FINE ARTS DEPT.

HE

The Architects' JOURNAL for July 25, 1946

standard contents every issue does not necessarily contain all these contents, but they are the regular features which continually recur.

DIARY NEWS from AN ARCHITECT'S Commonplace Book ASTRAGAL LETTERS PHYSICAL PLANNING CURRENT BUILDINGS INFORMATION

CENTRE Physical Planning Lighting Structure Heating & Ventilation Materials Questions & Answers Acoustics & Sound Insulation

INFORMATION SHEET

SOCIETIES & INSTITUTIONS

PRICES

Architectural Appointments Wanted and Vacant

No. 2687] [Vol. 104 THE ARCHITECTURAL PRESS Editorial : Thirteen Queen Anne's Gate, Westminster, S. W.1. Phone : Whitehall 0611 Subscriptions and Advertising : Forty-Five The Avenue Cheam, Surrey. 'Phone : Vigilant 0087-9.

Price .9d.

Registered as a Newspaper

ARCHITEC glossary of abbreviations of Gev s and Committees of all kinds, together with their below. In all cases where the town full address and telephone numbers, is given is not Apertsoned the ford LONDON is implicit in the address. STACK Architectural Association. Association of Building Technicians. 5, Ashley Place, S.W.I. Arts Council of Great Britain. 9, Belgrave Square, S.W.I. Association for Planning and Regional Reconstruction. 34, G Museum 0974 ABT Victoria 0447-8 ACGB Sloane 0421 ion. 34, Gordon Square, W.C.1. ce, W.1. Euston 2158-9 Architects' Registration Council. 68, Portland Place, W.1. Architectural Science Board of the Royal Institute of British Architects ARCUK Welbeck 9738 ASB 66, Portland Place, W.1. Welbeck 5721 Building Centre. 23, Maddox Street, W.1. British Cast Iron Research Association. Alvechurch, Birmingham. British Door Association. 25, Victoria Street, S.W.1. BC BCIRA Mayfair 2128 Redditch 716 BDA Abbey 5422-3 BIA Britinh Ironfounders' Association. 145, Vincent Street, Glasgow, C.2. Glasgow Central 2891 British Institute of Adult Education. 29, Tavistock Square, W.C.I. Building Industries National Council. 11, Weymouth Street, W.I. Board of Trade. Millbank, S.W.I. Building Research Station. Bucknalls Lane, Watford. British Steelwork Association. Egginton House, Buckingham C BIAE Euston 5385 BINC Langham 2785 BOT Whitehall 5140 Garston 2246 BRS BSA e, S.W.1. Victoria 7301-2-3 BSI British Standards Institution. 28, Victoria Street, S.W.1. Abbey 3333 Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1. Sloane 5255 Council of Industa Design. Tilbury House, Petty France, S.W.1. Whitehall 6322 Council for the Preservation of Rural England. 4, Hobart Place, S.W. Sloane 4280 CCA CID CPRE Chartered Surveyors' Institution. 12, Great George Street, S.W.1. Design and Industries Association. 9, Conduit Street, W.1. Department of Overseas Trade. 35, Old Queen Street, S.W.1. English Joinery Manufacturers Association (Incorporated). Sackvi CSI DIA Whitehall 5322 Mayfair 0477 Victoria 9040 DOT Sackville House, 40, Piccadilly, W.1. Reg Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1. Regent 4448 FAS Sloane 2837 FMB Federation of Master Builders. 23, Compton Terrace, Upper Street, N.1. anonbury 2041 FS (Eng.) Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.W.1. Sloane 2837 Georgian Group. 4, Hobart Place, S.W.1, Housing Centre. 13 Suffolk Street, Pall Mall, S.W.1. GG Sloane 2844 Housing Centre. 13 Suffolk Street, Pall Mall, S.W.I. Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.I. Sloane 3158 HC IAAS Institution of Civil Engineers. Great George Street, S.W.1. Institution of Electrical Engineers. Savoy Place, W.C.2. Institute of Builders. 48, Bedford Square, W.C.1. Institute of Registered Architects. 47, Victoria Street, S.W.1. Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1. Whitehall 7264 Whitehall 4577 ICE Institution of Civil Engineers. Great George Street, S.W.1. IEE IOR IRA ISE LIDC Lead Industries Development Council. Lago Leading, Whitehall 7264 London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3767 MARS Group (English Branch of CIAM). 46, Sheffield Terrace, W.8. Park 7678 Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1. Whitehall 3400 Ministry of Health. Whitehall, S.W.1. Stoare 4522 Ministry of Labour and National Service. St. James's Square, S.W.1. Whitehall 4300 Ministry of Supply. Shell Mex House, Victoria Embankment, W.C. Gerrard 6933 Ministry of Transport. Berkeley Square House, Berkeley Square, S.W.1. Whitehall 8411 Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1. Whitehall 8411 LMBA MARS MOA MOE MOH MOLNS MOS MOT MOTCP Ministry of Works. Lambeth Bridge House, S.E.1. Natural Asphalte Mine-Owners and Manufacturers Council. MOW Reliance 7611 NAMMC 94, Petty France, S.W.1. Abbey National Buildings Record. 37, Onslow Gardens, S.W.7. Kensington National Federation of Building Trades Employers. 82, New Cavendish Street V.1. Abbey 1010 Kensington 7070 NBR NFBTE National Federation of Building Trades Elliptoyers. 62, New Cavendam Street W.1. Langham 4041 National Federation of Building Trades Operatives. 9, Rugby Chambers, Rugby Street, W.C.1. Holborn 2770 National Trust for Places of Historic Interact or National Trust for Places of Historic Interact o NFBTO National Federation of Housing Societies. 13, SUITOR St., S. W.1. Whitehall 0211/2 National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1. Whitehall 0211/2 Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245 Post War Building, Directorate of. Ministry of Works, Lambeth Bridge House, S.E.1. Reliance 7611 NFHS NT PFP Reinforced Concrete Association. 91, Petty France, S.W.1. Royal Institute of British Architects. 66, Portland Place, W.1. Royal Society. Burlington House, Piccadilly, W.1. School Furniture Manufacturers' Association. 13, New Square, Lincoln's Inn, Wallfeld Avenue, N.10. 20 Wallfeld Avenue, N.10. S.E.1. Steam of the second PWB RCA RIBA RS RSA SFMA Society of Industrial Artists. 20, Wellfield Avenue, N.10. Tudor 702 Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1. SIA SPAB Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2. Temple Bar 5006 TCPA Timber Development Association. 75, Cannon Street, E.C.4. Town Planning Institute. 18, Ashley Place, S.W.1. City 6147 TDA Victoria 8815

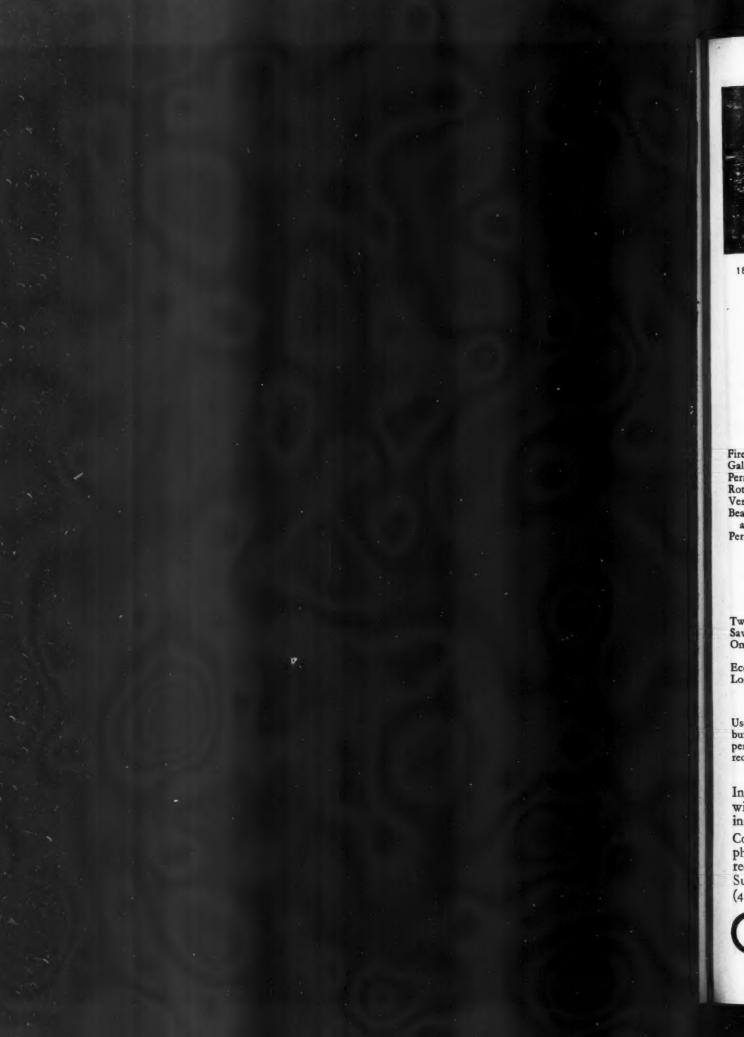




CLARK & FENN LTD.

16 OLD TOWN, LONDON, S.W.4 MACAULAY 2455-6-7





THE ARCHITECTS' JOURNAL for July 25, 1946 [iii

THROUGHOUT WARS and PEACE

COLT SHINGLES remain the trouble free roof of the future.

Throughout the war, Colt's have maintained a continuous and uninterrupted supply and fixing service of Colt Shingles on War Department, Air Ministry and other Government and essential buildings. Our Technical Department is at the service of all Architects.

> Colt Shingles proved themselves during the war to be superior to other roof covering in their remarkable resistance to blast, more than justifying our claims for the permanent security of a Colt Shingled roof.

Government Technical D all Architects

PROGRESS

Fire retardant. Gale proof. Permanent Rot proof. Vermin proof Beauty in colour and appearance. Perfect insulation.

1895

Twenty times lighter than tiles. Saves 40% roof timber. One inch Cedar equals 11in. concrete in resistance to heat or cold. Economical in cost and fixing. Long trouble-free life.

Used for roofing houses, schools, garages, airport buildings, factories, agricultural buildings, and other permanent structures. We quote for supply and fixing if required.

TO

In Peace, Colt Shingles will be specified more widely than ever for their beauty, long life, high insulation value and weatherproof qualities.

Copies of our Shingle Handbook containing 110 photographs and full technical information on request. Write to W. H. Colt (London) Ltd., Surbiton, Surrey. Telephone: Elmbridge 6511 (4 lines).



1939.

1939-45.

Here is a remarkably simple, yet 100% efficient device for the prevention of bursts in water installations due to freezing.

MORE

Zeross is a metal valve so designed that when ice begins to form in a water system, the resulting increased pressure set up thereby is relieved by the automatic operation of the valve, which discharges the total excess volume of water due to expansion.

The valve reseats itself immediately this pressure has been relieved and before the thaw has taken place.

Zeross has undergone the most severe and rigid tests and may be specified with complete confidence.

Zeross technicians will gladly give advice and assistance on all your freezing problems.



A CERTAIN AND AUTO-MATIC SAFEGUARD AGAINST BURST PIPES DUE TO FROST.

BURST PIPES!

WHEN CORRECTLY IN-STALLED GIVES 100% EFFICIENCY.

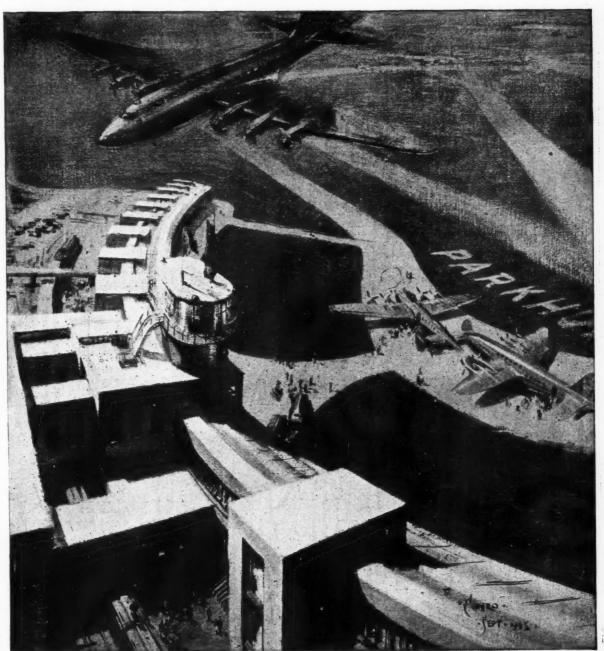
CANNOT CORRODE. NO ESSENTIAL PARTS IN CONTACT WITH WATER.

SUPPLIED WITH ES-SENTIAL CHAMBERED TEES AND MADE IN A RANGE OF TYPES AND SIZES TO SUIT ALL DOMESTIC AND INDUSTRIAL WATER INSTALLATIONS.

CAN BE FITTED INTO IRON, LEAD OR COPPER SYSTEMS WITH EQUAL EASE AND EFFICIENCY.

FOR FULL DETAILS WRITE TO: S. GRAHAME ROSS LTD., SLOUGH TEL. : BURNHAM (Bucks) 686

Building the Post-war World . . .

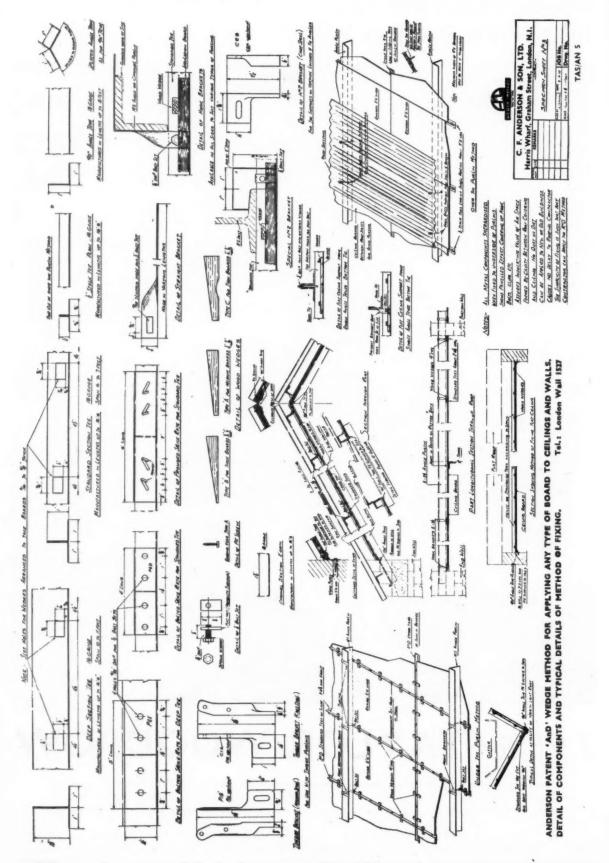


No. 4. Airodiomes

a job for TAYLOR WOODROW

CONTRACTS RECENTLY COMPLETED AND IN HAND • PHŒNIX (Mulberry) PREFABRICATED HARBOURS • F.I.D.O. SCHEME FOR AERODROMES • AERODROMES • UNDERGROUND STORAGE TANKS • OPENCAST COAL MINING • PENICILLIN FACTORY • DEEP SEWERS (Tunnel and Open Cut) • RAILWAY SIDINGS • BRIDGE RECONSTRUCTION • POWER STATION EXTENSIONS

TAYLOR WOODROW CONSTRUCTION LTD. Head Office and Works: RUISLIP ROAD, SOUTHALL, MIDDLESEX 'Phone: Waxlow 2366. 'Grams: Taywood, Southall. Code: Bentley's Second. London Office: 10 PARK STREET, W.1. 'Phone: Grosvenoi 4617



....

Meeting employers' demands for men

of executive standard

WHEN millions of men came home after the first world war, there was no adequate machinery to help those of talent or experience to find jobs worthy of their ability—or to help employers to find *them*. The result was a vast amount of human waste and frustration, tragic for individuals and a serious loss to business and industry.

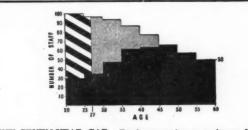
Once again the Forces and war industry are releasing thousands of men and women of superior ability—some with special qualifications, others with good executive experience. And there are also many high-grade younger men, called up before they were well started in business or industry, but now matured by war, and with the qualities of initiative and character that employers seek.

But this time a free appointments service, on a nation-wide scale, is helping to put employers in touch with the men and women they need for executive, managerial or administrative positions.

FINDING THE RIGHT MEN

The work is decentralized, in thirteen Regional Appointments Offices, so that all candidates for responsible posts can be interviewed and their abilities classified. Those with no previous experience in their chosen field are assessed and "screened" by modern, tested methods to reveal special aptitudes.

In this way the employer is spared many fruitless interviews



THE SEVEN-YEAR GAP. Employers trying to make up for the lost years, when they could not recruit promising young men to train for executive jobs, are finding the Appointments Offices a valuable source of "material."

The above chart represents the staff structure of a typical engineering firm. In grey: men called away. In black: the war-time staff, reserved or unfit. In stripes: the 20-27 age gap now left, even after reinstatement of pre-war employees.

Unfilled, this gap will mean a dangerous staff shortage, in ten years' time, of the 30-37's: in twenty years' time, of the 40-47's. It can be filled only by men between 20 and 27 returning to civil life. Most of those of executive calibre are applying, on release, to the Appointments Offices. That is where employers are finding the talent they want.

--since only promising candidates are submitted for his selection. And to find a man with the right experience for a particular post, or the right talents to train, he can draw on the whole country if need be.

It is NOT the task of the Appointments Offices to find jobs for all applicants, regardless of ability : the aim is to see that capability and experience are not wasted, and that employers have a choice of the best candidates available for responsible posts. More than 30,000 such positions have been successfully filled since VE-day.

GOVERNMENT-ASSISTED TRAINING

Whether you need a man who is already qualified and experienced, or are looking for a promising young man to train, it is highly probable that the man you are seeking is now on the Register of one of the Appointments Offices, or will be as soon as his release group is reached.

Or he may be among the men training under one or other of the Government's Training Schemes — the Further Education and Training Scheme, by which men are assisted to complete their professional or technical education—or the Business Training Scheme, which gives to selected men of potential management calibre a training in business management, including practical training within a firm, coupled with financial assistance where necessary while training.

In any event, if you will give your Regional Appointments Office an indication of your needs, every effort will be made to find the man you want.

> Write, telephone or call. The Regional Appointments Offices are in the following towns:--LONDON: 1-6 Tavistock Square, W.C.1 CAMBRIDGE: 5 Salisbury Villas, Station Road READING: 23 Valpy Street BRISTOL: Lyndale Hotel, Berkeley Square BIRMINGHAM: 239 Broad Street NOTTINGHAM: 239 Broad Street NOTTINGHAM: Commerce Chambers, Upper Parliament Street LEEDS: Greek Street Chambers, Greek Street MANCHESTER: Commercial Chambers, 47 Corporation Street LIVERPOOL: Cotton Exchange, Bixteth Street NEWCASTLE-ON-TYNE: 153 Barras Bridge EDINBURGH: 5 Rothesay Terrace GLASGOW: 450 Sauchiehall Street CARDIF: 8 Cathedral Road

ANDITT. O Cumourus Roud

A Manufacturer's Thanks

Employers have been quick to appreciate the work of the Appointments Offices. The following, from a firm of manufacturing chemists, is representative of many such letters received :—

"I would like to express my sincere thanks to your Department for the excellent service which you have afforded me. It is my considered opinion that the selection of applicants by you shows excellent judgment and a considerable amount of skilful work."

Issued by the Appointments Department, Ministry of Labour and National Service, St. James's Square, London, S.W.1

There is a *PRESSING* need for more homes...

Fisher & Ludlow the pressing specialists, have lost no time in adapting their production facilities to assist in meeting the National demand for more homes.

When the problem of mass-produced equipment in the bathroom and kitchen arises in your plants, for pre-fabricated or permanent housing consult "F and L". There are 23 modern factories in the Midlands ready to serve you.

23 modern factories at your service for the PRESSING PROBLEMS of Post - War requirements (PRESSINGS & FABRICATIONS IN ALL METALS)

> FISHER and LUDLOW Ltd. HEAD OFFICE

REA STREET, BIRMINGHAM LONDON HO. STRAND, W.C.2 ESTABLISHED 1852



Oak—one of the many fine woods used by this Company to produce work of which the Industry can be proud.

The Midland Woodworking Company Ltd

MELTON MOWBRAY

Craftsmen in Domestic Joinery

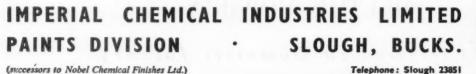
x] THE ARCHITECTS' JOURNAL for July 25, 1946



Colours in Court are usually sombre, but brighter shades are found in the offices and corridors of the Courthouse.

The police are exacting in the matter of paint. The blue of the Call box must not fade, Black Maria must always be well turned-out, and the painting of the Station must withstand severe treatment year after year.

"Dulux" finishes combine the necessary qualities of hardness, flexibility and smart appearance. The Paints Division of Imperial Chemical Industries invite your enquiries on all problems of decoration and decorative materials.





(successors to Nobel Chemical Finishes Ltd.)





BONNET HIP TILES

The true functions of the Bonnet Hip tile are :

(I) To carry the lines of adjacent courses of plain tiles over the angle of the hip.

(2) To mitigate the severity of the plain angle by introducing a tilted curve.

MARLEY PLAIN TILES

are made to conform to British Standard Specification No. 473: 1944. A full range of fittings is available and the 6 standard colours can be supplied in combinations to suit the background against which they will be seen.



THE MARLEY TILE COMPANY LIMITED

Head Office: London Road, Riverhead, Sevenoaks, Kcnt. Scottish Office: Cadder, Bishopbriggs, Nr. Glasgow. WORKS THROUGHOUT THE COUNTRY

Telephone : Sevenoaks 2251 Telephone : Bishopbriggs 415 xii] THE ARCHITECTS' JOURNAL for July 25, 1946



REFINEDSQUALITY

This highly esteemed tonic cordial was first distilled about 1600 by the monks of the austere Carthusian order, who obtained the recipe from a member of the French nobility. Their monastery of Grande Chartreuse at the foot of the Grand Som (7,600 ft.) in the wild mountain district of Grenoble was ideally situated for obtaining various aromatic plants—especially nettles—growing in the Alps from which, after much distillation and refinement came the famous liqueur.

As the smokeless national fuel, GAS has a refined quality which contributes in no small measure to the cleanliness, flexibility and entirely automatic control achieved by POTTERTON Gas-Fired Boilers (from 20,000 to 1.250,000 B.Th.U. output per hour). In central heating and hot water installations as well as industrial process plant they are the embodiment of our many years experience as Gas Water Heating Specialists. Our Technical Advisory Service will gladly assist with all problems of design and installation for any size of plant.









Here you see for yourself how much perishable food the 11 cub. ft. Electrolux can take. Nothing is left out that matters.

And for larger homes there will be larger Electrolux Refrigerators of this type.

Every Electrolux is

SILENT

because it has no machinery-no moving parts-and this means dependability, freedom from vibration and low maintenance cost. NOW IN PRODUCTION

Electrolux built-in Refrigerators operate equally well by gas or electricity, fit into any kitchen plan and can be built into every type of kitchen furniture at any height





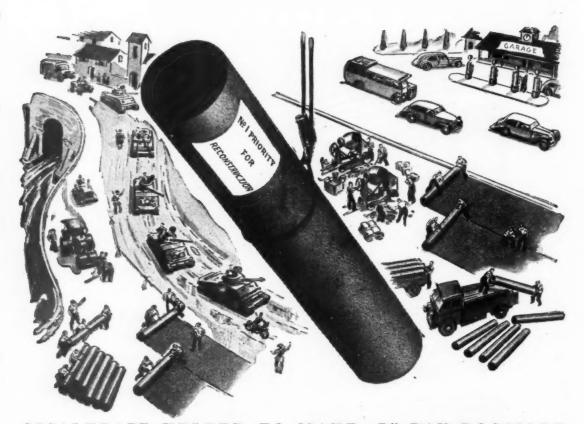
by ELECTROLUX LTD · LUTON · BEBS

Head Office : 153/5 Regent St., London, W.1

REFRIGERATION

Also Manufacturers of the famous Electrolux Suction Cleaner





SISALKRAFT HELPED TO MAKE "D" DAY POSSIBLE

Tanks . . . armoured cars . . . self-propelled guns . . . an endless procession . . . " D " Day . . . but vast stretches of new roads had to be built first . . . miles and miles of concrete . . . miles and miles of Sisalkraft for perfect curing . . . one of the numerous Sisalkraft war-jobs.

Now Sisalkraft will be needed in vast quantities to fulfil a hundred functions in Britain's reconstruction programme. For Sisalkraft will ensure even hydration of concrete-mix . . . seal porous subsoils . . . prevent honeycombing and secure maximum strength.

Used as sarking under roofs ... liners for walls and lining under floors . . . as tarpaulins

for work in progress and materials on the site . . . it will present an effective barrier to damp, dust, and dirt.

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

closing 1d. stamp) for full technical details.

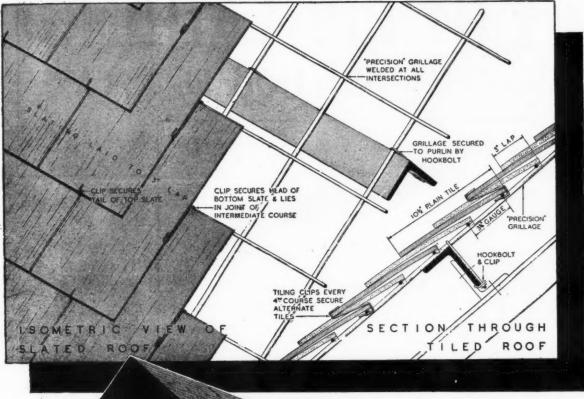
& SON, LTD J. H. SANKEY

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

TRADE MARK

SOLE DISTRIBUTORS FOR BRITISH SISALKRAFT LTD ALDWYCH HOUSE, ALDWYCH, LONDON, WC2

PRECISION ROOFING



Slated Root.

