteed. Nine Government Departments had prepared 12-year programmes and it was expected that 1¼ million men would be employed in the industry.

JULY

Throughout the month the agricultural cottages affair led to a great deal of heckling over post-war building and the need for a co-ordinating Minister. Mr. Bossom (whose list of Parliamentary questions and answers must be the most comprehensive Planning Diary in the country) asked whether a time and progress schedule should not be established for post-war planning and redevelopment. Sir William Jowitt could give no undertaking that this would be done.

On July 13, the County of London Plan was published and was unobtainable by the afternoon of the same day. And although this did not mean that the whole first printing had been sold out, it gave an accurate idea of the interest taken in London's Plan, which was expected to set the pattern for all great cities and a standard for the whole country. The Plan had taken Mr. Forshaw, Professor Abercrombie and their staff two years to do, and told Londoners plainly that a fine redevelopment depended on the courage with which they tackled the formation of communities and the problems of industry, communications and open spaces. The exhibition of the Plan at County Hall had a big attendance and the models, once again, were most popular.

A Building Industries Congress was held at Central Hall, Westminster, at which Mr. W. S. Morrison said that estimates could now be made of how much building lay ahead of us for 20 or 30 years and not 2 or 3; that half-hearted planning was worse than no planning, and that we could no longer afford to leave things to time and the individual.

At the end of the month Mr. Max Lock's Civic Survey of Hull was shown at the Housing Centre with Mr. W. S. Morrison to cut the tape. This survey was notable as showing in clear and comparable forms the information which each city must collect, or have collected for it, before it begins making a redevelopment plan.

AUGUST

The JOURNAL published the first of its *Physical Planning Supplements*, which summarized planning history from 1909-1929, and town-planners (relieved from the immediate threat of comprehensive, clean-cut planning measures descending upon them in groups and clumps), were able to brood at leisure on how long and slow had been the planning journey and how fully "voluntary" methods had been tried before abandonment.

The guerilla warfare between MOH and MOW for control of post-war housing began to be reflected in Parliament. Mr. Henderson Stewart objected to an appeal being addressed to MOW instead of MOH, "which has been in the past and will undoubtedly be in the future, the Ministry principally concerned with housing." It was doubtful, however, whether such loyalty could counteract three very general feelings about MOH: first, it was not doing what it could to relieve the existing housing shortage; second, it showed no deep realization of how bad the post-war housing shortage threatened to be; third, and worst, it had made an ass of itself over the agricultural cottages.

There were several Ministries involved in this last affair, but somehow the others managed to dodge the ridicule; and it is undodged ridicule that kills.

MOTCP sent out a circular to call the attention of local authorities to the new Town and Country Planning Act under which all land became subject to planning regulation after October 22.

The JOURNAL brought its history of planning up to date and for good measure ran past "to date" as far as the autumn of 1946. It seemed to find coming events very cheering.

SEPTEMBER

The TPI Summer School was held at Birmingham and 200 planners saw examples of the work of the MOTCP maps office and heard papers by varied stars.

The argument over division of control of post-war housing continued, and the JOURNAL suggested a sensible compromise.

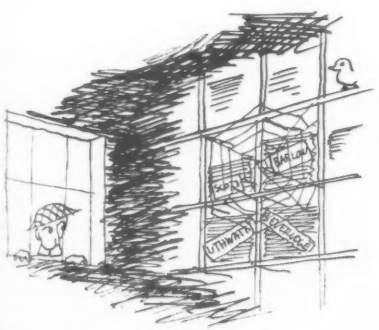
Responsible newspapers continued to ask for legislative action in the physical planning field, and Lord Latham, Leader of the LCC, stated how serious was the delay for local

authorities. Lord Astor, Lord Mayor of Plymouth, suggested to the Lord Mayors of other blitzed cities that they should try to pass a small Bill which would give them powers to buy up damaged areas, since he despaired of comprehensive Government action being taken soon enough.

Mr. David Smith, General Manager of the Halifax Building Society, announced that State acquisition of development rights would strike a heavy or mortal blow at the principles and ideals of home ownership. In the following fortnight representatives of other building societies stated that they did not share his views. Mr. Percy Thomas wrote to *The Times* to say that a Central Advisory Committee on National Planning had been set up at the RIBA, which would work through Allied Societies and had as its aim the preparation of a co-ordinated National Plan. Expressed as an offer by the RIBA and Allied Societies to help in the vast amount of work which must precede planning, this letter might have increased the Institute's considerable prestige in planning matters : as published, it suggested to many architects that this time it was the Institute which had forgotten that in public affairs ridicule—or ridiculous pretensions—is lethal.

1,700 people visited the Hull Civic Survey in two days, and *The Times* published a special article which advocated the execution of similar surveys in other cities under the co-ordination of MOTCP.

OCTOBER



Sir William Jowitt announced "with regret" that he could give no date for the publication of the Government's policy on the Beveridge Report, but Mr. W. S. Morrison reaffirmed two important pledges to local authorities to help them in their task.

1. That the Government accepted the principle of the public acquisition of land in reconstruction areas, and
2. That compensation paid for such land would not exceed March, 1939, standards.

The Port of London Authority appointed a Committee to consider the County of London Plan.

Lord Latham again raised in the House of Lords the question of delay in planning legislation, and mentioned the former existence of a draft Bill which would have given statutory force to some of the Uthwatt recommendations. He was supported by Lord Astor and others. Lord Snell replied for the Government, and said that a statement on the extent of Government acceptance of the Scott Committee's recommendations would be ready in two or three weeks' time.

The National Housing and Town Planning Conference at Central Hall was addressed by Mr. W. S. Morrison and Mr. Ernest Bevin and a *Practical Planning* Exhibition opened at the Institution of Civil Engineers.

On October 22, all land in England and Wales which was not already subject to planning regulation became so subject.

NOVEMBER

Mr. Churchill's capacity to know when things have gone far enough was shown once again in his speech at the Lord Mayor's (war time) Banquet on November 9.

The next day Lord Balfour of Burleigh moved in the Lords a motion that certain minimum legislation should be passed quickly if more comprehensive measures were impossible. Lord Snell replied painstakingly but did not satisfy the House. On November 11th it was announced that Lord Woolton was to be Minister for Reconstruction with a seat in the War Cabinet.

Lord Woolton came with the highest reputation from a job which called for co-ordination between an army of full-timers and half-timers, civil servants, local authorities and private enterprise. Reconstruction would make the same demands—and more. Lord Woolton's appointment raised high hopes, and even pessimists agreed that a man with a great and fully earned reputation would not willingly see it disappear.

The King's Speech, after these exciting forerunners, was damping. It promised in the physical planning field only that legislation would be introduced to facilitate redevelopment of war-damaged areas, and that the results of the Government's examination of the Big Three would be laid before Parliament.

On November 30 Mr. Lyttelton, replying to criticisms during the Debate on the Address, made a careful speech (which included the Government's decision on the division of responsibility for post-war housing between MOH and MOW). This would have had more effect if on the same day MOTCP had not published a statement on the Government's conclusions on the Scott Committee's recommendations. The statement did just what people had feared : it accepted painless generalizations and boggled over points of consequence.

The TCPA continued its campaign for a bigger evacuation from London than that proposed in the County of London Plan, and local residents objected to the LCC's proposal to buy land for a post-war housing scheme at Oxhey, Hertfordshire.

DECEMBER

In his first speech in the Lords as Minister of Reconstruction (December 8), Lord Woolton was very cautious. He was not going to have a Ministry as this would lead—so wide were his duties—to the partial duplication of half - a - dozen Ministries. He was going to have a small team of expert advisers, he would look to the Ministries to put forward proposals, while he co-ordinated and filled in gaps. The Lords, like the Commons, had been somewhat off small groups since the days of the Co-ordinator of Defence, but Lord Woolton's reputation was enough to soothe fears for the time being. On the previous day Sir William Jowitt replied to an

Amendment by Mr. Greenwood and Mr. Barnes regretting delay in preparing for reconstruction, and *The Times* later pointed out that hardly anyone in the House dissented from it.

At the end of the long post-mortem neither House was satisfied. Lord Woolton was conscious of this, and promised that a White Paper or Papers would be published soon after Christmas.

At the Annual Meeting of the CPRE Mr. W. S. Morrison announced that Mr. John Dower had produced a report on National Parks which was being considered by interested Ministries. Just before Christmas an exhibition was arranged at the House of Commons to show Members something of the work of MOTCP and its opposite number in Scotland.

It was also announced that of 1,440 local planning authorities in England and Wales, 840 were collaborating in 153 Joint Planning Committees.

On the last day of the year the public was awaiting Lord Woolton's White Papers with the greatest possible interest, and something like a prayer on its lips.

PERSONALITIES

Astragal's vote for the Personality of the year 1943 goes unhesitatingly to Prof. **Patrick Abercrombie**, Howard Memorial Medallist, 1943, joint author with **J. H. Forshaw** of the County of London Plan, and planning consultant for Outer London, Glasgow, the Clyde, Plymouth, Hull, Bath and Dublin. Runner-up is the **MOI exhibition department** who have completed a year of magnificent and imaginative work.

Blowing the fluff out of his typewriter, Astragal also doffs his hat in welcome to **Lord Woolton** and **Percy Thomas** and in farewell to **Ernest Brown, W. H. Ansell** and **Sir Ian MacAlister**; to **Herbert Read**, Director of the Design Research Unit; **R. Coppock**, Chairman of the LCC; **Sir Hugh Beaver**, Director-General, MOW; **A. F. B. Anderson**, President of the AA, and the **Earl of Crawford** Chairman of the RFAC; to poet **John Coolmore** and to treasure-seeker **Peter Donner**; to the **Architectural Science Board** for their lectures, and to the **Reconstruction Committee** for their post-war planning exhibition; to **Sir Kenneth Clark** for giving it hospitality, and to **Sir William Beveridge** for opening it; to **Lord Portal**, Hon. FRIBA, and to the **Duke of Wellington**, FRIBA; to **D. E. Gibson** for his work at Coventry; **Max Lock** for his work at Hull; **Grenfell Baines** for his work at Preston, and **T. B. Oxenbury** for his work in East Suffolk; to the **Warburg Institute** for their photographs of Baroque sculpture in Westminster Abbey, and to the **NBR** for collecting 170,000 architectural photographs; to **Prof. Reilly** upon his resignation from TCPA and the Georgian Group, and to the **City of Bristol**, owner of Britain's first National Theatre; to **F. R. Yerbury** on his return from Sweden, and to **Jane Drew** upon her departure for the USA; to **Frederick Gibberd**, and also to the **A.A.** for appearing in an MGM film as a Bloomsbury Hotel; to **John Summerson** for "The Microcosm of London"; and to **Nikolaus Pevsner** for "The Outline of European Architecture"; to "**Country Life**" upon acquiring a country estate, and to "**Punch**" upon acquiring "The Countryman"; to **F. J. "Biscuits" Osborn** for his publicity sense, and to **George Scorer**, FRIBA, for his indefatigable pencil work; to **Edward Maufe**, prospective Royal Gold Medallist for 1944; to Messrs. **Austen Harrison, Maxwell Fry** and **Gardner Medwin** to whom has been entrusted respectively the preparation of post-war plans for Malta, West Africa and the West Indies; **G. A. Jellicoe** for his Motorways for Britain Exhibition and his plan for Earle's cement works; to **S/Ldr. Robert Lutyens** for his life of his father; to **Mass-Observation** for "People's Homes," and to **Julian Huxley** for "TVA"; to the **LRRC** for their London plan, and to the **ICE** for having an architect to design their post-war planning exhibition; to **Lord Latham** of the LCC, and to **Dr. Stradling**, James Alfred Ewing Medallist, 1943, of the BRS; to architectural draughtsmen **Leonard Manasseh, Gordon Cullen, Kenneth Rowntree** and **Barbara Jones**; to Dublin Press Attaché, **Reginald Ross-Williamson** and to his predecessor, **John Betjeman**, for "Vintage London" and "English Cities"; to the **Housing Centre** and to the **Stepney Reconstruction Survey Group**; to the **USA War Department** for inhabiting (at Washington) the world's largest office building; to **Salvador Dali** for looking at the world through ant-ridden glasses; and to bricklayers' assistants Mrs. **O'Connor** and Mrs. **Flanagan**; to **R. G. Tarran**, the prefabricated magnate, who still thinks that architects don't come along until the building is up, and to those **authors of the RIBA memorandum** on short-term housing, who seem to have the same idea but with less excuse; to the **Bournville Village Trust** for their tireless and excellent planning publicity, and to the **National Trust** for a boom year of acquisitions, among them Boarstall Tower, Dorneywood House, Cliveden, Woolsthorpe Manor, Flatford Mill, Blaise Hamlet, Killerton, Avebury, The Court Holt, Knole Park, and West Wycombe Park.

Finally, Astragal salutes those anonymous but unquestioned Personalities of the year—the many hundreds of architects, both in and out of uniform, who are sunk to varying depths of discomfort in the honourable obscurity of Government service. They cannot be named, but they are not forgotten.

42

43

42

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

LIGHT TRANSMISSION, REFLECTION, AND ABSORPTION OF GLASS: DIFFUSION.

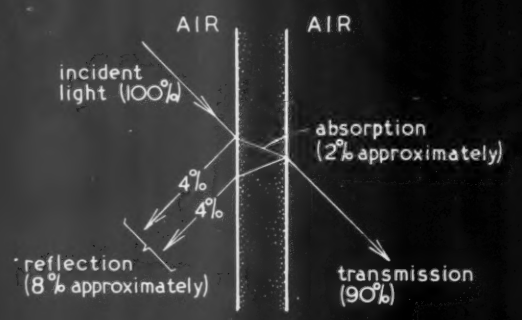


DIAGRAM A1: TRANSPARENT GLASS (clear sheet glass). Class A

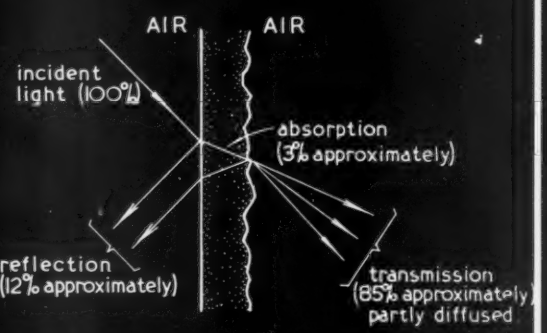


DIAGRAM A2: TRANSLUCENT GLASS (figured rolled glass). Class B

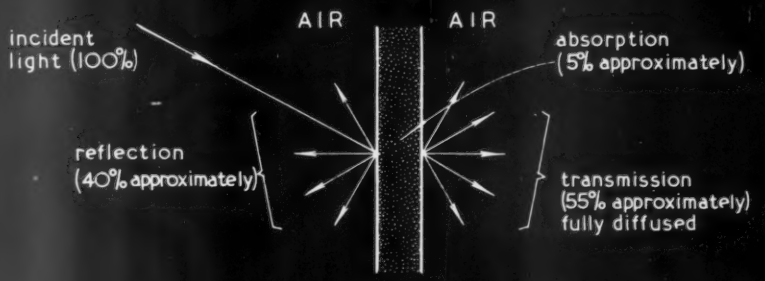


DIAGRAM A3: OPAL GLASS. Class C

CALCULATION OF INTENSITY OF ILLUMINATION (artificial light)

I = intensity of light source in candles E = illumination of surface in foot candles D = distance from source to surface in feet

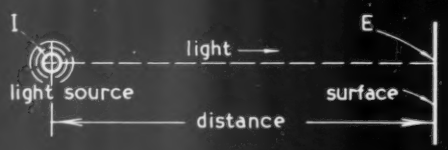


DIAGRAM B1: NORMAL INCIDENCE

$E = \frac{I}{D^2}$ foot candles

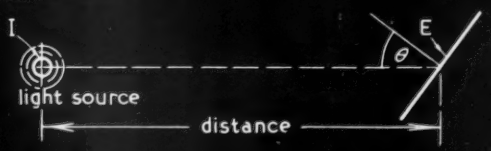


DIAGRAM B2: OBLIQUE INCIDENCE

$E = \frac{I \cos \theta}{D^2}$ foot candles

If the surface is diffusely reflective with a reflection factor: R. its brightness: B. (in equivalent foot candles) is given by:

$B = R E$ equivalent foot candles or foot lamberts or lumens per sq ft

alternatively

$B' = \frac{R E}{\pi}$ candles per sq ft

The intensity I (candles) of a surface A sq ft and brightness B' (candles per sq ft) is given by:

$I = A B'$ candles

alternatively

$I = \frac{A B}{\pi}$ candles

Information from Chance Brothers Ltd.

43

INFORMATION SHEET: GLASS 5: LIGHT 2.
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THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 925 •

GLASS: No. 5

Subject : Light : Direction (diffusion) ; Intensity ; Measurement.

General :

This Sheet is the fifth of the series dealing with glass and glass products, and sets out the principles of Direction (diffusion) ; Calculation of Intensity ; and Measurement generally.

Direction : See diagrams Ia, Ib and Ic.

Light travels in straight lines and may be re-directed by reflection or refraction only. When it strikes a transparent glass sheet it is partially reflected, partially absorbed and partially transmitted. A translucent glass sheet will reflect and transmit light in slightly random directions and an opal glass sheet will scatter it completely. Allowance must be made for these effects in any measurements of glass.

In lighting a room by natural or artificial means, care must be taken to diffuse the light, so that it is travelling in many directions and harsh shadows are avoided. This may be done by a single diffusing source of light, by several light sources or by multiple reflection between ceiling, walls, etc. The effect of the reflection factor of the wall decorations is most important.

Intensity :

The unit of intensity is the candle : a 60-watt lamp gives about 50 candle power. The illumination given on a surface by a lamp is measured by the number of lumens (i.e., quantity of light) falling on unit area and may be calculated by dividing the intensity by the square of the distance from lamp to the surface (the inverse square law). The brightness of a surface is measured by the number of lumens emitted by unit area and may be calculated for a matt surface by multiplying its illumination by its reflection factor. The unit of brightness is the equivalent foot candle or the foot lambert, both of which are equal to the number of lumens emitted from the surface per square foot. An alternative basis of measurement is in terms of candle power per square foot or per square inch. Special treatment is needed for glossy surfaces.

Measurement :

Natural lighting is best calculated as a Daylight Factor and data of this is given in the next Sheet of this series.

The illumination given by artificial lighting can be measured by a photoelectric photometer giving direct readings in foot-candles (or lumens per square foot). Such an instrument appears very simple to use, but it may give misleading results if its limitations are not realised. It does not in general give any measure of the diffusion or shadow-less character of the illumination.

The brightness of a light source or an illuminated surface is best measured by a visual photometer which may be held in the hand and sighted on the object to be measured.

The efficiency of a lighting fitting or the transmission factor of a glass can only be measured in an integrating photometer under laboratory conditions. It is, however, of interest to note that the reflection factor and design of the canopy of a lighting fitting are generally more important than the transmission factor of the glass, and that the effect of dirt is usually greater than the absorptive properties of opal or of clear glass. It is usual to measure the transmission factor of a glass with a figured pattern by directing a parallel beam of light normally on to the smoother surface and collecting the whole of the transmitted light in an integrating photometer.

Previous Sheets :

Previous Sheets of this series on Glass are Nos. 914, 917, 919 and 922.

Issued by : Chance Brothers Limited.

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DIARY FOR 1943

This diary, which first became a regular feature of the New Year Issue at the beginning of the War, records the outstanding events in the building world during the past year. Owing to the need of including other index features in this issue it has been condensed in size but is the same in format. Where it has been thought necessary the source from which the information was obtained appears at the end of certain items. Professor C. H. Reilly, instead of his usual review of the year's buildings, contributes the introduction.

INTRODUCTION

[*BY PROFESSOR C. H. REILLY*]

I have been asked to write an introduction to the JOURNAL's diary of events in place of my usual description of the year's buildings, as there are, in the fourth year of the war, no new buildings for me to disport with, except war ones, which may not be illustrated. Some of these I know are very good, better than the average peace ones, by being forced to leave out all frills. In a little while now I like to think they will burst upon us in a few grand numbers of this journal and of *The Architectural Review*.

What are the chief events of 1943? I think they are two, the Forshaw, Dougill and Abercrombie plan for London and Lord Woolton's appointment with the possibilities that lie in it. Concerning the former, it will be noticed I have inserted the name of Wesley Dougill, Forshaw's chief assistant over the plan, who sacrificed his life by overwork upon it, before that of Abercrombie. I do that to indicate for once the great credit everyone connected with the plan, including Abercrombie, agrees he deserves.

The LCC Plan for London not only seems to me a grand imaginative conception by which life and dignity can, in time, be brought back to the vast decaying areas of the town, but one which can be applied in degree to all big, decaying, sprawling and self-strangling towns everywhere. To produce such a creative idea is something we, as a nation, can be very proud of, just as we are very proud of having produced the steam engine, the spinning jenny, the radio-valve and a hundred other inventions.

Lord Woolton's appointment as Minister for Reconstruction is of a different order. It may mean much or it may mean nothing. Knowing him from the days when he too had a junior post at the University of Liverpool—he was Warden of our Settlement in the slums—I do not think he would have accepted it if he had not seen his way to make a success of it. He is a man born to succeed, first in the field of money, now in that of power. I have seen him rise in the first field from a University position in Liverpool at £500 a year to the chairmanship of a great company in that town (Lewis's) at, it is said, over £50,000.* Since then he has been the most successful minister, after the P.M. Liverpool recognizes this, and on January 14 the University held a special congregation to give him, and him alone, an honorary degree. Up to now the Government has shown no real appreciation by any law it has so far enacted of the enthusiasm in the country, and still more in the services, for a finer way of life for everyone after the war.

The *Ministry of Town and Country Planning* cannot be said so far to have justified its existence. It might well be thought by the less informed to be connected in some junior way with the *Town and Country Planning Association*, its amateur rival. It was Lord Reith, when he was Minister of Works and Planning, who ordered a few positive pieces of planning, pieces independent that is of the old, negative Town Planning Acts, such as this London County Council Plan. Now it is up to Lord Woolton in the field of physical planning either to stimulate Mr. W. S. Morrison to pass the Bills giving the necessary powers or to introduce them and push them through himself. Whether we are to have a new Britain for the good of all or an old one for the good of private interests chiefly depends on him. If he makes possible the former, there will be no limit to his success, power and prestige in the land. If he fails, £50,000 a year will, I fancy, knowing him, be of little consolation. He will be well seconded by another Liverpool man, the new Minister of Health, whom it has also been my good fortune to know, in his case from his prep. school days. He was afterwards one of those best, but often despised products of Eton while there, a scholarship boy. Better still he is the son of a very active, open-minded and public-spirited architect of the town (the late William Edward Willink).

There will be no Ernest Brown muddles with him. His brave and quick work in the East End, where he lived during the blitz, is a guarantee of that.

There were other Liverpool appointments in 1943—Maxwell Fry's to replan, under the Colonial Office, the towns of West Africa; Gardner Medwin's to replan those of the West Indies, and Pearce Hubbard's Malta, all three men being brought out of the Royal Engineers for the purpose. One cannot keep Liverpool out except of Liverpool itself.

If 1943 therefore saw the turn of the war, 1944, I like to prophesy, will not only see the end of the European war, but the turn of the tide on the Home Front, too, or the Government turned out, either a fairly pleasant prospect for architects. There is also the promise of an RIBA election, so why despair?

*A job he gave up when he became a minister.

JANuary

MOWP
Publication of a consolidated memorandum on *Payment by Results*. (HMSO, 6d.).

MOTCP
Ministry of Town and Country Planning Bill presented to House of Commons by Sir William Jowitt and passed through all its stages.

PLANNING
In a report to MOWP, the Institution of Municipal and County Engineers urged Government, as an essential part of post-war planning, to make complete investigation into the whole subject of national communications.

PEP issued 200th number of its broadsheet entitled *Planning*, which reviewed some of the ideas and proposals which it has put forward since it was first formed in 1931.

BUILDING TRADE
MOLNS leaflet announced that further call-up of men from the Building and Civil Engineering industries would be made at once and details of the arrangements were listed. (A.J., January 28, p. 82).

Adoption of a Holidays with Pay Scheme and a National Scheme of Apprenticeship.

RESEARCH
Preliminary decisions reached by the Committee set up by the FBI to consider industrial research. Proposed to make a survey of present industrial research activities and to obtain an indication of the results already achieved in many spheres of British industry.

HOUSING
Preparations being made by the Government to recondition 80,000

war-damaged houses, including others unoccupied.

Bristol Housing Committee estimated that 5,000 houses required immediate demolition in the city.

Government announced scheme for the building of cottages for farmworkers to be built before the end of the year.

Deputation from the Birmingham C.C. to Minister of Health. Deputation estimated that Birmingham needs 100,000 post-war houses.

APPOINTMENTS

New Members of Royal Fine Art Commission. Chairman: Lord Crawford and Balcarres. Members: William G. Holford, J. Hubert Worthington and Geoffrey Webb.

Professor Patrick Abercrombie appointed to prepare a redevelopment plan for Plymouth in collaboration with J. Paton Watson, the City Engineer.

President of the CSI: William Charles Farnsworth.

President of the LMBA: H. C. Harland.

Consulting architect to EMJA to direct the research and development of joinery for post-war and war-time needs: Frederick MacManus, A.R.I.B.A.

President of the NFBTE: F. Leslie Wallis.

President, FGLMBA: H. J. Heal.

HONOURS

George Cross: Lt. J. S. Mould, R.A.N.V.R., A.R.I.B.A.; *O.B.E.*: Squadron Leader E. Beresford Marshall, F.R.I.B.A.; Lt.-Col. F. R. Boyd Haward, F.R.I.B.A.; Neville Wynne-Jones, F.R.I.B.A. *Mentioned in Despatches*: Ft/Lt. S. E. T. Cusdin, R.A.F.V.R. *Knight Bachelor*: F. M. Elgood, F.R.I.B.A. *M.B.E.*: T. R. Eltringham, L.R.I.B.A.; W. G. Wincop, A.R.I.B.A.; Edwin Williams, F.R.I.B.A. *K.B.E.*: William Leitch, Deputy Secretary, MOW. *K.C.V.O.*: W. R. Lamb, Secretary, R.A.

James Alfred Ewing Medal for specially meritorious contributions to the service of engineering in the field of research: Dr. R. E. Stradling.

Admitted to Freedom of the City of London: Robert Cromie, F.R.I.B.A.

EXHIBITION

At the Building Centre: Model, designed by Thomas Sharp, for a new satellite town. Accommodation from 8,000 to 10,000 people. (Illustrations in A.J., February 4, pages 93-95).

OBITUARY

Lord Hirst, Chairman and Managing Director of the General Electric Co.

Rt. Hon. John Burns, who introduced the Housing, Town Planning etc., Bill in 1909.

BOOKS

Process of Architectural Tradition. By W. A. Eden. MacMillan. 6s.

Can Our Cities Survive? By J. L. Sert. Harvard University Press. $5.

FEBruary

MOW

Appointments: Permanent Secretary: F. P. Robinson.

Ministry's name officially changed to Ministry of Works.

MOTCP

The Minister of Town and Country Planning Bill passed through its final stages in both Houses of Parliament and received Royal Assent.

Appointments: Permanent Secretary: Sir Geoffrey Whiskard. Deputy Secretary, L. Neal. Principal Private Secretary, S. W. Phillips. Adviser to the Ministry on scientific matters connected with the preservation of the coast line: J. A. Steers.

PLANNING

Agricultural Research Board suggested a nation-wide survey to ascertain extent to which it would be possible, under present system of land tenure, to carry out rural reconstruction.

IMCE, representing local authorities throughout the country, submitted to Lord Portal memorandum on "Post-War Planning and Reconstruction." (*Builder*, February 12, p. 157).

BUILDING TRADE

White Paper laying down Government Policy on Training for the Building Industry (H.M.S.O., 1s.), presented to Parliament. Paper drawn up by MLNS and MOW and is the outcome of Report on Training for the Building Industry, drawn up by Education Committee of CCWB (MOW) (HMSO, 1d.). (A.J., March 4, p. 157).

A scheme for pooling, in certain localities, of the resources of local firms employing not more than 25 men, suggested by MOH to Advisory Council of the Building and Civil Engineering Industries. (*Builder*, February 12, p. 160).

HOUSING

Statement by Mr. Ernest Brown that a certain number of new cottages for farmworkers would be completed in time for the next harvest. List of sites for the cottages. (*Builder*, February 12, 1943, p. 154). MOH stated architects shoud plan, lay-out and supervise cottages.

Publication by MOH of type plans of proposed farmworkers' cottages. Plans recommended by MOH Central Housing Advisory Committee and agreed by MOA and MOW. (A.J., February 25, p. 139).

Memorandum on Housing prepared by Royal College of Physicians at request of MOH. (*Architect and Building News*, March 5).

