



WALTHAMSTOW CIVIC CENTRE

Hugh Bourne, M.I.E.E., M.I.H.V.E.  
Consulting Engineer.

P. D. Hepworth, F.R.I.B.A.  
Architect.

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TANKS.  
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*Durable  
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# Plug in to GAS



**W**HEREVER gas is installed, in the home or in the factory, EDGAR FLEXIBLE PLUGS AND SOCKETS are indispensable, since only by this method is it possible for any portable gas appliance to be removed from room to room, plugged in and be instantaneously ready for use where needed.

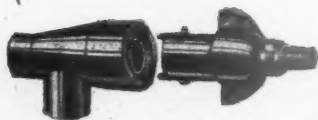
Merely by inserting the plug into the socket and giving it a quarter-turn, the appliance (whether it be gas fire, poker, iron or copper) is connected and the gas automatically turned on.

ANY OTHER  
PORTABLE  
GAS APPLI-  
ANCE.

In all new buildings specify

## EDGAR

### FLEXIBLE PLUGS & SOCKETS

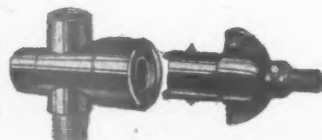


"ORDINARY" TYPE  
No. 1. Mk. II.

Socket screwed  $\frac{1}{2}$  in. B.S.P.  
Nose piece of plug screwed  
 $\frac{1}{2}$  in. B.S.P.

"THROUGH" TYPE No. 5  
Mk. II.

Socket screwed  $\frac{1}{2}$  in. B.S.P.  
M. & F. Threads.  
Nose piece of plug screwed  
 $\frac{1}{2}$  in. B.S.P.



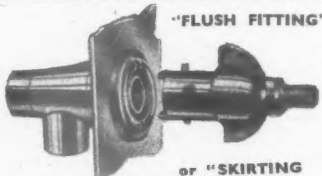
"PEDESTAL" TYPE  
No. 2. Mk. II.

With Flange for floor fixing.  
Socket screwed  $\frac{1}{2}$  in. B.S.P.  
Nose piece of plug screwed  $\frac{1}{2}$  in. B.S.P.



"PEDESTAL" TYPE  
with stem cock.  
No. 3. Mk. II.

This only differs from No. 2 in that  
the stem cock is added.



"FLUSH FITTING"  
or "SKIRTING  
BOARD" TYPE No. 4. Mk. II

This type has heavy brass plate 4ins. long and  
3ins. wide with holes in corners for fixing screws.  
Socket screwed  $\frac{1}{2}$  in. B.S.P.  
Nose piece of plug screwed  $\frac{1}{2}$  in. B.S.P.



**WM. EDGAR & SON LTD., BLENHEIM WORKS, HAMMERSMITH, LONDON, W.6**

Telephone No. : RIVERSIDE 3486

## RELAXATION OF LICENSING CONTROL

# ★ *Important Announcement from* **The UNDERFEED STOKER MAKERS ASSOCIATION**

It is no longer necessary for purchasers to secure licences to install Underfeed Stokers. The Underfeed Stoker Makers now obtain authority to supply. This relaxation of war-time restrictions follows on the recognition by the Ministry of Fuel and Power of the important function of these appliances in securing economy in fuel consumption and their use is encouraged where adequate supplies of suitable fuels are available. This is an important step in post-war industrial development.

Wherever it can be installed, the Underfeed Stoker is recognised as being more efficient and easier on fuel than any method of hand-firing. Experience under restrictions imposed by war-time conditions has proved that the Underfeed Stoker is not "selective" in its requirements and that a wide range of low-grade fuels can be burned satisfactorily. The Underfeed Stoker meets the problem of rising fuel costs and labour shortage.

In many boiler installations, provision was made for fitting Underfeed Stokers when they became available. Arrangements should be made with the Stoker Makers without delay. For full details of the Underfeed Stoker and its advantages, write to this Association or to any of its member firms.

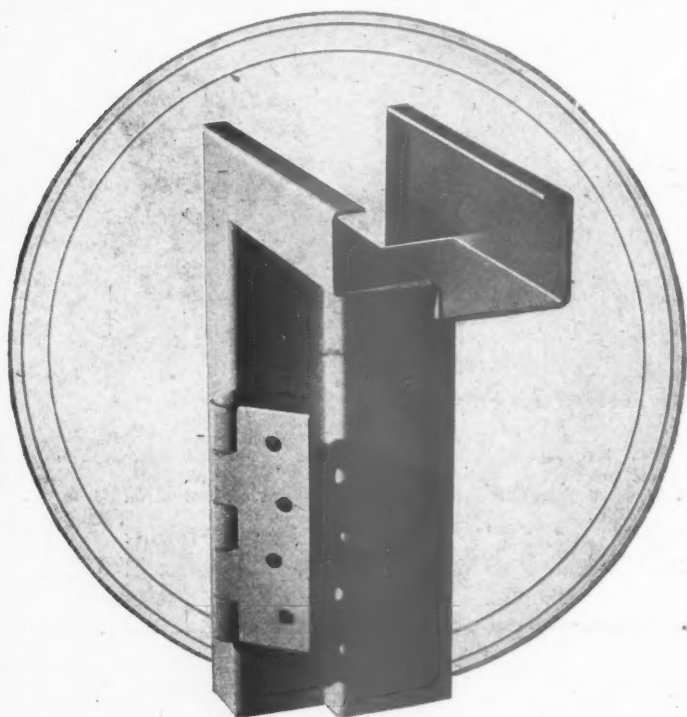


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"RIMER," Rimer Manufacturing Co. Ltd., Pontypridd, Glam.	★	"UNICALOR," Joshua Bigwood & Son Ltd., Wolverhampton
	★	"VULCAN," John Thompson (Triumph Stoker) Ltd., Leeds.

(12)

UNDERFEED STOKER MAKERS ASSOCIATION, 12 RICKETT ST., LONDON, S.W.6. FULHAM 7881-5



# SANKEY

## METAL TRIM

DOOR FRAMES • WINDOW CILLS  
PRESSED STEEL SKIRTING  
PICTURE RAIL • CORNER BEAD  
ETC., ETC.

Metal Trim will undoubtedly play an important part in post-war construction, and those interested are welcome to a copy of our catalogue. For the time being, of course, we are only able to execute orders carrying Government permits.

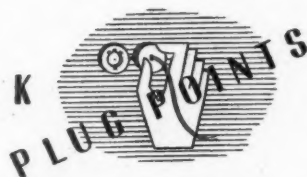
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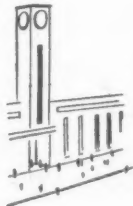


# Dont Forget the CLOCK



## IN THE LOUNGE

A clock plug point included in a lounge or drawing room when first planned will save inconvenient and ugly structural alterations or wiring later. A Smith "Sectric" Clock Connector is ideal for the purpose. It can be positioned to take a standard Smith "Sectric" Wall, Mantel, or Style clock, or to service a Smith "Sectric" Clock built-in to your personal specifications. Neat and unobtrusive, it carries an independent fuse, and the plug cannot be pulled out accidentally. Your enquiries are invited.



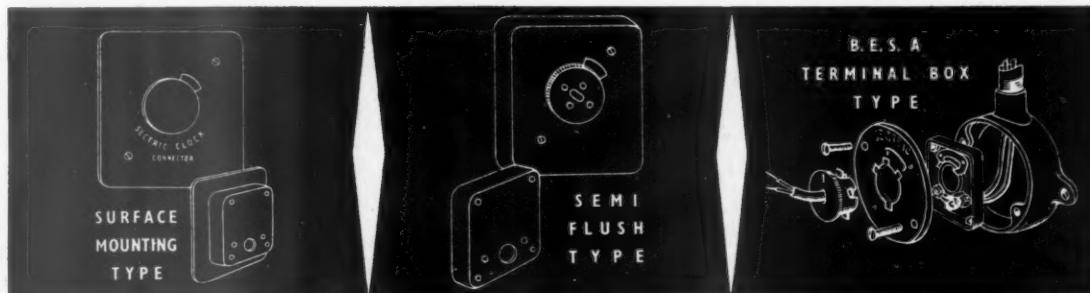
Smith "Sectric" Commercial Clocks are available for all conceivable interior and exterior purposes, in standard designs or to architects' specifications, from small office clocks to large turret structures.



### SMITH SECTRIC CLOCKS

plug in to Greenwich Time

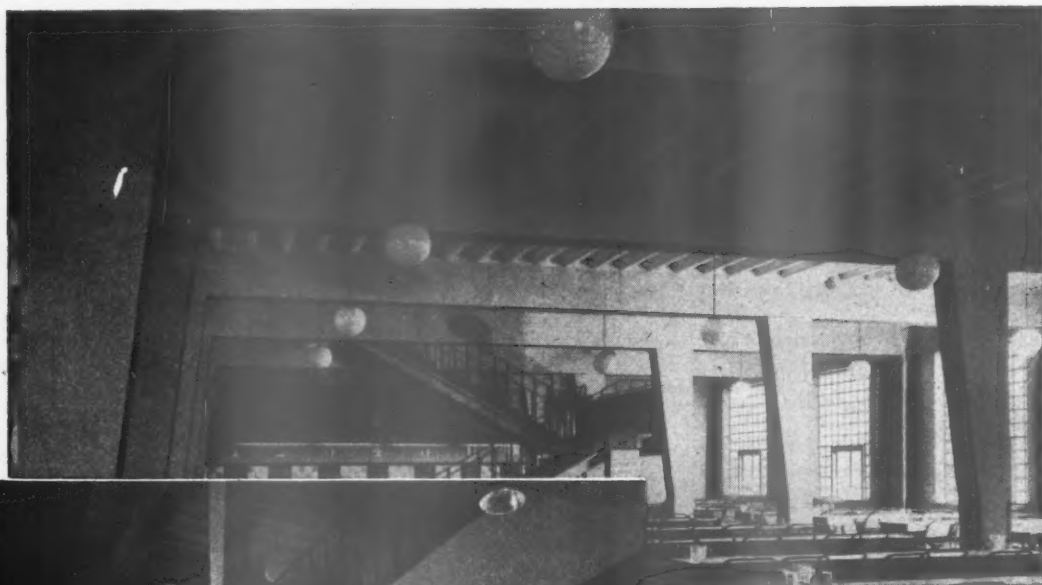
*& "Sectric" Clock Connectors*



SMITH'S ENGLISH CLOCKS LTD. CRICKLEWOOD WORKS, LONDON, N.W.2

The Clock and Watch Division of S. Smith & Sons, (England) Ltd.

Scientific B.C.M. 13



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Assistant Architect: Hilton Wright,  
A.R.I.B.A.

Contractors: Purdie, Lumsden &  
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*Truscon Precast Units do not require  
false ceilings for this type of building;  
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## Plan the **FINISH** from the start!

Before the first quantitative survey is made, or the preliminary plan drafted, the wise architect has the finish in mind. He knows that, if he specifies CERRUX Decorative Finishes, he is best serving his client and the tenants of the building to come. CERRUX, in war-time as in peace, ensures high speed application, thorough and enduring protection, and the lowest subsequent maintenance costs. The protection of wood and metal fittings, no less than the general appearance of the building, is assured with CERRUX.

Shortage of the essentials has reduced the output of CERRUX, and has necessitated the limitation of the remaining output to those jobs in which CERRUX plays a vital part in the preservation of life or the prosecution of the war.

But, even in war-time, the brains behind CERRUX are producing, from the available substitute materials, a range of finishes inferior only to the pre-war CERRUX product itself.

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in  
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Local control in planned building construction



### THE REGIONAL OFFICE

The Wimpey Regional Office is the first link in project-planning — and the last. Before central planning begins at Wimpey's general headquarters, the Regional Office reports on local resources and problems. And eventually, as work proceeds, it is the Regional Office that enables headquarters to keep daily check on progress.

The Regional Offices are Wimpey's field-headquarters. They are at Bristol, Birmingham, Cardiff, Manchester, Newcastle, Nottingham, Plymouth, Wakefield, Worthing, Edinburgh and Glasgow. Each has its Managerial, Estimating,

Administrative and Executive Staffs — its direct contact with Architects and Surveyors — its local foremen and access to local labour. Each has the knowledge of local supplies, conditions and difficulties that is only fully available to a local organisation.

These offices are the circumference of the Wimpey wheel. The hub is Wimpey's 'G.H.Q.' : Operations Control Room, Central Engineering Staff, Central Laboratory and great pools of transport and plant. And along each spoke of the wheel there is constant collaboration. This combination — of central planning and unified supervision with local information and control at close quarters

— ensures that a job of any size in any part of the country can be carried through economically to a predetermined time and progress schedule.

It is on widespread organisation of this type that Wimpey's sixty years of steady progress have been built.

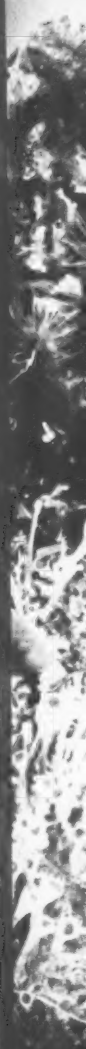
## WIMPEY

GEORGE WIMPEY & COMPANY LIMITED  
TILEHOUSE LANE, DENHAM, MIDDLESEX





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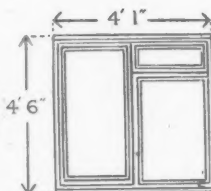
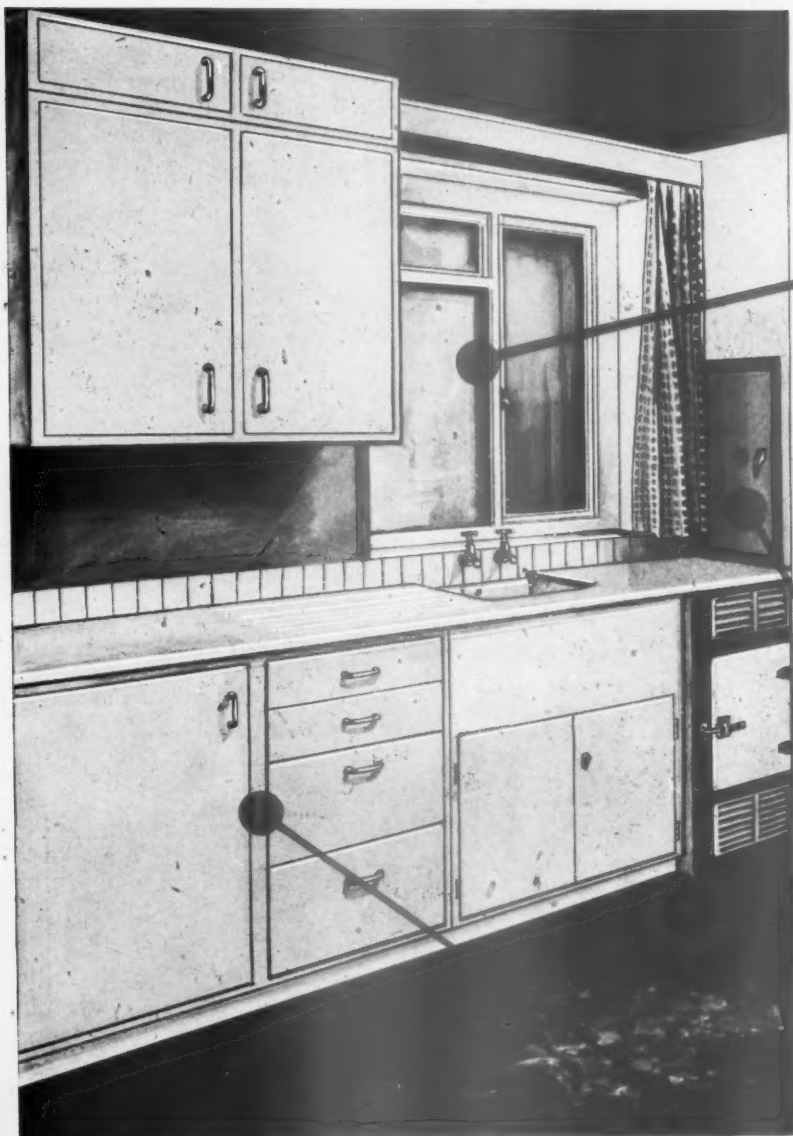


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# *Distinctive as Glossex Finishes*



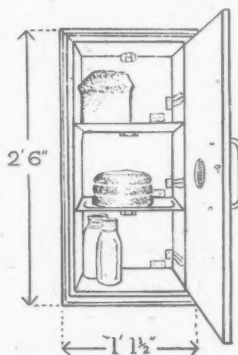
VULCAN PRODUCTS LTD. *Specialist Paint Manufacturers*  
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STANDARD CASEMENT  
WINDOWS.**

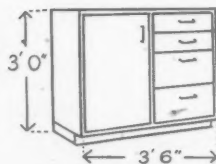
ECONOMICAL, WEATHER AND  
DRAUGHT RESISTING. MAXIMUM  
DAYLIGHT ADMISSION.

Adopted as a British Standard  
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**"NEWSUMS"  
TRADESMAN'S  
HATCH.**

INEXPENSIVE, FOOL-PROOF,  
HYGIENIC, CONVENIENT.  
Every Tradesman's Hatch is fitted  
with a Patent Automatic Locking  
Device which prevents any inter-  
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exterior.



**"EJMA" RANGE  
OF CUPBOARD  
UNITS.**

TO EQUIP ALL NEW KITCHENS—  
TO MODERNISE OLD KITCHENS.  
The Cupboards are designed to  
Unit Pattern as recommended in  
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*Modern Woodwork  
by  
Newsoms*

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of every type, Steel Frame Buildings for Factories, Offices and Residential Flats, Airport Buildings, Hangars, Dock Warehouses, Piers and Pier Concert Pavilions, Swimming Baths, etc., are constructed with sound materials and craftsmanship.

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Cotton is an essential raw material in the production of leathercloth. Cotton fabrics are, however, in short supply, and any improvement will only be on a gradual scale. Meantime we shall continue to supply leathercloth to customers under quotas, this having been found to be the fairest method of distribution.

Where firms have, or can acquire, suitable base fabric, we shall be pleased to quote for its processing into leathercloth. A sample of the fabric should be submitted. Dyed, printed and combined cotton fabrics, linen and other materials can be considered.



**IMPERIAL CHEMICAL INDUSTRIES LIMITED**  
**LEATHERCLOTH DIVISION**  
Telephone: HYDE 651

**HYDE, CHESHIRE**  
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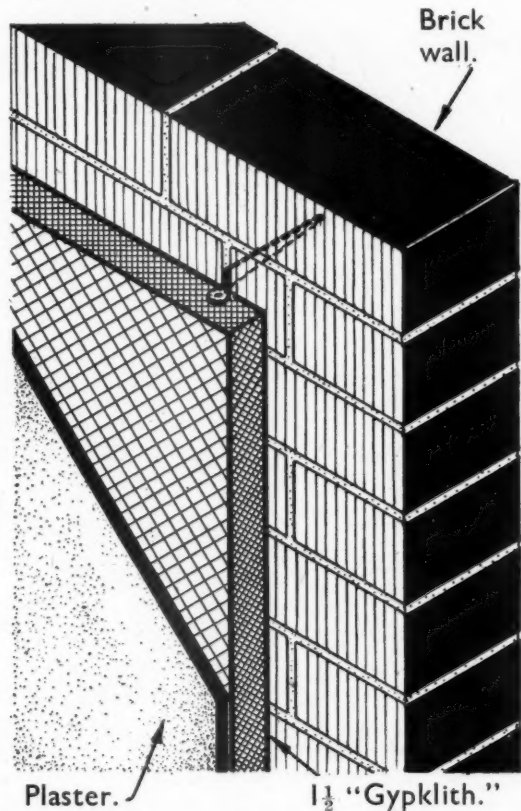


# Insulation can save 40% of domestic fuel consumption

"In cold storage and refrigeration plants where a temperature is maintained from 10 to 80 deg. below the outside temperature, it is found economical to use anything from 6 in. to 8 in. thickness of highly insulating material; yet the majority of householders in this country attempt to maintain similar temperature differences in the winter without the provision of any effective insulation whatever."

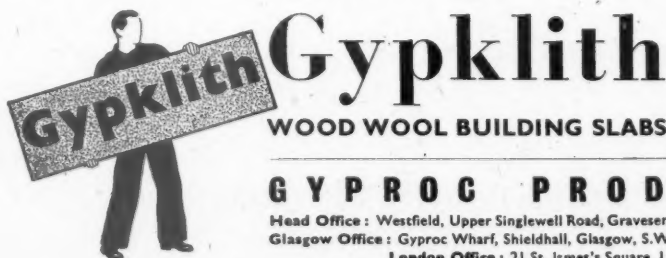
*Extract from "Insulated Construction," by C. W. Glover, M.Inst. C.E., M.I. Struct. E.*

In the past, fuel for heating has been used with a prodigality which appears shocking now that we are faced with the necessity of getting the maximum from every ton in the interests of national recovery. It has been calculated that without any improvement in the efficiency of heating appliances, the general provision of adequate thermal insulation would save something like 40% of our domestic fuel consumption for heating. The official policy of the Government is summed up in the statement in Bulletin No. 12 issued by the Ministry of Fuel and Power that "the aim of this Bulletin is to ensure that no building shall be erected



GYPKLITH APPLIED TO BRICK WALLS

in future without consideration being given to this very important matter (namely, insulation)." It is our policy to ensure adequate supplies of GYPKLITH, which, because of its low thermal conductivity, good "keying" properties, and high fire-resistance, is one of the most suitable insulation materials available.