WORKS - PRODUCED SYSTEM of ROOF CONSTRUCTION

A new and simple system of roofing which is works-produced and can be speedily erected with a minimum of skilled labour.

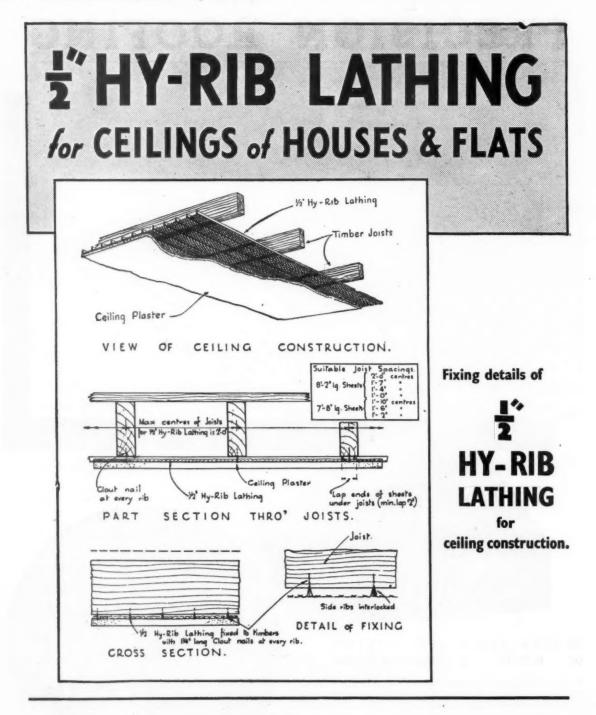
The system consists of a standardised steel grillage, electrically welded at all intersection points and gauged to suit the type of covering material employed. Slates or roof tiles are secured to the horizontal bars of the grillage by specially designed rustless steel clips.

Full details of Precision Roofing are contained in a booklet which will be sent on request. PRECISIO

PRECISION ROOFS LIMITED . TEMPLEBOROUGH SHEFFIELD

"Phone: Rotherham 1517 In association with . . . McCALL & CO. (SHEFFIELD) LTD. TEMPLEBOROUGH, SHEFFIELD

Underside of Slating.

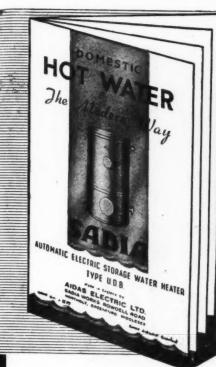


The lathing can be easily handled and quickly fixed. The rigidity provided by the ribs ensures a true surface. The "keyed" mesh assists the plastering operation. The lathing will span 24" between studding or joists without additional "furring" or supports.



HY-RIB SALES . 6 COLLINGHAM GARDENS . EARLS COURT . S.W.5 'PHONE FROBISHER 8141

AN ADVERTISEMENT OF THE TRUSSED CONCRETE STEEL COMPANY LIMITED 994-583A London, Manchester, Newcastle-on-Tyne, Birmingham, Glasgow, Cardiff, Leeds.



THIS FREE BOOKLET

THESE ARE THE TEN POINTS OF THE SADIA AUTOMATIC ELECTRIC STORAGE WATER HEATER - TYPE U.D.B.

- I. It is completely simple in design.
- 2. It is easy to install.
- 3. There is no maintenance problem.
- 4. Its compactness permits its installation in a very small space.
- 5. It is in every way economical.

4 D

6. It is silent.

IS NOW READY FOR YOU

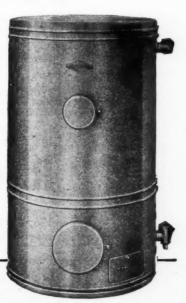
The newly-published Sadia booklet has been prepared in response to many requests from professional men. It gives concise details of the Sadia Automatic Electric Storage Water Heater, Type U.D.B., with specifications detailing its construction, dimensions, and installation methods.

The Sadia booklet will be most useful to all connected with building operations.

We shall be glad to send it to you on request. Please write for a copy, enclosing a penny stamp.

- 7. . . . and fumeless.
- 8. . . . and odourless.
- 9. It is entirely automatic.
- 10. Its efficiency has been tested and proved, under conditions exactly corresponding to those of normal household and institutional requirements

TYPE



AU.D.B. AUTOMATIC ELECTRIC WATER HEATER

AIDAS ELECTRIC LTD., SADIA WORKS, ROWDELL ROAD, NORTHOLT, MIDDX. Phone: WAXIow 1607. SCOTTISH AGENTS: W. BROWN & CO. (ENGINEERS) LTD., 89 DOUGLAS STREET, GLASGOW, C.2.



DULRAE Invisible low temperature electric warming

The most economical form of Electric Warming. Gives uniform Radiant Comfort - No cold spots or cold feet. Invisibly installed in the Ceiling - No floor or wall obstructions. Automatically Controlled Warmth - No attention. Cleanly, and saves re-decoration costs - No dirt, no labour. Can be installed in existing or new building. Full particulars on request.

Under licence from the Dulrae Manufacturing Co., Ltd.

ARD



By Appointment Engineers to H.M. King George VI.

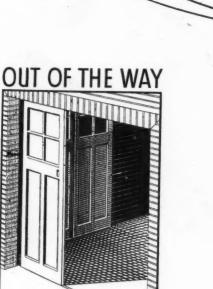
COMPANY LIMITED AND 156, GREAT PORTLAND ST., LONDON, W.I Phone: Museum 3366 BIRMINGHAM: PRUDENTIAL BUILDINGS, ST. PHILIP'S PLACE. CEN. 2478

C R I

LIVERPOOL : MARTIN'S BANK BUILDING, WATER STREET. CEN. 5832

HANLEY: JUBILEE CHAMBERS, STAFFORD STREET. STOKE-ON-TRENT 29385

THE VALUE OF SLIDING



KING

In these days, to slide on a banana skin can be considered as something approaching a luxury. But that, of course, is only one way of sliding-and not very pleasant. The real pleasure of sliding comes from a sense of travelling swiftly and smoothly between one place and another with rare economy of time and effort. Now apply this perfect principle to doors and what do we find? Without a doubt we should be led to consider a door fitted with King Sliding Door Gear-and it is worth considering. A door that's hinged is a door that needs a lot of room ; but with a sliding door it's different. If it's fitted with King Door Gear a touch of the hand takes it out of the way, gliding easily and quickly to nestle snugly against the wall, completely and

OOR GEAR

unobtrusively out of the way. Doors that slide mean doorways that allow free passage all around them.

For ante rooms, cloak rooms, garages, lifts, etc., and places where space is limited or traffic congestion is likely to occur, sliding doors are the perfect application.

WRITE FOR ILLUSTRATED BOOKLET

GEO. W. KING LTD. HITCHIN. HERTS

C

Cutalin is a cast synthetic resino made in a wide range of glorious colours and mottled effects, and can be opaque, transparent or translucent. Catalin is supplied in rods, sheets, cylinders, and a great variety of profile sections and special castings which can be made to suit individual requirements Catalin is easy to machine and has good physical and electrical properties. It is odourless and tasteless, resists alcohol and most acids, is easy to wash and is non-inflammable. Catalin is the ideal material for cabinet fittings cutlery and umbrella handles, brush backs, dress accessories, games counters and fancy goods. It is the ideal material for lighting fittings, clock cases, radio cabinets, switchboard fittings, gauge bodies and dials, and all kinds of knobs, indicators and control handles. In all your production problems Catalin's technical staff is ready and willing to c assist. Your enquiries are cordially invited.

 Reproduction of these Catalin handles is by kind permission of Lacrinoid Products Ltd., Gidea Park, Essex.

THE

colourful atal MODERN PLASTICS OF

CONTACT: CATALIN LIMITED (DEPT. AJ), WALTHAM ABBEY, ESSEX Telephone : WALTHAM CROSS 3344

GEM

THE ARCHITECTS' JOURNAL for July 25, 1946 [xxi

ANY SIZE OR SHAPE UP TO TWELVE INCHES DIAMETER CONTINUOUS LENGTHS UP TO SIXTY FIVE FEET

*

Why not

use extrusions

to cut production S

costs

ALUMINIUM ALLOYS

A^{LUMINIUM} Alloys are of fine appearance, well endowed to repel corrosion, and cover a wide strength range. Furthermore, they are ideal for forming by the extrusion process.

Extruded sections in an almost limitless range of shapes can be produced quickly and cheaply—costs of special dies are low. Continuous extrusions up to 65 ft. long are produced in many alloys and they may be

readily manipulated to any desired form without risk of fracture or distortion during working.



Manufacturers in many industries have

already learned from practical experience that Aluminium Alloy extrusions can substantially reduce production costs, eliminate costly machining, simplify assembly methods and increase output.

If you have a tricky problem that might be solved by the use of Aluminium extrusions, you are invited to write to the Aluminium Development Association for helpful advice and technical data.

THE ALUMINIUM DEVELOPMENT ASSOCIATION 67 BROOK STREET LONDON · W.I Tel: MAYFAIR 7501/8 xxii] THE ARCHITECTS' JOURNAL for July 25, 1946



AND AT LONDON, NEWCASTLE-ON-TYNE & LIVERPOOL

Consult R SERVICE

TELECOMMUNICATION and Time Control installations are now free of Government licence. Architects and Consultants who are considering new installations of the most modern type would do well to consult with Telephone Rentals Ltd.

We have been occupied with all types of installations for upwards of 40 years, principally but not exclusively upon a rental-maintenance basis. The firm is exceptionally well placed both to offer advice to professional men and also to carry out the installation and maintenance of the equipment itself in any part of the country, upon terms most suitable to professional men and their clients.

TELEPHONES

STAFF LOCATION

24

FACTORY BROAD-CASTING AND MUSIC

TIME RECORDING Synchronised Clocks Signals and Recorders

There are more than 200,000 T.R. Telecommunication Instruments in daily use throughout the Country.

Telephone Rentals

Head Office :

DEPT. P2 · KENT HOUSE · KNIGHTSBRIDGE · LONDON · S.W.7

Branches in LONDON · BIRMINGHAM · BRISTOL · CARDIFF · LEEDS MANCHESTER · NEWCASTLE-ON-TYNE · SHEFFIELD · GLASGOW BELFAST · DUBLIN: and Maintenance Engineers throughout the Country.

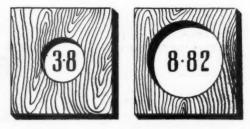
Telephone Rentals Ltd., is an organisation that has developed from the origina loffice telephone business founded in 1903



EJMA windows are designed to let in the daylight. So, in theory, are all windows, but pre-war practice, with its thick mullions, heavy sections and glazing bars, obscured much of the light which could have come through any given opening. Improved design gives a window which looks well, does its job perfectly, and saves a great deal of wood.

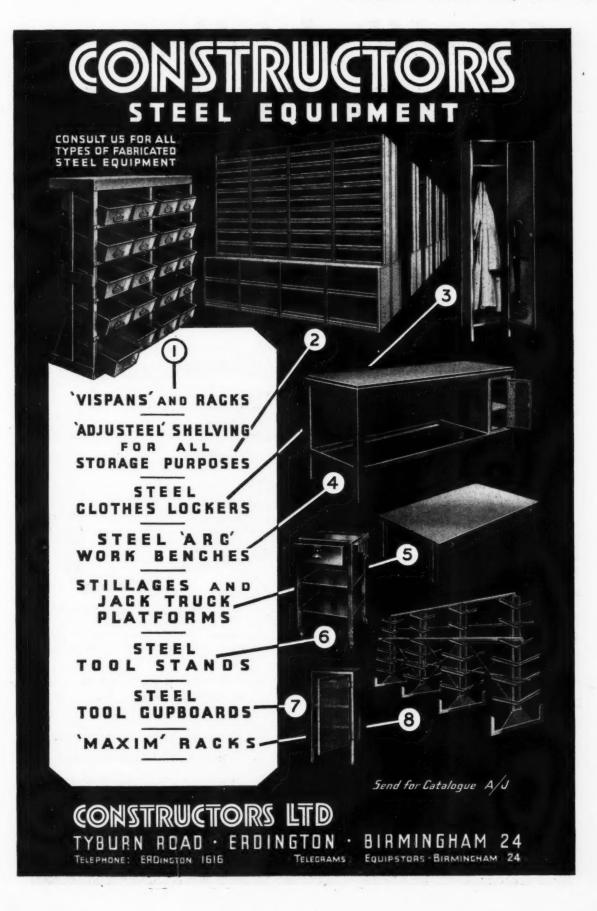
DOUBLE THE DAYLIGHT AREA PER CUBIC FOOT OF TIMBER

The pre-war window of 18.5 sq. ft. area (B.S.644/1935) admitted 3.8 sq. ft. of daylight for each foot cube of timber. The comparable EJMA window of 18.37 sq. ft. area admits 8.82 sq. ft. of daylight for each foot cube.



nd Kirk

THE ENGLISH JOINERY MANUFACTURERS ASSOCIATION SACKVILLE HOUSE, 40 PICCADILLY, W.I REGENT 4448 (INCORPORATED)



.

For All the Best INJOINERY HALL'S OF PADDOCK WOOD offer

fication as approved by the Ministry of Health and the Ministry of Works. Our kitchen units will make old kitchens new and new kitchens the last word in utilisation. 16 individual units combine into 50 different arrangements and every unit is interchangeable with A.B.C. simplicity.

the fully approved range of Ejma kitchen units to British Standard Speci-

Illustrating a model kitchen specially built in our factory for your inspection.

HALLS Ejma standard windows provide more than twice the daylight area per cubic foot of timber than that afforded in the pre-war standards. They are designed with extremely strong laminated joints and are specially machined to avoid the bugbear of binding windows. The sizes have been co-ordinated with brickwork dimensions thus saving many man hours on site. They are weather, draught and dust resisting.

We have an ample range of standardised units and you cannot do better than SPECIFY HALLS Ejma windows and doors.

Whatever you need in KITCHEN UNITS, WINDOWS, DOORS AND FRAMES MANUFACTURED TO THE Eima STANDARD, REMEMBER the name is HALL the mark of GUALITY for the RIGHT STANDARD at the RIGHT PRICE.



Here are just four of the outstanding features of Ejma Kitchen Units supplied by Hall's of PADDOCK WOOD, one of Britain's greatest and finest joinery plants:

- A. Continuous worthop fits over floor cupboards at convenient working level of 3ft, above floor.
- B. All cupboard shelves interchangeable.
- C. Specially designed dustproof drawers.
- D. Toe space is given by a recessed 3in. plinth.

Ejma is the Certification Trade Mark of the English Joinery Manufacturers' Association.



STRI HE demand for speed, and then even greater speed, can be met by the greater use of tubes. Tubes are proved as ideal for a host of constructional requirements in ever increasing numbers such as Roof Trusses and other parts for Housing, Industrial and other purposes. The construction illustrated is 73ft. long by 4lft. wide, demountable and used with canvas covering. It was produced in Wellington Works from standard Tubes.

N

SELL

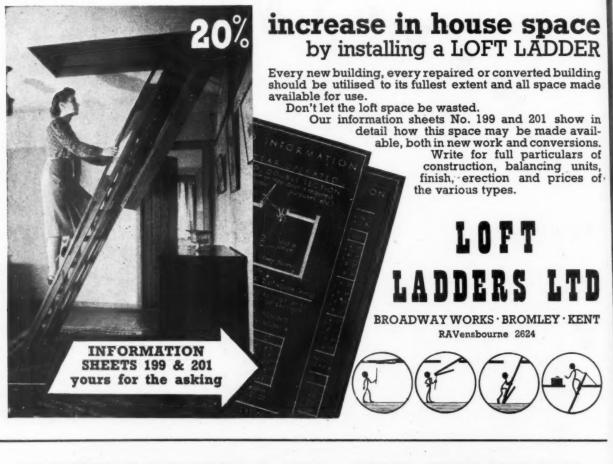
"Design in Steel Tube-an ideal structural member."



THE VICTORIA TUBE CO., LTD., & EDWARD SMITH LTD.

HEAD OFFICE AND WORKS : GREAT BRIDGE : TIPTON : STAFFORDSHIRE

xxviii] THE ARCHITECTS' JOURNAL for July 25, 1946



SPRAY PLASTICS TO ANY THICKNESS

ED FINISH BY

It is animulating to visualize the variety of plastic finialies that can be fused to any surface by the Schori powder spraying process. Finishes of any thickness unobtainable by the solveat method of spraying are achieved as simply as blowing paint, by Schori flame spraying. Thickof, Polymarized Shellac, Polythene, Bitumen, Ebonins, Sulphur are a few of the Schori Plastic surfaces that can be fused with speed and facility in all colours. In addition, there are scores of metal and combinations of metal and non-metal powders available. Approved by the Admiralty, War Office, Grown Agents, etc.

CHORI METALLISING PROCESS LTD., BRENT CRESCENT, NORTH CIRCULAR ROAD, LONDON N.W.IU.

Telephone : ELGAR 7393

SCHORI

Ce ER

lding made w in

availsions. rs of units, es of

ENT

S

93

on the GOLDEN ARROW



the plastics buffet car



WARE RELIMITED LAMINATED PLASTICS BY WARERITE LIMITED UNIT OF BAKELITE LTD WARE • HERTS. Telegrams: Warerite, Ware • Telephone: Ware 502 Pleasant to look at but essentially practical in use, WARERITE laminated plastics have created a precedent in British railway practice in the new Trianon Bar on the Golden Arrow train. Walls, bar and table tops are all surfaced with WARERITE materials in a colour scheme of grey, pink and cream.

For colour, hard wear, resistance to damp, hot liquids, fruit juices and alcohol, WARERITE laminated plastics are materials to remember.



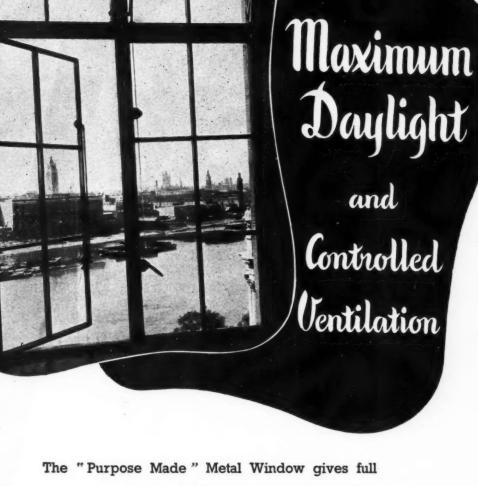
R. CATTLE LTD.

Look forward to renewing the pleasant associations with their many friends in the Architectural profession and can assure them that the same personal service will still be gladly given.

High Class Joinery and Precision Wood Work

EVERITT RD. • CHASE RD. • NORTH ACTON • N.W.10. Telephone: ELGAR 5411 (4 lines)

С



The "Purpose Made" Metal Window gives full scope to the ingenuity of constructional art. For all Post-war buildings, be they Commercial, Institutional or Domestic, the Metal Window with its adaptability to any design will be available.

Full information on all Metal Window queries and problems from the **METAL WINDOW INFORMATION BUREAU,** 2, Great Peter Street, Westminster, S.W.1. THE CHANCES ARE...

When better lighting is installed in home, office or street, the globes and shades will be made from

Chance GLASS

CHANCE BROTHERS LIMITED Glass-makers since 1824, produce Rolled Plate, Wired Glass, Pressed Glassware, Laboratory Glassware, Architectural, Decorative and Lighting Glassware, Optical Glass, Scientific and other specialised Glass Products, Marine and Aviation Lighting Equipment. Head Office : Smethwick, Birmingham. London Office : 28 St. James's Square, S.W.1. Scottish Office and Works : Firhill, Glasgow, N.W.

THE ARCHITECTS' JOURNAL for July 25, 1946 [xxxiii

LIGHTING

G.2775. Finished Black and Satin Silver and arranged for two 80 watt fluorescent lamps. All necessary control gear is built into the fitting.

DECORATIVE METAL WROUGHT IRONWORK FOUNDERS · SPINNERS MACHINISTS

> GEORGE FORREST AND SON LTD

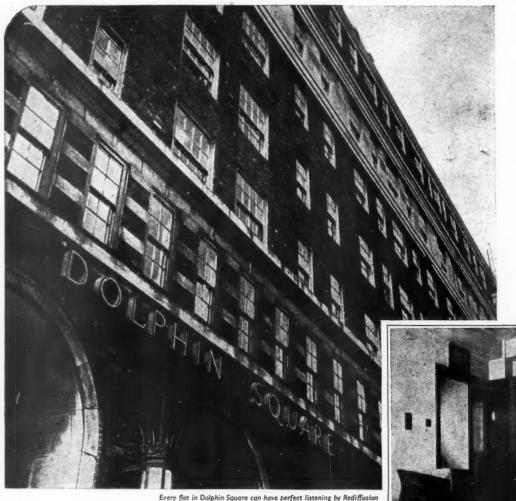
SPECIAL PURPOSE DESIGNS FOR FLUORESCENT LIGHTING 30-38 OSBORNE ROAD, ACTON, LONDON, W.3. PRIVATE EXCHANGE

Foremost in Fluorescent - FORRESI - Lighting Specialists

XXXIV] THE ARCHITECTS' JOURNAL for July 25, 1946







The Radio Reception of the Future

HERE the architect and the modern radio engineer have the opportunity for complete co-operation, there you will find the perfect reproduction of radio programmes that has been planned by radio specialists for the future.

Dolphin Square, one of the most modern blocks of flats in London today, was built with just that co-operation between experts. Radio reception is available by Rediffusion, at the touch of a switch, in every flat in the building.

Reproduction is perfect—it comes by direct wire from the B.B.C. studios-and there is no apparatus taking up valuable space. Loudspeakers are mounted within the wall itself and the neat switch and volume control are also mounted flush with the wall-streamlined fittings combined with the best possible reproduction of radio programmes.

EXISTS TODAY!

Architects who are interested should contact the Rediffusion London office, during the early stages of planning, for full co-operation.



operates in the following towns: WR), BARGORD, BARROW, BLACEPO DTRE, GATESHEAD, GOSFORTH, HULL MR, MARGATE, MERTHYR, MORECAL MORTHY SHIVE SHIVE TO NORTH

In cor war n pages. get a

> D A Title pape by Bo sor. CH cil.) ED Que EX be a zina don Cos F sor, H nin Co the To be of Pla Cer ing of the arr the Mi tio Sui H Co L Ag C/ 9.3 SPC GW

> > Sc Sc Sc

M

THE ARCHITECTS' JOURNAL for July 25, 1946 [xxxvii

NEW

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



U.K. or abroad, £1 155. od. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each ; carriage 1s. extra. Goods advertised in the JOURNAL and made of raw materials now in short supply, are not necessarily available for export.

IARY FOR JULY AUGUST AND SEPTEMBER

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 the initials as given in the glossary of abbreviations on the front cover.

BOOTLE. Recording Britain. North and **B** Midlands. At the Art Gallery. (Spon-sor, the Arts Council.) JULY 27-AUG. 31 CHELMSFORD. Plans for an Art Centre (Sponor, the Arts Coun-JULY 25-26 Exhibition. cil.)

E DINBURGH. Plans for an Art Centre. Exhibition. At the Scottish Office, 29, Queen Street. (Sponsor, the Arts Council.) JULY 26-30

EXETER. Summer Course on USSR. At Hope Hall, Exeter University. To be opened by Mme. Gousev. Mme. Gama-zina, Principal of the Soviet School in Lon-don, and other Soviet visitors will attend. Cost £5-10-0 for week. (Sponsor, SCR.) AUG. 17-24.

FORFAR. RFAR. Plans for an Art Centre. Exhibition. At Meffan Institute. (Spon-the Arts Council.) JULY 25-AUG. 23 Art Centre. sor, the Arts Council.)

sor, the Arts Council.) JULY 25-AUG. 25 **H**ASTINGS. XVIII International Con-gress for Housing and Town Plan-ning. At the White Rock Pavilion. The Congress and exhibition will be opened by the Rt. Hon. Lewis Silkin, M.P., Minister of Town and Country Planning. Subjects to be discussed include Replanning the Centres of New Cities—Some Examples of New Plans; Housing Technique; Replanning the Centres of Cities—Decentralization; Hous-ing Economics; and Replanning the Centres of Cities—Implementing the Plans. During of Cities-Implementing the Plans. During the Conference local tours and visits will be arranged and after the Conference tours to the North of England, the West and the Midlands. (Sponsor, International Federa-tion for Housing and Town Planning, 13, Suffolk Street, Haymarket, London, S.W.I.) Oct. 7-12 Ост. 7-12

HORNCHURCH. Plans for an Art Centre Exhibition. (Sponsor, the Arts JULY 29-31 Council.)

LONDON. Summer Show of Sacred Art L. Subjects. At the Church Artists' Agency, 25, Ebury Street, S.W.1. (Sponsor, CAA.) 9.30 a.m. to 5.30 p.m. Saturdays, 9.30 a.m. to 12.30 p.m. JULY-AUG.

Summer Exhibition of French and English Paintings, Drawings, Prints. At Redfern Gallery, 20, Cork Street, Burlington Gardens, W.1. **JULY 25-SEPT. 28**

Annual Exhibition of Work of the AA School of Architecture. At. 36, Bedford Square, W.C.1. (Sponsor, AA.) 10 a.m. to 6 p.m. JULY 25-AUG. 1 and AUG. 7-10 Social Services in USSR. Lecture at the Masaryk Hall, University of London, Malet Street, W.C.1. (Sponsor, SCR). 8 p.m. JULY 30.

Public Drinking Fountain Competition. Assessors, Oswald P. Milne, Keith Murray and Surgeon Vice-Admiral Sir Reginald and Surgeon Vice-Admiral Sir Reginald Bond. Premiums, £50 and £25 respec-tively. In addition to the premium a fee of £3 3s, will be paid for each fountain completed from the author's design. Par-ticulars from Royal Society of Arts, 6-8, John Adam Street, Adelphi, W.C.2. Closing date

AA Excursion to Sweden. The party will spend one day in Copenhagen and approxi-mately nine days in Sweden. (Sponsor, AUG. 9 AA.)

Deana Levin. Soviet Schools. At the Masaryk Hall, University of London, Malet Street, W.C.1. (Sponsor, SCR). 8 p.m. AUG. 20.