T. Johnston (Secretary of State for Scotland): Two steps are being taken to ease acute Scottish housing position. (1) special arrangements are being made to expedite completion of 5,000 houses: (2) building of limited number of new houses.

EXHIBITIONS

Rebuilding Britain. At the National Gallery. Opened by Sir William Beveridge. Designed by the RIBA and sponsored by the whole building industry. Object: to show general principles of reconstruction to the public. (A.J., February 25, p. 140).

DEMOLITION

On the instructions of the LCC work started on the demolition of the eighteenth-century terrace in Abingdon Street, Westminster, owing to enemy bomb damage.

CENTENARY

The Builder celebrated its centenary. It was founded by Joseph Hansom who became its first editor.

APPOINTMENTS

Acting Controller of Iron and Steel: Sir Charles Wright.

Secretary of War Damage Commission: W. R. Fraser.

Secretary of Department of Health for Scotland: G. H. Henderson.

F. Longstreth Thompson to prepare provisional layout plan for Merseyside. Architectural Adviser: C. H. James.

Convener to Post-War Planning Committee of BGF: C. A. Masterman.

President, IAAS: F. G. Sainsbury.

Consultants for Chester's town-planning scheme: W. R. Davidge and W. Dobson Chapman.

W. H. Hamlyn appointed to position of Architect, Chief Engineer's Department, LMSR.

To represent NFBTE on the Advisory Council of the BCEI: F. Leslie Wallis.

RETIREMENT

R. W. Caldwell, L.R.I.B.A., Chief Architectural Assistant to the Divisional Civil Engineer of the LMS Railway.

OBITUARY

Wesley Dougill, M.A., A.R.I.B.A. Age 47.

R. M. Butler, F.R.I.B.A., Professor of Architecture, Dublin University.

HONOURS

M.B.E. (M.I. Division): Sq./Ldr. F. O. Baddiley, R.A.F.V.R., A.R.I.B.A. *DFC*. Ft/Lt. H. Griffiths, A.R.I.B.A.

BOOKS

Town and Country Planning. By Patrick Abercrombie. Oxford University Press. 3s.

Rebuilding Britain. RIBA. Lund Humphreys. 3s. 6d.

MARCH

MOW

Appointment: Chairman of the MOW Advisory Council of the Building and Civil Engineering Industries: J. W. Stephenson. Vice-Chairman: F. L. Wallis.

MOW started to collect preliminary information with a view to preparing plans for the rebuilding of the House of Commons.

Publication of First Report of the Codes of Practice Committee for Civil Engineering, Public Works, Building and Constructional Work. HMSO, 4d. (A.J., April 15, p. 259).

MOTCP

Appointment: Director of Public Relations: Sir Stephen Tallents.

In a circular to local authorities MOTCP pointed out that all functions exercisable by the Minister of Works and Planning under the Town and Country Planning Act, 1932, had now been transferred to the Minister of Town and Country Planning.

Publication of Circular giving list of Ministry's Planning Officers. (HMSO 1d.)

PLANNING

The Prime Minister, in a broadcast talk, suggested the replanning of our cities as one of five or six large measures of a practical character which would form part of a Four-Years' Plan.

BUILDING TRADE

NFBTE and the IB set up a Joint Educational Committee to consider the question of education for the young builder, particularly in the higher ranks.

Scheme announced by George Hicks for the grouping of that part of the building industry dealing with maintenance and small work. About 2,000 to be grouped for carrying out major repairs to bomb-damaged houses.

Capacities of the Building Industry in Relation to Reconstruction. Interim Report No. 6 of RIBA. (*RIBA Journal*, March, p. 109).

NEW COMMITTEE

Formation of the City of London Reconstruction Advisory Council.

Inter-Departmental Committee set up by MOH, MOW and Secretary of State for Scotland to examine new methods of house construction. (A.J., March 11, p. 166).

HOUSING

MOH asked local authorities to formulate plans to make a quick start on housing for the working-classes, immediately conditions permit, whether during or after the war. (Circular 2778).

MOW and MOH stated they hoped to make some 40,000 houses habitable by November, 1943.

Publication of MOW designs for elevations for farm workers' cottages. (A.J., March 25, p. 206).

PRESERVATION
Sir Richard Acland, M.P., presented 17,000 acres of his estates in Devon and Somerset to the nation.

LAW
First occasion on which a term of imprisonment was imposed for an infringement of Regulation 56A. At Lambeth Police Court, D. Pratt was sentenced to two months imprisonment for commissioning repair work in excess of £100 without obtaining a licence.

APPOINTMENT
Chief Architect of the Department of Health for Scotland: George D. Macniven, F.R.I.B.A. He succeeded John Wilson, who retired under the age limit.

Architect for East Riding: L. A. Reynolds, A.R.I.B.A.

OBITUARY
G. H. Parker, Chairman of the National Joint Council for the Building Industry since 1937.

Active Service: S/P C. N. Hardman, R.A.F.V.R., A.R.I.B.A.; P/O E. M. Hooper R.A.F., A.R.I.B.A.

BOOKS
English Cities and Small Towns. By John Betjeman. Collins. 4s. 6d.
Outline of European Architecture. By Nikolaus Pevsner. Penguin. 1s.
Brazil Builds. By Philip L. Goodwin. Photos: G. E. Kidder Smith. Museum of Modern Art. $5.
Synthetic Resins. Various authors. Oxford University Press. 35s.
The Place of Glass in Building. By John Gloag. George Allen & Unwin. 7s. 6d.
Creative Demobilization. By E. A. Gutkind. Kegan Paul. 21s.

APRIL

MOW
Chairman of the Apprenticeship and Training Council for the Building Industry: Sir Malcolm Trustam Eve.

Directorate of Post-War Building issued statements on the progress of its 23 study committees. (A.J., April 22, p. 275).

Ministry combined functions of the Directorates of Emergency Works and Demolition and Recovery under title of Directorate of Emergency Works and Recovery. Director: G. M. Carter.

Publication of Timber Economy No. 4 (Windows, etc., and their Black-out). HMSO, 1s.

Director to compile and co-ordinate the post-war building programme envisaged in White Paper on Training for the Building Industry: C. T. Every, F.S.I.

MOTCP
Town and Country Planning (Interim Development) Bill presented to Parliament by W. S. Morrison.

PLANNING
Hull CC approved and accepted the scheme by Sir Edwin Lutyens and Professor P. Abercrombie for the replanning of Hull.

BUILDING TRADE
Building and Civil Engineering Industries Holidays with Pay Joint Industrial Board announced details of the new holiday scheme. (*Builder*, April 30, p. 397).

Joint Conference of the Allied Nations' Technical Building Committee and the LMBA, held in London. Organised by DPWB of MOW.

NEW COMMITTEE
Formation of the Design Research Unit by the Advertising Service Guild. Director: Herbert Read. (A.J., April 15, p. 252).

HOUSING
Announced that 200 farmworkers' houses to be erected in Scotland during the year. Publication of elevations and plans. (A.J., April 8, p. 235).

RIBA
RIBA Council unanimously decided not to apply to the Privy Council for permission to hold an election during the year. (A.J., April 8, p. 242). Letter (A.J., April 22, p. 266) signed by six members of the RIBA asking for the reaction of members to the Council statement concerning elections.

Publication of Interim Report No. 7 of the Reconstruction Committee, Building Legislation Group (*RIBA Journal*, April, p. 139.)

WAR DAMAGE
Statement that more than £100,000,000 had been paid out for repairs to nearly 1,200,000 properties damaged by enemy action.

BRICKS
Publication of the Third and Final Report of the Simmonds Committee on the Brick Industry. (HMSO, 9d.).

PRESERVATION
Dorneywood House, Buckinghamshire, given to the nation by Sir Courtauld Thomson.

APPOINTMENTS
Vice-President, TCPA: Sir William Beveridge.

Chairman, LCC: Richard Coppock.

President of BINC: F. Leslie Wallis.

Professor Abercrombie appointed to advise City Engineer, York, in the preparation and revision of the York planning scheme. C. W. Needham to assist.

Chairman of the National Joint Council for the Building Industry: W. H. Forsdike.

Director of Fuel Research, DSIR: A. Parker.

HONOURS
Howard Memorial Medal awarded by TCPA to Professor Patrick Abercrombie, for his distinguished services to planning.

Active Service: *M.M.*: Sgt. R. C. Callahan, A.R.I.B.A. *George Medal*: Lt. R. W. Deans (Student, RIBA).

OBITUARY
Active Service: Lt. A. A. Robin, R.E., A.R.I.B.A.

BOOKS
Social Foundations of Post-War Buildings. By Lewis Mumford. Faber & Faber. 1s. 6d.

Glimpses of Polish Architecture. By Peter Jordan. Standard Art Book Co. Price 6s.

Parallel of the Orders of Architecture. By R. A. Cordingley. Tiranti. 10s. 6d.

MAY

MOW
Appointments: Senior Architect, Post-War Building: Anthony M. Chitty, F.R.I.B.A.

Publication of the Ministry's Standard Schedule of Prices. (A.J., May 27, p. 352).

MOTCP
Second Reading of the Town and Country (Interim Development) Bill in the House of Commons. (Debate reported in A.J., May 20, p. 330). Read the Third time and passed.

In Parliament: *Question* (by A. Bossom): 1. What was the present number of MOTCP staff. 2. The number before it was transferred from MOWP. 3. Estimated annual cost of Minister's Department. 4. Annual cost when it was attached to MOWP.
Answer (by H. Strauss): 1: 183. 2: 38. 3: £172,430. 4. Impossible to give separate figure of annual cost of Planning Department of MOWP.

PLANNING
Letters to *The Times*, by W. H. Ansell and A. W. Kenyon, concerning steps necessary before organized building can begin again.

Sir Charles Bressey left for Madrid to lecture under the auspices of the Spanish Town Planning Authorities.

BUILDING TRADE
First regional trust fund to be established under the building industry's new national apprenticeship scheme set up by Southern Counties Federation of Building Trades Employers.

Federation of Greater London Master Builders decided to delete Greater London from its title.

Speech by Lord Portal in the debate in the House of Lords on the White Paper on Training in the Building Industry. (*Architect and Building News*, June 6, p. 156.)

NEW COMMITTEES
Secretary of State for Scotland appointed Committee to consider and make recommendations as to the planning of schools and other buildings for educational purposes after the war. Chairman: Dr. J. Jardine.

Advisory Committee on town planning appointed to collect views regarding Edinburgh of the future. Members: Sir T. B. Whitson, Sir J. D. Pollock, and J. L. Clyde.

MOT, with concurrence of MOTCP and Secretary of State for Scotland, appointed a Committee to give advice on replanning the roads of towns and cities. Chairman: Sir Frederick Cook.

HOUSING
TCPA submitted a memorandum to the MOH Advisory Committee on Housing (A.J., June 3, p. 372).

RIBA issued scale of fees for farmworkers' cottages (A.J., May 20, p. 340). Critical survey of the position of these cottages published in A.J., May 27, p. 347. Debate in House of Lords: May 27, p. 350.

STATE THEATRE
Theatre Royal, Bristol (designed by J. Paty and built in 1766), was opened by CEMA as the first State theatre in England.

EXHIBITION
Annual summer Exhibition of RA included section devoted to the RA Revised Plan for London.

APPOINTMENTS
Deputy Director of Claims, War Damage Commission, London: T. Roberts.

Head of Welsh School of Architecture: Lewis John.

Treasurer and Trustee of the RA: E. Vincent Harris, R.A.

County Architect, Glamorgan: L. R. Gower, F.R.I.B.A. (He succeeded J. Williamson, F.R.I.B.A., who retired on reaching the age limit).

MOS: Director of Woodworking: R. H. Hall. Deputy Director: R. H. Freeman.

President, RIAS: J. R. M'Kay, F.R.I.B.A.

Housing Architect, Arbroath: H. K. Macdonald, L.R.I.B.A.

BOOKS
Our Birmingham. Various Authors. University of London Press. 1s.

JUNE

MOW

Appointments in Directorate of Post-War Building: Controller of Experimental Building Development: Frederic E. Towndrow, A.R.I.B.A. Building Costs Research Officer: D. W. Nunn.

MOW Apprenticeship and Training Council for the Building Industry: J. L. Beckett (representing IMCE).

W. H. Forsdike appointed to represent NFBTE on MOW Advisory Council in succession to late G. H. Parker.

Publication of pamphlet (HMSO, 9d.) dealing with the standard of war-time building. Standards set forth are the bases adopted in dealing with applications for licences for civil building.

MOTCP

Town and Country Planning (Interim Development) Bill read a second time in House of Lords. (Debate: A.J., June 24, p. 417).

PLANNING

Plan for the County of London completed by J. H. Forshaw, Architect to the LCC, who was advised by Professor Patrick Abercrombie.

NEW COMMITTEE

An advisory committee of five experts in the gas industry set up for regular and close consultations with the Ministry of Fuel and Power on all questions arising from Ministry's relations with the gas industry, and on matters concerning future policy.

BRICKS

At June 10 the Tribunal set up by MOW in January to deal with and to hear appeals by brick undertakings, had dealt with 9 cases—6 were confirmed; 2 allowed; and 1 deferred for six months.

HOUSING

Publication of first Report of ISPH.—*Housing Production or the Application of Quantity Production Technique to Building: Its Social, Commercial and Technical Possibilities and Requirements.*

Estimated by R. A. H. Livett, Architect to Leeds Corporation, that over 50,000 houses would be needed in Leeds during first 20 years after the war.

Work started on the first four of the 3,000 farmworkers' cottages for MOH. New designs for these cottages issued by MOW. (A.J., July 1, p. 11).

Start made on housing survey of Northern Ireland.

PRESERVATION

Woolsthorpe Manor, near Grantham, birthplace of Isaac Newton, taken over by the National Trust.

Dinton Park, together with the mansion, and Hyde's House, near Salisbury, presented to the nation.

EXHIBITION

Work of the London Regional Reconstruction Committee. At National Gallery. (A.J., June 10, p. 380).

APPOINTMENTS

President of the AA: A. F. B. Anderson, F.R.I.B.A.

President of the ISE: Major A. H. S. Waters, V.C.

Re-elected President FAAS: H. H. Murray.

President TPI: W. Dobson Chapman.

Mayor of Huddersfield: Ald. J. E. Lunn, A.R.I.B.A.

HONOURS

King's Birthday Honours List: *Knight Bachelor*: Hugh Beaver, Director-General, MOW. *K.C.B.*: Sir Geoffrey Whiskard, Permanent Secretary to MOTCP. *M.B.E.*: R. C. Foster, F.R.I.B.A. *M.B.E.* (Military Division): Captain A. B. Waters, R.E., A.R.I.B.A., D.S.C.; Lt.-Commander T. N. Cartwright, R.N.V.R., F.R.I.B.A.

OBITUARY

William Walcot, F.R.I.B.A., R.E., architect, painter and etcher.

Active Service: O/C Miles Rathwell, R.A., A.R.I.B.A.; S/Obs. R. W. Sherwin, R.A.F., A.R.I.B.A.

BOOKS

Microcosm. By John Summerson. Penguin. 2s.

Britain's Town and Country Pattern. Prepared by the Nuffield College. Faber & Faber. 2s. 6d.

The Honeywood File. By H. B. Creswell. Faber & Faber. 7s. 6d.

JULY

MOW

Appointment: Private Secretary to Lord Portal: A. F. Ewing.

Following the debate in the House of Commons on MOW Building Costs, it was resolved that a sum of £44,137,531 be granted to His Majesty to complete charges for departments connected with MOW, and with building costs for year ending March 31, 1944, as follows: MOW, £3,580,890; MOW (war services), £90; MOH, £17,976,551; MLNS, £22,580,000.

Minister appointed Commission to visit America to study and report on new building methods. Members: A. Bossom, M.P., Sir George Burt, Sir J. West and F. Wolstencroft.

PLANNING

LCC approved the plan for the rebuilding of the County of London.

Hull Regional Survey subject of special issue of the A.J. (July 29).

BUILDING TRADE

BINC Building Congress held in London. (*Builder*, July 30, p. 90).

Mr. Attlee, in the House of Commons, said that he did not think that at present there was any need for a Select Committee to investigate rise in building costs.

HOUSING

MOS had received proposals to build 130,000 houses after the war from 586 local authorities.

Minister of Health announced he had given local authorities new powers to requisition empty houses and to speed up repair of damaged ones.

Scale of fees for farm workers' cottages issued by RIBA (JOURNAL. July 22, p. xx).

COMPETITION

IAAS Competition for design for small model housing estate. No first award made. These competitors received 50 guineas: C. M. Hamp and B. E. Bass (joint), C. Brown, J. C. Clavering.

EXHIBITIONS

County of London Plan Exhibition at the County Hall. (A.J., July 15, p. 39).

Hull Regional Survey. At the Housing Centre. (A.J., July 29, p. 71).

Army Exhibition, *Equipping a Division.* John Lewis's bombed site, Oxford Street. Produced for MOI under direction of Misha Black.

APPOINTMENTS

F. Longstreth Thompson appointed town planning consultant, Norwich, to prepare a post-war development scheme. Architectural advisers: C. H. James and S. Rowland Pierce.

President of the RIBA: Percy E. Thomas.

Imperial War Graves Commission appointed J. Hubert Worthington, O.B.E., F.R.I.B.A., as its principal architect for North Africa and Egypt.

President, IOB: E. C. Holloway.

Charles Holden appointed "Designer of Industry of the RSA" for his design in connection with transport.

RESIGNATION

W. H. Ansell, President of the RIBA.

OBITUARY

Thomas Howarth, former president of NFBTE.

Active Service: L/Sgt. E. M. McIntyre, R.E., A.R.I.B.A.

BOOKS

County of London Plan. By Forshaw and Abercrombie. Macmillan. 12s. 6d.

AUGUST

MOW

Ministry appealed for building operatives of all grades and trades for the special repair service of MOW.

MOTCP

Ministry issued a circular (HMSO, 1d.) to local authorities and joint town and country planning committees, calling attention to the Town and Country (Interim Development) Act, which became law this month. (A.J., August 26, p. 139)., Ministry issued regulations (HMSO), 1d.) for interim development authorities to come into force immediately. (A.J., September 2, p. xxxi.)

PHYSICAL PLANNING

First of a new section (to be published weekly) of the JOURNAL devoted to Physical Planning. (A.J. August 5, p. 91. See also p. 53 of this issue).

BUILDING TRADE

LMBA sent a resolution to Lord Portal, Minister of Works, and other departments concerned with building, asking that quantities should be supplied in all Government building contracts.

WAR DAMAGE

War Damage Commission made additions to the scale of professional fees for war damage. (A.J., August 26, p. 137.)

HOUSING

MOH sent circular to local councils which stated that local authorities would be given wider powers than they had hitherto possessed to requisition suitable premises, which might otherwise remain unoccupied, and to make these premises available for families living in unsatisfactory conditions.

National Executive Committee of the Electrical Association for Women sent to Government departments concerned, protests against the plans for farm workers' cottages.

NATIONAL THEATRE

Stated that the original proposal to build a National Theatre in Kensington might be scrapped and that the building would be erected in the West End.

RECORDS

National Buildings Record stated that it had over 170,000 photographs and a large collection of measured drawings.

EXAMINATIONS

Arrangements made for holding the RIBA Intermediate, Final and Special Final Examinations in prisoner-of-war camps in Germany.

RETIREMENT
O. H. Marks, Architect to the Sunderland E.C. Successor (for the duration): C. A. Murray, A.R.I.B.A.

BOOKS
Architectural Hygiene. By Sir Banister Fletcher. Pitmans. 18s.
Building Timbers. By Boulton and Jay. Newnes. 7s. 6d.

SEPTember

MOW
Ministry's mission of enquiry into American building methods started work in New York and Washington.

PLANNING
Statement, drafted by the Executive Committee of TCPA, containing constructive criticism of the County of London Plan, sent to MOTCP, LCC and other bodies. (A.J., September 30, p. 242.)

BUILDING SOCIETIES
Abbey Road and the National Building Societies decided to amalgamate.

PITHEAD BATHS
Proposal to provide pithead baths for the whole of the coal-mining industry discussed by MOFP and Mineworkers' Federation.

HYDRO-ELECTRIC BOARD
Names of members of the Scottish Hydro-Electric Board announced by MOFP. Chairman: Earl of Airlie. (A.J., September 30, p.227.)

APPOINTMENT
W. B. Edwards appointed Professor to hold new Chair in Architecture in the University of Durham.

RETIREMENTS
S. A. Heaps, Architect to the LPTB, after forty years' service.

OBITUARY
J. R. Adamson, partner in firm of Bradshaw Gass & Hope.
Active Service: 2nd/Lieut. F. A. Cochrane, R.E., A.R.I.B.A.

BOOKS
Housing Problems. ABT. 6d.
New Towns for Old. By S. D. Adshead. Dent. 6d.
Co-operative Home Building Conditions. By W. P. Watkins. Dent. 6d.

OCTober

MOW
Ministry issued: Economy Memorandum Number 5 (Revised) which superseded EM5 (p. 28) of *The Standard of War-time Building*; and the Second Report of the Codes of Practice Committee (A.J., October 21, p. 299). HMSO. 3d.

PLANNING
A campaign launched by TCPA "apparently with the object of sabotaging the LCC Plan," dealt with in A.J., October 21, p. 285.

Proposals for the re-development of Manchester contained in a report drawn up by the City Surveyor (A.J., October 14, p. 263).

MOTCP announced that the "deliberate findings" of the Uthwatt Report to be made known (A.J., October 14, p. 279).

NEW COMMITTEE
Port of London Authority appointed Committee to consider County of London Plan.

BUILDING TRADE
Scheme for training men for the post-war building industry, in accordance with the proposals of the Government's White Paper, adopted by the LCC (A.J., October 14, p. 263).

DUKEDOM
Lord Gerald Wellesley, F.R.I.B.A., succeeded his nephew (killed in action) as Duke of Wellington.

HOUSE OF COMMONS
Mr. Churchill moved "that a Select Committee be appointed to consider and report upon plans for the rebuilding of the House of Commons and upon such alterations as may be considered desirable while preserving all its essential features." Motion agreed. Full speech by Prime Minister, A.J., November 4, p. 346.

BEVERIDGE REPORT
Deputation from Social Security League told by Sir William Jowitt he was unable to give a definite date when the Government would publish a White Paper on the Beveridge Report.

HOUSING
Circular on a general scheme for repair of houses, etc., sent to local councils throughout country by MOH. (A.J., October 21, p. 298).

LCC approved purchase of a post-war housing site of 920 acres in Hertfordshire.

House Construction of a Definite Limited Life. Memorandum prepared by RIBA at request of a sub-committee of the Central Housing Advisory Committee of MOH. (*RIBA Journal*, October, p. 282).

COMPETITION
Pair of cottages for rural workers. Promoters: Women's Institutes of Northamptonshire. Assessor: D'Arcy Braddell. Closing date: January 31, 1944.

PRESERVATION
Knole Estate, Sevenoaks, Kent, to become property of nation if approval is obtained from the Chancery Court.

Arrangements made to protect ancient sites and historic parts of buildings and works of art in Italy, occupied from time to time by the Allies.

EXHIBITION
Practical Planning, organized by ICE, ICEM and MCE. (A.J., October, 21, p. 288.)

APPOINTMENTS
Architect and Surveyor, Staffordshire Education Committee: A. C. H. Stillman.

Planning Consultant, Durham Corporation, to prepare an outline redevelopment plan for the city: Thomas Sharp.

County Architect, Stirlingshire: George C. Robb.

Mayor of Middlesbrough: R. Ridley Kitching, F.R.I.B.A.

Members of Advisory Council of the Privy Council for Scientific and Industrial Research: J. Benstead and E. Thornton.

Consultant in preparation of plan for post-war development in the Clyde Valley: Professor Patrick Abercrombie.

OBITUARY
H. Chalton Bradshaw, Secretary of the Royal Fine Art Commission.

BOOKS
TVA. By Julian Huxley. Architectural Press. 8s. 6d.

NOVember

MOW
Two orders for the control of brick prices issued by the Ministry. The Brick (Ranges of Prices) Orders No. 1 (price 6d. HMSO), and No. 2 (price 3d.)

The members of the MOW mission to America arrived back in this country and are to compile a report on their findings.

MOTCP
Circulars 5 and 6, issued by the Ministry primarily for the guidance of local authorities who have not hitherto exercised planning control. Circular 5 (Memorandum B) deals with planning work during the war period and Circular 6 (Memorandum C) is concerned with the employment of technical planning staff in wartime. Another circular issued by the Ministry (No. 4) drew attention to the Land Charges Act, 1925, regarding the preparation of planning schemes.

RECONSTRUCTION
Lord Woolton was appointed the first Minister of Reconstruction and Sir William Jowitt, Minister without Portfolio, was appointed to assist Lord Woolton in carrying out this work. Lord Woolton, who had been Minister of Food since 1940, became a member of the War Cabinet.

PLANNING
In his speech at the opening of Parliament, the King spoke of the legislation for physical planning to be debated in the House of Commons. (A.J., December 2, p. 401.)

Continuation of the controversy concerning the TCPA attitude towards the LCC Plan for London. (A.J., November 4, p. 331, and November 11, p. 356.) Discussion on the air between Thomas Sharp, F. J. Osborn and Donald Tyerman. (A.J., December 2, p. 417.)

Stated that provisional recommendations of City of London Plan had been decided upon and the report was in the hands of the printers.

Minister of Town and Country Planning said he hoped to receive the Greater London Plan in February.

Mr. Churchill, in a speech at the Mansion House, said: I regard it as a definite part of the duty and responsibility of this National Government to have it set about a vast and practical scheme to make sure that in the years immediately following the war there will be food, work and homes for all.

BUILDING TRADE
Formation of a National Wages Board for the Demolition Industry. (A.J., November 11, p. 347.)

HOUSING
LCC decided to build a new cottage estate for London workers at Oxhey, near Watford.

Publication of the second report of the ISPH. Deals with prefabrication.

Drawings being prepared by the LCC for a housing scheme to cost over a million pounds on the Grange Hill site, near Ilford.

4,000 acres of land to accommodate 25,400 houses acquired by the Glasgow Corporation.

Further details of MOH scheme

for the repair of houses and flats issued by MOW. (A.J., November 11, p. 364).

EXHIBITION

County of London Plan again placed on exhibition at the Royal Academy.

East Suffolk Reconstruction Survey. At the Housing Centre.

WAR DAMAGE

War Damage Commission announced that it is to pay for war damaged and destroyed houses, as follows: 1, any houses built after March 31, 1914; 2, houses built before March 31, 1914, subject to certain conditions. (A.J. November 4, p. 330.)

HEALTH

Henry U. Willink, K.C., was appointed Minister of Health in succession to Ernest Brown, M.P.

COMPETITION

Competition, promoted by the National Trust, for cottages at High Wycombe, Bucks.

RIBA

Institute's memorandum on *Housing Construction of Definite Limited Life* fully discussed by Astragal. (A.J., November 11, p. 350.) (Published in full: A.J., November 18, p. 380.) Letters on subject published in various issues of A.J. during month.

RETIREMENT

Announced that Sir Ian MacAlister (Secretary of the RIBA) would retire on December 31, and that C. D. Spragg would take over the duties of Secretary of the Institute until the end of the war. J. B. Turner appointed Acting Assistant Secretary as from December 1.

F. E. Drury, Principal of the LCC School of Building, Brixton.

APPOINTMENTS

President, RIAI: Vincent Kelly.

Max Lock appointed by the Middlesbrough Corporation Joint Reconstruction Committee as town planning consultant to prepare a comprehensive report and survey for the replanning of the town.

Chairman, Building Societies Association: R. Bruce Wycherley.

To assist Croydon Reconstruction Committee: W. R. Davidge.

Chief Architect to the Southampton Corporation: Hubert Bennett.

County Architect, Caithness: J. M. Henderson.

Jane B. Drew appointed consultant to the BCGA Domestic Heat Services Committee. Also stated she was going to America to study what has been done there in the abolition of drudgery in the home.

HONOURS

Flight Sergeant Arthur Louis Aaron, a second-year student in the Diploma Course in the Leeds School of Architecture, awarded the VC posthumously for "devotion to duty which has seldom been equalled and never surpassed."

Hon. Fellow of St. John's College, Oxford: Edward Maufe, A.R.A.

RESIGNATION

Professor Reilly resigned from the TCPA in protest against the Association's criticisms of the LCC Plan for London.

OBITUARY

Thomas R. Milburn, F.R.I.B.A.

Active Service: F/O J. A. Rossignal, R.A.F., A.R.I.B.A. Gunner H. S. Riley, R.A., A.R.I.B.A. Lieut. B. W. R. Thomas, R.N.V.R., A.R.I.B.A.

BOOKS

Country and Town. By G. M. Young. Penguin. 9d.