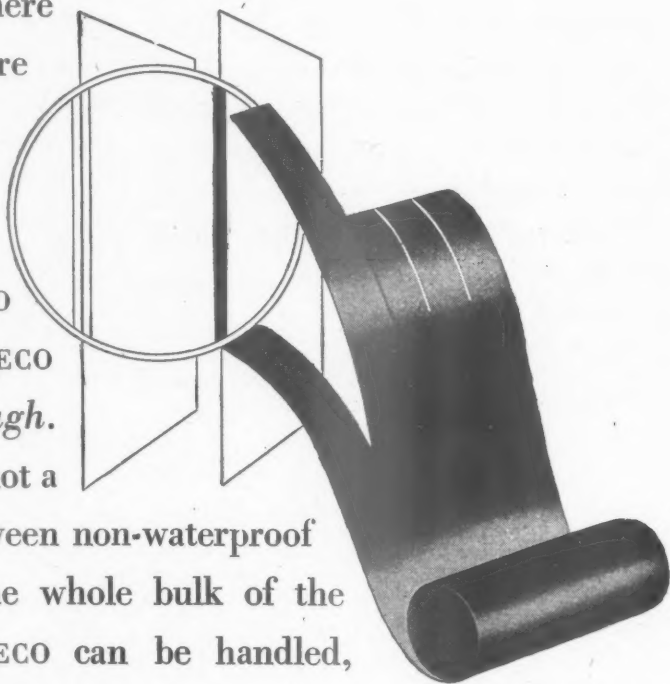
GYPKLITH wood wool building slabs consist of petrified wood fibre compressed and bound with cement. Are light in weight, structurally strong, and highly resistant to fire, dry rot, and vermin infestation. Can be chased and cut with wood-working tools. Rough open texture of surface provides excellent key for plaster or cement. Thermal conductivity is 0.57 B.Th.U./sq. ft./hr./"F./in. Full technical information on request.

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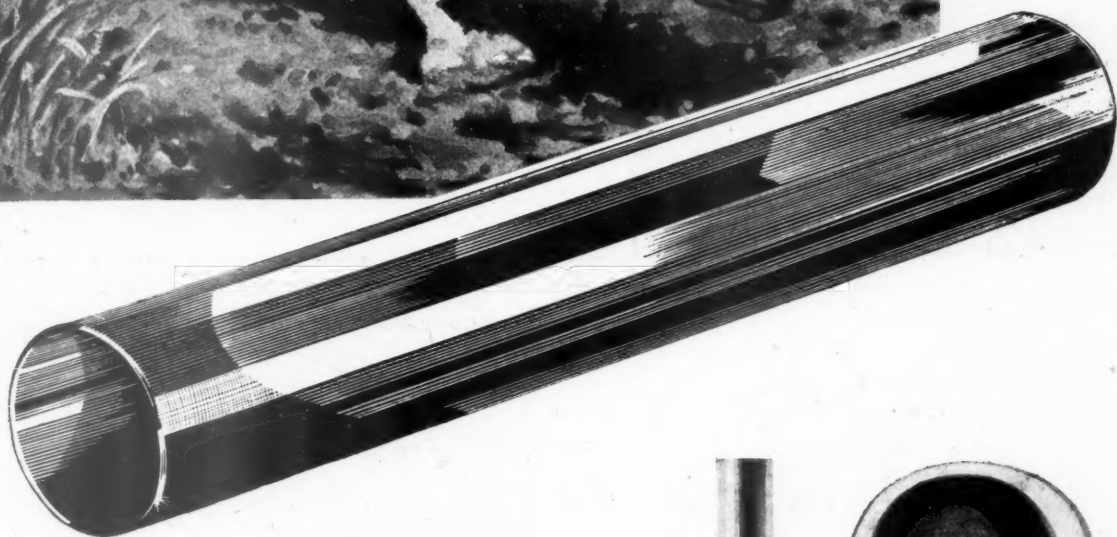
Makers also of Gyproc Plaster Board, Gypstele Partitions and Ceilings, Plaxstele and Acoustele Ceilings

*Close-up of security . . .* In a multiplicity of jobs in building and construction, one of the major problems is to keep moisture in its proper place. It needs to be kept *out* of parquet floors, but *in* a mix of concrete while setting and hardening take place; *in* the mould where pre-cast concrete units are made, but *out* of a wooden building . . . There's no better aid to this control of moisture than IBECO waterproof kraft paper. IBECO is waterproof *all through*. The proofing bitumen is not a thin film sandwiched between non-waterproof sheets; it impregnates the whole bulk of the paper. As a result, IBECO can be handled, folded, creased, without danger of cracking. It can be exposed to extremes of heat and cold without effect on its waterproof properties. There is no free bitumen to "sweat out", to flow or harden. In short, IBECO provides the maximum safeguard with minimum bulk. Keep IBECO in mind for jobs in hand or in prospect. Fuller details and samples of the various weights from C. Davidson and Sons Ltd. (Dept. K.43): Mugie Moss, Aberdeen.



WATERPROOF KRAFT PAPER

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The beauty of the Rhino is open to question—the beauty of the CROMALIN finish goes without saying—but the two have one virtue in common—a thick skin!

The CROMALIN process gives a protective coating to metals that is impervious to time, weather and constant handling. The secret lies in the bonded deposition beneath the surface—CROMALIN finish belies the maxim that "beauty is only skin deep"!

By the CROMALIN process it is possible to plate ALUMINIUM—BRASS—STEEL—ZINC.

Write to us NOW and give us the opportunity of showing you some "shining" examples.



## CROMALIN

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METAL FINISHES LTD., CROMALIN WORKS, NEW SPRING ST., BIRMINGHAM, 18

**B**ECAUSE many of the strong arms that hewed this fine stone are now busy with more urgent tasks, we ask you to accept with patience any delays of to-day whilst planning to make full use of the beauty and permanence of 'HOPTON-WOOD' stone in to-morrow's era of reconstruction

THE HOPTON-WOOD STONE FIRMS LTD.  
WIRKSWORTH, DERBYSHIRE

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towards the Artistic Interior*

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CONCEALED  
CONVECTION  
HEATING

*Better for Health... Better for Design*

The British Trane Co., Ltd., designers and manufacturers of Vectairs, would be pleased to discuss with you the application of this modern heating apparatus for all purposes. Write for booklet EV/A13: Vectair House, 52 Clerkenwell Close, London, E.C.1. Telephone: Clerkenwell 6864 & 3826.



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anthracite  
open fire  
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and over  
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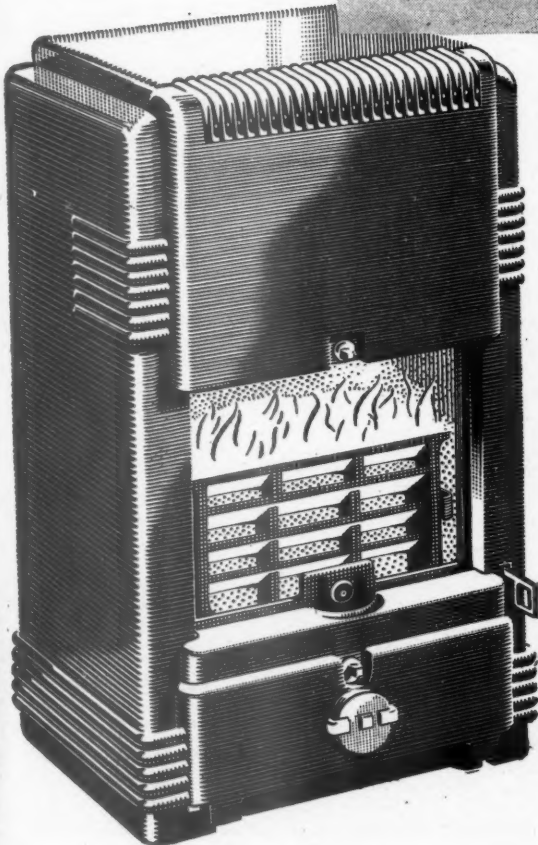
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## NEW-FASHIONED VISIBLE HEAT

### EXAMPLE

### THE OTTO HEATING STOVE

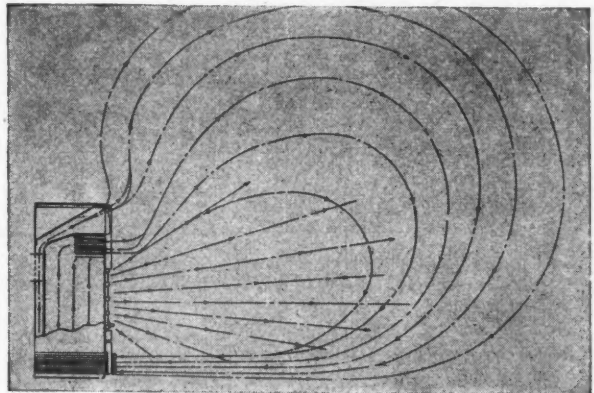


#### SPECIFICATION: (TWO SIZES)

**FOR OTTO No. 1** - - - - - Height 26"  
 Width 17½"  
 Depth 13½"  
 Height to top of flue outlet 18½"  
 Diameter of flue suitable  
 for 4½" or 5" flue pipe - - 4½"

**FOR OTTO No. 2** - - - - - Height 30"  
 Width 17½"  
 Depth 13½"  
 Height to top of flue outlet 21½"  
 Diameter of flue suitable  
 for 4½" or 5" flue pipe - - 4½"

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



**ADVANTAGES:** Burns any kind of fuel, coal, coke, anthracite, peat or small logs. It can be a closed or open fire. It is a day-and-night stove, for the combustion is under control. It heats the air of a room. The diagram shows the air duct which runs below, behind and over the fire cavity. Cool air is drawn in underneath. This moves upward behind the fire where heat is

most intense. The heated air (still clean and pure) is then thrown forward and outward. The atmosphere is thus kept in constant circulation and the room is made really warm and comfortable even in the farthest corner. With the Otto Stove, heat which ordinarily would be absorbed by the wall at the back, comes out into the room giving 20% more warmth from every ounce of fuel used.

ONE OF THE MANY CONTRIBUTIONS TO THE POST-WAR HOME THAT WILL BE MADE BY

## ALLIED IRONFOUNDERS LIMITED



**ALLIED IRON**  
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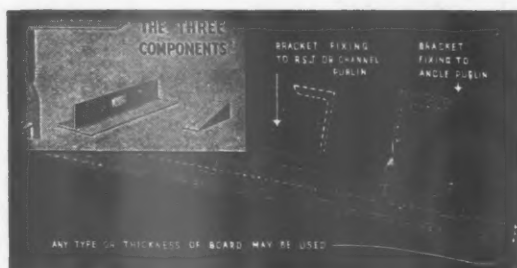
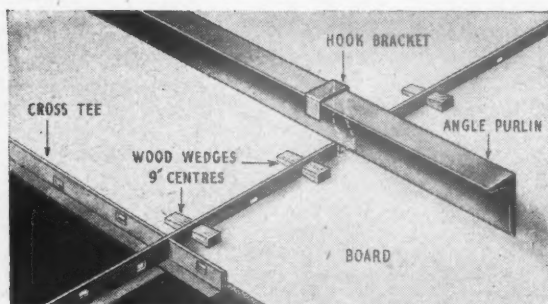
Patent No. 519406

## 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.
7. Any thickness of board can be used, from  $\frac{1}{4}$ " to  $\frac{5}{8}$ ".
8. This method can be used for applying linings to exterior walls.
9. 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.

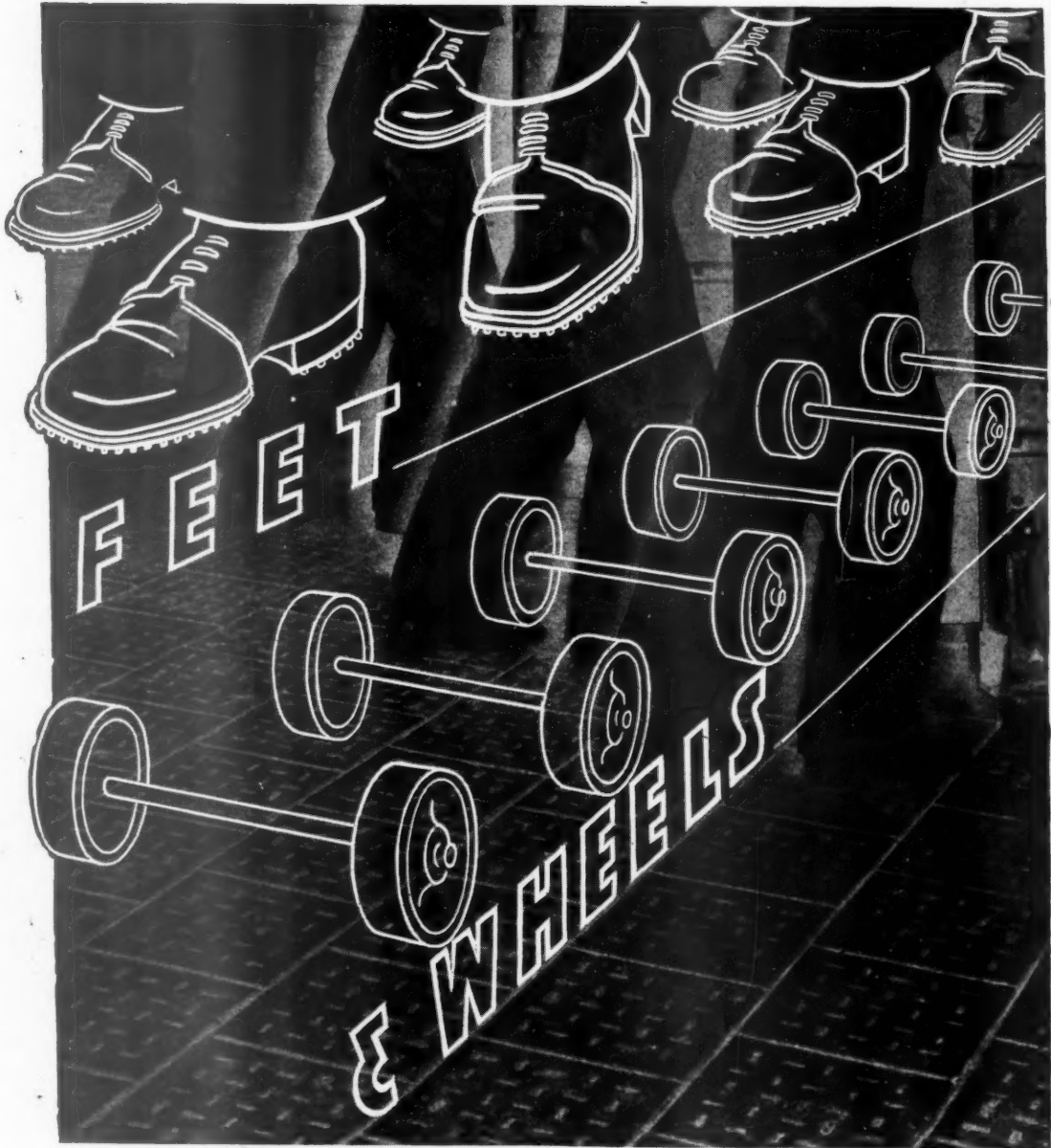
Full particulars, specification and a typical layout will be sent on request

## C. F. ANDERSON & SON, LTD.

### Wallboards for Government Work

HARRIS WHARF, GRAHAM STREET, LONDON, N.1.

TELEPHONE: CLERKENWELL 4582



. . . Feet and Wheels. Wheels and Feet, backwards and forwards, day in and day out. Wearing . . . wearing . . . wearing . . .

Worn floors are not only costly, they are also dangerous. You can make your factory safer and more efficient and also save considerable sums of money by laying . . .

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"One of Britain's Best Floors for Factories"

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### MESSAGE FOR OCTOBER

*I*N post-war housing schemes, Electricity will be much more extensively used for cooking, hot-water systems, clothes washing and other purposes.