New Homes for Old Exhibition. At 22. Lower Regent Street, S.W.1. (Sponsor, HC.) SEPT. 11-Nov. 9

Swiss Planning and Building Exhibition. At the RIBA, 66, Portland Place, W.1. Organized with the co-operation of the foremost architects and associations in Switzer-land. Building for work, building for recreation, housing, town and country plan-ning, schools and hospitals are among the subjects to be covered. Other features will be the preservation of old and historic buildings and the countryside, and the re-planning of winter sports resorts, for which an extensive programme has already been extensive programme has already been started. How Switzerland makes the most of already been her landscape will be shown in a series of photographs. SEPT. 19-OCT. 26

MORLEY. MORLEY. Furnished Exhibition House. At Winterbourne Estate, Victoria Road. (Sponsor, the Arts Council.) JULY 25-AUG. 21

PARIS. International Technical Con-gress. Among the delegates from Great Britain will be Sir Patrick Aber-crombie, President, International Reunion of Architects, and Sir Percy Thomas.

SEPT. 16-21

SOUTHAMPTON. Design at Home. Ex-hibition. At the Art Gallery, Civic Centre. (Sponsor, the Arts Council.) JULY 25-AUG. 3

WAKEFIELD. Furnished Exhibition House. At Cyprus Mount, Newton Bar. (Sponsor, the Arts Council.) JULY 25-AUG. 26

WORCESTER. History of the British Playhouse. Exhibition. At the Pub-lic Library. Museum and Art Gallery. (Sponsor, the Arts Council.) JULY 25-27

Thursday, No. 2687			1946 . 104
News			55
In Memoriam, 1945	••	•••	56
This Week's Leading	Article		57
Astragal's Notes and T	opics		58
Letters from Readers			59
Milan Monument	••		60
Housing Statistics	• •	••	61
Physical Planning Sup	*		
Crystal Palace Co An Analysis of the	*		*

63 Layout Problems A Week-end House in California 65 Project for a Week-end House 67 68 Information Centre 70 Societies and Institutions

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 Interim Report of Dr. C. H. Holden and Professor W. G. Halford on the reconstruction and REPLANNING OF THE CITY OF LONDON has been adopted in principle by the Court of Common Council. At a Special Court of Common Council called by the Lord Mayor, who presided, to consider a report of the Improvements and Town Planning Committee on the recon-struction of the City of London, the interim report of the consultants—Dr. Holden and report of the consultants—Dr. Holden and Professor Holford—was adopted in principle as a base upon which may be constructed the final report. The consultants' proposals were published in detail in our last issue. The committee was empowered to instruct the consultants to present a further report in a form suitable for submission to the Minister of Town and Country Planning. The Architects' Journal summary and ex-planation of the Plan has been republished as a pamphlet and can be obtained through booksellers and newsagents, price one shilling.

FOR PLANNER OR FOR HOUSEWIFE ...

the RAYBURN has all the answers!

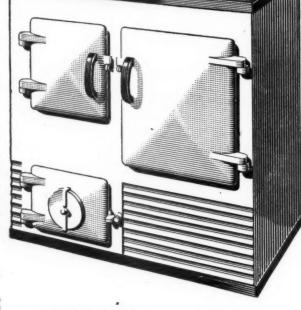
Here is *the* new insulated solid fuel cooker for the British home. It meets every requirement of the planning authority, and for the housewife to use it spells sheer contentment.

Whether for private purchase or for bulk specification it has solid initial advantages which demand attention.

- It is free standing, self-setting, easy to install.
- Its first cost is competitive and its operating costs are low.
- It provides cooking and domestic hot water from one fire.

For consistent and versatile performance, economy of fuel, ease of maintenance, and day after day dependability in the user's hands it cannot be beaten. In fact, its superiority can be judged by these concrete claims.

- It is virtually independent of chimney draught.
- It is equally satisfactory with any form of solid fuel, and will also burn wood or peat.
- Continuous burning day and night needs only 1¹/₂ to 2 cwt. of fuel a week, according to usage and requirements.
- As it burns all night hot water in the morning is automatic.
- There is no boiler or oven damper to manipulate, and the fire is easily controlled by a spin valve.
- Flue cleaning has been reduced to little more than pushing soot off the oven top on to the fire.
- The new patent convection heated oven provides the consistent temperatures required for confident cooking.



RAYBURN

RAYBURN No. I (single oven) 30" wide, 30" high, 181" deep.

- RAYBURN No. 2 (two ovens) 33" wide, 32" high, 181" deep. PRICES WILL BE SUPPLIED ON APPLICATION
- Installation details for various types of wall or recess will be supplied on request.
- This announcement is for the convenience of planning authorities and does not imply that stocks for delivery are immediately available.



Fr

AN ME

a fo imp the

mea indu cert

To hum prel duc inte and and

exp an the ★

In

Mi

nou

L(

Bl

DE

TH

Lor

mov

Avia In

men

so i

of

con

to t

has

con Gra

tha

bui any The

COL

aco

que

sco

rec

fac

Si

M

sh D us

w m

B po re M

to sin th 19 M ca



ALLIED IRONFOUNDERS LIMITED . MORTIMER HOUSE . MORTIMER ST. . LONDON W.I

From AN ARCHITECT'S Commonplace Book

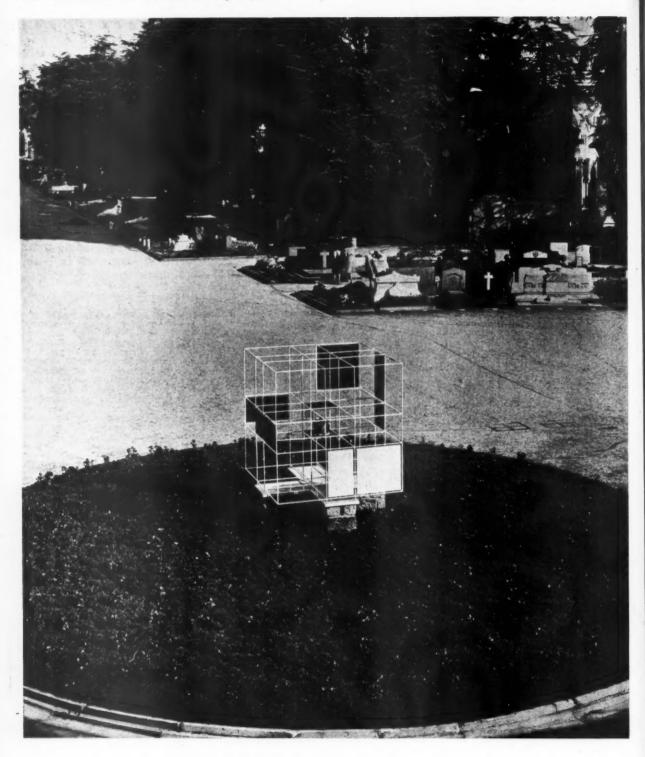
AN AMERICAN ON THE AMERICAN CITY : PHILOSOPHY FOR A LIVING ENVIRON-MENT. [From City Development, by Lewis Mumford (Secker and Warburg).] If the artist was to become a force in his own right once more, as confident of his mission as the scientist or the engineer, it was important that he should not identify himself with the senseless acts of imperialist conquest, or with the senseless mechanical negation of life. When I use the word senseless I use it in both its usual meanings . . . Following partly from this mechanical philosophy, partly from the new routine of industry, the senses were in fact denied and defeated in all the new industrial centres ; not least, certainly, in New York, which concentrated the industry and the finance of the Western continent. To become a force in this society, this city, it was necessary to open up once more all the avenues of human experience : to sharpen the eye, quicken the touch, refine the senses of smell and taste, as a preliminary to restoring to wholeness the dwarfed and amputated personalities that had been produced . . . In a world where practical success cancelled every other aspiration, this meant a redoubled interest in the goods and methods that challenged the canons of pecuniary success-contemplation and idle reverie, high craftsmanship and patient manipulation, a willing acceptance of the emotions and an enlargement of the erotic ritual, a shift from the specialized masculine interests leading to an exploitation of power to the more generalized, more centrally biological interests expressed in love : an emphasis on the ecstasy of being rather than a concentration on the pragmatic strains of "getting there. *

In the House of Lords Lord Winster, Minister of Civil Aviation, announced that the designs of the LONDON AIRPORT BUILDINGS WILL BE DECIDED BY AN ARCHI-TECTURAL COMPETITION. Lord Winster, Minister of Civil Aviation, moving the second reading of the Civil Aviation Bill in the House of Lords, said: In order to bring together the require-ments of prospective users of the airport, so far as buildings are concerned, I have set up a Departmental Committee consisting set up a Departmental Committee consisting of officials of the Ministry. When the committee has completed its work I intend to throw open the design of the building to competition. The President of the RIBA has nominated an eminent architect for the committee, and I have appointed Mr. Graham Dawbarn. It is my intention that the winning architect will be activaly Graham Dawbarn. It is my intention that the winning architect will be actively connected with the construction of the building building and responsible for carrying out any necessary modifications to the plans. The committee will take many months to complete its work, but meanwhile temporary accommodation will be developed. The question of Earl's Court is outside the scope of the Bill, but the Government fully recognize the importance of a central terminal point, and I have hopes of a satisfactory solution.

Sir E. Grahame-Little asked the Minister of Education what advice she took before providing the STAN-DARD HUTTING now being used for school buildings; and whether she consulted the sub-committee of the Royal Institute of British Architects a ppointed in February 1945 to report on school design construction. Miss Wilkinson: Hutting has been supplied to local education authorities for school use since August, 1941, at first through the the Ministry of Supply, but since January, 1942, through the Ministry of Works. The Minister of Works appointed a Prefabricated Hut Design Committee, which included among its members high technical and other officers of several Government Departments, including the Ministry' of Education, and the original Standard Ministry of Works hut design was gradually evolved under the supervision of the committee, in the light of the experience gained and of the changing situation, e.g., in respect of the materials obtainable. In February, 1946, I received a report by the Committee mentioned in the second part of the question.

Mr. Joseph Westwood, M.P., Secretary of State for Scotland: DUNDEE HAS THE LARGEST NUMBER OF TEMPORARY HOUSES under construction and completed than any local authority in Scotland. At the official opening of the first perma-nent house completed at Dryburgh Housing Scheme, Dundee, Mr. Joseph Westwood, M.P., Secretary of State for Scotland, said: Dundee has the largest number of temporary houses under construction and com-pleted of any local authority in Scotland. During the war 936 houses were built and During the war 936 houses were built and completed in Dundee—777 of them by the Corporation and 159 by private enterprise. With the end of the war an estimate was made of the city's immediate requirements. It put the number roughly at about 20,000 new houses. No time was lost in preparing sites for these new buildings, and about 10,442 of these sites have been approved. At Mazdalene's. Kirkton and Dryburgh At Magdalene's, Kirkton and Dryburgh servicing has been completed for 1,173 permanent houses. The work of preparing for a further 574 houses is in progress. In the next three years, 1946-48, the Corpora-tion proposes to build 4,875 new houses of a permanent nature—that is about a fourth of total estimated needs. Since the end of the war tenders have been approved for 740 houses including 50 Swedish timber houses and work on 485 is proceeding. In addition 236 houses approved during the war are still under construction. On June 24 tenders were invited by the Corporation for the first development of 398 houses on the West Kirkton site. The houses on the west KITKION site. The Corporation is to erect its allocation of 250 BISF houses on this site on the west side of Strathmartin Road. It is hoped to begin the erection of these in the autumn. So much for the permanent building programme. In addition there is the programme of temporary houses. Dundee has been allocated 1,550 of these temporary houses. Of this number 791 are of the Arcon design, 120 are of the Tarran, 93 of Phœnix, and 546 are aluminium. Sites for 1,244 of these temporary houses have been approved. The foundation work has been completed on 861 of them and 429 have been finished and 205 are under construction. The Corporation has not been content to build on its own but has invited the Scottish Special Housing Association to help, and I am glad to say that the Association is going to build 100 Swedish timber houses and 20 Atholl steel houses in addition to those I have mentioned. The Association proposes also to erect a first instalment of 650 houses including 50 houses for key workers. Lay-out plans for these 650 houses have yet to come to hand. This is a fine record and supports the general feeling that an outsider has, that Dundee is determined to go places. Only a city which believed in its own future would tackle housing in so thorough a fashion.

The RIBA wish to draw special attention to the RIBA EXAMINATION FOR BUILDING SURVEYORS. This examination was first held in 1886 and since that date, as a result of passing the examination, a large number of candidates have obtained the RIBA Certificate of competency to act as a building surveyor under a local authority. The examinations are held twice annually in the months of May and October. Applications have to be submitted to the Secretary, RIBA, by March 19 and August 28 approximately, annually, and should be accompanied by a fee of ± 3 3s. 0d. The examination is of two days' duration with the oral examination on the third day. The subjects of the syllabus include the examination of plans, the preparation of drawings, the conduct of negotiations and the drafting of committee reports; a general knowledge of the Acts, By-Laws and Orders governing the control by local authorities of building and development; general building construction and fire-resisting construction, building materials, inspection of building work and dangerous structures; the theory of structures and the design and calculation of steel and reinforced concrete structures.



In Memoriam, 1945

What kind of war-memorials will the war just ended produce for posterity to look at? Future historians will study this one with wonder and interest, and perhaps find it appropriate that one of those "non-utilitarian machines" that abstract artists found such an entrancing idea between the wars should dignify the end of that peculiar epoch. This latest and most elegant of all ivory towers really exists as a permanent feature of the *Cimitero Monumentale* of Milan as a memorial to the Italian workers who were deported to Germany and died there. It stands on the axis of a main avenue in the cemetery and has a cruciform base, in stone and marble, on which rises a metal tubular structure painted white. Within this structure are hung marble plaques, white on one side and black on the other three, bearing inscriptions. A close-up is shown on page 60. The architects were Rogers, Peressutti and Belgiojoso.

The Minister of Town and Country Planning (Mr. Lewis Silkin) met representatives of the local authori-ties concerned with the establish-ment of a NEW TOWN IN THE CRAWLEY-THREE BRIDGES AREA OF SUSSEX. Mr. Silkin said that this site had not been mentioned in the Greater London Plan as suitable for a new town, but that the pro-posal that it should be so developed as part of the Government's programme of decentralization from London was based on careful examination of the area. There were several good reasons for developing a new town there. The Minister said he proposed to appoint a planning consultant to draw up in the near future a rough outline plan of the new town which would provide a basis for discussion and subsequent operations. The planning consultant would hold frequent consultations with the local authorities concerned. When the plan was completed, and if the New Towns Bill, now before Parliament, was passed in sub-stantially its present form, the area required would in due course be designated under Section 1 which provides for the hearing of objections and for the holding of a public enquiry. Mr. Silkin said that before enquiry. Mr. Silkin said that before appointing members of the corporation to be responsible for the new town, he would get into touch with each of the local authorities concerned. A number of authorities concerned. A number of questions on particular aspects of the pro-ject were asked by the local authority repre-sentatives and dealt with by the Minister. In particular the local authority representa-tives emphasized their desire that the new tives emphasized their desire that the new town should constitute a balanced com-munity. The Minister expressed his sym-pathy with this point of view and said that this would be fundamental to the policy of any new town corporation. The local authority representatives expressed their appreciation of the Minister's action in calling them together at an early stage and assured him of their co-operation.

Mr. George Tomlinson, M.P., Minister of Works : There is A VERY SERIOUS SHORTAGE OF PLASTERBOARD. Answering a question by Mr. W. Foster in the House of Commons on the availability of plasterboard, Mr. Tomhinson said: Production of plasterboard exceeds the pre-war level, but there is, nevertheless, a very serious shortage, since large quantities are required at present for war damage repairs and for use in various types of temporary and permanent prefabricated houses. view of the urgency of these requirements, upon which an immediate increase in the supply of housing accommodation largely depends, it has been reluctantly decided that, as a temporary measure, the use of plasterboard must largely be denied to new houses of traditional type. This means that alternative methods of ceiling construction must be employed and guidance on this point is being given to local authorities and to private builders under licence. The alternatives which can most conveniently be used in present circumstances are laths be used in present circumstances are laths and lime plaster (the laths being either the traditional timber or expanded metal) and insulation board. It is hoped to make use of insulation board as much as possible in order to relieve the strain on the available supply of skilled plasterers. I must, of course, emphasize that as soon as the heavy burden of war damage repairs is reduced and the temporary house programme nears completion, additional supplies of plaster-board will become available for ceiling construction in new traditional houses.

re de-

e axis iform

bular

hung

other

page

ojoso.

STANDARDIZED INFORMATION

FOR many years architects have been complaining about the lack of technical information the lack of technical information in the catalogues and leaflets issued by manufacturers. These complaints may be made with bitterness or with a resigned apathy, but in our own fairly wide experience they are more than justified. In the days between the wars every post would bring a spate of information of the kind described by optimistic sales managers as Literature, much of which was completely useless from the point of view of the architect who might wish to specify it or of the draughtsman who wanted to know how it should be used.

This Journal has always believed that manufacturers' information should be complete and presented in a virtually standardized form, so that it may be easily filed. This is, in fact, the basic idea on which the whole of the Information Sheet scheme, which Astragal refers to this week, is based. That the idea was sound was shown by the phenomenal increase in the Journal's circulation from the time when the publication of the sheets was started in 1933, an increase which continued steadily until the outbreak of the war.

BSS No. 1311 [Sizes and Contents Arrangements for Manufacturers' Trade and Technical Literature (Building Industry)*] is therefore to be welcomed as a preliminary step in the simplification of office routine, provided always that manufacturers are prepared to accept its recommendations. The specification suggests a standard order of contents and adds that "there are continual demands for a higher proportion of technical data." It is suggested that the information given should include, after a description of the product, further data on what it does, its size, shape, etc., how it is used, what it needs in the way of other services, how to specify it and where to buy it. We are also glad to note the recommendation that testing authorities should be given, since unspecified tests may mean anything from BRS to a straw vote among 0.1 per cent. of the readers of a picture paper.

On the score of size, however, we believe the recommendations to be less fortunate. The sizes chosen seem to be based purely on economy of cutting from medium or demy paper, two sizes which are less difficult to obtain at the moment than most others, but this seems to us an insufficient reason for a choice which is presumably meant to be permanent. 81 by 51 inches is about novel size and will go handily on a shelf, 4 by 51 is probably reasonable for the "throwaways" one is accustomed to collect at exhibitions, though these are often intended as mere bait for further inquiries and not for permanent filing. 11 by 81 seems a less happy choice. The specification quite rightly suggests that storage systems in common use include box and loose leaf files and standard filing cabinets, but it must be remembered that few architects have any wish to segregate manufacturers' information from the rest of the data of which they are in constant need, neither

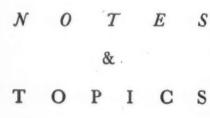
58] THE ARCHITECTS' JOURNAL for July 25, 1946

would it be desirable to do so. Probably the majority of architects tear out from current periodicals articles, advertisements and illustrations of buildings in which they are interested. A hospital architect might have many examples of executed work, some competition results, a page advertisement for a new type of operating theatre floor and a catalogue of sterilizing equipment. It would seem logical to place all this relevant information in the same file, but the size of the technical papers breaks the standard at once. This argument applies not only to the ARCHITECTS' JOURNAL, which is half an inch too tall, even allowing for the quarter inch tolerance recommended by the Specification, but to most other building trade periodicals as well. Out of a total of thirty odd, British and foreign, regularly received in this office, only three conform to the recommended size. BSS 1311 must be looked upon either as a temporary war-time standard or as an unsatisfactory permanency with a size limit which needs revision.





13, Queen Anne's Gate Westminster, S.W.1 Phone: Whitehall 0611



WHEN YOU BEGIN THE BIKINI Operation Crossroads is now some weeks old, but there is still only one thing the imagination can do at the whole affair—and that is boggle. Is there anything in a nation's folklore, is there anything even in *The Golden Bough*, so strange as this 20th century Pacific ceremony?

The concourse of empty warships, silent except for the slapping of signal halliards, empty except for the sailorsuited pigs rootling through the mess decks . . . the distant circle of spectators, still with marrow in their bones, ready to prostrate themselves at the climax . . . the bomb itself carrying the likeness of Rita Hayworth as "Gilda" as a war-canoe might bear the totem of a witch doctor . . . the metronome ticking—as more than one reporter has said—like the heartbeat of the world itself . . . the broadcast of the experiment by the BBC—a masterly touch this —on the Light Programme.

The success or failure of the explosion is still being argued by the experts. It seems to matter little except to them. We do not—most of us—share the jubilation of the admirals at the proof that a battleship is more durable than a tropical fish. We are glad, but do not rejoice unduly that a goat was found munching hay after the explosion with its feet braced only slightly wider apart than usual. We are not particularly comforted by the assurance that deep shelters afford protection against gamma rays.

There will probably be more tests, more Bikinis, more goats, and, whatever the film ads. say, more "Gildas," which will prove all sorts of things. But what really matters is not to see how many goats or atolls a bomb can destroy—both, incidentally, unlikely targets in a future war—but how the bomb can be restrained from destroying the world. When you begin the Bikini, as Cole-Porter almost used to sing, it is not easy to stop. You get so interested.

h

o h

i

P

c

r

U

r

D

ł

2

ł

INFORMATION SHEETS

"Mr. T. Square has resumed his prewar practice and would be glad to receive trade catalogues at . . . ". This notice has been so prevalent lately that I have been wondering how many of us can find our pre-war files after a series of blitzes, moves, and other catastrophes. And it also makes me wonder what is being done about A.J. Information Sheets and why they seem to have stopped. From inquiries at Q.A.G. I have discovered that a new series of sheets is to start again in the New Year and that many new ideas are being worked out to make the series even more useful than before.

RUB-A-DUB-DUB

Very highly recommended indeed is The Englishman Builds, by Ralph Tubbs, the long-awaited successor to Living in Cities, and published by Penguins at 3s. 6d. net. In this Tubbs is packed not just the butcher, the baker and the candlestick maker, but a regular regiment - all the men in fact who have built from 1066 to All That along the Great West Road, together with their portraits from contemporary manuscripts, or from the pen of David Low. It is a full load-overfull perhaps for unskilled hands-but in Mr. Tubbs we have a pilot with good judgment and a steady hand.

As the title implies, the book is as much a study of men who build as it "From the is of what they built. buildings of England," says the author, "we learn something of the growth and changes in the minds of Englishmen." The book is arranged in sections spanning roughly 200 years each, and sub-divided into What Are People Thinking, The Social Structure, Tools and Materials, and Buildings. Each sub-division concludes with a close-up of a representative building of its time. It is a good structure for the purpose -and would have been better perhaps if it had been announced on a contents page. As it is, the reader only becomes aware of it after reading half the book.

Coles not ested.

s preto re-This y that ny of fter a cataswon-J. Inseem ies at new n the ideas the re.

ed is alph or to l by this cher. aker, the from Great porlanu-Low. s for s we and

is as as it the thor, owth lishseceach. ople ools Each e-up

ime. pose haps cononly half

The author's experience as a designer and script writer for exhibitions-[this very book is an enlargement of the exhibition of the same name which many of you may have seen]-has served him well. He is a master at selecting the unobvious photograph and rejecting the superfluous phrase. Booksparticularly picture books-demand careful planning, and few people realize the discipline imposed by them upon the author-the care that is necessary to ensure that a chapter does not straggle awkwardly a few words beyond the compass of a page, and that a caption fills but does not exceed its allotted space. All this carpentry of book-making is excellently and unobtrusively contrived.

Once more we are indebted to Penguins. With this book and its colleagues by Sharp, Richards and Pevsner, a student's architectural history library is almost complete for a few bob. Is it imaginary, or do I hear the Banisters creaking ominously beneath the onrush of these young and healthy rivals?

SOCIAL COMMENTARY

Those who have been unable to obtain a copy of the re-issued Trevelyan Social History might comfort themselves by reading contemporary social history as recorded daily in the advertisement columns of The Times-that mine of information for future historians. How much more vivid, for instance, than a White Paper of statistics or a ponderous ministerial statement on the levelling-up of society is this recent agony cry-" Lady wishes to dispose of gold lamé evening dress, side saddle and pair of skates with boots attached."

There, in a sentence, is revealed a revolution. It is interesting to see that the same sort of commentary was available a hundred or more years ago. The Times for Thursday, November 7, 1805, the front page of which is reproduced below, is filled, naturally enough, with the description of Trafalgar and the melancholy death of Lord Nelson: "No fears disgrace

The manly face,

Oh! Dash not off the gushing tear." but the ad. columns pursue their unmoved, puzzling and penetrating way . . . "A fine mare to be sold, to prevent trouble the price is 40 guineas" ... "A young man wishes to engage himself to an elderly single gentleman. He objects serving a family as he is inclined for retirement " . . . " Laundry maid required, a person who understands her business, having always lived in that capacity " . . . "Steady young woman required, where footman is kept" [a statement this one, or a request?]... "A middle-aged man is open to an engagement as Amanuensis."

Happy days, when people in search of a job boasted of being middle-aged and retiring by temperament, and when readers of The Times knew what Amanuensis meant.

Cimes.

ASTRAGAL

The

comments above.

LONDON, THURSDAY, NOVEMBER 7, 1805.

<text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text>

Part of the front page of The Times of November 7, 1805, on which Astragal



LETTERS

Misha Black,

O.B.E., F.S.I.A.