DECember

MOW MISSION TO AMERICA

Alfred Bossom, M.P., leader of the MOW Building Mission to America, speaking at a luncheon of the IAAS, urged that the building industry should come entirely under the control of one Ministry, possibly MOW. Lord Woolton, who was present, made his first public appearance as Minister of Reconstruction. He said that the people must not be misled into dreaming of a prefabricated great new world to be brought in immediately the war with Germany ended.

MOTCP

Parliamentary Private Secretary to Minister of Town and Country Planning: Wing-Commander R. Grant-Ferris, M.P.

John Dower produced report on National Parks for Ministry. Stated it was being considered by Government.

RECONSTRUCTION

Lord Woolton made his first speech in the House of Lords as Minister of Reconstruction. He said a White Paper would be issued after Christmas on housing, land purchase, planning, agriculture and food. (A.J., December 16, p. 437).

A Select Committee was appointed to consider plans for the rebuilding of the House of Commons. The Committee has a membership of 15 M.P.s. (A.J., December 16, p. 439).

RIBA

Memorandum on prefabrication and standardization issued by RIBA. Institute states it "would welcome the assistance prefabrication and standardization could make towards the carrying out of the post-war building programme." (A.J., December 23, p. 472).

PLANNING

Several replies made to F. J. Osborn's criticisms of the LCC Plan for London.

Publication of N. J. Aslan's plan for the City of London. (A.J., December 9, p. 429).

First landscape development plan for industry to be prepared and adopted since publication of the Scott Report discussed by its author G. A. Jellicoe at RS meeting. It is for G. & T. Earle's cement works at Hope, Derbyshire.

HOUSING

Ministry of Home Affairs, Northern Ireland, decided to build experimental houses at Belfast.

LCC stated that it could erect 14,199 houses and flats during the first year after the war on sites already in its possession, and a further 2,323 flats on sites proposed to be acquired.

Liverpool Housing Director, in a Report, estimated that at close of war Liverpool will need 91,000 houses to meet the demands of the next 25 years.

George Hicks, Parliamentary Secretary to MOW, announced that twenty experimental houses are to be built in the first half of next year, to demonstrate the possibilities of various methods of construction.

Lord Portal opened 108 Nissen huts, originally designed for troops, which have been converted into emergency houses by the Scottish Special Housing Association.

Stated by Sir William Jowitt in the House of Commons that plans for a short-term temporary housing policy are now being prepared as well as the long-term housing policy.

Practice Committee of RIBA has under consideration the revision of the RIBA scale of charges for local authorities' and public utility societies' housing work to make it applicable for post-war use.

HONOUR

Royal Gold Medallist: Edward Maufe, A.R.A., F.R.I.B.A., M.A.OXON. Age 60.

EXHIBITIONS

At the RIBA. Exhibition of photographs of famous Russian buildings. Photographs show ruined buildings and their pre-ruined state.

At 22, Lower Regent Street. *Motorways for Britain* Exhibition, sponsored by the British Road Federation. Designer: G. A. Jellicoe.

House of Commons: Plans of fifteen villages from the MOTCP collection.

At Alliance Hall, S.W.1. Exhibition showing how post-war housing can be financed without subsidies from the State. (*Builder*, December 3, p. 449).

At Heal's, Tottenham Court Road. *When We Build Again* Exhibition. Organized by the TCPA.

STATISTICS

Statement issued by W. O. Hudson, Secretary, IRA, that there are less than 15,000 architects, of whom some 11,000 are assistants. Approximately one-third of the profession is in Government or Local Government employ. Of the remainder, 500 live permanently abroad, 3,200 are boss architects and 6,300 are assistants.

APPOINTMENTS

The Secretary of State for Colonies has appointed Noel Hall (formerly Director of the National Institute of Economic and Social Research) Development Adviser, and E. Maxwell Fry, F.R.I.B.A., Town Planning Adviser for West Africa, they will serve on the staff of the Resident Minister in West Africa. Mr. Fry has been released from the Army—he was serving as a Major in the R.E.'s—to take up the appointment.

Town planning consultant to the Malta Corporation: Austen St. B. Harrison, with R. P. S. Hubbard as assistant town planning consultant. Mr. Hubbard, A.R.I.B.A., has been specially released from service in the RAF as Ft/Lt. (Intelligence) to take up the appointment.

Press Officer, RIBA: Barrington Hudson.

President of the National Smoke Abatement Society: W. Melland.

Private Secretary, Minister of Health: Michael Reed.

To advise on the reconstruction of the City of Exeter: Thomas Sharp.

W. R. Davidge appointed by Croydon Reconstruction Committee to act jointly with the Borough Engineer as Town Planning Consultant to prepare replanning schemes. Mr. Davidge also appointed town planning consultant to prepare, with the assistance of the City Engineer and Surveyor, a plan for the redevelopment of the City of Westminster.

Consultant architect, Central and South-East Scotland Regional Planning Advisory Committee: F. C. Mears.

Head of Department of Architecture and Building, Municipal College, Southend: N. Keep.

OBITUARY

Charles Marshall, aged 84. Two years ago, Mr. Marshall, rummaging among old papers for salvage, found about 100 original drawings made by Sir Charles Barry for work on the Palace of Westminster.

Harry William Roberts, the architect and industrial designer, age 92.

BOOKS

William Nicholson. By M. Steer. Collins. 16s.

Heating and Air Conditioning of Buildings. Second Edition. By Faber & Kell. Architectural Press. 45s.

postscript

The death took place on the morning of January 1 of Sir Edwin Lutyens, P.R.A. He was 74 years of age. An appreciation and details of his career appeared in the JOURNAL for January 6, pp. 2 and 3.

PHYSICAL PLANNING

A SUMMARY OF THE ARTICLES ON THE BOGIES AND THE PROBLEMS

On August 5, 1943, the Architects' Journal started a supplement on Physical Planning. The changes and chances of this enormous subject were becoming so momentous to the architectual profession and the consequences so vital, that there was an obvious need for the members of the profession to consider its scope and relation to themselves. Bearing this in mind the supplement launched out on a pre-designed series with the aim of placing the subject in true perspective. For prolific as its literature was, there existed no up-to-date book or serial publication designed according to a Master Plan *and covering the historical, sociological, economic, political, legal, administrative, organizational and technical background. The first four numbers of Physical Planning, which are not included here as they constituted summaries in themselves, covered the panorama of Physical Planning from 1909 to 1946. Number 5 launched an attack on the bogies that haunt the steps of all planners. These, and the articles which followed up to the end of the year, are summarized below, and should be read as a continuous story. In order to achieve this form it must be realized that it was sometimes necessary to take liberties with the authors' original articles. The New Year Supplement concludes with a preview of the remaining part of the job which current numbers are now tackling.*

5

BOGIE NUMBER ONE

PLANNING IS HOSTILE TO FREEDOM

K. Mannheim

Being British we start by assuming that freedom is a good thing and that we mean to preserve it. But we must realize that this requires effort on our part. We cannot preserve freedom by just letting things be. There was a time when we could, but in those days the economic independence of the individual was a reality. It is not any longer. The turn of the century saw the growth of industrial combines, cartels and trusts, and this war has probably completed the swing over to mass production methods begun nearly two centuries ago. The majority of individuals are now in paid employment, their conditions of life more or less laid down by their employer (bank clerks may not marry without approval). The State must either control these economic forces or be controlled by them.

A positive attitude to social and economic problems makes it necessary to elaborate new methods of control. These must depend on the kind of social techniques which prevail. Social techniques mean methods of influencing human behaviour, which in the hands of Government are specially powerful. Like all techniques, social techniques are neither good nor bad in themselves. Everything depends on the use that is made of them by human will and intelligence. Vested in one authority they may lead to dictatorship. Wisely divided they rank among the most magnificent achievements of mankind. In both cases co-ordination plays a great role—co-ordination by means of social techniques such as education, propaganda, administration, etc. But in the first case it is done in the spirit of monotony. In the second in the spirit of variety. The conductor of an orchestra co-ordinates the different instruments, but they do not all play the same note. Planners should therefore deliberately refrain from interference in those spheres where individual initative is already purposeful. A fully conceived planning philosophy will include scope for free enterprise. If we are masters of the situation it is possible to plan for freedom from planning. This differs radically from the purposeless non-interference of laisser-faire.

In a great society planning not only may but must encourage variety. The more complex the social division of labour becomes the more it demands the differentiation of types. The integration and unity of a great society is not achieved through uniform behaviour but through interdependence and mutual complementing of functions.

The principle of laisser-faire will not help us any further; we must face the future with a policy, and our policy must be based on a knowledge of society. (*A.J.*, 2.9.43, *pp* 161-4).

6

BOGIE NUMBER TWO

PLANNING IS UNDEMOCRATIC

E. M. Nicholson

Planning is concerned with known resources conciously controlled and it accordingly involves finding facts and making people aware of them, unlike previous generations which trusted blindly to the interplay of economic and other forces. An unplanned society can tackle its problems as and when it pleases at the price of a low uncertain income in terms of human welfare and a mounting social overdraft of chronic troubles such as unemployment, war and dissipation of resources. A planned society, on the other hand, requires a far larger social working capital of reliable information, of trained personnel, of efficient institutions and of educated public opinion. A vigorous and enduring use of planning can only come about when knowledge of and responsibility for the plan are very widely shared among the people affected by it. Apathy or suspicion are fatal to effective planning over long periods, and although politically immature populations can often be made by clever and continuous propaganda to give fairly active support to planning over which they have no control, recent experience appears to show that unless an increasing measure of genuine responsibility is devolved, support gained in this way has little lasting value. If democracy did not exist, the far-seeing planner would have had to invent it to make planning either enduring or endurable. It is proper for the planner to assess technical (including economic) possibilities; to state the advantages and disadvantages of alternative choices is essentially political, and it is clearly more satisfactory for the planner that such decisions should be made democratically with the active interest and support of his clients, the people who will have to make the plan work, rather than that the last word should rest with some oligarchy or dictator whose mere existence would reflect the backwardness of the people on whom the success of the plan must rest. If the plan is to be brought into genuine relationship with its parent civilization planners must define and submit to the verdict of the community the principles underlying their proposals, and the pros and cons of various alternative courses. For the mass of the people planning, in spite of all that has been said about it, is still something shapeless and remote from their daily lives. Clear and simple statements of planning principles and problems, broadcast through effective use of pictures, charts and the spoken and written word, are essential in order to bring to an end national illiteracy on pl nning and at the same time subject planning itself to the healthy and sometimes brutal judgments of public opinion.

There is no reason why discussion of planning issues should not become at least as widespread and intelligent as recent discussion on Beveridge. Given such informed discussion, planning could emerge (no doubt in a much altered form) as a living and growing element in the national life. (*A.J.*, 9.9.43. *pp.* 179-182.)

7

BOGIE NUMBER THREE

PLANNING IS SOMETHING WE CAN'T AFFORD

F. Schumacher

Why should we plan? From the economist's point of view because there arises an ever-widening gap between the *private* and the *social costs* which various types of development entail. For instance, by moving to a new district, which may afford him often mere trifling cost advantages, the industrialist forces the local authority to provide houses, schools, hospitals, as well as roads, drainage and sewage disposal works, and all other local government services. The cost of these services is not even proportionally borne by him, since industrial hereditaments are now derated by 75 per cent. Other taxpayers bear the costs in the area he leaves or rejects, and substantial losses may be incurred through the under-use of similar services. "Neither the burden on the one side," wrote Dr. W. A. Robson, "nor the loss on the other, appears in the manufacturers' cost of production."

Since all these facts are comparatively well known, why are we still without a national plan to control the location of industry? Because at a time when employment is scarce legislators hesitate to interfere in any way with the freedom of industrialists, who are, or may be, in a position to give employment. During the war planning on a scale previously undreamt of has been possible because war has turned unemployment into a shortage of labour. The lesson which must be learned by all who are interested in physical planning is that a precondition of success in this field is economic planning, i.e. the planning of *effective demand*, which means arranging things so that all available real resources of man and nature are put to productive use. Scientific understanding of these problems has made enormous strides during the last ten years. But the resistance of social and political forces which stand against the application of these principles have still to be overcome before the Chancellor of the Exchequer can be charged with the task not of balancing the Budget, but of balancing the economy as a whole. There is a great and important difference between balancing the Budget and balancing the national economy, and this is the point which everyone must grasp. To achieve a *balanced* economy it may be necessary to have an *unbalanced* Budget.

For the nation as a whole spending and earning are merely two aspects of the same series of transactions. The one cannot be adjusted to the other, for the two are necessarily identical. From which it follows that both together must be adjusted to an independent third: and that is the availability of real resources. If the national income is smaller than—given the real resources—it could be, the only way to raise it is to increase the rate of national spending, whether private or public, and it is madness under such circumstances to urge the Government to practise economy. Where the money comes from or who creates it is of no more importance than how a cinema ticket is printed and by whom. What is important, is to have a good film showing and enough tickets issued to fill the house. The two things must go together, and it is the task of the Government to see to it in the economy as a whole that the two things *do* so go together. For instance, if the Government builds houses or causes them to be built, it must make sure that the people who want to live in them have the money to pay the rent.

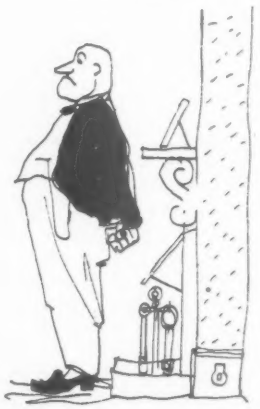
Immediately after the war the Government will not need to worry too much about purchasing power, because people will have their war savings to spend. But the time will come when these war-time accumulations will be exhausted. Then comes the time of crisis and decision. In order to continue full employment at this point it is necessary that for every additional consumer's goods thrown on the market additional purchasing power be placed in the hands of the people. In this sense the Beveridge plan and rehousing are not rivals. Social security is merely one way of calling more houses into existence and of seeing that the real resources of the nation are put to work. There are many others. (*A.J.*, 16.9.43, *pp.* 197-200.)

8, 9

BOGIE NUMBER FOUR

PLANNING WILL END PRIVATE PROPERTY

E. S. Watkins



What should we plan? First and foremost, the use of land. But this depends on a more vital sense of trusteeship on the part of the owners of land; there are two methods by which we can adjust the ownership of land in order to secure our desired control over its future:

(1) We can devise a new type of ownership and apply it to all land. Ownership of this kind will confer on the owner the same rights over the property as against all other individuals as such, that he now possesses, but as between the owner and the State the owner will be subject to certain conditions and disregard of these conditions will result in the loss of his ownership. This is the basic idea behind nationalization. It is suggested that if nationalization were adopted as public policy, the legal means by which it was carried out might be on the following lines:

(*a*) The legal estate known as fee simple would be abolished.

(*b*) New legal estates would be created to correspond with conditions under which different types of land, e.g. agricultural, etc., were to be held. The creation of new estates would be as simple as deciding to print existing land certificates in different colours. Features common to all estates would be (i) Financial conditions: these would be completely flexible depending upon the method of compensation adopted; (ii) an agreed term over which the interest was to extend; (iii) conditions relating to the use of the land.

(*c*) Conditions would also have to be laid down under which one type of estate would be converted into another.

(2) An alternative to nationalisation as described above is to divorce ownership from control and vest the legal ownership in a small body of people having the status and outlook of trustees. The body of people owning the land might be a council of a local government body, the governors of a public company formed for the specific purpose of carrying out this duty or the directors of a company similar to any other trading company.

The Uthwatt Report stops short of nationalization; it divides land into urban and rural and suggests that pieces of urban land needed for redevelopment as a whole should be bought outright by the local government authority, while in rural areas development rights over all land should be purchased by the State, the land itself remaining in private hands until it becomes necessary to develop it, when the whole interest would be acquired by the State. The machinery by which land about to be developed would be handled is not described, but it might take the form of a holding company, which would lease land to individuals for a fixed term subject to financial and other conditions. In this way the principle would be established that the development or redevelopment of land could only take place when the land was publicly owned or controlled.

It is suggested that nationaliz-

ation if intelligently planned and based on the use to be made of the land would be no more a burden to the good landlord than the police force is to the good citizen.

Any change in the present system of land ownership raises the difficulty of compensation. But as the global value of all land in the country is continually rising, it should be possible to find a way of paying fair compensation for ascertainable loss provided the problem is dealt with as a whole. (*A.J.*, 23.9.43, *pp.* 21-58 *and* 30.9.43, *pp.* 233-6.)

12, 13

PROBLEM NUMBER ONE

HOW WILL THE NEW LEGISLATION BE ADMINISTERED?

W. A. Robson

It is essential to lay the bogies of freedom, democracy, money and property which haunt planning at every turn before moving on to a consideration of the main problems of administration, training, organization and public relations that the subject raises. Once we have done this, the framework of an environment for flesh and blood people can be constructed. The first step towards the construction of this framework must be a consideration of the problems that make necessary the adjustment of existing administrative and organizational machinery and the creation of new machinery. The past conception of physical planning as almost entirely a local government affair was totally inadequate. It was assumed that even the smallest and least competent local authorities could safely be left to initiate and execute elaborate and costly plans with incomparably less central supervision than that required for public health, education or housing. Not only was their financial position entirely inadequate but also their size as population units. Nevertheless, during the last four years the desire to improve the physical environment by planning post-war construction has spread to wide sections of the community and to members of all political parties, and the Government and Parliament have taken some highly significant steps towards making town and country planning a reality. In considering planning as a problem of Government, our first task is to distinguish the matters which should be dealt with at the national, regional and local levels respectively. The most urgent problems on the national level are the location of industry ; a policy regarding satellite towns, garden cities and country towns ; transport (trunk roads, main rail lines, major ports and harbours) ; national parks and coast lines ; agriculture and rural development, and development of fuel and power resources. In determining these matters of national interest the central government must lay down the administrative framework for all levels, as well as the distribution of finance, labour and materials. The complexity of the whole problem is such that central machinery must achieve a genuine integration of policy at the top.

The Ministry of Town and Country Planning makes a potentially strong addition to the machinery of central planning, but the position is much less promising at the regional level. There is general agreement that regional planning is of the utmost importance, but little has been done to provide for effective planning at the regional level. It is probable that the most difficult problems of planning will occur at the regional level, although the most important decisions on policy will have to be made by the central authorities, and the greatest mass of detailed work carried out by local authorities. The main factors which require to be determined on a regional basis are the distribution of industry and population within the region, transport and communications (main highways other than trunk roads, main bridges and public transport services within the region) ; land use ; public utilities ; public services and amenities. It is suggested that regional authorities should be democratically elected, for, in order to get planning "across the footlights" to the general public and to win acceptance for all the changes it necessarily involves, a popular movement of great momentum and vitality will be required.

The position that local authorities will hold in national planning is of the utmost importance. They have a large part to play in town and country planning, but it is a very different one from that hitherto accorded to them. Local planning powers should only be conferred on local authorities whose size, population and rateable value are large enough to ensure reasonable success. This having been decided their functions should fall into two main categories ; firstly, to apply principles laid down by central and regional authorities ; and secondly, to deal with all the aspects of planning not covered by the policies, plans or decisions of the central and regional authorities. In relations between regional and local authorities it can often only be decided in the light of the circumstances appertaining to each service, which authority should be responsible for planning and which for administration. In future local authorities must be kept informed of the broad principles which have been adopted by the regional and central authorities; in this way we can achieve the acceptance of that joint responsibility which planning demands. Above all, local authorities must be imbued with a vision of civic life if they are to take their proper place as community builders. The sequences of work, rest and play must find physical expression in terms of a convenient and harmonious relationship between the workplace, the home and the centres of recreation, and services must be planned in relation to these.

If local authorities are to take advantage of the new opportunities for creative planning which are open to them, several reforms must be introduced. The Town and Country Planning Committees of local authorities must be strengthened by the appointment of abler and more imaginative members than have usually served on them in the past. Grants-in-aid must be provided to enable plans to be executed and development work carried out. The acquisition of land must be facilitated. Powers must be increased and planning procedure improved. And, finally, there must be a fundamental reorganization of the structure of local government. This is a pre-requisite of effective local planning. There is likely to be great opposition to it and even if the problem is tackled with courage and determination, we must not expect good results so far as planning is concerned unless local authorities are assigned their proper place at the base of the pyramid. Above them should be the regional planning organs, and at the apex, the central planning machinery. If the difficulties can be overcome, the vista which will confront local authorities will be one of almost unlimited opportunity. (*A.J.*, 21.10.43, *pp.* 289-92 *and* 4.11.43, *pp.* 335-8.)

14

PROBLEM NUMBER TWO

WHAT KIND OF TRAINING WILL THE PLANNERS NEED?

E. A. Gutkind

The second urgent problem is that of training for planning. At the moment, startling confusion exists among the professions on this subject. Lack of constructive proposals provides a dangerously narrow bottleneck in which half-finished schemes will get

Drawings by Gordon Cullen

jammed if the possibility of their realization comes upon us unexpectedly, and we find ourselves with neither the experts to bring them up to the realization stage nor those to carry them out.

The scale of the physical planning job before us and the qualifications that will be needed in the new type of planning co-ordinator and general practitioner has to be understood, and a definite effort must be made to plan the planners now; to train men who will combine enthusiasm with knowledge and who will dare to act. The general framework of planning will consist of a national plan at the top with local plans constituting the cellular components, and bound together by regional schemes. This framework implies a systematic procedure starting from the top and bottom at the same time, with human and social values as its objective. The reason why men are not now available for this job is because planning is a new discipline which could not evolve within the limits of our past society. The planners must therefore be men trained to be new types of co-ordinators and general practitioners.

In order to curb the growing concentration of power at the centre, national planning must be restricted to those activities which are clearly common to all parts of the nation, and it must draw a clear line between centralized authority and centralized administration. The TVA is an example of administrative decentralization within the orbit of a centralized authority. This allows the largest number of decisions to be made on the spot with the full collaboration of the people themselves, while such questions as general policy are left to be worked out at the top.

The planners on the national level must be specialists in seeing and correlating the work of specialists on the other planes. They are neither administrative nor executive agents, but are comparable to the general staff of an army supreme command. They must see the configuration as a whole and assign the right place to the many functions of human activity without losing sight of their working in detail. The regional planners must be the agents of the central planning authority on the one hand, and on the other they must balance the claims of the communities within their region. Their job should not be one of merely co-ordinating conflicting local interests; they must develop a regional programme and carry it out.

The qualifications of the local planners should consist of an efficient combination of practical ability with theoretical knowledge. They must have the ability to evaluate the importance of data and to present it clearly and usefully. They must be able to organize work on the spot and deal with the many intricacies of local government. They are to be compared with commanders in the front line who should undergo the same training as the higher staffs but whose work requires more specialized experience in the practical field. One solution that arises from the necessity to integrate theory and practice on each of the three levels might be the establishment of a School of Planning in one of the new post-war towns that will need to be built. The interaction between the growing community and the school would thus give to the students and to the inhabitants a new sense of values, a new outlook and a new creative vitality. (*A.J.*, 11.11.43, *pp.* 353-6.)

15

PROBLEM NUMBER TWO

WHAT KIND OF TRAINING WILL THE PLANNERS NEED?

Max Lock

Next we must consider in a greater detail the type of training and the relations between specialists that will be required. The need is for all schemes of training to combine a detailed knowledge of physical requirements with a broad knowledge of the more fundamental social and economic needs of the people, of which the physical environment is but an expression. The Planning Officer must be the diagnostician of public environment, trained in elementary citizenship, fact-finding and the application of planning principles to human problems. The planning school should serve as a link between scientific and academic institutions. It should also enable the student to be in close contact with the people themselves. The aim of all training should be towards a co-operative teamwork in the pooling of specialized investigation.

Each of the three levels, which have already been considered in outline, must be approached from a somewhat different angle and, although related to each other, require a different emphasis in the composition of personnel. On the national level the geographic and economic specialists, as well as the legal administrators, are dominant; on the regional level the technical and engineering practitioners, while on the local level the emphasis will be on the architect planners. Art, science and technical knowledge must be the three threads running continuously through the educational programme, and this should begin in the later stages of secondary and public schools. A period of post-school training for citizenship would provide a valuable opportunity for practical field-work, before undergoing training for a dominant profession. A post-graduate course of one or two years would conclude with the final town-planning examination. It is suggested that this post-graduate course should be conducted on a part-time evening basis, in order that students may be gaining practical experience in an office at the same time. Most important is the subject of research as a major function of the planning school, for a research centre is the most useful link between training and practice, heightening the standards and awareness of both. (*A.J.*, 18.11.43, *pp.* 371-4)

16

PROBLEM NUMBER THREE

HOW WILL THE BUILDING INDUSTRY BE ORGANIZED?

D. Percival

The organization of the building industry brings us into the extremely topical and controversial realm of the relation of the Government to industry. If the building industry is to absorb four-fifths of the total annual investment of capital during the period of reconstruction, its efficient organization is of the utmost importance. It is necessary therefore to ask if the Government is to control the building industry or be controlled by it. To-day there exists a tangle of conflicts in the building industry; there is no agreement as to a criterion of efficiency, and opinion differs according to the attitude of the man you question. The war has brought drastic changes, bigger and bigger units are developing along the lines started before the last war, while small firms are being steadily driven back, their only future apparently lying in group working, and that based upon the certainty of a steady market. The tendency towards monopoly is likely to be dangerous from the consumer's point of view, for it makes public criticism inevitably more difficult than in the case of public departments or ministries.

If we are entitled to assume that the Government intends to carry out an all-round reconstruction plan, we may also assume the maintenance of control over the price of materials, and their allocation to jobs in order of priority. The best organization for such control would probably be on a regional basis. The need to equate supply and demand for the different kinds of labour is a further argument in favour of planned output. As far as the technical and professional side of the industry is concerned, the best results would probably be obtained by widening the scope of public offices. Finally, the post-war industry will stand in need of a much better organization of research than hitherto. It should also take the public into its confidence through regular discussion of new technical developments and possibilities in relation to human needs.

Building is one of the most fundamental social services, and if planning means anything it means that the order in which buildings go up is in accordance with a consciously predetermined decision finally arrived at through the organs of national and local government. (*A.J.*, 25.11.43, *pp.* 391-4.)

17

PROBLEM NUMBER FOUR

HOW SHALL WE PUT PLANNING ACROSS?

Misha Black

But it is in the field of public relations that physical planning comes face to face with its destiny. However thorough the fact-finding, detailed the analysis, perceptive the diagnosis and imaginative and practical the plans, physical planning will either succeed or fail through its publicity. For we are still far from an age of reason when we can be sure that plans will be understood and judged on their merits. The process of putting planning across, of presenting proposals and arousing enthusiasm for them, must account for prejudice in addition to ignorance. The weapons against these two obstacles are propaganda and instructional publicity respectively. In confusion between these two weapons and particularly in the justifiably vile reputation which propaganda has acquired for itself, lie many pitfalls for the planning publicist. The change in attitude of the public to physical planning, previously one of the more respectable lost causes, makes a new publicity technique necessary. If this is efficiently evolved and directed, and finance is available in scale with the job, the genuine desire for better conditions can be aroused to back a vital planning movement. This, in turn, will sweep away those bogies, large and small, which at present bar our way, and will help to create a unity of purpose in peace without which democracy will stagnate.

In order to have any chance of achieving this, a publicity organization will be needed. This might possibly take the form of an Office of Reconstruction Information, which would maintain contact with the national press, produce and distribute films, compile panels of lecturers, publish literature, assemble statistics on public reaction to planning proposals and organize exhibitions.

It would work in close contact with unofficial bodies, and would establish branch offices to collaborate with local key technicians, local authorities, educational bodies, etc., with the aim of reviving the spirit of community, and making districts as fervently partisan over their planning scheme as they are over their local football team. Only three things are still required to launch such a programme—the reconstruction schemes themselves; the establishment of an Office of Reconstruction Information, and the allocation of funds. (*A.J.*, 2.12.43, *pp.* 409-12.)

18 to 34

A PREVIEW

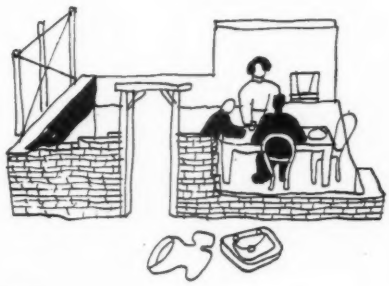
No. 18 provided a summary of the articles, which appeared in Nos. 12 to 17 dealing with the problems. Nos. 19 to 34 of the Physical Planning Supplement tackle the specific problems that arise in the job itself. Professor Taylor started the section on December 16, 1943, with an article on Fact-finding, Analysis and Diagnosis, urging the formulation of a comprehensive fact-finding survey programme suited to the regional and local levels. The articles in Nos. 20 and 21 were by Dr. R. E. Dickinson, and, under the heading We Must Relate Service Centres to Social Groups, dealt with the subject of human ecology and its relation to physical planning. Last week's article was on Land Use, by Dr. L. Dudley Stamp. The rest of the series will cover the jobs that arise from a consideration of the problems of Population Trends, Mineral Working, Industry, Agriculture, Forestry, Housing, Transport, Public Services, Leisure, Landscape Design and Realization. In this way the whole field of Physical Planning, including the underlying factors which determine its success, will have been covered. It will then be possible to frame the policy which has been outlined in the various articles and, equipped with a sound backing of reliable information, to consider the most important job of all, the realization of physical planning schemes which can only come into being through common agreement on the fundamental issues.