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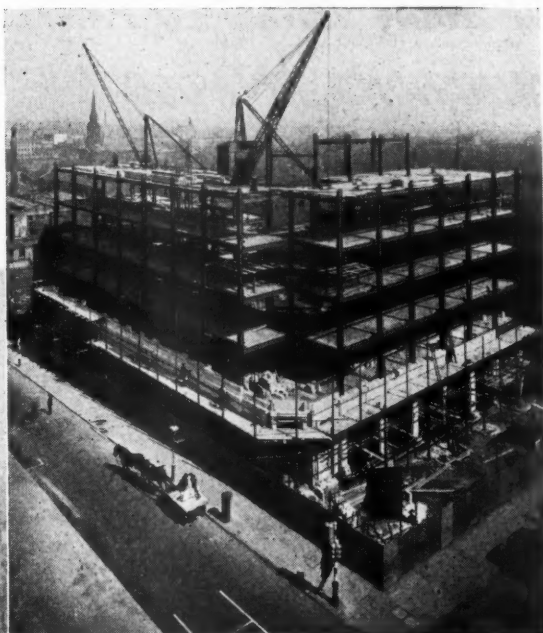
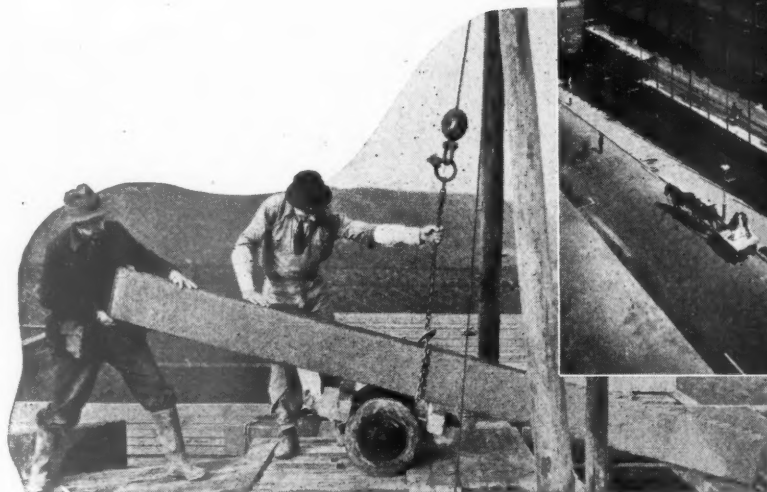
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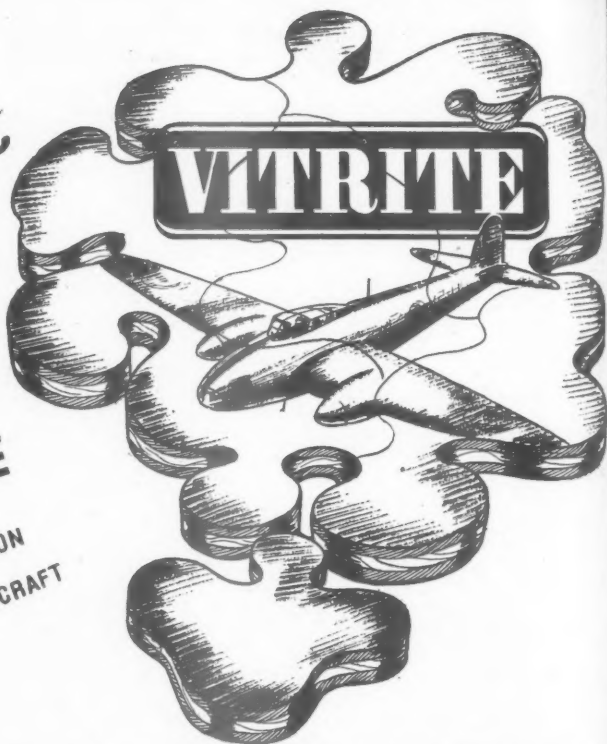
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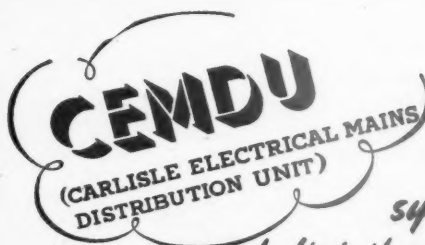
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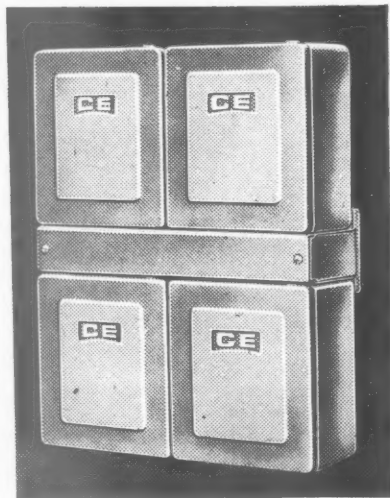
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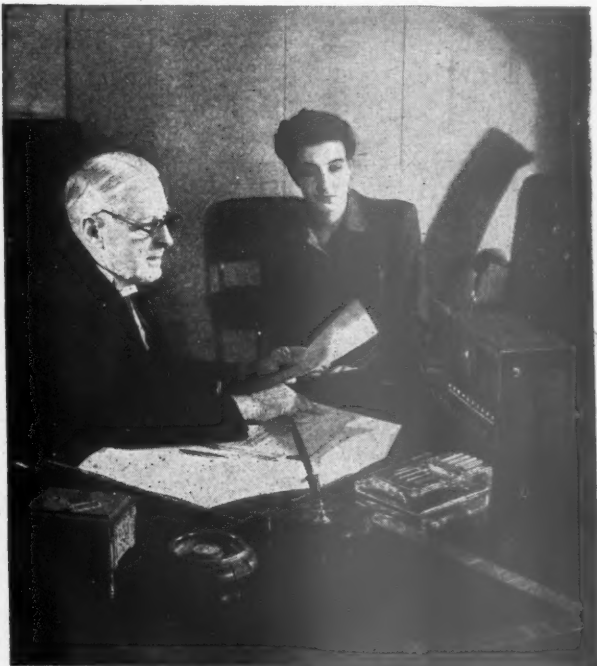
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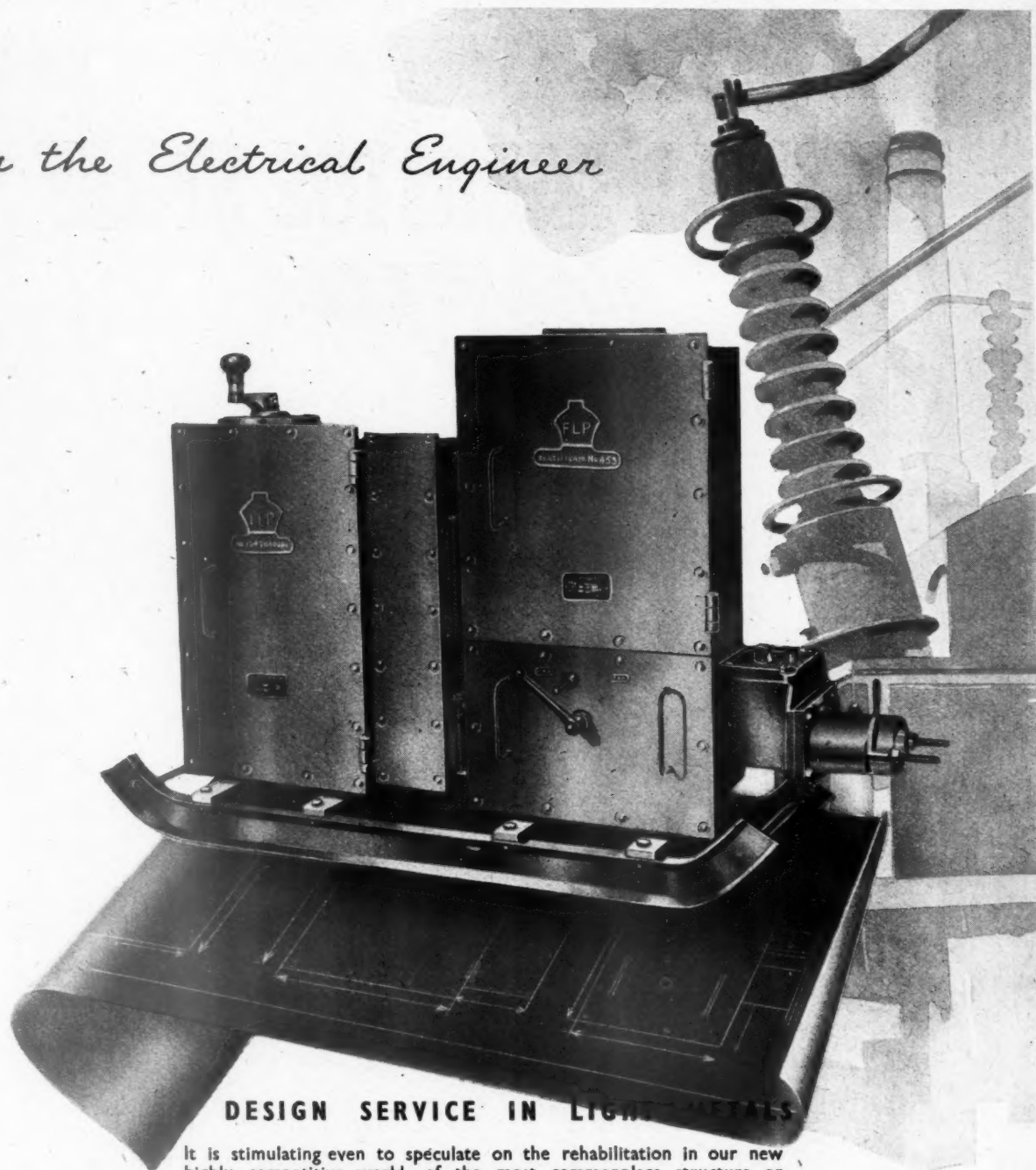


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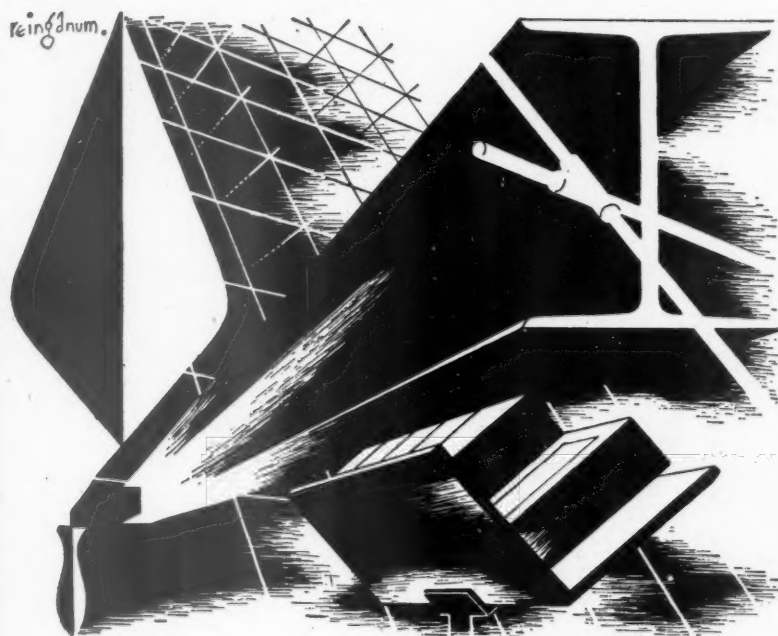




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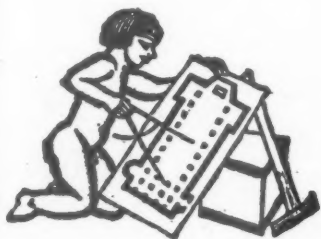
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## DIARY FOR OCTOBER NOVEMBER AND DECEMBER

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.** *Modern Building Tools Exhibition.* At Big Top Site, New Street, (Sponsor, MOW.) Oct. 11-13

Dr. E. J. West. *Developments in the Welding of Aluminium Alloys.* At the James Watt Memorial Institute, Great Charles Street, Birmingham. (Sponsor, Institute of Welding, Birmingham Branch.) 6.30 p.m. Oct. 12

*Peacetime Use of Perspex.* Exhibition at the Chamber of Commerce, 95, New Street, Birmingham, 2. Sections will deal with shop fitting and display, building applications of Perspex, draining boards and kitchen equipment. The exhibition will be lighted by fluorescent tubes in Perspex troughs. (Sponsor, Birmingham Regional Office of Imperial Chemical Industries.) 10 a.m. to 6 p.m. Oct. 11-13

**COVENTRY.** *Coventry of the Future Exhibition.* In commemoration of the sixth hundred anniversary of the City's Incorporation. (Sponsor, Coventry City Council.) To be opened by G. L. Pepler, Chief Technical Adviser to the Ministry of Town and County Planning. Oct. 15

**HENLEY-ON-THAMES.** *The English Town: Its Continuity and Development.* Exhibition at the Town Hall. (Sponsor, TCPA.) Oct. 15-22

**LEICESTER.** J. Singleton Green. *Concrete.* At the College of Art, The Newark, Leicester. (Sponsor, Leicester and Leicestershire Society of Architects, in association with Leicester School of Architecture.) 6.30 p.m. Oct. 17

**LIVERPOOL.** *News of the World Housing Exhibition.* Architect for the Exhibition, Frederick W. Hagyard. Oct. 11-19

**LONDON.** *NALGO Exhibition.* At the YWCA. (Sponsor, BLAE.) Oct. 11-13  
*Royal Photographic Society of Great Britain.* Ninetieth Exhibition. At 16, Princes Gate, South Kensington, S.W.7. 11 a.m. to 5 p.m. Oct. 11-20

*Conference on Housing.* At the London School of Hygiene and Tropical Medicine, Keppel Street, London, W.C.1. First session, 2.30 to 4.45 p.m. Address by the Rt. Hon. Aneurin Bevan, Minister of Health. Discussion opened by Thomas Sharp, President of the Town Planning Institute, and Frederick Gibberd. Subjects for session include neighbourhood and site planning, the planning of dwellings and the organization of building works. Tea, 4.45 to 5.30 p.m. Second session, 5.30 to 8.0 p.m. Discussion opened by D. E. E. Gibson, Coventry City Architect, and Professor J. D. Bernal, Chairman of the Scientific Advisory Committee of the Ministry of Works. Subjects include methods of construction, ex-

perimental building, and research. Summing-up of the Conference by Kenneth Campbell, President ABT. Tickets from General Secretary ABT, 5, Ashley Place, London, S.W.1, price 2s. (including tea). 2.30 p.m. to 8 p.m. Nov. 3

*Middlesbrough Survey and Plan.* At the RIBA, 66, Portland Place, London, W.1. Middlesbrough was one of the first towns to make a comprehensive survey, or diagnosis, covering all aspects of its life, as a prelude to making a new plan. More than 3,000 of the townsfolk gave information and help to a team of architects, geographers, sociologists and town planners which worked under the leadership of Max Lock, ARIBA, Middlesbrough Town Planning Consultant. The exhibition consists of models, maps, plans and drawings. Sir Stephen Tallents, K.C.M.G., Public Relations Officer to the Ministry of Town and Country Planning, opened the Exhibition on October 9. Oct. 11-24

*Aluminium and Plastics in Building.* Exhibition at Runcolite, Ltd., 3, Vere Street, W.C. (Sponsor, International Plastics, Ltd., in conjunction with Plastic Spray, Ltd., British Artificial Resin Co., Ltd., and the Gas Light and Coke Co.) Oct. 15 ONWARDS

Dennis Chapman. *Social Surveys in Town Planning.* At the Planning Centre, 28, King Street, Covent Garden, W.C.2. (Sponsor, TCPA.) Buffet lunch 12.45 p.m. to 1.15 p.m. Talk and discussion 1.15 p.m. to 2.15 p.m. Oct. 11

Dr. F. Klingender. *Socialist Realism: The Aesthetics of Soviet Architecture.* Second of a series of introductory lectures to the study of Soviet architecture. At the RIBA, 66, Portland Place, W.1. Chairman, E. J. Carter. Tickets from SCR Architecture Group, 98, Gower Street, W.C.1. Admission free to members of the Group, non-members 1s. 6d. 6.30 p.m. Oct. 22

**NORWICH.** F. Clark. *Design and Welding Techniques.* (Sponsor, Institute of Welding, East Counties Branch.) Oct. 11

**TAUNTON.** *Housing, Town and Country Planning Exhibition.* At the Electricity Showrooms. (Sponsor, Taunton and District's Savings Committee.) Oct. 11-13

*Permanent House Exhibition.* The exhibition of permanent house plans shows the results in the competition recently organized by the House-Building Industries' Standing Committee. It includes, apart from the plans, seven models, some of which are complete with scale models of utility furniture. Oct. 11-15

## NEWS

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No. 2646. VOL. 102

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

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

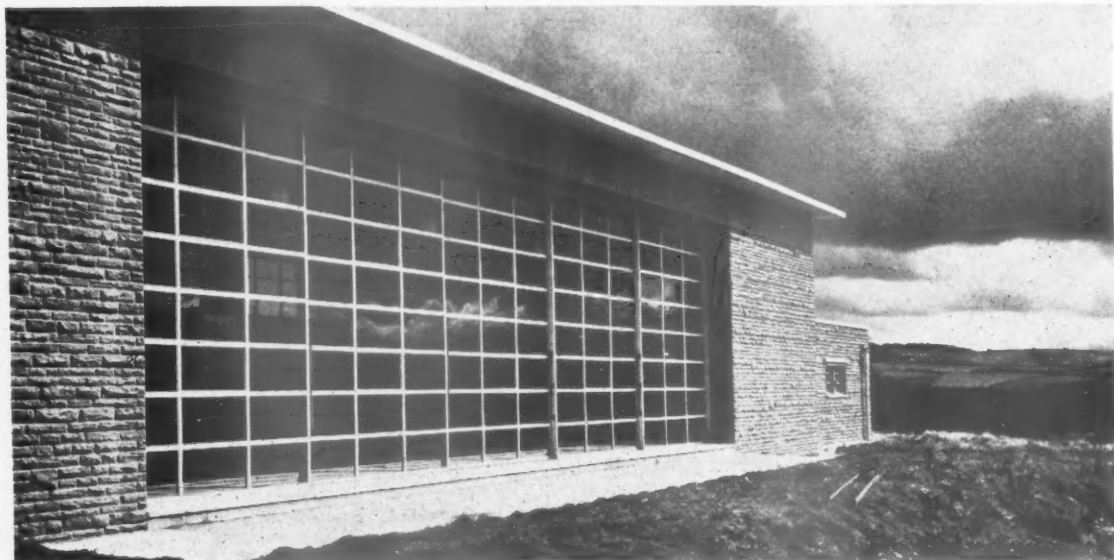
★★ means important news, for reasons which may or may not be obvious.

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

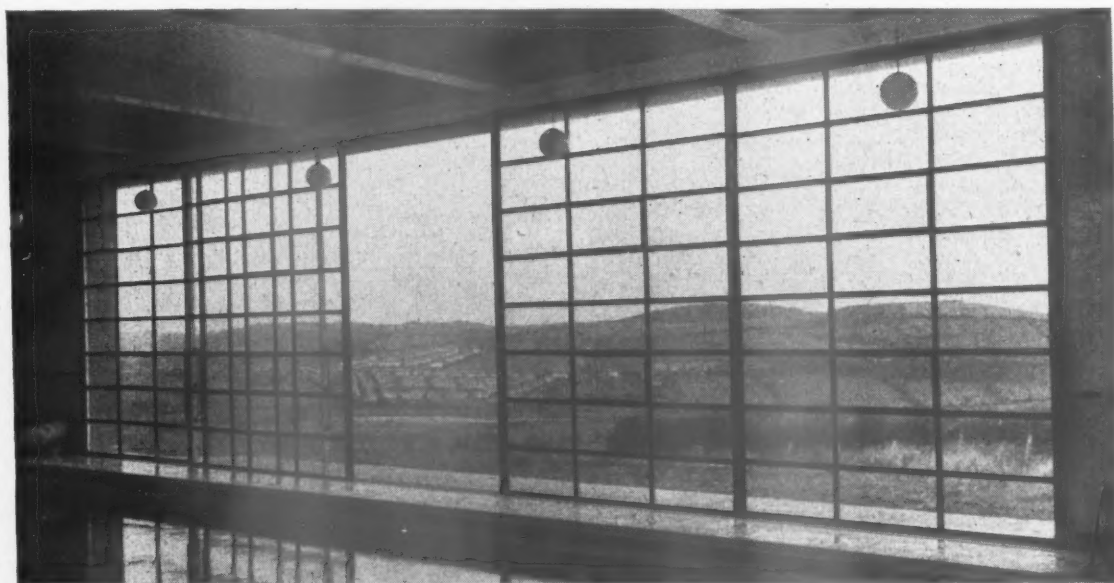
★

*The biggest housing exhibition ever held in Sweden, a COMPLETE MODEL TOWN OVERLOOKING GOTHENBURG, has been opened by the Crown Prince.*

It is situated on a rocky hill northwest of Gothenburg with a view of the town and its environs. Here two young architects, Wejke and Odéen, have created a housing area from the townplan to the equipment and furniture in the flats. The scheme was drawn up by the Swedish Slöyd Association—which is working for the refinement of handicraft and industrial utility products and for raising the standard of taste, and which this year celebrated its centenary. It was carried through in co-operation with the City of Gothenburg and the Swedish Government authorities and comprises about 550 flats in 30-odd buildings—from 7-storied blocks to 3-floored staggered houses, and the flats contain two to four rooms. The first hundred tenants out of the many thousands who have been queuing up to get one of the flats, have moved in. The domestic servant problem is organised collectively, and these house assistants, which is their new name, have their own small flats in a communal house. A labour exchange on the spot negotiates the domestic help. There is a central laundry, with mechanical equipment, and a small laundry in every house. Other collective arrangements are a centre for clothes-mending and a restaurant. Assembly rooms, a cinema, and a large central garage are also to be provided. A children's centre, called Guldhedsgården, has been built. It includes two buildings and outside play-grounds and contains a crèche and a play-school, where the parents can leave their small children during the day, a play-room for the bigger children and slöyd and music rooms.



UNIVERSITY COLLEGE OF WALES, ABERYSTWYTH—NEW SWIMMING BATH  
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# From AN ARCHITECT'S Commonplace Book

**MIDLAND SMOKEscape.** [From *Narrow Boat*, by T. L. C. Rolt (*Eyre and Spottiswoode*).] Situated among the broken southern foothills of the Peak district of Derbyshire, the Potteries present some unique industrial landscapes. As we climbed the four locks out of Stoke, the grimy slate roofs of cottages and factories rose tier upon tier towards the black tower of Shelton Church, while mean streets covered with a geometrical pattern the opposite heights of Hartshill and Basford. These were indistinct in the haze of steam and smoke which rose from the valley bottom, like steam from a cauldron. But the dominant, inescapable feature of the scene were the pottery ovens. Rows of them met the eye on every side. Shaped like gigantic bottles, blackened and squat, those that were belching dense coils of smoke from their necks looked as actively satanic as a volcano, but those that stood cold and dead had an appearance that was strangely ancient and oriental. They might well have been the pagodas of some temple to strange gods, or monuments that marked the burial-places of kings who held court when the sabre-toothed tiger ranged the forests of Europe.

*The man responsible for the design and equipment of canteen kitchens for all the Royal Ordnance factories and hostels during the war, Mr. STANLEY J. BENHAM, HAS DIED, at Arundel, at the age of seventy.*

After his education at University School, Hastings, he entered Messrs. Benham & Sons, Ltd., in 1892, became a director in 1899, managing director in 1901, and was still chairman at the time of his death. In 1909 he became chairman also of Messrs. James Slater & Co. (Engineers), Ltd. From 1904 to 1918, he was responsible for the design and equipment of steam cooking plant for all Dreadnoughts and for Battleships, Battle Cruisers and Cruisers, and during the second World War for the design and equipment of the canteen kitchens for all Royal Ordnance Factories and hostels, and was intimately connected with similar work for War Department camps all over the country. He was president in 1922-3 of the Association of Heating, Ventilating and Domestic Engineering Employers, vice-chairman from 1913-45 of the Cooking Manufacturers' Association, and the first chairman (from 1942-4) of the Joint Council representing all sections of the cooking equipment manufacturing industry.



*The late Stanley J. Benham. See news item on this page.*

★ *Mr. Aneurin Bevan : I have been looking eagerly, ever since I took office, for some system of pre-fabrication which would enable us to BUILD HOUSES IN THE SAME WAY AS CARS AND AEROPLANES.*

So far, my search has been in vain, but I do not despair. Mr. Aneurin Bevan, Minister of Health, was speaking at Birmingham, where he inspected housing developments. He continued: I am convinced we shall not be able to build enough houses by the traditional method, but I believe it will be possible for us to find a system of construction which will supplement our traditional programme. I see no reason why science cannot find another material as good as brick. I have already cut out a great deal of red tape and propose to cut out any more that stands in my way. I am anxious that the temporary housing programme shall be fulfilled as soon as possible, so that we can direct our main energies to the construction of permanent houses. If we are to solve the housing problem we must not allow ourselves to be harassed into accepting prices not representative of legitimate building costs. If we can reduce the costs we shall find that our housing programme will not be decapitated.