F. Evan Jones

1951 Exhibition

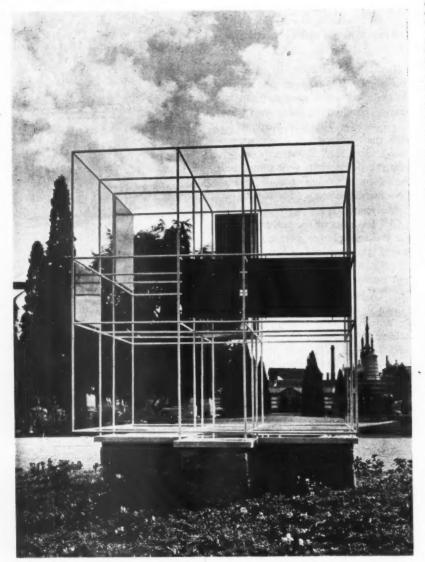
SIR,---Now that some time has been occu-pied in considering the rival claims of sites for the International Exhibition of 1951, the for the International Exhibition of 1951, the Commissioners have probably appreciated an important contradiction in the recommen-dations of the Ramsden Committee. That Committee rightly urges the use of a site in Central London, but it at the same time asks that the Exhibition "should surpass the New York World's Fair of 1939 in scale and technical achievement." If scale is to be measured in acres, there is no single site in Central London which can better the 1,216 acres of the World's Fair—and we can be thankful for that if we are to be spared those weary walks down seemingly endless, if mag-nificent, avenues. In spite of its many admir-able individual exhibits, the American exhi-bition was not four times better than the Paris show of 1937 because it was four times larger. larger.

There have been no fundamental innova-tions in exhibition planning since the 21 acres of the Crystal Palace gradually changed into the conglomeration of buildings which

into the conglomeration of buildings which have characterized every International Ex-hibition during the past 100 years. Size is no longer the touchstone of success, and the magic of contemporary buildings seen against the background of an historic city has already been blunted by the Paris exhibition of 1937. How, then, are we to create a plan which will surpass all pre-vious exhibitions, as it must do if it is to be worthy of its subject and create a world-wide urge to visit this new exhibition in Great urge to visit this new exhibition in Great Britain?

Britain? The form the London exhibition must take is determined by the limitation of the available sites. There is no room in this citly lavishly to space single-storey buildings in graceful gardens. This is an age in which we no longer feel

MEMORIAL MILAN



A close-up of the memorial erected last year to the deported Italian workers who died in Germany. It stands on the axis of the main avenue of Cimitero Monumentale at Milan. The monument, on a cruciform base of stone and marble, is of welded tubular steel frame painted white on which are hung marble plaques bearing inscriptions. Another view and a comment appear on page 56 of this issue.

ourselves bound to the surface of the earth; why not, therefore, let the exhibition be designed in space, with the great vistas not limited to two dimensions, but with the roads winding upwards as slow ramps with vistas up and down, over and under the individual buildings, with the buildings themselves piled up, layer upon layer, designed as one gigantic truly three-dimensional composition?

I am not suggesting a series of skyscrapers, but that the central area of the exhibition should be a vast steel framework, probably should be a vast steel framework, protonly spiral in its general form. The platforms formed in this steel grid would be the sites for the National pavilion, for the theatre, the restaurants, and the halls of the arts and the sciences. The building of this abstract the sciences. The building of this abstract mountain would test the genius of our engi-neers, but the result could be as fabulous as a dream.

Visitors could go by fast lift or the slower

funicular railway to the uppermost platfuncular railway to the uppermost plat-form, to wend their way slowly down on the ramped roads through the pavilions, through the hanging gardens, on to platforms which slowly revolve to disclose great panoramas of the exhibition and the whole of London. The lakes and water-ways would flow with the ramps, with self-propelled boats to carry the public plassarily and economically from the public pleasantly and economically from one level to the next. In this exhibition there would be no cause for anxious searching for a new central symbol to vie with the Eiffel Tower or the Trylon and Perisphere of the New York World's Fair. The whole central section of the exhibition would build central section of the exhibition would build up into one unified composition, culminating in the Sky Platform towering 1,500 ft. above London; sometimes above the clouds dis-persed from time to time by the play of those petrol jets which cleared our aerodromes so effectively during the war. From this plat-form the Helicopters would take off in fine

weather for trips over London, while the very brave could scorn the more leisurely ways down and float to ground level by controlled parachute, or ride in the carriages dropping down the guy lines to the perimeter of the exhibition

dropping down the guy lines to the perimeter of the exhibition. Whether this project could be implemented at a reasonable economic cost can only be determined after the site has been settled and much preliminary work and calculation completed. Many other schemes will be submitted, but I would stress the futility of any proposal which is impractical on a re-stricted site and which does not evolve a completely new method of exhibition plan-ning. I have suggested the design of a spatial framework rising in terraces to the Sky Platform; the finally selected plan must be sufficiently exciting and unusual for the be sufficiently exciting and unusual for the be sufficiently exciting and unusual for the whole world to want to come and see it. Its impact to-day must equal that of the Crystal Palace in 1851, which caused a staid German commentator to write: "It is sober economy of language if I call the spectacle incom-parable and fairylike. It is a Midsummer Night's Dream seen in the clear light of mid-day." The obvious site is the South Bank—if nothing else, it will guarantee that at least that part of the London Plan will eventually be carried out in its entirety. London London MISHA BLACK

Competitions

SIR.—Architects will be interested to learn that in the recently published book *The Methodist Church Builds Again*, reviewed by ASTRAGAL recently, architectural com-petitions are frowned upon.

The authors of the book say that while a competition may be suitable for the erection of a Town Hall, it is not the best method for the building of a Church. They advance the following reasons: (i) A competition involves additional cost.

(ii) It does not necessarily give the best

(ii) It does not necessarily give the best result—there is more to be considered than just the drawing of plans and elevations.
(iii) The best result can only be obtained when given the right architect, with a sympathetic understanding of his responsibilities and co-operation with the Church Building Committee.
These arguments would be valid if no better results were obtained by means of the Architectural Competition, but they are, and.

and .

(i) A better job justifies the small additional expense. (In the book it is acknowledged that the best is always ultimately the cheapest.)

cheapest.) (ii) A competition result is not judged solely by the excellence of the various drawings, but on other more important con-siderations. A good assessor can see beyond the immediate presentation of the design and gauge the all-round competence of the architect architect.

architect. (iii) A competitor who is sufficiently keen on the job to win would prove equal to the demands made upon him in the erection of the building. He could, of course, be asked to work with the assessor or another architect if such a course would assist co-operation with the Building Committee. Methodism's biggest building, Central Hall, Westminster, was the outcome of an Architectural Competition, and its designers, because they were not obliged to be yes-men to Building Committees were able to make a significant contribution to the

men to Building Committees were able to make a significant contribution to the architecture of forty years ago. If inspiration is wanted in future Church building, and such must surely be looked for where there is a spiritual aim, then young architects should be given oppor-tunities to make our Churches expressions of this age speaking to the people of this age

age. I have written on these lines to the Public Relations Committee of the RIBA. London

F. EVAN JONES

This ment the L in th The preto such hous

mate

H

F Pe ad

re ar Si

m fa

> R (pl

> > Pe

ile the isurely vel by rriages imeter

nented

nly be settled vill be lity of a reolve a planof a to the n must or the it. Its Crystal erman onomy incommmer ght of South e that n will

V. BLACK

learn The The viewed com-

hile a rection nethod y adl cost. e best

than ons. tained ith a esponhurch if no

of the y are, itional ledged

y the udged arious t con-

eyond design of the

keen ual to rection se, be nother ist coee. central of an igners. e yes-ble to

hurch ooked then opporof this

o the

Public JONES

This is the fifth of the series of commentaries on the Government's housing returns, published by the Ministry of Health and the Department of Health for Scotland, and on the tables published in the Digest of Statistics which is being issued month by month. The object of the series is to supply a factual and unbiased interpretation of the official figures by an expert statistician. He covers such matters as the rate of provision of new housing, the amount of housing under construction and begun, and the labour and materials position.

H STATISTICS

MONTHLY COMMENTARY A **ON THE OFFICIAL RETURNS—5**

by

Ian Bowen

By the end of May there were in Great Britain 11,381 Permanent and 30,637 Temporary houses completed. In addition, space for about 108,505 family units was found by repair of unoccupied war-damaged houses, by conversions and adaptations, and by the building of emergency huts.* Since the end of April there was an increase of 2,775 Per-manent and 4,438 Temporary houses, and, for 7,961 more family units, space was otherwise provided.

RATE OF PROVISION OF NEW HOUSING

Comparing the three months March to April of this year, completions have proceeded at the following rates:—

		Е	

Monthly Rate of Provision of New Housing and Other Housing Space in Great Britain up to May, 1946

		March	April	May
Permanent Housing— Local Authority schemes Private Enterprise War-destroyed houses rebuilt	**	468 992 192	774 1,338 424	634 1,768 373
Total Permanent Housing Temporary Housing		$1,652 \\ 4,464$	$2,536 \\ 5,017$	2,775 4,438
Total (Permanent and Temporary)		6,116	7,553	7,213

The total new housing provided in a month thus actually fell in May, from 7,553 to 7,213, mainly owing to the falling off in the rate of provision of temporary houses. This falling off is not due to a tailing off in the temporary house programme, but to delays in the rate of completion. Another disappointing feature of the May returns is that the Local Authorities, the Government's chosen instrument, produced only 634 completed houses compared with 774 produced in April produced in April.

HOUSES UNDER CONSTRUCTION AND BEGUN

At the end of May there were 89,000 Permanent houses under construction in England and Wales, and 13,500 in Scotland; about 103,000 in all.

103.000 in all. This is nearly 20,000 more than were under construction at the end of April, and, since 2,775 houses were finished in May, about 22,700 must have been begun in that month. In fact the figures for Houses Begun may be calculated as follows :--

• In previous commentaries an item for requisitioned houses was also included amounting to 21,000 up to April, 1946. This figure is now increasing at not much over 500 per month.

THE ARCHITECTS' JOURNAL for July 25, 1946 [61

	TABLE II	
Houses on which	Work Began, F	ebruary-May, 1946

	Feb.	Mar.	Apr.	May
Permanent Housing— Local Authority schemes Private Enterprise Re-building of war-destroyed Temporary Housing	8,000 600 5,200	10,800 8,0%0 600 6,000	$12,200 \\ 5,300 \\ 1,900 \\ 7,800$	$14,100 \\ 6,500 \\ 2,100 \\ 7,500$
Total	20,900	25,400	27,200	30,200

Diagram I below shows houses begun and houses completed for the Local Authorities' and Private Enterprise schemes separately. It is clear that each month a great number of new houses are being begun by the Local Authorities, but the figures for com-pletions are not advancing at the steady rate that they should. The private enterprise schemes, though now more modest in size (the low figure for Houses Begun in April, 1946, perhaps marking the peak of the anti-private enterprise doctrine), show a better rate of completion. This is partly because private enterprise schemes had an earlier start. But the steady rise in completions, and the much more reasonable relation between completions and numbers begun, from private enterprise, better progress and better managefrom private enterprise, suggests better progress and better management on the jobs.

LABOUR SUPPLY

One main reason for the slow progress on the jobs is not far to seek; clearly they are hopelessly undermanned. The 103,000 new permanent houses under construction are apparently manned by 105,000 workers; thus the April ratio of about one man to each house under construction has been about maintained.

house under construction has been about maintained. Of course, with such an under-manned programme, the average statistical pre-war output of a house per man per year cannot possibly be attained. It is therefore no wonder that houses are coming out of the sausage-machine very slowly and that they are taking on the average an excessive number of man-hours. Nearly every one of the employed labour figures has now been revised (Table 74 of the Monthly Digest of Statistics), and on the

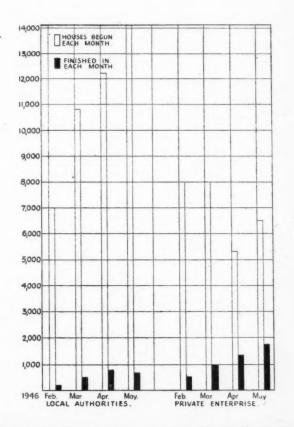


Diagram I. Permanent houses begun and finished each month. Local Authority and Private Enterprise schemes.

Building	and (livil	Engine	eering Labour Em	ployed, JanMay, 19	46. (Great Britain)
				Total Operatives aged 16 and Over	On Permanent New Housing	(2) as per cent. of (1)
1946 :	Jan. Feb. Mar.	* *		(1) 721 739 772	$(thousands) (2) 34 \cdot 4 51 \cdot 7 71 \cdot 5$	(3) $4 \cdot 8$ $7 \cdot 0$ $9 \cdot 3$
	April May	•••	•••	820 836	84.0 105.0	$\begin{array}{c}10\cdot2\\12\ 6\end{array}$

TABLE III

The revised labour figures in the Digest contain some very rough estimates; thus the labour on "conversions and adaptations to houses, estimates; thus the labour on "conversions and adaptations to houses, etc." is estimated at 101,000 for each month February-May inclusive, and the labour on war damage repairs to buildings other than houses is put at a round 26,000 for the same period. Another purely "esti-mated" figure appears to be the 80,000 put in each month for Repairs and Maintenance to Houses by the two Health Departments. (Incidentally, the Central Statistical Office does not quote this No doubt necessity compels these rough estimates to be But the true position should not be lost sight of-that anyfigure.) made. thing like an accurate picture of what the building labour of the

country is doing is not available. Thus the "residual "* figure of 290,800 men on Other Work (in-cluding factories, public utilities, commercial, agricultural and other premises) is given in a misleadingly accurate way. We just do not know to the nearest 10,000-let alone the nearest 100--how many men are so engaged.

This is a serious matter and not just a statistical foible, when the permanent housing programme of the country is obviously being hampered by a failure in labour supply.

PROGRAMMING FOR 1946 TEMPORARIES

In earlier commentaries the hopeful view was expressed that Tem-porary Houses would average 6,000 a month completed from April to June, but now it is only too obvious that its target has not been achieved. Something seems to have gone wrong with the pro-gress of temporary housing since the end of April. By when, it may well be asked, is the programme of 150,000 houses now going to be attained?

to be attained? The labour on temporary houses increased by only 300 during May in England and Wales. However much Ministers may dislike the temporary housing scheme, it is still providing a large number of houses fairly quickly, and it would surely be unwise to starve the jobs of labour and so drag the scheme on for a longer period. No figures are now published of delivery of components and fittings, but Press reports have appeared of delays in their delivery which may partly account for the slowing down of this programme.

PERMANENT HOUSES

Diagram I shows the large number of Houses Begun each month both by the Local Authorities and by Private Enterprise, and on the basis of these figures it might seem reasonable to suppose that a similar monthly rate of *completions* would occur later in the year. In fact, a possible rate of 19,000 houses a month com-pleted by October next would not, on the basis of the Houses Begun rate, seem a wild improbability.

Consideration of the labour supply position, of the rate at which it is improving, and of its present output, makes it necessary to scale down any such hopes. It would seem as though 80,000-90,000 permanent houses completed by December, 1946, were now the maximum likely to be attained.

The position is, of course, fluid, but in calculating the above maxi-mum allowance has been made for an increase in the labour on new housing of at least 25,000 men a month. On this basis there should be over 200,000 men on new permanent housing before the end of the autumn.

The official estimate (reported in The Times of July 15) was 100,000 temporary houses, and an equal number of permanent, com-pleted by the end of 1946. This would imply an *average* monthly rate of completion of 10,000 for temporaries, and over 12,500 for permanents from June till the end of the year. This certainly seems to have been optimistic.

MATERIALS POSITION-BRICKS

A simple way of explaining why there should now be a materials' shortage is provided by Diagram II, which shows from 1941-1946 the

*Line (8) of the Table on p. 7 of Cmd. 6845.

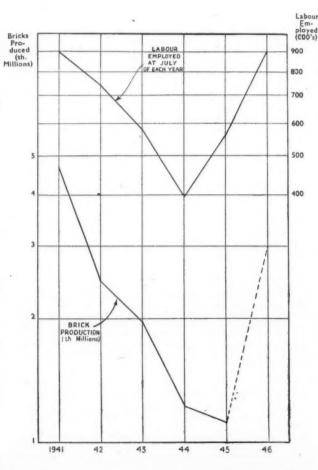
movement in Building and Civil Engineering Labour Employed plotted against Brick Production.

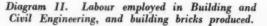
Of course, a more exact comparison would have been between bricks used and labour employed, but the present rather simpler comparison

used and fabour employed, but the present rather simpler comparison brings out some interesting points. First it will be observed that brick production fell more steeply than labour employed from 1941 to 1942, and again from 1943 to 1944; there were special reasons of changes in the building programme that accounted for this. Projects using less bricks became more predominant, while on the other hand from 1942 to 1943 a fairly large number of hospital, factories and other brick-using buildings had to be accounted. The second most striking noint about the diagram large number of hospital, factories and other brick-using buildings had to be erected. The second most striking point about the diagram is that building and civil engineering labour employed reached the astonishingly low figure of less than 400,000 in July, 1944, and then recovered very rapidly to over 570,000 by July, 1945. Meanwhile, brick production continued to fall. This was largely due to the heavy influx of repair workers to the London bomb damage pro-gramme, but it also demonstrates that building labour was given perhaps too sharp a priority over materials' production. This third perhaps too sharp a priority over materials' production. This third point, the great lead of building and civil engineering labour over brick construction even in 1946, followed on from an existing un-

It will be seen from the diagram that an employment figure of about 910,000 in July, 1946, will mean that there is more labour employed in the building and civil engineering industries than in employed in the building and civil engineering industries than in 1941, and the actual figure may have been even higher than this. Brick production on the other hand, even if it reaches 3,000 million in 1946, will be only two-thirds of its 1941 level; nor is to to be supposed that the degree of brick use for work is less in 1946 than in 1941, with a large new housing programme projected and under way.

The whole of this calculation can, of course, be worked out in more detail; a preliminary conclusion would certainly be to suggest that it is, perhaps, much too soon to think that we are out of the wood. Brick production, and in a similar way, the production of other materials, are far below the normal for so large a building labour force. Stocks will not last for ever; in the case of bricks not more than a few more months. A very tight squeeze in October therefore seems to be likely, unless imports are very large indeed.





C C AN LAY Rema requi state to a It ha

build and artic APR the ' Palac court

> The for 1 be t its v park Pala the Duly aroi ter 1 sout Syd pan

mar thro



TO S

PHYSICAL PLANNING SUPPLEMENT

CRYSTAL PALACE COMPETITION AN ANALYSIS OF THE TRAFFIC AND LAYOUT PROBLEMS

ted

on oly to

ne pre rly igs

he en le

he oen rd

er n-

of ur in is.

)n

6

d

n

st

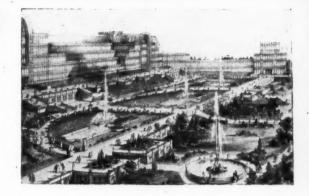
e

n

8 H

Remarkably little attention has been paid to the practical requirements of the layout in discussion on the relative merits of the entries to the Crystal Palace Competition, despite the statement of the assessors that the prize had not been awarded to a great pioneer work or for the best design architecturally. It had been awarded for the best layout for a good workable building. The broad aspects of the problems of rail, road and foot traffic to and within the site are discussed in this article, which has been prepared by a group working with the APRR, and reference is made to selected entries to illustrate the various points raised. Right, a view of the old Crystal Palace showing a part of the layout, from an old print, by courtesy of the Penge Public Library.

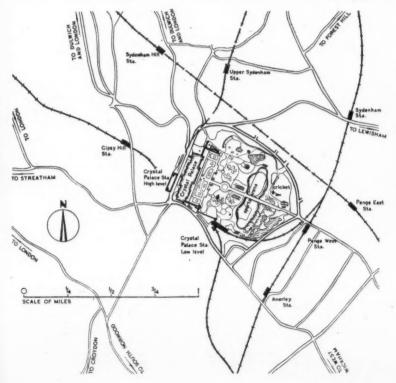
The site selected for Paxton's Crystal Palace (and retained for the new project) is one of the few in London which can be truly described as dramatic. Rising from Dulwich, with its wealth of public and private open space in the form of parks and playing fields, the ridge surmounted by the Crystal Palace Parade emerges from a landscape of trees concealing the machinery of traffic surrounding the Palace Grounds. Dulwich, Upper Sydenham, and Upper Norwood, which lie around the north of the Grounds, are residential in character with a considerable proportion of large houses. To the south lie several bustling shopping centres—for example, Sydenham and Penge. The Parade, with the magnificent panorama of London spread out below, is the terminus for many bus routes to the northern side of London passing through various important South London focii, such as



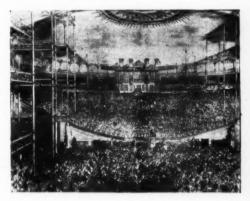
Streatham and Lewisham, and directly to Croydon. Three railway stations on the Southern suburban line are sited at points adjacent to the boundaries of the Grounds. The problem, therefore, from the traffic angle, becomes twofold —the utilization of the existing road and rail services, and the correct siting of the amenities which will rely on the population of this part of South London for their day to day support.

local versus London

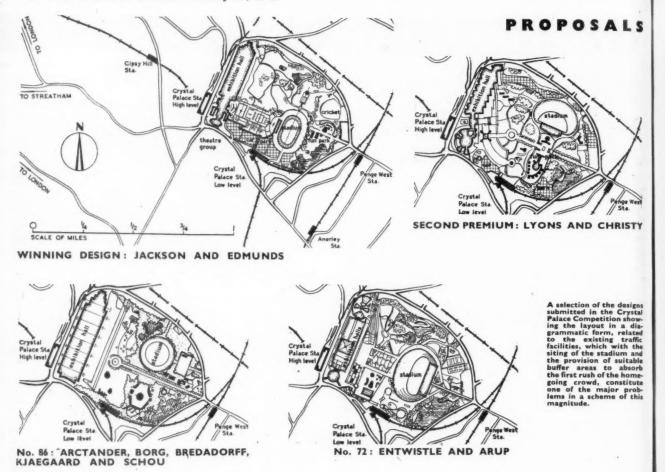
There can be little doubt that entertainments likely to appeal most frequently to people of South London should be near the busy southern corner, while the delights that are caviare to the general might well be placed to the north of the site where they could be sought and enjoyed in comparative quiet by the few. None of the three prize-winners appreciated this aspect of the case. Each placed swimming bath, sports centres and other facilities, only likely to be used by the local population, half a mile from the chief local entrance and placed their theatres and concert halls directly upon the noisy southern corner of the site. Further, in the case of both the first and second prize-winners, the stage of the symphony concert hall adjoins an amphitheatre intended for brass band contests. This would seem to put an unnecessary strain upon the powers of sound proofing. A more human disposition of the quiet and noisy



PROBLEM



Left, the layout of the old Crystal Palace grounds and its relation to the existing traffic facilities, based upon the Ordnance Survey map with the sanction of the Controller of HMSO. The Parade, between the Crystal Palace High Level Station and the old Palace, is a terminus for many bus routes. Above, an old print illustrating the vast assembly of people which thronged the old Palace on festive occasions, and which may be expected in even larger numbers when the new Palace is built.



ends of the site could be seen in many unplaced designs, notably No. 62 (Wright and Hooper) and No. 72 (Entwistle and Arup), while No. 86 (Arctander, Borg, Bredadorff, Kjaegaard and Schou) solved the problem by placing all entertainments, other than the main exhibition hall, along the Parade. It is probable that in this case rather more provision would have to be made for simultaneous exits from the various concerts and theatres, but this does not present an insoluble problem.

transport

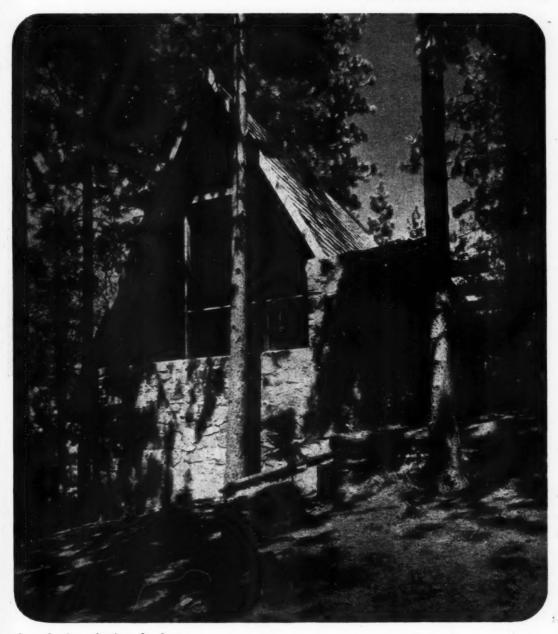
The major transport problem at the Crystal Palace is in the arrival and dispersal of a crowd of approximately 100,000 persons attending sporting events held at the stadium. The terms of reference for the competition stipulated that it must be assumed that there would be no major alteration to the existing transport system, that is to say, no construction of new railways or stations and no new approach roads. It is of interest to see to what extent entrants attempted to take this problem into account, although, since a crowd of 30,000 was considered large at the pre-war Crystal Palace, it is probable that some major reconstruction would in practice prove essential, and schemes might have to be modified accordingly. The arrival of a crowd of 100,000 at the Crystal Palace would probable occasionally clash with, or follow closely upon, the normal Saturday mid-day peak. On other occasions it might be spread over a fairly long period. On the other hand, its dispersal at the end of a sporting event might often have to be concentrated into a short period. A minor proportion of the traffic would disperse by car or on foot, and the case of handling this would depend on an efficient car park organisation and the keeping of the approaches clear of obstructions. The bulk of spectators, however, would have to be moved by rail or bus and it can be expected that these two forms of transport would each have to handle approximately the same numbers of people. The efficient dispersal of bus and rail traffic would naturally depend on suitable exits, adequate stations and services. The most important feature of the design in this context is the siting of the stadium in relation to the bus and railway stations with suitable *buffer areas* to absorb the first rush of the home-going crowd, and enable it to be more easily handled.

crowd dispersal

Few entrants appear to have paid much attention to the problem of crowd dispersal, although several of them, by placing the fun fair in between the stadium and the main entrance to the low-level railway station (which is likely to be the one most in use) provided a sponge area which would help to mop up some of the emerging crowds. This was particularly effectively designed in the case of No. 72 (Entwistle and Arup) where the large area and uniformly hard surface could absorb quite large numbers of people. Nos. 86 (Arctander, Borg, Bredadorff, Kjaegaard and Schou) and 19 (Lyons and Christy—the 2nd Prize) both used this device but tended to steer the crowd round rather than through the area. No. 86 had the effective and interesting idea of close tree planting near the stadium, which-would tend to break up the crowd and encourage it to spread over the area of the site. No. 19 provided no clear route from the stadium to the station, relying upon narrow paths curving through greensward which will clearly not serve the purpose. An important point in this entry, which by some astonishing oversight clearly escaped the scrutiny of the assessors, is the fact that the whole of the crowd of 100,000 spectators sit facing south and southwest, their eyes dazzled by the slanting afternoon rays of the sun. The winning design, No. 79, would appear to have placed the stadium dangerously near the low-level station, and his approach by way of one main exit tapering to a narrow bottle-neck at the station itself, seems likely to create a highly dangerous situation. Little or no consideration was given to the setting up of bus stations despite the large number likely to go away by bus, and almost all the designs would have been improved, from the practical considerations of the layout of the site, by the incorporation of bus stations within the design and the provision of more adequate exits an alternative routes to all railway stations in the vicinity.