RESOLUTION FOR 1944

Drawings by Gordon Cullen.

WE MUST

IF WE WISH TO AVOID



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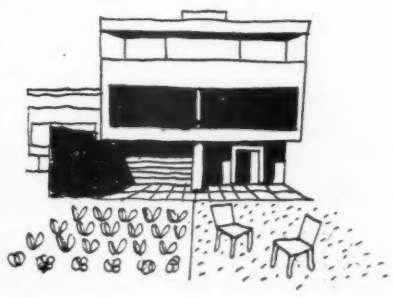


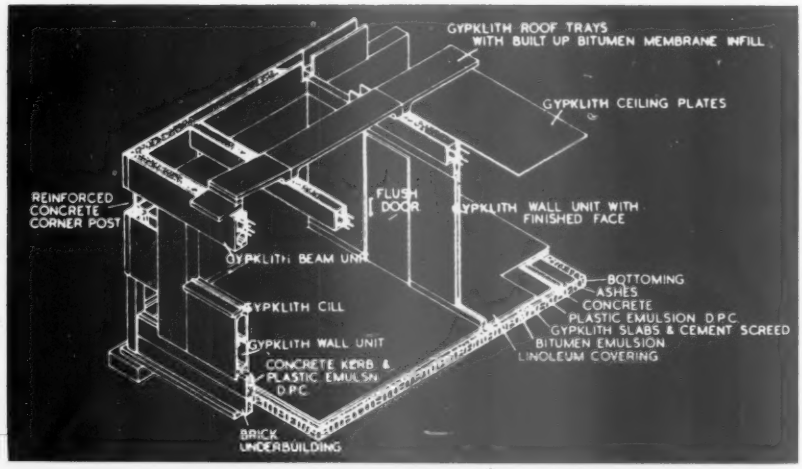
TURN OVER TO SEE PROGRESS DURING 1943

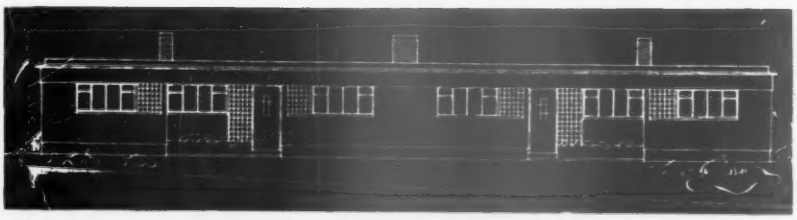
This review of low-cost housing developments for post-war reconstruction describes and comments on the models which have actually been constructed during 1943, covering structure, kitchens, and plumbing units. Paper projects are not included. The author also deals with the most important publications of the year on prefabricated housing. It is interesting to note that to a greater or lesser degree rationalization and prefabrication enter into all the designs described.

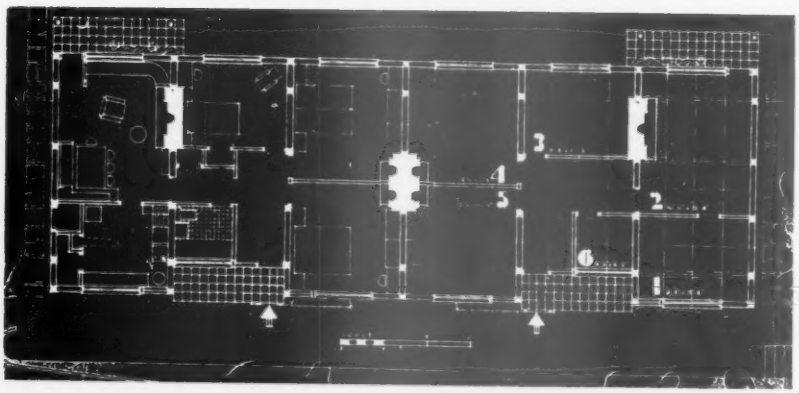
EXPERIMENTS

IN POST-WAR HOUSING DURING 1943

By EDRIC NEEL,
M.A., A.R.I.B.A., A.M.T.P.I.







The unit-construction houses at Kilmarnock by Sam Bunton (see JOURNAL, *January* 28, *pp.*75-78). *Top, axonometric showing the system of construction of wood-wool units, either hollow or solid, shaped where necessary to form permanent shuttering for a light in situ reinforced concrete frame. Centre, elevation of a pair of the houses. Above, plan of the houses.*

SYNOPSIS

(1) *STRUCTURAL EXPERIMENTS*

(*a*) Unit-built houses, Kilmarnock. Architect, Sam Bunton, L.R.I.B.A., A.R.I.A.S. (See JOURNAL, January 28, pp. 75-78.)

(*b*) Tarran house, exhibited at Conway Hall, London. (See JOURNAL, November 18, p. 378.)

(*c*) City of Coventry experimental house, Architect, D. E. E. Gibson, M.A., A.R.I.B.A., A.M.T.P.I. (See JOURNAL, October 7, pp. 255-258.)

(2) *KITCHENS FOR POST-WAR HOUSES.*

(*a*) Exhibition of Standard Kitchen Fittings erected by EJMA, at the Building Centre, London. Architect, F. MacManus, A.R.I.B.A.

(*b*) Kitchen erected by the Southampton Gas Co., based upon a plan prepared by John S. Fowler, A.R.I.B.A.

(*c*) Poplar Kitchen Compactum, designed by R. Illingworth, C.B.E., M.I.E.E., M.I.MECH.E.

(*d*) Kitchen erected by the *Sunday Chronicle* at the Good Housekeeping Institute, London. Architect, H. F. Hoar, F.R.I.B.A.

(*e*) Kitchen at Birmingham, erected by the City of Birmingham Public Works Department, under the direction of Herbert J. Manzoni, C.B.E., City Engineer and Surveyor, and D. H. Davies, Housing Architect.

(*f*) Kitchen of the Coventry experimental houses, erected at Birmingham by Radiation Ltd. Architect, D. E. E. Gibson, M.A., A.R.I.B.A., A.M.T.P.I. (See JOURNAL, October 7, pp. 255-258.)

(*g*) Kitchen erected by the Bath Gas Co.

(3) *PREFABRICATED PLUMBING*

(*a*) One-stack installation in Kilmarnock houses. Architect, Sam Bunton, L.R.I.B.A., A.R.I.A.S. (See JOURNAL, January 28, pp. 75-78.)

(*b*) Two-pipe installation in the Tarran house.

(*c*) One-stack installation in the City of Coventry experimental houses. Architect, D. E. E. Gibson, M.A., A.R.I.B.A., A.M.T.P.I. (See JOURNAL, October 7, pp. 255-258.)

(*d*) One-stack demonstration plumbing unit, exhibited by Dent & Hellyer.
(*e*) Denham plumbing and heating system units, designed by S. J. Graveley and S. C. Warren for Messrs. W. N. Froy.

(4) *PUBLICATIONS*
(*a* and *b*) Committee for the Industrial and Scientific Provision of Housing, 1st and 2nd Reports. (See JOURNAL, June 17, pp. 390-392 and pp. 402-404.)
(*c*) Prefabrication in Timber. Survey of Existing Methods, compiled by C. Sjostrom, A.R.I.B.A., and issued by the EJMA. (See JOURNAL, September 9, p. 189.)
(*d*) Prefabricated Timber Houses. Issued by the Timber Development Association Ltd. (See JOURNAL, December 2, p. 415.)
(*e*) RIBA memorandum on short-life houses. (See JOURNAL, November 18, p. 380.)
(*f*) RIBA Memorandum on Prefabrication and Standardization (see JOURNAL, December 23, p. 471).

FOREWORD

The most important single development in the field of experimental building in 1943 was the wise appointment made by Lord Portal, in May, whereby Mr. F. E. Towndrow, A.R.I.B.A., became Controller of Experimental Building Development, Ministry of Works, Directorate of Post-War Building. This appointment regularizes the whole position of post-war experimental work in relation to the war effort. Prior to this appointment, experimental work, directed towards post-war building, had no definite standing.

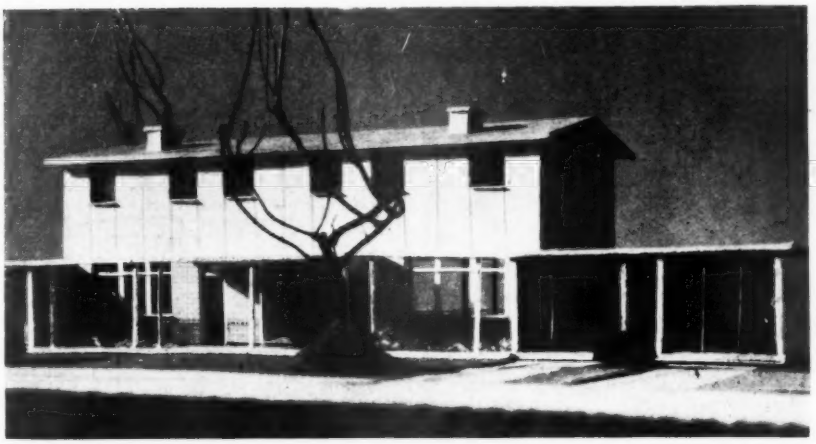
The value of this appointment is two-fold :

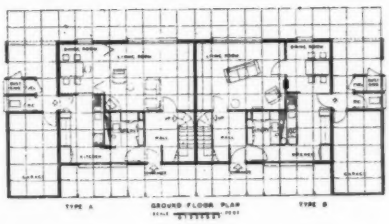
(1) All applications to carry out experimental work pass through one channel. The Controller is therefore informed of all developments and can perform a valuable function both as regards co-ordination and the elimination of overlapping.

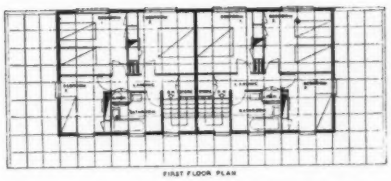
(2) Post-war building developments often require not only materials controlled by the Ministry of Works, but also materials controlled by other Ministries, e.g. non-ferrous metals, Ministry of Supply ; aluminium alloys, Ministry of Aircraft Production. The mere effort of form-filling necessary to acquire the diversity of materials necessary for experimental work would almost certainly defeat the outsider. However, now that the Controller has been appointed, all applications can be made to him and it is part of his job to sort out inter-departmental machinery and secure the release of the required material. It is, of course, obvious that materials alone are insufficient. Personnel in the drawing office, in the factory and on the site are equally necessary, and one of the Controller's most difficult jobs is assisting with the personnel side of experimental work.

Since the Controller was only appointed in May of this year, there has been, between then and now, an insufficient period for practical results to emerge. Obviously, during the period immediately after his appointment the Controller had his work cut out to establish machinery for dealing with the large number of applications which came before him. In his original announcement of the appointment, Lord Portal emphasized that the Controller would have the guidance of an Inter-Departmental Committee. This Committee is the Burt Committee, a sub-committee of the Central Housing Advisory Committee of the Ministry of Health. The Committee is under the chairmanship of Sir George Burt ; is a joint committee of the Ministry of Health and Ministry of Works, and is concerned with "alternative methods of housing construction." Thus, in cases where applications for experiment concern houses, the Controller naturally seeks the views of the Burt Committee. In cases where applications concern building components or sub-assemblies, the pattern is less clearly defined and the Controller may either exercise his discretion as to the issue of licence or, alternatively, seek the advice of the appropriate Study Committees of the Directorate of Post-War Building.

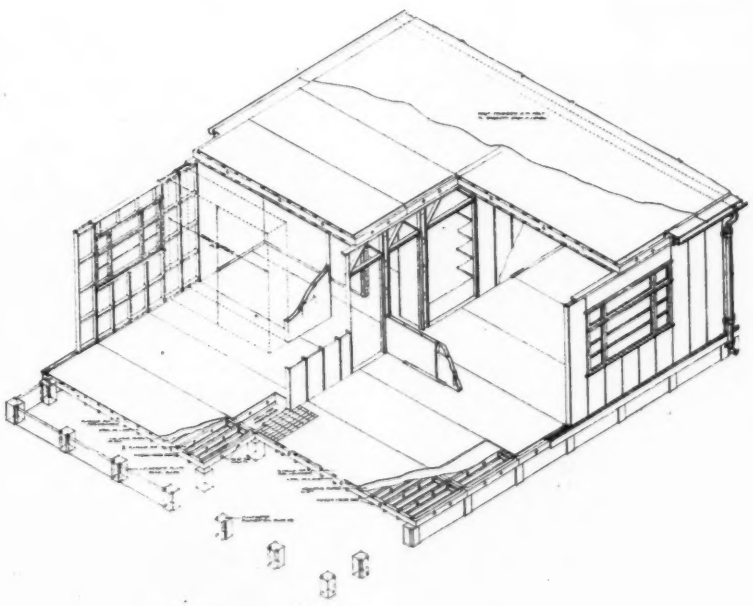
Having thus briefly outlined the machinery which enables experimental post-war building work to be carried out, we may now turn to examine the developments that have occurred in the housing field during 1943. Before embarking upon a critical survey of the major projects the following reservations must be made :

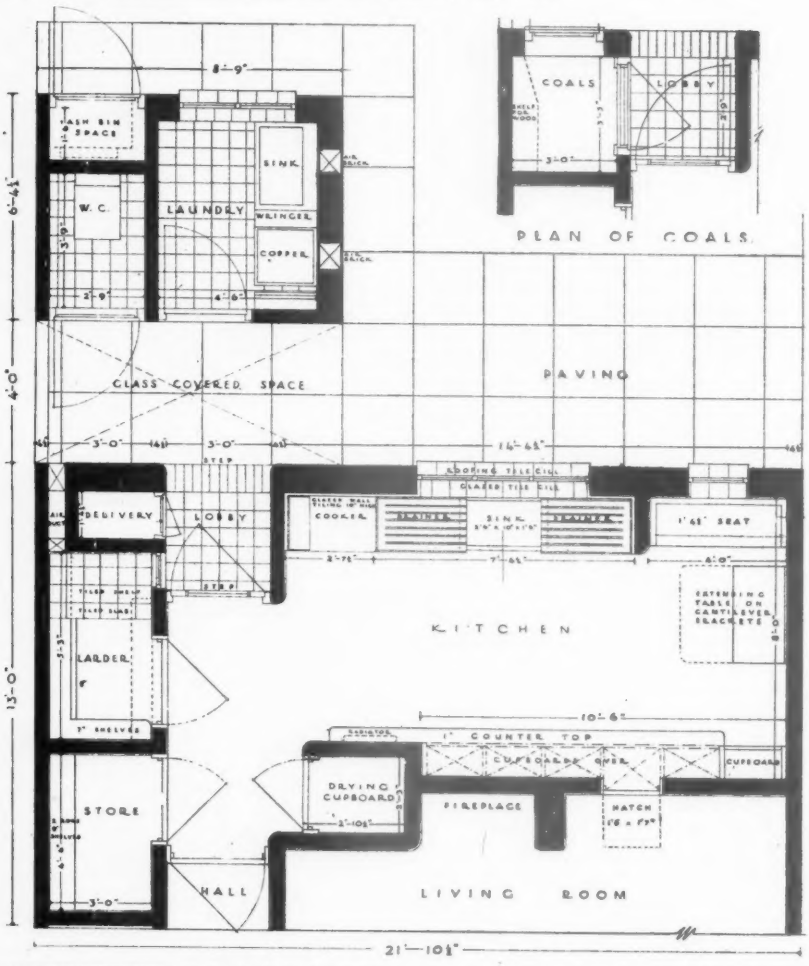


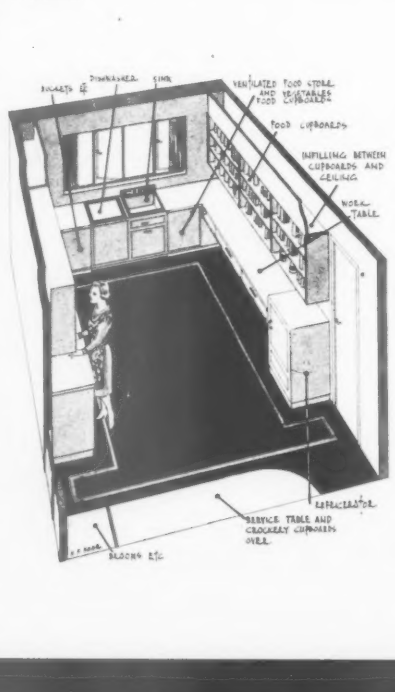




Top, view of a model of the City of Coventry experimental houses (see JOURNAL, *October 7, pp. 255-258). The object of these houses is to produce a completely dry-built prefabricated system. The frame is of steel. Above, ground and first floor plans of the Coventry houses, showing the two different lay-outs of kitchen-dining arrangements on the ground floor. Below, isometric of the Tarran bungalow of factory produced units, wall sections being of sawdust cement on plywood framing, cement rendered externally (see* JOURNAL, *Information Centre, November 18, p. 378).*







Above, plan of the kitchen erected by the City of Birmingham Public Works Department, showing carefully thought-out grouping of larder, delivery hatch, fuel store and back door. Left, view of the kitchen looking towards the dining recess. Below, left, the EJMA kitchen exhibit at the Building Centre displaying the various types of storage cupboards and their incorporation into unit kitchens. Below, right, the Sunday Chronicle all-electric kitchen carried out in conjunction with the Good Housekeeping Institute.

(1) We are concerned here only with experimental projects which have been wholly or partially carried out in Great Britain. Paper proposals are not considered, nor are the considerable efforts of our American cousins.
(2) The purpose of this review is to criticize, in a constructive manner; the critic, however, inevitably tends to concentrate upon weaknesses rather than upon strengths.
(3) Sincere tribute must be paid to all those who have, in spite of the complexities of war, carried out experimental projects.

STRUCTURAL EXPERIMENTS

(*a*) *UNIT-BUILT HOUSES, KILMARNOCK*

These single-storey houses represent a really substantial contribution to house construction in alternative methods. The system makes use of wood wool units, either hollow or solid, for walling, ceiling, flooring and roofing. The wood wool units are, where necessary, shaped to form permanent shuttering for a light in-situ reinforced concrete frame.

In the pair of houses erected at Kilmarnock, an attempt was made to apply final external and internal finishes to the wood wool units prior to erection. This unduly complicated jointing problems and also made some of the units over-heavy for easy handling. It would, however, be unfortunate if these early experimental errors were allowed to obscure the essential practicability of the building method. If the necessity for site rendering and plastering be faced up to, then the method of construction will produce a warm, sturdy house which can be erected far more rapidly than would be possible in more traditional materials.

Indeed, the Kilmarnock houses constitute the most complete and satisfactory experimental project of 1943.

(*b*) *TARRAN HOUSE*

The single-storey exhibition house erected by Tarran Industries consists of factory-produced units. The external and internal load bearing wall units are some 8 ft. by 1 ft. 3 in., non-load bearing partition units some 8 ft. by 4 ft. and roof and suspended floor units some 4 ft. by 12 ft. Major weaknesses are the use of bitumen for flat roof and wall jointing, thus precluding all-weather erection. The use of a cement rendering over the composite sawdust concrete and plywood wall units, may also give trouble in the course of time.

The Tarran house has obviously suffered from an over-short gestation period which has produced poor detailing.

(*c*) *CITY OF COVENTRY EXPERIMENTAL HOUSES*

The Coventry experimental houses come into rather a different category to the Kilmarnock and Tarran houses, first, because the complete houses have not yet been erected, and secondly, because of the method of approach. All that actually exists of the Coventry houses is a mock-up of the service rooms and their equipment, a mock-up of a portion of the steel frame and smaller mock-ups of divers components. The difference of approach lies in both the Kilmarnock and the Tarran houses being based on the exploitation of a material, in the one case wood wool and in the other sawdust concrete; research work on the Coventry houses was, however, initiated with no preconception as to materials. This wider angle of approach makes the Coventry houses of more ultimate value as an experimental project. The details of the prototype plumbing unit and the detailed layout of the equipment of the service rooms are described below in the sections dealing with plumbing and kitchens.

The object behind the Coventry houses may be briefly defined as the production of a completely dry-built prefabricated system of house building with the emphasis always upon the needs of the consumer. It was realized from

the beginning that evolution of a satisfactory shell assembly was neither of more nor less importance than the evolution of a satisfactory plan, properly equipped service rooms, flexible electric installation and efficient heat services. In other words, the problem was viewed as an inter-related whole.

The method of tackling all these problems followed the same pattern; first, the evaluation of consumer requirements; secondly, the realization of the consumer requirements in full harmony and co-operation with specialist industries. Consumer research was based upon the collation of information from other specially qualified individuals and organizations and the technique of realization set a pattern for that intimate collaboration with manufacturers which alone can produce results which are technically and socially valid.

A progress statement on the Coventry houses was issued by the Coventry City Architect in October with the express intention of keeping other workers in this field informed. Its close study is recommended.

MODEL KITCHENS

The year has brought quite a spate of model kitchens. The objectives behind the erection of these kitchens are:

(1) To demonstrate post-war appliances and equipment.
(2) To crystallize public opinion as to kitchen planning *desiderata*.

Both these functions are of value; on the one hand, manufacturers are enabled to get public reaction to their proposals and modify their equipment accordingly; on the other hand, local authorities are able to evaluate consumer opinion and preference.

The model kitchens reviewed here fall into two categories:

(*a*) Model kitchens proper, designed and constructed principally as demonstrations of combinations of components, e.g. EJMA Building Centre Exhibit, and Poplar "Compactum" kitchen.
(*b*) Model kitchens which, in addition to their own merit, are related to a definite house plan and form part of a solution to the general heat services of the small house, e.g. Sunday Chronicle, City of Birmingham, City of Coventry, Bath and Southampton Gas Company kitchens.

(*a*) *EJMA KITCHEN EXHIBIT*

It will be remembered that in the latter part of 1942, the Association for Planning and Regional Reconstruction produced a report on *The Hub of the House, Part I—The Kitchen.* This report gave a new slant on kitchen planning by throwing emphasis upon the close relationship between certain groups of kitchen equipment, e.g. working top, utensil and grocery cupboards. This theory is of value in that it shows kitchen planners that considerations, other than circulation and minimum-number-of-steps-per-day, exist. The APRR also insist upon the importance of adequate space for the storage of the hundreds of articles which constitute a working kitchen. Their report included designs for the necessary storage cupboards and also kitchen plans incorporating these cupboards and their ideas of grouped equipment.

The whole of this very valuable research work was financed by and carried out in collaboration with the English Joinery Manufacturers' Association. The EJMA stand at the Building Centre, apart from being an extremely well-designed piece of work, displays the various types of storage cupboards and their incorporation into unit kitchens.

(*b*) *SOUTHAMPTON GAS COMPANY KITCHEN*

This kitchen is divided into two main sections, a section for food preparation and laundry work and a section for dining. While the relation of the sections, one to another, is satisfactory, the detail equipment is more open to criticism. For instance, no accommodation is provided for the storage of laundry accessories—ironing board, iron, press cloths, etc.—and the broom cupboard is very small when it is remembered that the so-called broom cupboard is, in fact, the only space provided for the storage of all household cleaning accessories—brushes, mops, cleaning cloths and dusters, reagents and polishes. The storage space for food, vegetables, table china and kitchenware is also undersized.

Another poor detail is the position of the clothes washing machine. Such a machine should stand adjacent to the sink so that dirty clothes can be wrung from the machine, through the wringer, direct into the rinsing water in the kitchen sink.

Good details of the kitchen are the roomy clothes drying cabinet and the delivery hatch over the fuel store in the back entrance lobby. In all, however, undue emphasis appears to have been placed on the gas equipment to the detriment of other equipment.

(*c*) *POPLAR KITCHEN UNIT*

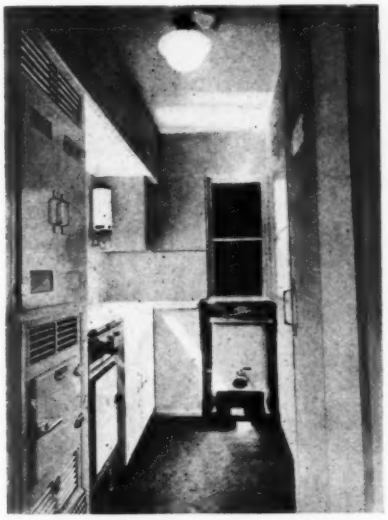
This kitchen Compactum contains in one room-height unit, the electric cooker, water heater and refrigerator, extract ventilation and certain storage cupboards. The large unit idea has, of course, been developed in America by the Pierce Foundation and American Moto-Homes. The Poplar unit has affiliations with its predecessors but is less well designed both from the point of view of consumer convenience and space requirements. The major criticism of the Poplar unit is that the compactness of the electrical work has been achieved at the expense of the water services. In order to furnish the kitchen completely there is required, in addition to the Compactum, a sink, a work-table and extra storage space for dry goods and table china; also some provision for clothes washing and drying. Ventilation is provided for the cooker but none for the sink. An electric water heater is provided in the Compactum, but in order for the water to reach the sink it must presumably travel a weary journey round the kitchen walls. All in all, the unit reflects a typical one-angle approach.

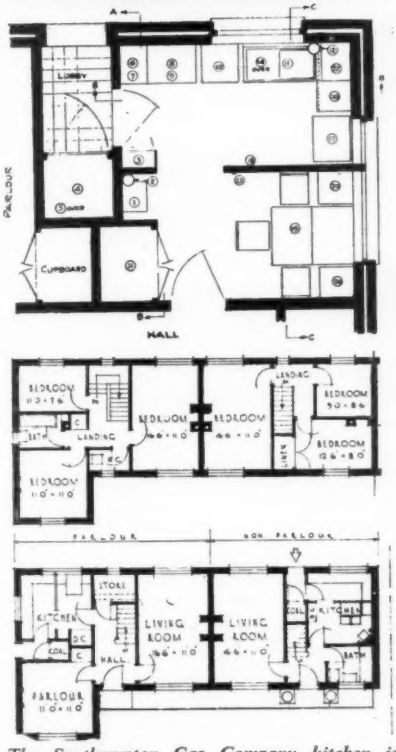
(*d*) "*SUNDAY CHRONICLE*" *KITCHEN*

This kitchen is designed to fit the standard "Universal" house plan and is all-electric in its apparatus. The enormous run of glass-fronted upper level cupboards, with continuous worktops below, put this kitchen into the luxury category. As such, it is a pleasant, workable kitchen. It can, however, be criticized in many respects according to the angle of approach. The layman, for example, might say that in so lavishly equipped a kitchen, one would have expected a horizontal type cooker and much more attention to extract ventilation. The housewife might complain that more time would be spent in stacking and cleaning the dish-washer than would be necessary for the whole wash-up if more normal methods were adopted. The plumber might be disturbed with the pipe runs. In all, a very difficult kitchen to criticize since it is too ambitious for a working or middle-class kitchen and as a luxury kitchen, more facilities would be expected.

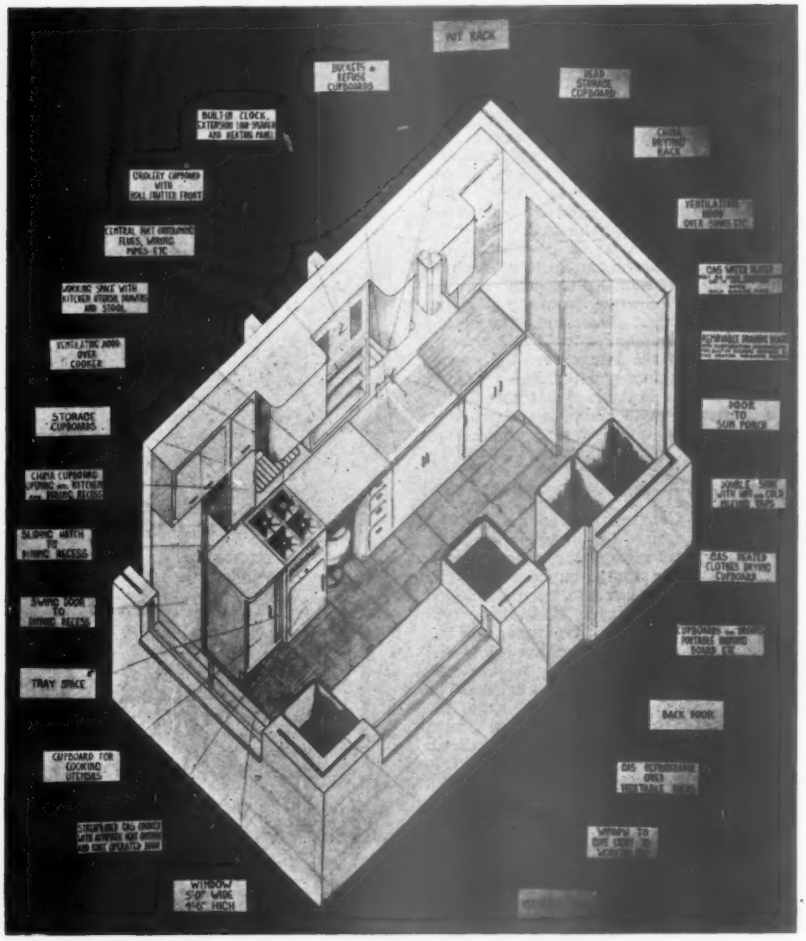
(*e*) *CITY OF BIRMINGHAM KITCHEN*

Any kitchen produced by a local authority having so wide an experience of housing as Birmingham, warrants serious attention. The main point of interest in this kitchen—as in an earlier kitchen produced by the Public Works Department—is the carefully thought-out grouping of larder, delivery hatch, fuel store and back door. The larder obtains direct ventilation to the outside air, but even if the kitchen faces south, no alteration in the position of the larder would be necessary since the larder wall is never an external wall. The utilization of the space below the stepped larder shelves to obtain additional fuel storage accommodation is also excellent.

