

THERMAL AND SOUND INSULATION at permanent peak efficiency!

INSULATION in building is never an easy problem although Slagbestos—the perfected mineral wool—is a tremendous asset in solving it.

Slagbestos possesses many virtues in addition to splendid insulating properties against both heat and sound. It is completely fireproof and its presence between floors and between partition walls can confine to within controllable limits an otherwise dangerous outbreak of fire.

Slagbestos mineral wool is light in weight, vermin proof and sterile. It does not disintegrate and is unaffected by moisture or changes in temperature. It is easy to handle, uniform in quality and economical in use.

Slagbestos is unrivalled as a material for the protection of buildings and can be supplied in various forms adapted to the duties for which it is required.

Full particulars, samples, prices and details of supplies available will be forwarded on request.

SLAGBESTOS The Perfected Mineral Wool

F. McNEILL & CO., LTD. • 10, LOWER GROSVENOR PLACE, LONDON, S.W.1
Telephone: Victoria 6022/4. Telegrams: "Eyeball" London

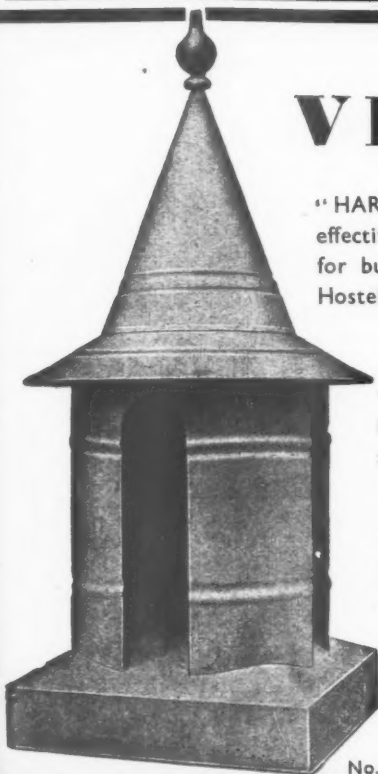
"HARCO" VENTILATORS

"HARCO" Self-acting Ventilators ensure an effective draught-free method of ventilation for buildings of any type—Camp Hutments, Hostels, Hospitals, Schools, Workshops, etc.

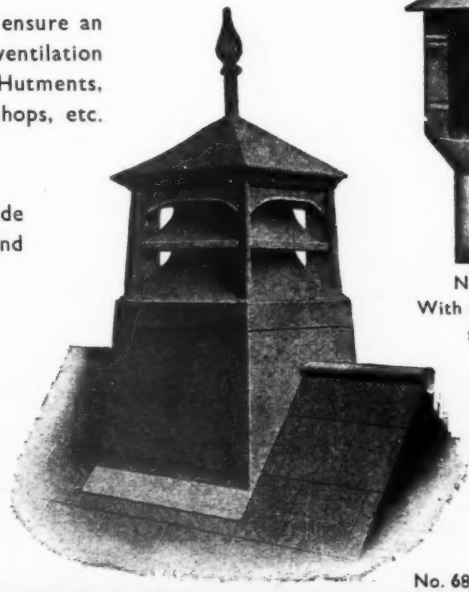
"HARCO" Ventilators are made in a wide range of patterns and sizes.

MILD STEEL
VENTILATING PIPING
in any size, gauge or
section.

Write for illustrated
Catalogue K 481.



No. 102



No. 104
With round pipe
stem.

No. 68

G. A. HARVEY & CO. (LONDON) LTD. WOOLWICH RD.
LONDON S.E.7.



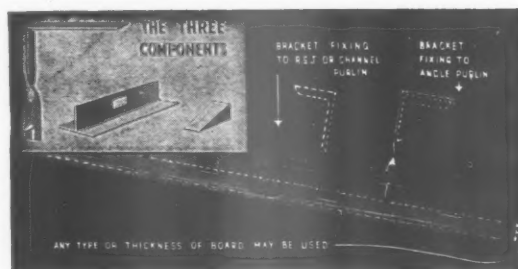
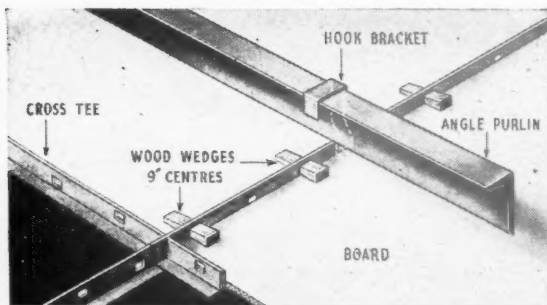
Patent No. 519406

FOR APPLYING ANY TYPE OF BOARD TO CEILING & WALLS

The Wallboard is secured to sherardised, pressed steel, slotted T-section by wedges. Below are shown the methods of attaching the support to various forms of purlin.



Escalator Tunnel of St. John's Wood Underground Station. Architect: S. A. Heaps.



8 POINTS TO BE NOTED

1. Fixed to **UNDERSIDE** of purlins—steel or wood—covering unsightly hook bolts, clips, etc.
2. Assures the insulating value of air-space between roof and underside of purlins. No dust or dirt.
3. Can be fixed to steel or wood purlins of roofs and joists of flat ceiling.
4. No unsightly nail heads showing.
5. Can be applied to new or old buildings of any construction independently of the roofing contractor,
6. who proceeds with his work ahead of the AnD Wedge Method.
6. Any thickness of board can be used, from $\frac{1}{8}$ " to $\frac{3}{4}$ ".
7. This method can be used for applying linings to exterior walls.
8. The simplicity of application is such that any contractor can apply the AnD Wedge Method, and the materials making up this method can be purchased by the contractor.

Full particulars, specification and a typical layout will be sent on request

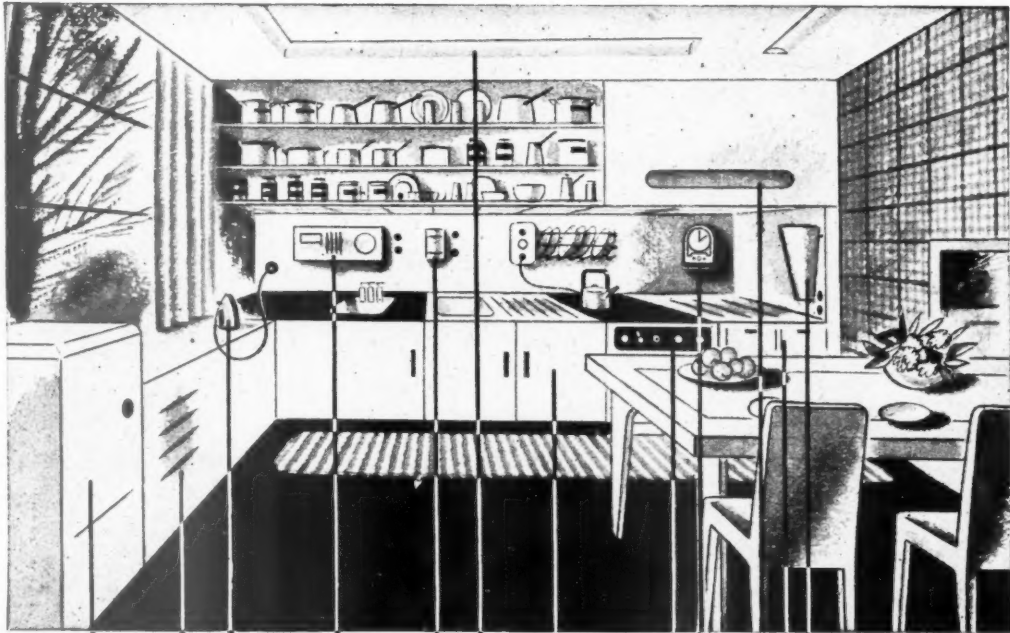
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Wallboards for Government Work

Send us your "certificate of requirements" (such as Form/WD/I War Dept.) and we will arrange for licence application to Paper Control
HARRIS WHARF, GRAHAM STREET, LONDON, N.1. TELEPHONE: CLERKENWELL 4582

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Nº 3 THE KITCHEN



1
Electric
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5
Electric
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6
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Lighting

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and Dryer

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CLOCKS
plug in to Greenwich time



SMITH'S ENGLISH CLOCKS LTD., CRICKLEWOOD WORKS, LONDON, N.W.2
Scientific A.B.34



VENT-AXIA
FOR BETTER AIR CONDITIONS

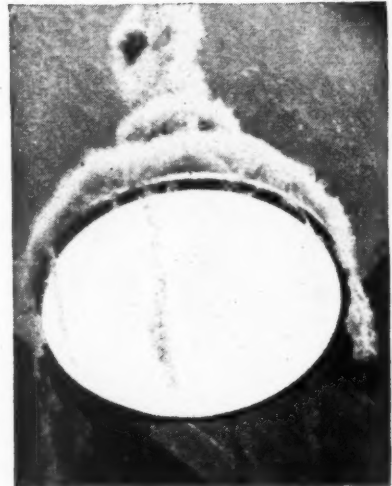
VENT-AXIA LTD. 9 VICTORIA STREET, LONDON, S.W.1 AND AT GLASGOW & MANCHESTER

BENJAMIN LIGHTING DATA

14

BENJAMIN VISOR GLASSES PREVENT DEPRECIATION DUE TO DIRT

Benjamin Visor glass fronts clip securely over the mouth of reflectors, sealing the interior so that dirt will not penetrate. It can only settle on the underside of the glass — special glass to stand up to the heat—and very little dirt settles there. As a result, the lamp and the reflecting surfaces can go on doing their job as efficiently as when new, and the clear glass of the visor only needs to be wiped over to keep it clean.



BENJAMIN CLEANER

is specially prepared for the easy removal of dirt from porcelain enamel without scratching the surface. It is supplied in convenient size tins.

Frosted and Opal glass types are also available for use in particular situations where a degree of diffusion of the light is required. They are mounted in the same metal band and are equally dirt-proof.

This is No. 14 of a series of data sheets on many aspects of lighting. If you have not seen the others, write for them.

BENJAMIN

THE BENJAMIN ELECTRIC LIMITED
Brantwood Works, Tottenham, London, N.17

Telegrams: "Benjalect, Southcot, London"

Telephone: Tottenham 5252 (5 lines)



LIGHTING APPLICATION BY BENJAMIN ENGINEERS

May we do your bending?

BENDING LIST				
Contract				
Location	No of Bars	Size		Bar Mark
Floor Slab		Reinforcement		
Top	38	5/8"		462
Reinforcement	5	1/2"		463
	1	1/2"		464
	1	1/2"	5'-0"	465
	5	1/2"	12'-6"	466
	1	1/2"	9'-0"	467
	178	3/4"	12'-9"	468
	6	3/4"	6'-0"	486
Walls	108	5/8"	12'-8"	469

Bending, of course, is only part of the service you'll want from your supplier of reinforcing material, but when we get a specification you can leave it to us to do all that's necessary and to see that you get deliveries on time, in the right order, and bundled and labelled for easy handling on the site.

GUEST, KEEN & NETTLEFOLDS LTD.

**GKN
CARDIFF**

CASTLE WORKS AND ROLLING MILLS, CARDIFF. 66, CANNON STREET, LONDON, E.C.4. 111, NEW STREET, BIRMINGHAM.

WIMPEYS AT WORK

Scientific methods in planned Building construction



CHECKING PERFORMANCE WITH PROMISE

In the Operations Control Room at Wimpey Headquarters every job is charted and the sequence of each operation can be checked at a glance. This day-to-day control of progress from the preliminary excavations to the final stages is a guarantee that performance is being constantly matched with promise.

• • •

Time is the essence of the building contract. To Wimpeys time is not merely the fixed date for completion, but time represented by man-hours in many skilled trades, by planning whereby one operation is scheduled to begin at the right

moment and to end as precisely, by the movement of materials from depot to site. Time in building is money — big money. Time saved is money saved but it means also better building, for both men and materials are best utilised by planned organisation.

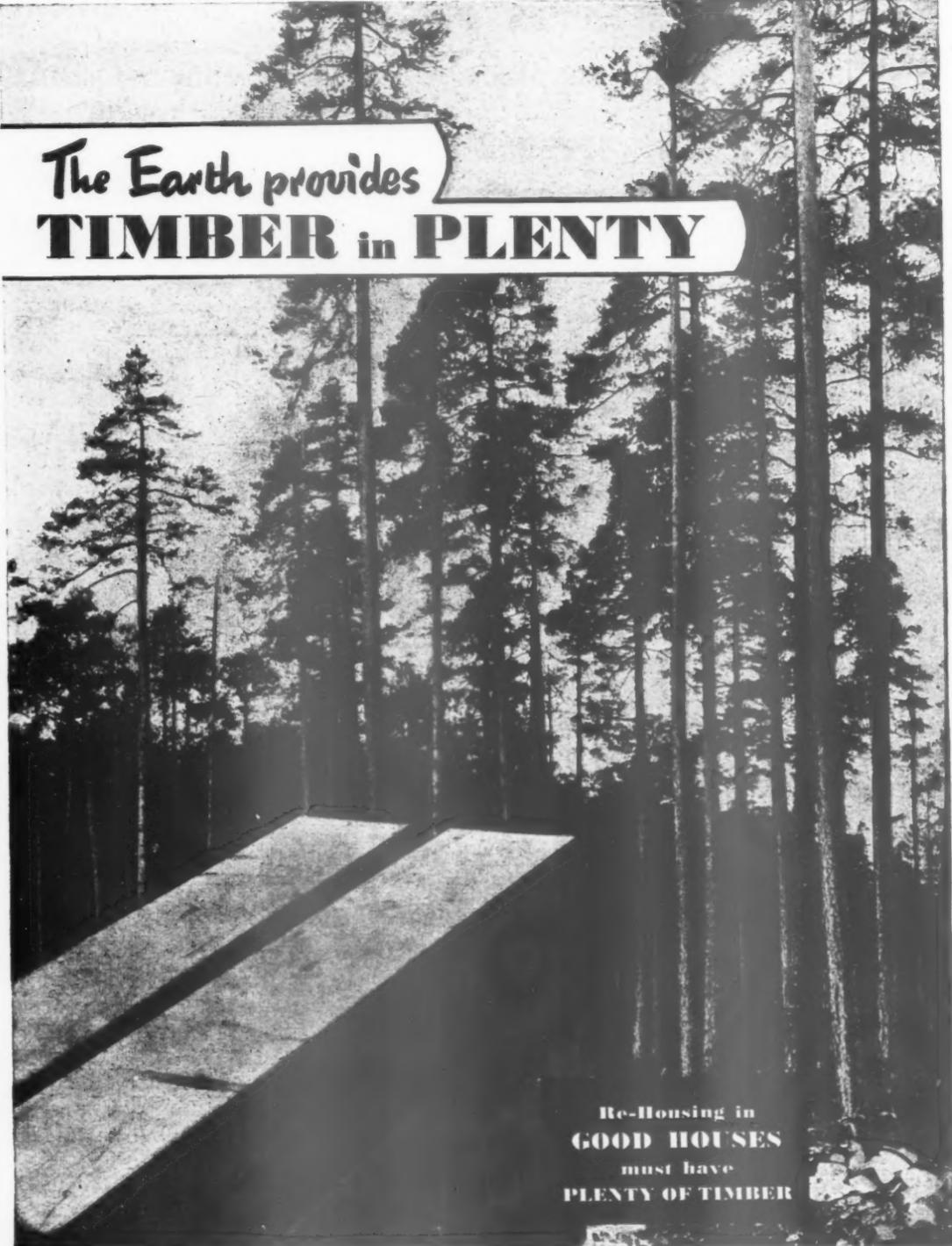
In the Wimpey organisation, building starts with intelligent anticipation of everything in the complete job — putting all the skill and brains into the thinking before the building operations actually begin. Men and materials, methods and machinery, each of these four

important factors is picked with scrupulous care. Wherever science can help in the laboratory, in research, in organisation, it is utilised to the full.

Sixty years of steady growth have taken Wimpeys to the front rank of a great industry.

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BUILDING CONTRACTORS SINCE 1880



The Earth provides
TIMBER in PLENTY

Re-Housing in
GOOD HOUSES
must have
PLENTY OF TIMBER

JOHN SADD & SONS LTD.
HIGH-GLASS JOINERY

Windows, Dressers, Staircases, Doors, Kitchen Units, Mouldings
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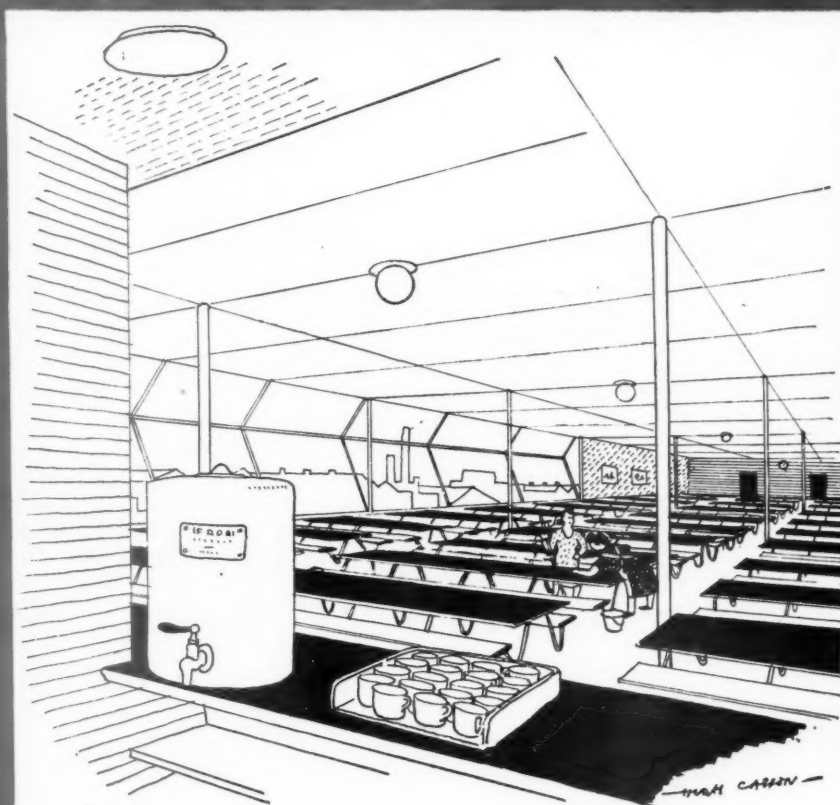
Telephone : Maldon 131.

London Office: ALDWYCH HOUSE, W.C.2.

Telephone: Holborn 7225

Stoneham & Kirk

Colour scheme for a factory canteen?



A factory workers' canteen is used for short periods — at regular intervals. Therefore the colour scheme can and should be bright and stimulating, but not to such a degree that it becomes garish and tiresome when seen day after day. Under the contemporary "Workers' playtime" system, the canteen is often used for entertainments, concerts, dances and so forth, and should therefore create an appropriate atmosphere — warm, welcoming, gay.

Considerations such as these — functional, psychological and æsthetic — will underlie the soundly-planned colour scheme of the future. But with all this, of course, will go a care for the goodness of the materials. The paints specified should obviously

cover well, obliterate well, last well and wash well. Here is a suggested specification: (1) columns: brilliant lemon yellow oil paint; (2) ceiling: pale wedgwood blue; (3) plaster walls: pearl grey; (4) exposed brick: pale biscuit; (5) floor and benches: natural wood; (6) table tops, counters, etc.: burnt red; (7) window frames: white.

★ Reproductions of this series, with actual colour references, will be supplied on request, price 1d. each. Previous subjects include Portal Estate, Factory Corridor, Concert Hall. Please write to The Silicate Paint Co., J. B. Orr & Company Ltd., Charlton, London, S.E.7.

DURESCO

The King of Water Paints

KEX PRODUCTS

KEXACRETE

A Stable Silica Solution derived from a Silicic Ester
Kexacrete is an important new addition in the field of Damp and Weather proofing. Its main application is for the protection of porous building materials such as reinforced concrete, pre-cast artificial stone, floors in situ, etc. It is supplied as a clear, colourless or stained solution, and although derived from a Silicic Ester, is now made in a stable form. The fact that single-brick building has been permitted, provided the brick-work was treated with Kexacrete, is evidence of its permanent effectiveness.

All interested can receive expert advice on Kexacrete's many new uses.

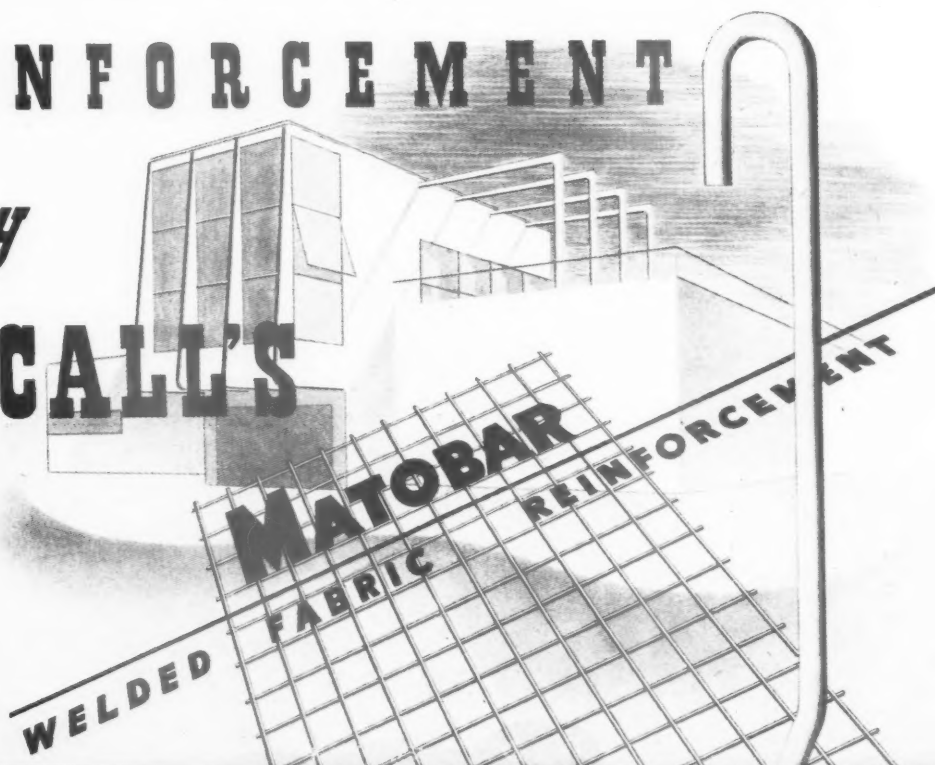


Kautex Plastics Ltd
Elstree, Herts. Elstree 1777


REINFORCEMENT

by

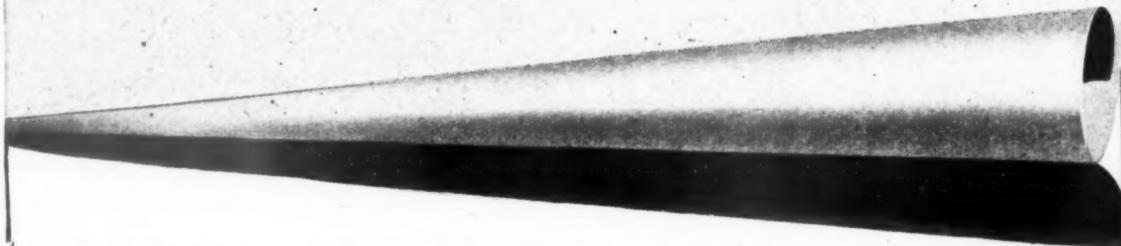
McCALL'S



McCALL & CO. (SHEFFIELD) LTD. • TEMPLEBOROUGH • SHEFFIELD and at LONDON



**“Dunlop are not
only makers of
products in rubber
they are makers of
history in rubber”**



RUBBER FLOORS FOR EVERY BUILDING

Dunlop Service in the design, manufacture and installation of rubber floors will be resumed as soon as possible after the war. In the interim the company will welcome opportunities of collaboration in the planning of rubber floors for post-war building.

DUNLOP RUBBER CO. LTD. (General Rubber Goods Division)

Works and Head Office: Cambridge Street, Manchester.