Gen live

within the design and the provision of more adequate exits and alternative routes to all railway stations in the vicinity. The great importance of the traffic solution, both within and without the grounds, calls for a combination of the planning resources behind the County of London Plan, the new Railway Plan and whatever body is eventually set up to carry forward the Crystal Palace project into reality. It is not sufficient to restrict ideas in a competition involving the mass movement of people on festive and sporting occasions to the existing provision of traffic facilities, when bodies have actually been set up and have reported on improvements. The problem calls for joint action on the part of the many interested parties, and among the various difficulties which should be overcome. not the least lies in the preservation of the peaceful residential enjoyment of the people who live around the area of the Crystal Palace Grounds and who may be considerably inconvenienced and unnecessarily annoyed by the invasion of peoples and uses foreign to those which the average man expects to surround him in his leisure hours at home.



General view showing the large living-room window rising through two storeys at the gable end.

LS

ISTY

esigns rystal showa diaelated traffic th the n and itable boorbtitute probof this

level

vided rging se of rmly s. 86 yons d to had the

ge it route rving

An sight the puth-

sun. the h by

ation le or tions

t all derations and hout urces

and ystal in a and when

ents. ested ome, njoyalace

hose ours

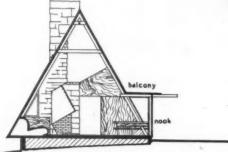
A WEEK - END HOUSE

IN CALIFORNIA DESIGNED BY R.M.SCHINDLER 66] THE ARCHITECTS' JOURNAL for July 25, 1946

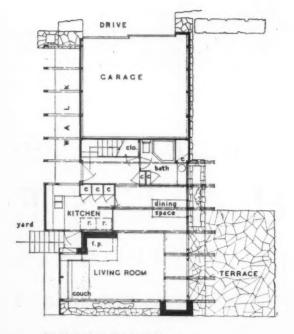
A WEEK-END HOUSE IN CALIFORNIA

This little week-end cabin at Lake Arrowhead, California, was shown at the recent exhibition of Regional Buildings in the United States, at Heal's, in Tottenham Court Road, whose object was to illustrate that one of the principles of good architecture is the straightforward use of materials suitable to the purpose of the building, its site and the climate.

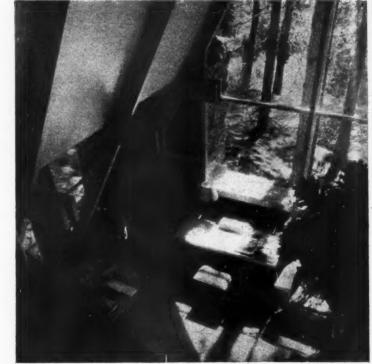
This house is of timber, and local stone, with roof of shingles; in its form it is reminiscent of Teapot Hall. It contains a living-room with dining space, kitchen, bathroom and garage on the ground floor and three bedrooms on the first floor. The living-room rises through the two storeys, the side of one of the bedrooms forming a balcony overlooking it.



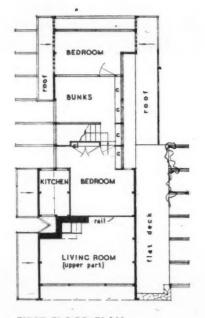
SECTION THROUGH LIVING ROOM



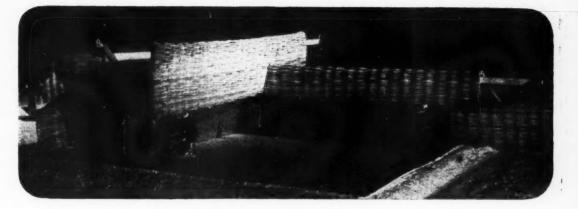
GROUND FLOOR PLAN



Above, view of the living room from the balconybedroom, showing the exposed timber construction. Below, plans and section through the living room.



FIRST FLOOR PLAN

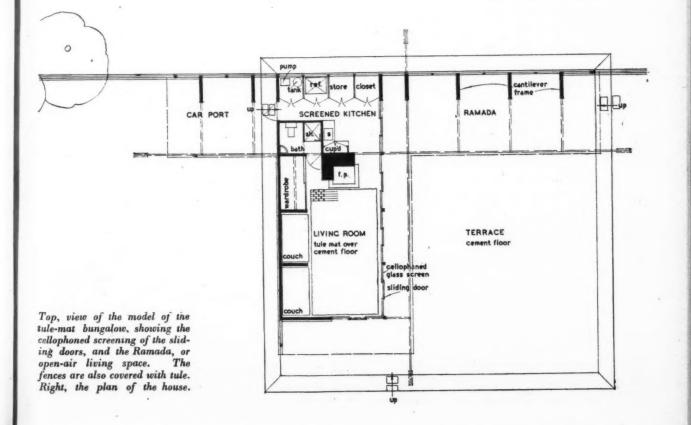


PROJECT FOR A WEEK-END Valley and are woven of bulrushes S E

BY FRANK LLOYD WRIGHT

This was another of the exhibits at the Exhibition of Regional Building in the United States recently on show at Heal's. It is a project for a weekend bungalow in tule-mat in the Imperial Valley, California. The use of brush, grass or reeds is no novelty in American building, particularly in localities where it is the only easily available material. There are the primitive bush shelters of the Navajos, the thatched houses of the Wichita Indians in Oklahoma and the " hay houses " built by the first white settlers in the Great Plains. Tule mats are manufactured in the neighbourhood of the Imperial and galvanised wire; they are $2\frac{1}{2}$ in. thick, 8 ft. to 30 ft. wide, and of any length. Fire-resistant and inexpensive they provide excellent insulation against heat and wind and in the desert climate, last some 18 years.

The house is set on a concrete floor slab, and has a frame of widely spaced wooden posts sup-porting a galvanised iron roof. Roof and walls are covered with tule. Sliding doors are of Celloglass (cellophoned screening). A shady outdoor living space is provided by the Ramada.



lconyaction. room.

CENTRE INFORMATION

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 The Editors welcome information on all developand objective. ments from any source, including manufacturers and contractors.

STRUCTURE

2631

2632

Prefabrication

PREFABRICATION IN BUILDING. Richard Sheppard. (The Architectural Press, 1946. 18s. 6d.) Survey of present state of prefabrication. Short history. Description of representative types in steel and non-ferrous metals, timber and concrete. 163 illustrations.

The book fulfills a need in giving a general survey of the various systems and all the specific problems that govern the application of prefabrication methods. The first two chapters describe the general background against which the factory production of building materials and building parts has to be envisaged. The comparison of deto be envisaged. The comparison of de-velopments in England and America shows how far-reaching are the effects on design of the climatic, social and economic struc-ture of a country. The chapter on Site Planning stresses the growing æsthetic need for the imaginative handling of layout in order to avoid monotony, and also the social need for the mixing of different types of houses in the layout of a housing scheme. Chapter 4 gives a short account of the Chapter 4 gives a short account of the ways in which prefabrication has evolved from a few casual experimental types to the

from a few casual experimental types to the intensive and steady development of fully evolved systems in all materials. Chapter 5 on Techniques, summarizes under a few headings (Site Work, Unit Size, Modular Ratios, Structural Principle, Mass Production and Assembly, Physical Standards, Planning, Design) those funda-mentals which form the heating of all supports mentals which form the basis of all successful systems.

In Chapters 6 to 8, the various pre-fabricated systems are analyzed in detail. The last chapter deals with installation units.

The book is well produced and fully illustrated with many diagrams and photographs.

Precast Concrete Stairs

PRECAST CONCRETE TREADS AND PLAT-FORMS SIMPLIFY STAIR CONSTRUCTION AND REPAIR. H. S. Ayres. (Engineering News-Record, March 21, 1946, p. 419.) Standard details prepared by the Pittsburgh Public Works Department.

Pittsburgh Public Works Department. Owing to the lumber shortage, a large pro-portion of the wooden steps scattered over the hills of Pittsburgh, Pa., will be replaced by precast reinforced concrete units for which a new design has been evolved. The steps are designed with open risers to lessen the accumulation of snow, ice or dirt on the treads. Also, to facilitate drainage, the rear half of each tread is slowed toward the rear half of each tread is sloped toward the rear half of each tread is sloped toward the open riser space. Non-slip wearing sur-faces will be provided at intervals of not more than 8 ft. Pipe sockets for railing posts will be cast into the concrete stringers. The tread units will weigh about 150 lb. each. It is the intention of the city's public works department to keep on hand an adequate stock of tread and platform units

so that repairs can be quickly made regard-less of weather conditions. At present the city is subjected annually to personal injury claims running into many thousands of dollars because of accidents attributed to defective steps. It is expected that after the wooden steps and wooden railings are replaced by concrete steps and pipe railings, and with prompt repair made easy by the use of precast units, accidents and resulting damage claims due to defec-tive steps will be largely eliminated.

2633

Lightning Protection

Copper Pipes

LIGHTNING PROTECTION. British Stan-dard Code of Practice. Draft for Com-Second Proof, 1946. ment. (British Standards Institution, 2s. 0d.) Supersedes CPI:1943 issued before general form of these Codes decided upon. Largely similar in content though different in arrangement. Comprehensive and valuable guide to subject not as generally understood as it should be.

PLUMBING

and Sanitation

2634

THERMAL PROPERTIES OF COPPER AND COPPER PIPES. Handbook from the Copper Development Association (Reprinted from the Heating and Ventilating Engineer, August, 1945.) General description of thermal properties. Comparison of performance of copper and iron or steel pipes. Several detail points of interest in connection with heating and hot water installations. Effect of low thermal capacity and low radiant emissivity on fuel economy to be noted.

Stoneware Pipes

THE LAYING OF STONEWARE PIPES FOR DRAINS AND SEWERS. L. B. Escritt. (Architects' Journal, March 21, 1946.) Detailed description of good and questionable methods of laying pipes with and without concrete bedding.

2635

2636

2637

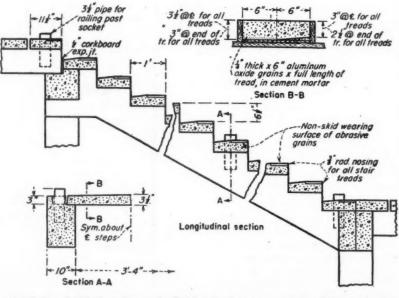
Wartime Factories

AMENITIES IN WARTIME FACTORIES. Bulletin No. 5. (Department of Labour and National Service, Commonwealth of Australia.) Describes facilities for canteens, locker rooms, toilet and washing and first aid. Clear and simple with illustrations. Primarily for client rather than architect, but has useful space and dimension standards.

Book on Plumbing

PLUMBING. R. H. Winder. (Building Craft Series, Longmans Green, 7s. 6d.) Intended for technical students in Technical Schools, Colleges, and Government Training Centres. Up-to-date, practical and well-written book of value to architectural students and others. Good clear drawings.

There are many elementary text-books on plumbing, and it is pleasant to find a new one in which the emphasis throughout is on the practical rather than the academic. The type of work used for illustration is that likely to be met with in normal domestic building, and little used processes are omitted. Descriptions of methods and appli-



New design of hillside stairways in Pittsburgh of precast concrete. The treads slope laterally and towards the open riser space in order to reduce snow, ice and dirt accumulations. See No. 2632.

This tion man E 263 GA of 76 tion of Bla ind tion Th arra elec not Dri und of per for coc wh pri Th mi inc fie inc sha tie tha do tio the 26 D tri try 01 I Co to sta fu in fla pi 2 R D C

d

1

V H W SI

s

d b

2

P N

(

ance

reall

One emp

amo

Briti

stan

plia

leas

(Rentilaneral rties. pper letail with ions. l low ly to

ances are clear and to the point, helped by really execellent drawings by the author. One small criticism is that insufficient emphasis seems to have been given to the amount of work recently done by the British Standards Institution in producing standards for plumbing materials and ap-pliances. Students should be familiar at least with the outlines of these Specifications. This is a small book that fulfile is inten-This is a small book that fulfils its intention admirably, and deserves to go through many editions.

EQUIPMENT

2638

critt. 946.) jues-

Pipes

FOR

with

tories RIES. bour ealth for and nple lient seful

bing ding 6d.) in Govlate, of and

new is on The that estic are ppli-

f ods

30

lope dirt 2639

2640

s on

of Health. (Supplement to Circular 76/46 to Local Authorities.) Explanation of arrangement whereby Ministry of Supply is concluding production of Blanket Order agreements with various industries to ensure adequate production of various articles for housing.

GAS AND ELECTRIC COOKERS. Ministry

Cookers

The Ministry of Supply has completed The Ministry of Supply has completed arrangements for blanket orders for gas and electric cookers. Local Authorities receive notice including NHD (National Housing Drive) Specification, list of firms operating under the agreement and catalogue numbers of existing models which may be accepted pending full production of the NHD models. Two creating included in present in Two specifications included in present in-formation are for gas cookers and electric cookers. Although standardised on somewhat similar lines one notes with some surprise that the oven size varies appreciably. The gas oven is $14\frac{1}{2}$ in. x $12\frac{1}{2}$ in. x 14 in. minimum (a total capacity of 2,537.5 cubic inches), whereas the electric oven is specified merely as a minimum of 1,850 cubic inches, apparently without any limitations on shape. There are certain other dis-similarishape. It suggests that expediency rather than consumer requirement has been a dominating factor behind these specifica-tions, and it is therefore to be hoped that the need for them will be short lived.

Plugs and Sockets

DOMESTIC PLUGS AND SOCKETS. (Electrical Review, March 8, 1946.) Industry to standardise 3 kw. (13 A.) socketoutlet.

It is stated that the Electrical Industry Committee of the British Standards Institu-tion, with the backing of the IEE is finally to revert to its previous decision to standardize an all-purpose socket-outlet and fused plug rated at 3 Kw. (13 A.), and noninterchangeable with existing standards or flat-pin plugs. The new plug will have flat pins.

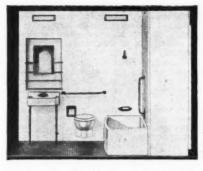
School Furniture

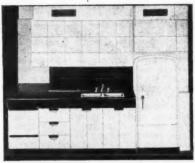
USA Utility Unit

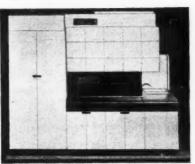
REPORT OF THE SCHOOL FURNITURE IN-DUSTRY POST-WAR RECONSTRUCTION Presented to the Presi-COMMITTEE. dent of the Board of Trade, March, 1946. (School Furniture Industry Post-War Reconstruction Committee, 181, High Holborn, W.C.1.) Deals mainly with organization of industry. Some small reference to effect of design and standardization in production. Stresses difficulty of peak demand coming just before commencement of school year.

2641

PREFABRICATED MECHANICAL EQUIP-MENT. AN AMERICAN ASSEMBLY. (Utility Unit by Ingersoll Steel Divi-MENT. Borg-Warner Corporation, sion.







Chicago. Trade Brochure.) Claimed to be coming into production for low-cost housing this elaborate unit contains warm air furnace, water heater, sewer stack and vents, water, gas and electric services, space for water softener and is supplied with all fixtures including bath, shower, basin, w.c., sink, refrigerator and many accessories. No prices available yet. Production expected to begin in July.

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 The service is confidential, and in prepared. no case is the identity of an enquirer disclosed to a third party. Questions should be sent to : THE ARCHITECTS' JOURNAL, 13, Queen Anne's Gate, Westminster, S. W.I.

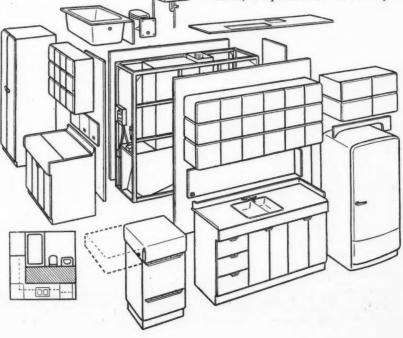
2642

Building Application

Q I am at present designing a house for Q I am at present designing a house for a client who wishes to employ a private local builder. Would you give me a short résumé of the procedure necessary to obtain permission to build, other than approval of plans by the Local Authorities, and of the obtaining of permits for materials? I would also like to know what restrictions are at present in force concern-ing floor area, number of heating appliances and rooms, etc.

If you will apply to the Clerk of the Local Authority in whose area it is pro-

The Ingersoll Utility Unit. Above, top to bottom, three views showing bath, kitchen and laundry facilities respectively. Below, an exploded view. See No. 2641.



posed to build the house he will give you a Ministry of Works Form C.L.1136b, which is the Application for Building Licences for Small Dwellings. This form contains the information which you require.



Speeches and lectures delivered before societies as well 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 Except where inverted cover. commas are used, the reports are summaries, and not verbatim.

RIBA Lewis Mumford

July 12 at 66, Portland Place, W.1. Paper read at a special meeting of the RIBA on A WORLD CENTRE FOR THE UNITED NATIONS, by Lewis Mumford, Hon. A.R.I.B.A.

L. Mumford: In taking for my theme to-night the needs of a world centre for the United Nations I do not propose to open a discussion that will be closed by the decision that will be made next September when the permanent site will possibly be selected. I would not take up your time so frivolously as to discuss a decision that lies completely outside our immediate control or influence. For presumably, when the United Nations meet our leaders will proceed, with that fearful automatism which characterizes so much of our political thinking today, to deepen their previous commitments and to take the next step that their earlier actions have indicated—somewhat like a hunter lost without a compass in a bog, stepping judiciously from hummock to hummock, without troubling to ask himself whether he is headed for solid ground, still less whether, in the first place, he has properly equipped himself for the expedition.

SELECTION OF SITE

Theoretically there is still time left to correct the errors that have already been made in selecting a site for the headquarters of the United Nations. But I am not sanguine enough to believe that the present commitment will be blocked and that a more critical analysis of the needs of a world centre will be made, so that, after

sufficient research and discussion, an adequate programme will be framed. I have examined carefully the directives that the United Nations site committee were given to guide them in their explorations; and I can only say, with perhaps brutal frankness, that I should not care to select even a small country home with as little sense of what my present requirements were or the future needs of my household were likely to be.

But please remember: no primary blame attaches. to the committee that had the heavy responsibility for selecting the site. That committee might have been composed of political Aristotles and technological Leonardos and Wrens, and they still would not have been able to make a sound selection on the basis of the directives they received. The fact is that the United Nations, in the very act of giving body and form to its charter, have pressed for a hasty decision on a matter for which there has been little adequate preparation in anyone's thought, little serious reflection of any kind, except for quite limited post-mortem discussions on the mistakes made in building the palace for the League of Nations. Thirty years or so ago, indeed, Hendrik Christian Andersen and a group of able colleages made a remarkably searching study of the political and cultural requisites for a great world capital: but instead of stimulating criticism and leading the way toward further improvements, Andersen's proposals, published in a very limited edition, were allowed to gather dust, so that by now they have interest only for the antiquarian. Except for the admirable canvass of needs for *The Headquarters of International Institutions* made by Mr. C. Wilfred Jenks for the Royal Institute of International Affairs, the very groundwork for discussion and decision has not been laid.

But if our political leaders have, in pressing for quick decisions on this grave matter, shown the valour of ignorance, the architects and town planners throughout the world have shown. I regret to say, little more understanding than the statesmen. Without a thought for the needs of the institution, without an effort to clarify the programme itself, the architects of almost every country have raised a premature clamour over the way in which the designs and plans are to be chosen once the site has been selected—as if the highest skill here could undo the damage of failing to formulate an adequate programme. Few of us, it seems to me, can escape blame in this matter, no matter what our professional qualifications and interests may be. The problem has caught us asleep; and we try to cover up our embarrassment at being caught by talking loudly about something that was on our minds before we fell asleep. If this seems a malicious and unkind judgment on my part, let me confess that the present speaker fell at first into the same error. If I dare to talk at all tonight, it is because I am now giving you my second thoughts.

Now, I have little hope at this late date that the counsel to Stop and Think, the counsel to take further counsel, will prevail in the United Nations next September, or that even the need for it will be understood. Yet the dangers of selecting a permanent site before an extensive survey of the problems of political and architectural organization has been made should be obvious; for by attempting to improvize overnight a physical shell for an institution that is only at the beginning of its growth one necessarily imposes its present political limitations upon that physical formthough if the United Nations endures at all it is bound to grow out of those political and social limitations, and the planners of the architectural elements must, from the beginning, seek to transcend the original weaknesses and errors which tired or unawakened men have committed because they dared not give themselves time to think.

PURPOSES OF UNO

In order to formulate an adequate pro-In order to formulate an adequate pro-gramme for the United Nations centre we must first ask ourselves what are the pur-poses of this organization, and what developments is it likely to undergo during the next generation and the next century. Obviously these are not architectural, geographical, or town-planning questions; but until one finds the answer to them in but until one finds the answer to them in political and social terms one cannot trans-late that answer into actual buildings. Nor can one find a quick short-cut to an answer merely by consulting the preamble to the charter for the United Nations; for we have to consider this organization, not merely in view of the pressures and com-promises that called it originally into existence, but in view of the momentum it carries over from a wider past in world co-operation, and in view of potentialities which must be fulfilled in the future if the human race as a whole is to survive. Nor yet can we answer the problems raised by future needs wholly in the indicative mood : future needs wholly in the indicative mood: for we must include among our basic premises imperative human desires and human purposes which are, day by day, modifying the existing order. If today we live in a world dominated, indeed threatened, by the machine, we do so because the philosophers and scientists of the seventeenth century admired machines, planned machines, dreamed about machines, and because their dreams in time persuaded the common run of men to sacrifice a hun-dred other modes of life-fulfilment in order to give their all to machine production. This old dream has turned into a compul-This old dream has turned into a compul-sive nightmare, and our generation must dream a more human dream, which will avert the final orgy of extermination that now threatens us. So, in projecting the requirements for a World Centre, we must face the future once more in the imperative model, stating our page formulating our mood: stating our needs, formulating our demands, projecting our purposes-know-ing, of course, that we shall not satisfy all our claims and requirements, but that the With the production of the atomic bomb-to say nothing of equally formidable methods of extermination that chemistry and bacteriology have at the same time opened up—it has become plain that man-

and bacteriology have at the same time opened up—it has become plain that mankind must either achieve, with all possible swiftness, a higher level of common understanding and co-operation than they have yet attained, or they will bring on a catastrophe, in comparison with which the devastation wrought by the last two wars over a period of ten years of fighting, will seem as innocent as the rampage of a small child in a nursery. Unless we have the faith and the courage to realize a world community, operating under a common law through a world government, no smaller kind of community, be it a village or an empire, will be capable of maintaining its integrity or its security. There are no limited and tentative answers to this problem; unconditional co-operation is the alternative to unconditional extermination. To make this co-operation possible we must rally our creative powers, and make visible to the mass of men, by our own actions and by our plans, the beneficent possibilities that this dangerous situation has created.

Mankind has never faced such a sharp alternative before, because evil never had at its disposal such unlimited forces of destruction: no cheerful reliance upon previous human experience will, therefore, bring us safely through this ordeal. Nor is there any physical solution to the threat of the atomic bomb through decentralization: I should be the first to advocate such a scheme if it made any sense whatever. But the fact is that the energies and poisons we now command could eliminate the crops

TIMBER

a vital material in THE NEW BRITAIN

New houses, new flats, new civic buildings, new hotels . . . the rebuilt Britain will need Timber. For construction, for decoration, there is nothing which has quite the same adaptability as Timber, nothing which has the same quality of finish.



Architect : Oliver Hill, F.R.I.B.A.

WILLIAM MALLINSON & SONS LTD TIMBER AND VENEER MERCHANTS AND PANEL MANUFACTURERS 130-150 HACKNEY ROAD · LONDON · E 2 TELEPHONE · BISHOPS GATE 1234 TELEGRAMS · 'ALMONER' LONDON 8333

e to pro-

e we purwhat

uring ry. ural, ions; m in rans-Nor swer the we not comexistn it vorld lities f the Nor d by basic and day, y we deed so) is of ines, ines aded hun-order ction. npulmust will that the must ative OUL nowy all t the hem. nb dable time man-sible nderhave on a n the wars will small the a law r an g its no probthe tion. we nake own 1 has harp had s of pre-fore, or is at of ion: ch a But

s we rops



CORNER POSTS of many of the fine old buildings, provide lasting examples of the skill of the early craftsmen of Ipswich. The quality and reliability of BULL MOTORS owe much to the continuance of the same tradition of craftsmanship in their manufacture. "The Corner Post offered splendid scope for skill and ingenuity to the early craftsmen of Ipswich. Their decorations were widely diversified ... richly carved panels, allegorical and emblematical subjects, religious scenes, satirical and grotesque figures — all were employed ... and everything had a significance." (From "Ye Olde Corner Postes of Ipswich," by John Shewell Corder — Archt.) and foc wa

poi swi an

mil cei bri pla has ob

em pro fin Fra

we bro wa per op in wa Ur by all

acc sol ne; a Lo

as

ean of B co Na pro that vice for ho W

in

up bu thi cre me

CI

I tic on sn stu be of qu sn the stu be of qu di ar re ch ar of la: bu



and animals on which man depends for food; so that, if we continue on the downward path where the demoniac Hitler first pointed the way, we shall find ourselves swallowed up in an abyss of infinite devilry, an abyss of moral nihilism, which will permit us to use the weapons we have conceived, even though we know they will also bring on our own extinction. Now I need hardly remind you that the

Now I need hardly remind you that the planning of a centre for the United Nations has so far been based upon a series of obsolete political premises: the premises embodied in the original Dumbarton Oaks proposals, and only slightly modified in the final charter that came forth from the San Francisco Conference. All those efforts were actually obsolete before they were brought into existence: the charter itself was the work of men who were reluctantly performing in 1945 the work that their opposite numbers should have performed in 1899 when the first Hague Conference was held. If the selection of a site for the United Nations continues to be governed by the view of organization that was originally in the minds of its founders and accorded with their limited purposes, the solution would be as simple as it would be negligible. All one needs for such a site is a plot convenient by plane from Moscow, London and Washington, a plot as secluded as possible from prying eyes and listening ears. I regret to say that the present choice of a suburban site in Westchester hardly meets even these limited requirements.