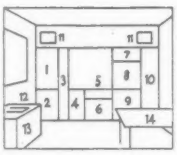


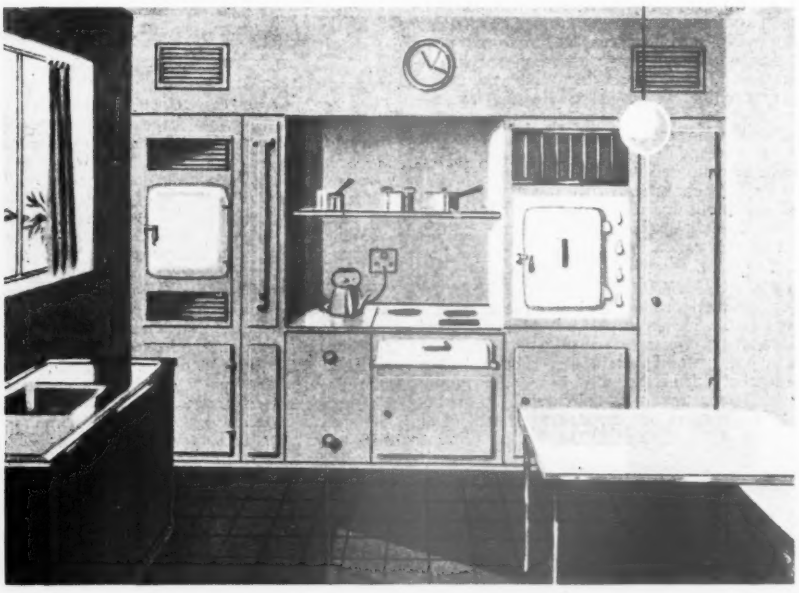


The Southampton Gas Company kitchen is divided into two sections, one for food preparation and laundry work and the other for dining. The clothes washing machine is in the wrong place and should be adjacent to the sink. On the other hand, the relation of the sections to one another is satisfactory and there is a roomy clothes drying cabinet. Top, a view of the kitchen from the kitchen entrance lobby; the entrance to the dining alcove is on the right. Centre, a detail plan of the kitchen lay-out. Key: 1, coke boiler for winter use; 2, gas-heated circulator for summer use; 3, broom cupboard; 4, fuel; 5, tradesmen's delivery shelf; 6, food store; 7, vegetable store; 8, dry store; 9, gas refrigerator; 10, gas cooker; 11, stainless steel sink; 12, gas sink water heater; 13, extractor ventilator; 14, ventilator hood with light in centre; 15, stores; 16, utensil cupboard with sliding door; 17, gas washing machine; 18, glass brick partition; 19, extending table; 20, built-in cupboards with seat tops; 21. gas-heated clothes drying cupboard; 22, crockery cupboard; 23, gas iron point. Above, first and ground floor plans of the houses for which the kitchen was designed.



Top, the Bath Gas Company kitchen. In principle, storage equipment is located on one wall and service equipment, supplied from a central duct on the other. Below, the electric Kitchen Compactum arranged for a medium-sized kitchen, 11 ft. by 10 ft., designed for the Borough of Poplar by its chief Electric Engineer. Left, a key to the equipment: 1, refrigerator; 2, cupboard for food storage; 3, collapsible ironing board with cupboards; 4, built-in heater supplying sink, etc.; 5, hotplate and grill unit; 6, cupboard for kitchen utensils; 7, plate rack; 8, electric oven; 9, cupboard space for crockery, etc.; 10, cupboard space for brooms, etc.; 11, vents extraction; 12, all-metal sink; 13, cupboard space; 14, meal table.





Another feature of the dining-kitchen and its ancillaries is the avoidance of through traffic across the working area. Owing to the plan shape, traffic is largely confined to the space between the hall and back doors, yet at the same time this space is visually a part of the kitchen.

If any defect can be pointed out, it is that the designers have erred towards an excess of cupboard space. Laundry work is confined to a small separate wash-house accessible under cover from the back door. This wash-house is, however, uncomfortably cramped and should be enlarged to provide putting-down space. Lastly, if the kitchen be considered in relation to the house plan, then it is immediately apparent that—since it is proposed to use a back boiler to the living-room fire for water-heating—the source of the water heat and the position where the water is used are unduly dispersed.

(*f*) *KITCHEN OF THE COVENTRY EXPERIMENTAL HOUSE*

The kitchen consists of two sections, one of which is devoted to food preparation and the other to laundry work and to the storage of household cleaning and laundry accessories. The kitchen of house A was erected by Radiation Ltd., at their head office in Birmingham, in order that it might be worked in and constructively criticized. After the kitchen had been used and open for inspection for some months, an analysis of all criticisms was made and the design of the kitchen amended accordingly. The general layout is strongly influenced by the necessity—on the ground of economy—of grouping all service fittings around the central duct. Each section of the kitchen, therefore, consists of a bank of service fittings and a bank of storage fittings. Points of particular interest are the provision of space for trays and the special meter cupboard adjacent to the back door.

(*g*) *BATH GAS COMPANY KITCHEN*

The plan of the house permits light on three walls, thus ensuring a well-lit kitchen. The equipment is arranged in parallel; in principle, storage equipment is located on one wall and service equipment, supplied from a central duct, on the other. The expression "in principle" is used advisedly since the gas-heated drying cabinet and the gas refrigerator occur on the storage wall. In detail, the kitchen layout has obviously been very carefully studied, as witness the tray space and rack over the worktop and sink. Clothes washing equipment is concealed beneath a removable draining board and the double sinks are generous. The built-in loudspeaker, electric clock and heating panel are ingenious and well placed, but broom and clothes-drying cupboards are too small.

PREFABRICATED PLUMBING

One of the most lively of the Study Committees of the Directorate of Post-War Building, Ministry of Works, is the Plumbing Committee with its energetic secretary, Mr. F. L. Barrow, of the BRS. The fact that plumbing—as typified by the music-hall plumber and his mate—has long been due for radical reform, has undoubtedly stimulated the Study Committee in its work, and has also encouraged architects and others concerned with experimental work to give the subject great attention. Four practical experiments call for comment:

(*a*) *KILMARNOCK HOUSES*

A study of the plan of these houses shows how kitchen and bathroom are planned back-to-back, thus making it possible to use the dividing wall as a prefabricated plumbing panel. The whole installation is extremely economical owing to:

(i) The use of one stack system, i.e. one pipe minus vent pipes.
(ii) The fact that cold water is taken directly off the main, thus eliminating the cold water storage tank.

(iii) The fitting of a ball valve direct to the face-mounted hot water storage tank thus eliminating hot water feed and expansion tank.

(b) TARRAN HOUSE

The prefabricated plumbing panel may be considered as a development upon the Kilmarnock unit in that, in addition to incorporating pipework, it contains hot water cylinder—with electric immersion heater for summer use—cold water feed tank, linen cupboard, bathroom cabinet and shelf over kitchen sink. The plumbing is of the traditional two-pipe system.

(c) COVENTRY HOUSES

The plumbing problem in the Kilmarnock and Tarran houses was simplified by the fact that both kitchen and bathroom were on the same floor. In the Coventry houses we see the two-storey plumbing duct being tackled for the first time. At Coventry there is also a more extensive utilization of the duct, since not only pipework but also smoke and ventilation stacks are incorporated. Indeed, the Coventry unit is already moving away from the plumbing duct conception towards the Mechanical Core conception, first publicized by Buckminster-Fuller in the USA.

(d) ONE-STACK UNITS (Dent & Hellyer)

This plumbing unit demonstrates the application of prefabricated pipework to a house of normal construction and is therefore of particular interest to the school of thought that advocates factory-produced internal equipment while deploring shell prefabrication. The unit is very carefully worked out and extremely neat in appearance. One factor which adds to the general economy of pipework is the use of a type of coke boiler where the boiler capacity is enlarged to 35 gallons, thus obviating the need for a storage cylinder.

(e) DENHAM PLUMBING AND HEATING SYSTEM UNITS

The "Denham" units, which were exhibited in London during the first half of December, constitute the most completely developed plumbing and heating units produced in 1943. The principles, which were evolved in outline form for the plumbing and heating unit in the Coventry experimental houses, are here fully and carefully applied.

The Denham units consist of light-weight steel "masts" containing all pipework and tanks necessary to the supply and disposal of hot and cold water. The problems of casing, access and control have all been thoroughly studied and resolved. The units are designed for sectional assembly and contain—in addition to water tanks and pipework—heated linen cupboard and smoke stack for solid fuel boiler. Alternatives for gas or electric water heating have been worked out.

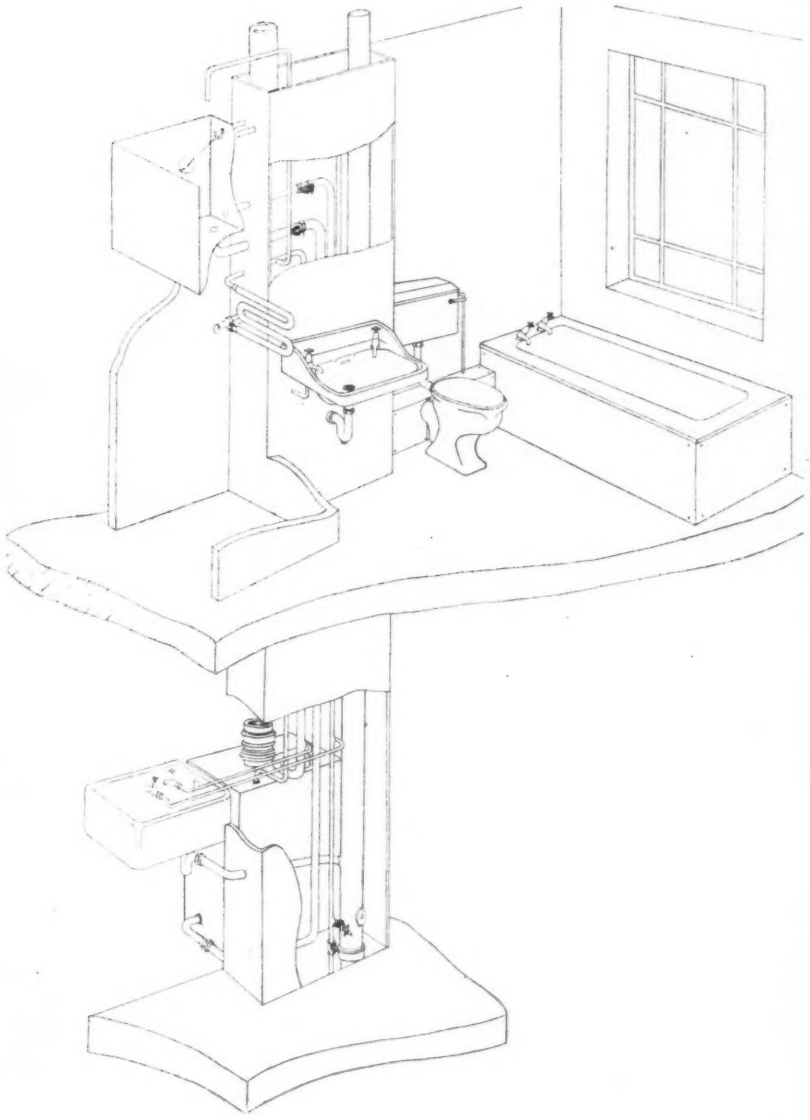
GENERAL

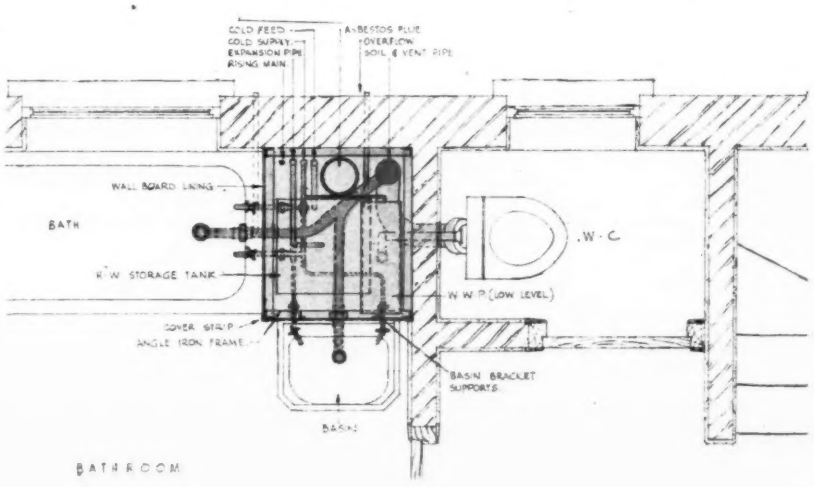
These plumbing experiments are perhaps the most encouraging of all the year's experimental work, encouraging because of the obvious advantages obtained by rationalization. It must, however, be realized that any hope for a wider scale adoption of so clear an improvement depends upon close collaboration between architect and plumber. Prefabrication plumbing panels are only economical where the house plan permits of compact grouping; not only compact grouping of pipework but also of source of heat, cold and hot water storage.

PUBLICATIONS

(a) CISPH—FIRST REPORT

In January, this Committee published its first report dealing with the "Application of Quantity Production Technique to Building: Its social, commercial and technical possibilities and requirements." While it is doubtful whether the main conclusion of this report, i.e. the establishment of a Housing Production Council, is practical in the wider





Above, axonometric of the Dent and Hellyer plumbing unit, demonstrating the application of prefabricated pipework to a house of normal construction. The plumbing uses the one-pipe system and the unit includes flue pipe to a large coke boiler which obviates the need for a hot-water storage cylinder. Below, a plan at first floor level of the Denham prefabricated plumbing unit. The flue pipe is also included here, and the one-pipe system is again used. An axonometric view of the whole unit is shown on the following page.

sense, the report is of value in the scope of its approach. Apart from building technique, there are problems of industrial organization, legislation, marketing, costing, labour and public relations which are of equal importance and which must be resolved before real progress can be made. This first report of the CISPH states and analyses the multifarious problems and concludes with the statement that these problems cannot be properly examined, let alone solved, by an *ad hoc* committee. The establishment of a semi-official Housing Production Council, representing all relevant views, is therefore proposed.

(b) CISPH—SECOND REPORT

The second report of this Committee (available to subscribers only) was published in June, 1943, and deals technically with the various attempts made throughout the world in connection with the application of quantity production technique to building. Here again it is pointed out that the Committee is not constituted for the carrying out of new research. Such a function is reserved for the Technical Research Section of the Housing Production Council, proposed in Report No. 1. Nevertheless, this Report is a most valuable document in that it probably constitutes the most complete record and bibliography of alternative methods of house construction.

(c) "PREFABRICATION IN TIMBER—A SURVEY OF EXISTING METHODS —PART 1"

This report covers timber building in all its aspects. History, physical and structural properties, building elements, construction, transport, finishes, cost and maintenance, utilization of waste products, timber resources and attitude of trade unions and public. In all, a very handy publication.

(d) "PREFABRICATED TIMBER HOUSES"

This booklet is an extremely well written statement of the principles and practice of the prefabrication of timber houses. It describes the main methods hitherto adopted and concludes with a plea that experimental timber houses—making full use of modern technique —should be erected now.

This plea, coming from the Timber Development Association, is rather surprising. After all, now that a Controller of Experimental Building Development has been appointed, there is surely little to prevent the TDA erecting such a house.

(e) RIBA MEMORANDUM ON SHORT LIFE HOUSES

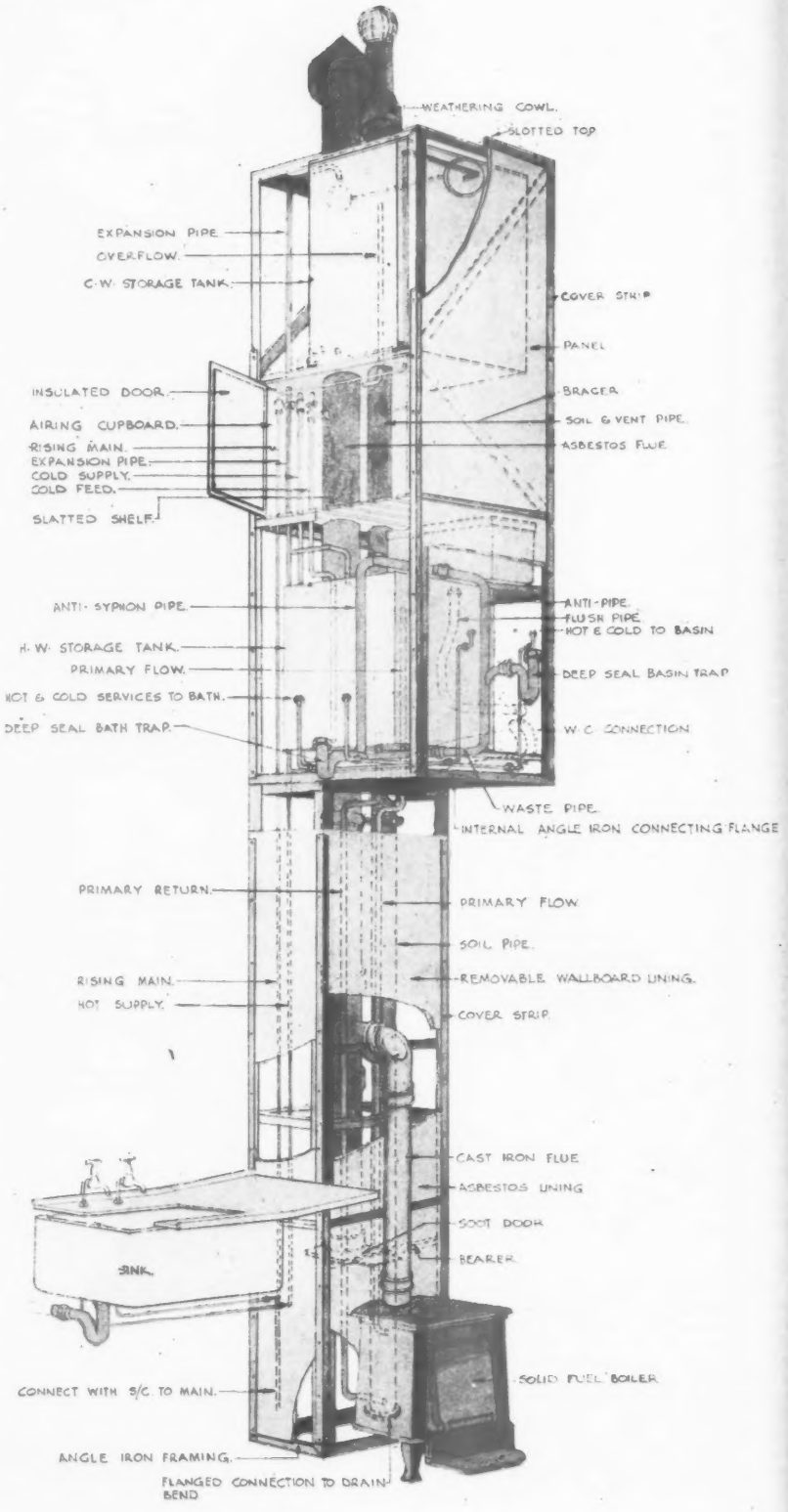
The authors of this work have not been revealed, but it is safe to assume that neither the Standing Housing Committee of the RIBA nor the Housing Group of the RIBA Reconstruction Committee had much say in it. It is rather a typical production of the War Executive. Suffice it to say that it contains, per paragraph, a quantity of non-sequitors equalled only by the Marx Brothers.

(f) RIBA MEMORANDUM ON PREFABRICATION AND STANDARDIZATION

The RIBA memorandum on short-life houses produced a volume of acrid criticism, and evoked protests not only from architects but also from that man of balanced judgment, the Rt. Hon. Walter Elliott. The RIBA accordingly did a quick about-turn and produced its memorandum on prefabrication and standardization. This memorandum is a sober and rational statement and reflects closely the views of the majority of RIBA members.

CONCLUSION

In all 1943 has been a year of fruitful experiment. It is to be hoped that 1944 will be the year of realization. In this respect, the Minister of Production's announcement that the Government intend to erect a number of prototype houses is welcome. At last the report stage of post-war building is yielding to the project stage.



Axonometric of one of the two Denham plumbing and heating system units, of which a plan is shown on the previous page. The principles which were evolved in outline form for the plumbing and heating unit in the Coventry experimental houses, are here fully and carefully applied. The units consist of light-weight steel masts containing all the pipework and tanks necessary to the supply and disposal of hot and cold water. They are designed for sectional assembly, and contain—in addition to water tanks and pipework—heated linen cupboard and smoke stack for solid fuel boiler. Alternatives for gas or electric water heating have been worked out.

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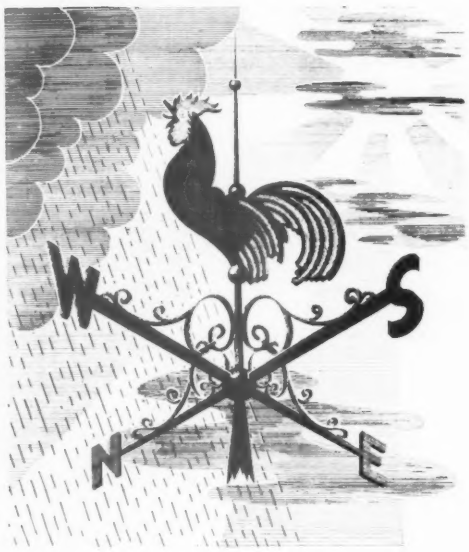

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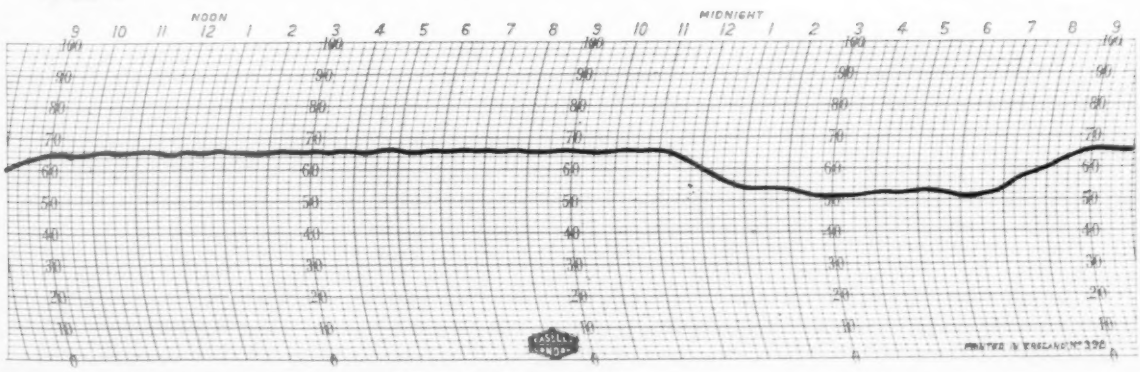

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INFORMATION CENTRE

INDEX

1943

The function of the Information Centre is to supply a digest of current developments in planning and building technique as recorded in publications and statements of every kind. To this is added an annual index, which will build up year by year, containing the title, author, source and brief description of every item that has been published in the Centre since its inception in its new form in the JOURNAL *for January 28, 1943. For fuller information than can be found in the index, reference should, of course, be made to the original* JOURNAL *text published week by week. The serial number, date and page number in brackets after each item relate to the* JOURNAL *issue in which the item appeared. The main headings are—Acoustics and Sound Insulation, Heating and Ventilation, Lighting, Materials, Physical Planning, Plumbing and Sanitation, Structure. Subheadings are in alphabetical order.*

ACOUSTICS and Sound Insulation

ABSORPTION

Sound Prevention Mechanism of Non-Porous Materials, Part II. *S. Kawashima.* (*Journal, Acoustical Society of America, January*, 1941.) Suggests that a wall has two different sets of frequency properties, and has two transmission peaks, one high, one low. (*No.* 1036, 28.1.43 : *p.* 81).

Sound Absorption in the Factory. *H. J. Sabine and R. A. Wilson.* (*J. Acoustical Soc. Am., July*, 1943, *p.* 27.) Study of the relief afforded by sound absorbents in factories. (*No.* 1345 : 30.12.43 : *p.* 488).

AUDITORIA

The Control of Acoustic Conditions of the Concert Stage. *H. Burns Mayer.* (*Journal, Acoustical Society of America, January*, 1941.) Useful for architects dealing with problems of multi-purpose auditoria, particularly in existing halls. (*No.* 1054 : 4.2.43 : *p.* 98).

Problems of Noise in Buildings. *R. Fitzmaurice.* (See No. 1061 under *Planning against Noise*).

Perturbation of Sound Waves in Irregular Rooms. *R. H. Bolt, H. Feshbach and A. M. Clogsten.* (*J. Acoustical Soc. Am., July*, 1942, *p.* 65.) Acoustical importance of irregular shapes and absorbents in auditoria. (*No.* 1129 : 29.4.43 : *p.* 288).

Acoustics of Radio Studios. *W. Fürrer.* (See No. 1259 under *Radio Studios*).

FACTORIES

Sound Reproduction in Factories. (See No. 1258 under *Reproduction Systems*).

Sound Absorption in the Factory. *H. J. Sabine and R. A. Wilson.* (See No. 1345 under *Absorption*).

PLANNING AGAINST NOISE

Problems of Noise in Buildings. *R. Fitzmaurice* (*BRS*). (*Lecture, RIBA Architectural Science Board, January* 30, 1943.) Effect of planning on noise reduction. Distance and angle effects. Auditoria design. Weight and discontinuity as a defence. Impact noises reduced at source. (*No.* 1061 : 11.2.43 : *p.* 113).

Sound Insulation. *W. Allen.* (*Journal of RSA, February* 5, 1943.) Cantor Lecture on town planning aspects of sound insulation. Density of development. Effect of open space. Structural techniques. (*No.* 1117 : 15.4.43 : *p.* 257).

Planning Against Noise. *D. D. Harrison.* (*Architects' Journal, August* 26 *and September* 9, 1943.) General principles of planning against noise, in town planning, site layout and building design. Many diagrammatic illustrations. (*No.* 1344 : 30.12.43 : *p.* 488).

RADIO STUDIOS

Acoustics of Radio Studios. *W. Fürrer.* (*Swiss Archives for Applied Science and Technique*, 8, 77-85, 99-109, 143-152 [1942].) Discussion of modern knowledge of acoustics applied to the design of broadcasting studios. (*No.* 1259 : 14.10.43 : *p.* 278).

REPRODUCTION SYSTEMS

Sound Reproduction in Factories. (*Elect. Rev., May* 14, 1943, *p.* 637.) Description of sound reproduction system installed in large factory. (*No.* 1258 : 14.10.43 : *p.* 278).

Sound Systems. (*Architectural Forum, July*, 1943, *p.* 6.) Description of modern American practice in design and installation of sound reproduction systems in buildings. (*No.* 1260 : 14.10.43 : *p.* 278).

LNER Public Address System. (*Electrical Times, August* 5, 1943, *p.* 160.) Description of new type public address systems installed at LNER stations. (*No.* 1313 : 2.12.43 : *p.* 416).

HEATING and Ventilation

AIR CONDITIONING

Forward Steps in Heating, Ventilation and Air Conditioning. (See No. 1034 under *General*).

Some Forward Steps in Heating, Ventilation and Air Conditioning. *H. L. Alt.* (See No. 1070 under *General*).

Heating and Ventilation. *A. C. Pallot.* (See No. 1181 under *General*).

The Pentagon Building. (*Architectural Record, January*, 1943, *p.* 67.) Complete climatic control, summer and winter—a novel method of individual room control over air temperature. (*No.* 1206 : 19.8.43 : *p.* 134).