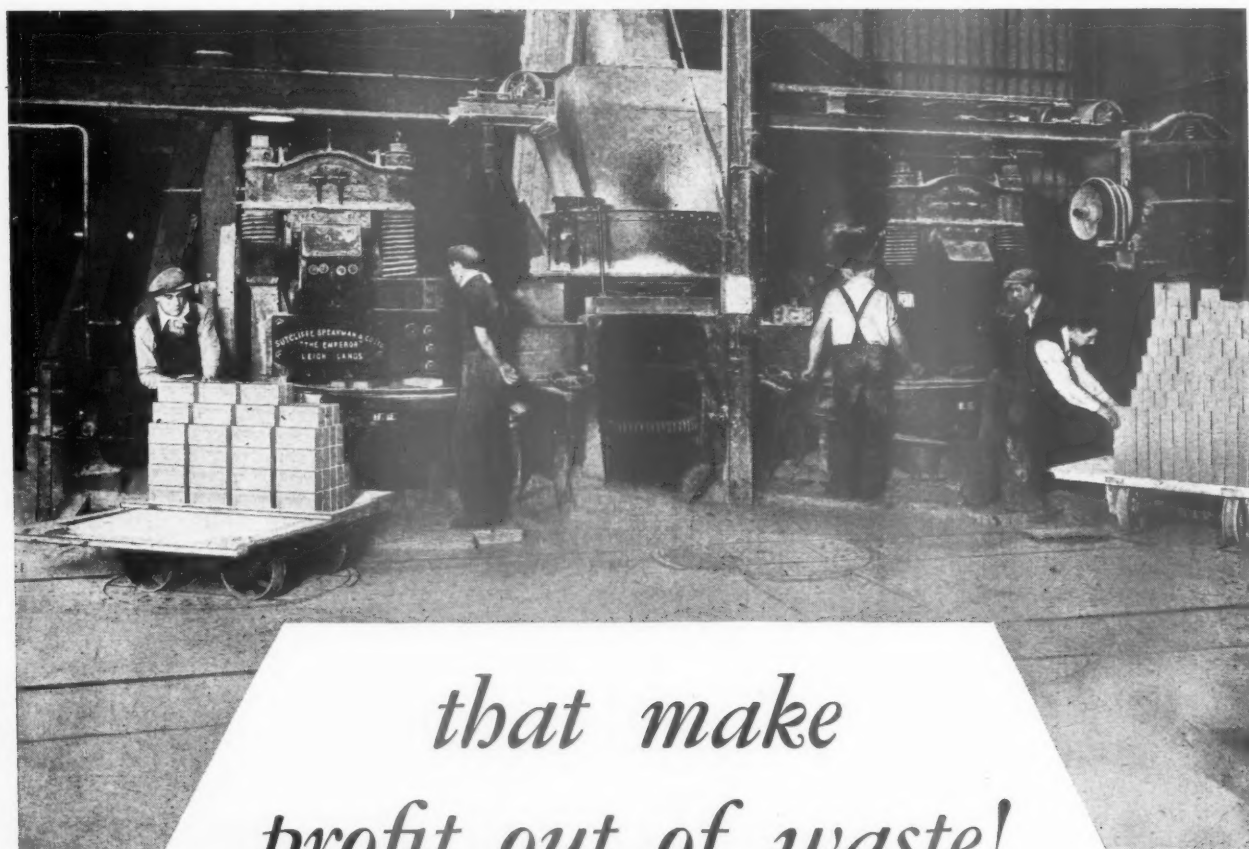
London: Clerkenwell House,
Clerkenwell Green, E.C.1.

Liverpool: 24, Cornhill,
Park Lane, 1.

Birmingham: Dunlop House,
Livery Street, 3.

Glasgow: 48-60 and 70-78,
North Wallace Street, C.4.

The Machines...



*that make
profit out of waste!*

The "Emperor" Presses shown in this illustration are being used for the manufacture of Sand Lime Bricks. They also give excellent results in manufacturing bricks from waste materials such as shale, clinker, ashes, etc. "Emperor" Presses are made in various sizes capable of producing from 1,200 to 2,400 bricks per hour and of exerting a pressure of from 100 to 200 tons. We have been manufacturing Brickmaking and Briquetting plant for over 50 years and undertake the erection of complete brick works, including the constructional work. We're always ready to give the benefit of our experience to people who make bricks or are interested in doing so.

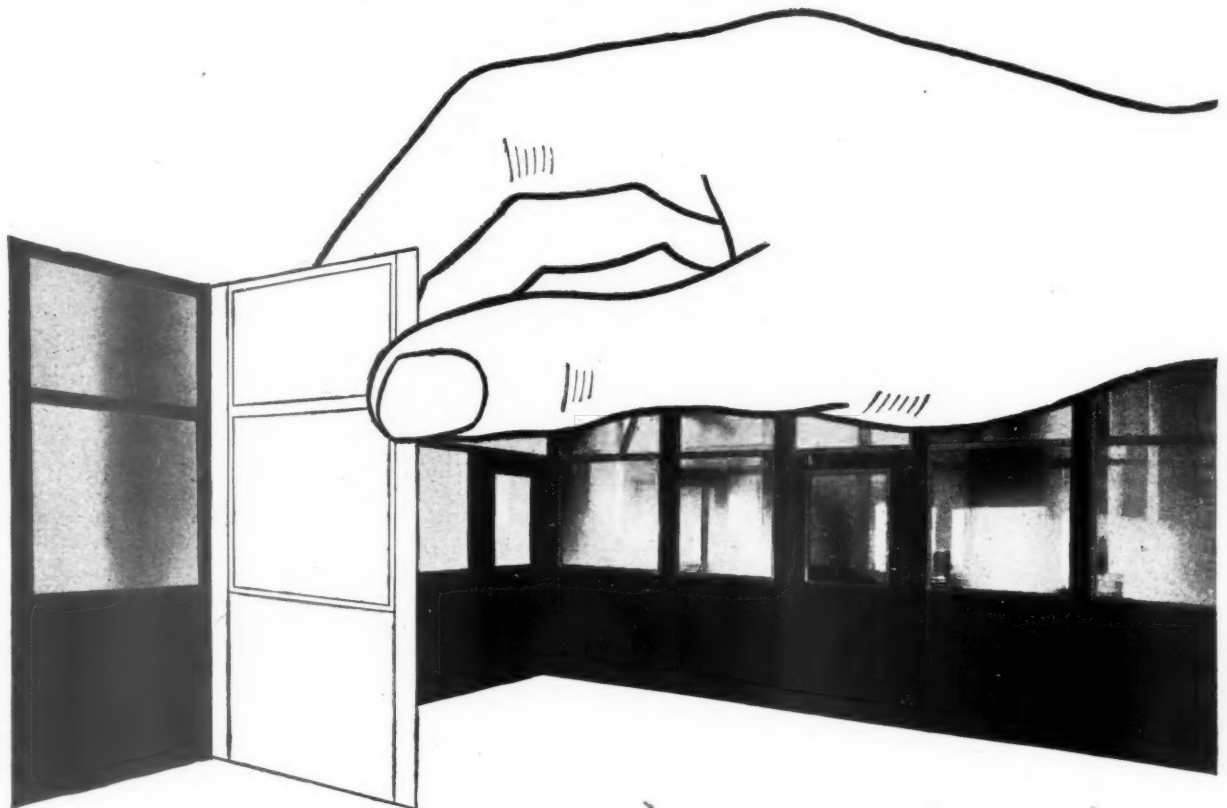
SUTCLIFFE SPEAKMAN
AND COMPANY LTD., LEIGH, LANCASHIRE

LONDON OFFICE: 66 VICTORIA STREET. TELEPHONE: VICTORIA 7982-3



PLAN FOR CHANGE Plan your office so that it can be adapted to the post-war changes in your business. Sankey-Sheldon Steel Partitions are supplied in standard sections that can easily be erected, re-erected or added to, according to the accommodation required. They are strong and convey a sense of permanence and solidity. The durable finish can be cleaned like a motor car body and never needs re-decoration. A range of attractive colours is available. For adjustable, fire-resisting, vermin-proof and space-saving office accommodation—let Sankey-Sheldon help you to

PARTITION WITH STEEL



SANKEY-SHELDON
STEEL EQUIPMENT AND FURNITURE

Chief Office: 46 Cannon Street, London, E.C.4

ALSO HARRIS & SHELDON LTD., MAKERS OF SHOPS

Enquiries to Sankey-Sheldon, Dept. A.J., 46 Cannon Street, E.C.4

He couldn't
believe his eyes!

'Replicate' doors reproduce the true quality of high grade veneers of the choicest woods. Their fidelity is remarkable, and they are really indistinguishable from the originals.

As 'Replicate' doors reproduce only selected perfect specimens, they give you beauty which would otherwise be beyond reach.

In production after the war,



'replicate' doors

frankly a reproduction

F. HILLS & SONS LIMITED

• MANCHESTER 17.

® RD 11



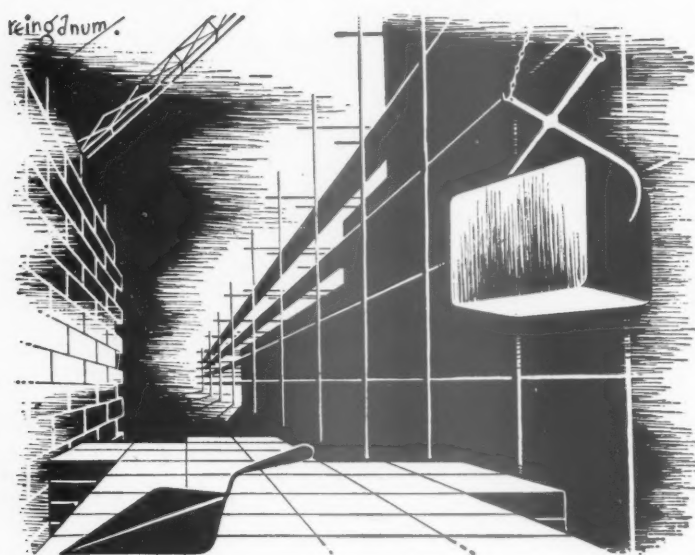
CONCRETE FLOORS FREE FROM DUSTING

by simple application of Tretol
Fluat to Old and New Floors
Oil and Acid resisting

TRETOL FLUAT CEMENT SURFACE HARDENER

Tretol Ltd., 12 North End Road, London, N.W.11. Tel. Speedwell 2866

Non-ferrous Metals



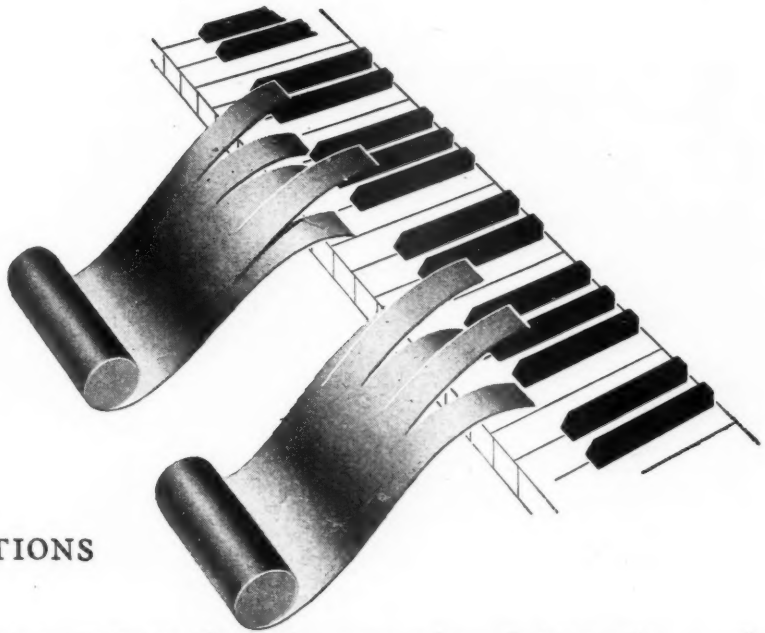
for the
Building
Industry

The pace of post-war building reconstruction will depend greatly on the planning that has been done beforehand. Collaboration of producer, architect and contractor will quicken the pace and ensure at the outset the use of the most suitable materials for different classes of work. In the field of non-ferrous metals the Metals Division of I.C.I. offer their whole-hearted co-operation. As manufacturers of extruded sections for all architectural purposes, copper roofing sheets, copper expansion joints, copper damp-proof courses and many other items of building equipment in all kinds of non-ferrous metals, I.C.I. possess exceptional manufacturing experience and facilities for research. Enquiries will be welcomed.



Please write to—

IMPERIAL CHEMICAL INDUSTRIES LIMITED
LONDON, S.W.1.



THEME— AND VARIATIONS

LIKELY TO BE HEARD often in the great symphony of reconstruction . . . the theme is IBECO, famous industrial waterproof paper ; and the variations are its manifold applications to the problems of building and rebuilding.

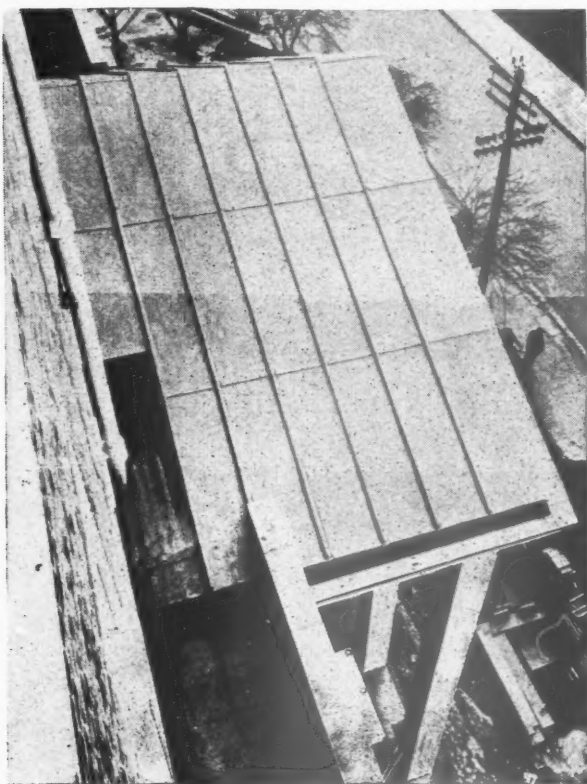
IBECO, like many apt solutions to difficult problems, is simple in itself. It is a tough, light, easily handled kraft paper that is *an impenetrable barrier to damp or actual moisture*. Once its possibilities are fully realised, the conscientious, practical, progressive builder will find a multiplicity of uses for it.

It will go under every lay of concrete he makes, as a positive safeguard against uneven hydration and honeycombing. It will underlie every wood-block or parquet floor to prevent damp rising. It will turn out to be a "natural" for sarking jobs. It will prove an ideal interlay between concrete and asphalt in roofing work. It will line the walls of wooden structures to keep out wind and weather . . .

The secret of IBECO's perfect fitness for all these functions is that its waterproofing is part of the paper itself. The proofing bitumen is mingled with the paper fibres while these are still in the fluid state. No amount of folding, handling, trampling can impair its damp-resisting properties. It does not crack or perish. Add that IBECO is low in cost, British made, easy to store and transport and it will be clear that our first sentence was no exaggeration ! You should know about IBECO in detail. Write for samples and fuller information to C. Davidson & Sons Ltd., (Dept. K.37), Mugie Moss, Aberdeen.



WATERPROOF KRAFT PAPER



LEAD is once more *freely* at your service

There's no longer any need to deny the protective properties of sheet lead to any building work you now undertake, and no need to worry about what substance has been approved by the Control for each individual job. All restrictions on the use of Lead sheet or pipe for building work have now been withdrawn, and they can be freely used in all cases in which their unique workability or protective properties make them the most suitable materials.

TIB Most of the knowledge gained from past experience in the application of Lead sheet and pipe to building problems is summarised in freely available Information Sheets and Technical Bulletins. The Technical Information Bureau exists to supply information about new developments and to assist in new applications.

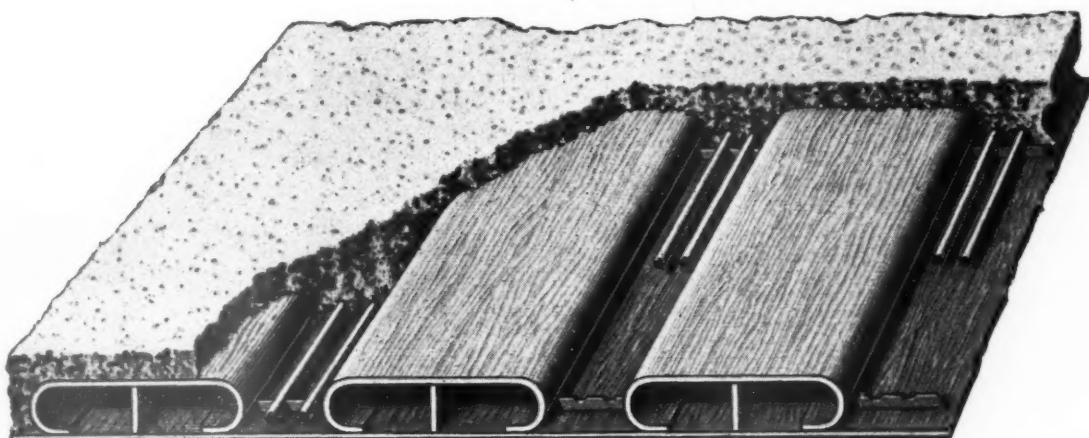


h
LEAD

LEAD INDUSTRIES DEVELOPMENT COUNCIL
EAGLE HOUSE, JERMYN STREET, LONDON, S.W.1

B.17

Speeds up Building, reduces Man Hours and Housing Costs



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FORMWORK

- ◆ A permanent formwork for floors, walls and roofs.
- ◆ Provides resin bonded plywood soffit ready for decoration.
- ◆ Two men can place in position 100 square yards per hour.
- ◆ No centering required, props and spreaders at 6ft. centres only. No timber wasted.
- ◆ Fitted with service conduits and steel reinforcement ready for concrete.
- ◆ Standard sizes up to 4ft. \times 18ft. or to specification.
- ◆ The substantial saving in weight reduces the ultimate cost of the building without in any way affecting the strength of the floors.

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CENTRAL 4962

HOLBORN 2061
And BRISTOL.

FP. 451

Save this man's time



1 easy to fix

The New Empire Multi-point is held by a back plate fixed by 6 screws, together with the baffler.

2 easy to maintain

Heat Exchanger or valve or burner can be removed independently and without dismantling baffler, vent pipe or plumbing installation.

3 simple to use

The Ewart Geyser is made with the single-minded aim of giving trouble-free service. The valve embodies every operational safeguard; the Jet Burner is self-cleaning and non-corrosive. Water temperature is regulated at will.

4 standardisation

Tapered BSP threads are now standard on all Ewart Geysers, enabling commercial pipe fittings to be used and ensuring water-tight joints. The baffler has a B.S. vent-pipe connection.



by specifying
EWART
GEYSERS

EWART & SON, LTD. LETCHWORTH, Herts.—Letchworth 1191—Established 1834

**FOR EVERY
TYPE OF
BUILDING**

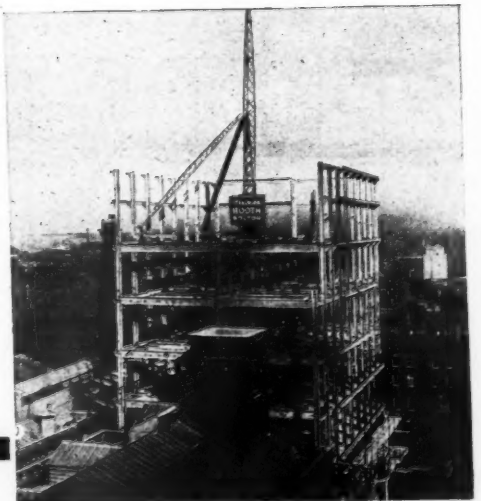


**STRUCTURAL STEELWORK BY
BOOTH, BOLTON**

**ENSURES SAFE, SPEEDY &
ECONOMICAL ERECTION**

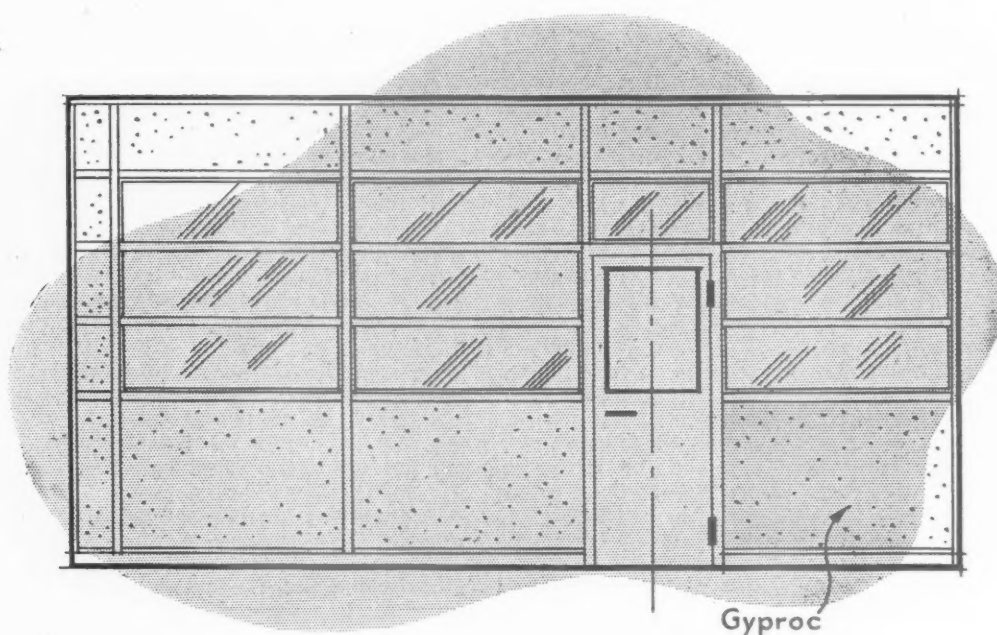


**JOHN BOOTH & SONS
(BOLTON) LTD.**



UNIT CONSTRUCTION

Partitions



The sketch shows a typical elevation of a GYPSTELE partition, incorporating GYPROC fire-resisting plaster board as panels, with patented rustproofed metal structural members, panel strips and fittings. This type of lightweight partition is structurally strong, can be erected without damage to existing floors, walls or ceilings, gives good sound resistance, and because of the unit construction has 100% salvage value if dismantled or moved.

Further information from Information Sheet 834, and "Facts About Bundled Wall and Ceiling Board," copies of which are freely available.

GYPSTELE

UNIT CONSTRUCTION

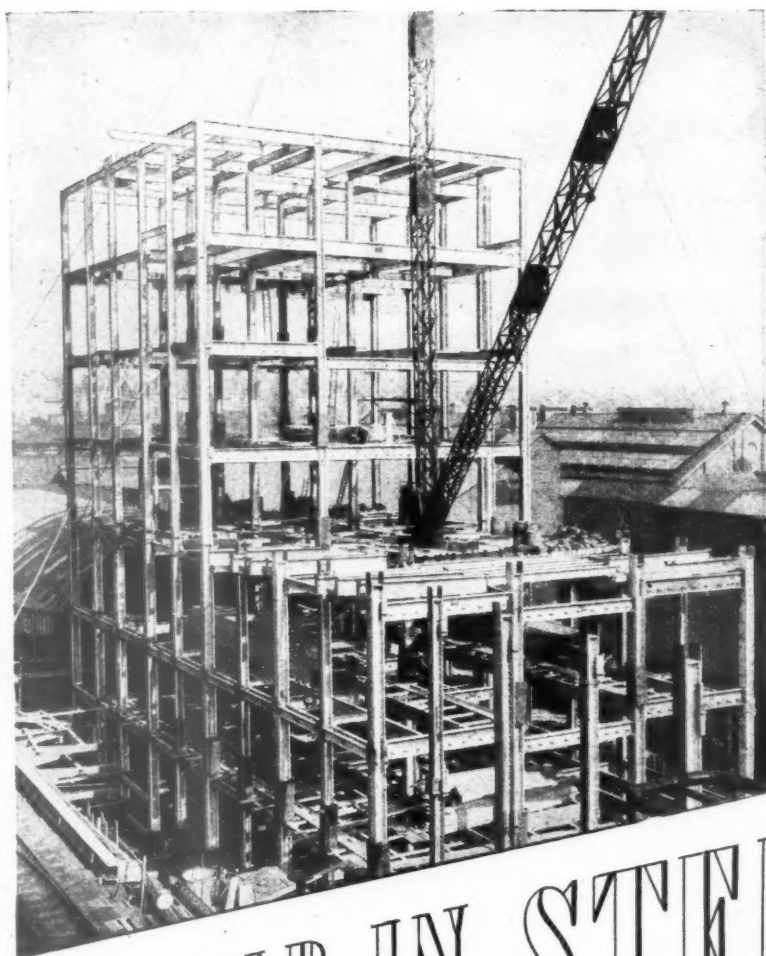
PARTITIONS

GYPROC PRODUCTS LIMITED

HEAD OFFICE: Westfield, Upper Singewell Road, Gravesend, Kent.
Telephone: Gravesend 4251-4 Telegrams: Gyproc, Gravesend.