But mark this: before the Assembly had concluded its first session the United Nations had grown beyond its original premises: it had become something more than an instrument whereby the three major victorious powers might lay down the law for the rest of mankind without making honest provisions for keeping it themselves. We cannot stop short at any half-way point in this development: for to stop is to make ready for war, or rather for the new successor to war itself, unrestricted extermination: Hitler's last hideous bequest to those who opposed him. I would not oversimplify the heatbreaking difficulties that the United Nations will have to conquer before this organization becomes an effective instrument of world government. However we may seek to hasten the necessary transformation—and hasten it we must the processes of co-operation cannot, by their very nature, be achieved by fat. If the world could be unified through force and terror we might have left that task to the Nazis, who were willing to use both in unlimited quantities. But the goal toward which we must now head should be plain: it is a world government, operating on behalf of a world community. Each of us, in his purely national capacity, is only half a man: the other half of ourselves is bound up with the whole wide world. The task of building a new world centre is to dramatize this fact and make it visible. We have to create more than an instrument of government: we have to shadow forth a new life.

CHARACTER AND PLACE OF THE CENTRE

If one carries these preliminary considerations to their conclusion one must put to one side, I submit, the belief that the headquarters of the United Nations may be small, inconspicuous, secluded, designed on the principle of protective coloration, a structure whose littleness will permit it to be lost and almost forgotten in some great metropolitan area, or removed, for the sake of extra 'parking space and extra housing quarters, to some suburban site within easy distance by car or train from a great city and its charming distractions. The very requirements set up in the United Nations charter for economic, social, educational, and cultural facilities, as well as political ones, demand a community conceived on a larger scale: something more than the building of a modest Trading Estate for

politics. We need a place where new organs of the common life can develop freely, where they can be spaciously and handsomely housed, a place that will also attract to itself old organs conceived for international service, like the Rockefeller Institute for Medical Research, like the International Institute of Bibliography, or like the Geneva School of International Education. We need a site adequate to the foundation of a world university. Our political thinking will be poor and meagre unless it is constantly fortified by parallel efforts in many other fields: for if the world is to learn the ways of co-operation, among the first people to be educated for their international tasks, to be educated and constantly re-educated by every means we can bring to bear, are our statesmen. When the atomic bomb was invented, it was not the politicians but the atomic physicists who grasped promptly and effectively its political implications.

We have thus, briefly, been drawn by our analysis of the problem to a quite different set of conclusions than those which have so far governed the United Nations leaders. We have concluded that the new community must not be a specialized political phalanstery; but rather that it must be, in itself, one of the focal points of a world community. Once we accept this conclusion we must, almost inevitably, accept another fact that follows from it: namely, that the site for a new world capital must be carved out of a city that is already in existence and that already performs no small part of the functions that the United Nations centre must encourage. Such world cities belong only partly to their immediate regions and country; they have become big, they have even become centres for higher education and research precisely because they have reached out for goods and men throughout the planet. If a form for international life has existed anywhere it has existed there. London, Paris, New York, Rome, Berlin, Buenos Ayres, to say nothing of Hong-Kong, Tokyo or Honolulu, were true world cities, in which the quickening processes of cultural interchange coloured everything from the food people ate to the thoughts they brooded upon.

processes of cultural intercenting conducted everything from the food people ate to the thoughts they brooded upon. Admittedly, the growth of these great world cities was not altogether a healthy one; far from it. With respect to their boasted wealth, most of these metropolises had achieved their eminence by a merciless exploitation of both the external proletariat overseas and the domestic proletariat nearer home: on neither the biological nor the cultural levels were these cities the unqualified successes that their ruling classes imagined them to be. Furthermore, the terrible miscarriage of civilization in the great world cities of the past was no mere accident. On the contrary, the incoherent planning, the depressed housing, the contrasts of extreme luxury and extreme poverty, the purposeless materialism of the whole routine were the expressions of a society that was out of balance. On one hand, the world city of the past was La Ville Lumière; on the other, the City of Dreadful Night. At the centre, beauty, order, civic vitality; on the periphery, or rather just behind the pretentious façade, sordor and corruption, depression and blight.

This evening I shall take it as abundantly proved—for I have no hopes of convincing those who have not come to this conclusion through their own observations—that the age of uncontrolled financial exploitation and aimless metropolitan expansion, two phases of the same process, is already dissolving before our eyes. Some of the greatest world cities, like Berlin and Tokyo, have actually become heaps of rubble and charcoal; and unless more humane purposes are formulated, and unless more intelligent plans prevail, the remaining metropolises of the world are headed for an even more sinister fate. The world cities of the past will either be liquidated by a benign intelligence, as the plans for Greater London and Manchester now propose, or they will be obliterated by the powers science has placed in man's all too ape-like hands. If we would avoid the second terminus we must conceive a new kind of world city, more directly designed to embody the good life and to further the processes of international co-operation. And the first place where such a demonstration may take place is, I suggest, in the new centre for the United Nations.

FOUR PROPOSALS

What I should like to lay down for discussion, then, as a consequence of my previous analysis, are the following proposals: First: That the site for the new centre be found within an existing world metropolis. Such a centre is already completely equipped, not merely to offer many essential international services, but to provide human hospitality for all manner of strange guests, taking their differences and their peculiarities for granted as no isolated countryside and no merely provincial city can bring itself to do. The land acquired for this centre should be on the order of one to three thousand acres; and the new international city should be created by a large-scale process of slum clearance and replacement, financed wholly by the United Nations and including provisions for the resettlement, under local administration, of the people and the industries that may be displaced.

Second: That the new world centre should be set up, legally, as an independent muni-cipality, bearing its share of the expenses for municipal services provided by the greater metropolis itself, but otherwise acting as an autonomous unit. This centre should be conceived not simply as a group of escentbur halk and administrative offices of assembly halls and administrative offices, but as a balanced urban community, com-pletely equipped for living, capable of growing up to the point where it would hold a population of between twenty-five and fifty population of between twenty-hve and fifty thousand people in permanent residence, with perhaps as many as a fifth of that number of transients. Such a community would contain ample domestic provisions for the permanent staff of the United Nations, including the schools, hospitals and other services needed for their sympathetic care: likewise it would be prepared to house the personnel of the affiliated inter-national organizations, in such a fashion as national organizations, in such a fashion as to promote meeting and social intercourse as well as professional collaboration. One as of the great desiderata for such a centre is to provide both the permanent staff and the visiting delegates with the opportunities for living balanced normal lives: so that, as Mr. Jenks wisely remarks, they may retain "as fully as the necessarily special conditions of their lives allow, the outlook and perspective of ordinary people." Only a well-planned city with a mixed population, including a normal share of wives and mothers, can produce such an environment. Third: That the new world centre be conceived, both in the method of designing it and the process of building it—as well as in its further administration—as an example of the new world order we are now in the course of building. In its design, in its layout, in its actual structures such a city must make bold departures from the stan-dard form of the classic periods of plan-ning no less than from the standardized disorder of most of our contemporary metro-polises. Such a city must distinguish itself, polises. Such a city must distinguish itself, not only by its clarity of design and its growing unity of treatment, but by its studious retention of the human scale, by its resolute avoidance of the pompous and the grandiose, by its insistence upon measure and purpose in every element of the design. This city must be cut to the measure of a different kind of man from the powerful, domineering, semi-neurotic

*

17

and and

ora-

iels,

tical

tiri-- all ery-

ce.

ostes

well

N

types who have left their marks so unmistakably on the great capitals of the past. Yet such a city, though exemplifying the principle of balance, will make no effort to be wholly self-contained: the very choice of a site proclaims this fact. For the essence of community, from the sociological standpoint, is that no part of it can remain isolated from the whole, or work out its salvation without acknowledging its continued dependence upon other groups, associations and communities.

Fourth: That a series of such centres be projected for all the major continents and sub-continents, both as a means of providing services of an international nature for these regions, and as a method of demonstrating the essential principle of social relativity, whereby any part of the world may, temporarily, become the centre of its life. The huilding of The building of such interof its life national cities would, I believe, alter the centre of gravity of the political world, and alter it for the better. It would not merely satisfy ambitions and hopes on the part of other peoples than the dominant nations of the past, which we ignore or suppress at our peril: it would also provide a demonstration lesson in international co-operation that would go far deeper, because it would be continuous and prolonged, than the lessons some of us faintly began to learn in the fighting of a global war. Each new centre that we started to plan would deepen our commitments to peace and comity.

All this may seem a very large order indeed, for it demands a marshalling of resources, a dedication of professional work, a daring in social inventiveness, which so far only the project for tapping atomic power and creating the atomic bomb has called forth. Yet the creation of the atomic pile should prove to us that there is no objective, however seemingly extravagant and remote, that men cannot, by a pooling of their minds, accomplish, if the will and the purpose are there. Compared with the atomic bomb project, only a small part of the building of a world centre for the United Nations lies altogether within the realm of the unknown and the unexplored. If there is any novelty at all in these suggestions, it lies only in the fact that they have been brought together and applied to the special case in hand.

THE PROPOSALS ANALYSED

The first proposal, that for placing the new community in the very heart of an existing world metropolis, may seem the most radical and difficult suggestion; but actually it is a step for which the historic parallel and the historic precedent actually exists. I refer, of course, to the relation of Vatican City and the city of Rome. Politically and legally, as well as physically, there is a close tie between the two schemes. In planning for a new world centre we propose a far more ample site, and a more complete, a more fully balanced community, for the international city is itself to become a model for the interior reconstruction of other metropolises. But the principle of placing a universal institutions, in what the biologist would call a symbiotic relationship, nevertheless holds.

As for the process of land acquisition, re-planning and building, all that comes under the familiar head of slum clearance. In choosing the first of the world centres to be built, after all the geographic, climatic and social data have been appraised, the final decision would probably be governed by the degree of interest shown by competing municipalities for the privilege both of serving as host and of attracting international aid for the re-making of its own urban structure. Very possibly a blasted city like Hamburg or Leningrad might offer opportunities and incentives that New York, clinging to its costly obsolescence and the

inflated values derived therefrom, would not provide. Even in New York, however, it would not be difficult to find plenty of land on Manhattan Island itself whose clearance for a world centre, by gradual stages, would immensely revitalize the whole city. Both the honour and the opportunity for the city that was chosen would be great.

The second proposal, I have no doubt, is more easy to assimilate: one might call it a variation of the London plan; or, in breeding terms, by Abercrombie out of Howard. When Ebenezer Howard projected the garden city he realized that the principle of the balanced community was equally capable of being applied to the internal reconstruction of the metropolis. And in his too often neglected chapter on Social Cities, Howard pointed out that garden cities themselves would obtain enormous cultural and social advantages, no less than economic ones, were they created, not alone, but as part of a larger urban complex. I conceive that the new centre would be something more than a garden city; but it certainly would not be less. The unified ownership and con-trol of the land, the limitation of area and the limitation of population, the balance of functions, are all essential elements in the demonstration. In this international city with its many transient workers, one might imagine larger public spaces and smaller private ones than in the existing garden cities, to correspond with the preponderance of public buildings; but the general balance would be close to that which was struck in Howard's original outlines. The local green belt, reduced to a park, would be more important than ever in setting off the new from the old.

As for the third proposal, it relates mainly to the architectural and the civic design of the project: a matter where I should hardly like to pit a layman's imagination against the judgment of the many distinguished practitioners in this room, although in my original draft of this paper I found myself, a little officiously and wantonly, playing with suggestions like that for making sure by planning that statesmen got an occa-sional chance to clear their lungs and to reflect by themselves for a quiet half hour through the judicious relationship of hotels, assembly halls, and sequestered walks. We have few examples of functional urban planning, except on the most limited domestic scale; and once the architects of the world got started on such a project I doubt if they would be easily satisfied with any of our current stereotypes. But I dare not get started on this theme for fear that it would draw your attention away from more important matters. The fourth proposal, finally, may seem

the most light-hearted of all, since there is no evidence that our political leaders and mentors would even in their present state of mind consider building a single whole community, to say nothing of a grand series. And yet, if the other three pro-posals were granted I should hold on to the fourth as essential to the completion of the main idea. The provision of more than one capital does not imply that the mem-bers of the United Nations organisation would be in a state of nomadry: nothing could be more disruptive either to normal social life or the processes of administration. But the choice does not lie between a single fixed centre and an indefinite series of shifts. The minimum need for a world as big and complex as ours, containing over two billion human creatures, is for at least six or seven centres, which would represent every great cultural area. There are no longer physical obstacles to this process, as there would have been even fifty years ago: the processes of instantaneous communication and manifolding have made it possible to keep identical permanent re-cords in each of the world centres with little more effort than it takes to make the

original. No great international corporation operates from its home office alone; and why should we think that in the political and cultural relations of mankind we can work on any more niggardly basis?

If as many as six world capitals were in existence each might be occupied by the central staff for a five-year period in rotation; and in the course of a generation each of the major population areas would have the distinction of becoming temporarily the centre of world affairs. Not merely would this arrangement give more than lip service to the recognition of political and cultural equality between the peoples of the world: it would also have the great spiri-tual advantage of inducing the leaders and governors of the world to make Canossa-like pilgrimages to other centres far below the edge of their ordinary horizon, seeing world problems from the altered perspectives that a fresh position in space actually gives one. Finally, such an arrangement would help put into the sterile totalitarian dream, the dream of an Alexander in one age, a Napoleon in another, and a Hitler in a third, that a single nation, a single cul-ture, or a single group might ever domi-nate and control the multifarious activities of mankind. In the task of reconciling politically the one and the many we must, even in those institutions designed primarily to primote unity, recognise and pay homage to the values of diversity, variety, individuality, difference.

WHERE IS THE MONEY TO COME FROM ?

One charge will immediately be brought against such a programme as I have out-lined, even had I been prudent enough to confine it to the building of a single city. And that is the charge of extravagance. Where is the money for such a gigantic enterprise to come from? Is it not singular that we never ask these questions when we are confronted with the demands of war? There is no extravagance, no waste, no prac-tical demand too colossal to keep us from opening our purses and robbing generations to come of their inheritance. That paradox is too bitter to be meekly swallowed. There will never be peace or security in the world till we are ready to give as much for the purposes of life as for death, to spend as much on childbirth as on funerals, as much on building cities as on their demolition. If our present needs do not bring about a transvaluation of values here we will write the death warrant of our peoples.

THE CENTRE AS SYMBOL

To bring such a city into existence we shall have to revise many of our preconceptions in both architecture and urbanism. Even many modern architects are still bound by the spell of a static order and an over-centralized mode of design, which re-flects the age of the absolute princes and the great monarchies. The basic need for each and all of our cities, and above all for this new world centre, are provisions for further growth and development; for each generation must do its own thinking. each generation must have, within and limits, the opportunity to correct its prede-cessors' errors, and to build in its own fashion even on the best of foundations. We shall never do justice to the future, either politically or architecturally, if we bet our imagingtions he starilized by the let our imaginations be sterilized by the images of old St. Petersburg and Versailles. Karlsruhe and Washington. We must have Karlsruhe and Washington. We must have something better to give the world than any of those cities have even hinted at: nor can that something better be expressed in terms of the modest suburban estate of which the present committee of the United Nations seems with pathetic modesty to be thinking. For the suburb is not a symbol world co-operation but of romantic



poralone; polid we ? re in the rota-

each have

y the yould serculf the spiriand ossa-

eeing

specually ment arian one er in cultomivities

ciling must, arily mage

indi-

OME

ought

outth to city.

ance.

gular n we war?

pracfrom

adox There

the h for

pend s, as emo-

bring e we oples.

e we econnism.

still nd an

th res and d for

e all isions ; for nking,

vithin rede-

own tions. uture.

if we y the ailles. have than ed at:

essed te of

Inited to be mbol nantic .4

The state of the s

Electricity

is basic in building

Electricity, which was the *mainpower* behind the production of munitions of war, is now a prime necessity in the building and equipment of the new and better homes for peacetime Britain. Electricity is no longer a luxury to be enjoyed by a few; it is the *main source* of that comfort and cleanliness to which every householder is entitled. And, in addition to being indispensable, Electricity is able to meet—and is meeting the hundred and one demands which indispensability entails.

For information and advice about the many new uses and greatly increased adaptability of Electricity consult your Electricity Supply Undertaking or the British Electrical Development Association, 2 Savoy Hill, London, W.C.2

The Electrical Section at the Building Centre, Maddox Street, London, Wil, provides interesting illustrations of electrical application in domestic and industrial premises.

xliil THE ARCHITECTS' JOURNAL for July 25, 1946

MANY ARCHITEGTS WHO ARE NOW RETURNING

to practice from their wartime jobs are anxious to obtain the latest information regarding a number of building products and services. We print the form below in response to a number of requests . . . it will save you time and trouble.

All you have to do is to fill in the names of the manufacturers in whose products you are interested and post the form to "The Architects' Journal"—we will do the rest.

I am interested in the following advertisements appearing in this issue of "The Architects' Journal."

• •				•	•	•		•		•	a	4		•		٠		•			•
• •		•					•		•		•						•		•		•
				•		•								•	•	•	•	•	•		
• •														•			•	•		•	
													•		•		•				
Pl fu													cl	M	re	75	h	0	3	e	10
NA	AP	IE									 	 					 				
AE	D	R	ES	s	• •						 	 					 	•••			
		**									 	 					 				

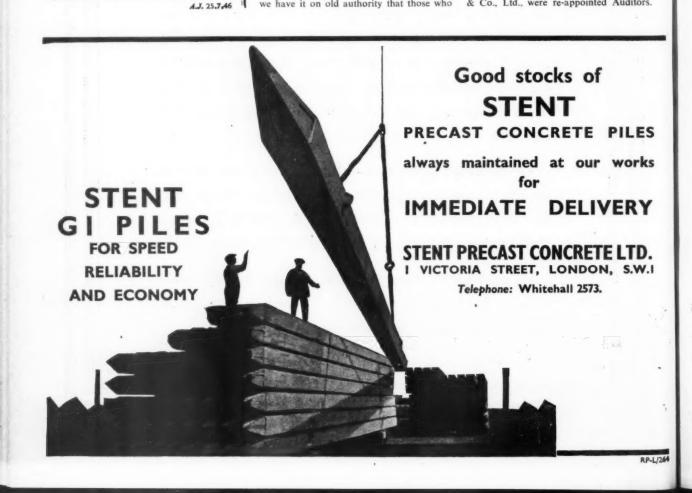
isolationism, of withdrawal and retreat. Whatever else the world centre of the United Nations must be by way of accomplishing its political and cultural functions, it must at least be an adequate symbol. So far from prophesying the inevitable doom of this civilization I have been

eagerly searching, even within the metropolis itself, for those prophylactic elements which would arrest megalopolitan decay and restore a more normal routine of life, favourable to man's biological and social needs. Here, then, in the very heart of a dying world, we have the opportunity to lay the foundations for a new civilization, to build a community and a city that will make visible and serviceable, as never before, the forces that will save mankind from the suicidal impulses that still threaten If we are not to sink into chaos and old night we must demonstrate, on behalf of peace, as we demonstrated under the pres-sure of war, that the Children of Light have, far better than the Children of Dark-ness, the courage and the skill to plan ahead for another thousand years, creating the institutions, the buildings, the communi-ties that will carry forward the work in hand. During a parallel catastrophe the Christian Church turned its back upon the baths and temples of a dying age and created the monastery, the cathedral, and the free city. Our energies and our oppor-tunities are doubtless higher than they were in the Sixth Century A.D., though our state is even more perilous; and if our imaginations and our purposes do not fail us, we may now—just because the alternative will be so tragic-start mankind upon paths of co-operation which a more limited and prudent effort would never disclose. The new world centre must be a light and a guide to the new order of cultural communion and political understanding; and we have it on old authority that those who would light a candle should not hide it under a bushel. In the hard days to come we shall need splendid visible symbols to help keep our faith alive.

Announcements

Mr. J. Scrivener, after 25 years' association with Electrolux, Ltd., has resigned his position as Managing Director. He will remain on the Board as Vice Chairman. Mr. S. Broughton, Secretary of the Company, is to be General Manager and Secretary; Mr. J. H. R. Homfray, General Sales Manager; and Mr. C. Lindberger, General Works Manager. These three gentlemen have been associated with the company since its early years.

At the annual general meeting of the Joinery & Woodwork Employers' Federation held in London, the following Executive Officers were re-appointed for the ensuing year: Chairman, W. E. Adams, J.P., F.C.I.S. (John Sadd & Sons, Ltd.). Vice-Chairmen, E. W. King (E. W. King & Son (Newport), Ltd.), G. F. B. Fish (Thames Steam Sawmills, Ltd.). Hon. Treasurer, M. Van Westerborg (Joinery & Builders' Supplies, Ltd.). The Executive Committee was appointed as follows: A. Gibbs (Papworth Industries, Ltd.), James Austin (Austins of East Ham, Ltd.), E. Boot (Rothervale Manufacturing Co., Ltd.), A. F. Clarke (Midland Woodworking Co., Ltd.), John Duxbury (Magnet Timber, Ltd.), F. J. Holmes (Contemporary Woodwork), T. B. Hustler (James Hustler & Son, Ltd.), R. H. Hall (R. Hall & Co. (Kent), Ltd.), R. H. Hall (R. Hall & Co. (Kent), Ltd.), Henry N. Newsum, M.C., J.P. (H. Newsum, Sons & Co., Ltd.), B. Pratten (F. Pratten & Co., Ltd.), H. J. E. Ripper (Rippers, Ltd.). Messrs. Price, Waterhouse & Co., Ltd., were re-appointed Auditors.





le it

ome

ls to

ts

ation

man.

Comecre-

Sales neral emen

pany

the

derakecue en-

J.P.,

Vice-

Son

ames

, M. ders'

hittee Hibbs

ames Ltd.),

Co., rking

nber, ood-

Son, (H. atten ipper nouse ors.

ES

ks

Y

).

RP-L/264

his will

> Concentration on low-cost housing means concentration on the quantity production of windows, panelled doors, flush doors, staircases, cupboards,—in fact, all joinery.

> Careful machining and exact jigs produce quantity work with Sadd's high quality finish.



MALDON

Telephone: Maldon 131.

BSSBX

London Office: ALDWYCH HOUSE, W.C.2. Telephone: Holborn 7225

xliv] THE ARCHITECTS' JOURNAL for July 25, 1946

PRESS GANG

In factories, institutions, schools and offices in most parts of the country there is a press gang at work saving fuel. But it is an unusually willing and well-behaved press gang.

These Prester non-concussive self-closing taps have to be pressed to serve and as soon as you stop pressing they stop serving! That's the beauty of them as water savers.

With these Prestex self-closers on the job you need no longer worry about the thoughtless people who always forget to turn off the tap.

The use of these taps is approved by most Water Companies throughout the country (including the Metropolitan Water Board).



PEGLERS LTD. BELMONT WORKS, DONCASTER and 58 SOUTHWARK STREET, LONDON S.E.I

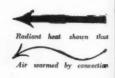


NR. THERN OFFERS TWO KINDS OF HEAT IN ONE FIRE

This newly designed gas fire heats not only by direct radiation but by a built-in convection system (top and bottom vents) which makes the most of the heat output. It incorporates new type long-life radiants and luminous burners which will not "light back" and are completely silent in operation. A top-centre gas tap gives heat control without stooping.

This silent "Convector" fire is ideal for economical long-period heating wherever a healthy, steady, unobtrusive heating system is an advantage. It is one of the appliances included by the Gas Industry in plans for a complete post-war heat service.

Modern gas fires assist ventilation by changing the air in a room three or four times an hour



BRITISH GAS COUNCIL 1 GROSVENOR PLACE . LONDON, S.W.1



steel framing ..

and WOOD WOOL BUILDING SLABS

Wood Wool Slabs help to ease the timber shortage. They are the ideal building material to use in conjunction with steel frame construction in all types of buildings.

Wood Wool Slabs have an unusually high insulating value. They are large in unit size yet are easy to handle, can be sawn to any shape, yet they are a permanent building material with greater structural strength than any other type of insulation.

Wood Wool Slabs are ideal for self-supporting and stud partitions. They are fire-resistant, rot-proof, vermin-proof. Their surface provides an excellent key for bitumen, cement and plaster-rendering. They have most qualities needed in modern building technique. For full details write to this Association.

פינאנות אדנואטדא

by stem

f the

iants

and

s tap

mical

eady,

It is ry in

thus

nvection

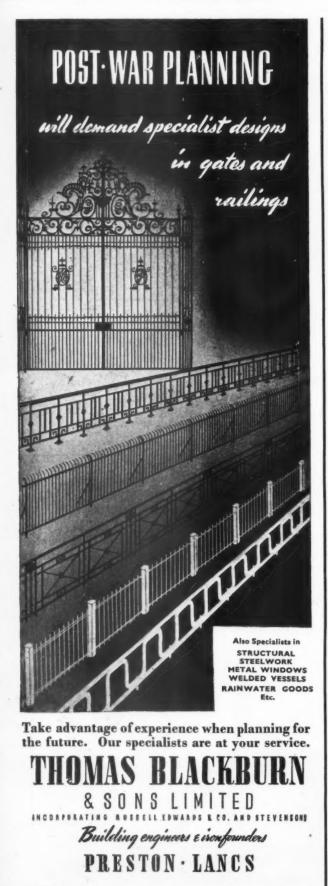
W.1

THERMACOUST . LITHA

LAYING WOOD WOOL SLABS FOR CURTAIN WALLS IN CONJUNCTION WITH STEEL FRAME CONSTRUCTION

THE WOOD WOOL BUILDING SLAB MANUFACTURERS ASSOCIATION 11, IRONMONGER LANE, LONDON, E.C.2. ROYal 3288







This little chap

TIMBER CONNECTORS ARE SIMPLE TO USE

While the members are held temporarily in place by nails, a bolt hole is bored through the assembly.