Air Conditioning of Office and Loft Buildings. (*Architectural Record, April*, 1943, *p.* 82.) A general survey of factors to be considered when air conditioning is to be used. (*No.* 1300 : 25.11.43 : *p.* 398).

Heating and Air Conditioning : Library Installation. (See No. 1301 under *General*.)

DISTRICT HEATING

District Heating in the United States of America. (*Booklet published by John D. Troup*; 5*s.*) 32 pages of reprints of articles published in *The Steam Engineer*. Deals with problems in design of a district heating system. Underground conduits and tunnels, piping, manholes and insulation in theory and practice. Losses due to leaks and other causes. Test records tabulated. Section on operation and maintenance. (*No.* 1111 : 8.4.43 : *p.* 241).

The Latest District Heating Scheme in the United States. *David Brownlie.* (*The Steam Engineer, May*, 1943, *pp.* 222-226, *June, pp.* 254-257.) Describes district heating and hot water supply schemes for Parkchester Residential Community mainly from engineering viewpoint. (*No.* 1205 : 19.8.43 : *p.* 134).

FACTORIES

Heating and Ventilating of Factories. *G. S. Whittaker.* (*Architectural Record, February*, 1943, *p.* 54.) Describes equipment used in war factories ; conservation of materials, saving time by unusual methods. (*No.* 1179 : 15.7.43 : *p.* 45).

GAS HEATING

The Gas Industry in War-time. (*PEP Broadsheet, No.* 210, *August* 17, 1943.) Brings up to date PEP 1939 Report on the gas industry and forms part of material for a later report of fuel policy. (*No.* 1302 : 25.11.43 : *p.* 398).

GENERAL

Forward Steps in Heating, Ventilation and Air Conditioning. (*Industrial Heating Engineer, p.* 58, *No.* 15, *Vol.* 4.) Odour as the basis for ventilation rates. Use of odour absorbers described. Electrostatic removal of dirt. Ion content of air. Danger of corrosion in refrigeration in air plants. (*No.* 1034 : 28.1.43 : *p.* 81).

Some Forward Steps in Heating, Ventilation and Air Conditioning. *H. L. Alt.* (*Industrial Heating Engineer, October*, 1942.) Directional control of air through ventilation grilles. Motorless air conditioning units. Gas steam boilers without chimneys. Automatic control to prevent condensation on windows. (*No.* 1070 : 18.2.43 : *p.* 129).

Heating and Ventilation. *A. C. Pallot, M.B.E., B.Sc., M.Inst.C.E.* (*RIBA Science Lecture, May* 8, 1943. *Fully reported in Architects' Journal, June* 10, 1943.) Comfort conditions, effect of ventilation rate, insulation of buildings, provision for services in structure, local heating by open grates, stoves, combination units, gas fires, electric heaters. Central heating, panel systems, low pressure steam, high temperature hot water. Factory heating, hot air furnaces, pipe coils, unit heaters, plenum heating. Ventilation, plenum ventilation, air conditioning. Special problems in ventilation. Contains many figures for efficiencies, etc. (*No.* 1181 : 15.7.43 : *p.* 45).

Heating and Air Conditioning : Library Installation : Houghton Library of Rare Books, Harvard University. *Perry Shaw and Hepburn, Architects.* (*Architectural Record, July*, 1943.) General description of building includes very brief note of heating and ventilation. (*No.* 1301 : 25.11.43 : *p.* 398).

Heating and Ventilating: Analysis. *Dr. T. Bedford, D.Sc., Ph.D., M.I.Min.E.* (*Lecture at RIBA, May* 8, 1943. *Reported in the A.J. July* 15, 1943.) Factors affecting comfort and health in building. Some suggestions for standards. (*No.* 1319 : 9.12.43 : *p.* 434).

INSULATION

How Much Insulation? *Don Graf.* (*The New Pencil Points, February*, 1943.) Tests on value of varying degrees of insulation to houses. Experiments on timber frame houses, USA. (*No.* 1180 : 15.7.43 : *p.* 45).

PIPES

Plastic Tubing. *C. B. Branch and D. L. Gibb.* (*Heating Piping and Air Conditioning, Vol.* 14, *No.* 6, *p.* 353.) Describes uses, diameters, bursting pressures, bending and jointing of plastic tubing, which is now being produced by several manufacturers in the USA. (*No.* 1033 : 28.1.43 : *p.* 80).

PLASTICS

Plastic Tubing. *C. B. Branch and D. L. Gibb.* (See No. 1033 under *Pipes*).

TESTS

How Much Insulation? *Don Graf.* (See No. 1180 under *Insulation*).

LIGHTING

ARTIFICIAL DAYLIGHT

Engineering Twenty-Four Hours "Daylight." *C. F. Prideaux.* (See No. 1249 under *Industrial Lighting*).

ASSESSMENT

The Effectiveness of Lighting—Its Numerical Assessment. *K. W. W. Craik, Sheila J. Macpherson, W. G. Stiles and W. D. Wright.* (*Meeting of Illuminating Engineering Society, February* 9, 1943.) Four aspects of subject of better methods of assessing performance. (*No.* 1098 : 18.3.43 : *p.* 192).

CODES OF PRACTICE

Proposals for a New Lighting Code. *H. C. Weston.* (*Trans. Ill. Eng. Soc., February*, 1943. *Australian Standard Code for the Interior Lighting of Buildings by Artificial Light* [*Standards Association of Australia.*]) Quantity and quality of lighting. (*No.* 1122 : 22.4.43 : *p.* 273).

The Planning of Electric Wiring Installations. *B.S. Code of Practice.* (See No. 1167 under *Wiring*).

COLOUR

White Cement Floors for Better Light. (See No. 1072 under *Industrial Lighting*).

Colour and Lighting in Industry. *A. H. Brainerd and R. A. Massey.* (See No. 1220 under *Industrial Lighting*).

Colour Standards. *B. Dudley.* (*Technology Review, January*, 1943, *p.* 122.) A short history of attempts at a standard notation for colours and a description of the new specification by the American Standards Association. (*No.* 1250 : 7.10.43 : *p.* 259).

Factory for Fighter Planes, USA. (See No. 1251 under *Industrial Lighting*).

Lighting and Painting. *C. A. Atherton.* (*The Decorator, August* 15, 1943. *Extracts from paper read before the New England Paint and Varnish Production Club.*) New sources of light, mercury lamps, sodium lamps and all fluorescent lamps affect the appearance of colours and give different results from tungsten lamps. In future more attention to this will be required. Paints may have to be specified as "such and such a colour" under "such and such a light." (*No.* 1270 : 21.10.43 : *p.* 297).

DAYLIGHT

Illumination from a Non-Uniform Sky. *P. Moon and D. E. Spencer.* (*Journal of Illuminating Engineering Society of America, December*, 1942, *p.* 707.) Uniformly overcast sky is shown to be brighter at zenith than at horizon, rather than uniform as usually assumed for design purposes. (*No.* 1252 : 7.10.43 : *p.* 260).

Window Calculations. *T. Smith.* (See No. 1253 under *Windows*).

Lighting: Application; Daylight. *P. V. Burnett, F.R.I.B.A.* (*Lecture at RIBA, May* 15, 1943. *Fully reported in the A.J., August* 12, 1943.) An explanation of the function of windows with important review of methods of measuring daylight and methods of window design. Some new methods reviewed. (*No.* 1283 : 11.11.43 : *p.* 360).

ELECTRICITY SUPPLY

Wind Power for Electricity. *C. A. C. Brown.* (*Electrical Times, August* 26, 1943, *p.* 240.) Possibilities in the design of aero dynamos. (*No.* 1285 : 11.11.43 : *p.* 360).

General Factors Affecting the Unification of Electricity Supply Tariffs. *C. T. Melling.* (*Journal of the Institution of Electrical Engineers, August*, 1943, *p.* 309.) Discussion of tariff types and proposals for a basic uniform tariff structure. (*No.* 1312 : 2.12.43 : *p.* 416).

FLUORESCENT LIGHTING

Fluorescent Lamps. *L. J. Davies, H. R. Ruff and W. J. Scott.* (*Journal of the Institution of Electrical Engineers. Vol.* 89, *Part* 2, *No.* 11.) Description of the historical development and characteristics of fluorescent lamps. (*No.* 1172 : 1.7.43 : *p.* 13).

Cold-Cathode Fluorescent Lighting. *J. C. Sabatini.* (*Journal of the Illuminating Engineering Society of America, April*, 1943, *p.* 171.) Description of a recent cold-cathode fluorescent installation. (*No.* 1266 : 21.10.43 : *p.* 297).

Lighting from Cold-Cathode Fluorescent Sources. *H. J. Chanon and A. C. Barr.* (*Journal of the Illuminating Engineering Society of America, December*, 1942, *p.* 769.) Discussion of engineering aspects of cold-cathode fluorescent lighting. (*No.* 1267 : 21.10.43 : *p.* 297).

Post-War Lamps. "*Megohm.*" (*Electrical Times, August* 5, 1943, *p.* 173.) Some topical questions on fluorescent tungsten lamps for the future. (*No.* 1268 : 21.10.43 : *p.* 297).

Group Replacement of Fluorescent Lamps. *H. Reinhardt.* (*Journal of the Illuminating Engineering Society of America, April*, 1943, *p.* 178.) Discussion of economic factors in lamp replacements for large installations. (*No.* 1269 : 21.10.43 : *p.* 297).

Fifty Foot-Candle Factory Installation. (*Light and Lighting, June*, 1943, *p.* 85.) Description of one of the first big fluorescent lamp installations in England giving 50-foot candle illumination of the working plane. (*No.* 1271 : 21.10.43 : *p.* 297).

GAS LIGHTING

Domestic Gas Lighting. (*Gas Journal, June* 9, 1943, *p.* 699.) Discussion of gas industry's policy on lighting. (*No.* 1334 : 23.12.43 : *p.* 471).

GENERAL

Lighting and Post-War Reconstruction. (See No. 1035 under *Legislation*).

Artificial Lighting. *Lecture. R. O. Ackerley* (*Pres., Ill. Eng. Soc.*) (*RIBA Architectural Science Board, January* 23, 1943.) Chief aim not to describe in detail any particular aspect of artificial lighting, but to discuss what sort of knowledge of lighting the average architect ought to possess. (*No.* 1062 : 11.2.43 : *p.* 113).

The Effectiveness of Lighting. *IES.* (See No. 1098 under *Assessment*).

Lighting for Easy Seeing. *M. Luckiesh.* (*Architectural Record, May*, 1943, *p.* 54.) Discussion of certain general principles of artificial lighting design with illustrations. (*No.* 1233 : 16.9.43 : *p.* 206).

Lighting: Analysis. *H. C. Weston, Investigator to the Industrial Health Research Board.* (*Lecture at RIBA, May* 15, 1943. *Fully reported in the A.J., August* 5, 1943.) A general statement of the function of lighting, the nature of light and the reaction of the eye. This lecture is a clear statement of principles which must be understood if design is to be satisfactory. Lecture essentially a background to following lectures by R. O. Ackerley and P. V. Burnett. (*No.* 1282 : 11.11.43 : *p.* 360).

Lighting: Application; Artificial Light. *R. O. Ackerley.* (*Lecture at RIBA, May* 15, 1943. *Fully reported in the A.J., August* 19, 1943.) General description of requirements and method of approach to design of lighting installations. Quantity and quality of light. Some details on domestic lighting. (*No.* 1284 : 11.11.43 : *p.* 360).

Lighting and Vision. *Oxford Ophthalmological Congress.* (See No. 1333 under *Vision*).

INDUSTRIAL LIGHTING

White Cement Floors for Better Light. (*Engineering News-Record, March* 12, 1942, *and June* 25, 1942.) Value of light coloured floors for improving factory lighting. Examples show they have proved practicable and economical proposition in aeroplane factories. White cement floors used. Methods of laying and maintenance described. (*No.* 1072 : 18.2.43 : *p.* 130).

Modern Industrial Lighting. *G. B. Hughes.* (*Hutchinson's Scientific and Technical Publications; price* 15*s.*) Factors and data used in selling and designing artificial lighting systems for factories, with notes of special industrial problems. (*No.* 1123 : 22.4.43 : *p.* 273).

Industrial Vision. *J. R. Wittekind.* (*Journal of the Illuminating Engineering Society, USA, February*, 1943, *p.* 99.) Economic wastage in industry due to eye accidents and poor visual conditions. Amount of visual defects. Treatment of eyes in industry. (*No.* 1176 : 8.7.43 : *p.* 30).

Colour and Lighting in Industry. *A. H. Brainerd and R. A. Massey.* (*Journal of the Illuminating Engineering Society, USA, December*, 1942, *p.* 738.) Improved illumination and visibility by the proper use of colour in industrial plants. (*No.* 1220 : 2.9.43 : *p.* 171).

Engineering Twenty-four Hours "Daylight." *C. F. Prideaux.* (*Trans. Ill. Eng. Soc., USA. May*, 1943, *p.* 227.) Descriptions of lighting engineering problems in factories with no natural illumination. (*No.* 1249 : 7.10.43 : *p.* 259).

Factory for Fighter Planes, USA. (*Architectural Record, July*, 1943.) General notes include description of artificial lighting and colour decoration. (*No.* 1251 : 7.10.43 : *p.* 259).

Fifty Foot-Candle Factory Installation. (See No. 1271 under *Fluorescent Lighting*).

LAMPS

Fluorescent Lamps. *L. J. Davies, H. R. Ruff and W. J. Scott.* (See No. 1172 under *Fluorescent Lighting*).

Post-War Lamps. "*Megohm.*" (See No. 1268 under *Fluorescent Lighting*).

Group Replacement of Fluorescent Lamps. *H. Reinhardt.* (See No. 1269 under *Fluorescent Lighting*).

LEGISLATION

Lighting and Post-War Reconstruction. *A. G. Higgins.* (*Education, Specification and Legislation.*) (*Lecture, Royal Society of Arts, December*, 1942.) Discusses extension of lighting legislation to cover schools, public places, offices, in addition to existing legislation which only covers factory lighting. Light "an essential service. (*No.* 1035 : 28.1.43 : *p.* 81).

STANDARDS

Proposals for a New Lighting Code. *H. C. Weston.* (See No. 1122 under *Codes of Practice*).

The Planning of Electric Wiring Installations. *B.S. Code of Practice.* (See No. 1167 under *Wiring*).

Colour Standards. *B. Dudley.* (See No. 1250 under *Colour*).

VISION

Industrial Vision. *J. R. Wittekind.* (See No. 1176 under *Industrial Lighting*).

Light and Vision. *Sir John Parsons.* (*Journal of the Illuminating Engineering Society, June*, 1943, *p.* 99.) An exposition of the physiology of the eye in relation to illumination. (*No.* 1281 : 11.11.43 : *p.* 360).

Lighting : Analysis. *H. C. Weston.* (See No. 1282 under *General*).

Lighting and Vision—The Oxford Ophthalmological Congress, 1943. (*Light and Lighting, August*, 1943, *p.* 113.) Three papers on lighting and vision by *Sir Duncan Wilson, H. C. Weston and C. R. Mereweather.* (*No.* 1333 : 23.12.43 : *p.* 471).

WINDOWS

Window Calculations. *T. Smith.* (*Trans. of the Illuminating Engineering Society, June*, 1943, *p.* 110.) Equations are obtained for ascertaining the size of window necessary for given conditions. (*No.* 1253 : 7.10.43 : *p.* 260).

Lighting : Application : Daylight. *P. V. Barnett.* (See No. 1283 under *Daylight*).

WIRING

Domestic Wiring Installations. "*Megohm.*" (*Electrical Times, January* 28, 1943.) Wiring to be by builder or contractor ? (*No.* 1087 : 4.3.43 : *p.* 160).

Domestic Wiring. *Immediate Developments, by F. Jackson and W. J. N. Wood. The Distant View, by G. Smith and E. Jacobi* (*Papers given to IEE, March* 11, 1943.) Suggest one universal size of socket for housing with all outlets in one house or flat to be on one ring main, rather than the conventional plug-per-circuit arrangement. Other factors of cost and practice discussed. (*No.* 1130 : 29.4.43 : *p.* 289).

The Planning of Electric Wiring Installations : Low, Medium and High Voltage (*War Emergency British Standard Code of Practice B.S.*, 1062-1943 ; 1*s. post free.*) Standardization of wartime design on basis of short life expectation. Departures from IEE Regulations. (*No.* 1167 : 24.6.43 : *p.* 417).

MATERIALS

BOOKS

The Place of Glass in Building. *J. Gloag.* (edited by). (See No. 1134 under *Glass*).

An Introduction to Concrete Work. *H. L. Childe.* (See No. 1298 under *Concrete*).

Building Timbers. *E. H. B. Boulton and B. A. Jay.* (See No. 1330 under *Timber*).

CONCRETE

The Surface Finishing of Concrete Structures. *N. Davey.* (*Journal of the Institution of Civil Engineers, April*, 1942, *pp.* 183-224.) Paper and discussion, illustrated, on the basis of research at BRS in collaboration with CCA on finish of uncovered concrete. (*No.* 1048 : 4.2.43 : *p.* 97).

Concrete in Architecture : Concrete Surface Finishes. (*Concrete and Constructional Engineering, January*, 1943, *pp.* 1-13.) Economic considerations in favour of uncovered concrete. Much American work done. (*No.* 1049 : 4.2.43 : *p.* 97).

Absorptive Form Lining. *E. N. Vidal and R. F. Blanks.* (*Journal of the American Concrete Institute, January*, 1942, *pp.* 253-268, *illustrated*; *discussion, June*, 1942.) Interesting new method of securing good concrete surface free of air and water voids, sand streaks and water-courses. (*No.* 1050 : 4.2.43 : *p.* 97).

Architectural Concrete on the New Naval Medical Center. *H. C. Fisher.* (*Journal of the American Concrete Institute, February*, 1942, *pp.* 281-311, *illustrated.*) Concrete facing to brickwork, used in a series of buildings in a huge Naval Medical Centre in USA. (*No.* 1051 : 4.2.43 : *p.* 98).

Decorating Concrete Surfaces. (*Concrete and Constructional Engineering, February*, 1943, *pp.* 39-40 *and* 55-63.) Social effects of ugly building. Concrete decoration, sculpture, etc., monolithic with structure. Timber shuttering plaster moulds. (*No.* 1133 : 6.5.43 : *p.* 306).

Some Long Time Tests on Concrete. *M. O. Withey and K. F. Wendt.* (*Journal of the American Concrete Institute, February*, 1943, *pp.* 221-238.) Three series of concrete specimens, cured outdoors, under water and in the laboratory, tested at ages up to 30 years. Variables in types of cement, coarse aggregate, consistency and methods of placing. (*No.* 1135 : 6.5.43 : *p.* 306).

Materials for To-morrow : Concrete. *C. F. Ziegler.* (*New Pencil Points, January*, 1943, *pp.* 42-45.) Characteristic of concrete : structural continuity makes unusual forms stable and sound. New structural and architectural forms will emerge if continuity is applied freely. (*No.* 1159 : 10.6.43 : *p.* 385).

A Review of the Properties of Concrete. *Russell Allin.* (*Civil Engineering, May*, 1943, *pp.* 98-101.) Brief review of developments of last 20 years regarding compressive strength, volume changes due to moisture, curing, temperature effects on concrete, creep, workability, cement, aggregates, choice of mix. (*No.* 1213 : 26.8.43 : *p.* 153).

Sampling and Testing of Mineral Aggregates, Sands and Fillers. *British Standard Specification B.S.* 812 : 1943. (*British Standards Institution ; price* 3*s.* 6*d.*) Reprint with corrections of 1938 edition. Amendments and new methods included which have been approved by the Road Industry Committee and published in British Standards since 1938. (*No.* 1219 : 2.9.43 : *p.* 171).

Notes on the American Society for Testing Materials Meeting. (See No. 1239 under *Tests*).

An Introduction to Concrete Work. *H. L. Childe.* (*London Concrete Publications*, 144 *pp.*, 116 *illustrations ;* 1*s.* 6*d.*) Elementary description of the components of concrete ; influence of water content, mixing, transport, placing, curing, shuttering, surface finish, precast concrete, testing. (*No.* 1298 : 25.11.43 : *p.* 397).

Cellular Concrete. *L. J. Pond.* (*Architectural Design and Construction, July*, 1943, *pp.* 141-2.) Use of concrete without material finer than $\frac{3}{8}$ in. in walls of houses. Special system of steel shuttering allowing quick progress and any room dimension in multiples of 4 in. (*No.* 1299 : 25.11.43 : *p.* 398).

Oregon Tests on Composite (Timber-Concrete) Beams. *C. B. McCullough.* (See No. 1331 under *Tests*).

GLASS

The Place of Glass in Building. *Edited by John Gloag.* (*Allen and Unwin*, 1943 ; 7*s.* 6*d.*) Description of glass manufacture and types of glass available in England. (*No.* 1134 : 6.5.43 : *p.* 306).

PLASTER

Plastering Problems of the Nineteen-Twenties will not Recur. *E. Gunn.* (*The Architect and Building News, June* 25, 1943, *pp.* 188-190.) Substitute methods to eliminate plastering as a finish. (*No.* 1211 : 26.8.43 : *p.* 153).

PLASTICS

Plastics in Assembled Building Structures. *G. Fejer.* (*Plastics Journal, November*, 1942, *pp.* 396-407 ; *December*, 1942, *pp.* 444-454 ; *January*, 1943, *pp.* 16-24, *and February*, 1943, *pp.* 65-70.) Many illustrations and diagrams. Plastics suitable for prefabricated internal decoration : kitchens, bathrooms. Plastics for insulation. Unlikely to replace concrete slabs. Present applications. Probability of very extensive development of plastics for all kinds of insulation. Substructural framing members. (*No.* 1152 : 3.6.43 : *p.* 367).

RIVER POLLUTION

Difficulties of River Pollution Prevention. *A. Seaton.* (*The Plumber and Journal of Heating, April*, 1943.) Non-technical discussion. Historical notes. Storm water problems discussed. Method of dealing with trade wastes. Some special cases mentioned—tar and oil, colliery wastes, gravel pits, milk wastes. (*No.* 1124 : 22.4.43 : *p.* 273).

SAWDUST-CEMENT

Sawdust-Cement. *Notes from the Information Bureau of the Building Research Station, Garston.* (*The Architect and Building News, September* 3, 1943, *pp.* 142-146 ; *Journal of the RIBA, September*, 1943, *pp.* 259-263 ; *and other journals.*) Nature and properties of sawdust-cement. Shrinkage and expansion. Absence of uniformity. Uses of sawdust-cement products. (*No.* 1316 : 9.12.43 : *p.* 433).

TESTS

Some Long Time Tests on Concrete. *M. O. Withey and K. F. Wendt.* (See No. 1135 under *Concrete*).

Notes on the American Society for Testing Materials Meeting. (*Engineering News Record, July* 16, 1943, *pp.* 89-91.) War-time development in the use of timber, soil investigation, soil-cement mixture, slow-curing asphalts, concrete. (*No.* 1239 : 23.9.43 : *p.* 224).

An Introduction to Concrete Work. *H. L. Childe.* (See No. 1298 under *Concrete.*)

Working Stresses for Lumber Increased by 20 Per Cent. (See No. 1318 under *Timber*).

Oregon Tests on Composite (Timber-Concrete) Beams. *C. B. McCullough.* (*Journal of the American Concrete Institute, April*, 1943, *pp.* 429-440.) Tests on composite timber-concrete T-beams prompted by desire to develop short span highway bridge intermediate between untreated timber trestle and reinforced concrete girder. (*No.* 1331 : 23.12.43 : *p.* 470).

TIMBER

Interim Notes on Chemical Seasoning of Timber. (*Booklet published by the Timber Development Association Ltd.*) New method of seasoning timber. (*No.* 1212 : 26.8.43 : *p.* 153).

No Post-War Timber Shortage. *B. Alwyn Jay.* (*The Architect and Building News, June* 25, 1943, *pp.* 190-191.) Survey of timber situation likely to arise after the war. Post-war planners have developed timber-phobia and leave out timber when planning for reconstruction, because they think it will not be available. Several reasons why timber import may rise within short time after war. (*No.* 1218 : 2.9.43 : *p.* 171).

Notes on the American Society for Testing Materials Meeting. (See No. 1239 under *Tests*).

Working Stresses for Lumber Increased by 20 per cent. (*Engineering News-Record, August* 19, 1943, *p.* 295.) New specifications for structural timber based on recent research work. (*No.* 1318 : 9.12.43 : *p.* 433).

Building Timbers. *E. H. B. Boulton, M.C., M.A., and B. Alwyn Jay, M.A., F.L.S., both of the Technical Department, Timber Development Association Ltd.* (*Newnes Building Practice Series, Vol.* 9, 110 *pp.*, 18 *illustrations;* 7*s.* 6*d.*) A compendium of softwoods and hardwoods, with notes on selection, marketing, grading, seasoning, preservative treatments, storage, diseases, defects and remedies. (*No.* 1330 : 23.12.43 : *p.* 470).

Oregon Tests on Composite (Timber-Concrete) Beams. *C. B. McCullough.* (See No. 1331 under *Tests*).

WEATHERING

Fundamental Principles of the Weathering of Building Materials. *F. L. Brady.* (*RIBA Journal, June*, 1943.) Full report of lecture, abstract of which was given in Information Centre, Item 1071, JOURNAL, February 18, 1943. (*No.* 1317 : 9.12.43 : *p.* 433).

Physical PLANNING

AGRICULTURE

Land and Plan. *Professor E. G. R. Taylor.* (See No. 1074 under *National Planning*).

Creative Demobilization. *E. A. Gutkind.* (See No. 1132 under *Books*).

ANCIENT BUILDINGS

National Buildings Record and the Future. *John Summerson.* (*A.A. Journal, September*, 1943.) Post-war functions of the 100,000 photographs and drawings collected by NBR. (*No.* 1289 : 18.11.43 : *p.* 378).

BARLOW REPORT

Plans for Physical Reconstruction. *PEP.* (See No. 1043 under *General*).

BOOKS

Planning and Reconstruction Year Book, 1942. *F. J. Osborn* (*edited by*). (*Todd Publishing Co.*: 21*s.*) A comprehensive book giving much useful information. (*No.* 1042 : 4.2.43 : *p.* 96).

Book Lists for Planners. *National Book Council.* (*Obtainable for a few pence each from NBC*, 3, *Henrietta Street, W.C.*2.) (*No.* 1067 : 18.2.43 ; *p.* 129).

Creative Demobilization. *E. A. Gutkind.* (*Kegan Paul*, 1943 ; 21*s.*) An important symposium of current planning thought covering social planning, agriculture, industry and decentralization. (*No.* 1132 : 6.5.43 : *p.* 305).

The Social Foundations of Post-war Planning. *L. Mumford.* (See No. 1138 under *Sociology*).

TVA—An Achievement of Democratic Planning. *Julian Huxley.* (See No. 1230 under *Regional Planning*).

The Reform of the Public Health Services. *Sir Arthur S. MacNalty.* (See No. 1231 under *Health*).

Housing the Australian Nation. *F. O. Barnett and W. O. Burt.* (See No. 1247 under *Housing*).

Can Our Cities Survive ? *J. L. Sert.* (See No. 1248 under *Town Planning*).

Regional Planning. *L. B. Escritt.* (See No. 1278 under *Survey*).

The City. *E. Saarinen.* (See No. 1307 under *Town Planning*).

DISPOSAL OF THE DEAD

Disposal of the Dead. *Association for Planning and Regional Reconstruction.* (*Report No.* 25, *September*, 1943.) Discussion of burial and cremation in recent times with details of well-run system at Hörnli, in Switzerland. (*No.* 1323 : 16.12.43 : *p.* 451).

EDUCATION

Sociology and Civics. *Conference.* (See No. 1028 under *Sociology*).

Education for Planners. *USA National Resources Planning Board.* (*Memorandum by H. S. Morrison, June*, 1942.) Present lack of planners. Suggestions for special training curriculum. (*No.* 1096 : 18.3.43 : *p.* 191).

Plan for a School of Technological Design. *Norbert Dutton.* (*Staple House, June*, 1943 : 1*s.* 6*d.*) The need for a new educational policy in the training of designers for industry : and a proposal for its realization. (*No.* 1223 : 9.9.43 : *p.* 189).

Definition of the Town and Country Planner, Architect, Civil Engineer and Landscape Architect. (*Journal of the Institute of Landscape Architects, April*, 1943.) Tentative definition prepared by Education Committee of Institute of Landscape Architects. (*No.* 1238 : 23.9.43 : *p.* 224).

GENERAL

Planning and Reconstruction Year Book. *F. J. Osborn* (*Edited by*). (See No. 1042 under *Books*).

Plans for Physical Reconstruction. (*Broadsheet No.* 198, *PEP. December* 22, 1942.) Summary in 16 pages of the most important recommendation of the Barlow, Scott and Uthwatt reports ; indicates such action as has already been taken ; describes the issues which remain still to be decided ; points out some of the wider implications of the movement for physical planning. (*No.* 1043 : 4.2.43 : *p.* 96).