GLASGOW OFFICE: Gyproc Wharf, Shieldhall, Glasgow, S.W.1
Telephone: Govan 614. Telegrams: Gyproc, Glasgow.

REGISTERED OFFICE: 21 St. James's Square, London, S.W.1.
Telephone: Whitehall 8021.



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New**

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**Build
True**

BUILD IN STEEL!

Build in Steel, which has proved in this war its superiority to all other constructional materials. The HORSELEY-PIGGOTT Structural Organization has been foremost in the development of steel construction for nearly two centuries. Today the experience and the craftsmanship of an unrivalled body of steel constructional experts is at your service for post-war development.

**ENTRUST YOUR RECONSTRUCTION TO THE
HORSELEY-PIGGOTT ORGANIZATION**

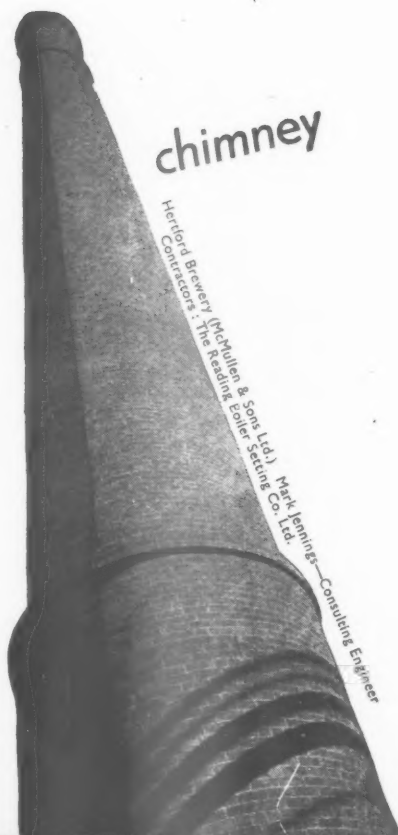
HORSELEY-PIGGOTT
HORSELEY BRIDGE AND THOMAS PIGGOTT LTD.

HORSELEY WORKS • TIPTON • STAFFS • PHONE: 1104 P.B.X.
LONDON OFFICE: 22, CARLISLE PLACE, WESTMINSTER, S.W.1

There is no peace for the bricks in an industrial

No other type of structure imposes such severe and fluctuating loads upon the bricks. From footings to cap they must maintain a standard of performance far in excess of that which any other type of building demands . . . For many years the leading firms of Industrial Chimney specialists have preferred PHORPRES Bricks. One firm alone—Chimneys Limited—have built 259 industrial chimneys using PHORPRES bricks.

**The foundations of a house
are child's play by comparison.**



chimney

Heyford Brewery (McMullen & Sons Ltd.) Mark Jennings—Consulting Engineer
Contractors: The Reading Engineering Co. Ltd.



LONDON BRICK COMPANY LIMITED

HEAD OFFICE: STEWARTBY, BEDFORD, BEDS.

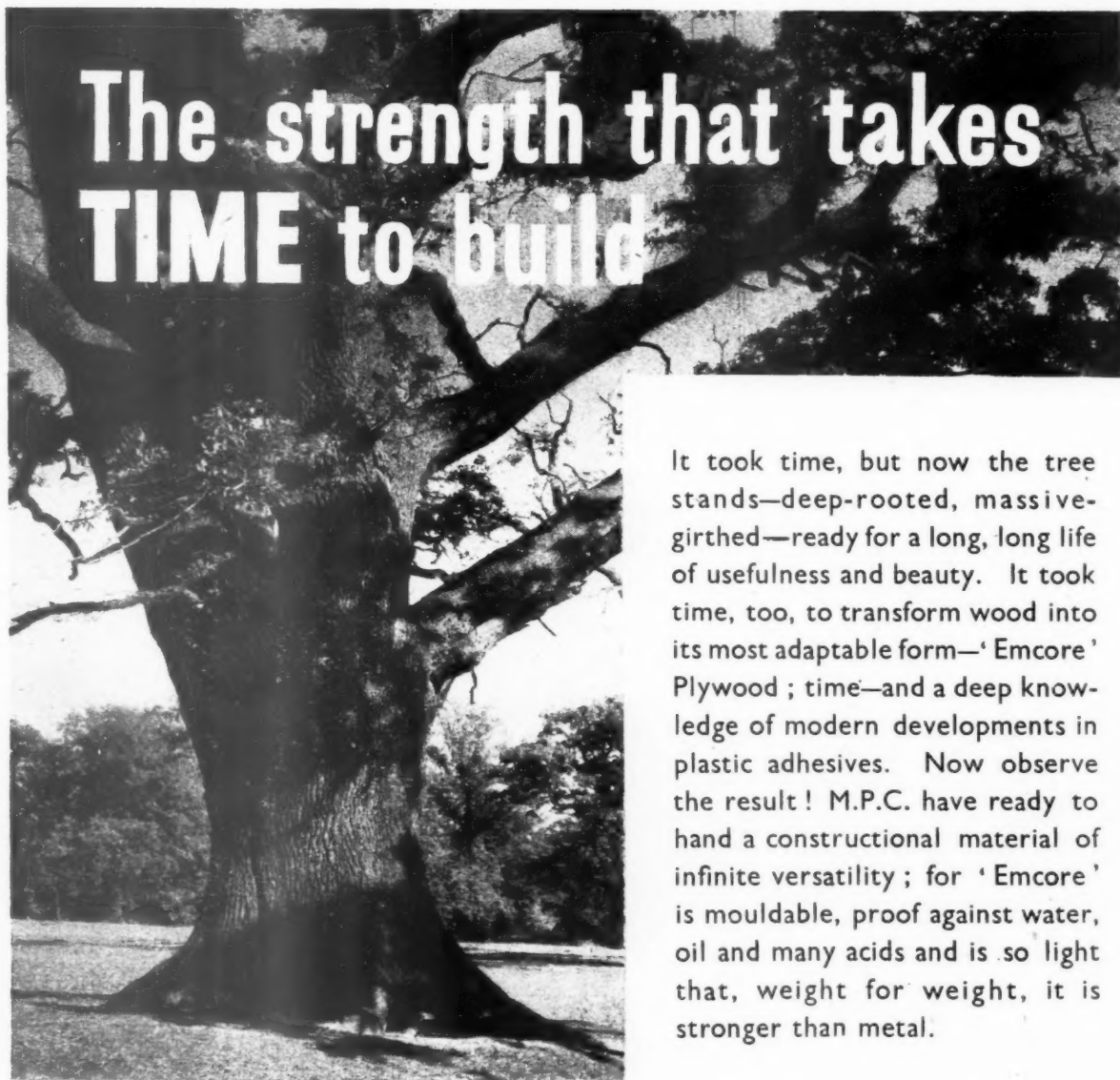
BIRMINGHAM OFFICE: PRUDENTIAL BUILDINGS, ST. PHILIP'S PLACE, BIRMINGHAM, 3

BRISTOL DEPOT: ASHLEY HILL GOODS DEPOT (G.W.R.) ASHLEY HILL.

Telephone: KEMPSTON 3131

Telephone: COLMORE 4141

Telephone: BRISTOL 46572



It took time, but now the tree stands—deep-rooted, massive-girthed—ready for a long, long life of usefulness and beauty. It took time, too, to transform wood into its most adaptable form—'Emcore' Plywood; time—and a deep knowledge of modern developments in plastic adhesives. Now observe the result! M.P.C. have ready to hand a constructional material of infinite versatility; for 'Emcore' is mouldable, proof against water, oil and many acids and is so light that, weight for weight, it is stronger than metal.

'EMCORE' PLYWOOD



**PLASTIC BONDED • METAL-FACED • ASBESTOS COMPOSITE
AIRCRAFT & MARINE • PREFORMED PLYWOOD STRUCTURES**

METROPOLITAN PLYWOOD COMPANY • LEONARD STREET • LONDON • E.C.2



WILL PLASTICS REPLACE WOOD ?



HARDLY A WEEK PASSES without a pronouncement by some prominent person on the subject of plastics and post-war planning. Some of this free publicity for plastics is, unfortunately, apt to mislead. The casual reader sometimes gets the impression that all the old well-known materials—wood, metal, stone and glass—are to become obsolete and that we shall soon be living in an almost one hundred per cent. plastics world.

Nothing could be more fallacious—or more detrimental to the interests of the plastics industry. The sweeping suggestion that 'plastics will replace wood,' for example, is an erroneous one.

It is improbable that plastics will replace wood to any great extent, and though we must speak of our own products, we can say, as one of the leading firms in the industry, that the same is generally true of all plastics. There are certain instances where plastics have outstanding advantages over wood, not by reason of lower cost, for usually the reverse is the case, but because of special properties with which plastics can be endowed, particularly in their resistance to heat, acids and alkalis.

On the other hand, plastics have

been largely responsible for giving wood a vastly increased scope. Plywoods bonded with Bakelite Cements are more durable and so highly resistant to weather action, damp, fungoid growths and vermin as to make them suitable for exterior use in cases where formerly plywood could never have been considered. In addition,

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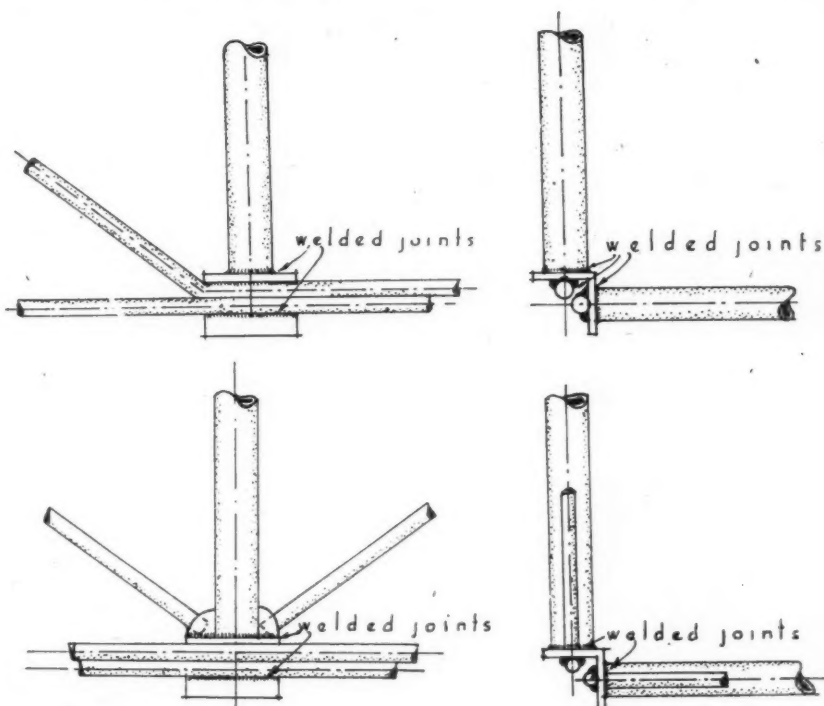
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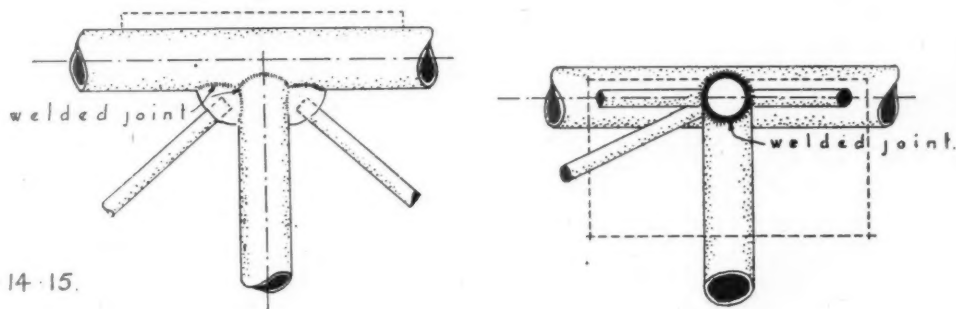
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Data Sheet No. 16

DETAIL AT 17-21



DETAIL AT 19. (18-20 SIMILAR WITH SINGLE BRACE)



DETAIL AT 11-12-13-14-15

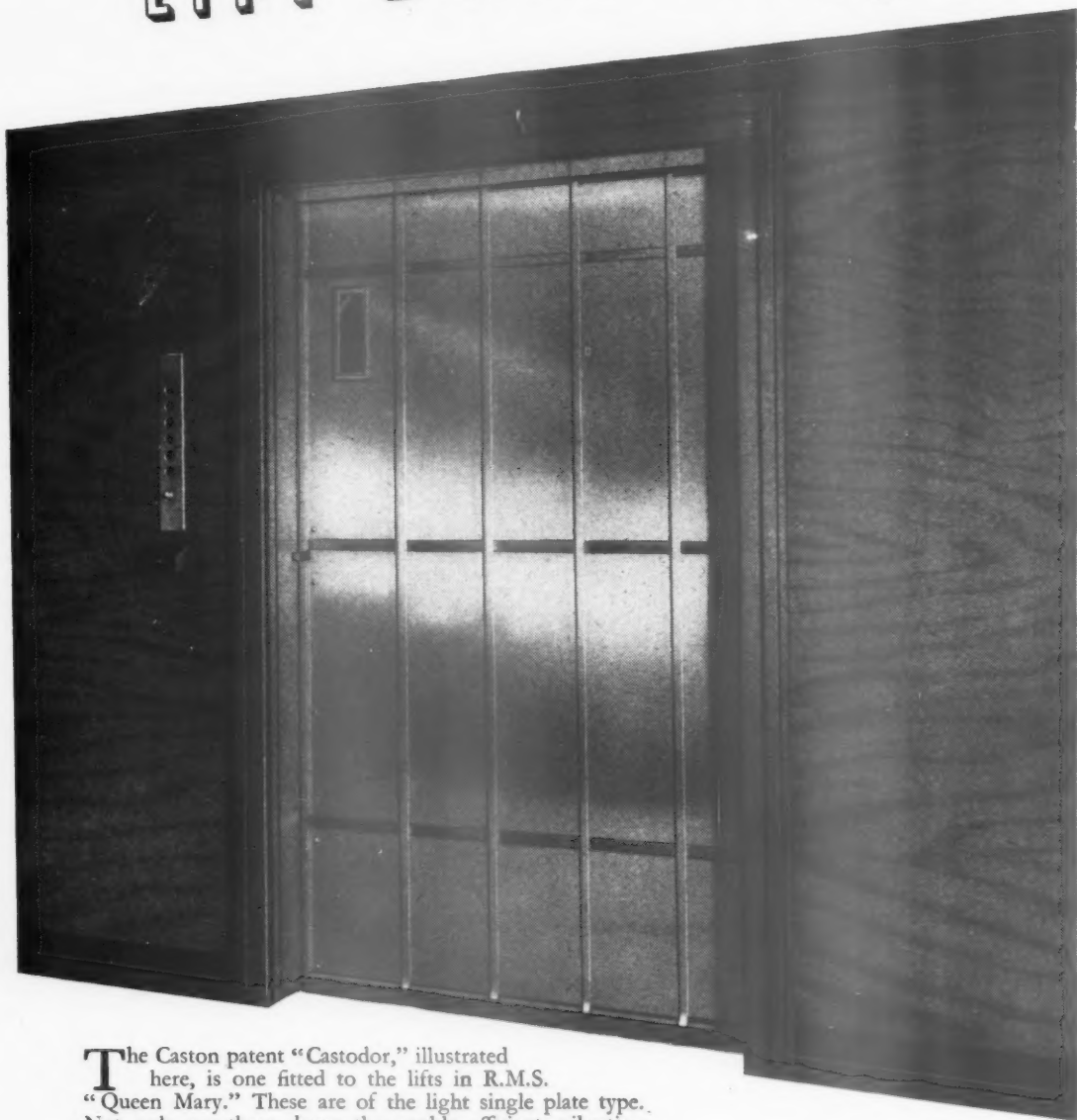
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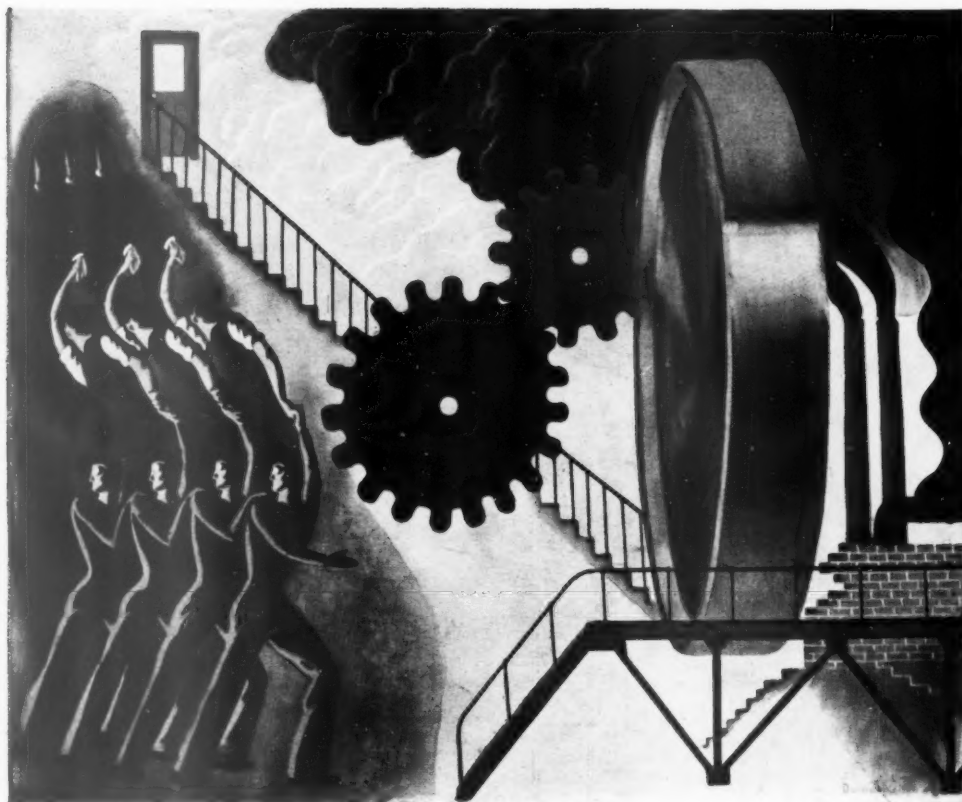
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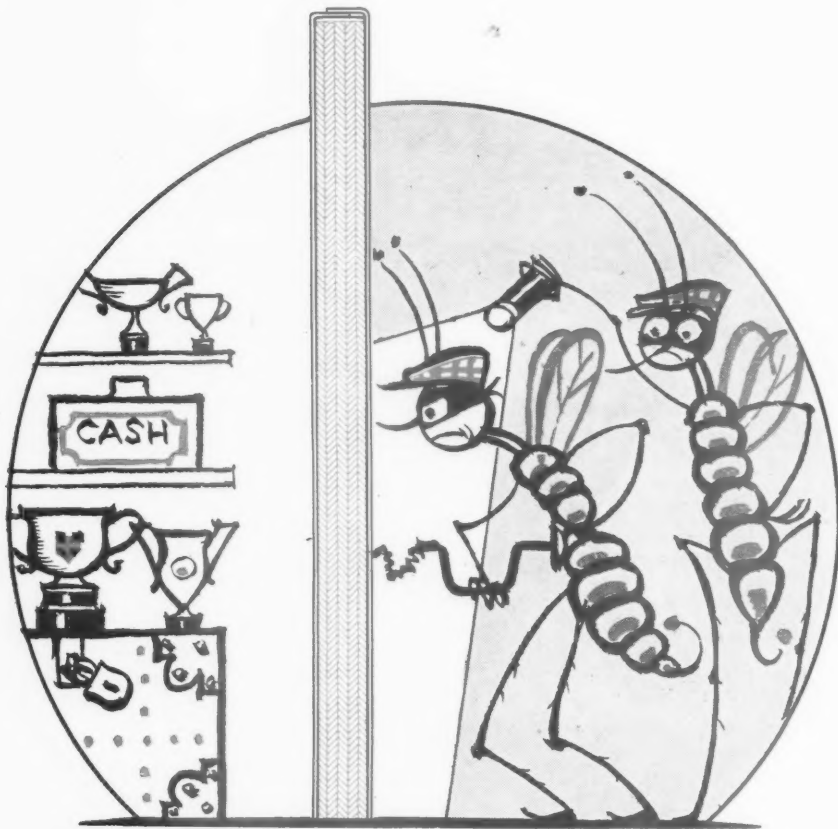
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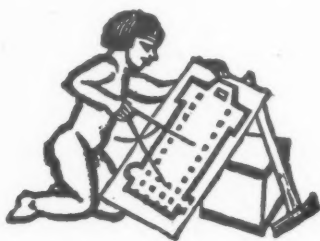
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In common with every other periodical this JOURNAL is rationed to a small part of its peacetime needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the JOURNAL. Newsagents now cannot supply the JOURNAL except to a "firm order."



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DIARY FOR APRIL MAY AND JUNE

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.