2 The members are lifted apart and the toothed connectors are placed between the adjacent faces of the members to be connected.

3 The members are then drawn together by means of the bolt until the projecting teeth of the metal plates are completely embedded in each contacting timber surface. The 'Bulldog' timber connector consists of a metal plate with the edges turned off at right angles to form sharp triangular teeth projecting evenly from both sides of the plate.

In use, these connectors are embedded firmly between the lapped members, thus greatly increasing the small bearing area provided by a bolt alone, and enabling the stresses to be distributed over practically the entire cross section of the Timbers involved.

'Bulldog' connectors put timber construction on a sound engineering basis and the consequent increase in efficiency results in an amazing saving of timber, time and material.

Full details and technical advice are available to everyone interested.

eeth of the metai are completely ed in each contimber surface.

Bulldog ' Timber connectors are lso made with teeth on one side only for timber to steel joints, or or portable and demountable imber buildings.

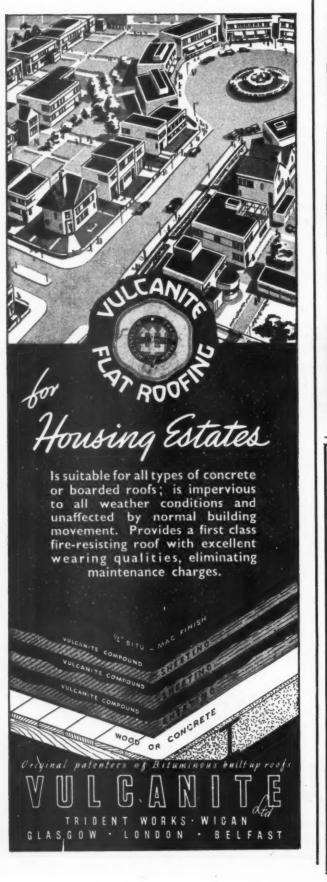


crocke are re to ope washir cateri

ST

Under







The registered Trade Mark on Ashley Electrical Accessories is a guarantee of reliability and of quality second to none.

It is regretted that supplies are still far short of customers' requirements, but output is being distributed in strict fairness to all.

As the raw material situation improves delays and shortages will be eliminated.

ASHLE ESS CC MANUFACTURERS OF ELECTRICAL ACCESSORIES - LANCASHIRE ULVERSTON

"A. B. S."

HOUSE PURCHASE SCHEME

REVISED TERMS

ADVANCES UP TO 80% of a reasonable valuation.

INTEREST 4% gross. •

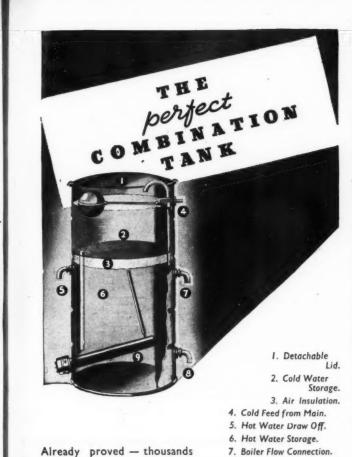
REPAYMENT by means of an Endowment Assurance term not exceeding 25 years.

No legal costs charged by the Office on repayment of mortgage.

A.B.S. INSURANCE DEPARTMENT 66, Portland Place, London, W.I. Tel.: WELbeck 5721.







NG ES

10

igh-

ions be ree,

N.17

EP3

es

NTS

TD

R 3.

of

IN es.

of ng

ne.

DE

25

M-W.S

berdeen

8. Boiler Return Connection. of times over to be the first 9. "FORTIC" Electric Heater (Optional). perfect combination cold water tank and hot water cylinder the "FORTIC" is, without doubt, the domestic water heating system of the future. Architects, Builders and Plumbers throughout the country

Enquiries for present and future requirements are invited for supply through Plumbers and Builders' Merchants. If you have a domestic water heating problem send it to us-our technical and research staffs will help you.



are specifying the "FORTIC."

RANGE BOILERS LTD (and subsidiary companies) (DEPT. 25) STALYBRIDGE CHESHIRE THE EMPIRE'S LARGEST MANUFACTURERS OF COPPER BOILERS, COPPER CYLINDERS, CALORIFIERS, WATER BOILERS, TANKS AND TUBE WORK.

F.T.4



The future is in front-and planning that is based on pre-war data won't fit post-war needs. For one thing, new materials have been developed, and old materials have found fresh and quite surprising uses. You may have heard that plywood is among these latter, but you probably don't know all that it can do. The Mosquito isn't the whole story by any means. Get in touch with us, and we will give you the latest chapters of our fifty-odd years experience of plywood - some of which, of course, concern its metal-faced version PLYMAX.

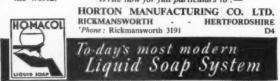


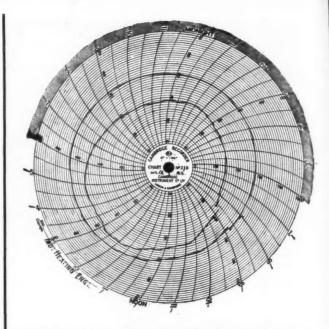
Venesta Ltd., Vintry House, Queen Street Place, E.C.4 Telephone: Central 3061

lii] THE ARCHITECTS' JOURNAL for July 25, 1946



just as unthinkable to provide inadequate heating and ventilation as to overlook the essential appointments of the modern Toilet. That is why your attention is drawn to the handsome Homacol Liquid Soap Dispensers whose drop-by-drop service of uncontaminated soap not only provides maximum efficiency but brings the new technique of "Toiletiquette" to every washroom. Homacol has pioneered this Liquid Soap luxury and to-day these dispensers are in use throughout the world. Write now for full particulars to :--

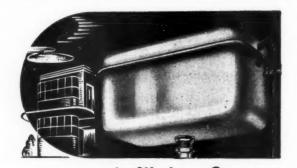




RECORD OF INSIDE AND OUTSIDE TEMPERATURES MADE ON A DAY WHEN AN EXTERNAL VARIATION OF 30deg. WAS EXPERIENCED. THE TEMPERATURE IN THE FACTORY IS INDICATED BY THE OUTER LINE.

Typical comfort conditions when your installation is entrusted to— THE HOBDELL ENGINEERING CO. LTD. 39 VICTORIA STREET, LONDON, S.W.I





Zine with Modern Dimes ...

Concordant with new design conception, and mechanically ingenious, the FORDHAM has fewer moving parts than any other cistern.

The FORDHAM copper syphon requires only an inch and a quarter movement of its unobtrusive chain lever to quietly produce an instantaneous flush. Send your card today for full details.



THE ARCHITECTS' JOURNAL for July 25, 1946 Iliii

ELECTRIC Heating and COOKING FOR THE MODERN HOME

As leading manufacturers of Electric Fires, Cookers and other Home Electrical Appliances, we offer over thirty years' intensive and specialised experience to all concerned in planning and building post-war homes.

The two fires

illustrated are

tastes; they combine radiant and

convected heat in a scientifically

balanced output.

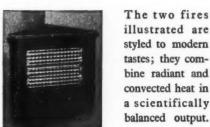
'Belling' Electric Domestic Cooking

Equipment is, of course, famous for

its high efficiency.

Although our present pro-duction is largely absorbed by urgent Government orders for Housing re-

quirements, all enquiries will receive our keen and enthusiastic co-operation.



ON

TAS IS

D.

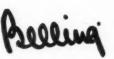
861

New Corner Fireplace



Wall Panel Fire

You can't beat a



Belling & Co., Ltd., Bridge Works, Enfield, Middlesex. Telephone: Howard 1212

C.R.C. 521

SI



Emergency Lighting

EMERGENCY lighting is no subject for afterthoughts. It should be planned as other lighting is planned, by the architect. When your planning touches on this problem, remember Chloride. Their unrivalled knowledge of emergency lighting is always at your service. They are, moveover, the makers of Keepalite, the automatic system which uses the actual interruption of mains current to switch on the emergency lighting instantly and infallibly.

eepalite

THE AUTOMATIC EMERGENCY LIGHTING SYSTEM

THE CHLORIDE ELECTRICAL STORAGE CO. LTD. Stationary Battery Department, 77 King Street, Telephone : Blackfriars 4731 Manchester, 2.

CLASSIFIED ADVERTISEMENTS

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

Surrey.

Public and Official Announcements Six lines or under, 10s.; oach additional line, 1s. 6d.

THE INCORPORATED ASSOCIATION OF ABORITEGYS AND SURVEYORS maintains a register of qualified architests and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. ADDRESS : 75, BATON PLACE, LONDON, S.W.1. TEL. : SLOAME 5615, 991 PLACE,

LONDON COUNTY COUNCIL.

Applications are invited for the following positi (1) QUANTITY SURVEYORS AND ASSIS-TANTS (SENIOR AND JUNIOR). Required

TANTS (SENIOR AND CONTROL, for: (a) "Taking-off" quantities, measuring, and adjusting variations ander building contracts and preparing estimates and minor works ender schedule of prices (ex-perience of London County Council War Depart-ment or Office of Works Schedules). (c) Working up, etc., in connection with domestic buildings and general working up (junjor).

(junio

(junior).
 (d) Measurement of roads and severs and housing work on cottage estates, proparation of interim and final bills on Schedules.
 (2) ARCHITECTS, BUILDING SURVEYORS.
 TBCHNICAL ASSISTANTS (ARCHITECTURAL) AND JUNIOR DRAWING OFFICE ASSIS-TANDS. Required for:

 (a) Work in connection with the design and de-velopment of housing schemes for cottage estates and block dwellings (experience in domestic archi-tecture preferred).
 (b) Similar work in connection with schools and hoopitals.

(a) Similar work in connection with schools and hospitals.
(b) Rimilar work in connection with schools and hospitals.
(c) The preparation of estimates and specifications for works of cleaning and painting, repairs and minor alterations at schools and hospitals.
(d) Assistants to district surreyors. A knowledge of the London Building Acts and by-laws is necessary for these positions.
(e) Junior drawing office assistants for general drawing office work. Should be able to finish plans from rough drawings, take dimensions and make sketches. Pay, according to age and experience, up to 55s. a week, plus cost-of-living addition.

perionce, up to 552. a week, put addition. (3) HEATING ENGINEERS AND HEATING AND VENTILATING ASSISTANTS. Good technical education required. Applicants must be experionced in the design of, and preparation of drawings, specifications and estimates for, modern hot water heating, ventilating and hot water supply schemes.

drawings, specifications and estimates for, modern hot water heating, ventilating and hot water supply schemes. Except as otherwise shown, salaries for the above positions will be determined by qualifica-tions and experience up to a maximum of £400 a year, together with cost-of-living additions up to £00 a year, according to basic salary. Balary up to £500 for certain positions of heating engineer and bulding surveyor. Successful candi-dates will be ongaged on a temporary basis, but will be ongaged on a temporary basis, but will be ongaged on a temporary salaf are required to contribute to the Council's Superannuation and Provident Fund. BX-Service candidates with experience prior to their war service will be specially considered. Application forms may be obtained from the Clerk of the Council. County Hall, Westminster Bridge. London, B.E.1, enclosing slamped addressed foolacap envelope. Canvassing disqualifies. 947

SUBREY COUNTY COUNCIL.

Applications are invited for the appointment of ASSISTANT ARCHITECT, in the County Archi-tect's Department. The commencing salary will be 2460, rising by annual increments of 215 to 2550 per annum, London allowance of 220, together with war bonus, at present 259 16s. Applicants should either hold a degree in Architecture or be an Associate Member of the Royal Institute of British Architects, and should have had a good training and an adequate ex-perience in the design and construction of modern buildings.

huildings. Applications, stating age, particulars of train-ing and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, County Hall, Kingston-on-Thames, not later than Friday, 2nd August, 1946. DUDLEY AUKLAND, County Hall, Kingston-on-Thames. 556

County Hall, Kingston-on-Thames.

CORNWALL COUNTY COUNCIL.

Applications are invited for the following appointments on the Established Staff of the County Architect's Department: — (a) QUANTITY SURVEYOR. Salary £460, by annual increments of £15 to £510 (Grade V, recommended by the National Joint Council). (b) ASSISTANT BUILDING INSPECTOR. Salary £360 by annual increments of £15 to (£15 to £15 to

Joint Council). (b) ASSISTANT BUILDING INSPECTOR. Salary £360, by annual increments of £15 to £465 (Grade II), plus a travelling allowance on the County Scale. Candidates for appointment (a) will be required to prepare estimates, bills of quantities, measure work, and adjust variations on contracts (prefer-ence will be given to experienced taker-off), and (b) should have held a similar appointment and possess practical experience of the building trade. be thoroughly competent in the preparation of specifications, detailed estimates and reports, and in the supervision of maintenance works and im-provements to buildings. The salaries above-mentioned are subject to the addition of cost-of-living bonus, at present 259 16s. per annum. The appointments will be subject to the Local Government Superannuation Act. 1937, and the successful candidates will be required to pass a medical examination.

medical examination

medical examination. Forms of application may be obtained from the County Architect, County Hall, Truro, to whom applications must be sent not later than Saturday, 3rd August, 1946, accompanied by copies of three recent testimonials.

E. T. VERGER, Deputy Clerk of the County Council. July, 1946.

CUMBERLAND COUNTY COUNCIL.

APPOINTMENT OF SENIOR PLANNING ASSISTANT. Applications are invited for the position of Senior Planning Assistant, at a salary of 2460 per annum, rising by annual increments of 215 and 220 to 2510, plus cost-of-living bonus (at present 259 J6s, per annum), and a car and sub-sistence allowance in accordance with the County Council Scale. The appointment is subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to undergo a medical examination, the appointment to be terminable by one month's notice in writing on either side.

either side. Apalicants should be Members, or Associate Members, of the Town Plauning Institute, and a qualification in architecture will be an ad-vantage. The commencing salary on the grade will be determined according to the candidates' previous experience.

previous experience. Applicants must be fully conversant with the Town and Country Planning Acts, and Orders made thereunder, and be thoroughly competent to carry out field work, plotting, and the preparaout

carry out next, what, what, and the other of the other of the other of the other oth

G. N. C. SWIFT, Clerk to the County Council. The Courts, Carlisle.

COUNTY BOROUGH OF BOURNEMOUTH.

APPOINTMENT OF TOWN PLANNING ASSISTANTS.

ing g experience. (b) Planning Assistant. with architectural ex-

perience. (c) Planning Assistant, with modelling experi-

Salaries for the above posts will be £400 to £450 (d) Planning Assistant, with general planning

(d) Planning Associate, with example, and experience. Salary \$250 to \$400 per annum. (e) Junior Assistant, with general planning ex-perience and good draughtsmanship. Salary \$250 to \$200 per annum. The salary will be fixed, in each case, between the limits shown, according to qualifications and experience.

the initial shown, according to quantications and experience. Cost-of-living bonus, at present £59 16s, per annum, will be paid in addition. The appointments will be terminable by one menth's notice in writing on either side, and will be subject to the Standing Orders and the Sick Pay and other regulations of the Council from time to time in force. Applications, endorsed "Town Planning Assi-tant." (a), (b), (c), (d) or (e), stating age, quali-fications and experience, together with copies of three testimonials, should reach me not later than 7th August, 196. Canvassing will disqualify a candidate. A LINDSAY CLEGG.

Town Hall. Bournemouth. July, 1946

PLYMOUTH REGIONAL JOINT PLANNING COMMITTEE.

APPOINTMENT OF ARCHITECTURAL ASSIS-TANT AND DRAFTSMAN.

Applications are invited for the appointment of

July, 1946. Canvassing will be a disqualification. PERCY T. LOOSEMORE, for Joint Clerks. Council Offices. Plympton, S. Devon. 5th July, 1946.

CHICHESTER RURAL DISTRICT COUNCIL. ENGINEER AND SURVEYOR'S DEPART-MENT.

APPOINTMENT OF JUNIOR ENGINEERING ASSISTANT (PERMANENT).

Applications are invited for the permanent appointment of Junior Engineering Assistant, with salary of £330×£15 to £375 per annum. Plus war bonus, at present £59 16s, per annum. Applicants should have had experience in sur-veying and levelling, and setting out for severs and roads on housing estates. Preference will be given to applicants who have passed one of the following examinations:--(a) Sections A. and B. Institution of Civil Engineers.

(b) Intermediate, Royal Institution of Chartered

(b) Intermediate, Royal Institution of Charteres
 (c) Intermediate, Institution of Municipal and
 (c) Intermediate, Mich is terminable by one
 month's notice on either side, is subject to the
 Local Government Superannuation Act, 1937, and
 to the National Joint Council's Scheme of Carditions of Service. The successful applicant will be required to pass a medical examination.
 Applications, giving details of age, training,
 experience, present position and qualifications, and accompanied by copies of three recent testimonials, should be delivered to the undersigned not later than the 2nd August, 1946.
 LEONARD BAILEY.
 Clerk of the Council.

Pallant House, Chichester. 9th July, 1946. 551

BOROUGH OF BARKING.

DEPARTMENT OF THE BOROUGH ARCHITECT.

ARCHITECT. Applications are invited for the appointment is the permanent staff of an ASSISTANT ARCHI-TECT, at a salary in accordance with the Scheme of Conditions of Service recommended by the National Joint Council for Local Authorities Pro-tessional Technical and Clerical Services. and anounting to £59 los, per annum. The salary will be on Scale II-IV. A360-£465 per annum, the commencing point being in accret-surces with the qualifications and experience of the successful candidates. The appointment will be terminable by one month's notice on either side. subject to the pro-visions of the Local Government Superannualion Act, 1937, and the successful candidate will be required to pass a medical examination. Application must be made on the appropriate form. which can be obtained from the Boromár Architect, C. C. Shaw, F.R.I.B.A., Town Hall. Barking, and returned to the undersigned, together with copies of not more than three accent wasing. directly or indirectly, will be Canvaseing. directly or indirectly, will be

August, 1946.

Canvassing, directly deemed a disqualification. E. R. FARR, Tou or indirectly, will be

own Clerk. 101

Town Clerk 584

THE ARCHITECTS' JOURNAL for July 25, 1946 [lv

LANNING

L ASSIS.

pointment

istant will istant will being £330 rements to bonus (at ing allow-incil scale. experience a Town e will be chitectural

at a scale be annual st-of-living smen. and smen, and with ex-onflice. I to devote ces of the be subject de. The the pro-cannuation

es will b lifications es of two so as to the 29th

RE. nt Clerks. 550

OUNCIL. DEPART.

EERING permanent

Assistant, num, plus um. ce in sur-for sewers

who have ns :--of Civil Chartered

cipal and le by one ect to the

ect to the 1937, and e of Con-icant will ttion. training, lifications,

cent testi-dersigned

552

e Council.

GH

ntment to ARCHI-he Scheme d. by the rities Pro-rices. and at present

0-£465 per nce of the

e by one o the pro-annuation e will be ppropriate

Borough wn Hall, dersigned, an three toon, 12th will be

ion Clerk.

THE RURAL DISTRICT COUNCIL OF HATFIELD,

APPOINTMENT OF ARCHITECT.

Applications are invited from members of the Royal Institute of British Architects for the appointment of Architect to the Council, at a salary of £700 p.a., rising by annual increments of £50 to £800 p.a., plus cost-of-living bonus, at present £59 168.

of £50 to £800 p.a., plus cost-of-living bonus, at present £59 16s. The person appointed will be responsible for all the Architectural work of the Council, and such duties in connection with Town Planning as may be assigned from time to time. The appointment will be subject to the Local Government Superannuation Act, and the successful camidate will be required to pass a medical examination. The appointment will be subject to termination upon three months' notice on either side. Further details can be obtained on application. Applications, with copies of three testimonials and endorsed "Architect." should be delivered to the undersigned not later than 4th August, 1946. EDGAR F. CULL. Council Offices, 16, St. Albans Road, Hatfield, Herts. 13th July, 1946. 590

PRESTON AND DISTRICT REGION JOINT TOWN PLANNING COMMITTEE.

(a) PLANNING ASSISTANT (ARCHITEC-TURAL). Grade III. Salary £390-£15-£435. (b) PLANNING ASSISTANT (ENGINEER-ING). Grade III. Salary £390-£15-£435. (c) DRAUGHTSMAN Misc. Grade I. Salary £255-£15-£300. All the 'above salaries are subject to the addition of war bonus. The Committee have adopted the conditions of service of the National Scheme. In appointments (c) and (b) and Applications are invited for the following posi-

adopted the conditions of service of the National Scheme. In appointments (a) and (b) preference will be given to applicants who are by examination members of the Town Planning Institute. Applicants for post (a) should have a sound general Architectural training, and be experienced in neighbouring planning, estate layout, and the normal Architectural side of a Planning Office. Applicants for post (b) should have experience in road engineering, improvement line surveys, sewerage and water supply, and the general engineering side of Planning. Experience in basic survey and statistical work will be an advantage. Applicants for post (c) should haves; subject in performance sheet work to all scales; shility in perspective drawing will be of advantage. Applications, appropriately endorsed, giving full personal particulars, details of experience, and accompanied by copies only of three recent testi-monials, should be received by me not later than the first post on Monday. 19th August. Members of H.M. Forces are invited to submit applica-tions

tions Candidates must state in their application whether they are related to any member or to any senior officer of the Joint Committee. Canvassing in any form will disqualify. W. E. E. LOCKLEY. Hon. Secretary to the Committee. Municipal Building, Preston. 12th July, 1946. 576

BOROUGH OF LUTON.

BOROUGH ENGINEER'S DEPARTMENT TECHNICAL STAFF.

Applications are invited for the following (a) ASSISTANT QUANTITY SURVEYOR. Salary £35, rising by two annual increments of £20 and one of £25 to a maximum of £600 per

Anary 2536, rising by two aintais intrements of 220 and one of 225 to a maximum of 2600 per annum.
 (b) PLANNING ASSISTANT. Salary 2330 per annum.
 (b) PLANNING ASSISTANT. Salary 2330 per annum.
 The appointments will be temporary of 215 to 2375 per annum.
 The appointments will be temporary cost-of-living bonas, at present at the rate of 249 16s. Per annum, is payable in respect of each appointment. The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937. It may be possible to provide housing accommodation within a reasonable time of the appointments being taken up.
 Applicants for appointment (a) must have had considerable municipal experience, and be rate in a decompositions of appointment (b) should have had considerable municipal experience, and be first-class draughtemen.
 Applications, giving particulars of age, qualifications, giving particulars of age, qualificati

disqualify.

W. H. ROBINSON, Town Clerk.

	Hall, July.	Luton.	1000	Clerk.
				575

WEST SUSSEX COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the permanent staff at salaries in accordance with the National Scales of Salaries :--

(a) ONE CHIEF ASSISTANT ARCHITECT (EDUCATION). Grade VIII A.P.T. Division.

(EDUCATION). Grade VIII A.P.T. Division. Salary £625-2700. (b) ONE ASSISTANT ARCHITECT. Grade V A.P.T. Division. Salary £460-£510. (c) ONE ASSISTANT ARCHITECT. Grade IV A.P.T. Division. Salary £460-£510. (d) ONE JUNIOR ASSISTANT ARCHITECT. Grade I A.P.T. Division. Salary £330-£375. (e) ONE ARCHITECTURAL DRAUGHTS-MAN. General Division. Salary according to age (e.g., age 23, male £200, female £160; age 30, male £300, female £240). (f) ONE ACCOUNTS CLERK. Clerical Division. Salary Male). £315-£360. (g) ONE CLERK OF WORKS (MAINTEN-ANCE). Grade I A.P.T. Division. Salary £330-£375.

Plus cost-of-living bonus in all cases; at present

ANCE). Grade I A.P.T. Division. Salary £330-£375.
Plus cost-of-living bonus in all cases; at present £59 16s. (male).
Applicants for :-
(a) (b) and (c) must be Associates R.I.B.A.,
and for appointment (a) must have had a wide experience of Architectural work undertaken by a Local Authority, especially in the design and carrying out of Educational buildings;
(d) Should have passed the intermediate ex-amination of the R.I.B.A., and have had experi-ence in Architectural work, including surveys and levelling, and preparation of working and detail dravings;
(e) Should have had previous experience in tracing and in the preparation of surveys of sites and existing buildings;
(f) Should have had previous experience in tracing and in the preparation of surveys of sites and existing buildings;
(f) Should have had previous experience in tracing and in the preparation of surveys of office undertaking Public Works; or
(f) Should have sound knowledge of sill build-ing trades and experience in the preparation of surveys of con-tractors' accounts;
(g) Should have sound knowledge of sill build-ing trades and experience in the preparation of sure and in writing on either side, and will be subject to the provisions of the Local Government Superinnuation Act, 1937. The successful candidates will be required to pass a medical examination.
Applications, on forms to be obtained from the County Architect, F. R. Steele, F.R.B.A., F.S.I., M.T.F.I., County Hall, Chichester, should be returned to him not later than Wednesday, the lat August, 1946.
Canvasing, either directly or indirectly, will be a disqualification.

T. C. HAYWARD, Clerk of the County Council. County Hall, Chichester. 6th July, 1946. 563

CITY OF MANCHESTER.

HOUSING DEPARTMENT

The Manchester Corporation invite applications

for the following appointments :--(1) HOUSING DIRECTOR, at a basic salary of

(1) HOUSING DIRECTOR, at a basic salary of £1,900 per annum.
(2) WORKS MANAGER, at a basic salary of £920, rising by annual increments of £40 to £1,000 per annum.
(3) CHIEF ASSISTANT ARCHITECT, at a basic salary of £870, rising by annual increments of £40 to £950 per annum.
In each case the appropriate cost-of-living bonus recommended by the National Joint Council is payable in addition to the basic salary shown. As regards (1) the duties include the supervision of the erection of houses or other accommodation under the Corporation's Housing Schemes. Applicants must be capable organisers ability and experience of the design and construction of houses and the development of housing estates.

struction of houses and the development of housing estates. So far as (2) is concerned, applicants should have practical experience of all branches of the building trades, the requisitioning of plant and materials, the direction of dwellings, and estate development. With regard to (3) candidates should be Fellows or Associates of the Royal Institute of British Architects, who have had wide experience of the design and construction of houses and the de-velopment of housing estates, flats, and ancillary buildings.

velopment of housing estates, nats, the buildings. Applications (with copies of three recent testi-monials) must be made upon the prescribed form obtainable from me, and returned so as to reach me not later than Monday, 12th August, 1946. Carvassing in any form, oral or written, direct or indirect, is prohibited, and applications or copies thereof must not be sent to members of the Housing Committee or the Council. PHILIP B. DINGLE.