Planning. *PEP.* (*Broadsheet No.* 200, *January* 19, 1943.) Contains impressive analysis and index to its 199 forerunners. (*No.* 1058 : 11.2.43 : *p.* 112).

Book Lists for Planners. *NBC.* (See No. 1067 under *Books*).

Creative Demobilization. *E. A. Gutkind.* (See No. 1132 under *Books*).

The Social Foundations of Post-war Planning. *L. Mumford.* (See No. 1138 under *Sociology*).

Housing and Planning After the War. *Labour Party.* (See No. 1144 under *Housing*).

Definition of the Town and Country Planner, Architect, Civil Engineer and Landscape Architect. *ILA.* (See No. 1238 under *Education*)

HEALTH

Design of Dwelling Houses. *RCP.* (See No. 1057 under *Housing*).

The Medical Officer of Health Plans. *Society of Medical Officers of Health.* (*A National Health Service pamphlet, November*, 1942.) Reorganization of health services. Single health authority in Local Government. Health centres and hospitals. Health services free to all. (*No.* 1102 : 25.3.43 : *p.* 209).

Healthy Housing. *Three papers.* (See No. 1174 under *Housing*).

On Planning the Post-war School. *J. E. Nichols.* (See No. 1178 under *Schools*).

The Reform of the Public Health Services. *Sir Arthur S. MacNalty, K.C.B., Nuffield College.* (*Oxford University Press*, 1943 : 2*s.* 6*d.*) In all planning, public health considerations should receive their full share of attention. (*No.* 1231 : 16.9.43 : *p.* 205).

Planning of Post-war Hospitals. *I. Rosenfield.* (See No. 1257 under *Hospitals*).

HOSPITALS

Planning of Post-war Hospitals. *Isadore Rosenfield.* (*Architectural Record, May*, 1943.) Series of plans and articles on hospital planning in the USA. (*No.* 1257 : 14.10.43 : *p.* 278).

HOUSING

Design of Dwelling Houses. *Royal College of Physicians of London.* (*Memorandum, December*, 1942.) The medical profession lays its views before the Central Housing Advisory Committee of the Ministry of Health. (*No.* 1057 : 11.2.43 : *p.* 112).

Patio Houses. *Walter Segal.* (*Architect and Building News, February* 19, 1943.) Article illustrated with plans and elevations on the layout of terraced L-shaped houses with patio gardens. The Outdoor Room. (*No.* 1116 : 15.4.43 : *p.* 256).

Housing and Planning after the War. (*The Labour Party's Post-war Policy, April*, 1943 ; 2*d.*) A policy of housing and planning which executive committee presented to Party's annual conference at Whitsun. (*No.* 1144 : 20.5.43 : *p.* 337).

The Building Industry in the USSR. *David Percival and Alex Massie.* (*Lawrence and Wishart* : 6*d.* ; *November*, 1942.) Account of methods by which USSR built 646,000,000 square feet housing space in towns and cities by January 1, 1937 (40 per cent. total housing accommodation.) (*No.* 1158 : 10.6.43 : *p.* 384).

Houses for Human Beings. (*Fortune Magazine, USA, April*, 1943.) Article on design of the modern house. Plea to give people better-engineered houses, letting style take care of itself. (*No.* 1162 : 17.6.43 : *p.* 401).

Healthy Housing. *Three papers by Percival T. Harrison, Rees Phillips and George Laws, and a Memorandum by the Council of the Royal Sanitary Institute, submitted to the Sub-Committee on the Design of Dwellings of the Central Housing Advisory Committee.* (*Journal of the Royal Sanitary Institute, April*, 1943, *pp.* 51 *to* 75.) General views on factors affecting health including density of building, size of house, water supply, drainage, smoke abatement, noise reduction, hot water supply, kitchen equipment, vermin, dampness and other matters. (*No.* 1174 : 8.7.43 : *p.* 30).

Design in Dwelling. *Society of Women Housing Managers.* (*Memorandum, May*, 1943.) Result of enquiry by 25 experienced housing managers who interviewed over 2,000 of their 2,600 tenants. (*No.* 1184 : 22.7.43 : *p.* 62).

The Problem of Urban Housing. *Paul S. Cadbury.* (*Article in Friends' Quarterly Examiner, Spring*, 1943 ; 2*s.*) A housing programme for Birmingham. (*No.* 1191 : 5.8.43 : *p.* 97).

Space for Leisure. *PEP.* (See No. 1197 under *Recreation*).

The Town of Willow Run. (See No. 1217 under *Town Planning*).

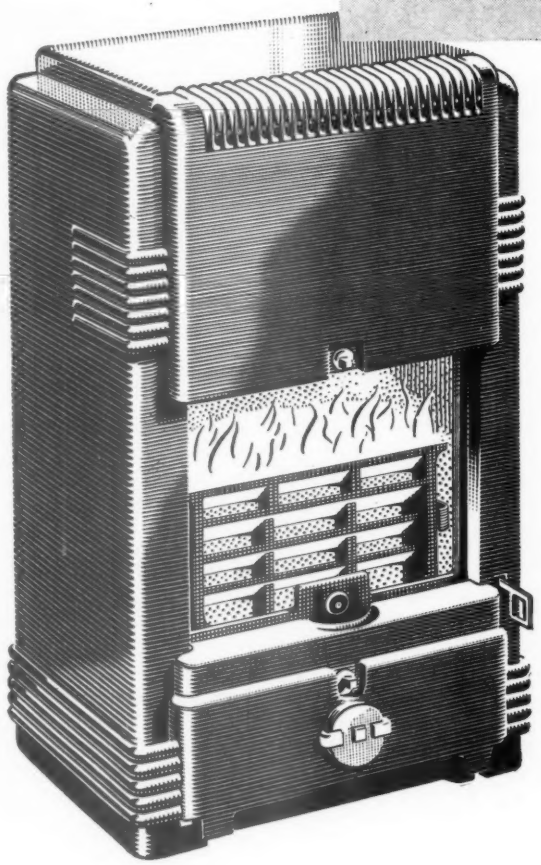
Post-War Housing Report. *R. A. H. Livett.* (*City of Leeds Housing Committee, April*, 1943.) A long-term programme for 53,000 dwellings, to be completed within 20 years in Leeds, prepared by the City Architect. (*No.* 1243 : 30.9.43 : *p.* 241).

Housing the Australian Nation. *F. Oswald Barnett and W. O. Burt.* (*Published by the Research Group of the Left Book Club of Victoria.*) First comprehensive publication

NEW-FASHIONED VISIBLE HEAT

EXAMPLE

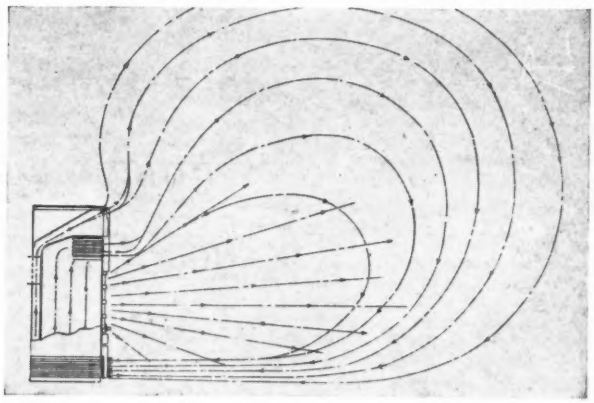
THE OTTO HEATING STOVE



SPECIFICATION: (TWO SIZES)

FOR OTTO No. 1 - - - - -	Height	26″
	Width	17¼″
	Depth	13¼″
Height to top of flue outlet		18½″
Diameter of flue suitable for 4½″ or 5″ flue pipe - -		4¾″
FOR OTTO No. 2 - - - - - -	Height	30″
	Width	17¼″
	Depth	13¼″
Height to top of flue outlet		21¾″
Diameter of flue suitable for 4½″ or 5″ flue pipe - -		4¾″

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



ADVANTAGES: Burns any kind of fuel, coal, coke, anthracite, peat or small logs. It can be a closed or open fire. It is a day-and-night stove, for the combustion is under control. It heats the air of a room. The diagram shows the air duct which runs below, behind and over the fire cavity. Cool air is drawn in underneath. This moves upward behind the fire where heat is most intense. The heated air (still clean and pure) is then thrown forward and outward. The atmosphere is thus kept in constant circulation and the room is made really warm and comfortable even in the farthest corner. With the Otto Stove, heat which ordinarily would be absorbed by the wall at the back, comes out into the room giving 20% more warmth from every ounce of fuel used.

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dealing with the housing and slum problem in Australia. The authors conclude with Outline of a National Housing Scheme. (*No.* 1247 : 7.10.43 : *p.* 259).

Problems of Population. *R. M. Titmuss.* (See No. 1329 under *Population*).

INDUSTRY

Plans for Physical Reconstruction. *PEP.* (See No. 1043 under *General*).

Creative Demobilization. *E. A. Gutkind.* (See No. 1132 under *Books*).

The Building Industry in the USSR. *D. Percival and A. Massie.* (See No. 1158 under *Housing*).

LOCAL GOVERNMENT

Interim Report on the Reform of Local Government Structure. *NALGO.* (*Pamphlet prepared by NALGO Reconstruction Committee, January*, 1943.) Work of an independent committee of the National Association of Local Government Officers appointed in 1941. (*No.* 1091 : 11.3.43 : *p.* 176).

The Medical Officer of Health Plans. *SMOH.* (See No. 1102 under *Health*).

The Reform of the Public Health Services. *Sir A. S. MacNalty.* (See No. 1231 under *Health*).

NATIONAL PLANNING

Land and Plan. *Professor E. G. R. Taylor.* (*Brochure published by Architect and Building News, February*, 1943.) Basic facts relative to a master plan for Britain. 14 maps—8 of England and Wales, 6 of Scotland. (*No.* 1074 : 25.2.43 : *p.* 144).

Towards a National Planning Survey. *W. G. Holford.* (See No. 1170 under *Surveys*).

PARKS AND OPEN SPACES

Nature Reserves in Britain. *Report of Conference on Nature Preservation in Post-War Reconstruction.* (*Natural History Museum, March*, 1943 ; 6*d.*). The relation of nature reserves to National Parks. Their acquisition and management. Questions of public access. (*No.* 1121 : 22.4.43 : *p.* 273).

Memorandum on Design and Planting of Open Spaces in Towns. *Royal Horticultural Society and Institute of Landscape Architects.* (*Wartime Journal of the Institute of Landscape Architects, October*, 1943 ; 1*s.* 6*d.*) Memorandum prepared for the Ministry of Works and Buildings in 1942. Deals with treatment of sites after their position and extent have been decided. (*No.* 1339 : 30.12.43 : *p.* 487).

POPULATION

Location of a Satellite Town. *W. F. Cassie.* (See No. 1106 under *Satellite Towns*).

Towards a National Planning Survey. *W. G. Holford.* (See No. 1170 under *Surveys*).

The Economic Pattern of World Population. *J. B. Condliffe.* (*Planning Pamphlets, No.* 18, *National Planning Association, Washington, January*, 1943.) Economic significance of world population statistics upon which plans for post-war reconstruction must be based. (*No.* 1279 : 11.11.43 : *p.* 359).

Problems of Population. *R. M. Titmuss.* (*Association for Education in Citizenship, Handbook No.* 9, 1943 ; 4*d.*) A handbook on population position and its relation to housing policy. (*No.* 1329 : 23.12.43 : *p.* 470).

RECREATION

On Planning the Post-war School. *J. E. Nichols.* (See No. 1178 under *Schools*).

Space for Leisure. *Broadsheet No.* 207. (*PEP, June*, 1943.) Relation of space for leisure to town planning. Greyhound race tracks, swimming baths, playing fields, cinemas, meeting halls, churches, pubs, etc., dealt with. Needs and conditions in home or garden, on holidays, or in rural areas not considered. (*No.* 1197 : 12.8.43 : *p.* 115).

REGIONAL PLANNING

Regional Boundaries of England and Wales. *Association for Planning and Regional Reconstruction.* (*Broadsheet No.* 9, *November*, 1942.) Regional divisions of England and Wales that have been suggested by Professor C. B. Fawcett (1942), John Dower (1938), E. W. Gilbert (1941), Professor E. G. R. Taylor (1941) and E. A. A. Rowse (1941). (*No.* 1044 : 4.2.43 : *p.* 96).

The Delimitation of Regions for Planning Purposes. *Association for Planning and Regional Reconstruction.* (*Broadsheet No.* 1, *September*, 1942.) Five methods of selecting areas as planning units, fairly widely used or discussed, are reviewed. (*No.* 1045 : 4.2.43 : *p.* 96).

Regions, Roads and Water Supplies. *Institution of Municipal and County Engineers.* (*Post-War Planning and Reconstruction Pamphlet, January*, 1942.) Memorandum from Institution to Government, completed before publication of Scott and Uthwatt Reports. (*No.* 1069 : 18.2.43 : *p.* 129).

Town and City. *W. G. Holford.* (See No. 1115 under *Town Planning*).

The Social Basis of Physical Planning. *E. Dickinson.* (See No. 1149 under *Town Planning*).

TVA—An Achievement of Democratic Planning. *Julian Huxley.* (*Architectural Review, June*, 1943.) TVA stands for Tennessee Valley Authority, the outstanding example of democratic planning. The first large-scale regional planning organization (1933) which operated wherever possible on the principles of persuasion, consent and participation. A fully illustrated account of its first ten years. (*No.* 1230 : 16.9.43 : *p.* 205).

Planning a County. *Gordon E. Payne.* (*Journal of the Town Planning Institute, July-August*, 1943.) Contents and costs of a new town for 21,000 people on 5,500 acres of land of which 720 would be used for the town site. The scheme to be financed by a county council and a housing association. (*No.* 1237 : 23.9.43 : *p.* 224).

Regional Planning. *L. B. Escritt.* (See No. 1278 under *Surveys*).

Proposals for Regional Planning Councils in Metropolitan Areas. (*Competition Awards, American Society of Planning Officials*, 1943.) Group of prize essays on how to run metropolitan planning, i.e., to include urban development beyond political boundaries of central city. (*No.* 1338 : 30.12.43 : *p.* 487).

RURAL DEVELOPMENT

Rural Development Centres in Monmouthshire. *M. E. Taylor.* (*County Planning Officer's Report, March*, 1943.) Application of recommendations of Scott Report to Rural District of Pontypool. (*No.* 1114 : 15.4.43 : *p.* 256).

Nature Reserves in Britain. *Conference.* (See No. 1121 under *Parks and Open Spaces*).

Holiday Use of Countryside. *John Dower.* (*RIBA Lecture, March* 31, 1943, *reported in* JOURNAL, *April* 22, *pp.* 274-275.) Effect of increase of leisure, of popular appreciation of natural scenery and of mechanical transport on use of countryside. (*No.* 1145 : 20.5.43 : *p.* 337).

Space for Leisure. *PEP.* (See No. 1197 under *Recreation*).

SATELLITE TOWNS

Model of a New Satellite Town. *Thomas Sharp.* (*On view at Building Centre, January* 20, 1943.) Impression model for use in film on town planning sponsored by Bournville Village Trust. See A.J., February 4, 1943, page 93. (*No.* 1046 : 4.2.43 : *p.* 96).

Location of a Satellite Town. *W. Fisher Cassie.* (*Journal of Town Planning Institute, January to February*, 1943.) Investigation into fluctuations of populations. Satellite development in relation to population movement. Development should take place along natural lines of movement of people, not where population is decreasing. (*No.* 1106 : 1.4.43 : *p.* 225).

SCHOOLS

On Planning the Post-War School. *J. E. Nichols.* (*Architectural Record, USA, March*, 1943.) Post-war schools will take their places as integral parts of life of the community—not symbols of affluence and false culture. Class-rooms designed for special functions. Schools as centres of health, welfare and recreation. (*No.* 1178 : 15.7.43 : *p.* 45).

Plan for a School of Technological Design. *N. Dutton.* (See No. 1223 under *Education*).

SCOTT REPORT

Plans for Physical Reconstruction. *PEP.* (See No. 1043 under *General*).

Rural Development Centres in Monmouthshire. *M. E. Taylor.* (See No. 1114 under *Rural Development*).

SHOPS

A Survey of Retail Shops. *Association for Planning and Regional Reconstruction.*) (*Paper read at a meeting on January* 26.) Data on total number of shops, their division by type (independent, multiple, department store, co-operative, etc.), their division by categories of goods (food, clothing, etc.) or the number of persons employed in them. (*No.* 1068 : 18.2.43 : *p.* 129).

SOCIOLOGY

Sociology and Civics. *Conference.* (*Winter School of Sociology and Civics, Oxford, January* 2-8, 1943.) Conference primarily intended for the staffs of Training Colleges for Teachers. The 18 lecturers included professors of Sociology, Anthropology and Education. (*No.* 1028 : 28.1.43 : *p.* 79).

Creative Demobilization. *E. A. Gutkind.* (See No. 1132 under *Books*).

The Social Foundations of Post-War Planning. *Lewis Mumford.* (*Faber and Faber, March*, 1943 ; 1*s.* 6*d.*) Urges need for new scale of values and stable human culture, opposed to purely mechanical progress and expanding pecuniary power culture, as basis for planning. (*No.* 1138 : 13.5.43 : *p.* 319).

The Social Basis of Physical Planning. *E. Dickinson.* (See No. 1149 under *Town Planning*).

The Size and Social Structure of a Town. *National Council of Social Service.* (See No. 1203 under *Town Planning*).

Civic Diagnosis. *Max Lock.* (See No. 1204 under *Surveys*).

Can Our Cities Survive ? *J. L. Sert.* (See No. 1248 under *Town Planning*).

The Economic Pattern of World Population. *J. B. Condliffe.* (See No. 1279 under *Population*).

Problems of Population. *R. M. Titmuss.* (See No. 1329 under *Population*).

SURVEYS

A Survey of Retail Shops. *APRR.* (See No. 1068 under *Shops*).

Towards a National Planning Survey. *W. G. Holford.* (*Address to Town Planning Institute, April* 29, 1943. *Reported in full, A.J., May* 13, 1943.) Notes on methods of classification and requirements of land and population. (*No.* 1170 : 1.7.43 : *p.* 13).

Civic Diagnosis. *Max Lock.* (*Hull Regional Survey, July*, 1943 ; 1*s.* 6*d. See also* ARCHITECTS' JOURNAL, *July* 29, 1943.) The technique and reasons for an elaborate town planning and sociological survey of Hull. Analysis of the extent, cause and remedy for

areas of urban blight. USA method of diagnosis used. (*No.* 1204 : 19.8.43 : *p.* 134).

Regional Planning. *L. B. Escritt.* (*Allen & Unwin*, 1943.) Original and useful book on value of geographic survey in planning, with full bibliography. (*No.* 1278 : 11.11.43 : *p.* 359).

National Buildings Record and the Future. *J. Summerson.* (See No. 1289 under *Ancient Buildings*).

TOWN PLANNING

Model of a New Satellite Town. *T. Sharp.* (See No. 1046 under *Satellite Towns*).

Two Plans for a Russian Town. *Arthur Ling.* (*Planning and Building in the USSR, Bantam Books, January*, 1943 ; 4*d.*) The first plan of Zaporozhie in the Donetz coal area carried out in 1930 on the lines of Ernst Mai. In 1939 new plans made jointly by the State Planning Institute and the local architectural bureau (*No.* 1059 : 11.2.43 : *p.* 112).

A Survey of Retail Shops. *APRR.* (See No. 1068 under *Shops*).

Location of a Satellite Town. *W. F. Cassie.* (See No. 1106 under *Satellite Towns*).

Town and City. *W. G. Holford.* (*Lecture to RIBA, March* 3, 1943. *Reported in full*, ARCHITECTS' JOURNAL, *March* 18, 1943.) The importance of combining the long-term plan and the short-term programme ; community development, traffic systems, use-zoning and the regional pattern : architectural amenity in towns. (*No.* 1115 : 15.4.43 : *p.* 256).

The Social Basis of Physical Planning. *Robert E. Dickinson.* (*Sociological Review, Spring*, 1943.) Description of spacing of towns based on their functions as service centres. (*No.* 1149 : 27.5.43 : *p.* 355).

Britain's Cities To-morrow. *C. B. Purdom.* (*King, Littlewood and King*, 1942 ; 1*s.*) Ideas which must govern post-war civic planning. (*No.* 1190 : 5.8.43 : *p.* 97).

Space for Leisure. *PEP.* (See No. 1197 under *Recreation*).

The Size and Social Structure of a Town. *National Council of Social Service.* (*Allen & Unwin*, 1943 ; 1*s.*) A report by the Community Centres and Associations Survey Group of the National Council of Social Service. (*No.* 1203 : 19.8.43 : *p.* 134).

Civic Diagnosis. *Max Lock.* (See No. 1204 under *Surveys*).

The Town of Willow Run. (*Architectural Forum, March*, 1943.) Designs for a model American community to house the families of 6,000 aircraft workers. (*No.* 1217 : 2.9.43 : *p.* 171).

Post-War Development in Portland, Maine. (*American Society of Planning Officials' News-Letter, June*, 1943.) A co-ordinated post-war programme for Portland and its metropolitan area. (*No.* 1222 : 9.9.43 : *p.* 189).

Planning a County. *G. E. Payne.* (See No. 1237 under *Regional Planning*).

Can Our Cities Survive ? *J. L. Sert.* (*Harvard University Press : Five dollars. Reviewed in Architects' Journal, August* 26, 1943.) Fully illustrated book by member of CIAM on history and future needs of city planning. Need for city planning for human benefit. Towns should be considered organically. Points out essential benefit to solutions of urban problems. (*No.* 1248 : 7.10.43 : *p.* 259).

Chicago Plans. (*New Pencil Points No.* 3, *March*, 1943.) The master plan prepared by the Chicago Plan Commission set up in 1940. (*No.* 1297 : 25.11.43 : *p.* 397).

The City. *Eliel Saarinen.* (*Reinhold Publishing Corp., New York*, 1943.) The physical order of the urban community explained in terms of a living organism. Mediæval and modern planning compared. (*No.* 1307: 2.12.43 : *p.* 415).

Your London Has a Plan. *Association of Building Technicians.* (*October*, 1943 ; 6*d.*) Objective summary of the County of London Plan with illustrations. (*No.* 1308 : 2.12.43 : *p.* 415).

Proposals for Regional Planning Councils in Metropolitan Areas. (See No. 1338 under *Regional Planning*).

Memorandum on Design and Planting of Open Spaces in Towns. *RHS and ILA.* (See No. 1339 under *Parks and Open Spaces*).

TRANSPORT

Regions, Roads and Water Supply. *IMCE.* (See No. 1069 under *Regional Planning*).

Magic Motorways. *Norman Bel Geddes.* (*Stratford Press, New York*, 1940 ; $15.) Book advocating automatic control of motor traffic by electrical road mechanism. (*No.* 1082 : 4.3.43 : *p.* 159).

Town and City. *W. G. Holford.* (See No. 1115 under *Town Planning*).

Holiday Use of Countryside. *J. Dower.* (See No. 1145 under *Rural Development*).

Use and Misuse of Transport. (*Planning No.* 211. *PEP, September*, 1943.) Shows how need for transport can be reduced by altering spatial relationship of houses, work places and other buildings. (*No.* 1288 : 18.11.43 : *p.* 378).

UTHWATT REPORT

Plans for Physical Reconstruction. *PEP.* (See No. 1043 under *General*).

WATER SUPPLIES

Regions, Roads and Water Supply. *IMCE.* (See No. 1069 under *Regional Planning*).

Healthy Housing. *Three papers.* (See No. 1174 under *Housing*).

PLUMBING and Sanitation

FROST

Prevention of Damage by Frost. *The Editor.* (*Plumbing Trade Journal, June*, 1943.) Suggestion that frost damage can be reduced by taking advantage of slight compressibility of water together with use of full-way gate valves for stop taps and fixed valves for all screw-down draw-off taps. (*No.* 1294 : 18.11.43 : *p.* 379).

GENERAL

Hygiene and Sanitation : Analysis. *Charles F. White, O.B.E., M.D., D.P.H., D.T.M.* (*Lecture at RIBA, May* 8, 1943. *Reported in A.J., July* 22, 1943.) Filth diseases, "cholera," typhoid and typhus. Need for separation of water supply from all possibility of contamination. Noise is deleterious to health. Height of sanitary fittings and effect on health. The menace of rats and bed bugs. Water storage tanks in houses. (*No.* 1292 : 18.11.43 : *p.* 379).

Hygiene and Sanitation : Application. *F. L. Barrow.* (*Lecture at RIBA, May* 8, 1943. *Fully reported in the Journal of the RIBA. August*, 1943.) Practical treatment necessary to avoid pollution of water, escape of foul air, plumbing noises, infestation of vermin. The correct height for plumbing appliances. (*No.* 1293 : 18.11.43 : *p.* 379).

Experimental Houses, Coventry. (See No. 1342 under *Prefabrication*).

NOISES

Noisy Ball-Valves. *The Editor* (*Plumbing Trade Journal, May*, 1943.) Reasons for noisy ball-valves. Various methods of silencing described. (*No.* 1163 : 17.6.43 : *p.* 401).

Hygiene and Sanitation : Application. *F. L. Barrow.* (See No. 1293 under *General*).

PIPES

The One-pipe System of Plumbing. *A. Longworth, F.I.O.P., F.R.San.I.* (*Lecture at School of Art, Manchester, May* 18, 1943. *Reported fully in Plumbing Trade Journal, June*, 1943.) Brief historical background. Special care in lay-out. Venting of branch pipes. Metals for pipes and type of jointing material. Trapping and evaporation. Pipe sizes and falls. Syphonic W.C's. Internal soil pipes. (*No.* 1194 : 5.8.43 : *p.* 98).

Plastic Tubing. (*Architectural Record*, 1943.) Plumbing tubing to be used in publicly financed war housing. Tests described. (*No.* 1262 : 14.10.43 : *p.* 279).

Prevention of Damage by Frost. (See No. 1294 under *Frost*).

The Problem of Copper and Galvanized Iron in the Same Water System. *L. Kenworthy.* (See No. 1327 under *Tanks*).

Hot-Water Heating Pipes. "*Omega.*" (*Industrial Heating Engineer, July*, 1943.) Common faults in installation briefly discussed. Lay-out of pipes. Air locks. Provision for pipe-expansion. Supports for pipes. Blockage by dirt., etc. Corrosion. (*No.* 1343 : 30.12.43 : *p.* 488).

PREFABRICATION

Experimental Houses, Coventry. (*Architects' Journal, October* 7, 1943, *and other publications.*) General description of experimental houses at Coventry with particular emphasis on heating arrangements and prefabrication of plumbing. Well illustrated. (*No.* 1342 : 30.12.43 : *p.* 488).

REFUSE DISPOSAL

Garchey System of Refuse Disposal. *R. A. H. Livett.* (*The Builder, May* 14, 1943.) Description and records of costs of automatic disposal of refuse from flats at Leeds. (*No.* 1200 : 12.8.43 : *p.* 116).

STANDARDS

New Plumbing Standards to Keep Drinking Water Pure. (*Plumbing and Heating Journal. September*, 1943.) Dangers of pollution due to back flow from fittings. Basic principles. New standards proposed for USA. (*No.* 1326 : 16.12.43 : *p.* 452).

TANKS

Hygiene and Sanitation : Analysis. *C. F. White.* (See No. 1292 under *General*).

The Problem of Copper and Galvanized Iron in the same Water System. *L. Kenworthy.* (*Industrial Heating Engineer, July*, 1943.) Description of tests by British Non-Ferrous Metals Research Association to discover reasons for early failure of galvanized iron tanks. Full scale trials described. Possible remedy. (*No.* 1327 : 16.12.43 : *p.* 452).

TESTS

Plastic Tubing. (See No. 1262 under *Pipes*).

The Problem of Copper and Galvanized Iron in the Same Water System. *L. Kenworthy.* (See No. 1327 under *Tanks*).

TOILET ROOMS

Mechanical Equipment for Factories. *Chester T. Row.* (*Architectural Record, February*, 1943.) Location of toilet rooms, circulation arrangements, wartime materials. (*No.* 1199 : 12.8.43 : *p.* 115).

VALVES

Noisy Ball-Valves. (See No. 1163 under *Noises*).

Prevention of Damage by Frost. (See No. 1294 under *Frost*).

VERMIN

Hygiene and Sanitation: Analysis. *C. F. White.* (See No. 1292 under *General*).

Hygiene and Sanitation: Application. *F. L. Barrow.* (See No. 1293 under *General*).

WATER SERVICES

Minimum Specification for Installation of Cold and Hot Water Services. (*Institute of Plumbers, January,* 1943; 5*s. post free.*) Minimum sound practice for cold and hot water services. (*No.* 1261: 14.10.43: *p.* 278).