BIRMINGHAM. *The English Town: Its Continuity and Development.* At the George Dixon Grammar School, Edgbaston, Birmingham. (Sponsor, TCPA.) MAY 17-31

BUXTON. *The English Town: Its Continuity and Development.* Exhibition. (Sponsor, TCPA.) MAY 1-14

CHESTERFIELD. *When We Build Again.* Exhibition and Film. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) AP. 25-MAY 19

LONDON. R. O. Ackerley. *Factors Influencing the Design of Electric Lighting Installations for Building Interiors.* At the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2. (Sponsor, IEE.) 5.30 p.m. AP. 12

Michael Rachlis. *Mural Painting in Contemporary Architecture.* At International Arts Centre, 3, Orme Square, Bayswater Road, W.2. (Sponsor, IAC.) 7.30 p.m. AP. 13

R. M. Wynne-Edwards. *Building Plant.* Architectural Science Board Lecture. At the RIBA, 66, Portland Place, W.1. (Sponsor, RIBA.) 5.30 p.m. AP. 18

Hope Bagenal. *The Noise Problem in Relation to Town and Country Planning.* At 28, King Street, Covent Garden, W.C.2. (Sponsor, TCPA.) 1.15 p.m. AP. 19

Electrical Association for Women. Twentieth Annual Conference. At the EAW Clubroom, 20, Regent Street, London, S.W.1.—10 a.m., Council Meeting, for Council members only; 12 noon, Buffet Lunch, for Council members. At the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2.—1.15 p.m., Registration of delegates; 2 p.m., Annual General Meeting; 3.30 p.m., Address by the Rt. Hon. Lord Brabazon of Tara (in the chair, the Dowager Lady Swaythling); 4.30 p.m., Tea. AP. 19

Dr. Harry Rosenthal. *Architecture in the Jewish National Home.* At Palestine House, 18, Manchester Square, W.1. (Sponsor, Palestine House.) 5 p.m. AP. 23

Royal Sanitary Institute Sessional Meeting. H. D. Manning. *Design and Construction of Sewage Disposal Works for Wartime Establishments.* Chairman: Dr. James Ferguson, Chairman of Council. (Sponsor, RSI.) 3.30 p.m. AP. 25

R. C. Bevan, of the Building Research Station. *Fire Grading in Building.* Archi-

tectural Science Board Lecture. At the RIBA, 66, Portland Place, W.1. (Sponsor, RIBA.) 5.30 p.m. AP. 25

Professor J. D. Bernal. *The Social Relations of Science.* Trueman Wood Lecture. At the Royal Society of Arts, John Adam Street, Adelphi, W.C.2. (Sponsor, RSA.) 1.45 p.m. MAY 16

T. Alwyn Lloyd. *Preservation of Coastal Amenities in Wales.* At Caxton Hall, Caxton Street, Westminster, S.W.1. (Sponsor, TPI.) 6 p.m. MAY 17

Charles Wheeler, R.A., President of the Royal Society of British Sculptors. *English Sculpture: Styles and Materials.* At the Royal Society of Arts, John Adam Street, W.C.2. (Sponsor, RSA.) 1.45 p.m. AP. 25

H. Conolly. *Planning for Individuals.* At 28, King Street, Covent Garden, W.C.2. (Sponsor, TCPA.) 1.15 p.m. MAY 3

Donald Barber. *Shopping Centres and Town Planning.* At 28, King Street, Covent Garden, W.C.2. (Sponsor, TCPA.) 1.15 p.m. MAY 31

Christian Barman. *Design in Modern Transport.* At the Royal Society of Arts, John Adam Street, Adelphi, W.C.2. The lecture will be illustrated by lantern slides. Chairman, T. E. Thomas, General Manager, London Passenger Transport Board. (Sponsor, RSA.) 1.45 p.m. JUNE 6

Dr. J. M. Mackintosh. *Social Medicine and Town Planning.* At the Town and Country Planning Association, 28, King Street, Covent Garden, W.C.2. Chairman, Dr. Norman Macfadyen. (Sponsor, TCPA.) 1.15 p.m. JUNE 14

LOUGHBOROUGH. *Royal Sanitary Institute Sessional Meeting.* W. Granger, Borough Surveyor and Water Engineer. *Loughborough. Rural Water Supplies: Ideals and Practical Possibilities.* Visits to Loughborough College or the laboratories of the Genatosan Company. Chairman: Dr. A. Massey, C.B.E. (Member of Council). (Sponsor, RSI.) 10.30 a.m. AP. 14

MACHYNLLETH. *Country Life and Country Needs.* Exhibition. At the Town Hall. (Sponsor, BIAE.) AP. 12-30

NORTHAMPTON. *Country Life and Country Needs.* Exhibition. (Sponsor, BIAE.) AP. 12-MAY 7

WALLASEY. *The English Town: Its Continuity and Development.* Exhibition. At the Education Department, Wallasey, Cheshire. (Sponsor, TCPA.) AP. 14-28

NEWS

THURSDAY, APRIL 12, 1945
No. 2620. VOL. 101

News	271
Bombed Buildings Abroad—VII	272
This Week's Leading Article ..	273
Astragal's Notes and Topics ..	274
Letters from Readers	275
Old Chinese Method	276
Development Scheme of Five Houses at Belmont, U.S.A. Designed by Carl Koch ..	277
London Airport Competition. Winning Design.	283
Information Centre	286
Societies and Institutions	288

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

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

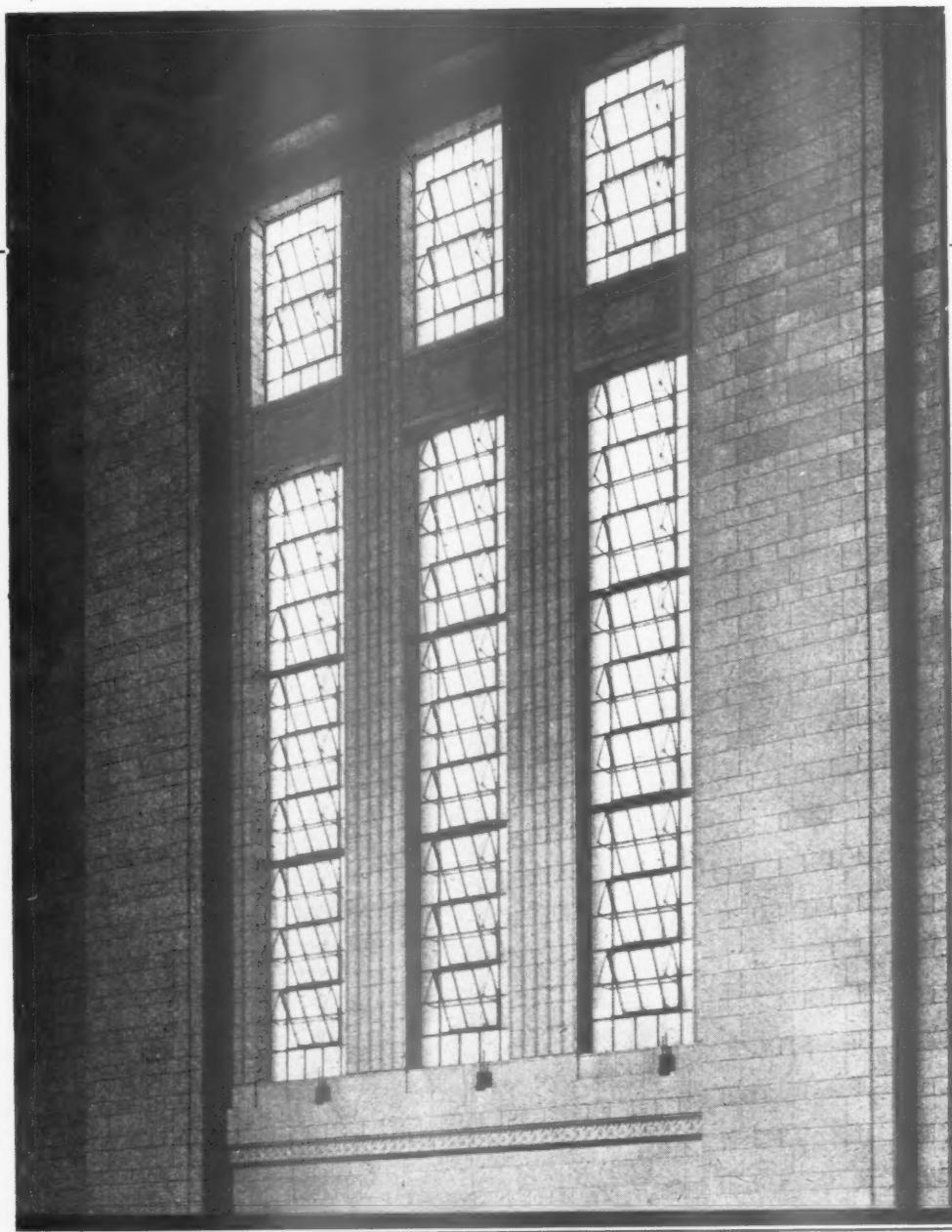
★★ means important news, for reasons which may or may not be obvious. Any feature marked with more than two stars is very big building news indeed.

★
The completion of the 1935-1940 new works programme will be ONE OF THE FIRST POST-WAR TASKS of the London Passenger Transport Board.

Uncompleted plans in this programme, which was suspended in 1939, include: Extension of the Rickmansworth Line to Chesham and Amersham; the Epping and Ongar section of the Central Line; the Bushey Heath extension of the Northern Line; the Denham extension of the Central Line; and the Finsbury Park—Highgate portion of the Northern Line.

To meet rebuilding needs COAST HOTELS WANT OVER THREE MILLION pounds.

At a meeting in London of the Hotel and Catering Industry Survival Movement, Councillor E. M. Ford, the chairman, said: without the provision of finance, labour and materials by the Government, England's East and South Coast holiday resorts will be unable to cater for the millions who will want to spend their holidays there this year. It might be equally impossible next year. The meeting took as its slogan, The Nation owes the Front Line a Debt. It represented 55 resorts, from Scarborough to the Isle of Wight, hard hit by the war. It was stated that £3,500,000 could meet the needs of bankrupt hotels and boarding-houses. At present only about 20,000 bedrooms were available, 10 per cent. of the 1939 figure.



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From AN ARCHITECT'S Commonplace Book

THE CORNER-STONES. [*From The Forsyte Saga, by John Galsworthy*]. "Ah!" murmured Bosinney. "You should patent the word." "I should like," said young Jolyon, "to lecture on it: Properties and quality of a Forsyte. This little animal, disturbed by the ridicule of his own sort, is unaffected in his motions by the laughter of strange creatures (you and I). Hereditarily disposed to myopia, he recognizes only the persons and habitats of his own species, amongst which he passes an existence of competitive tranquility." "You talk of them," said Bosinney, "as if they were half England." "They are," repeated young Jolyon, "half England, and the better half, too, the safe half, the three per cent. half, the half that counts. It's their wealth and security that makes everything possible; makes your art possible, makes literature, science, even religion, possible. Without Forsytes, who believe in none of these things, but turn them all to use, where should we be? My dear sir, the Forsytes are the middlemen, the commercials, the pillars of society, the corner-stones of convention; everything that is admirable!" "I don't know whether I catch your drift," said Bosinney, "but I fancy there are plenty of Forsytes, as you call them, in my profession." "Certainly," replied young Jolyon. "The great majority of architects, painters, or writers, have no principles, like any other Forsytes. Art, literature, religion, survive by virtue of the few cranks who really believe in such things, and the many Forsytes who make a commercial use of them. At a low estimate, three-fourths of our Royal Academicians are Forsytes, seven-eighths of our novelists, a large proportion of the Press. Of science I can't speak; they are magnificently represented in religion; in the House of Commons perhaps more numerous than anywhere; the aristocracy speaks for itself. But I'm not laughing. It is dangerous to go against the majority—and what a majority!" He fixed his eyes on Bosinney: "It's dangerous to let anything carry you away—a house, a picture, a—woman!"

★ *In the House of Lords Lord Latham asked four questions about LONDON'S TEMPORARY HOUSES.*

Lord Latham asked: (1) The number of temporary houses diverted from London to other parts of the country since January 1 of this year. (2) The date or dates when they were diverted and the respective numbers. (3) The places to which they were diverted and whether they have been erected and occupied and, if so, when. (4) The total number of temporary houses erected in England since January 1, 1945. The Parliamentary Under-Secretary for the Home Department (the Earl of Munster) replied: It was originally decided to allocate to London the first 3,000 sets of Uni-Seco house components which came off production. Up to date 58 temporary houses have been completed in London. Altogether about 1,000 sets of components have been delivered from the factories to the London distribution centres or to the sites, and many of these are in course of erection. It is expected that the balance of the 3,000 will be produced by about May 25. As the Ministry of Works explained in another place, house components cannot be delivered to the site until drains and foundations have been completed. This work takes about two months from the time when the site is handed over to the Ministry of Works by the local authority. The number of sets of components which can be delivered to sites in London by 25th May cannot, therefore, exceed the number of sites which had been handed over by the London County Council by March 25. This number was rather under 1,700. When it became evident, earlier this month, that the rate at which the London County Council were able to make sites available was not keeping pace with the rate of production in the factories, it was decided to divert such part of the production as could not be absorbed by London to other towns, including Birmingham, Bristol, Rochdale and Basingstoke. Contracts for site preparation and erection in these cities are being placed, and work either has started or will be starting very shortly. It should, however, be made clear that this delay in the provision of sites will not, of course, affect the total allocation of temporary houses to London. As further sites become

ready, additional sets of house components will be delivered. The Government hope that the experience in London will reinforce the appeal they have already made to local authorities to make sure that sites are handed over well in advance of the dates when the delivery of the components are due.

Mr. A. M. Robertson: In the post-war home Fibreglass will provide cool comfort in summer and cosy WARMTH IN WINTER.

During a lecture at Glasgow Mr. A. M. Robertson asserted that when peace comes there is no doubt that fibreglass will play its part in the modern home where comfort is of prime importance to the housewife. She need no longer tolerate a kitchenette made unbearably hot by heat losses from a cooker or hot water system. Thanks to fibreglass air filtration, rooms will be practically dust free. The home will provide cool comfort in summer and cosy warmth in winter with fibreglass house insulation in many forms, and peace and quiet from noisy radios, passing traffic, and inconsiderate neighbours.

Before his departure from the Ministry of Health to take up his new duties as Director of the Federation of Building Trades Employers, Mr. S. F. S. HEARDER WAS GIVEN A FAREWELL LUNCH

by Sir Malcolm Trustram Eve. Mr. S. F. S. Hearder, who has taken up his new duties as Director of the National Federation of Building Trades Employers, in succession to Sir Jonah Walker-Smith, M.P., was, with Mrs. Hearder, entertained to a farewell luncheon by Sir Malcolm Trustram Eve before his departure from the Ministry of Health. Among those present were Messrs. H. U. Willink, Minister of Health, Duncan Sandys, Minister of Works,

George Hicks, M.P., Parliamentary Secretary, Ministry of Works, and Sir Hugh Beaver, Controller-General, Ministry of Works. The Minister of Health and the Minister of Works proposed Mr. Hearder's health, and Sir Malcolm Trustram Eve proposed the health of Mrs. Hearder. The gathering was unanimous in wishing Mr. Hearder success in his new job. At a meeting of the Council of the National Federation warm tribute was paid to the retiring director, Sir Jonah Walker-Smith, by the President, Mr. G. W. Buchanan, and by the Past-President, Mr. J. G. Gray, and it was agreed to record in the minutes the formal appreciation of the Council of his great services to the National Federation over the past 20 years. A presentation is to be made to Sir Jonah Walker-Smith at a later date.

★ *Middlesex County Council has approved the scheme for REBUILDING CHARING CROSS HOSPITAL AT WEMBLEY.*

The council decided last June to buy from the Governors of Harrow School, at a cost of £188,500, the Northwick Park Golf Course estate at Wembley. The Public Health Committee has since approved in broad principle a memorandum from Mr. Philip Inman, chairman of Charing Cross Hospital, on the proposed erection of a new hospital on part of the estate. Mr. Inman states that in addition to a hospital for 1,000 patients, buildings will be required for a medical school with an estimated annual entry of 100 students and a total strength of about 400 clinical and pre-clinical students, a hostel for students, a nurses' home for 400 nurses, a training school for probationers, a pathological institute and an administrative block. Additional premises will probably be required for teaching dental students. Some of the existing specialized hospitals in London might wish to amalgamate, or become associated, with the new Charing Cross Hospital centre. They must also provide 100 beds for the care of the chronic sick—a type of patient hitherto not admitted to most teaching hospitals.



Bombed Buildings Abroad — VII

The four-hundred year old St. Thomas' Cathedral in Ortona, Italy, was demolished by the retreating Germans in an attempt to block a street and impede the tank advance when Canadian units of the Eighth Army were taking the town.

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Chelsea Borough Council is to seek the approval of the Ministry of Health for the CONVERSION OF HOUSES INTO FLATS in Elm Park Gardens to accommodate three hundred and fifty working-class families.

The estimated average cost per flat for acquisition and conversion is £925. On this basis a two-bedroom flat, with separate living room, kitchen and bathroom, can, it is said, be let at 20s. per week, plus rates (a total of about 27s. 6d. a week), and other flats at proportionate rents. These rents will in many cases be too high for working-class families, and the Council is approaching the Ministry of Health with a view to obtaining some form of exchequer subsidy. Flats will range from one bedroomed to three bedroom maisonnetes. Basement floors will be used for storage purposes only. Pram sheds and some form of communal washing and drying facilities are being considered.

The Institution of Civil Engineers, with the Institution of Municipal and County Engineers, have appointed a Joint Committee to draw up notes for the use of engineers on the BEST LOCATION OF UNDERGROUND SERVICES.

The Committee will consist of Mr. W. H. Morgan, County Engineer, Middlesex, as Chairman, and ten members who will include city and borough engineers and other engineers who have specialized in water supply, sewage disposal and main drainage, electricity and gas supplies and post office services. Members representing electricity and gas supplies and post office services have been nominated by or in consultation with the Institution of Electrical Engineers, the Institution of Gas Engineers and the Chief Engineer, GPO respectively. The Joint Committee will welcome any notes or suggestions which engineers may wish to offer, and these should be addressed to the Secretary, Joint Committee, c/o Secretary, the Institution of Civil Engineers, Great George Street, Westminster, London, S.W.1.

★
Lincoln City Council has decided to ASK THE ELECTRICITY COMMISSIONERS TO HOLD ANOTHER PUBLIC INQUIRY into the problem of cooling water for the extended St. Swithin's generating station.

It will concern a scheme of Mr. E. C. Farran, of Doncaster, the corporation's consulting engineer, to use both the River Witham and the South Delph, a watercourse which runs parallel to the Witham from Lincoln to Bardney, a distance of nine miles. *The Times* states: Favourable consideration has been given to the scheme, and it has also been considered by the Central Electricity Board in conference with representatives of the corporation. The CEB has now informed the corporation that it is not willing to accept any responsibility for this scheme. The city council has received this decision of the board with regret and has instructed the town clerk to ask the Commissioners if they will hold an inquiry into the proposals contained in Mr. Farran's scheme.

HOUSING: A POLICY—III

IN dealing with the housing problem one can only repeat continually that no adequate solution can be found until the power to plan nationally becomes a reality. For such planning we may have many years to wait. On the other hand, planning and national control of land use may become major political issues in the next General Election, the outcome of which may speed their attainment.

Meanwhile, within the existing legislation and administrative machinery, much more could be done in planning. MOTCP could become more dynamic and take a more active role than hitherto in giving assistance to MOW, MOH, and local authorities. It is surely its function, for instance, to give definite advice on the preparation of sites to carry both temporary and permanent houses. A clear policy is needed on such matters as the temporary use of sites scheduled for future industry, and also, in so far as is now possible, on the dispersal of population from congested areas. Again, no proper national surveys appear to be yet under way to find out where houses will be most needed, what kind of houses will be needed and in what relative numbers. Once again we see that housing will be a hopelessly muddled affair without national planning based on survey and diagnosis to which local and regional planning is related.

We have already declared our belief that no housing should now be built to live longer than a generation at the outside. The same argument applies to a large extent to planning in the immediate future. No culture is permanently stable, of course, and planning must always be on the move, as a living, dynamic process. Nevertheless, the present period which may see the inauguration of the first rapid developments in large-scale physical planning is so transitional that we believe present conditioning of the physical environment should not be considered in any aspect as a long-term affair. Long-term policy will take time to prepare, and the present should be regarded as a purely intermediary stage.

To summarize our policy on housing and planning, we contend that:

- (1) Responsibility should be concentrated in one central authority with full powers to act in dealing with the inter-related problems of housing (and building generally), and planning, which will co-operate closely with other ministries concerned.
- (2) Regional and local planning and building authorities should be formed, covering the whole of the British Isles, to co-operate closely with the Central Authority in order to:
- (3) Prepare co-ordinated national, regional and local plans based on proper survey and diagnosis both for the short and long terms. This will mean:
- (4) The National control of land use for the benefit of the community as a whole, which will involve:
- (5) An immediate settlement of the compensation problem, which in its turn will involve:

(6) A new and realistic approach to the costing problem and the financing of planning and housing. The cost of any undertaking, in peace as in war, should not be considered restrictive for purely financial reasons as it has in the past but purely from the point of view of physical limitations. The sole cost of any undertaking should be regarded as the actual real wealth consumed by those engaged in carrying out that undertaking while so engaged.

(7) All housing and planning should be regarded in the immediate future as being temporary. Immediate action should be taken in providing by every available means (a) emergency houses to last 2 to 5 years only and (b) so-called permanent houses to last no more than 25 to 30 years.

(8) Flexible systems of construction should be developed and officially encouraged in preference to rigid house types.

(9) The Government should encourage, co-ordinate and itself carry out technical building research and development. (A start has been made here but much more needs to be done.)

(10) Official flexible design standards and minimum size and performance standards and codes of practice should be laid down after general mutual agreement in both building and planning, many of which should become mandatory.

(11) The National Building and Planning Authority should set up an active Public Relations Department to supply on demand all available information on building and planning.

(12) Training for reconstruction should be developed and subsidized immediately and extended beyond that for building craftsmen to include planning and building technicians capable of design, organization and research. Suitable candidates should, so far as is possible, be released from military service at once in order to begin their training.



The Architects' Journal

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T O P I C S

NEWS FROM BELGIUM AND HOLLAND

I have been talking to a man just back from Belgium and Holland. "What Belgium will need most after the war," he told me, "is not so much architects as engineers. To land at Ostend, as I did, is to see at once the kind of

problem that faces the country. It has not been fought over so much as sabotaged, by Europe's greatest experts in sabotage."

"Superficially, you would say that Brussels is not damaged. There is the rather spectacular disappearance of the dome in the Palais de Justice, burnt by the Gestapo, and I saw one canal bridge that had gone, to be replaced by a very workmanlike wooden structure. The rest looks intact. But fly over the town and you will see the ugly VI scars in the back streets."

"So with Antwerp," my acquaintance continued. "I drove to Antwerp on the fast double-tracked road through Boom, on the river Rupel. One bridge there had gone, replaced by the inevitable Bailey, but that was the only gap on the way. But, as you near Antwerp, you see those signs so frequent once in Southern England, at

first the boarded windows, then the distinctive smear of dust, wreckage and disaster that the V-weapon leaves around the site on which it falls. The Germans left the port intact. No one knows why."

"Flushing is in a very bad way. Before the war there were, apparently, some 6,200 separate houses or flats. Now only one out of that total remains either undamaged or unflooded at high water. Most of Flushing is below high water mark. The gaps in the dykes, made by the RAF in October as a preliminary to our assault, have been widened by the sea, and it is a bitter sight to see the long-swells of the North Sea, running before a south-westerly gale, sweeping against and over the roofs of once prosperous farmhouses."

"The lovely old town of Middelburg has suffered, too. Most of the damage there was done on one day in 1940, by German dive-bombers, fresh from their unholy triumph at Rotterdam. Although there was a white flag hanging from the Abbey tower, the German aircraft did not leave until they had set the centre of the town ablaze. The first lasted for three days, and burnt 40 per cent. of the houses in the town area, including the Abbey and the famous old Stadthuis, on the market place. The shells of both the Abbey and the Stadthuis still stand, and are capable of restoration, externally at least."

"Neither has Middelburg escaped the floods. So the problem in Middelburg at the moment is one of overcrowding: 24,000 people to go into about 30 per cent. of the houses that, before the war, held a population of 21,000."

THE ELEMENTS RAGE

If the subject of bomb damage is beginning to get on the nerves of the members of the London Repairs Executive, they are recommended to read a book that has just been published called *The Elements Rage*, by Frank W. Lane.* It describes the strange and terrifying acts of Nature in a tantrum—earthquakes, volcanoes, meteorites, tornadoes, waterspouts, avalanches, hail, storm and lightning

* *Country Life*, 10s. 6d.

—which make all the horrors of mankind at war seem insignificant.

To read about the biggest bang of all time, for instance, which Mr. Lane describes—that of the eruption of Krakatoa—gives one a sense of proportion about the explosions of V-bombs.

Krakatoa is a small volcanic island between Java and Sumatra. Since 1680 it had remained relatively quiet, but in 1883 it began to erupt violently. A series of explosions occurred which opened fissures below sea-level into which the ocean poured. The result was the massing of vast quantities of superheated steam under enormous pressure.

For a time all was quiet—too quiet. Then at about 10 o'clock in the morning of August 27, "the greatest explosion in the history of man burst upon the world." In a roaring cataclysm of noise which shook the world, a whole cubic mile of pulverised rock shot 22 miles into the air." A vast wall of



Above, aerial view of Krakatoa. Below, lightning strikes the Empire State Building, New York. See Astragal's note.



water, several hundred feet high, shot out in all directions from Krakatoa and roared across the Sunda Strait at 350 miles an hour; 163 villages were inundated, 5,000 ships were destroyed and over 36,000 people were killed.

Two thousand miles away in Ceylon, confusion was caused in the harbour at Argam Bay. In Port Elizabeth, 5,000 miles away, ships were rocked at anchor, and it is said that even in the English Channel, 11,000 miles from Krakatoa, effects of the wave were noted.

Capping all the strange stories that have been current during the war about the capricious effects of bomb blast, are those of the effects of tornadoes. Mr. Lane tells us how the pressure of wind, moving at a velocity exceeding that of a rifle bullet, can force wheat straws over half an inch deep into the body of a tree, and how a Prairie Twister has been seen to pick up a railway engine bodily from one track and set it down unharmed on a neighbouring parallel track facing the other way.