★ *At a meeting in London the merger of all existing house-builders' organizations in the FEDERATION OF REGISTERED HOUSE-BUILDERS was formally completed.*

Under this new constitution all existing householders' organizations and their members pledge themselves to build only such houses as will conform to the standards prescribed by the National House-Builders' Registration Council, and to give to purchasers a guarantee to make good free of all cost any defects reported within a period of two years and due to non-compliance with the approved specification. The meeting marked the final stage of negotiations in progress for over six years.

*Mr. Harold F. Williams has been appointed SECRETARY OF THE WAR WORKS COMMISSION. He was Secretary to the Uthwatt Committee on Compensation and Betterment.*



*At the Exhibition of American students' work at the AA. From left to right : H. S. W. Alexander, secretary of the AA, Col. Philip Donnell (USA), H. J. S. White, R. J. Brown, Ralph Tubbs and Major A. Vincent (USA). The work of the American students is illustrated on pages 263-264.*





## Trees Create Street Unity—I

This view of Progress Avenue, Hamilton, Ohio, shaded by its arch of maple and sycamore trees on a quiet autumn afternoon, typifies the small American town. The two-storey timber frame houses, some of white clapboard, others of brown shingles, have no particular architectural distinction. Yet the environment as a whole is friendly and satisfying. The moral to be drawn is that the growing of

generous grass verges, fertile shrubs and vegetation, and above all the conscious planting of trees can bind together disunited building units into a homogeneous whole. This is the first of a short series of examples to be published on this page to illustrate the value of trees both as organic foils to the geometric building forms and as elements that help considerably to bring unity to street design.

★  
*The Forestry Commission proposes to form A NEW NATIONAL FOREST PARK, to include over 10 square miles of some of the finest scenery in the Lake District.*

The proposed national park at Eskdale and in the Duddon Valley in south-west Cumberland, covers 7,275 acres of land on the Commission's Hardknott Estate. It may be approached by road from Whitehaven, Broughton, or Barrow-in-Furness, or on foot from Grasmere and Ambleside. Unlike the national forest park in the Forest of Dean, the proposed Hardknott national forest park has no through roads possible

for motor traffic. It has a uniform moorland character, and consists of the block of mountain fells lying between the head waters of the Esk and those of the Duddon. Before planting operations began it consisted entirely of three sheep farms. In future it will still consist of sheep farms on the Eskdale side, and on the Duddon or Dunnerdale side partly of sheep run and partly of the new forest, including holdings for forest workers. The proposal to form the park is made in the Report of the National Forest Park Committee (Hardknott), published by the Stationery Office at 4d. A series of recommendations suggest restrictions on planting to avoid hard outline edges and to follow natural contours as much as possible, leaving unplanted the

viewpoints and so much of the surrounding land so the view may be enjoyed when the trees have grown, and preserving the sylvan character of the Eskdale dalehead landscape.

*After September 30, all types of CONTRACTORS' PLANT could be bought without a permit to purchase from the Ministry of Works. Prospective purchasers should, therefore, place their orders direct on manufacturers.*

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*The erection by the Massachusetts Institute of Technology of one hundred homes for students who are young married war veterans is believed to be A UNIQUE UNDERTAKING for an educational institution.*

Construction of one hundred homes for young married Veterans of World War II, who will enter the Massachusetts Institute of Technology to resume their education, is to begin immediately in Cambridge on Institute land. The project, to cover an area of nearly ten acres, and providing 50 houses for married veterans without children, and 50 with extra room for those who have children, is being developed under the direction of the Institute's School of Architecture and Planning, headed by Dean William W. Wurster. It is designed to provide facilities for a period of approximately five years, after which it is expected to be removed. Although the units will be very much like small apartments in size, they will be arranged on the ground as single and twin houses, with access to landscaped gardens. Each house will have a screen porch to allow out-of-door living. The houses for married couples without children will have a bedroom and living room. One corner of the living room will be devoted to kitchen facilities, which will be concealed by doors when not in use. The house will be insulated, and heated by gas. In view of the current shortage of baths, showers will be installed. Ample cupboard space is also provided. The 50 houses for veterans with children will include two bedrooms, a combined living and dining room, and a separate kitchen. There will be parking space for the occupants for 100 cars, with additional space for 23 cars for visitors. In directing the project, the School of Architecture and Planning has had the assistance of the Department of Building Engineering and Construction.

*For the first time in 1,000 years, the 50,000-acre estate of Urquhart, ancestral lands of Macbeth, which includes a large part of Loch Ness, is TO BE BROKEN UP.*

The estate is to be sold in separate lots, farm by farm and house by house. It includes nearly the whole of the Vale of Glen Urquhart, 15 miles from Inverness on the main Fort William Road, and one of the most lovely valleys in the Highlands. It also includes the ancient deer forest of Balmacaan, the mansion house salmon fishing rights, and three villages. There are 200 crofts and farms.

★

*Mr. Lewis Silkin: the Government is to introduce a Bill to deal with LAND COMPENSATION*

Speaking at a Leeds Press conference, Mr. Lewis Silkin, Minister of Town and Country Planning, said it is the purpose of the Government to introduce a Bill in the present session of Parliament to deal with the problem of land compensation by authorizing the State to take over the obligation of compensation. The state, he said, distinctly intends compensation to be a national charge. On the question of satellite towns, Mr. Silkin said that his own view was that where a new town was built it ought to be given full independence.

## ELECTRIC LIGHT.

FROM the architect's point of view electric light is a dreadful nuisance, and not a very great success. Do not misunderstand us: we heartily endorse the claims that it is brighter, cleaner, cheaper and more convenient than anything that went before—and it has no rival today. It is better from our point of view, too, than gaslight, its immediate predecessor. But previous to either of them the architect did not have to worry about artificial light. Nobody expected him to turn night into day. He could study the effect of daylight through his windows, and had no fear that a glaring internal light would confound his composition at night, nor that flood-lighting would send up a hellish glow from below reversing all the shadows to make nonsense of his elevation.

He did not have to find room in his floors and walls for ducts to carry the potency of the thunderstorm through his buildings, at a risk of a conflagration if a minute error in executing the specification were overlooked. Nor was there the threat that if he did not provide enough of these conduits, people would come and wreathe them about haphazard on the surface afterwards.

We are fairly well accustomed to dealing with these complexities and do not really complain. But in these days of invention and change it is as well to remind the electrician how greatly development has belied the promise of his original invention. He finds a source of light comparable with, though not equal to, the sun by day and emits this effulgence through a dazzling speck, which, if you don't stop him, he places in the middle of the room. (This is the one position in which the electric light is certain to be wrongly placed in any room, except the old-fashioned dining-room—even in the w.c.) The point-source of electric light is probably a thoughtless carry-over from the candle flame or gas jet. But the difference in magnitude amounts, as so often, to a difference in kind. This was not realized, and for two generations elaborate and wasteful botching with frosted glass, silk shades, inverted reflectors and ornamental metalwork has sought to cover up the original mistake.

With the fluorescent lamp we have at last a substantial improvement. Here is a source of electric light that does not have to be masked to avoid dazzle. Specular reflexions are no longer a worry. The low degree of surface brightness is not obtained at the expense of wasted current. The glow of the fluorescent paint should master any stroboscopic effect, though there are some that deny this. The colour is near enough to daylight for use on dull days as a supplement.

But it is not yet the complete answer. To achieve the 15 to 90 lumens per square foot that we are now learning to demand, these lamps have to be massed together in a lavish array. Replacements are frequent, and their cost outweighs the saving in current. When they begin to fail, the flicker is most annoying. And your illuminating engineer has already begun to botch

around his lovely new tubes with the inevitable odd pieces of frosted glass.

We said that electric light has no rival, but there is a threat of one, though no larger than a man's hand. There is recent news of a really effective phosphorescent paint. One just paints it over the whole ceiling and it absorbs sunlight during the day, and softly returns it in ample measure during the night. How beautifully simple. No more wiring, no more wrong voltages, no more plug-tops that don't fit. When this threat materializes, just see how the electrical industry will scramble to correct these perennial vexations.

On the other hand, the same effect might be achieved with fluorescent paint played upon by ultra-violet light, though as yet this is not practicable except for stage or display. It will be interesting to see which arrives first.



*The Architects' Journal*

War Address: 45, The Avenue, Chesham, Surrey

Telephone: Vigilant 0087-9

N O T E S

&

T O P I C S

#### RADIO HEATING

After disbelieving a fair amount of the high pressure American advertising about radio cooking and Sunday joints done to a turn in seven seconds, Astragal gathered around him the tatters of his sales resistance and went recently to Rediffusion's show at Dorland Hall. He found no mention of cooking save as a gallery stunt (where he ate a radio heated bun), but plenty of well developed industrial processes for quicker and more uniform heating from metal to fabrics. All done with high frequency currents (up to 200 million cycles per second), which bewatts which come out of your lighting have very differently from the ordinary

sockets. Current of this type heats all the way through at once rather than slowly from the outside inwards.

In many industries radio heating is already well established, and plenty of firms use a high frequency pistol which will spot weld glued veneers in a matter of seconds rather than hours.

But the whole process is so far industrial rather than domestic, and unless you have money to burn on a radio heated hot-dog stand there's nothing to be done about it for some time. You *could* heat the bath water that way, but don't blame me if you find you have inadvertently welded your guests to the bath at the same time.

#### NEW MATERIALS AT EDA'S SHOW

Still another exhibition opens to-day at Dorland Hall, which is presumably the electricity people's reply to the Gas exhibition held in the same place last February. At the same time it is a gesture by the Electrical Development Association who are presenting the

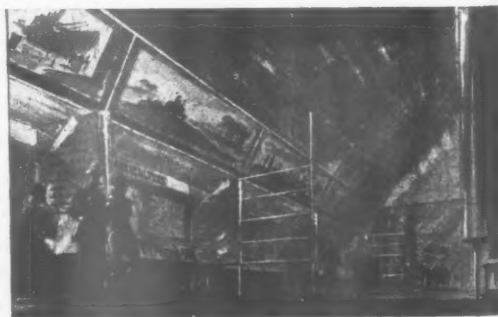
show to the Electrical Association for Women, which now celebrates its twenty-first birthday.

The designer is Hulme Chadwick, who was the Air Ministry's boss camouflage designer during the war and, you may remember, he was responsible for the Civil Engineers' *Practical Planning* exhibition in 1943. Being now a design consultant to the British Overseas Airways Corporation, he has learned a lot about the new materials that are coming along, especially those of light weight.

In the EDA exhibition he has made full use of such stuff as expanded anodised aluminium (used in aircraft as bulkhead grills), and Perspex sheeting, engraved with designs and lit from the side (providing the first example of the decorative use of Perspex with its peculiar light refracting qualities). Perspex is being used, too, in translucent sheets for kitchen table tops and splashbacks, as a cooker cover and in strips as a roller top to a kitchen working bench. Other new plastics include a new fabric called Vynide, rather like Rexine, for washable wall coverings, Welvyk, something like oiled silk, for curtains, Walkway, the plastic equivalent of lino, for greaseproof flooring. The plastic covered PVC wiring, which has proved so useful in a purely practical way during the war, is also being applied in the show as brightly coloured decoration.

But some of the older materials are there too—fibrous plaster and welded steel tubing in prefabricated sections, the whole exhibition having been designed for quick erection in seven days. The system of photographic printing on wall surfaces, developed by Messrs.

*A sketch for the electrical exhibition which opens to-day at Dorland Hall. The chief designer is L. Hulme Chadwick. See Astragal's note.*





Mollo and Egan before the war, is here used again—now for the first time on sensitized canvas. There is obviously a lot to be seen at Dorland Hall in the next two or three weeks, quite apart from the new electrical equipment.

#### THEATRE DE LA MODE

"If thou of thy fortune art bereft, and two loaves only thou hast left"—(loaves obtained, no doubt, after the excruciating agony of queueing, and No Flats, No Cigarettes are the ubiquitous slogans of the day, and the face of Irma Greese haunts you with a perplexing question, and grey utility crowds jostle ceaselessly in the weary streets, and news comes of bigger and brighter experiments with atomic bombs, and, just to complete the picture, let us say you have a tooth-ache)—"sell one, and with the dole, buy hyacinths to feed thy

soul." The cost will be two and sixpence at the Princes Galleries in Piccadilly.

At this brilliant "fantasy of fashion," hope will return. For French genius is as alive as ever in these exquisite little models—in their sculpture, in their pose, in their coiffeur, in their background and, above all, in the superb form, colour and texture of the dresses themselves.

As M. Lucien Lelong, Président de la Chambre Syndicale de la Couture Parisienne, explains in a lavish catalogue: "In dressing 'dolls,' or rather reduced models, the Paris dressmaking industry remains faithful to one of its most ancient customs. At all times of difficulty in its history, when the mere idea of style might have seemed paradoxical, the Parisian Couture has time and again had recourse to such little figures, which not only create by their size alone a fairy universe, but give an exact and subtle idea of technical perfection with the use of a minimum quantity of material."

As an architect, interested in design of every kind—even if you have no war hang-over and no tooth-ache, and even if you prefer a glass of wine to a bunch of hyacinths—you should visit this refreshing show before it closes on November 15.

ASTRAGAL



## LETTERS

Ove N. Arup, M.Eng.F.

### Box Frame Construction

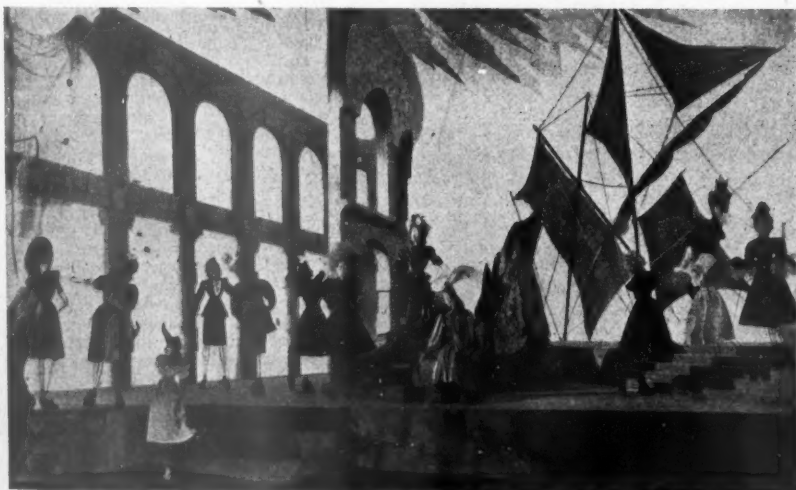
SIR,—On the whole, I agree with Mr. Samuely's statements, but in spite of the lucid manner in which I have expressed my ideas—according to him—I have apparently not succeeded in interesting him in my main proposition, which is this:

It is, I think, a good and generally accepted idea to relieve the housing shortage by increasing factory production of building components. As far as the carcass of a building is concerned, the most promising development in this direction is the production of light finished wall-sections. To encourage this development it is desirable to relieve such sections of any structural function, to provide the industry with a limited number of functional and dimensional standards and assembly details for wall sections and to provide a ready market for such sections.

This can be achieved by the development of prototype building, i.e., the repetition of the same house *ad nauseam*, but I am sure that I am not the only one to view this tendency with some concern.

As an alternative it would be desirable, especially in flat construction, to retain the flexibility of the main structure, producing, or at least assembling it on the site to suit local conditions and submitting it only to such standardization as is required to achieve the objects stated above. To this end I would demand of the structure:—

- (1) That there shall be a clear-cut distinction between the main load carrying structure and the light infilling.
- (2) That the structure shall be simple in itself and shall provide standard conditions for the fixing of light prefabricated wall sections of different kinds; and
- (3) That to satisfy (2), and also for the sake of common architectural decency, we must demand of the structure that it does



The two illustrations on this page show features at the Paris dress exhibition at the Princes Galleries referred to by Astragal this week. Top, part of the scene designed by Jean Cocteau called Tribute to Rene Clair. Below, Port of Nowhere, a scene designed by Wakhevitch.



## NY



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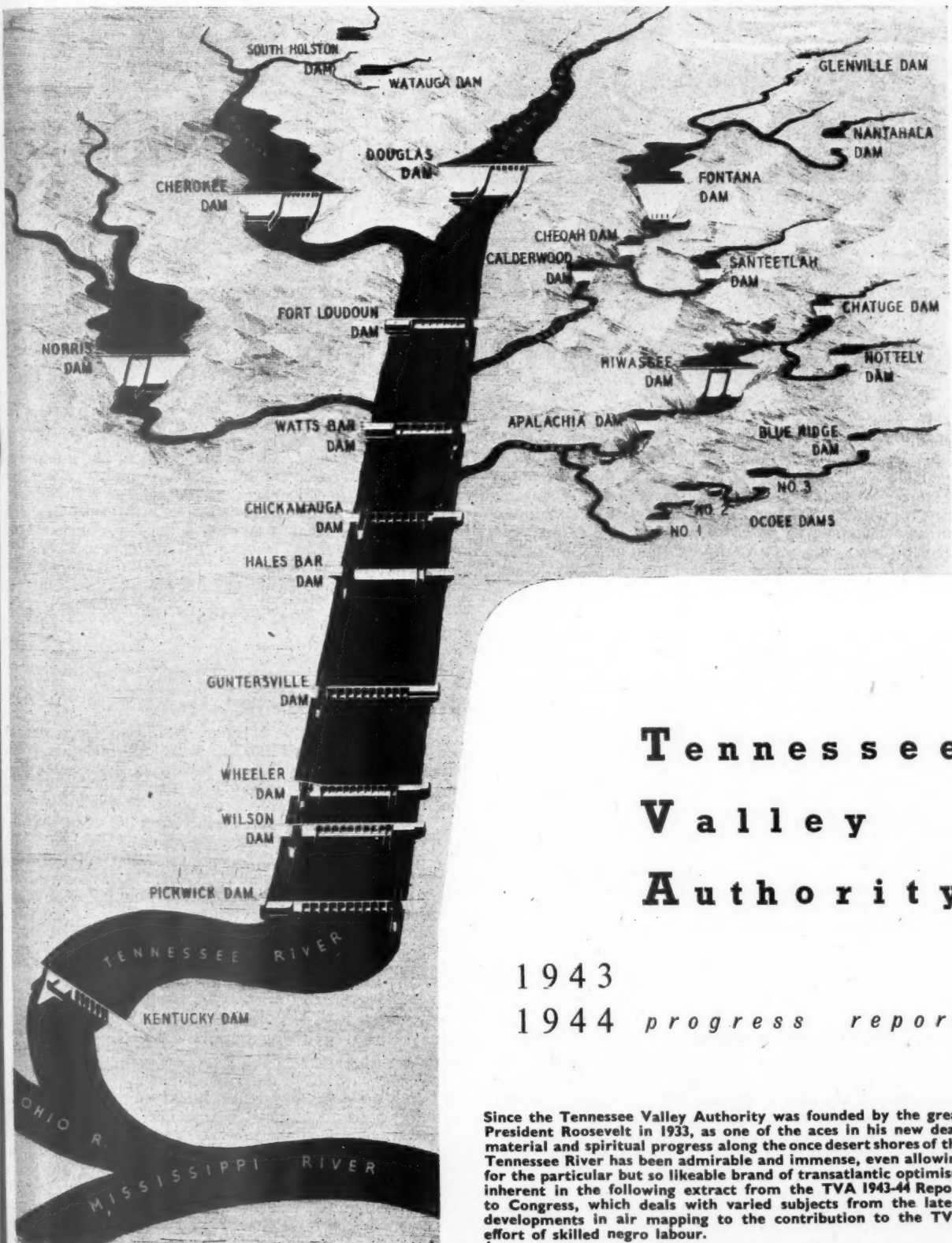
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# PHYSICAL PLANNING SUPPLEMENT



## Tennessee Valley Authority

1943

1944 *progress report*

Since the Tennessee Valley Authority was founded by the great President Roosevelt in 1933, as one of the aces in his new deal, material and spiritual progress along the once desert shores of the Tennessee River has been admirable and immense, even allowing for the particular but so likeable brand of transatlantic optimism inherent in the following extract from the TVA 1943-44 Report to Congress, which deals with varied subjects from the latest developments in air mapping to the contribution to the TVA effort of skilled negro labour.



Left, a river power house. Electrical generation, stimulated since 1933, had risen to a high figure in 1939, but war needs have pushed it up still more, and as with the great new British dam recently opened in the Midlands by the King, should actively further social progress generally.

Below, the Tennessee river joining the Mississippi and marking the area of an experiment in comprehensive planning which has become something of a byword to planners generally, whether in the sphere of architecture, town and country layout, economy, sociology, and not least, of industry.



## TVA

### 1944-1945 progress report

#### peacetime work maintained

In 1943 the world battlefronts felt the full benefit of 10 years of unified development of the Tennessee Valley's resources. The foresight of Congress in establishing the Tennessee Valley Authority in 1933 and in directing that, in addition to its other obligations, TVA not only provide for the national defence but also carry on a vital proportion of TVA's peacetime activities, has been of vital benefit to the United Nations.