Hygiene and Sanitation: Analysis. *C. F. White.* (See No. 1292 under *General*).

New Plumbing Standards to Keep Drinking Water Pure. (See No. 1326 under *Standards*).

STRUCTURE

AIR RAID SHELTERS

Bomb-Resistant Air Raid Shelters. *H. E. Wessman.* (*Journal of the American Concrete Institute, February,* 1943, *pp.* 241-252.) A shelter to resist the direct hit of a 1,000 lb. heavy-case bomb requires a roof slab 11 ft. 3 in. thick, side walls 6 ft. thick above ground and 9 ft. thick below, and a base 5 ft. thick. A surface shelter to resist blast and splinters from a 1,000 lb. bomb exploding 25 ft. away, has 15 in. side walls and 8 in. roof. (*No.* 1128: 29.4.43: *p.* 288).

BOOKS

Concrete Simply Explained. *V. S. Wigmore.* (See No. 1086 under *Concrete*).

Prefabrication in Timber. A Survey of Existing Methods, Part I. *C. Sjostrom.* (See No. 1224 under *Timber*).

Prefabricated Timber Houses. *TDA.* (See No. 1311 under *Housing*).

BRICKWORK

Draft Report on Damp Brick Walls. (See No. 1265 under *Damp Prevention*).

BRIDGES

Bridges. *American Institute of Steel Construction.* (*American Award for Best Bridges.*) Advantages of various designs for span and beauty. Similar prize in this country? (*No.* 1032: 28.1.43: *p.* 80).

Recent Important Bridges in the British Empire. (*The Engineer, January* 1, *pp.* 24-26; *Engineering, January* 1, 1943, *pp.* 1-4, *and January* 15, 1943, *pp.* 41-43.) Waterloo Bridge. Howrah Bridge, Calcutta. Story Bridge, Brisbane, Australia. (*No.* 1060: 11.2.43: *p.* 112).

Tests of Composite Timber-Concrete Beams. *F. E. Richart and C. B. Williams.* (See No. 1139 under *Concrete*).

The New Waterloo Bridge. *E. J. Buckton and J. Cuerel.* (*Journal of the Institution of Civil Engineers, June,* 1943, *pp.* 145-201. *See also The Builder, May* 28, 1943, *pp.* 470-476, *and Concrete and Constructional Engineering, July,* 1943, *pp.* 211-230, *and Information Centre, No.* 1060.) Collaboration between architect and engineers from the start. Monumental design replaced by functional design. Superstructure: continuous twin hollow box girders with cantilevers in reinforced concrete. Use of pre-stressing, welding and vibration. Surface faced with Portland stone. (*No.* 1210: 26.8.43: *p.* 152).

BY-LAWS

The By-Laws and Building Construction. *George Fairweather, F.R.I.B.A.* (*The Architect and Building News, December* 4, 1942, *January* 8, *February* 12, *March* 12, *May* 14, 1943.) A critical survey of the Model By-laws issued by the Ministry of Health, by the Department of Health for Scotland and By-laws of London County Council. (*No.* 1275: 4.11.43: *p.* 343).

CODES OF PRACTICE

Protection of Structures Against Lightning. *B. S. Code of Practice.* (See No. 1150 under *Lightning Protection*).

MOW Codes of Practice Committee for Civil Engineering, Public Works, Building and Constructional Work. *First Report.* (*H.M. Stationery Office; price* 4*d. Reviewed in Architects' Journal, April* 15, 1943, *pp.* 248 *and* 259.) Review of present position of Codes of Building Practice. Outline of scheme of Codes for Building. *No.* 1153: 3.6.43: *p.* 368).

COLLAPSE OF BUILDINGS

Wrecking of Old Concrete Building. (*Engineering News Record, September* 10, 1942.) In spite of poor quality concrete and faulty design, building resisted collapse to amazing extent, and floor system remained cantilevered after removal of most columns and walls. Interesting data. (*No.* 1047: 4.2.43: *p.* 96).

Report of the House Collapse Inquiry, Bombay. *Chairman: B. J. Wadia; Assessors: H. J. Nichols, J. A. Taraporewala.* (*Journal of the Indian Institute of Architects, July,* 1943, *pp.* 11-18.) Collapse of a five-storey reinforced concrete framed building caused death of 58 people. Use of bad materials, bad workmanship, lack of supervision, bad design. Architect and contractors mainly responsible, but also engineer and Bombay Municipality. (*No.* 1325: 16.12.43: *p.* 451).

CONCRETE

Wrecking of Old Concrete Building. (See No. 1047 under *Collapse of Buildings*).

Concrete Simply Explained. *Victor S. Wigmore.* (*Journal and Transactions of the Society of Engineers, Vol. xxxiii. No.* 1, *January to June,* 1942. 2*nd reprint October,* 1942; 48 *pages; price,* 1*s.* 6*d.*) Deals with ingredients of concrete and methods of making good concrete. (*No.* 1086: 4.3.43: *p.* 160).

The Prefabricated House—Concrete. (See No. 1127 under *Housing*).

Tests of Composite Timber-Concrete Beams. *F. E. Richart and C. B. Williams, Jr.* (*Journal of the American Concrete Institute, February,* 1943, *pp.* 253-276.) Composite beams and slabs of timber and concrete. Useful construction for heavy floors of highway bridges, piers, etc. Essential feature: shear connection between timber and concrete. Tests on various types of shear units. Effectiveness and relative merits. (*No.* 1139: 13.5.43: *p.* 319).

Concrete and Laminated Wood Framing. (*Engineering News Record, October* 22, 1943, *pp.* 100-102.) Combination of wood and concrete. Speed of erection. Flexibility. (*No.* 1141: 13.5.43: *p.* 320).

War-Time Construction in the United States. *National Emergency Specifications.* (See No. 1151 under *Reinforced Concrete*).

War-time Housing. *CCA.* (See No. 1154 under *Housing*).

Prestressed Reinforced Concrete. *K. Hajnal-Kónyi.* (See No. 1175 under *Prestressing*).

Long Span Concrete Roof Construction. *C. H. Mayer.* (See No. 1185 under *Roofs*).

Future Construction Using Moving Forms. *L. E. Hunter.* (See No. 1193 under *Moving Forms*).

Building an 82-Acre Concrete Roof with Travelling Retractable Forms. (See No. 1232 under *Moving Form Construction*).

Concentric Ring Tank for Topeka. (*Engineering News-Record, July* 29, 1943, *pp.* 194-197.) 1,000,000 gal. tank, 120 ft. above ground, supported on three concentric concrete rings inside the fluted exterior wall. Second 1,000,000 gal. tank in the base of the structure, below ground. (*No.* 1280: 11.11.43: *p.* 359).

The Stabilization of Soil by Cement. (See No. 1291 under *Transport*).

Grain Storing and Drying Silos. *MOW.* (See No. 1332 under *Silos*).

Prefabricated Floors in Spun Concrete. *P. W. Abeles.* (*The Architects' Journal, November* 11, 1943, *pp.* 357-359.) Construction, design, production and economy described by examples of buildings in Yugoslavia and Czechoslovakia (1936-38). (*No.* 1341: 30.12.43: *p.* 488).

DAMP PREVENTION

Draft Report on Damp Brick Walls. (*The Structural Engineer, July,* 1943, *pp.* 273-284.) Effects of dampness on brickwork. Moisture transmission as water or vapour. Damage caused by capillarity. Materials and methods of wall construction influenced by weather conditions. Completely impervious construction normally unnecessary. Cavity construction properly designed and carried out affords complete protection. (*No.* 1265: 21.10.43: *p.* 297).

FLOORS

Hollow Clay Tiles in Transportable Buildings. *WAP.* (See No. 1029 under *Hollow Clay Tiles*).

Prefabricated Floors in Spun Concrete. *P. W. Abeles.* (See No. 1341 under *Concrete*).

FOUNDATIONS

An Introduction to Soil Mechanics. *W. L. Lowe-Brown.* (See No. 1107 under *Soil Mechanics*).

The Artificial Consolidation of Sub-Foundations. *R. R. Minikin.* (*Civil Engineering, June,* 1943, *pp.* 118-121.) Mechanical and chemical methods of ground consolidation. German method of blasting by explosives in bog land. (*No.* 1198: 12.8.43: *p.* 115).

Wood Piles with Mortar Coating Save Time and Material. (*Engineering News Record, November* 5, 1942, *pp.* 72-74.) New method of protecting untreated wood piles by a coating of sand and cement, shot on with pneumatic equipment to embed wire-mesh reinforcing. (Shotcrete). (*No.* 1225: 9.9.43: *p.* 190).

Mortar-coated Piles Resist Hard Treatment. (*Engineering News Record, March* 25, 1943, *pp.* 73-75.) Mortar-coated piles, employed in the building of a large wharf. Merit of such piles compared with other types also used in the structure. (*No.* 1226; 9.9.43: *p.* 190).

HOLLOW CLAY TILES

Hollow Clay Tiles in Transportable Buildings. *WAP.* (*The British Clayworker, October,* 1942, *pp.* 84-85.) Latest single-story WAP transportable hut. New features: roof, walls and floor of light hollow-tile reinforced concrete members of new type span between precast reinforced concrete frames. (*No.* 1029: 28.1.43: *p.* 80).

HOUSING

Unit Construction Houses, Kilmarnock. *Sam Bunton.* (*The Architects' Journal, January* 28, 1943, *pp.* 75-78. *Also The Builder, January* 22, 1943, *pp.* 85-88, *and The Architect and Building News, January* 22, 1943, *pp.* 87-91.) Walls and roofs composed of 80 in. by 40 in. prefabricated units made of *Gypklith.* Load bearing columns and beams: cast in situ reinforced concrete. Flexible design. (*No.* 1085: 4.3.43: *p.* 160).

Emergency War-Time Housing in the United States. (*Engineering, February* 5, 1943, *pp.* 118-120.) Activity of the Federal Public Housing Authority to provide stop-gap shelters, temporary housing and permanent homes during the war. Methods of construction. (*No.* 1110: 8.4.43: *p.* 241).

The Prefabricated House—Concrete. (*The Architectural Forum, February*, 1943, *pp.* 67-78.) Series of articles on prefabrication. Early experiments. Edison's single mould house. Type successfully employed for 25 years. More recent developments. Future prospects. (*No.* 1127 : 29.4.43 : *p.* 283).

Wartime Housing. *An interim Report prepared by the Cement and Concrete Association*; *price* 2*s.* (*Reviewed in Architects' Journal, March* 18, 1943, *p.* 188.) Collection of details in 26 war-time housing schemes with recommendations. (*No.* 1154 : 3.6.43 : *p.* 368).

Prefabrication in Timber. A Survey of Existing Methods, Part I. *C. Sjostrom.* (See No. 1224 under *Timber*).

Unorthodox Housing Construction, 1920-1939. *A Critical Survey by George Fairweather, F.R.I.B.A.* (*The Architect and Building News, June* 25, 1943, *pp.* 193-200.) Experimental houses in steel and timber after the last war. (*No.* 1240 : 23.9.43 : *p.* 224).

The Tarran Factory-Produced Bungalow. (*The Architect and Building News, September* 3, 1943, *pp.* 140-1 ; *The Builder, September* 3, 1943, *p.* 194 ; *Architectural Design and Construction October*, 1943, *pp.* 212-214.) Specially lightweight bungalow. All plumbing, etc., fixed on units in factory. Easy erection. (*No.* 1290 : 18.11.43 : *p.* 378).

Experimental Housing. *Designed by the City of Coventry Architectural Department under the Direction of D. E. E. Gibson.* (*Architects' Journal, October* 7, 1943, *pp.* 255-258, *and other journals.*) Two experimental houses with different layouts and details. (*No.* 1310 : 2.12.43 : *p.* 415).

Prefabricated Timber Houses. (*Booklet published by the Timber Development Association.*) Outline of the principles of prefabrication and the best-known systems in timber houses, with a few suggestions for the post-war problems of housing. (*No.* 1311 : 2.12.43 : *p.* 415).

Electric Prestressing of Reinforcing Steel Used for Small House Construction. *K. P. Billner.* (See No. 1324 under *Prestressing*).

INSULATION

Thermal Insulation of Buildings. *Ministry of Fuel and Power* ; *Committee on the Efficient Use of Fuel.* (*Fuel Efficiency Bulletin, No.* 12, *March*, 1943.) Importance and advantages of thermal insulation of buildings. Insulating materials. (*No.* 1166 : 24.6.43 : *p.* 416).

LIGHTNING PROTECTION

Protection of Structures against Lightning. *British Standard Code of Practice, C.P.* 1, 1943. (*British Standards Institution* ; 3*s.* 6*d. post free.*) Recommended practice for protection of buildings, fences and trees against lightning. (*No.* 1150 : 27.5.43 : *p.* 355).

MOVING BUILDINGS

Steel-Frame Building Moved by New Method. (*Civil Engineering, USA, November*, 1941, *pp.* 659-662.) Describes how part of a New York hospital of five stories, which interfered with construction of road, was moved 60 ft. and raised 12 in. (*No.* 1171 : 1.7.43 : *p.* 13).

MOVING FORM CONSTRUCTION

Future Construction Using Moving Forms. *L. E. Hunter.* (*Civil Engineering, May and June*, 1943, *pp.* 105-107 *and* 126-129.) Application of moving form construction in silos, plain buildings, with and without internal columns, plain buildings with set-backs to the upper portions, tanks. (*No.* 1193 : 5.8.43 : *p.* 97).

Building an 82-Acre Concrete Roof with Travelling Retractable Forms. (*Engineering News Record, June* 17, 1943, *pp.* 62-65.) Ribs protruding below a barrel-arch concrete roof required ingenious form planning to permit use of a travelling carriage on the construction of a huge war plant. Forms dropped 4½ ft. to pass under the ribs, then rolled ahead on timber frames supported on artillery wheels ; chain hoists used to raise the roof form. Over 100,000 cu. yds. of concrete poured for the 82-acre roof. (*No.* 1232 : 16.9.43 : *p.* 205).

ORGANISATION

The Site Organization of a Public Works Contract. *Scott H. Hume, M.I.Struct.E.* (*The Structural Engineer, May*, 1943 ; *Paper read at Meeting of Inst. of Struct. Engs., May* 13, 1943.) The Contractor's aspect of site organization. Staff, labour, materials, plant, office management, technical supervision, welfare. (*No.* 1165 : 24.6.43 : *p.* 416).

Report of the House Collapse Inquiry, Bombay. (See No. 1325 under *Collapse of Buildings*).

Blimp Dock Erected from Scaffold at Flatcars. (See No. 1340 under *Timber*).

PREFABRICATION

Unit Construction Houses. *S. Bunton.* (See No. 1085 under *Housing*).

The Prefabricated House—Concrete. (See No. 1127 under *Housing*).

Prefabrication System for Architects. *Herman Herrey.* (*New Pencil Points, April*, 1943.) System based on standard module. Structural units identical whether in walls, ceilings or elsewhere. Simple standardized joints. Easy dismantling. (*No.* 1192 : 5.8.43 : *p.* 97).

Prefabrication in Timber. A Survey of Existing Methods, Part I. *C. Sjostrom.* (See No. 1224 under *Timber*).

The Tarran Factory-Produced Bungalow. (See No. 1290 under *Housing*).

Prefabricated Timber Houses. *TDA.* (See No. 1311 under *Housing*).

Prefabricated Floors in Spun Concrete. *P. W. Abeles.* (See No. 1341 under *Concrete*).

PRESTRESSING

Prestressed Reinforced Concrete. *K. Hajnal-Kónyi.* (*Architects' Journal for May* 6, 1943, *pp.* 300-302.) Permissible steel stress in ordinary reinforced concrete limited by the width of cracks. Economic use of steel of very high strength possible only with pre-stressing, which can also give safety against cracking. New applications of reinforced concrete. (*No.* 1175 : 8.7.43 ; *p.* 30).

The New Waterloo Bridge. *E. J. Buckton and J. Cuerel.* (See No. 1210 under *Bridges*).

Electric Prestressing of Reinforcing Steel Used for Small House Construction. *K. P. Billner.* (*Engineering News-Record, September* 9, 1943, *pp.* 406-408.) Prestressing of reinforcement in thin walls of concrete houses by electric heating. Reinforcing bars surrounded with thermoplastic which restores bond after cooling. (*No.* 1324 : 16.12.43 : *p.* 451).

REINFORCED CONCRETE

Hollow Clay Tiles in Transportable Buildings. *WAP.* (See No. 1029 under *Hollow Clay Tiles*).

Unit Construction Houses. *S. Bunton.* (See No. 1085 under *Housing*).

Highway Tunnel under the River Maas, Rotterdam. *K. W. Mautner.* (See No. 1097 under *Transport*).

War-time Construction in the United States. *National Emergency Specifications for the Design of Reinforced Concrete Buildings to Conserve Steel.* (*Journal of the American Concrete Institute, November*, 1942, *pp.* 85-92. *See also Concrete and Constructional Engineering, April*, 1943, *pp.* 124-125.) Increase of permissible steel stresses and reduction of concrete fibre stresses due to bending to save steel. Recommendation of plain concrete wherever possible. Comparison with practice in this country. (*No.* 1151 : 27.5.43 : *p.* 356).

Prestressed Reinforced Concrete. *K. Hajnal-Kónyi.* (See No. 1175 under *Prestressing*).

Concrete Frame Construction : New Type for Industrial Buildings. (*The Builder, April* 16, 1943, *pp.* 347-349 : *other journals of the same period.*) New system of precast reinforced concrete frames, widely used since the beginning of the war. (*No.* 1207 : 19.8.43 : *p.* 135).

The New Waterloo Bridge. *E. J. Buckton and J. Cuerel.* (See No. 1210 under *Bridges*).

Electric Prestressing of Reinforcing Steel Used for Small House Construction. *K. P. Billner.* (See No. 1324 under *Prestressing*).

Report of the House Collapse Inquiry, Bombay. (See No. 1325 under *Collapse of Buildings*).

Prefabricated Floors in Spun Concrete. *P. W. Abeles.* (See No. 1341 under *Concrete*).

ROOFS

Hollow Clay Tiles in Transportable Buildings. *WAP.* (See No. 1029 under *Hollow Clay Tiles*).

Welding. *H. V. Hill.* (See No. 1031 under *Welding*).

Long Span Concrete Roof Construction. *C. H. Mayer.* (*Journal of the American Concrete Institute, April*, 1943, *pp.* 389-396.) Simple Howe truss supporting a continuous monitor for light and ventilation. (*No.* 1185 : 22.7.43 : *p.* 62).

Building an 82-Acre Concrete Roof with Travelling Retractable Forms. (See No. 1232 under *Moving Form Construction*).

SILOS

Grain Storing and Drying Silos. *Designed by MOW for MOA.* (*The Builder, October* 1, 1943, *pp.* 268-270 ; *The Engineer, October* 8, 1943, *pp.* 291-292 ; *Engineering, October* 8, 1943, *p.* 287.) Erection of fifteen grain drying silos of 5,000 tons capacity each, necessitated by increased grain production in Britain. Simple architecture. Two methods of shuttering. (*No.* 1332 : 23.12.43 : *p.* 470).

SOIL MECHANICS

An Introduction to Soil Mechanics. *W. L. Lowe-Brown.* (*The Engineer, February* 5, 12, 19, 1943, *pp.* 104-106, 124-126, 144-146.) Deficiencies of classical theory proved by failures in cohesive soils. Not always safe to neglect cohesion. Slip surface, previously assumed to be plane, is in fact curved. Resultant of earth pressure nearer to mid-height than to third. Settlement in cohesive soil can be estimated. (*No.* 1107 : 1.4.43 : *p.* 225).

SPECIFICATIONS

USA Emergency Specifications for Steel. (See No. 1030 under *Steel*).

War-Time Construction in the United States. *National Emergency Specifications.* (See No. 1151 under *Reinforced Concrete*).

STANDARDS

A Proposed Live-Load Reduction Formula for Buildings. *C. W. Barber.* (*Civil Engineering (USA) April*, 1942, *pp.* 194-195.) Proposed formula sponsored by Sectional Committee A58 of the American Standards Association for live-load reduction in buildings, depending on the live-load itself and the total accumulated area of the section considered. (*No.* 1075 : 25.2.43 : *p.* 145).

Protection of Structures Against Lightning. *B.S. Code of Practice.* (See No. 1150 under *Lightning Protection*).

STEEL

USA Emergency Specifications for Steel. (*USA War Production Board.*) Increase in basic stress. Guarantee of economy in design. Insistence on continuity and welding. (*No.* 1030 : 28.1.43 : *p.* 80).

Welding. *H. V. Hill.* (See No. 1031 under *Welding*).

War-Time Construction in the United States. *National Emergency Specifications.* (See No. 1151 under *Reinforced Concrete*).

Steel-Frame Building Moved by New Method. (See No. 1171 under *Moving Buildings*).

Prestressed Reinforced Concrete. *K. Hajnal-Kónyi.* (See No. 1175 under *Prestressing*).

Unorthodox Housing Construction, 1920-1939. *G. Fairweather.* (See No. 1240 under *Housing*).

Continuity in Construction. *K. Hajnal-Kónyi.* (*The Architects' Journal, July* 1 *and* 8, 1943, *pp.* 7-10 *and* 23-26. *See also correspondence in Architects' Journal, August* 12, 19, *September* 16, *pp.* 87-88, 123-124, 195-196, *and an example in Architects' Journal, August* 29, *p.* 142.) Characteristics and advantages of continuity. Reasons for lack of continuity in multi-storey steel structures in this country. Description of a single-storey welded structure of 80 ft. span. (*No.* 1309 : 2.12.43 : *p.* 415).

Electric Prestressing of Reinforcing Steel Used for Small House Construction. *K. P. Billner.* (See No. 1324 under *Prestressing*).

TESTS

Tests of Composite Timber-Concrete Beams. *F. E. Richart and C. B. Williams.* (See No. 1139 under *Concrete*).

TIMBER

The Economical Use of Timber in Building Construction. (*Zeitschrift des Vereins Deutscher Ingenieure, Nos.* 7-8 *and* 21-22, 1942.) Special German Committee for timber and some of its activities. (*No.* 1118 : 15.4.43 : *p.* 257).

Tests of Composite Timber-Concrete Beams. *F. E. Rickart and C. B. Williams.* (See No. 1139 under *Concrete*).

Blimp Hangars Set New Timber Arch Record. (*Engineering News Record, October* 22, 1943, *pp.* 110-111.) New record in timber arches. Limit set by precedent so far available. Design for temporary loading. (*No.* 1140 : 13.5.43 : *p.* 320).

Concrete and Laminated Wood Framing. (See No. 1141 under *Concrete*).

Timber Structures in USA. *L. P. Keith.* (*Civil Engineering* [*USA*], *October*, 1942, *pp.* 559-562. *Abstract in Civil Engineering* [*London*], *March*, 1943, *pp.* 50-51.) Saving steel by using timber. Speed of construction. Prefabrication. Increased span of structures. Use of smaller sizes of timber. Glued laminated wood. Timber-concrete construction. The *Connector* system. Increase of working stresses. Strength of timber under temporary loading. Saving by transference of load. Grading of timber according to strength. (*No.* 1146: 20.5.43: *p.*337).

Prefabrication in Timber. A Survey of Existing Methods, Part I. *C. Sjostrom, A.R.I.B.A.* (*Issued by The English Joinery Manufacturers' Association, June*, 1943.) Methods of prefabrication in timber considered in all its aspects. History, physical and structural properties, building elements, construction, plywood construction, transport, finishes, cost and maintenance, utilisation of waste products, timber resources, attitude of trade unions and public. (*No.* 1224 : 9.9.43 : *p.* 189).

Unorthodox Housing Construction, 1920-1939. *G. Fairweather.* (See No. 1240 under *Housing*).

Timber Rigid Frames and Trussed Columns. *C. G. Jennings and M. N. Salgo.* (*Engineering News Record, July* 15, 1943, *pp.* 69-71.) Timber bents composed of relatively small members used in several Navy shop buildings. Bowstring trusses knee-braced to trussed columns in one type of bent. Another building incorporated bents of strictly rigid frame design, with the columns in pairs to provide increased rigidity. (*No.* 1244 : 30.9.43 : *p.* 241).

Prefabricated Timber Houses. *TDA.* (See No. 1311 under *Housing*).

Two Travelling Tower Derricks Erect Huge Timber Blimp Hangar. (*Engineering News-Record, April* 22, 1943, *pp.* 542-546.) **Timber Arches for Blimp Dock Erected from Scaffold at Flatcars.** (*Engineering News-Record, August* 26, 1943, *pp.* 320-323.) (*See also Engineering, October* 24, 1943, *pp.* 341-343.) Methods and equipment for erection of timber blimp hangars for USA Navy. (*No.* 1340 : 30.12.43 : *p.* 487).

TRANSPORT

Highway Tunnel under the River Maas, Rotterdam. *K. W. Mautner.* (*The Structural Engineer, February*, 1943, *pp.* 43-65.) Under river tunnel of rectangular cross section accommodating four motor-car tracks, cyclists and pedestrian tracks, composed of precast reinforced concrete caissons of 200 ft. length and 15,000 tons dead weight. New method of forming water-tight joints. (*No.* 1097 : 18.3.43 : *p.* 191).

The Stabilization of Soil by Cement. (*Engineering, August* 27, 1943, *p.* 165 ; *Concrete and Constructional Engineering, September*, 1943, *pp.* 294-297.) Method of paving areas by mixing cement with the soil of the site. (*No.* 1291 : 18.11.43 : *p.* 379).

WELDING

USA Emergency Specifications for Steel. (See No. 1030 under *Steel*).

Welding. *H. V. Hill.* (*Lecture, IAAS,* "*The Parthenon,*" *November*, 1942, *pp.* 16-23.) Influence of welding on design of roof truss. Advantages of portal frame. Welding of awkward connections. Multi-storey buildings. (*No.* 1031 : 28.1.43 : *p.* 80).

The New Waterloo Bridge. *E. J. Buckton and J. Cuerel.* (See No. 1210 under *Bridges*).

Continuity in Construction. *K. Hajnal-Kónyi.* (See No. 1309 under *Steel*).

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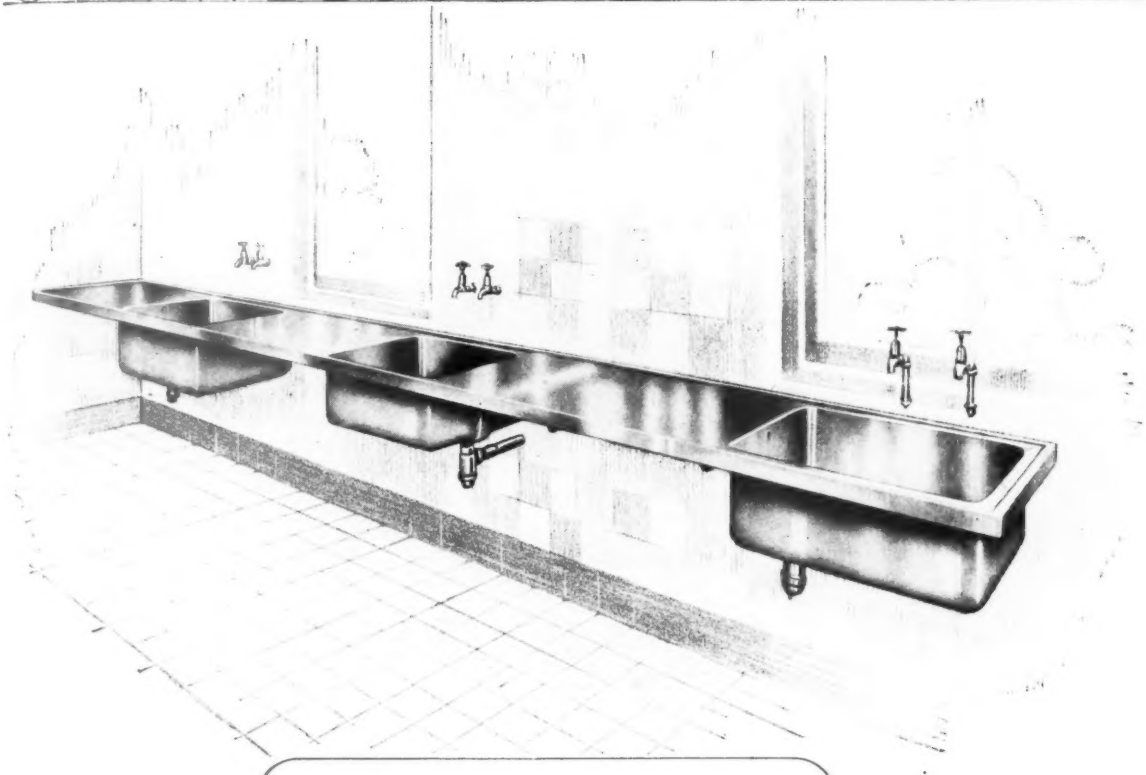

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