But the book is of particular interest to architects in describing the effect of lightning on buildings, and it is surprising to learn that the Empire State Building in New York was struck 63 times in three years, and in one storm was struck 15 times in as many minutes, apparently without ill-effects.

ASTRAGAL



LETTERS

S. Tudkin, F.F.S. (Eng.)

G. B. J. Athoe,

(Secretary, The Incorporated Association of Architects and Surveyors)

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

War Damage Repairs

SIR.—I have just read with interest copies of letters that have passed between the Joint RIBA and CSI committee and Sir Malcolm Trustram Eve.

Particularly was I struck with the closing consoling paragraph in Sir Malcolm's letter, where he tells the members of the profession that "they are not the only people to have suffered by the general war-time conditions."

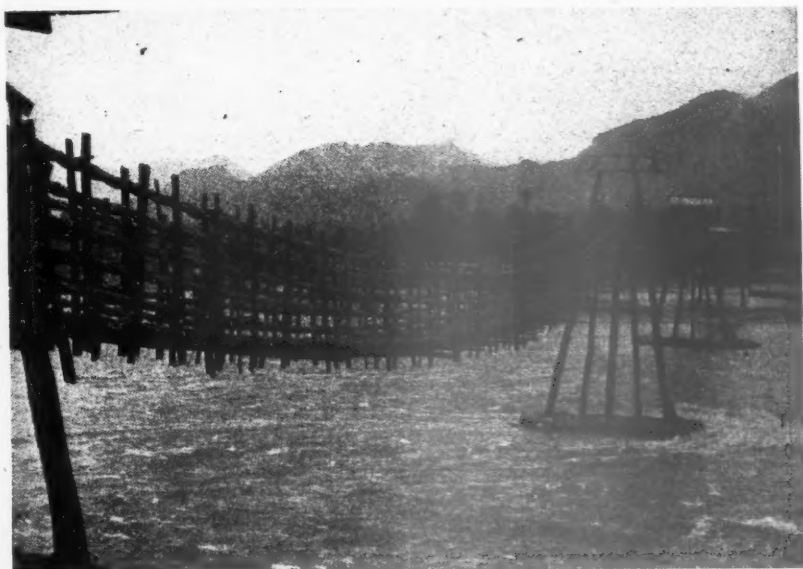
This entirely begs the question. The point at issue is definitely not whether the architects and surveying professions are suffering owing to the war conditions, but whether the particular war conditions under review, i.e., bomb damage repairs, are not suffering owing to the ignoring and slighting of the only two professions capable of dealing with the problem.

For over six months the country at large and London in particular has been put off with the parrot-like cry, again raised in Parliament, "that ultimately the problem all turned on man-power." As are most generalities, this too is false, in that it gives only one side of the particular picture. Certainly more man-power could be useful, but only if properly directed and supervised. To flood London with skilled and mainly unskilled labour is in itself far from solving the problem. This labour must be under correct and perfect supervision; it is not getting it now, and there is no doubt whatsoever that 30 per cent. less labour would do more work than now if correctly supervised.

The rights of the house-owner under the War Damage Act which gave him power to obtain technical assistance are not being exercised, and now more than ever before, when he is no longer able to obtain his own builders, does he need someone able to advise him continuously of what he is getting put back into his house.

Now that the standard and quantity of

OLD CHINESE METHOD



Engineers of the Bureau for Improving Water Works in Szechwan province in their job of controlling the Min River have developed an old Chinese method of bank protection into substantial revetments and into temporary dams for diversion purposes by the use of long bamboo baskets filled with cobble stones. The baskets, about 10 metres long and 55 centimetres in diameter, are also used to protect the pile supports of bridges. Top, close-up of the baskets. Above, a suspension bridge of cables made of twisted strands of split bamboo has supports protected from scour by a cobble fill held in place by stone-filled baskets. Left, lines of baskets protect the point where the river divides. (From "Engineering News-Record.")

work being done to each house is being increased and extended repairs are being sanctioned, is the time for house-owners all over the London Civil Defence Area to see that they get the right supervision.

At the same time steps should be taken to see that slum property which was neglected for so many years by the large property owners, and in very many cases scheduled for demolition, should not be practically reinstated under War Damage, and be given a further long lease of life. Here again the only body able to define the position is that which has been so calmly and politely told "to fold up their tents and quietly steal away."

No, the architectural and surveying professions do not want special treatment nor charity. They demand that their services be placed at the disposal of the country. The country needs them; they are ready.

London.

S. YUDKIN

SIR.—Sir Malcolm Eve as head of the War Damage Commission is doubtless acting within the four walls of the Commission's constitution in denying the right of building owners to claim their professional advisors' fees in work abandoned, owing to the transfer of repair work to local authorities and the imposition of the £10 limit. If this be so, it is the system and not Sir Malcolm or his Commission which should stand condemned.

But let it be remembered that the funds administered by the Commission are not public funds in the generally accepted sense. They are in fact the accumulation of premiums paid by property owners and occupiers under a compulsory system of insurance to the Government acting as an insurance company without competition and enjoying a monopoly.

When the Commission arranged with the various professional bodies the fees to be allowed for professional advice, surely good faith in honouring the obligations was a foregone conclusion.

If any ordinary insurance company went back on its bargains, it would suffer in credit to an unpredictable degree, not only immediately but for years to come. The Government is not so vulnerable as a private undertaking—which is perhaps all the more reason why it should be scrupulously fair in all its dealings. Sir Malcolm Eve is a lawyer, and, from what I know of him, a very good business man. I suggest it is up to him to make representations to the Cabinet so that those who have done honest work should be paid for it. It must prick Sir Malcolm's own conscience to be a party to anything which has a strong odour of injustice. As it is evident that the War Damage Act should be amended, the sooner this is done the better. A professional man, or anyone else as far as that goes, must not be penalized by what is nothing more or less than sudden, unexpected changes in Government procedure.

G. B. J. ATHOE.

Secretary, The Incorporated Association of Architects and Surveyors

London

The Army C.I.C. of Housing

SIR.—The housing muddle still hands out big laughs, and the largest one of the lot will greet the appointment of an Army General as C.I.C. of Temporary Housing. While they were about it, they might have selected Field-Marshal Montgomery and let one of our Housing Directors take his place.

It is pretty plain that the housing situation is resolving itself into a conflict of vested interests between industrial prefabricators and the orthodox building interests, with the public coming a good third, as they usually do in such cases.

Liverpool.

IVOR L. JAMES



DEVELOPMENT SCHEME OF FIVE H O U S E S AT BELMONT, USA

DESIGNED BY
CARL KOCH

This scheme at Belmont, Boston, is a co-operative housing development of five middle-class dwellings designed by Carl Koch, at present a senior research technician with the National Advisory Committee on Design to the United States Housing Authority, who has worked extensively in housing developments. He is the owner of one of the five houses.

To find land within the price limit was not easy, but a site was eventually hit upon which was low in price, because its rocky edges were looked upon as unsuitable for conventional houses. Its chief assets were a magnificent view of Boston and nearness to transport and shops.

Eventually, Mr. Koch found four couples—young professional men and their wives—who were willing to join him in the venture of buying, developing and building co-operatively.

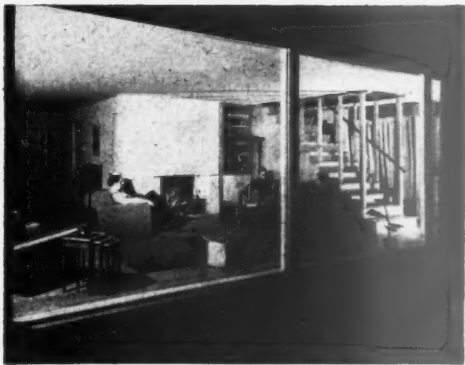
In his own words, "the main factors determining design were the need for extreme economy and flexibility, a view of Boston to the south-east, and a rocky wooded site. Semi-prefabrication and identical plans were not feasible, and savings that were made came from standardization on details and equipment."

The houses are built of the usual American timber construction and their interest—especially to us in England at present, who can expect little else but rigid rectangles in house planning for some years—lies in their fluid and extremely workable plans, each with its own distinctive charm and form, yet all united in character.

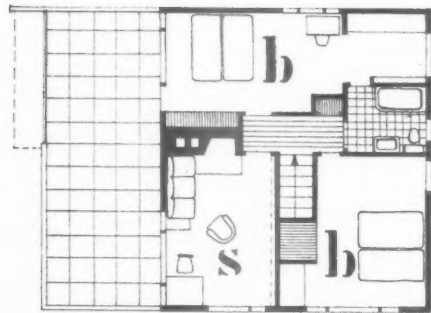
The site contains a communal tennis court and will later contain a swimming pool.



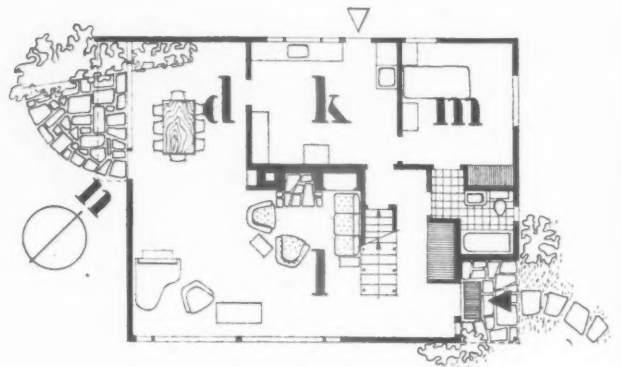
Top, the five houses; from left to right, the Gordon's house, the Cushman's, the Koch's, the Hartshorne's, the Wissman's. Above, the site plan showing the layout.



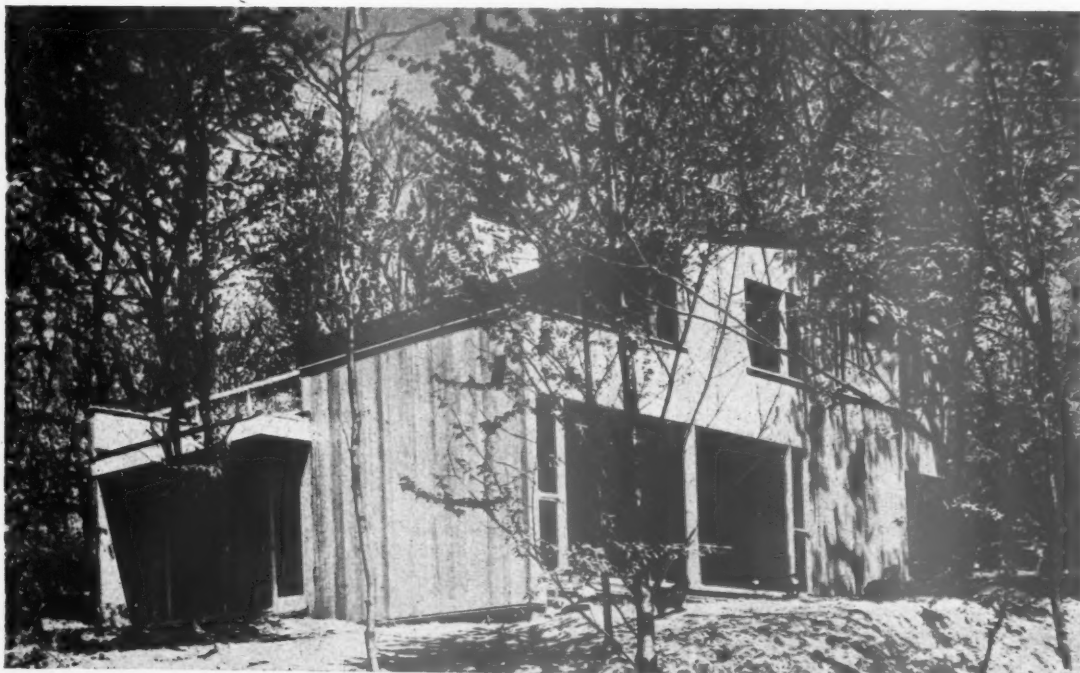
Top, the generous sun balcony outside the study and bedroom. Above, the living room and staircase. Below, a general view. The cost of this house was 7,650 dollars, for 21,140 cu. ft.



FIRST FLOOR PLAN



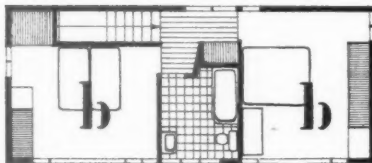
GROUND FLOOR PLAN



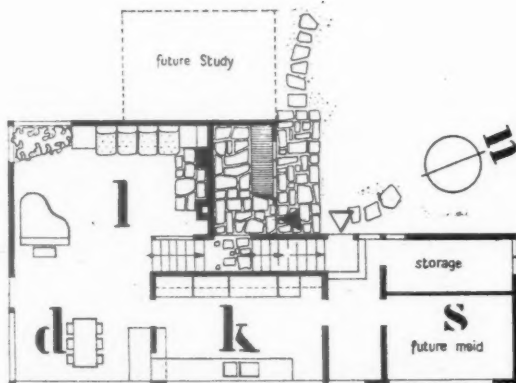
FIVE HOUSES SCHEME: I, THE GORDON HOUSE



Above, general view showing the dining room with two walls entirely glazed. This house will be expanded later on when the study next to the kitchen is turned into a maid's room and a new study built behind the living room. Below, the kitchen overlooking Boston; no splash board has been allowed to interfere with the view. The house is smaller than Mr. Koch's, but the cost is higher, coming to 6,700 dollars.



FIRST FLOOR PLAN



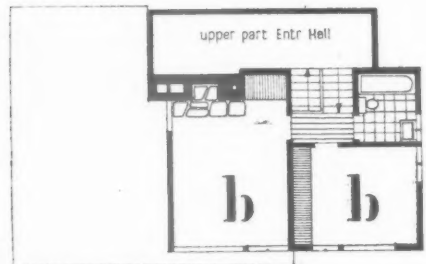
GROUND FLOOR PLAN



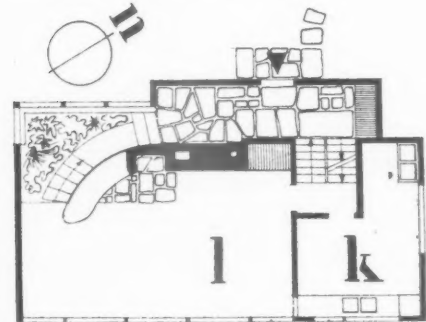
FIVE HOUSES SCHEME: II, THE CUSHMAN HOUSE



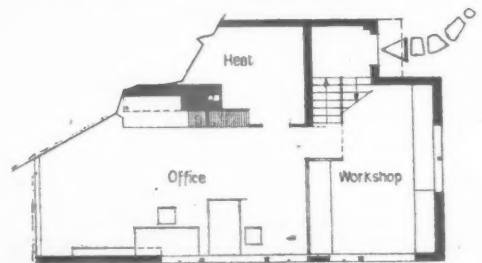
This, the architect's own house, is on three levels, the lowest floor being built into a ledge of rock. If expansion is required later, the basement office and workshop will be converted into two or three small bedrooms and a bathroom, and a new office wing will be built at the entrance level on the north-west side of the house. Above, general view. Below, the office at basement level, showing the rock butting into a corner of the room. Cost : 6,160 dollars for 19,700 cubic feet.



FIRST FLOOR PLAN



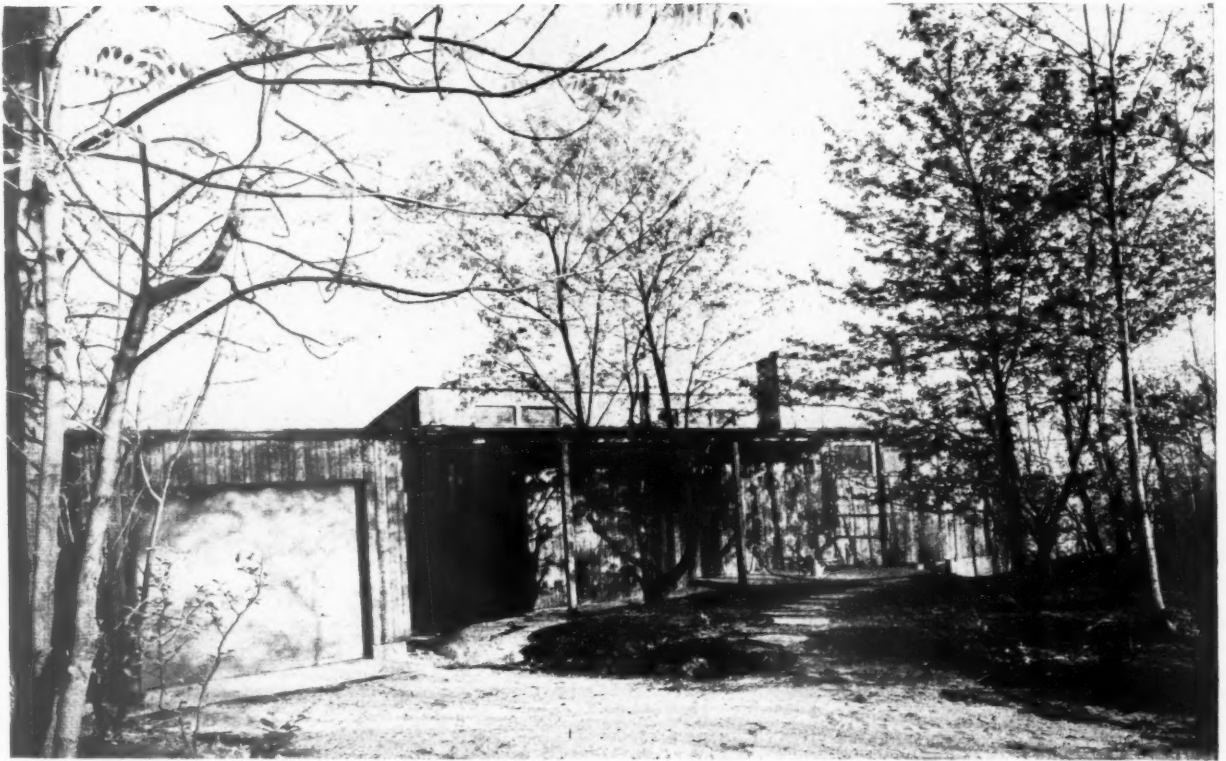
GROUND FLOOR PLAN



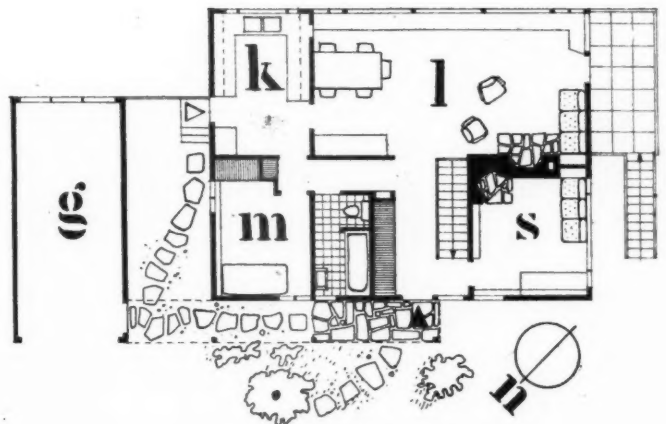
BASEMENT PLAN



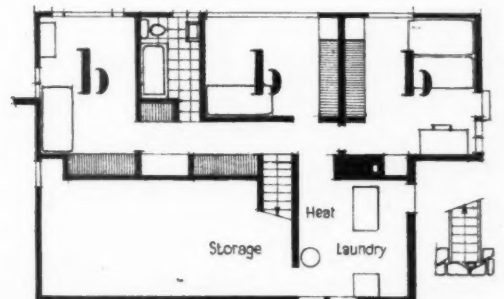
FIVE HOUSES SCHEME: III, THE KOCH HOUSE



Above, the entrance elevation with garage on the left. Below, a corner of the study with its curved fireplace wall. This house has three bedrooms on the ground floor and a maid's room on the first floor. Boiler and laundry are on the ground floor, and large storage space has been provided next to the laundry.

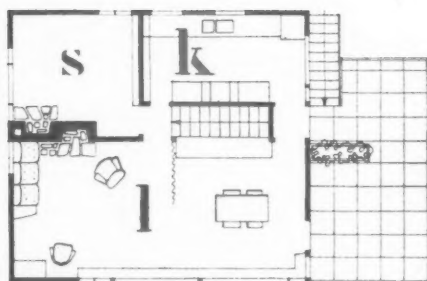


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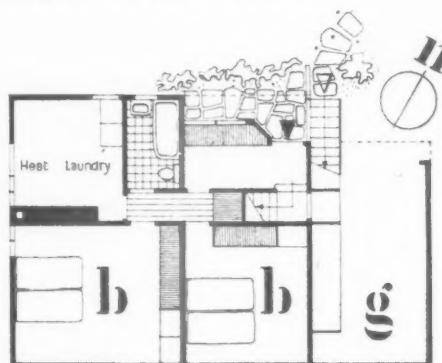


GROUND FLOOR PLAN

FIVE HOUSES SCHEME: IV, THE HARTSHORNE HOUSE



FIRST FLOOR PLAN

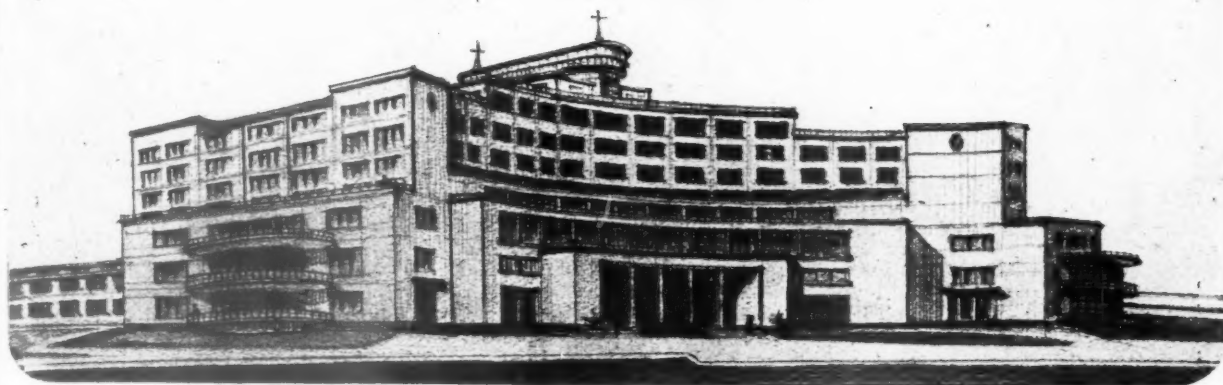


GROUND FLOOR PLAN

The Wissman house stands at the end of Snake Hill Road. The Wissmans brought with them a number of requirements based on experience gained and habits acquired during many years of flat life. This is expressed in the compact plan, and small kitchen. Though it has only two floors, the house is more expensive than Koch's own, and came to 7,570 dollars for 18,600 cubic feet. Left, general view. Below, left, the living room on the first floor where the view is unobstructed. Study and kitchen are also on this floor. Curtains take the place of a partition, and can also be drawn to cut off window area. Below right, the hall and staircase.



FIVE HOUSES SCHEME: V, THE WISSMAN HOUSE



WINNING DESIGN IN THE COMPETITION FOR A LONDON AIRPORT.

DESIGNED BY H. J. COATES,
E. R. MORGAN AND F. W. SMITH

WINNERS—The winning design illustrated here for the *International Airport for London* design competition organized by *The Aeroplane*, which gains the prize of £500 was submitted by Messrs. H. J. Coates, A.R.I.B.A., of Bristol, E. R. Morgan of North Harrow, and F. W. Smith, A.M.T.P.I., A.R.I.B.A., A.M.I. Struct.E. of Bath.