#### fertilisers and food production

The TVA fertiliser works went into production of munitions early in the fiscal year with the old plant fully modernised. Spare capacity was devoted to the production of plant foods. Wartime ammonium nitrate plant is now producing agricultural fertilisers. The demand for high concentrate phosphate plant food products was dictated in large part by scarcity of ocean shipping, since one shipload of TVA phosphate applied to the soil of Great Britain was estimated to equal several shiploads of foodstuffs. Cattle experiments using TVA phosphatic soil fertilisers have shown that cattle on phosphated sections have gained an average of 333 pounds each. The average gain per animal on the phosphated grazing land was 87 pounds greater than that of animals on the unphosphated land, while food production per fertilised acre has been increased 60 per cent.

#### food preservation : new methods

The requirements of war placed increased emphasis on food production and at the same time reduced the amounts of steel, tin, rubber, and other materials needed for canning. Recognising this, TVA directed its efforts toward other methods of food processing and preservation. Significant results were obtained in the field of dehydration. In 1942, anticipating the shortage of canning supplies, TVA established four community dehydrating plants as test-demonstrations. There are now in the Valley States approximately 25 such food processing plants chiefly concerned with quick freezing and dehydration of fruits, vegetables, and eggs. To

help farmers develop their technique TVA has encouraged the formation of co-operative associations and has aided them with operating and management as well as with technical problems. The TVA reservoir system now yields an annual catch of approximately 6,000,000 pounds of edible fish, for direct consumption and canning, and it is conservatively estimated that this may be increased to 25,000,000 pounds when all the reservoirs are completed and have become fully productive and when all available species are utilised.

#### electricity from the river

Under the construction schedule passed to meet wartime needs, control of the Tennessee River for many new and different purposes went forward rapidly. At the same time, the operation of existing and new dams brought growing benefits in terms of more electric power for war production and for new industries generally, increased use of the channel for water transport, and reduction of flood damage. Besides placing new dams in operation, additional up-stream generating units were installed at three dams and at the Watts Bar Steam-Electric Generating Station. Dredging operations to provide vital freight navigation channels in reservoirs were also put in hand.

#### holiday camps growing popularity

While the shores along the lakes, on both tributaries and mainstream, saw less capital development for recreational use during the war, they were utilised more fully for food and timber production to meet war needs. Existing privately owned recreation facilities, however, such as the 32 privately operated boat docks on the lakes, and holiday camps, generally showed increasing popularity. Floods are still a danger to the Valley and to meet a recent emergency the entire flows from the Holston, the Clinch, and the Hiwassee Rivers were cut off for a time by stopping the flow at Cherokee, Norris, and Hiwassee tributary reservoirs.

malaria

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### malaria steadily decreasing

To meet the problems resulting from changing quick-flowing streams into a system of slack-water lakes, the TVA continued and expanded its malaria-control programme, while annual fall surveys, by means of blood tests, indicated the lowest index of malaria infection. The malaria-control programme made progress which is steadily placing it in the forefront of efforts to control this disease.

### purifying the streams

Important progress was also made on the problem of reducing stream pollution through the co-operative efforts of public agencies and private industries; indeed industrial stream pollution problems have been studied extensively, and a programme for alleviation has been commenced in co-operation with Federal, State, and local Government Agencies, private associations, and business enterprises.

### air photos: 16,000 square miles

In connection with War Department mapping of strategic areas in the Tennessee Valley Regions, aerial photographs were made of 16,000 square miles, also control surveys were made of 18,000 square miles, 7,000 square miles were topographically plotted by plane table, and 7,500 square miles were mapped by multiplex machine.

### accidents fewer

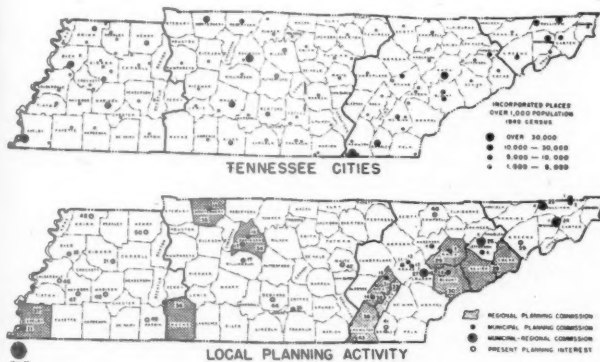
The organised safety programme of TVA commenced early in its construction activities, continued to pay dividends in terms of decreasing frequency and severity rates for accidents. The economic value of the accident rate reduction, represents a saving of a year's work by a force of approximately 1,300 people.

### electrical power quintupled

Multipurpose development of the Tennessee River system has demonstrated its most urgent and immediate war-time results in terms of electric power. Along with the growing navigation and food control benefits, the TVA system in the fiscal year 1943 generated 9,056,000,000 kilowatt-hours of electric energy, or more than half as much as it had produced in the previous 9 years.

### electricity from the tributaries

Peacetime development of the Tennessee River, commenced in 1933, laid a firm foundation for the wartime power expansion. With large dams and power plants constructed and in operation or well on the way to completion on the main-stream of the Tennessee, the TVA was able to provide new supplies of power rapidly and economically by building new storage projects and power installations on the tributaries.



Left, two maps showing local planning activity in relation to Tennessee Valley cities and counties. According to these indications, out of some 100 main centres, about half are already subject to some form of broadminded planning direction either central or local. Is not this an achievement of some interest?

### private farmers work public land

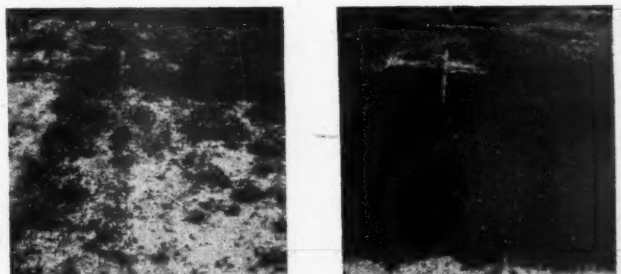
Land acquisition by the Authority since 1933, until to-day, totals nearly 1,000,000 acres, at a cost of £16,000,000. Over 97 per cent. of the total acreage was acquired through voluntary negotiations without resort to litigation. At the close of the fiscal year, TVA owned approximately 360,000 acres of land used for forestry, farming, parks, and industry, a total of nearly three and three-quarter million board-feet of sawtimber was cut from TVA forest lands in the fiscal year, being an increase of about 6 per cent. on last year's yield. Especially interesting is the fact that farmers were encouraged to supplement private land with use of publicly owned land in order to increase production.

### population redistributed

The speed of wartime construction projects has intensified the task of adjusting displaced reservoir-area families. Douglas Reservoir, built at record-breaking speed, presented acute problems of population adjustment, but the evacuation was carried through on schedule, eighty-seven per cent. of the 525 families moving in a period of 7 months. To meet labour shortages, the TVA demountable house was redesigned as a two-section prefabricated house, each section capable of being hauled behind a car or truck.



Above and below, solid evidence of the stimulative effect on food production of some of the artificial fertilisers mentioned in the accompanying report, and carefully applied to avoid soil exhaustion, is provided by these photographs of recent crops in the valley, contrasting unfertilised with fertilised soil.







Artificial fertilisers help increase food production: evidence accumulates in this new TVA Report. Left, a converted farmer explains to a doubtful colleague. Of the two distant pastures, the right hand field treated with fertiliser shows thicker grass than the field on the left.

Below, a map of the TVA area of some 10,000 square miles showing recreational developments including public reservations of forests and parks, camping grounds, notable scenery, historic sites, game farms, fishing lakes, and areas of particular interest to botanists and geologists.

From Britain went to America many of the ideas which have grown into these green and lifegiving playground chains of regional parks and gardens on a rather wider scale than has been known here, but signs are multiplying that some original British pips may soon bear home fruit.

### emphasis on research

Major emphasis on research was placed on improvements and developments having actual or potential value in prosecuting the war in addition to promoting utilisation of the Valley resources. TVA regional wartime activities also included studies of a process for extraction of magnesium metal from olivine rock; investigations of deposits of monazite, a mineral used in making optical glass; perfection of a process for making laminated lumber from specially selected timber; location of limestone of the quality needed for production of the calcium carbide used in synthetic rubber production; mining of mica; a general survey of raw materials sources; research into the problem of regionalised freight rates and their relation to opening up of resources and industrial development.

### negro employees skilled

The number of TVA employees reached a total of more than 40,000 during the year, but declined to approximately 28,000 as heavy construction operations tapered off. Approximately 7,500 employees left for the armed services, bringing the total of employees in the uniformed services to 10,500. A considerable number, in addition, were transferred to other war agencies and industries. Negro employees filled many vacancies as a result of TVA training programmes or other experience. By June 30, Negroes were employed in more than 100 kinds of positions, 90 per cent. of which represent skilled or semi-skilled work. Approximately 40 per cent. of TVA's Negro employees were in these semi-skilled or skilled occupations. There were 106 Negroes in training as chemical plant operators.

RECREATIONAL DEVELOPMENT IN TENNESSEE

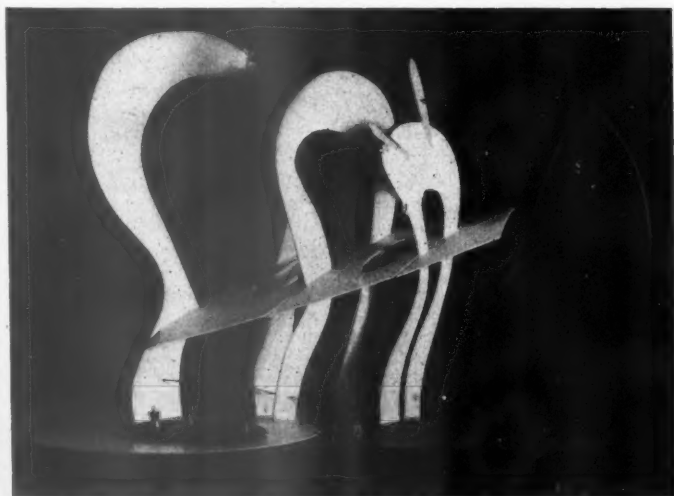




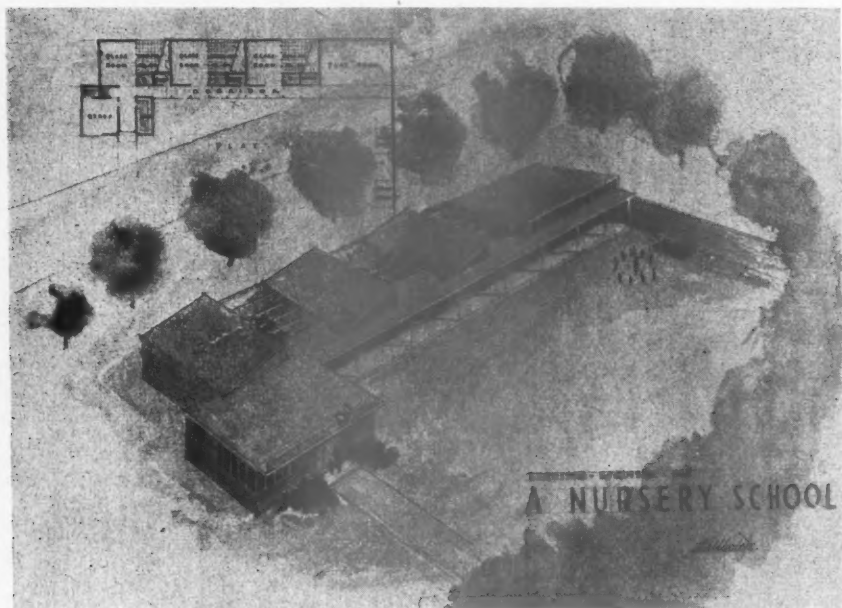
Right, an imaginative sketch representing the dedication of St. Bartholomew's Church in the Twelfth Century: by David Kaplan. Below, the same subject expressed by sculptural and more abstract means, designed and executed by Captain Deloss McGraw and P/F/C Doak Martin. The disc on the lower left rotates, the motive power being supplied by a gramophone which at the same time plays a record of religious music.



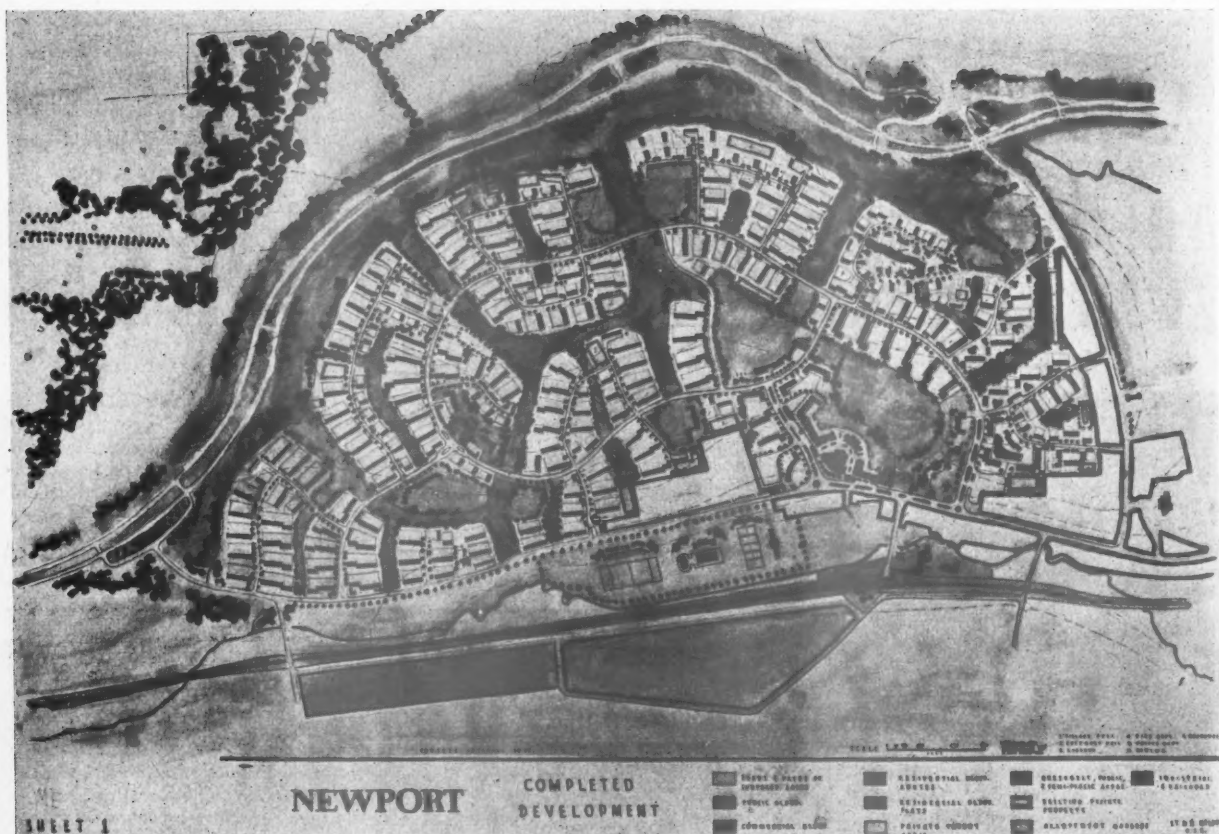
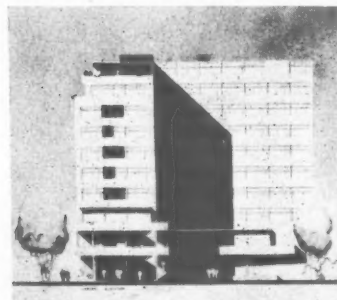
## AA WORK OF AMERICAN STUDENTS



On this page and the following are illustrated a few examples of the work of the American Army Personnel, carried out at the Architectural Association School of Architecture at Bedford Square, London, during the special ten-week Refresher Course held this summer. Students had previously studied at architectural schools and faculties in many parts of America and were at all stages of training and ability; they came from many different units of the American Army and from both commissioned and non-commissioned ranks. Members of the regular AA School staff, as well as other teaching architects from outside the school, acted as instructors during the course.



*Left, an esquisse for a Nursery School by K. E. M. Cole. Below, elevation of a design by David Kaplan for an Anglo-American Students' Club. Bottom, lay-out for a housing neighbourhood at Newport by Lt. H. A. Nelson.*



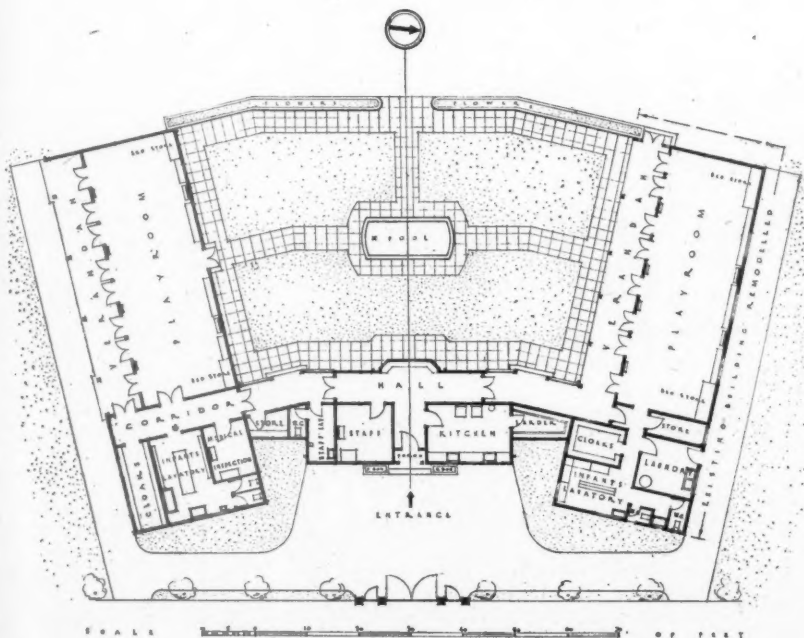
The main  
entrance.



# NURSERY

## SCHOOL AT BELFAST

DESIGNED BY R. S. WILSHERE



Ground floor plan reproduced to a scale of  $\frac{1}{16}$  in. to 1 ft.

This nursery school is run as a voluntary organisation by the old pupils of the Richmond Lodge School. It originally started about twelve years ago, a site having been made available in a densely-populated district, on which a timber-framed building was erected, comprising a playroom with a small kitchen, staff room, cloakroom and lavatory accommodation for a group of thirty-five children. In view of a greatly increased demand by parents for their children to attend the school, it was decided to provide an additional playroom and to improve generally the ancillary accommodation. The original building had been sited to face south, but otherwise there did not appear to be any special reason for its position, and no apparent consideration appears to have been given to the possibility of any future additions. This fact, however, gave the clue to an effective solution to the completion of the scheme for the proposed new buildings, using the main entrance gates as a central axis.



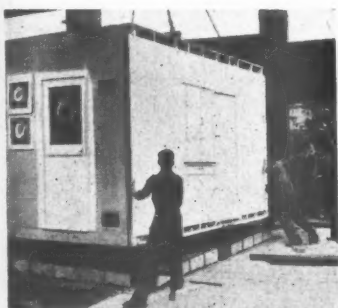
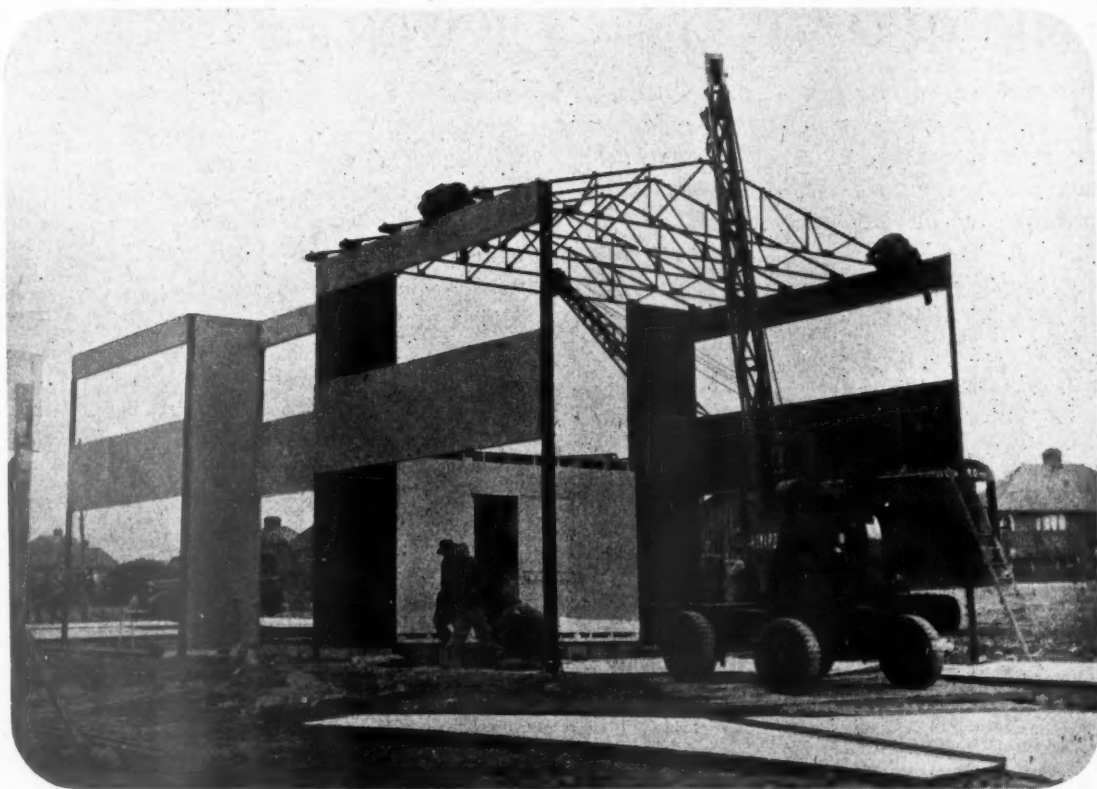
The new wing provides a second playroom and the two playrooms are connected by the central administrative unit, containing the staff room and kitchen, etc. The original wing is remodelled to provide improved cloak and lavatory accommodation, the old kitchen being converted into a laundry. The new wing includes a medical inspection room, in addition to lavatories and cloakroom. Economy in cost was essential and the extension was carried out in timber framing, but internally in place of matchboarding the new buildings are lined with Insulwood Fibreboard to walls and ceilings, dadoes being finished with plywood sheets. Floors to corridors, kitchen, cloakrooms and lavatories are heather brown tiles, with wide cream cement joints, playroom floors being boarding covered with cork lino. All glazed doors and windows are standard steel sashes, other doors flush panels. The area between the two playrooms is turfed, with flagged paths, the paddling pool forming a central feature.