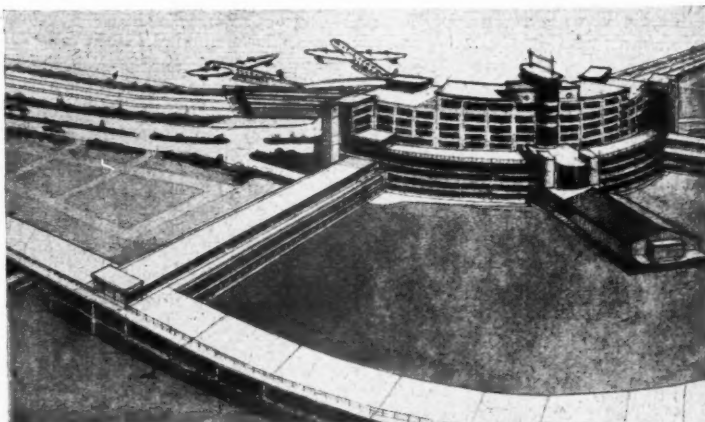
The second prize of £100 has been awarded to Messrs. A. H. Wilson of Doncaster, F. J. Fletcher, A.R.I.B.A., of Mansfield, A. S. Oddy of Leeds, R. Clegg of Newcastle, all serving with the Royal Engineers.

The third prize of £50 goes to L. F. Liscombe, A.R.I.B.A., of Mill Hill.

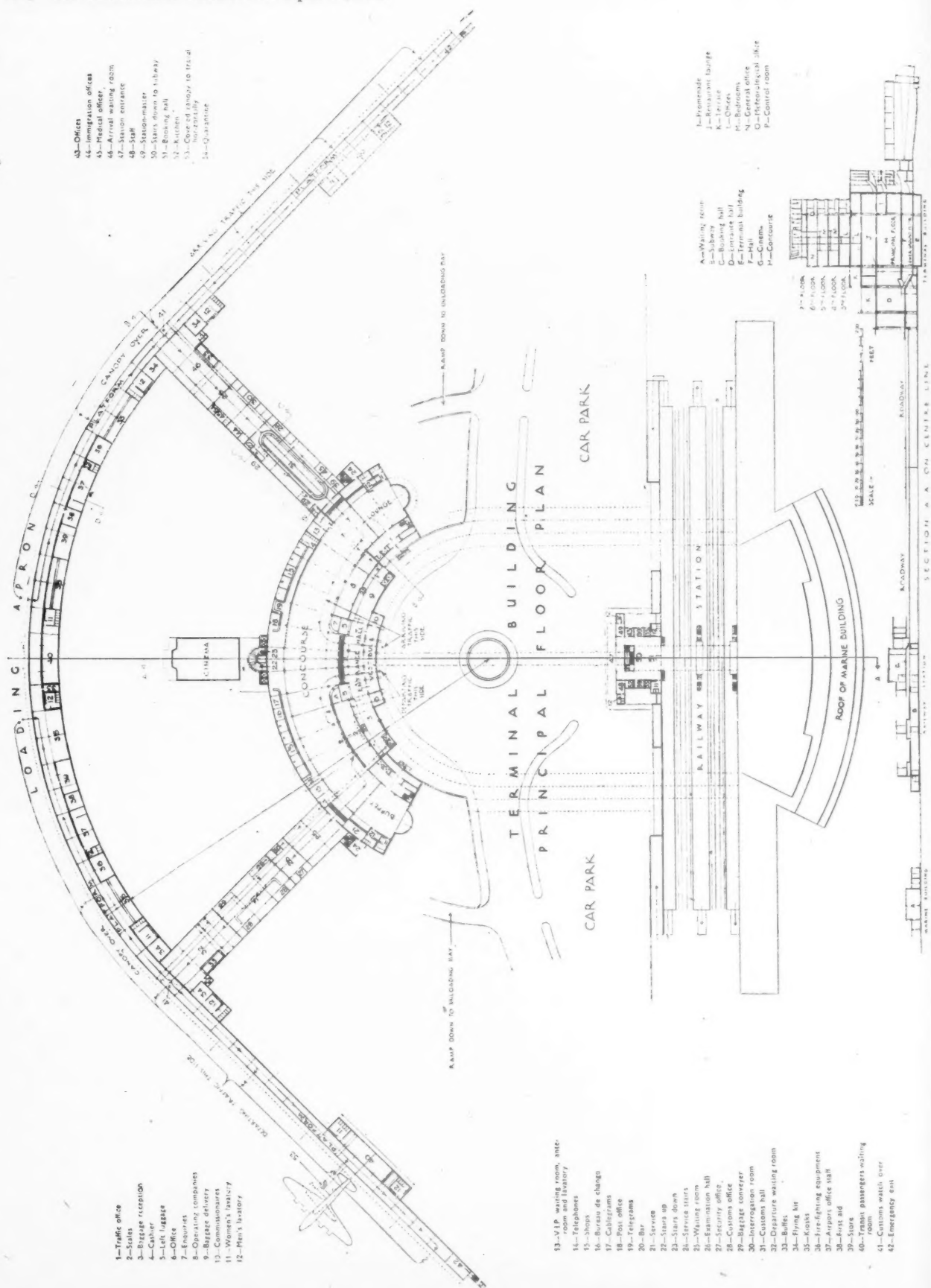
THE COMPETITION—The main conditions were that the airport should provide for both land-planes and flying-boats, that the total site area, exclusive of the marine base, should not exceed 20 square miles, and that the project should be designed to accommodate the largest aircraft visualized for trans-ocean and world-wide air services, and at

the same time for inter-connection with smaller aircraft operating to other British and European airports. No specific site was involved, the assumption being that it would not be in any built-up area, yet would be within easy reach of London by road and rail. The three prize-winning designs, together with a selection from the

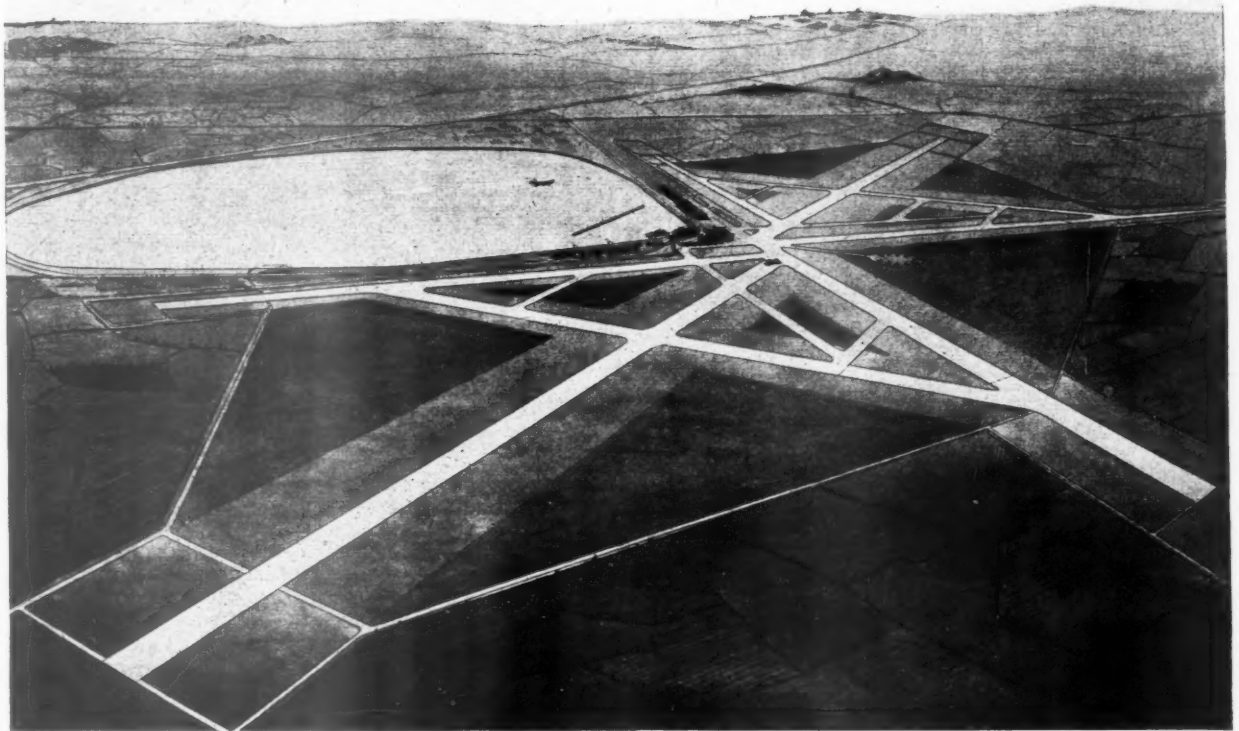
remaining entries, are on view to the public at 196, Piccadilly, W.1, until April 14, the exhibition being open from 10 a.m. to 7 p.m. Judges for the competition were: Air Vice-Marshal D. C. T. Bennett, C.B.E., D.S.O., H. Roxbee Cox, B.Sc., D.I.C., F.R.Ae.S., W. R. Verdon Smith, Dennis H. Handover, Austin Blomfield, F.R.I.B.A.



Top, the airport central building, entrance side. Above, the central building, landplane embarkation side. The lake is in the background.



WINNING DESIGN IN COMPETITION FOR AN AIRPORT



Left, ground floor plan and section of the terminal building. Key: 1, traffic office; 2, scales; 3, baggage reception; 4, cashier; 5, left luggage; 6, office; 7, enquiries; 8, operating companies; 9, baggage delivery; 10, commissionaires; 11, women's lavatory; 12, men's lavatory; 13, VIP waiting room, anteroom, lavatory; 14, telephones; 15, shops; 16, bureau de change; 17, cablegrams; 18, post office; 19, telegrams; 20, bar; 21, service; 22, stairs up; 23, stairs down; 24, service stairs; 25, waiting room; 26, examination hall; 27, security office; 28, customs office; 29, baggage conveyor; 30, interrogation room; 31, customs hall; 32, departure waiting room; 33, buffet; 34, flying kit; 35, kiosks; 36, fire-fighting equipment; 37, airport office staff; 38, first aid; 39, store; 40, transit passengers' waiting room; 41, customs watch over; 42, emergency exit; 43, offices; 44, immigration offices; 45, medical officer; 46, arrival waiting room; 47, station entrance; 48, staff; 49, station-master; 50, stairs down to subway; 51, booking hall; 52, kitchen; 53, covered canopy to travel horizontally; 54, quarantine; A, waiting room; B, subway; C, booking hall; D, entrance hall; E, terminal building; F, hall; G, cinema; H, concourse; I, promenade; J, restaurant lounge; K, terrace; L, offices; M, bedrooms; N, general office; O, meteorological office; P, control room. Above, aerial perspective view of the airport.

WINNING DESIGN—This occupies a site area of $24\frac{1}{2}$ square miles. The landplane base, inclusive of all access roads, parking spaces, and buildings, covers an area of 12 square miles and provides eight separate runways, the largest of which is 10,000 ft., for later extension to 15,000 ft. For marine aircraft there is, adjoining the landplane base, an artificial lake $12\frac{1}{2}$ square miles in area, with four alighting lanes. A notable feature of the landplane base is the provision by the designers of separate runways for taking-off and landing, instead of the usual parallel runways layout. Hence, as all the main runways radiate from the loading apron—a terminal building centre—incoming aircraft, after completing their landing run, have only to taxi to one end of the runway to reach the unloading point. Similarly, outgoing aircraft begin their take-off run immediately adjoining the loading

apron. Taxi-ing and the provision of concrete paved taxi-ways are thus reduced to a minimum, and incoming and outgoing aircraft are segregated on separate runways. A daily total of 200 aircraft arrivals and departures has been assumed by the designers with a peak capacity of 24 aircraft movements per hour. The Terminal Building has seven storeys and is of steel-framed construction with concrete floors and roof. It is faced externally with Portland stone. The concourse occupies most of the ground floor and here are located the main traffic office and counters, operating companies' offices, shops, post-office and two private suites for the accommodation of distinguished passengers. Baggage is moved by mechanical conveyors in such a way that it can be examined in the presence of passengers in the Customs Hall and then conveyed to its destination without manual handling.

A large hall on the lower ground floor gives access to the subways leading to and from the Marine Building and to the Airport railway station. A news cinema, hairdresser's shop, bath and dressing rooms open off the lower hall. On the first floor there is a restaurant with terraces for diners overlooking the flying-boat lake. On the mezzanine there is a promenade from which the non-travelling public can witness, without obstructing, the activities on the main concourse below. The fourth and fifth floors provide hotel accommodation with a total of 52 double, 44 single bedrooms, and 4 special suites, each bedroom having its own bathroom. Surmounting the main roof of the building is a glass-enclosed control room. Separate administrative buildings are included in the layout of the terminal buildings, and there is also provision for canteens and staff dining-rooms for 1,000.

INFORMATION CENTRE

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

STRUCTURE

1867

Civic Centre

BIRMINGHAM CIVIC CENTRE: THE WORK OF THE ARCHITECT AND THE ENGINEER ON A PRESENT-DAY BUILDING SCHEME. T. C. Howitt and H. J. B. Manzoni. (*Journal of the Institution of Civil Engineers*, No. 7. May, 1944, pp. 186-222, Supplement to No. 8, October, 1944, pp. 443-446). Detailed account of competition and of construction of first part actually completed. Problems, research, type of contract, procedure and organization, costs, steelwork, heating, ventilation, air conditioning, equipment.

The first portion of the Birmingham Civic Centre, dealt with in the paper, is only one-seventh of the whole scheme, and has cost, with land values, approximately £400,000. The general conception for the whole scheme is shown in the site and block plan accompanying the paper and the proposals of the Council in 1934; the development of the lay-out for the whole area can be seen in the preliminary sketch by the Architect and the photograph of the scale model.

This first section is a large Municipal office block with very little of the usual more interesting civic type of accommodation, though the Architect had to produce a design rather more monumental than the ordinary commercial office block. Photographs of the completed building show how this part of the problem was solved. Naturally personal opinions vary greatly as to what is considered good or bad in the style of a design, and in the discussion the Architect mentions the opinion of a student of the more modern school of thought who said that he would rather die than work on a design of the character chosen.

An architectural scheme of this size is primarily a work of planning and organization, and it is not easy to give an idea of all the major and minor problems involved. The paper gives a remarkably detailed account of the history of the competition and a contract in which the Architect, the Engineer, the Contractor's organization, and the Quantity Surveyor succeeded in co-operating very efficiently, and in which the Architect managed to get the Client Department to play its part with decision and at the right time.

The Table of Contents gives some idea of the great variety of tasks with which Architect and Engineer were confronted, the methods that were employed, the organizations set up as required for each particular purpose, etc.:

Introduction.

The site.

Architectural competition.

The main problems (1. General planning.

2. Departmental distribution. 3. Character of design).

Subordinate problems (1. Type of construction. 2. Mechanical equipment. 3. Choice of materials).

Result of Research Work.

Competition result.

Type of contract.

The successful contractors.

Progress schedules.

Site conferences.

War delays.

Costs.

Constructional steelwork.

Heating and ventilation schemes and domestic hot water supply.

Description of components.

Invisible panel heating system.

Air-conditioning plant.

Electrical equipment.

Conclusions.

The experience gained throughout the development of the scheme is summarized in

the Conclusions, and a few special features in connection with the building were enlarged upon in the discussion which followed.

1868

Steelwork

CONSTRUCTIONAL STEELWORK SIMPLY EXPLAINED. Oscar Faber. (Second edition. Oxford University Press, 6s.) Elementary treatment of the design of structural steel welding.

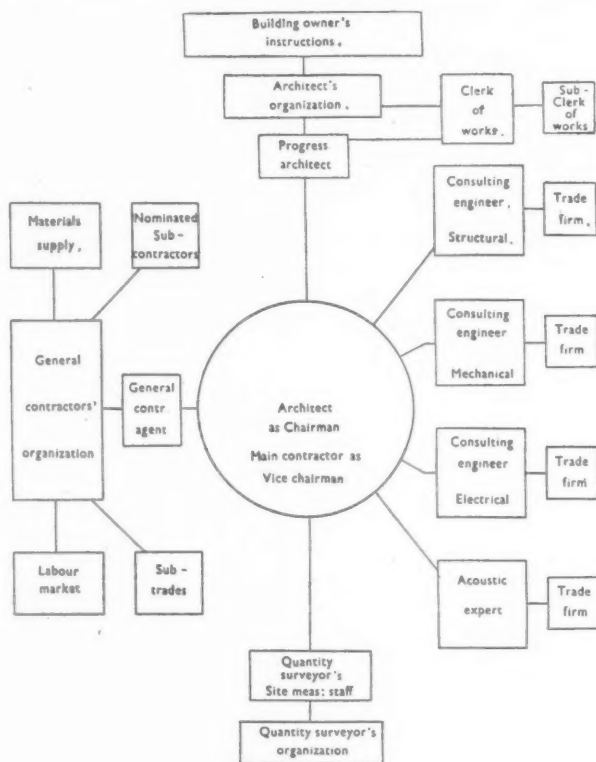
The second edition of this well-known book has been brought in line with the LCC regulations of 1938. A chapter on welding has been added.

MATERIALS

1869

Concrete Aggregates

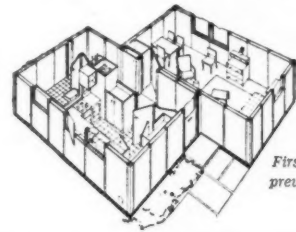
CONCRETE AGGREGATES AND BUILDING SANDS FROM NATURAL SOURCES. BS 882, 1198, 1199, 1200, 1201—1944. (*British Standards Institution*, 5s.) Collection of British Standards relating to coarse and fine aggregates from natural sources for concrete; natural sands and crushed natural stone sands for plastering, external and internal renderings, brickwork and masonry; aggregates for granolithic concrete floors. Appendices on sampling, test-



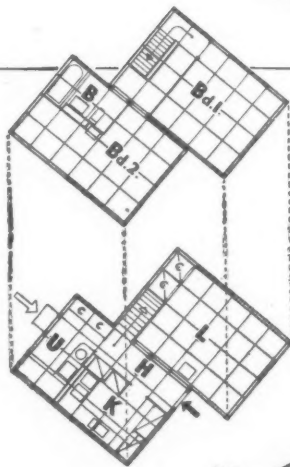
Left, the one completed building at the Birmingham Civic Centre. Above, site conference method used on the job. See No. 1867.

Aluminium and Unit Construction

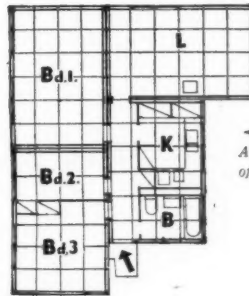
Suggestion for an Expanding House



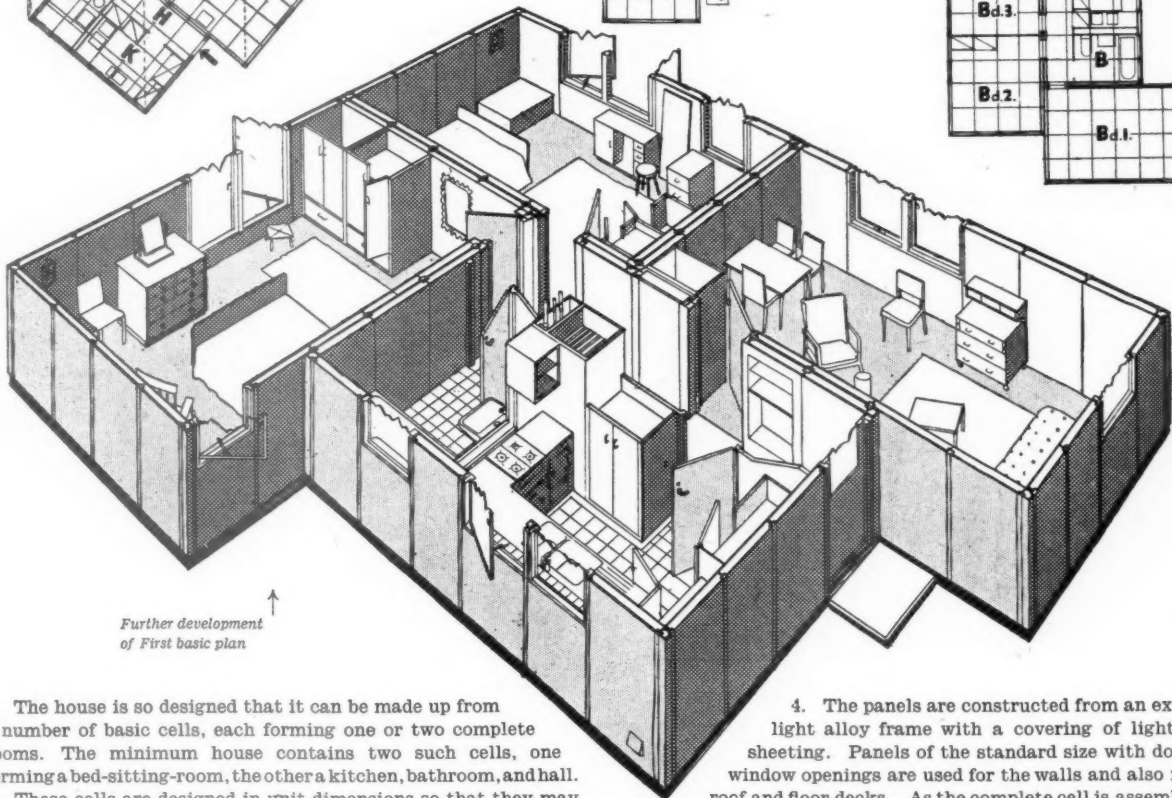
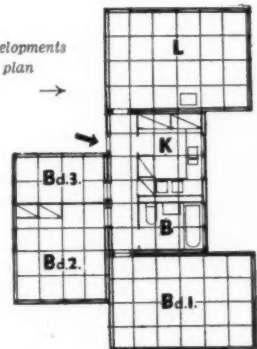
First basic plan,
previously shown



2-storey development
of First basic plan



Alternative developments
of Second basic plan



Further development
of First basic plan

1. The house is so designed that it can be made up from a number of basic cells, each forming one or two complete rooms. The minimum house contains two such cells, one forming a bed-sitting-room, the other a kitchen, bathroom, and hall.
 2. These cells are designed in unit dimensions so that they may be erected in the factory from a number of standard panels. The complete cell can be sent to the site, thus avoiding site work. It is only necessary to construct foundations and to lay drains.
 3. The size of the cell enables it to provide all the rooms normally needed in a small house and by adding to the basic unit of two cells (the living-room with kitchen and bathroom) considerable variation in accommodation is possible.
- By varying the arrangement of the panels, when building up the cells, the following rooms can be formed:—(a) living-room (b) kitchen and bathroom (c) large bedroom (d) two small bedrooms (e) medium bedroom with dressing-room.

4. The panels are constructed from an extruded light alloy frame with a covering of light alloy sheeting. Panels of the standard size with door and window openings are used for the walls and also for the roof and floor decks. As the complete cell is assembled in the factory, site jointing is avoided and complete control over the construction is attained.
5. This drawing shows the further development of each of the basic house plans. Basic plan 1 is shown in each case with a second large bedroom. The first-floor addition includes a bathroom and the existing bathroom is altered to form a utility room, into which the back door opens. Basic plan No. 2 is shown developed as a bungalow, with a second bedroom unit added, containing a medium-sized bedroom and a minimum bedroom, which could also be used as a dressing-room. The different plan arrangements allow for variations in siting to suit orientation and access.

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ing and physical characteristics of aggregates.

The publication of several BSs in one booklet, relating to subjects closely connected, is very convenient for the user. In the present case the British Standards Institution might have gone a step further and included in the collection BS 410 (Test Sieves), to which reference is made in all the specifications published in the booklet.

The specification for concrete aggregates from natural sources (BS 882) has been considerably modified, and now includes a wider range of sizes in both graded and single-sized coarse aggregates. Two classes of fine aggregate are given so that, in those areas where the higher standard material is not available, the slightly lower standard of fine aggregate may be specified.

The chief method of investigating aggregate is the sieve analysis, the results of which are conveniently recorded graphically. A chart for this purpose is included, but it would have been even more helpful if the requirements of the various specifications had been given also graphically instead of in tables. A further improvement would be the introduction of fineness moduli which are in common use in the USA.

A confusing misprint which one does not expect to find in British Standards occurs in the discrepancy between the references in Table 24 and the illustrations on the facing page of characteristic specimens of aggregates, where the captions are printed below the wrong pictures.

HEATING and Ventilation

1870 Heat Pump

ECONOMICS OF THE HEAT PUMP APPLIED TO SPACE HEATING INSTALLATIONS. *P. G. Kaufman. (Heating and Ventilating Engineer, September, 1944, p. 78.)* Working and economics of heat pump. Use of plant for summer cooling.

After discussing the theory of the heat pump, and the use of the plant for cooling buildings in summer, the author goes on to consider the economics and the coal economy of the method. He concludes:—"The heat pump cycle, in view of its high coefficient of performance for small temperature rises, can be applied to space-heating installations, and a number of plants have proved its practicability. However, its first cost is very high compared with other types of heating. The same is also true of its operating cost, except for very low cost of power, high price of fuel (i.e., coal, coke or gas), and high load factor: these conditions do not, as a rule, prevail in this or any other country where power is generated principally from fuel. In spite of its high coefficient of performance, the heat pump cannot be expected to contribute to the conservation of our fuel resources, unless it is operated on by-product power produced in combined heat and power stations."

1871 Heat Pump

RESULTS WITH A HEAT PUMP SYSTEM. *(Electrical Times, January 11, 1945, p. 56.)* Power consumption and costs of heat pump system for heating and cooling USA office building.

An office in Connecticut, USA, is heated or cooled from a heat pump system, employing water as the source of heat. The plant has been in operation for four

years, and the "installation has proved both technically and economically satisfactory." During each of the first three years, about 400,000 kWh. were used for heating and about 116,000 for cooling. (The heating consumption averaged 72 kWh. per degree day.) The total annual cost, for power, labour and maintenance, amounted to about 11,000 dollars.

1872 Industrial Smoke

THE REDUCTION OF INDUSTRIAL SMOKE. Coal Utilization Joint Council (54, Victoria Street, London, S.W.1). Pamphlet on means of reducing smoke from industrial plants.

The memorandum points out that smoke production is usually due to (a) poor combustion, (b) the use of unfamiliar fuels, and (c) forcing fires to meet peak loads.

Poor combustion is often due to inadequate draught or uneven air distribution over the fuel bed. When unfamiliar fuels have to be used, smoke production may be reduced by the use of special grates or mechanical stokers, or by care in hand firing. The need to force fires may be lessened by flattening out peaks by improvements in organization, or by the use of steam accumulators. A wider use of instruments in boiler rooms is advocated.

1873 Atmospheric Corrosion

SULPHUR AND ATMOSPHERIC CORROSION. *R. J. S. Thompson. (Gas Journal, November 8, 1944, p. 608.)* Reduction of sulphur pollution would lead to considerable reduction in corrosion of metals exposed to atmosphere.

The corrosion of iron and steel proceeds, as a general rule, from centres where particles have been deposited, the immediate corroding agent usually being sulphur dioxide. Carbonaceous dusts are particularly active in promoting corrosion, and these are omitted from fires, boilers and furnaces using raw coal. Thus the elimination of carbonaceous particles would reduce the corrosion of iron and steel exposed to the atmosphere, but some damage would continue so long as sulphur dioxide is emitted. Thus fuels should be not only smokeless, but sulphur-free. The gas industry is now engaged on the problem of the removal of all the sulphur from gas.

1874 Sterilization

THE USE OF GLYCOL VAPOUR FOR AIR STERILIZATION AND THE CONTROL OF AIRBORNE INFECTION. *B. H. Jennings, E. Bigg, and F. C. W. Olsen. (Heating, Piping and Air-conditioning, September, 1944, p. 538.)* Low concentrations of propylene and triethylene glycol have been found to have bactericidal properties, and are suitable for use in occupied rooms.

The commonest means of reducing the concentration of bacteria in the air of a room is by means of frequent air change; but there is a limit to the amount of ventilation which is practicable. Air filtration and electrostatic precipitation of dust also reduce the bacterial count, but do not completely purify the air. The use of ultra-violet light is also well established, but there are objections to its widespread use due to the effects on individuals, who must be shielded from the rays. The effect of u.v. light is greatest on dried organisms.

The criteria for sterilization by germicidal mists include non-toxicity of the germicide, high bactericidal activity in low concentrations, and it should be imperceptible to

taste and smell, cheap and plentiful and easy to introduce.

Sodium hypochlorite, resorcinol and glycol, hexyl resorcinol with loral sulphate and alkaline propylene glycol have been found effective when used in droplet form. It has recently been found that the glycols are effective in vapour form. Propylene glycol and triethylene glycol are the most suitable, judged by the above criteria. The concentrations required for bactericidal purposes are free from fire hazard. Propylene glycol is used in concentrations of 0.2 mg. per litre of air, and triethylene glycol in a concentration of 0.005 mg. per litre. A relative humidity of between 25 and 60 per cent. gives the optimum activity. Successful tests have been made on various bacteria.

The glycols are introduced into the air of the room by evaporation from an aqueous solution, by means of apparatus which has been developed for the purpose. This apparatus is available commercially.

Eighteen references to other works are included.

1875 Energy Consumption

ESTIMATING ENERGY CONSUMPTION. A Supply Engineer. (Electrical Times, December 28, 1944, p. 745.) Energy consumption for electrical appliances for cooking, water heating and space heating.

The energy consumption for cooking is usually estimated at 1 kWh. a day per person, though it is commonly higher for smaller families and lower for the larger families. Many factors affect the consumption for water heating, but estimates may be based on the known standby losses from the tank (obtained from the manufacturer) plus 1 kWh. per 3½ gall. of water at 150 deg. F. As regards space heating, the author suggests for future practice a combination of radiant heat and air warming. Given greater attention to insulation, and the fitting of windows and doors, the conventional methods of estimating heat requirements for air warming appliances should be satisfactory. For ordinary electric radiators a 3-kW. fire is suggested for rooms up to 2,000 cu. ft. capacity, and the consumption should be estimated from the hours of use.

1876 Thermo-Electric Plant

RUNWELL HOSPITAL—OPERATING EXPERIENCE WITH A THERMO-ELECTRIC PLANT. *W. A. Flack. (Electrical Times, January 11, 1945, p. 36.)* Thermo-electric plant supplies all heating and part of power requirements of Runwell Hospital. Has proved very economical.

The author discusses the results obtained on the plant, which was described in *Electrical Times* for September 2, 1937. The plant comprises back-pressure steam driven generators, the exhaust steam at 5 lb. per sq. in. being used for heating and domestic hot water supply calorifiers. A diesel driven generator is used to cover any excess demand for electricity. Electric cooking and bread-baking is employed, and with the electric vehicles, which are charged at night, they help to even out the electrical demand.

During the past five years, over 6½ million kWh. have been generated—over 4½ by steam and 1½ by diesel. During 1943 the plant consumed 3,700 tons of coal and 18,600 gallons of fuel oil. The running cost amounted to just over ½d. per kWh. generated. It is estimated that the steam generator provided current at 0.356d. per kWh., and the diesel set at 1.076d. per kWh. (The 1939 cost was 0.355d. per kWh. generated.)

QUESTIONS and Answers

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

1877

Rural Drainage

Q Would you give me your opinion on a matter or rural drainage with which I am in dispute with the Local Authorities? The facts are as follow:—My client purchased a derelict farm house and farmland, and had the farm house entirely rebuilt. When the rebuilding plans were submitted to the local UDC a drainage system was shown with a septic tank, filter bed and soakaway and a remark was made on the plans that the drainage would be carried out to the satisfaction of the Local Authorities. In spite of this the Committee refused to pass the plans until an approved drainage plan had been submitted. A meeting on the site was arranged with the Surveyor to the UDC, the Contractor and myself. After explaining several probable methods, the Surveyor stated we must take the effluent overflow across the road into a drain which already conveyed the effluent from four other houses some distance away, and which drain emptied into an adjacent pond. This work was carried out under his instructions and approval, and during the work he visited the site several times and passed the drainage. In the meantime a plan of the new drainage was prepared and submitted in duplicate to the UDC. However I received a letter from the Surveyor in which he states: "The plans were again disapproved as the Committee did not agree with the drainage system" (which was carried out to the Surveyor's instructions) and further: "We suggest you amend your drawings to show the effluent drain connected to the drain which takes the overflow from the pond."

This means disconnecting the new drain from the sewer, building a small chamber and taking a new drain round the pond to the pond overflow. This will involve a further expense of about £20. This in my opinion is quite unreasonable and cannot be sustained in law. What I should like to know is:—

(1) Can the Committee disapprove of the drainage when it was laid down by the express approval and instructions of the UDC Surveyor? (2) As the drain along the roadside is a public sewer, has the UDC any authority to prevent my client connecting her drain with it?

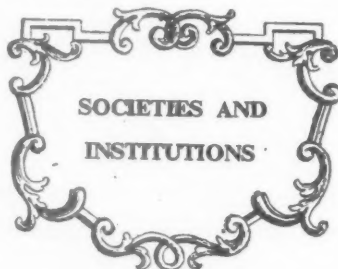
A 1. The Public Health Act and By-laws make it clear that plans must be formally approved before work is commenced, and verbal approval by a Surveyor does not fulfil this requirement. Surveyors frequently tender advice, but they usually make it clear that their recommendations are subject to the ratification of the Council, and that any work put in hand before plans are approved is done at the owner's risk.

Whether or not it is possible for you to take action on the grounds that the surveyor deliberately misled you is really a matter for a solicitor, but in our opinion this is a case where you knew the plans

had to be submitted and knowingly took a chance on the surveyor's recommendations being ratified by the Council. A perfectly normal risk (particularly if you had acquainted your client with the risk) but in this case an unlucky one.

2. A Local Authority must maintain and enlarge a public sewer as necessary, and your client's right to connect a drain to it is not affected by the fact that the sewer discharges into a pond. On the other hand, 21 days' notice must be given by a person wishing to make his drain communicate with a public sewer. The Local Authority can refuse to permit the communication if it appears that their sewerage system would be adversely affected, and a penalty of £20 can be imposed upon the person contravening this regulation.

As you have contravened the regulation, we suggest that the matter should be one of negotiation rather than of independent action. If this fails and you wish to pursue the matter further, we should advise you to consult a solicitor.



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

RIBA

M i n u t e s

The following are some notes from the minutes of the Council of the RIBA for March 13.

The Education Act, 1944, and the Employment of Architects by Local Authorities.

It was reported that on the recommendation of the Salaried Members' Committee the President had sent a letter to the Clerk to the Middlesex County Council protesting against the proposal to delegate authority for the erection of new elementary and secondary schools in the county of Middlesex to a number of local authorities within the county and to second the consequently redundant staff of the County Architects' Department to work under the control of officials of these local authorities. It was pointed out that the specialized educational architecture involved in the construction of secondary schools had in the past been

carried out on behalf of the Middlesex County Council by a specialist staff built up over a number of years, which had maintained an extremely high standard and that the proposed delegation of responsibility would not be in the interests of architecture or of the community. A copy of the letter to the Clerk to the Middlesex County Council was sent to the Minister of Education.

Central Housing Advisory Committee: Subcommittee on Conversion of Existing Houses.

It was reported that in response to a request from the Central Housing Advisory Committee of the Ministry of Health a memorandum on the Conversion of Existing Houses had been prepared by the Housing Committee and forwarded to the Ministry of Health.

Scale of Annual Salaries for Architects.

A report from the Salaried Members' Committee was received, together with the suggested revised Scale of Annual Salaries for Architects. The Council have referred the matter to a joint meeting of the Salaried Members' Committee, Official Architects' Committee and Practice Committee.

Fees for the Assessment and Agreement of War Damage Claims.

On the recommendation of the Practice Committee the Council adopted the Scale of Fees for the Assessment and Agreement of War Damage Claims as issued by the Chartered Surveyors' Institution. Copies of the Scale can be obtained on application to the Secretary RIBA.

Industrial Research and Design: Society of Industrial Artists.

The Council approved the inclusion of the following clause in the Code of Professional Conduct for industrial designers which is being drawn up by the Society of Industrial Artists.

"This Code has been prepared after discussion with the Royal Institute of British Architects. Members of the Institute practising in industrial design are reminded that their conduct is governed by the Code of Professional Practice and Bye-laws of the Institute."

Officers of the Board of Architectural Education, 1945-1946.

The Council appointed the following officers of the Board for the year ending March 31, 1946:—Chairman, Basil M. Sullivan (F); Vice-Chairmen, A. B. Knapp-Fisher (F) (Chairman of the Examinations Sub-Committee), J. S. Allen (A) (Chairman of the Schools Committee), and J. S. Walkden (A); Hon. Secretary, Romilly B. Craze (F).

Town Planning Education Sub-Committee.

The following were appointed to serve on the Town Planning Education Sub-Committee:—Chairman of the Board of Architectural Education; Senior Vice-Chairman of the Board of Architectural Education; RIBA Representatives on the Town Planning Joint Examination Board (2); W. Dobson Chapman (L); Professor R. A. Cordingley (F); Gordon Stephenson (F); Ralph S. Tubbs (A).

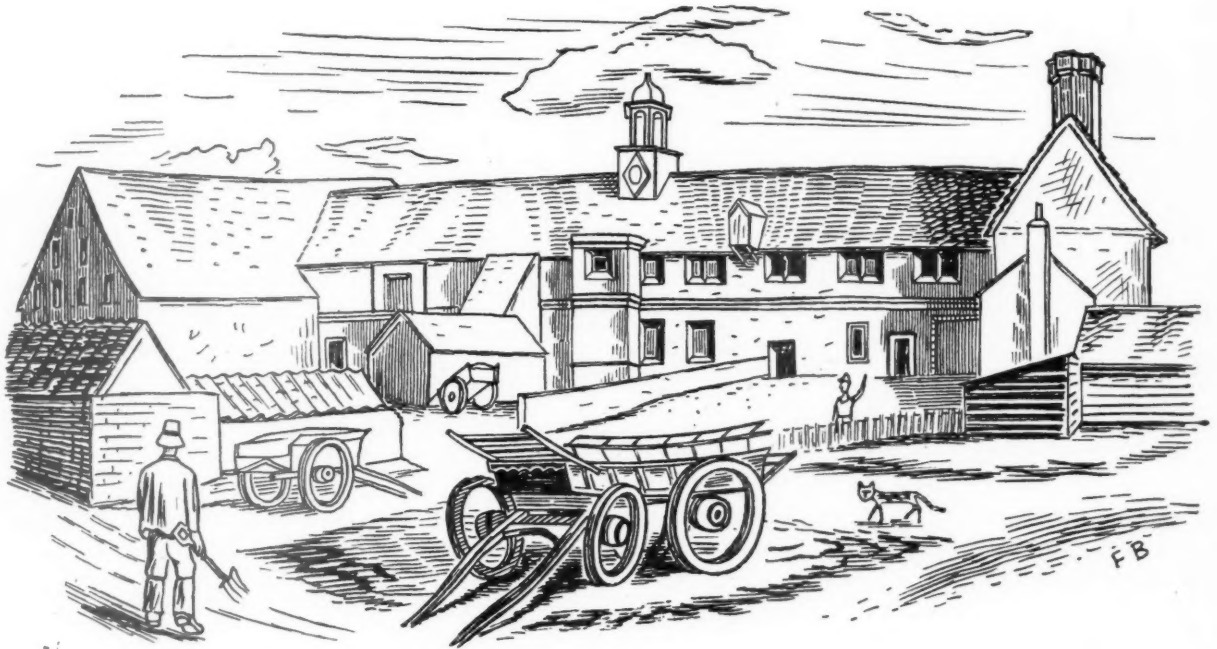
Committee on School Design and Construction.

The following were appointed to serve on an *ad hoc* Committee on School Design and Construction:—Chairman, C. G. Stillman (F); W. T. Benslyn (F); P. W. Birkett (A); D. E. E. Gibson (A); J. Harrison (A); Julian Leathart (F); O. P. Milne (F); E. Berry Webber (A); S. E. Urwin (F).

Professional Text and Reference Books Committee.

E. C. Kent (F) and Miss Jacqueline Tyrwhitt (Director of the Association for Regional Planning and Reconstruction) were appointed to serve on the Professional Text and Reference Books Committee.

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Conference on "Science in Peace" Convened by the Association of Scientific Workers.

It was reported that M. Hartland Thomas (F) had been appointed as the RIBA delegate to this Conference.

Architectural Education Committee of the University of London for 1945-1946.

A. B. Knapp-Fisher (F) and Basil M. Sullivan (F) were reappointed as the RIBA representatives on the Architectural Education Committee of the University of London.

The Requisitioned Land and War Works Bill.

The Town and Country Planning Committee reported to the Council that they were gravely concerned at the proposals in this Bill and were strongly of the opinion that it required re-drafting, that the Minister of Town and Country Planning should be cited in the Bill as the Minister responsible for its administration and that he should consult with local planning authorities in the exercise of his powers. The Council agreed to bring these views to the attention of the Parliamentary Architecture Committee.

Housing Production.

The report of the *ad hoc* Committee on Housing Production was approved by the Council, and it was agreed that it should be published and sent to the Minister of Works, the Minister of Health, the Minister of Town and Country Planning and the Minister of Labour and National Service.

Examination of Licentiatees to Qualify for Candidature as Fellows.

The result of the examination held from December 5 to 10, 1944, was approved as follows:—Passed: Burd, Thomas, elected Licentiate 1938; Cox, Richard G., elected Licentiate 1935.

NFBTE

Protests

The following memorandum protesting against the £10 REPAIR LIMIT and the ALLOCATION OF CONTRACTS FOR THE PHOENIX HOUSE has been issued by the National Federation of Building Trades Employers.

The Government's proposal to impose on May 1 a £10 limit, without licences from the Local Authority or the Ministry of Works, on repair work throughout the country, will fail to help in solving the housing problem, will put many small firms out of business, and will retard the entry of urgently needed apprentices into the building industry.

A strongly worded resolution has been sent by NFBTE to the Minister of Works urging him to reconsider his decision. The resolution reaffirms the Federation's desire to assist the Government in every possible way, but regrets that the advice tendered by its representatives when called into consultation is so frequently ignored by the Government.

Another matter on which the National Federation feels strongly is the handing over of contracts for the 2,000 Phoenix houses to the big contractors who had done work on the Mulberry harbours at Arromanches, without the local builders in the areas in which the houses are to be erected having any opportunity to tender.

Upon this subject, too, the Federation has sent a resolution to the Minister viewing his decision "with indignation."

"Members of the National Federation all over the country," said the President, Mr. G. W. Buchanan, "are up in arms at the

latest moves of the Ministry of Works. We want to co-operate with the Ministry, but we are insufficiently consulted, and it is disappointing to find that our advice, based upon full knowledge of the building industry, is so often disregarded.

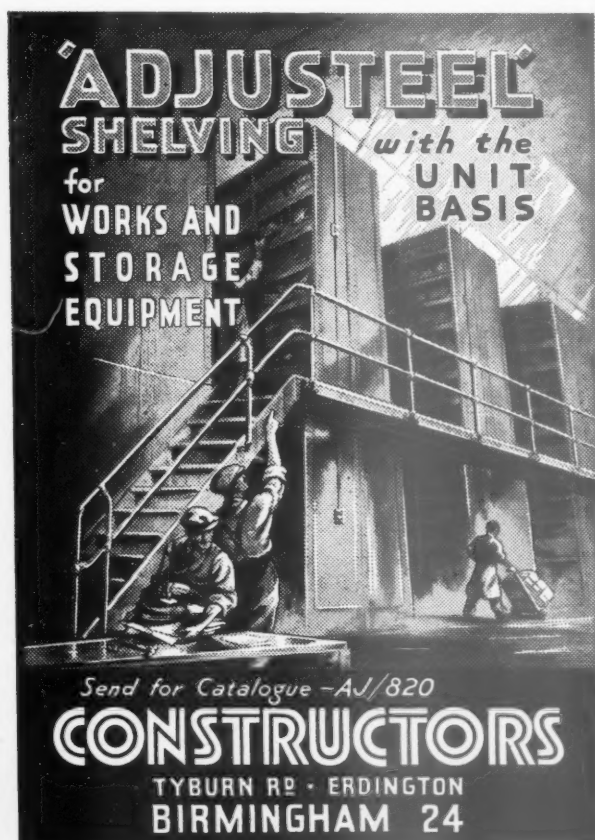
"The handing out of contracts for the Phoenix houses has caused serious concern in every district in which these houses are to be erected.

"These Phoenix houses are regarded by the Ministry merely as an experiment. Even so, some 2,000 of them are being built in groups of 50 in various parts of the country. All the contracts for them have been given to the big builders, most of them with their headquarters in London, and this at a time, too, when local builders in many parts of the country have little or no work to keep their men employed.

"Irrespective of the criticism of our members of this type of construction, what we object to is the fact that there is nothing in it which is in any way beyond the capacity of the local contractor, but the inevitable result is that men, many of them old retainers, are being directed to the big contractors, and the local building industry is being thrown into confusion.

"We appreciate the importance of the Minister's assurance given in the House of Commons last week that local builders will be invited to tender for local work, including the erection of all types of temporary houses. But what is the value of this assurance in face of the methods already adopted for the provision of these temporary houses?

"Admittedly the Phoenix contracts were placed before Mr. Sandys spoke, but why were they given to the big men if Mr. Sandys realizes the importance of bringing in the local builder and, in any case, why are they given without competition?"