*Top, the new wing ; centre, a playroom ; below, administration block.*



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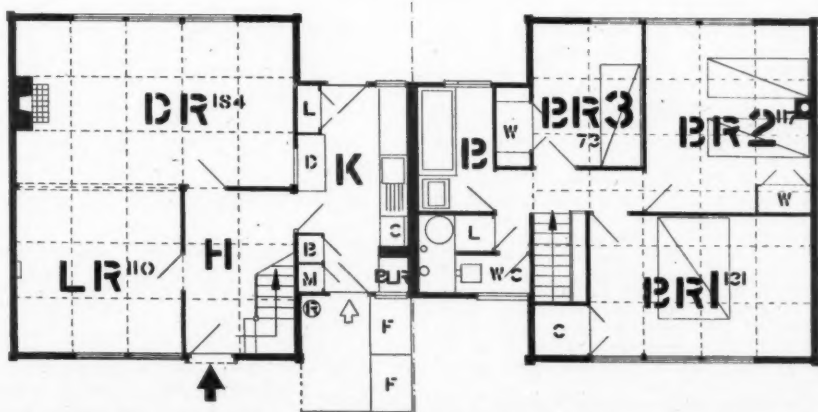




A few weeks ago work started at Alnwick Road, Woolwich, on the erection of twenty-two semi-detached and terrace houses of the Howard type, and is now nearing completion. This is the first group of Britain's permanent prefabricated dwellings to be built for occupation. These pilot houses are of similar construction to the prototype, illustrated in the A.J., April 26, though the plan is more compact. The Howard House is one of a dozen or so of the more promising non-traditional types which are being developed with the advice and assistance of the Ministry of Works. The top photograph shows one of the houses under construction and the small photograph the placing of the kitchen unit, weighing 23 cwt., which is delivered complete to the site.

## PILOT GROUP OF HOWARD HOUSES

*DESIGNED BY FREDERICK GIBBERD*



GROUND FLOOR PLAN

FIRST FLOOR PLAN

[Scale: 1/4" = 1' 0"]

# 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

2149

USA Concrete Standards

STANDARDS OF THE AMERICAN CONCRETE INSTITUTE (ACI) (*Journal of the American Concrete Institute*, June, 1945, pp. 559-703.) (1) Building Regulations for Reinforced Concrete. (2) Recommended Practice for the Use of Metal Supports for Reinforcement. (3) Recommended Practice for Measuring, Mixing and Placing Concrete. (4) Recommended Practice for the Design of Concrete Mixes. (5) Specifications for Concrete Pavements and Bases. (6) Specification for Cast Stone.

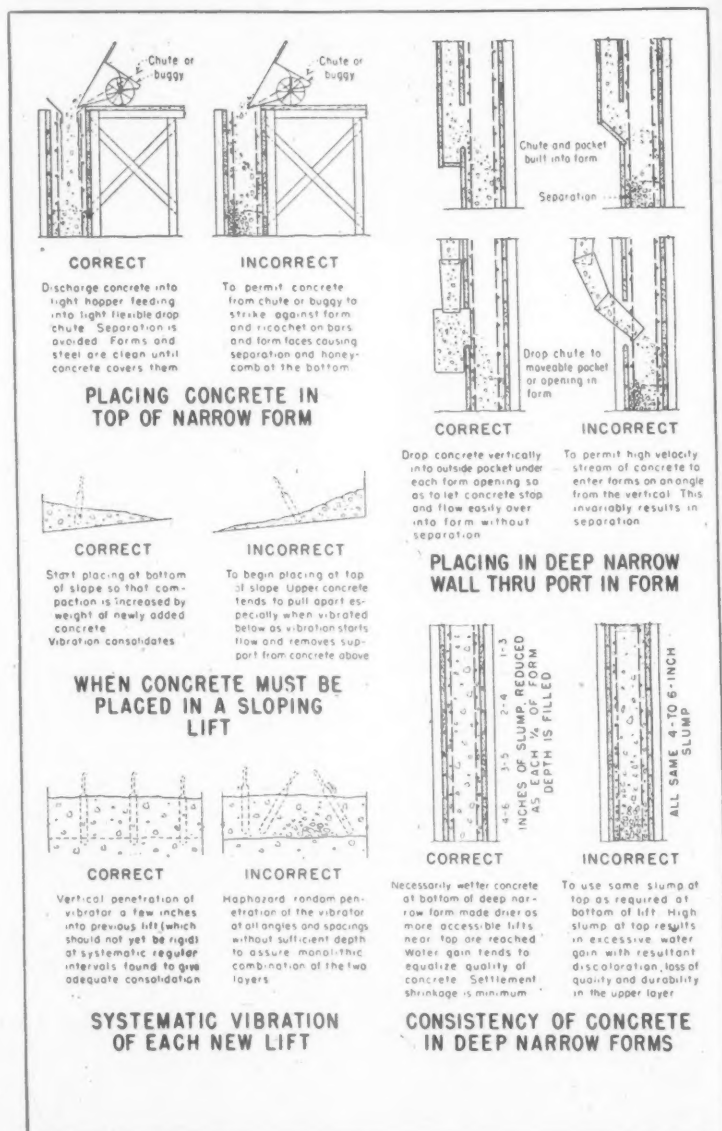
The six ACI Standards, now published in one volume, were issued between 1941 and 1944. The first of the series is comparable with the British Code of Practice for the Use of Reinforced Concrete in the Construction of Buildings, as issued by BINC in 1939 (reprinted 1942). The Americans still maintain a variable modular ratio, which only complicates the design without increasing its accuracy or economy. High tensile steel in general use can only be used at 20,000 lb./sq. in., but in one way slabs of not more than 12 ft. span bars not exceeding  $\frac{3}{8}$  in. in diameter may be stressed up to 30,000 lb./sq. in. if the yield point is not less than 60,000 lb./sq. in. The effectiveness of compression reinforcement in resisting bending may be taken at twice the value indicated from the calculations, assuming a straight-line relation between stress and strain and a modular ratio, but not of greater value than the allowable stress in tension. This arbitrary increase of the compression stress is a compromise comparable with the Steel Beam Theory in the British Code. There is, however, a difference in that according to the British Code the resistance of the concrete has to be ignored, if the assumed steel stress on the compression side is equal to that on the tension side, whereas the Americans take a more realistic view of the behaviour of a beam and take the concrete into account. In the calculation of columns the Americans have already omitted the modular ratio and base the design on ultimate loads. (In this country, after an attempt in 1934 to introduce the same principle, the old method has again been re-established under the influence of the LCC Bye-laws.) The maximum amount of vertical reinforcement in tied columns is 4 per cent., in spirally reinforced columns 8 per cent. There is no justification for this difference, and the Code in this country, with a limit of 8 per cent. in both cases, is more consistent. On the whole, in comparison with other Codes of Practice (see Nos. 2043:9.8.45 and 2120:27.9.45) much could be done to bring this American Standard more up to date.

The purpose of the second Standard is to secure the position of the reinforcement before and during the placing of the con-

crete, by means of metallic supports, spacer bars or wires.

Of great importance is the third Standard, which aims at maximum uniformity, homogeneity and quality of concrete in place. Correct and incorrect methods of handling aggregates in storing and batching, and of handling and placing mixed concrete are shown in diagrams. For jobs

of from 2,000 to 5,000 cu. yd., the cost of hand batching soon justifies a simple weigh batcher installation, into the bins of which aggregates may be delivered directly. As the size of the job increases, the saving in materials and the contamination by dirt or other sizes adds considerably to the balance in favour of bins as opposed to dumping materials on the ground. For jobs of over 25,000 cu. yd. individual automatic weighing of the aggregate is justified. Cement for large jobs should be handled in bulk and weighed for each batch, preferably automatically. Water measurement on such jobs should be automatic and accuracy within 1 per cent. should be required. The use of ready mixed concrete is recommended, particularly in metropolitan areas. Regarding placing, the advantages of vibration are emphasised. Except for a few special sections, such as thin slabs, no method of compaction and consolidation of concrete in place is superior to effective internal vibration. Vibration contributes general improvement to concrete work because it allows superior workmanship at lower cost, and because it permits successful routine use of a concrete



A typical illustration from the Journal of the American Concrete Institute for June, 1945, showing correct and incorrect methods of placing concrete. See No. 2149.



THE COMMON PLACE, WALSINGHAM  
Showing the Town Pump.

THE shrine of Our Lady of Walsingham dates back to 1061 and owes its origin to the bursting forth of a spring of water reputed to have curative virtues. The small building covering the town well was probably built during the latter half of the fifteenth century. Water in unwanted places can be a great nuisance, and although

the causes may be found, it cannot always be diverted. In such a case, the only alternative to its toleration is to provide an impenetrable barrier, and the means of doing this are at hand in the shape of a rendering, or concrete, formed with Portland cement, and made completely impervious with 'PUDLO' Brand waterproofing powder.

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less wet than the usual "medium" consistency, resulting in more durable, higher quality concrete. The advantages and importance of vibration where applicable are now so well established that it should be seriously considered for small jobs of a few hundred cu. yd., and it is recommended for all larger concrete work.

Further recommendations refer to construction joints, cold and hot weather concreting, etc.

The fourth Standard deals with the design of concrete mixes. This is the determination of the most economical and practicable combination of available aggregates, cement, water and, in some cases, admixture. The most practical procedure is actual trial and adjustment on the job. The problem is to select a trial mix for starting concrete operations, that will require the least adjustment on the job. Many charts, rules and tables have been devised for use in concrete mix computations (see Nos. 1589 and 1590:7/9/44). The present Standard gives a selection of simple tables, a chart and a good bibliography.

The fifth Standard applies to the construction of portland cement concrete pavement and base, and is comparable with the *Model Specifications for Concrete Roads* in this country (see No. 1803:22/2/45).

The last Standard covers the same ground as B.S.1217:1945 (see No. 2024:12.7.45). Whereas according to the British Specification the compressive strength, determined on cubes of 3 in. to 4½ in. side, shall not be less than 2,500 lb./sq. in., the minimum strength required by the American Standard tested on 2 by 2 in. cylinders or 2 in. cubes has been raised from 5,000 lb./sq. in. (specified in 1929) to 6,500 lb./sq. in. In view of the smaller size of the American specimens the difference is smaller than appears from the figures but is still very substantial.

#### 2150 Precast Concrete Framework

APPLICATION OF CIVIL ENGINEERING METHOD TO BUILDING CONSTRUCTION. (*The Builder*, July 20, 1945, pp. 43-46.) System developed by MOW of precast reinforced concrete framework units not exceeding 5 tons to be assembled by cranes in multistorey buildings.

The Department of Scientific Research in the MOW has developed a system of precast reinforced concrete framework units for assembly in multi-storey buildings. Floors covering the area of a large room would be cast and erected in one unit, and similarly large sections of the walls and building frame, so that the shell of a ten-storey building could be erected in a few weeks with only a small gang of men, helped by a large crane.

Many problems of design have had to be investigated in order to ensure that the strength of such buildings will be equal to similar structures cast *in situ* and new types of joints devised to ensure precision in erection, simplicity, and a minimum amount of site work. It should be possible to ensure precision in erection with the same degree of accuracy as in the case of structural steel. Various alternative methods of erection have been proposed. Whichever was adopted, it would be necessary to cast units in steel moulds and to use the moulds as jigs to locate accurately the bearing points. It is suggested that dome-shaped bearing points be cast in the main frames to ensure that each vertical member is the correct height between bearing points, that they are accurately spaced horizontally and are all at the same level.

The advantages of precast concrete work as against *in situ* work, particularly under the climatic conditions of this country, are well known. Precast concrete would save considerably in site man-hours and cost. It would obviate loss of time waiting for the framework to mature before proceeding

with work at higher levels. A much higher standard of workmanship could be ensured than with *in situ* work, and unknown shrinkage stresses would be eliminated.

#### 2151

#### Brickwork

BUILDING CRAFT SERIES: BRICKWORK. W. B. McKay. (Longman, Green & Co. Price 7s. 6d.) Compendium on fundamentals of bricklaying with many detailed examples. 172 drawings.

The book has been written to assist all students who will be receiving technical training in post-war years, when a substantial increase in the number of skilled craftsmen is expected. It is a thoroughly practical work. The first chapters are on the materials and tools used; one chapter is devoted to drawing and drawing equipment, very useful for the beginner. The following chapters deal with bricklaying proper and go carefully into all details of the many-sided work performed by the bricklayer. The clear descriptions, the detailed instructions on methods, the examples worked out for various alternatives, the excellent drawing illustrating every point of the descriptions, make it a first-rate compendium for all students who wish to obtain training in sound and economic workmanship. The detailed index will facilitate the finding of any special subject for revision and will be useful to students going in for examinations. (See also No. 1778:1.2.45.)

#### 2152

#### Building Mechanics

PRACTICAL BUILDING MECHANICS. *Newman Tate*. (Chapman & Hall, 15s.) Elementary introduction to building mechanics.

The book is intended for students without knowledge of mathematics. It explains the principles in clear and simple language and is well illustrated. With regard to practical applications, it is not quite up to date, e.g., the steel stress generally adopted in reinforced concrete work is 18,000 and not 16,000 lb./sq. in. (pp. 134 and 202), and the compression stress in the concrete in bending is generally 750 lb./sq. in. or higher and not 600. Foundations like Fig. 139 and Fig. 145 are too complicated and a simpler shape requiring more concrete is preferable. Steel beam grillage footings encased in concrete (Figs. 140 and 141) and brick footings with mass concrete under (Fig. 142a), although still popular, are not economical. If such examples are given, they should be accompanied by a warning.

#### 2153

#### Wates System

THE WATES SYSTEM OF HOUSE CONSTRUCTION. Architect: K. W. Bland. (*The Architects' Journal*, August 16, 1945, pp. 119-114, and other journals). Precast reinforced concrete panel units of standard widths. Plaster board lining and glass quilt insulation.

A pair of houses of this type has been erected at Sutton. The external walls are of reinforced concrete and have linings of plaster board and glass quilt. This provides thermal insulation in excess of that of an 11-in. cavity wall. The external walls are composed of reinforced concrete panel units of standard widths. All units are stiffened by ribs and so shaped that, when placed side by side, a cavity is formed at their joints to receive concrete poured without the use of shuttering. The units weigh up to 8 cwt. The internal partitions are of timber framing covered with plaster-board. Ground floor is of concrete with brown pitch mastic finish. First floor has timber joists, a boarded floor and plaster-board ceiling. The roof has timber trusses at 4-ft. centres carrying special units em-

bodifying purlins, rafters and tile battens. It is claimed that the system is extremely flexible and can be applied to almost any type of plan.

## MATERIALS

#### 2154

#### New Lightweight Material

ML BUILDING PRODUCTS. (Pamphlet issued by Ieda Trading Co., 114A, Cromwell Road, S.W.7.) New lightweight building material.

The pamphlet does not disclose the composition and the process of manufacture of the new material, and only states that it is not a type of concrete. It is claimed that the new material exceeds all lightweight concrete products in strength and can be subjected to a temperature of 2,000 deg. F. without loss of texture or strength. Among other claims it is mentioned that frost has no effect upon it and that it is less expensive than any manufactured material.

From a table in which the physical properties of ML products are compared with those of light-weight concretes, it may be seen that the compressive strength is indeed higher than that of other materials of the same density, but the transverse strength is much lower. It is surprising to find a lower value for the transverse strength than for the tensile strength, since it is usually the other way round. The new material is less efficient as regards thermal insulation than light-weight concrete of the same density.

ML products are manufactured in various standard sizes and the pamphlet shows a complete cottage of the Portal type built entirely of ML units. It is not revealed whether the roof beams are reinforced.

## 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.

#### 2155

#### Photographic Copyrights

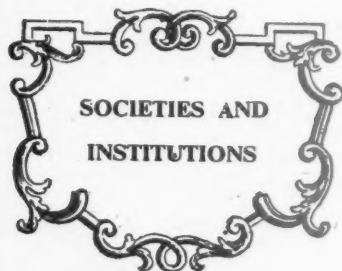
Q I discovered recently that a photographic illustration of a house I carried out some few years back was used, without my permission, in a handbook advertising the estate upon which it was built. The house in question can be seen from the public highway. Can you tell me if an architect holds any copyright of the reproduction of his work in this way—or is it just a breach of courtesy over which one has no redress?

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photographs which you reject as unsatisfactory (and do not pay for) remain the copyright of the photographer, who may sell them to anyone who will buy them. This, of course, also applies to the portrait agencies who write offering a "complimentary sitting." The negatives which you reject are the copyright of the agency, which assumes that your obituary notice will require a portrait and hopes that you will commit a crime so startling that the reproduction fee will be pounds rather than shillings.

So far as the estate handbook is concerned we regret that you have no redress.



*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.*

## CIAD

# Memorandum

The Central Institute of Art and Design has issued a memorandum on BRITAIN AS AN ART CENTRE. Extracts are given below.

A great opportunity will arise immediately after the war to make Britain an Art Centre—perhaps the Art Centre of Europe, thus adding incalculably to the attraction of our country to travellers both from the Old and New Worlds. This need not mean destructive competition with other European capitals. Rather it implies that Britain should take the lead in a great co-operative effort to rebuild the cultural life of Europe. The campaign should cover both the Fine Arts and the Industrial Arts and involves the attempt:

1. To enhance the prestige of British Art and make London the distribution centre of the world for both antique and contemporary art work.
2. To build up for British contemporary art, architecture and crafts, a pre-eminent international prestige.
3. To gain a similar prestige for British Industrial Art products.
4. To make London a leading Fashion Centre.

5. To create an international reputation for our leading schools as teachers of art, architecture and industrial design, so that they attract as many foreign students as possible.

Partly, no doubt, owing to our insular position, neither British Historic Art nor our Contemporary Art and Craftwork are nearly as well known on the Continent as they should be, yet no nation has excelled us in Domestic Architecture and Crafts, in Portraiture (including miniature painting), Landscape Art, Water-colour Painting, and the various forms of Illustration and Engraving; and Contemporary British Painting, Sculpture and Crafts are at least as strong and lively as any in the world. The time is now ripe to secure for British Art its due place and recognition.

It is clear that if a programme on anything like the suggested scale is to be carried out, some comprehensive Council or Corporation, representative of all interests concerned, will be necessary to direct and co-ordinate it. Such a Council should include nominees of the Government Departments concerned and of the leading Local Authorities and other representative organizations. Obviously, the co-operation of the British Council and the Arts Council will be essential.

The following are some of the methods suggested for achieving the five major objects detailed above.

There should be a carefully planned exhibition policy designed to attract the foreign visitor. This should include periodical large exhibitions of ancient art, similar to those held at Burlington House in the years between the two wars.

There is room for considerable research in the field of exhibition technique, particularly with a view to showing objects of art and domestic use in their proper setting and in an atmosphere suggesting life and use. The State should initiate such research and make this country a pioneer in new and effective methods of display. The United States have already shown the way by such enterprises as the Frick Museum in New York and the re-creation of the village of Williamsburg.

All exhibitions should be made the subject of publications of various kinds, particularly devised to attract the public and the expert respectively. These should be translated into the chief modern languages and suitable steps taken to distribute them abroad.