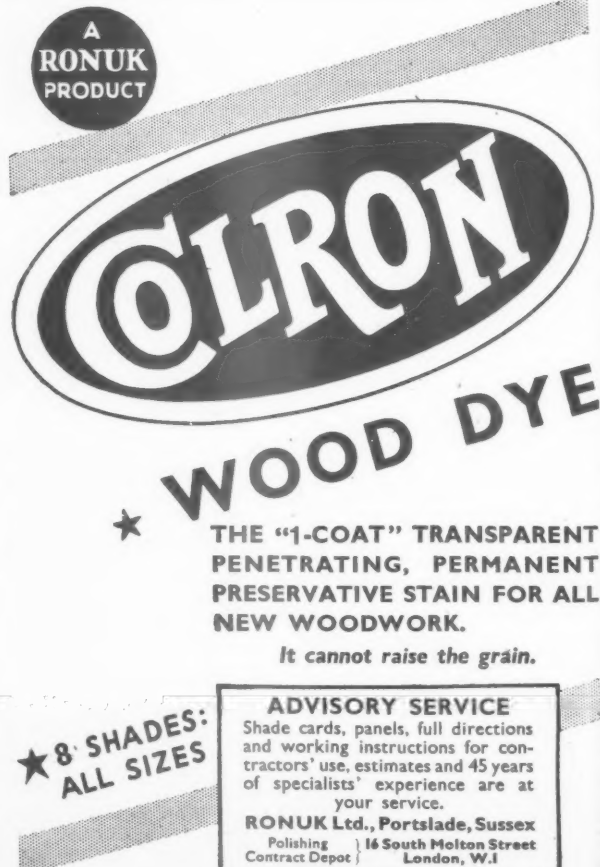


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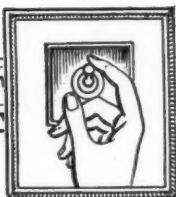
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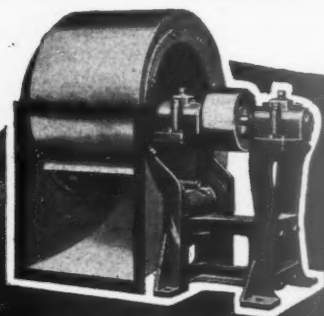
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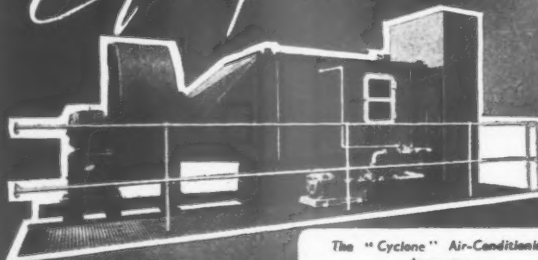


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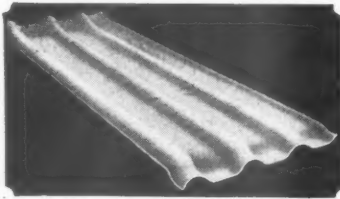


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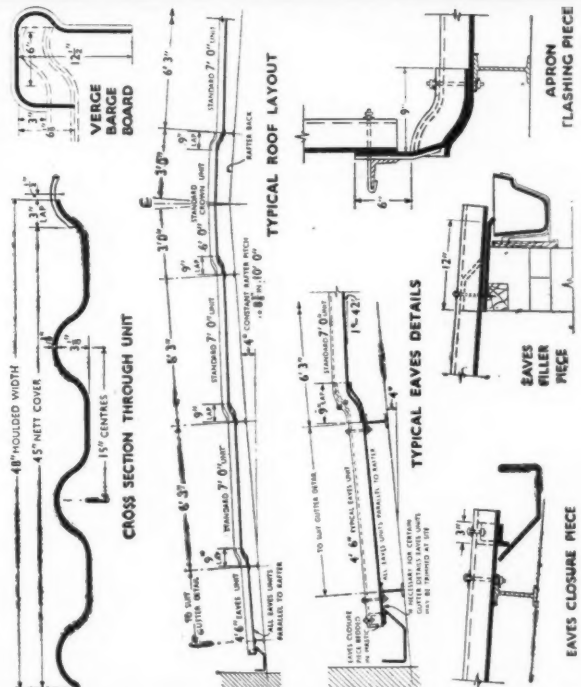
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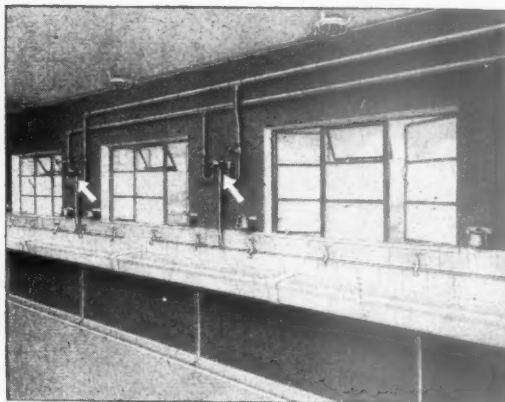
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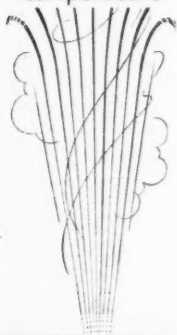


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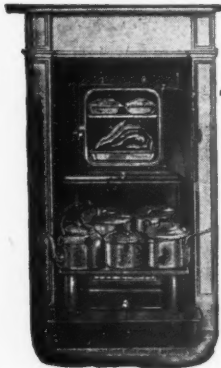
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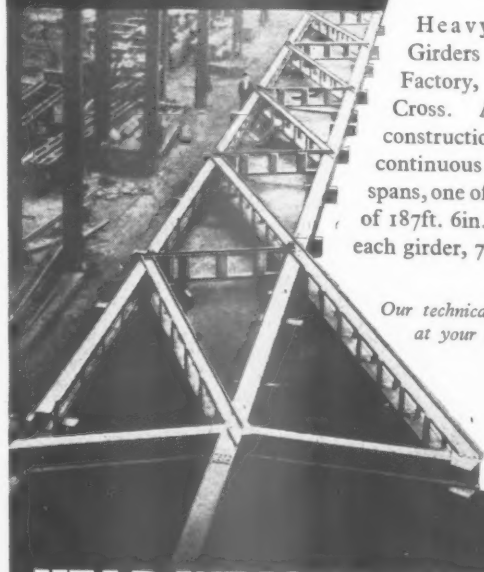
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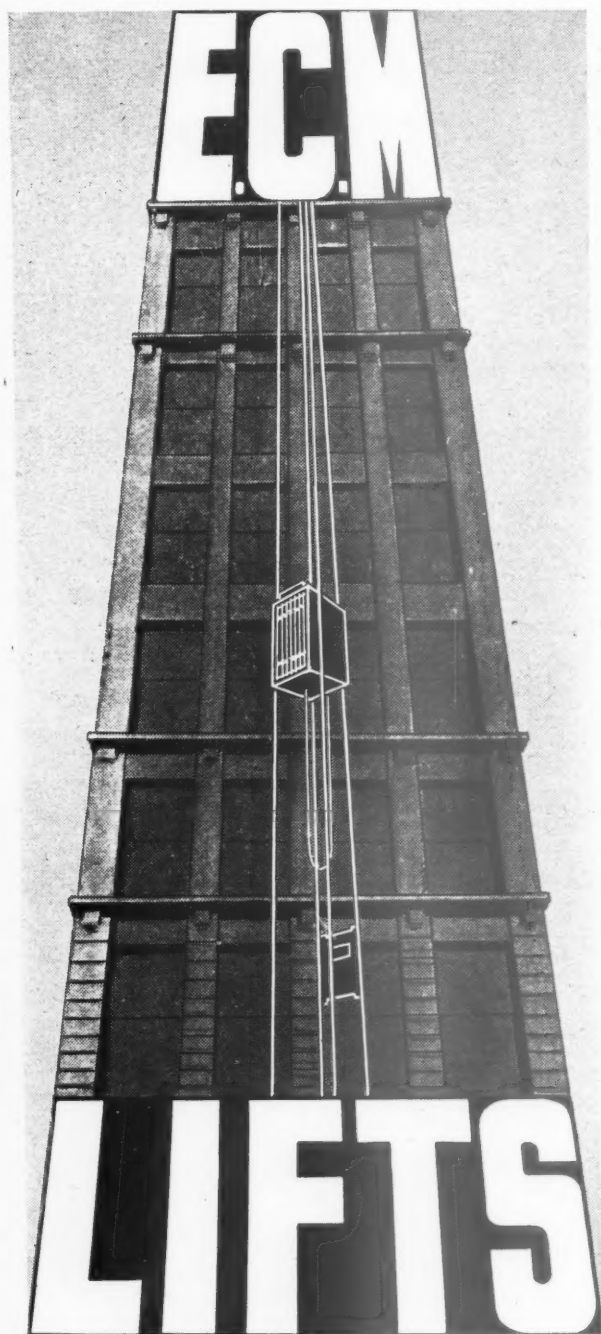
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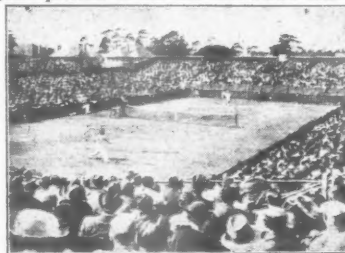
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Advertisements should be addressed to the Advt. Manager, "The Architects' Journal." War Address: 45 The Avenue, Cheam, Surrey, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

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

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DERBYSHIRE COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT. Candidates must be over 30, unless medically unfit for Military Service.

Salary £325, by annual increments of £12 10s. to £350, plus cost of living bonus, at present £49 8s. per annum, and an allowance for extended office hours.

Applications should be sent to the undersigned by 21st April 1945.

The appointment is subject to the approval of the Ministry of Labour.

J. HARRISON,
County Architect.

12th April, 1945. 652

ETON RURAL DISTRICT COUNCIL.

POST-WAR HOUSING.

APPOINTMENT OF ARCHITECT.

The above-mentioned Council, in connection with its post-war housing scheme, involving the erection of houses throughout the Rural Area, wish to engage the services of an Architect, experienced in laying out Estates and building small Country Cottages. The Council therefore invite qualified persons with such experience and who would be willing to act as Architect to the Council to submit their names to the Council and the terms upon which they would be prepared to accept such an appointment. In the first instance, the appointment may be in an advisory capacity only, as some of the lay-out work has already been carried out.

Further particulars will be supplied on request. Communications, stating qualifications and experience, should be addressed to the undersigned to be received by the 23rd April, 1945.

G. L. BRIDGER,
Clerk to the Council.

Council Offices, Windsor Road, Slough Bucks. 648
6th April, 1945.

KENT COUNTY COUNCIL.

BUILDINGS' INSPECTORS required for permanent staff of Buildings Department. Candidates must have practical experience of building trade, be thoroughly competent in preparation of specifications, detailed estimates and builders' quantities in connection with maintenance of buildings, and able to prepare drawings for minor projects. Preference to holders of qualifications, such as the Buildings' Inspector's Certificate. Local Authority experience an advantage. Salary not exceeding £450 per annum, according to qualifications and experience, plus £49 10s. 6d. per annum war bonus. Posts superannuable, medical examination for successful candidates.

Applications in writing (no interviews), stating date of birth, full details of qualifications and experience (including a list in chronological order of posts held), and quoting reference number Q.R.12, should be addressed to the Ministry of Labour and National Service, Appointments Department (A.3A), Sardinia Street, Kingsway, London, W.C.2. 649

FLINTSHIRE COUNTY COUNCIL. APPOINTMENT OF TEMPORARY ASSISTANT ARCHITECT.

Applications are invited for the appointment of a Temporary Assistant Architect in the County Architect's Department. The duties will include the Survey of existing Schools and the preparation of plans and estimates of work necessary to make present building conform to the New Education Act. Preference will be given to Chartered Architects.

Salary will be in accordance with qualifications. Applications, stating age, qualifications, and previous experience, together with copies of three recent testimonials, should reach the undersigned by not later than Monday, 16th April, 1945. Applicants should state their position in regard to Military Service.

R. G. WHITLEY, A.M.I.C.R., L.R.I.B.A.,
County Buildings, Mold.
Ref. RGW/AEC.
21st March, 1945. 620

MANCHESTER MUNICIPAL COLLEGE OF TECHNOLOGY.

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Conditions of appointment and form of application may be obtained from the Registrar, College of Technology, Manchester, 1. The last day for the receipt of applications is 24th April, 1945.

Canvassing, either directly or indirectly, will disqualify a candidate for appointment.

J. E. MYERS,
Principal of the College. 644

ARCHITECTURAL ASSISTANT required by the Borough of Wisbech, Cambs.

Candidates must be qualified and have had experience in the preparation of plans, working drawings, specifications and bills of quantities for architectural and general municipal works.

Commencing salary £375, plus cost of living bonus, £49 8s. p.a. The appointment is for an indefinite period.

Write, quoting EA.845XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/7, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 25th April, 1945. 642

CHIEF ARCHITECTURAL ASSISTANT, permanent, required by the County Borough of Tynemouth.

Candidates must have been born before 1923, and should be A.R.I.B.A. or possess equivalent qualifications, and must be experienced in the preparation of drawings, specifications and quantities, also in controlling staff.

Salary £500 p.a., rising by £25 to £600 p.a. The appointment is subject to the provisions of the L.G.S. Act, 1937, the successful candidate being required to pass a medical examination.

Write, quoting EA.1237XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 25th April, 1945. 643

ARCHITECTURAL ASSISTANT, permanent, required by the Rural District Council of Blaby, near Leicester.

Candidates must have been born before 1923, and should be qualified Architects, with a good knowledge of surveying and levelling, and the preparation of detail plans and quantities for housing and other architectural works.

Salary £275 per annum, rising by five annual increments of £10 to £325 per annum, plus war bonus at present £59 16s. per annum, plus travelling allowance.

The appointment is subject to one month's notice on either side, and to the provisions of the L.G.S. Act, 1937, and the successful candidate will be required to pass a medical examination.

Write, quoting EA.1349XA, to the Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for the necessary forms, which should be returned completed on or before 23rd April, 1945. 636

CHIEF ARCHITECTURAL and TOWN PLANNING ASSISTANT, permanent, required by the Urban District of East Barnet, Herts.

Candidates must have been born before 1923, and be A.R.I.B.A. or hold an equivalent qualification, and have had previous experience with a Local Authority.

Salary £465 by £20 to £505 p.a., plus cost of living bonus, at present 23s. p.a.

The appointment will be subject to the L.G.S. Act, 1937, the successful candidate being required to pass a medical examination.

Write, quoting EA.1062XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 23rd April, 1945. 637

ARCHITECTURAL ASSISTANT, temporary, required by the Corporation of Macclesfield.

Candidates must have been born before 1923 and be A.R.I.B.A. or equivalent, a surveying qualification would be an advantage, and have had experience in municipal housing schemes.

Salary £320 to £350 per annum, plus cost of living bonus, £49 16s. 9d. per annum.

The appointment, though temporary, will probably be made permanent at the conclusion of hostilities.

Write, quoting EA.1249XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 24th April, 1945. 640

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ASSISTANT ARCHITECT. Candidates must be Associates of the Royal Institute of British Architects or hold an equivalent qualification, and have had considerable practical experience in the design and construction of public buildings. Write, quoting EA.1371A, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 23rd April, 1945. 650

TECHNICAL ASSISTANTS required by the Borough of Motherwell and Wishaw.

Candidates must have been born before 1923 and have the necessary qualifications and experience, and be good draughtsmen. Preference will be given to those who are A.M.I.C.E., A.M.I.M. and Cy.E., A.R.I.B.A., or equivalent.

ENGINEERING ASSISTANT. Must have good experience in the design and lay-out of highway and bridge improvement schemes, sewerage and sewage disposal, design in reinforced concrete, and the preparation of specifications and schedules of quantities.

Salary £250—£255—350 per annum, plus war bonus, £50 per annum.

Reference: E.1493XA.

ARCHITECTURAL ASSISTANT. Must have good experience in the design and maintenance of public buildings and institutions, and in the preparation of specifications and schedules of quantities for all building trades, and be familiar with the Scottish mode of measurement.

Salary £200—£25—300 per annum, plus war bonus, £50 per annum.

Reference: EA.1346XA.

The appointments are subject to the provisions of the L.G.S. Act, 1937. The successful candidates will be required to pass a medical examination. The appointments are temporary, with a likelihood of permanency after the cessation of hostilities.

Applicants should write, quoting the appropriate references, to the Ministry of Labour and National Service, Appointments Department, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for the necessary forms, which should be returned completed on or before 23rd April, 1945. 641

ARCHITECTURAL ASSISTANT, temporary, required by the Borough Council of Maldon, Essex.

Candidates must be registered Architects and preferably A.R.I.B.A., or hold an equivalent qualification, with good experience in lay-out and design of Council houses.

Salary £400 per annum, plus cost of living bonus, at present approximately £59 per annum. Write, quoting EA.1225XA, to the Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for the necessary forms, which should be returned completed on or before 23rd April, 1945. 638

TECHNICAL ASSISTANT required by the County Borough of Great Yarmouth.

Candidates must have been born before 1923, and have the necessary qualifications and experience.

ARCHITECTURAL ASSISTANT, permanent. Must be qualified, preferably A.R.I.B.A., and have had experience in housing, schools, and public buildings.

Salary £420—£20—£480 per annum, plus bonus, £59 16s.

Reference: EA.1355XA.

ENGINEERING ASSISTANTS (2), temporary. Must be A.M.I.C.E. and/or hold the testamur of I.M. and Cy.E., and have had experience in housing, sewerage, roads and bridges, war damage repairs, sea defence, etc.

Salary £365—£15—£410 per annum, plus bonus, £59 16s.

Reference: E.1509XA.

The appointments are terminable by one month's notice on either side, and are subject to the L.G.S. Act, 1937, the successful candidates being required to pass a medical examination.

Write, quoting the appropriate reference, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 23rd April, 1945. 635

CHIEF ARCHITECTURAL ASSISTANT, temporary, required by the Borough of Kidderminster.

Candidates must have been born before 1923, and should be qualified Architects with municipal experience, particularly in the design, preparation of specifications, etc., for Council Housing.

Salary £425 per annum, inclusive. The appointment is subject to the provisions of the L.G.S. Act, 1937.

Write, quoting EA.1297XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 25th April, 1945. 639

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Wherever possible prospective employers are urged to give in their advertisement full information about the duty and responsibilities involved, the location of the office, and the salary offered. The inclusion of the Advertiser's name in lieu of a box number is welcomed.

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ASSISTANT required in London Architect's Office; capable draftsman with interest in contemporary design. Reply, stating salary and qualifications. Box 656.

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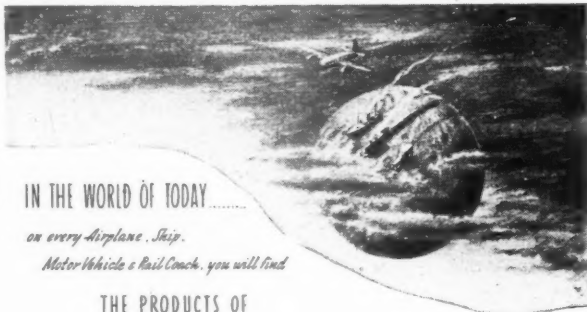
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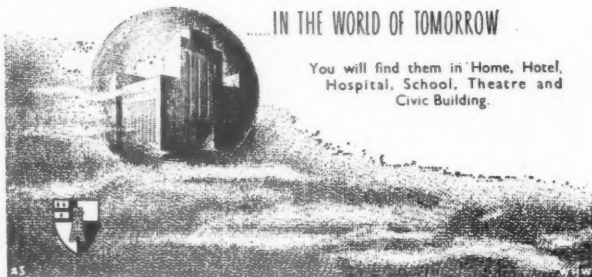
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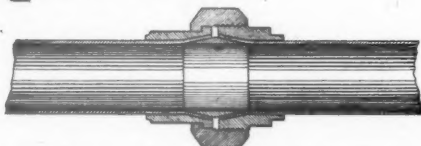
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Alphabetical Index to Advertisers

	PAGE		PAGE		PAGE
Accrington Brick Co.	x	Eagle Pencil Co.		Matthews & Yates Ltd.	xlii
Acme Wringers, Ltd.		Easilecne-Porcelain Enamel (1938), Ltd.	lii	Maxitta Drafting Machines Ltd.	lv
Adams, Robt. (Victor), Ltd.	xlvii	Ellison, George, Ltd.		McCall & Co. (Sheffield) Ltd.	xli
Aero Pipe & Glass Co., Ltd.		English Electric Co., Ltd.		McKechnie Brothers Ltd.	lv
Aldas Electric, Ltd.		English Joinery Manufacturers' Assoc.		McNeill F. & Co., Ltd.	lii
Air Conditioning & Engineering, Ltd.		En-Tout-Cas Co., Ltd.	xlviii	Mellor Bromley & Co., Ltd.	ii
Airscrew Co., Ltd., The		Esavian, Ltd.	lii	Metropolitan Plywood Co.	xxvii
Aluminium Union, Ltd.		Etchells, Congdon & Muir, Ltd.	xlviii	Mills Scaffold Co., Ltd.	lvi
Anderson, C. F., & Sons, Ltd.	iv	Ewart & Son, Ltd.	xxii	Moler Products Ltd.	xlvi
Anderson, D., & Son, Ltd.		Expanded Metal Co., Ltd.		Morris, Herbert, Ltd.	
Ashley Accessories		Expandite Products, Ltd.	li	Morris Singer Co.	xliii
Austins of East Ham, Ltd.		Flexo Plywood Industries, Ltd.	xxxii	Newsum H., Sons & Co., Ltd.	i
Bakelite, Ltd.	xxviii	Fordham Pressings, Ltd.		Nobles & Hoare Ltd.	xxxv
Baker, W. A., & Co., Ltd.	xlv	Forrest, George, & Son, Ltd.		Northern Aluminium Co., Ltd.	l
Bartlett, G. F. E., & Son, Ltd.		Frank Piles, Ltd.	xlii	Oliver, Wm., & Sons, Ltd.	
Barton, Wm., & Sons, Ltd.	liii	Freeman, Joseph, Sons, & Co., Ltd.	xxxvi	Pilkington Bros., Ltd.	xlix
Bath Cabinet Makers & Artcraft, Ltd.	xlvii	Froy, W. N., & Sons, Ltd.		Pilot Press, Ltd.	xxi
Behr, A.	vii	Gardiner & Gulland, Ltd.		Physyl Formwork, Ltd.	
Benjamin Electric, Ltd.		Gaze, W. H., & Co., Ltd.	xlix	Prodorite, Ltd.	xlv
Birmetals, Ltd.		General Cable Mfg. Co., Ltd.		Protenax, Ltd.	
Birmingham Guild, Ltd., The		Gillett & Johnston, Ltd.		Radiation, Ltd.	
Blackburn, Thomas, & Sons, Ltd.		Gliksten Doors, Ltd.		Redferns Rubber Co.	
Booth, John & Sons (Bolton), Ltd.	xxiii	Gray, J. W., & Son, Ltd.		Robinson & Kershaw, Ltd.	xi
Braby, Fredk., & Co., Ltd.		Greenwoods & Airvac Ventilating Co.		Ronuk, Ltd.	xxxviii
Braithwaite & Co., Engineers, Ltd.		Guest, Keen & Nettlefolds, Ltd.	viii	Ross, S. Grahame, Ltd.	x
Briggs, William, & Sons, Ltd.		Gyproc Products, Ltd.	xxiv	Sadd, John, & Sons, Ltd.	xx
Brightside Foundry, Ltd.		Haden, G. N., & Sons, Ltd.		Sankey-Sheldon	xxv
British Artid Plastics, Ltd.		Harris & Sheldon, Ltd.	lii	Shanks & Co., Ltd.	xxxix
British Commercial Gas Association		Harvey, G. A., & Co. (London), Ltd.	xli	Sharman & Sons	lii
British Electrical Development Assoc.	xxxix	Head Wrightson & Co., Ltd.	xlii	Sieglwart Flooring Co.	xi
British Inductro Glass, Ltd.		Helliwell & Co., Ltd.	xvi	Smith's English Clocks, Ltd.	v
British Thomson-Houston Co., Ltd.		Henderson, P. C., Ltd.		Smith, Henry (Constructional Engineers)	li
British Trane Co., Ltd.	xli	Higgs & Hill, Ltd.		Sutcliffe, Speakman & Co., Ltd.	xiv
Bromsgrove Guild, Ltd.		Hills, F., & Sons, Ltd.	xxv	Thorp, John B.	xvii
Brush Electrical Engineering Co., Ltd.		Hilton, James, & Son (Leigh), Ltd.	xxviii	Tretol, Ltd.	
Bryce White & Co., Ltd.		Hope, Henry, & Sons, Ltd.	xxv	Trussed Concrete Steel Co.	liii
Burgess Products, Ltd.		Horseley Bridge & Thomas Piggott, Ltd.		Tubular Furniture, Ltd.	lv
Burn Bros. & Co., Ltd.		Horton Mfg. Co.	xviii	Tudor Accumulator, Ltd.	lii
Cable Makers Assoc.		Imperial Chemical Industries, Ltd.	xlvi	Uni-Secc Structures, Ltd.	xxxix
Callenders Cable & Construction Co., Ltd.	liii	International Correspondence Schools	xlii	United Steel Companies, Ltd.	xliii
Carrier Engineering Co., Ltd.	xxx	Interoven Stove Co., Ltd.	xli	Universal Asbestos Mfg. Co., Ltd.	xlv
Caston & Co., Ltd.	xxx	Invisible Panel Warming Assoc.	xlii	Venesta, Ltd.	vi
Celcon, Ltd.		Jewwood, Ltd.		Vent-Axia, Ltd.	xlii
Checol Processes, Ltd.	lii	Kautex Plastics, Ltd.		Vulcanite, Ltd.	
Clarke & Vigilant Sprinklers, Ltd.	xlviii	Kerner-Greenwood & Crypto, Ltd.	xx	Walker, Crossweller & Co., Ltd.	lii
Coit Ventilators, Ltd.	xxxviii	King, J. A., & Co., Ltd.		Wardle Engineering Co. Ltd.	ix
Constructors, Ltd.	xli	Lancashire Dynamo & Crypto, Ltd.		Waxed-Papers, Ltd.	liii
Cox & Co. (Watford), Ltd.		Laing, John, & Co.		Winpey, George, & Co., Ltd.	
Crittall Manufacturing Co., Ltd.		Lead Industries Development Council, Ltd.		Windshields of Worcester	lii
Crompton Parkinson, Ltd.	xli	Limmer & Trinidad Lake Asphalt Co.		Wood Wool Building Slab Co.	lii
Cutting, R. C., & Co., Ltd.	xix	London Brick Co., Ltd.	xxvi	Zinc Alloy Rust-Proofing Co., Ltd.	lii
Davidson, C., & Sons, Ltd.		Lockerbie & Wilkinson (Tipton), Ltd.		Zinc Development Assoc.	xxxvii
Docker Brothers		Mallinson, William, & Sons, Ltd.			
Dunlop Rubber Co., Ltd.	xlii				

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