Both the large National Exhibitions (or a selection from them) and the best of the smaller exhibitions should regularly be sent on tour overseas, always with an efficient staff of attendants and appropriate literature.

The British Government should, of course, always participate and be strongly represented in International Exhibitions overseas, both of contemporary and historic art, and important International Exhibitions should be held at regular intervals in London, when everything should be done to attract artists and experts from overseas.

A very serious defect in this country (which, however, has been to some extent amended in recent years) is the lack of really good museums and galleries outside London. One step which might be taken to improve the position would be for the State and the large Local Authorities to acquire some of the great country and town houses which will inevitably come on the market after the war and equip these with suitable period furniture, maintaining them as public museums. Care should be taken to preserve so far as possible a living and home-like atmosphere in these houses—even where they cannot actually be inhabited. This has been done with conspicuous success at Snows Hill, near Broadway and Kelmscott.

The rebuilding and replanning of our bombed cities can, if properly handled, help materially in enhancing the prestige of

British contemporary art. To effect this it is essential that all rebuilding schemes should allow for the decoration of public buildings, gardens and open spaces, with fine examples of art and craft work (especially mural painting and sculpture). It should be made compulsory to add a percentage to all basic estimates to allow for this, and some part of this extra cost might be borne by the State. This is a plan which has been very successfully adopted in Scandinavia and in the USA. What is done under this heading should include fine craft work as well as painting and sculpture. A strong section of modern craft work should be established at the Victoria and Albert Museum.

One very important matter which should receive immediate attention is to improve the planning and decoration of hotels and of all Transport Agencies, including Railway Stations, Rolling Stock, Aerodrome buildings, Passenger Aircraft, Ships, and Motor Coaches. The best architects and decorative artists should be employed for this purpose, and it would be of great use if each of the interests concerned would set up design research and advisory organizations. Other important functions are the improvement of co-operation between Industry and the Art Schools, and the architecture, layout, decoration, and general amenities of factories.

The very high efficiency of the leading British Art Schools is very little realized overseas. In London alone there are at least four schools fully capable of achieving International Status: the Royal College of Art (which is entirely financed by the State), the Central School of Arts and Crafts (of the LCC), the Slade School (a department of the London University), and the Royal Academy School, which has existed ever since the foundation of the Academy by Sir Joshua Reynolds. These should be developed along different lines, according to their different constitutions. The policy introduced by the Ministry of Education of developing Regional Art Colleges in the main centres of population should enable several provincial colleges to attain similar status.

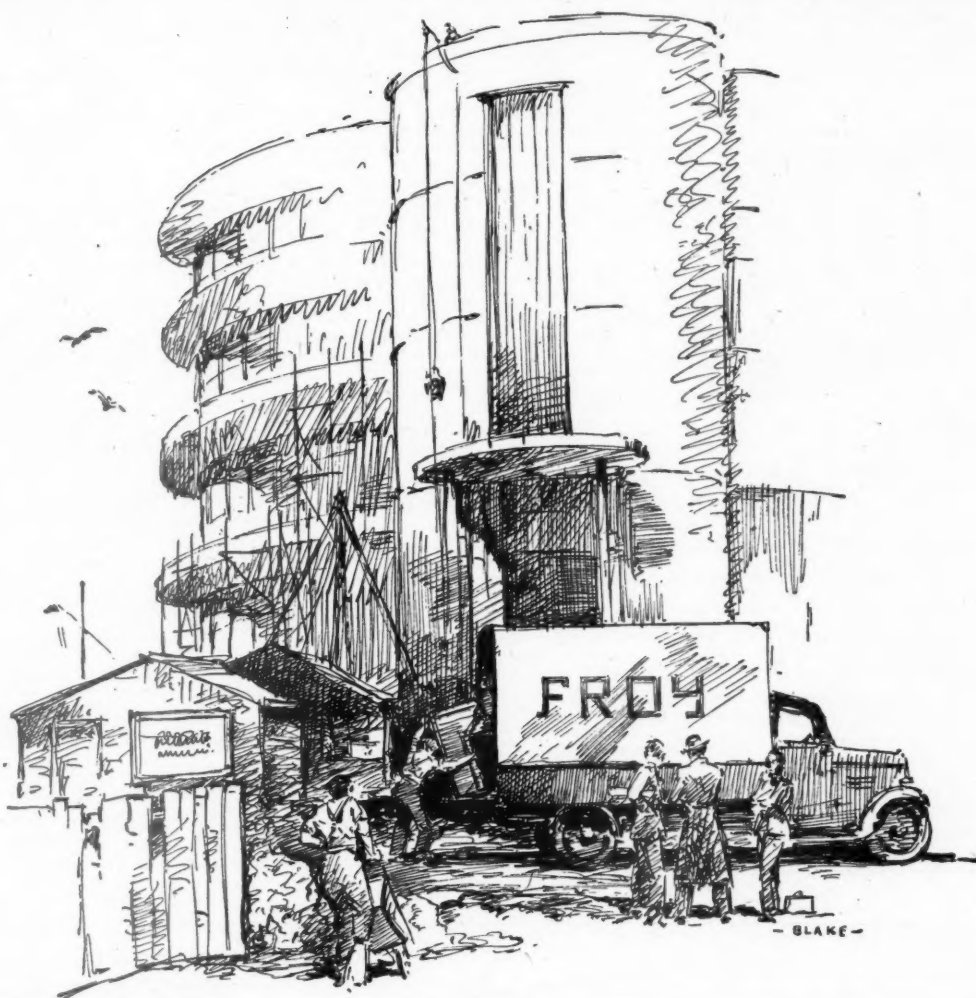
Another step which might have great influence would be to build up the Courtauld Institute so that it might become the most important institution in the world for teaching the history and theory of art and the techniques of Art Expertise. Before the war Germany was the principal centre for the provision of art experts. It should not be impossible for Britain to take her place. Another step of great value would be if our leading universities were to provide courses and degrees in the history, sociology and psychology of the arts.

Before London can become really attractive to foreign artists or students it will be necessary to create a more suitable atmosphere, since artists are very sensitive to this. Certain Boroughs in London should be encouraged and assisted by Government grants to develop this—Chelsea, Bloomsbury and St. John's Wood already have some of the necessary characteristics, but there is a need in all three for the provision of more suitable lodgings, hostels, cafés, small theatres, cabarets—and for well-designed studios suited to different income levels.

It would assist this international movement if competitions were organized with substantial prizes—some for students and some open to all competitors. Some of the prizes might be for the decoration of public buildings and the lay-out and architecture of sites which have to be rebuilt or developed. These prize schemes should be fitted in with the State Exhibitions policy.

The above suggestions cannot be properly carried out without the provision of a great Exhibition Centre in London. This should be planned on the most scientific lines, without superfluous decoration which will tend to date and detract attention from the





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work to be exhibited. The galleries should be set in gardens which will provide rest and relief to the visitor and should be adaptable to all the various types of exhibition and display.

It is also essential that there should be a central department of publications which should support all the efforts recommended by the preparation, financing and distribution of books, pamphlets, periodicals, and leaflets, produced with the utmost care and distinction and freely circulated abroad.

The above suggestions are confined to the plastics arts and crafts which alone are the province of CIAD. Parallel development schemes for music, drama, and cinematography will also be necessary, and these should be carried out in close co-ordination with the art developments.

The CIAD, which is the recognized central organization of British painters, sculptors, craftsmen and designers, and has comprehensive information and expert committees covering all fields of art and design, offers all assistance in its power in the working out and furtherance of the above scheme.

## TPI

### Lewis Silkin

At the Town and Country Planning Summer School at Bristol under the auspices of the Town Planning Institute. **OPENING ADDRESS** by Lewis Silkin, M.P., Minister of Town and Country Planning.

**L. Silkin:** A Bill dealing with the problem of compensation and betterment is to be introduced during the present session of Parliament. A solution of the compensation and betterment

problem necessitates the existence of an effective system of planning control, and the Local Planning Authorities must be ready to exercise far-reaching new powers with courage and constructive wisdom.

One of the most difficult problems in connection with the development of satellite towns and new towns is that of fitting the new urban growth into the existing structure of local government. I realize the anxieties of the Local Authorities on this score, and I propose shortly to open conversations with representative Local Authority organizations upon it. I also propose to appoint a New Towns Committee under the Chairmanship of Lord Reith, with the following terms of reference:—

"To consider the general questions of the establishment, development, organization and administration that will arise in the promotion of New Towns in furtherance of a policy of planned decentralization from congested urban areas; and in accordance therewith to suggest guiding principles on which such towns should be established and developed as self-contained and balanced communities for work and living."

There is an urgent need for a greater number of qualified members of the planning profession. Our present information shows an immediate need of 1,600 planners, with an ultimate figure of a possible 2,500. It is estimated that to meet this need there are at present less than a thousand persons with planning qualifications or experience, either in this country or in the Forces. This is a situation which can, without undue exaggeration, be described as a crisis. We must stimulate an adequate new entry into the profession, but in the meanwhile something can be done to bridge the gap if architects, engineers and surveyors of proved competence can be persuaded to enter the planning field now.

## Announcements

The Timber Control Department of the Ministry of Supply announces that Mr. G. F. W. Edwards has been appointed Area Officer, Area 8, in succession to Mr. A. C. Priddle, who has had special duties assigned to him.

Mr. J. N. Dominy, L.R.I.B.A., F.S.I., M.R.S.A.N.I., Chartered Architect and Surveyor, has now returned to practise at Station Road, Sutton Bonington, Loughborough (Tel.: Kegworth 132), and would be glad to receive catalogues, information sheets, etc.

Commencing with the No. 3, 1945 issue, PLAN will be published from: School of Architecture, 26, Abercromby Square, Liverpool 7. Correspondence concerning this and subsequent issues should be sent to the Editor at the new address and not to 55, High Grove Road, Cheadle, Cheshire, which ceases to be PLAN Publishing Office after the No. 2, 1945 issue.

Mr. G. Gerald G. Saunders, Registered Architect and Surveyor, having been released from Government service, has opened an office at 51, Queen Street, Exeter, at which address he will be pleased to receive up-to-date trade catalogues with particular reference to local authority housing.

Messrs. Henry Hope & Sons, Ltd., announce that Mr. E. Litherland, a Director of the Company for the last twenty years, has been obliged to retire on account of ill-health, and that Mr. F. Palmer Cook, who has been a member of the staff for twenty-four years, has been appointed to succeed him as Manager of the London Area. Mr. Palmer Cook has served throughout the war in the Royal Engineers, where he held the rank of Lieut-Colonel, and was awarded the O.B.E.

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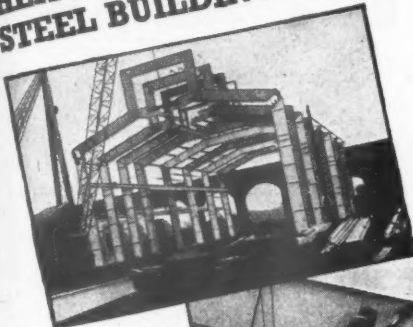
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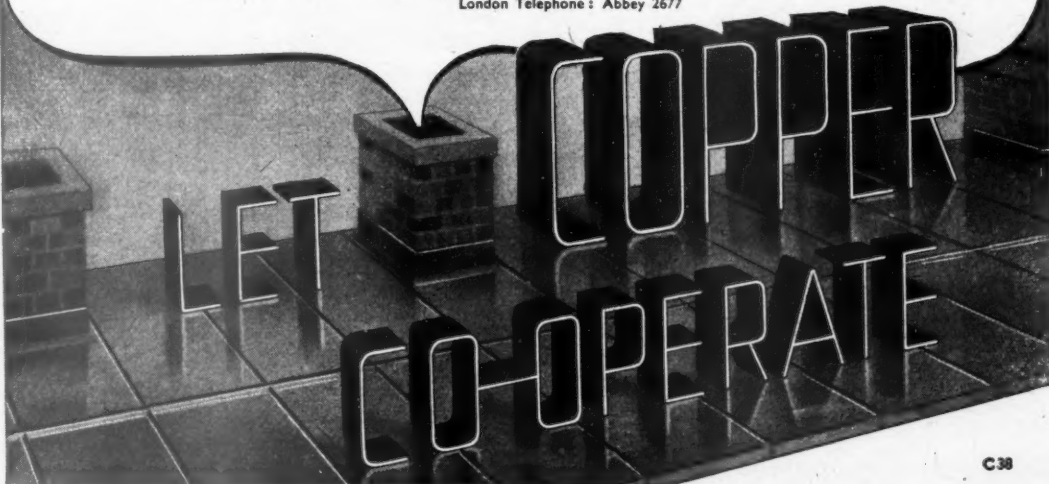


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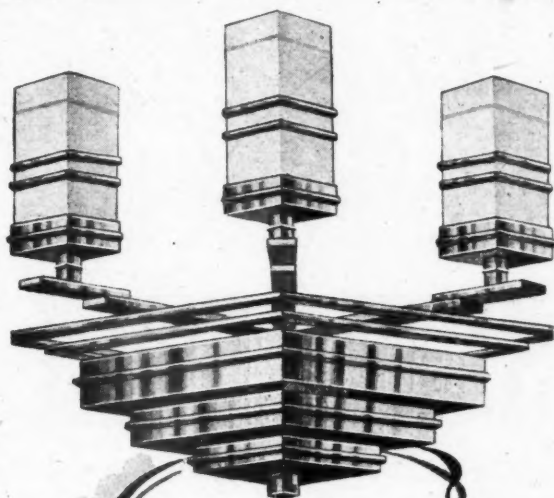
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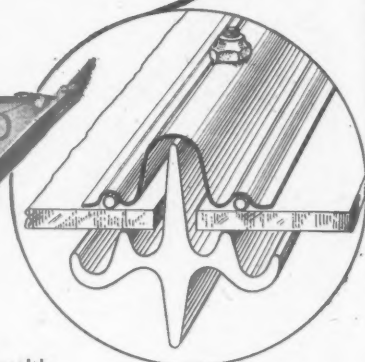
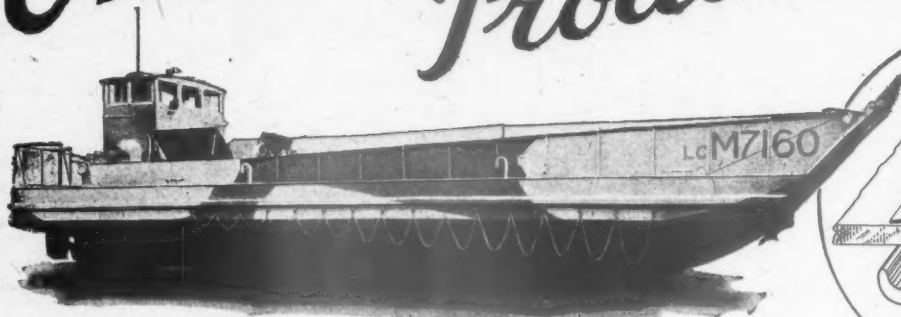
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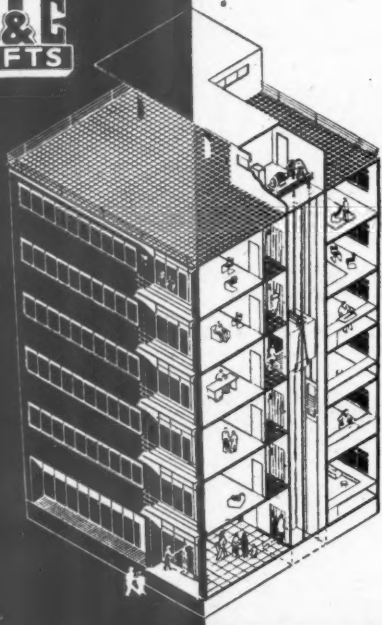


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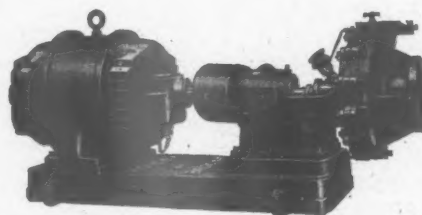
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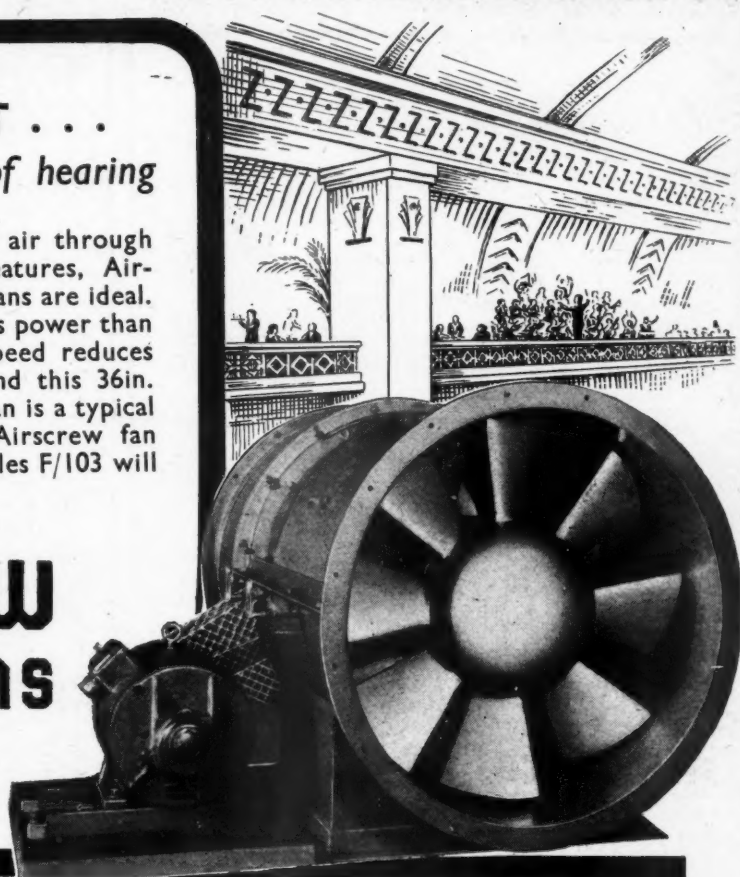


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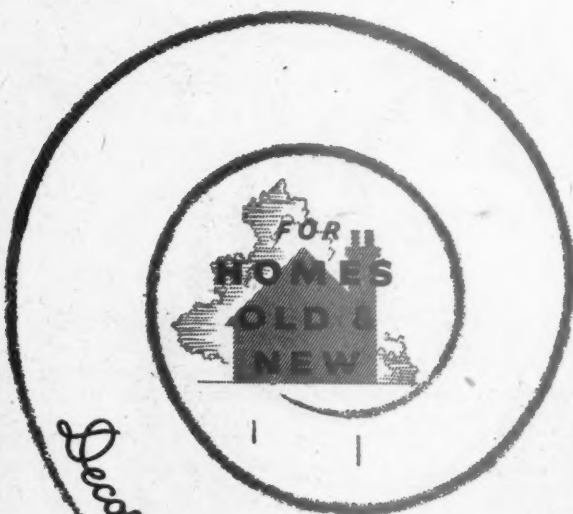


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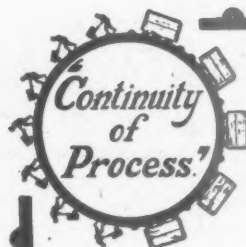
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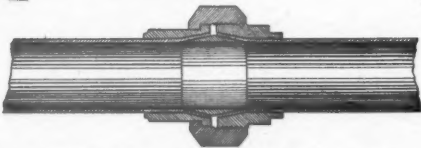
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D. TUDOR EVANS,  
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**THREE SENIOR ARCHITECTURAL ASSISTANTS**, who must be Associate Members of the Royal Institute of British Architects.

**QUANTITY SURVEYING ASSISTANT**, who must be a Professional Associate of the Surveyor's Institution (Quantities Section).

All applicants must be experienced in the preparation of drawings, specifications, and quantities, and the persons appointed will be required to contribute to the Council's Superannuation Act, 1937, and to pass the required medical examination.

Applications, stating age, experience and qualifications, and accompanied by copies of three recent testimonials, must be delivered to Mr. D. M. O'Horibby, B.Sc. (Eng.), M.I.C.E., Borough Surveyor, Howard Street, North Shields, not later than the 17th day of October, 1945.

Canvassing, either directly or indirectly, will be deemed a disqualification.

Dated this 26th day of September, 1945.

(Sgd.) FRED. G. HIGNER,

Town Clerk. 731

### COUNTY BOROUGH OF EAST HAM.

#### APPOINTMENT OF TEMPORARY TOWN PLANNING ASSISTANT.

Applications are invited for the position of Town Planning Assistant (temporary) from Associate Members of the Town Planning Institute or persons holding an equivalent town planning qualification, and competent to undertake work in all aspects of post-war redevelopment.

Commencing salary £485, rising annually (on approved service) by £20 to a maximum of £595 per annum, plus war bonus, at present £59 16s. per annum.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the Council's conditions of service and the successful candidate will be required to pass a medical examination.

Applications, on forms obtainable from the undersigned, and accompanied by copies of three recent testimonials, must reach me not later than Tuesday, 23rd October, 1945. Canvassing, either directly or indirectly, will be a disqualification.

C. V. THORNLEY,

Town Hall, East Ham, E.6.

Town Clerk. 722

### BOROUGH OF SOUTHALL.

#### BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

#### APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of an Architectural Assistant, on the permanent staff of the Council. Salary £365-£425-£425, plus cost-of-living bonus, at present £59 16s. per annum. Commencing salary according to qualifications and experience.

Candidates should be registered architects, and preference will be given to members of the Royal Institute of British Architects. Experience in the preparation of working drawings, specifications, surveying and setting-out in connection with housing work is desirable.

The candidate appointed will be required to pass a medical examination, and the appointment will be subject to the Local Government Superannuation Act, 1937.

Applications to be submitted to the Borough Engineer, Town Hall, Southall, Middlesex, together with copies of three recent testimonials. Canvassing any member of the Council or any Committee thereof, directly or indirectly, will disqualify.

M. LINDSAY TAYLOR,

Town Clerk's Office, South Road,  
 Southall, Middlesex.  
 27th September, 1945. 736

### RAWMARSH URBAN DISTRICT COUNCIL.

Applications are invited for the appointment of CLERK OF WORKS to supervise advance preparation of sites for permanent houses and temporary bungalows, and also the erection of permanent houses.

Applicants must have sound knowledge of building construction, roads and sewers, setting out and measuring up contracts.

Wages £7 7s. per week, plus bonus, at present £1 3s. Applications, stating age, experience, present occupation and when available, and accompanied by two recent testimonials, must reach the undersigned not later than 22nd October, 1945.

The Ministry of Labour and National Service has given permission under the Control of Engagements Order, 1945, for the advertisement of this vacancy.

J. R. S. CREIGHTON,

Engineer and Surveyor.  
 Rawmarsh Urban District Council, Council  
 Offices, Parkgate, Yorks, W.R.  
 27th September, 1945. 738

### CUMBERLAND COUNTY COUNCIL.

#### ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment in the County Architect's Department of a Temporary Architectural Assistant, Grade "C" of the Whitley Council Scale, the salary being £320 per annum, rising, subject to satisfactory service, by annual increments of £15 to £350, plus Whitley Council cost-of-living bonus, at present £59 16s. per annum. An extra £10 per annum is awarded to Grade "C" Assistants on passing the R.I.B.A. Intermediate examination, and a further £10 per annum on passing the Final examination.

The appointment will be subject to the Local Government's Superannuation Act, 1937, and will be terminable by one month's notice on either side.

Forms of application may be obtained from the County Architect, 4, Alfred Street North, Carlisle, and should be completed and returned to him not later than Monday, 22nd October, 1945.

G. ANDREW WHEATLEY,

Clerk of the County Council.  
 The Courts, Carlisle.  
 2nd October, 1945. 732

### COUNTY OF BERKS.

#### APPOINTMENT OF COUNTY ARCHITECT.

The Berkshire County Council invite applications for the post of County Architect from duly qualified Architects, who must be either Fellows or Associate Members of the Royal Institute of British Architects.

The commencing salary will be £1,100 per annum, rising by annual increments of £50 to a maximum of £1,400 per annum, together with the appropriate cost-of-living bonus. It is intended that the appointment should take effect if practicable on the 1st January, 1946.

Fuller particulars, terms of appointment and application forms can be obtained, on receipt of a stamped addressed envelope, from the undersigned, to whom applications should be delivered not later than Monday, 12th November, 1945.

H. J. C. NEOBARD,

Clerk of the Council.  
 Shire Hall Reading. 723

### CITY OF LEICESTER.

#### CITY SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointments:—

(a) VALUATION AND ESTATE ASSISTANT. Salary £400, rising by annual increments to £500 per annum. Applicants should have passed the final examination Chartered Surveyor's Institute (Valuation Sub Division), and be experienced in the valuation and acquisition of properties by Compulsory Purchase Orders.

(b) TWO ARCHITECTURAL ASSISTANTS, at a salary of £350, rising to £400 per annum.

(c) ONE ARCHITECTURAL ASSISTANT, at a salary of £250, rising to £300.

(d) QUALIFIED DRAUGHTSMAN, at a salary of £250, rising to £300 per annum. Must be a neat and expeditious tracer.

In addition to these salaries, cost-of-living bonus (at present £59 16s.) is payable in each case.

All the appointments are subject to the provisions of the Local Government Superannuation Act, 1937.

Applications, giving age, qualifications, and details of experience, together with copies of three testimonials, must be delivered at my office not later than 22nd October, 1945.

JOHN L. BECKETT, M.Inst.C.E.,  
 City Surveyor.

Town Hall, Leicester.  
 October, 1945. 741

### NOTTINGHAMSHIRE COUNTY COUNCIL.

#### ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments at the salaries mentioned, according to age and experience, plus cost-of-living bonus in each case, which at present amounts to £59 16s. per annum, namely:—

(a) ARCHITECTURAL ASSISTANTS.—£350 to £450 per annum.

(b) QUANTITY SURVEYORS.—£270 to £350 per annum.

The posts will be subject to the Local Government Superannuation Act, 1937 and 1939, and will be terminable upon one month's notice on either side at any time. The successful candidates will be required to pass a medical examination.

In accordance with the general decision of the County Council, all appointments made during the present emergency are of a temporary character in the first instance.

Forms of application may be obtained from the County Architect, Shire Hall, Nottingham.

K. TWEEDALE MEABY,

Clerk of the County Council.  
 Shire Hall, Nottingham.  
 1st October, 1945. 743

### CITY OF WAKEFIELD.

#### APPOINTMENT OF ARCHITECTURAL ASSISTANTS.

Applications are invited for the appointment of Two Architectural Assistants, in the City Engineer, Surveyor and Architect's Department, at a salary of £350, rising by increments of £20 to £400 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

Candidates should preferably be Associates of the Royal Institute of British Architects, and in the case of one appointment have had experience in school planning and design and in general architectural work, and in the case of the other appointment have had experience in house planning and design and in general architectural work.

The appointments will be subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications, endorsed "Architectural Assistants," stating age, qualifications, present and previous appointments, and experience, and accompanied by copies of three recent testimonials, should reach the undersigned not later than Saturday, 20th October, 1945.

W. S. DES FORGES,

Town Hall, Wakefield.  
 1st October, 1945. 744

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# MANCHESTER MUNICIPAL COLLEGE OF TECHNOLOGY (FACULTY OF TECHNOLOGY IN THE UNIVERSITY OF MANCHESTER).

## Appointment of LECTURER IN BUILDING CONSTRUCTION.

The Governing Body invite applications for a Lectureship in Building Construction in the College of Technology, with the title and status of Lecturer in the University of Manchester. Salary: £245 per annum, rising by annual increments of £15 to £550 per annum, plus war bonus (which at the present time is £52 per annum). Commencing salary according to qualifications. Revised salary scales are at present under consideration.

Applicants should be Associates of the R.I.B.A., with good professional experience.

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 October, 1945. Canvassing, either directly or indirectly, will disqualify a candidate for appointment.

J. E. MYERS,

Principal of the College.

748

## CITY OF WAKEFIELD.

### APPOINTMENT OF TOWN PLANNING ASSISTANTS.

Applications are invited for the appointment of Two Town Planning Assistants, in the City Engineer and Surveyor's Department, at a salary of £315, rising by increments of £15 and £20 to a maximum of £350 per annum, plus cost-of-living bonus, at present £59 16s.

Candidates should preferably be Associate Members of the Institution of Municipal and County Engineers, and hold the Diploma of the Joint Town Planning Examination Board, or equivalent qualifications, and have had experience in the preparation of Town Planning Schemes.

The appointments will be subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications, endorsed "Town Planning Assistants," stating age, qualifications, present and previous appointments and experience, and accompanied by copies of three recent testimonials, should reach the undersigned not later than Saturday, 20th October, 1945.

W. S. DES FORGES,

Town Clerk.

Town Hall, Wakefield.

755

## DERBYSHIRE COUNTY COUNCIL.

### ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment as QUANTITY SURVEYOR.

The salary will be £400 per annum, rising by annual increments of £12 10s. to £450 per annum, plus cost-of-living bonus, at present £59 18s. per annum, and an allowance for extended office hours.

Candidates must be over 30 years of age, unless medically unfit for Army Service.

Applications should be sent to the undersigned by 18th October, 1945.

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

J. HARRISON,

County Architect.

11th October, 1945.

761

## COUNTY BOROUGH OF BOLTON.

### EDUCATION COMMITTEE.

#### TRAINING COLLEGE FOR TECHNICAL TEACHERS.

Applications are invited from suitably qualified men and women for the following permanent appointments to the staff of the new Training College for Technical Teachers, which will open in Bolton in January, 1946.

(a) SENIOR LECTURERS. Salary scales: Men, £600 × £220 to £750 per annum. Women, £500 × £20 to £650 per annum.

(b) LECTURERS. Salary scales: Men, £400 × £20 to £650 per annum. Women, £350 × £20 to £550 per annum.

Applicants should have qualifications and teaching experience in Technical Subjects (engineering, building, commerce or science); or experience in the training of teachers, or both.

To a large extent the staff will be engaged on pioneer work, and originality, initiative and a disposition for investigation and research are desirable.

Application forms and further particulars may be obtained from the undersigned, to whom completed applications should be submitted not later than 23rd October, 1945, endorsed "Training College."

W. H. HAYWARD,

Chief Education Officer.

Education Offices, Nelson Square, Bolton.

760

## SURREY COUNTY COUNCIL EDUCATION COMMITTEE.

### KINGSTON SCHOOL OF ART.

#### DEPARTMENT OF ARCHITECTURE.

Principal: REGINALD BRILL.

**PART-TIME STUDIO INSTRUCTORS AND LECTURERS**, in the Department of Architecture. Applications are invited for the above appointments from suitably qualified persons, who should apply by letter, giving particulars of qualifications and experience (naming the subjects they are prepared to teach), addressed to THE PRINCIPAL, Kingston School of Art, Kingston-upon-Thames, Surrey.

745

### Partnership

Six lines or under, 8s.; each additional line, 1s.

**JUNIOR PARTNER**, preferably with some experience in India, wanted by a firm of Chartered Architects, established 27 years. Apply C. G. & F. B. Blomfield, F.R.I.B.A., F.S.I., Prem House, Connaught Place, New Delhi, India. Further information may be obtained from D. A. G. Reid, L.C.C. Brixton School of Building, Ferndale Road, S.W.4.

735

### Financial

Six lines or under, 8s.; each additional line, 1s.

**GENTLEMAN** will purchase Builder's Collateral Deposits with Building Society; North of England preferred. Box 696.

### Architectural Appointments Vacant

Four lines or under, 4s.; each additional line, 1s.

**JUNIOR DRAUGHTSMAN** required in the office of an Architect to an industrial Company in London; every opportunity to learn, but one with some experience preferred. Reply to Box 702.

**ARCHITECTURAL ASSISTANT** required, between Intermediate and Final R.I.B.A. standards. Apply, stating experience and salary desired, to William & Segar Owen, Palmyra Square Chambers, Warrington.

725

**ARCHITECT'S ASSISTANTS** required; good prospects for suitable applicants, who must be well trained for important large scale work. Write fully, stating experience, qualifications, etc. Box 739.

**ARCHITECTURAL ASSISTANT**, able to make complete surveys, required for modern Architect's office in Suffolk; £400 per annum for suitable applicant. Box 740.

**ARCHITECT'S ASSISTANT** required; experienced in domestic and factory design; salary £400 to £500, according to ability. Apply Box 749.

**ARCHITECT'S ASSISTANT**, for small Office engaged on domestic, factory, and war damage contracts; office in London and East Kent. Full particulars of experience and salary required to Box 756.

**JUNIOR ASSISTANT** required immediately in Isle of Wight; must be good draughtsman, and able to prepare working drawings and details. Write, stating age, experience, and salary. Box 757.

### Architectural Appointments Wanted

**R.A.F. Officer** (air crew), with pre-war experience as Architectural Representative, wishes to contact progressive firm with view to engagement on release from H.M. Forces. Box 81.

**REGISTERED ARCHITECT** (36) requires appointment in London; experienced in industrial, commercial, and domestic work; good designer and draughtsman; salary £550. Box 137.

**R.I.B.A., A.M.T.P.I.**, requires part-time appointment in London (three consecutive days per week); salary 2½ guineas per day. Box 138.

**SENIOR ASSISTANT ARCHITECT** (37) (late Admiralty) requires change; 21 years' experience most types of buildings; able to take complete control of jobs; coastal areas only; salary £500 per annum. Box 141.

**ARCHITECT**, long-standing experience, A.M.T.P.I., seeks responsible position where drive and initiative appreciated; London area; min. salary £800. Reply Box 140.

**ARCHITECTURAL DRAUGHTSMAN**, expecting release now from National Service, seeks post with an Architect; experienced with house and cottage design. Box 142.

**R.I.B.A., A.A. Diploma**, just released from R.A.F. (Pilot); nearly 10 years' all round experience, including housing estates for local authorities; salary by arrangement. Box 143.

**DRAUGHTSMAN**, with 20 years' experience, offers part-time assistance on straight work and perspective; interviews London area. Reply Box 146.

**GOOD DRAUGHTSMAN** (23), 5 years' technical training interior decoration, 3 years' general building, layouts, plans, details, perspective, personality and initiative, seeks progressive position. Box 144.

**YOUNG DUTCHMAN** (25 years), Dipl. School of Architects, Amsterdam, would like to work with Architect with interesting practice. Letters to W. Ojemann, Amsterdam, Holland, Van Baerleshaat 177.

145

**EX-SERVICE STUDENT** requires position in London Architect's Office; neat and competent draughtsman; 3 years' experience, including design and construction, working details, surveying and levelling, schedules of conditions and dilapidations, etc.; matriculated, taking R.I.B.A. Inter. shortly. Write Box 147.

**ARCHITECT** (34), L.R.I.B.A., 15 years' experience all types of architecture and surveying, good organiser, used to control of staff and workmen, and lecturing on building subjects, seeks permanent position, preferably administrative; willing to go anywhere; salary £700. Box 148.

**R.I.B.A.** is able to assist Architects and others who can provide interesting work on a free-lance basis. Box 150.

**ARCHITECTURAL STUDENT** (age 17½), school cert., 2 years' experience in building, evening classes school of architecture, desires position in Birmingham Architect's office. Box 149.

**PERSPECTIVE ARTIST**; work promptly executed, in any medium; moderate fees; London and West of England. Box 139.

**ASSISTANT** (33), A.I.A.S., seeks position with Architect or Surveyor; 10 years' experience both domestic and general; neat and accurate draughtsman; details all scales; good planner; houses, flats, shows, estate development, hospitals, factories, specifications and supervision; a knowledge of quantities and estimating, alterations, conversions, surveys, reports, field work, etc. Salary, £600. Box 115.

### Other Appointments Wanted

Four lines or under 2s. 6d.; each additional line, 6d.

**HEATING**—H.W.S. and Ventilation Schemes prepared by experienced and qualified Heating Engineer; plans and specifications only. Box 697.

**DRAUGHTSMAN** (4 years' experience) requires free lance work. Telephone Pad. 3513. Box 744.

### Competition

Six lines or under 8s.; each additional line, 1s.

#### CITY OF WESTMINSTER.

##### ARCHITECTURAL COMPETITION FOR WORKING CLASS FLATS.

The Mayor, Aldermen and Councillors of the City of Westminster invite Architects to submit designs in Competition for the layout of an area in Westminster of about 31 acres and for the design of flats to be erected thereon.

The Assessor of the Competition is Mr. Stanley C. Ramsey, F.R.I.B.A., of 32, Wigmore Street, London, W.1. and on his award the Promoters will pay premiums of 700 guineas, 500 guineas, 300 guineas and 200 guineas to the authors of the designs placed respectively first, second, third and fourth by the Assessor.

It is the intention of the Promoters to proceed forthwith with the erection of the buildings on one section of the area covering about 8 acres, and subject to the Conditions of the Competition to employ for that purpose the author of the design placed first in the Competition at fees calculated in accordance with the R.I.B.A. Scale of Architects' fees for State-aided multi-storey flats (16th May, 1944).

A copy of the Conditions of Competition, a key plan of the Competition area and a Drawing for use as the layout plan, will be supplied on application by Architects to the undersigned. Such applications must be accompanied by a deposit of 3 guineas (payable by cheque drawn in favour of "The Westminster City Council"), which will be refunded on receipt of a bona-fide design, or on return of the Competition documents at least 14 days before the closing date for the submission of designs.

The last day for the receipt of designs is the 31st. March, 1946.

PARKER MORRIS,

Town Clerk.

Westminster City Hall, Charing Cross

Road, W.C.2.

12th October, 1945.

758

### Planning

As originators of the Auto-Recorder System of Machine Milking, we have had extensive experience of planning layouts to accommodate the new technique. The Ministry of Agriculture's Clean Milk Bill, when passed, will mean a large increase in the number of new or modified farm buildings required. The position will be affected also by the findings of the English and Scottish Commissions on this important subject. The service of our Technical Department is available to any Architect who may be consulted in these matters. Write in confidence to: Gascoignes (Reading), Ltd., Berkeley Avenue, Reading.

### Property for Sale

Four lines or under, 4s.; each additional line, 1s.

**HIGHBURY, N.5.**—Nominal F.G.Rs. of £32 15s. per annum, with early reversions in 1955 to valuable Freehold residential properties, and extensive sites ripe for re-development; price £6,500. Box 750.

**BETWEEN KINGSWAY AND HOLBORN.**—Cleared building site, with ironings totalling 62 ft., area 7,800 sq. ft.; suitable for modern offices, showrooms, or H.Q. for important commercial firm; freehold, £18,500. Full details from Box 751.

**HAMPSTEAD.**—Between Finchley Road and Heath. Modern Georgian style residence; 5 principal beds, 3 bath, 3 reception, attractive hall and staircase, excellent domestic bedrooms and offices, garage; all planned on spacious lines; part central heating; early occupation arranged; freehold, £9,500. Box 752.

**FLAT INVESTMENTS** in Suburban London provide security of capital and income, and yield 7 per cent. subject to repairs. Write for details of these attractive properties, offered in lots of £5,000 to £25,000, to Investment Manager, 39, Moorgate, E.C.2. 753

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### Miscellaneous

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**WANTED.**—One set of "Arts Et Matiers Graphiques. Please reply to Box 5.

**CHARTERED ARCHITECT** wishes to contact fellow Architect, Midlands area, who would welcome part-time assistance in the preparation of schemes, working drawings, etc. Box 737.

**CENTRAL HEATING OIL BURNERS.**—Insist on the British-made Parwinac—no stoking, clean, trouble free; no waiting for coal or coke deliveries; available now if oil permit obtainable. Parker, Winder & Achurch, Ltd., Makers, 80, Broad Street, Birmingham, 1. 992

**MONOMARK Service.** Permanent London address. Letters redirected immediately. Confidential, 5s. p.a. Royal Patronage. Key tags 3 for 1s. 3d. Write BM/MONOMARK, W.C.1. 44

**FINANCE.**—Ample supply of surplus funds available for Building Estates covering part purchase cost of land; then building finance; then permanent mortgage on very liberal scale. Chas. B. Buxton, Ltd., Local Authorities Loans Brokers, 9, Clements Lane, Lombard Street, E.C.4. 747

**FOR SALE.**—Eighteenth Century Wrought-Iron Gate, with overthrow; 4 ft. by 7 ft. approx. Reply Box 742.

**SOUTH-WEST London Estate Agents** and a qualified Architect for the purpose of a working arrangement in relation to the re-building of demolished villas. Write proposals to Box 192, c/o J. G. King & Son, 150, Fleet Street, E.C.4. 759

**CENTRAL WESTMINSTER.**—Four Floors of quiet Offices to Let, either as whole or in suites of ten rooms; upper floor about 4,000 ft., part with flat accommodation, if desired, and also top lighted; lift to all floors; constant hot water. Apply Dunnet, 64, Buckingham Gate, S.W.1. 746

### Educational Announcements.

Four lines or under, 4s.; each additional line, 1s.

**R.I.B.A. QUALIFYING EXAMINATIONS.** Mr. C. W. Box, F.R.I.B.A., M.R.San.I. Courses of Correspondence and Personal in Studio, 115, Gower St., London, W.C.1 (Tel.: Euston 3906), and at 23, St. James's St., Derby (Tel.: 45648).

**R. I.B.A. and T.P. INST. EXAMS.** Private Courses of Tuition by correspondence arranged by Mr. L. Stuart Stanley, M.A., F.R.I.B.A., M.T.P.I. Tutor, 161, West Heath Road, N.W.3. Tel.: SPE 5319. 415

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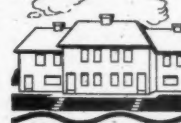
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