Town Clerk.

Town Hall, Manchester, 2. July, 1946. 615

OXFORDSHIRE COUNTY COUNCIL. COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following

(1) One ASSISTANT ARCHINECT (Grade V), at a salary of £460-£15-£510 per annum. Applicants must be members of the R.I.B.A., and preference will be given to a person having experience in the design and construction of Schools.

experience in the design and construction of Schools.
(2) Two ASSISTANT ARCHITECTS (Grade II), at a salary of £360-£15-£405 per annum. Preference will be given to members of the R.I.B.A., and to those who have had experience in general County Work.
(3) One QUANTITY SURVEYOR (Grade V), at a salary of £460-£15-£510 per annum. Applicants must be members of the Chartered Surveyors' Institution, and preference will be given to a person with experience in general County Work, although this is not essential. Cost-of-living bonus, at present £59 los. per annum, is payable in addition to the above salaries.

annum, salaries.

The appointments are subject to the above salaries. The appointments are subject to the Local Government Superannuation Act, 1937, and successful candidates will be required to pass a medical examination. The appointments are permanent, but subject to one month's notice on either side. Applications, giving full particulars, together with copies of three recent testimonials, should be sent to the County Architect, 3, Becket Street, Oxford, not later than the 6th August, 1946. F. G. SCOTT, *Clerk to the County Council.* County Hall, Oxford. 15th July, 1946. 594

BOROUGH AND COUNTY OF THE TOWN OF POOLE.

APPOINTMENT OF TWO JUNIOR ARCHI-TECTURAL ASSISTANTS.

TECTURAL ASSISTANTS. Applications are invited for the following per-menent appointments, in the Borough Engineer's Department :--Two JUMIOR ARCHITECTURAL ASSISTANTS in the General Division of the National Scale, plus the current cost-of-living bonus. The Scheme of Conditions of Service of the National Joint Council for Local Authorities Administrative, Professional, Technical and Ciercial Services is at present applicable to persons appointed on the established staff. The appointments will be subject to the pro-visions of the Local Government Superanuation to the satisfactions, stating are qualifications, full derety, or indirectly, is forbiden. Applications, stating are qualifications, full the of experience, and giving the names of the undersigned not later than Saturday, to MILSON KENYON. MILSON KENYON.

CITY OF NOTTINGHAM.

HOUSING ARCHITECT'S DEPARTMENT. Applications are invited for the following

Applications are invited for the following appointments:—ARCHITECTURAL ASSISTANT. (1) SENIOR ARCHITECTURAL ASSISTANT. Salary Grade V of the National Scale (£460×£15 ×£20×£516 per annum), plus cost-of-living bonus, at present £59 16s. per annum. (2) Two JUNIOR ASSISTANT QUANTITY SURVEYORS. Salary in accordance with General Division of National Scale, according to age.

SURVEYORS. Salaty in according to General Division of National Scale, according to age. Applicants for (1) should have had considerable experience of Housing work with a Local Authority, and should be Associates of the H.B.A. or hold equivalent qualifications. Applicants for (2) should have passed the First professional Examination of the Chartered Sur-veyors' Institute, and have had considerable ex-perience in a Quantity Surveyor's office. The appointments will be subject to the pro-visions of the Local Government Superannaation Act, 1937, and in accordance with the Scheme of Conditions of Service, National Joint Council for Local Authorities, and to one month's notice on either side; to the successful candidates passing to reside within the City boundaries. Applications, stating age, experience, and with cospes of three recent testimonials, and in the case of (1) names of two persons of standing to whom reference can be made, should be delivered to the undersigned and endorsed, in the case of (1) Senior Architectural Assistant, Housing De-partment, and in the case of (2) Junior Quantity Surveyor, Housing Department, not later than Monday, the 12th August 194. *Le. RICHARDS*, *Town Clerk*. The Guildhall, Nottingham.

The Guildhall, Nottingham.

Municipal Buildings, Poole, Dorset. 17th July, 1946.

WILSON KENYON. Town Clerk.

628

WREXHAM RURAL DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPART-MENT.

APPOINTMENT OF ARCHITECTURAL A TANT AND HOUSING MANAGER. ASSIS-

Applications are invited from members of the Royal Institute of British Architects, for the above appointment in the Engineer's Department, at a salary of £460 per annum, rising by annual increments to a maximum of £530, plus cost-of-living bonus, at present £59 i6s, per annum. Applicants should have a wide experience in the design and construction of Houses, and will be responsible for all the Architectural work con-nected with the Council's existing and future Housing Estates, and for their management and repair.

repair. The appointment will be subject to one month's

"The appointment will be subject to one month's notice on either side. The appointment will be subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination. Applications, stating age, qualifications and details of experience, together with copies of two recent testimonials, and endorsed "Architect and Housing Manager," should be sent to the under-signed not later than 7th August, 1946. GEO. VERNON PRICE. Clerk to the Council. Imperial Buildings. Regent Street, Wrexham. 15th July, 1946.

BOROUGH OF SLOUGH.

BOROUGH ENGINEER'S DEPARTMENT.

APPOINTMENT OF JUNIOR TECTURAL ASSISTANT. ARCHI

Applications are invited for the above per-manent appointment, in the Borough Engineer's Department, within Grade A.P.T.III of the National Scales, at a commencing salary of 2300 per annum, rising by annual increments of 215 to a maximum of £435 per annum, plus cost-of-living bonus (at present £59 16s. per annum). Preference will be given to applicants who have passed the Intermediate Examination of the Royal Institute of British Architects. The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination, and the appoint-ment will be subject to one month's notice on either side.

ment will be subject to one month a notice on either side. Applications, on forms to be obtained from the Borough Engineer, Mr. E. Gardner Thorp, M.Inst.C.E., Town Hall, Slough, must be sent in a sealed envelope, endorsed "Junior Architectural Assistant," so as to reach the undersigned not later than the 19th August, 1946. NORMAN T. BERRY.

NORMAN T. BERRY. Town Clerk.

586

Town Hall, Slough. 25th July, 1946.

GOVERNMENT OF SOUTHERN RHODESIA.

VACANCIES FOR ARCHITECTS: PUB WORKS DEPARTMENT, SALISBURY PUBLIC

WORKS DEPARTMENT, SALISBURY.
 Applications are invited for the post of Architect in the Public Works Department, Salisbury.
 Candidates must hold the Associateship of the Royal Institute of British Architects or other equivalent qualification.
 Buccessful candidate's scale of salary, conditions of service, etc., are set out herennder: —
 (1) Commencing salary £250 per annum, rising by annual increments of £30 to £1.000 per annum.
 (2) Appointment will be for a probationary period of two year.
 (3) Subject to satisfactory service, incumbent will be eligible for appointment to the Fixed Establishment on the expiration of the pro-bationary period.
 (4) Applicants are advised to be medically examined prior to application. Confirmation of appointments after reporting for duty will be subject to the production of a satisfactory medical estificate on the prescribed form from a Govern-ment Medical Office.
 (6) Vacation leave on full pay is granted on a basis of 1/th of service, subject to the exigoncies of the service, (Example: 480 days' service com-pleted, 60 days' vacation leave on full pay accumulated).
 (7) Steamship and rail fares will be paid to Salisbury. Southern Rhodesia. for successful applicants should forward the following information, to, the High Commissioner for

applicant, but not for wife and family or other dependants. Applicants should forward the following information to the High Commissioner for Southern Rhodesia, 429, Strand, London, W.C.2, on or before the 31st August, 1946. (a) Full details of Architectural experience and professional training, together with copies of testimonials.

testimonias, (b) Age, nationality, conjugal condition and period, if any, spent on active service. Canvassing will disqualify applicants. 604

UNIVERSITY COLLEGE OF NORTH WALES, BANGOR.

A MAINTENANCE OFFICER is required on or before 1st October, 1946, to supervise the College properties, which comprise some 30 buildings. Applicants must have a knowledge of the buildings trade, and be competent to direct craftsmen and control maintenance staff. Experience of heating services is essential. Salary £400 p.a., plus certain allowances. MAINTENANCE OFFICER is required

services is essential. Galaxy allowances. Applications must be lodged with the under-signed, from whom further particulars should be obtained, before 17th August. 1946. GLYN ROBERTS, Secretary and Registrar. 607

THE UNIVERSITY OF LIVERPOOL.

LIVERPOOL SCHOOL OF ARCHITECTURE.

Applications are invited for two full-time posts of UNGRADED LECTURER and STUDIO IN-STRUCTOR, in the School of Architecture, at a salary of 2450-2600 per annum, according to quali-fications and experience, together with a child approxance.

appowance. Applications, accompanied, if possible, by draw-ings or photographs of work, two testimonials, and the names of two referees, should be received not later than Jist August, 1946, by the under-signed, from whom further particulars may be obtained.

STANLEY DUMBELL, Registrar.

SOMERSET COUNTY COUNCIL.

June, 1946.

COUNTY ARCHITECT'S DEPARTMENT.

COUNTY ARCHITECT'S DEPARTMENT. Applications are invited for the appointment of a class I ARCHITECTURAL ASSISTANT. The post is part of the authorised establishment, but the present in accordance with the County Council's regulations (shortly to be reviewed). The scale of salary attaching to the appoint-ment is 2430 per annum, by annual increments of 15 to 2475 per annum, buts the cost-of-living bonus (at present 259 198, per annum), but the conce and qualifications, with good concernence in Architectural design. The appointment will be subject to the pro-visions of the Local Government Superannuation det, 1937. The successful candidate will be re-county dedical Officer of Heath. Applications, stating age, training, experience, maintations, and length of time required to there recent testimonials, should be sent to the R. C. MARIR, F.R.I.B.A. County Artestores, the annuel and the subject to there recent testimonials, should be sent to the and the subject of the County Counter the subject to there recent testimonials, should be sent to the R. C. MARIR, F.R.I.B.A. 2014 Street, Taunton, Somerset: 1616 JU, 1946.

Park Street, Taunton, Somerset. 16th July, 1946.

618

BOROUGH OF WORTHING.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following per-

rising to 2435 per annum, plus cost-of-living bonus, at present £59 16s, per annum. Preference will be given to candidates holding the Testamur of the Institution of Municipal and County Engineers

of the institution of Municipal and County Engineers. Both appointments will be subject to the National Scheme of Conditions of Service of Local Government Officers, to the provisions of the Local Government Superannuation Act, 1937, and to the successful candidate passing satisfactorily a medical examination, to be conducted by the Council's Medical Officer of Health. The appoint-ments will be determinable by one month's notice on "Appointment (b)," stating age, qualifications, and experience, and accompanied by cooles of three recent testimonials, must be delivered to the office of the Borough Engineer, Town Hall. Worthing, not later than first post on Monday. 12th August, 1946. ERNEST G. TOWNSEND.

ERNEST G. TOWNSEND.

Town Hall, Worthing.

Town Clerk

BOROUGH OF ILFORD.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL ASSISTANTS.

Applications are invited for the appointment on the permanent staff in the Department of the Borough Engineer and Surveyor of two Archi-tectural Assistants as follows :--

tectural Assistants as follows:-(a) One Architectural Assistant, at a salary of £575 to £650 per annum (plus cost-of-living bonus and London weighting), according to Grade VII of the National Scale of Salaries.
Applicants for this appointment should be registered Architects and Corporate Members of the Royal Institute of British Architects, and have a thorough knowledge of Architectura. Works, with practical experience in the design. Housing Schemes, etc., and the preparation or psecifications, and be capable of supervising and controlling contracts.
(b) One Architectural Assistant, at a salary of £460 to £510 per annum (plus cost-of-living bonus and London weighting), according to Grade V of the National Scale of Salaries.
Candidates for this appointment should be Associate Members of the Royal Institute of British Architects, and nust have had good general experience in Architectural Works for Municipal Buildings. Housing Schemes, etc., and in the preparation of working drawings and specifications.

ncations. The appointments will be subject to the pro-visions of the Local Government Superannuation Act, 1937, and the successful candidates will be required to pass a medical examination by the Council's Medical Officer. The appointments will be subject to one month's notice on either side.

The appointments will be subject to one have notice on either side. Applications, in a sealed envelope, endorsed "Architectural Assistants (a) or (b)" stating age. qualifications and experience, accompanied by copies of three recent testimonials, should be forwarded to reach the undersigned by Monday, 19th August, 1946. Canvassing, either directly or indirectly, will be a disqualification. CHARLES N. ROBERTS. Town Clerk.

Town Hall, Ilford. July, 1946.

612

PONTYPOOL URBAN DISTRICT COUNCIL. The Council invite applications for the follow-

(1) ARCHITECT for certain of the Council's Housing Schemes.

ARCHITECT for certain of the Council's Housing Schemes.
 Applicants must be Registered Architects, and should hold the A.R.I.B.A., and should have had experience in the design and erection of Council Houses and lay-out of Housing Estates. Salary 2700 per annum and way bonus.
 ARCHITECTURAL AND SURVEYING ASSISTANT for certain of the Council's Housing Schemes.

Schemes.

Schemes. Applicants must be Registered Architects, and should hold the A.R.I.B.A. or equivalent, and must have had experience in the preparation of Housing Schemes and Specifications, etc. Salary £420 per annum, with annual increments of £15 to a maximum of £465 per annum, and war bonus. Applicants in both cases not to exceed 50 years of age.

Applicants in boin tests for the pro-of age. The appointments will be subject to the pro-visions of the Local Government Superannuation Act, 1937, and the appointed candidates will be required to undergo a medical examination. Applications, giving particulare of age, quali-fications, experience and previous appointments held, together with copies of three recent testi-monials, endorsed " architect " or " Architectural Assistant." respectively, to be sent to the under-signed on or before the 17th day of August, 1946. W. H. V. BYTHWAY, Clerk to The Council.

610

Pontypool. 17th July, 1946.

CORPORATION OF KIRKCALDY.

BURGH ENGINEER'S DEPARTMENT.

BURGH ENGINEER'S DEPARTMENT. Applications are invited for the post of ASSIS-TANT ARCHITECT, in the Burgh Engineer's Department. Salary £325 per annum, rising by annual increments of £15 to a maximum of £400 per annum, placing on scale according to experi-ence and qualifications. Cost-of-living bonus is in addition. Candidates should be Associates of the Royal Institute of British Architects. The appointment will be subject to the Corporation's Conditions of Service and Superannuation Scheme, and the selected candidate will be required to pass a medical examination. Applications, indi-cating age, qualifications and experience, and accompanied by copies of three recent testi-monials, should be lodgred with the Burgh Engineer and Surveyor, Osborne House, East Pergus Place, Kirkcaldy, not later than 14th August, 1946. JOHN H. McLUSKY,

JOHN H. McLUSKY, Town Clerk.

R'S T.

ment f the rchi-

ry of bonus VII d be rs of and

etura. esign ypes, on or and

ry of living Grade

i be e of good s for , and speci-Dro-

ation ill be y the onth's orsed

age, l by d be nday, ill be

lerk. 612

CIL. llow-

ncil's

and had uncil alary

ING

and and ne of

alary £15 onus. years proation II be

nents testi-tural nder-1946.

uncil. 610

F. SSIS-

g by £400 tperi-us is es of The tion's neme, d to indi and testi-urgh East 14th

lerk. 617

SOUTH BEDS. JOINT PLANNING COMMITTEE.

APPOINTMENT OF PLANNING OFFICER.

APPOINTMENT OF PLANNING OFFICER. Applications are invited from qualified persons for the position of Planning Officer, at a salary of £850 per annum, rising to £1,000 per annum, plas cost-of-living bonus (at present £59 16s. per annum), and car allowance. Candidates must be members of the Town Planning Institute by examination, and, in addi-tion. members of the Royal Institute of British Architects, Institution of Civil Engineers. The position will be subject to the provisions of the Local Government and the subject to the provisions of the Local Government and other Officers' Super-annual Acts, and the successful candidate will be required to undergo a medical examination. Applications, giving full details as regards age. experience, previous and present positions, and accompanied by copies of recent testimonials, must be received by the undersigned not later than Saturday. 24th August, 1946. Clerk to South Beds. Joint Planning Committee. Town Hall, Luton. 587

Town Hall, Luton. GOVERNMENT OF NORTHERN IRELAND. ASSISTANT ARCHITECT FOR TOWN PLANNING.

Applications are invited for the post of Assistant Architect, in the Ministry of Health and Local Government. The appointment will be temporary, but so far as can be foreseen will last for several

 Government, The appointment will be telliporary just so far as can be foreseen will last for several search of a several search of the select of several search of the select of the select select of the select of the select select of the select of the select of the select select of the select select of the select of t THE CORPORATION OF THE CITY OF GLASGOW.

CITY ENGINEER'S DEPARTMENT.

CITY ENGINEER'S DEPARTMENT. ARCHITECTURAL ASSISTANTS. Applications are invited for the appointment of Six Assistant Architects, in the Architectural De-partment of the City Engineer's Office. Applications must possess an architectural quali-fication, and be experienced in the preparation of plans and working drawings for general Municipal Architectural Works. Successful applicants will be placed on the Council's salary scales for technical and pro-fessional staffs, riz., $\pm 200 \times \pm 20 - \pm 420$, $\pm 200 \times \pm 20 - \pm 240$, $\pm 200 \times \pm 200 \times \pm 200 - \pm 240$, $\pm 200 \times \pm 200 \times \pm 200 + \pm$

Candidates with require age, qualifications, and ex-tion. Applications, stating age, qualifications, and ex-perience, must be lodged with the undersigned not later than 16th August. 1946. ROBERT BRUCE, B.Sc., M.Inst.C.E., M.Inst.M. & Cy.E. Master of Works and City Engineer. 616

HALTEMPRICE URBAN DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPART-MENT.

Applications are invited from qualified persons for the under-mentioned posts, in the established staff of the above Council. ARCHITECTURAL ASSISTANT. £375-£25-

£45

ARCHITECTURAL ASSISTANT. £375-£25-£450. Applicants must have a good general knowledge of and experience in architectural work, of which housing experience in architectural work, of which housing experience is essential. JUNIOR ARCHITECTURAL ASSISTANT. £300-£25-£375. Applicants must have a sound knowledge of and training in architectural work. Cost-of-living bonus (at present £59 16s. per annum, males) will be paid in addition to the above salaries. Forms of application from the Engineer. Anlaby House, Anlaby, E. Yorks, should be returned to the undersigned not later than Friday, oth August 1946. Canvassing, directly or indirectly, will disqualify applicants. A. B. GLASSPOOL, Clerk of the Council. Anlaby House, Anlaby, E. Yorks. 578

UNION OF SOUTH AFRICA.

Applications are invited on or before 23rd August, 1946, for the following posts, in the National Building Research Institute of the South African, Council for Scientific and Industrial African Research

Research :--RESEARCH OFFICERS (present salary £500× £30-£680-£700, plus cost-of-living allowance). (i) One Architect, possessing a recognized Uni-versity degree in architecture, who has had at least three years' practical training in this pro-ference.

(iii) Two Engineers (civil, mechanical, electrical, recognized University degree resulting from a four-year professional course, and preferably with experience in a research organization or in industry

four-year professional course, and preferably with experience in a research organization or in industry. (ii) Two Engineers (civil, mechanical, electrical, or chemical), possessing recognized University degrees resulting from four-year professional courses, and with at least three years' experi-ence after graduation directly connected with their profession. Military service and other experience will be considered in determining the starting salaries of successful applicants. Applicants are requested to write, in the first instance, to the Scientific Liaison Officer, South Africa House, Trafalgar Square, London, W.C.2, for further information and official application forms, which list the details required. BOROUGH OF WORKINGTON.

BOROUGH OF WORKINGTON.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

ASSISTANT. Applications are invited for the appointment of Architectural Assistant, in the Borough Sur-veyor's Department, at a commencing salary of £390 per annum, rising to £435 by annual incre-ments of £15 in accordance with Grade III Administrative, Professional and Technical Division of the National Joint Council's Scale, plus cost-of-living bonus. Candidates must have had experience in the office of an Engineer and Surveyor to a Local Authority, and hold an appropriate qualification. The appointment will be subject to the pro-visions of the Local Government Superannuation Act. 1937, and the successful candidate will be required to pass a medical examination. The appointent will be determinable by one month's written notice on either side. Applications, accompanied by copies of three recent testimonials, must be delivered to the undersigned not later than the 12th August, 1946. IOUN R COCCEPTIELD

JOHN R. COCKFIELD, Town Clerk.

588

Town Hall, Workington 8th July, 1946.

CAERNARVONSHIRE JOINT PLANNING COMMITTEE.

COMMITTEE Applications are invited for the post of SENIOR PLANNING ASSISTANT, generally experienced in the preparation of planning schemes and the control of interim development, with town planning or architectural qualifications, at a salary of 2460 p.a., rising by two annual incre-ments of 215 and one of 220, to a maximum of 2510 p.a., plus cost-of-living bonus. The appointment will be terminable by one month's notice on either side. It will be subject to the provisions of the Local Government (Super-annuation) Act. 1937, and the successful applicant will be required to pass a medical examination. Applications, stating age, past and present appointments, details of experience and qualifica-tions, accompanied by copies of three recent test monials, should be delivered to the undersigned not later than Saturday, the 10th August, 1946. Clerk of the Joint Planning Committee. County Offices, Caernarvon. 10th July, 1946. DEPARTMENT OF HEALTH FOR SCOTLAND.

DEPARTMENT OF HEALTH FOR SCOTLAND. PLANNING OFFICERS.

Applications are invited by the Department of Health for Scotland for appointment as Planning Officers. The appointments will be on a tem-porary basis, but successful candidates will have the opportunity, in due course, to apply for per-manent pensionable posts on the Department's planning staff. The scale of salary to be attached to these permanent posts is at present under review. review.

review. Salary range for the temporary appointments is £600-£800 (men), according to experience and qualifications. A war bonus consolidation allow-ance of approximately £90 per annum is payable in addition. Candidates, who should not be less than 30 years of age, must be members of the Town Planning Institute, and have preferably a basic qualification in Architecture, Engineering or Sur-veving

qualification in Architecture, Engineering of Serving. Headquarters will be Edinburgh. When absent from headquarters on official business, travelling expenses and subsistence allowance in accordance with Treasury regulations will be paid. Applications, giving particulars as to age, pro-fessional qualifications and experience, present employment, etc., should be made in writing to the Establishment Officer, Department of Health for Scotland (Room 31). St. Andrew's House, Edinburgh. 1. Closing date will be 14 days after the date of this advertisement. 554

KENT EDUCATION COMMITTEE.

MEDWAY SCHOOL OF ARTS AND CRAFTS, EASTGATE, ROCHESTER.

DEPARTMENT OF ARCHITECTURE.

Required, in September, full-time LECTURER AND STUDIO MASTER, for Design and Allied

subjects. ALGER, for Design and Allied Applicants should preferably have been trained in a recognized school of architecture and be Associates of the R. I.B.A. Previous teaching ex-perience is desirable, though not essential. Salary, Burnham Technical Scale, with increments for professional and/or teaching experience. Applications should reach the Principal as soon as possible. 609

SOMERSET COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

COUNTY ARCHITECT'S DEPARTMENT. Applications are invited for the following appointments on the unestablished staff in the above-mentioned department:— Class II ARCHITECTURAL ASSISTANT, at a salary within the scale 2310 per annum, by annual increments of £15 to £355 per annum. Class II (a) ARCHITECTURAL ASSISTANT, at a salary within the scale £360 per annum, by annual increments of £15 to £415 per annum. — QUANTITY SURVEYORS, at a salary within the scale £310 per annum, by annual increments of £15 to £415 per annum. — The commencing salaries will be determined by experience and qualifications. War bonus in cordance with the Council's scale to be paid in addition to the above salaries. — The successful candidates will be required to pass a medical examination by the County Medical Officer of Health. — Applications, stating age, training, experience, aufifications, position in regard to Military Service and length of time required to take up service and length of time required to take up aufifications, stating age, training, experience, aufifications, stating age, the county Medical Officer of Health. — Applications, stating age, the sub the county Medical Officer of Health. — Applications, stating age, the sub to take up service and length of time required to take up aufifications, stating age, the sub the ander-signed not later than 3rd August, 1946. — Medical Officer at the sub to take up and the sub solution is the sub to take up and the sub solution is the sub solution is and the sub solution is the sub solution is and the sub solution is the sub solution is and the sub solution is the sub solution is and the sub solution is the sub solution is and the sub solution is the sub solution is and the sub solution is the sub solution is and the sub solution is the sub solution is and the sub solution is the sub solution is and the sub solution is the sub solution is and the sub solution is the sub solution is and the sub solution is the sub solution is and the s

Architectural Appointments Vacant Four lines or under, 5s.; each additional line, 1s. 6d.

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

JUNIOR ASSISTANT, direct from school, required; also Junior Assistant, with about 3 years' tracing and drafting experience; for Architect's office. Write, R. F., 15/17, Tavisok Place, W.C.1.

Flace, W.C.1. 500
 Flace, W.C.1. 500
 FHOP FRONT ARCHITECT (full, part-time or free lance) required by enterprising Multiple Fashion Firm. planning post-war programme of expansion and reconstruction. etc., of new shop fronts. Please write full particulars, the Managing Director. Box 582.
 JUNIOR ASSISTANT (19-21 years) for private practice; housing and industrial surveys, working drawings and specifications. Clark, 44. Gt. Russell Street, W.C.1. Museum 0600. 597
 LADY SHORTHAND TYPIST (Junior) reclark, 44, Gt. Russell Street, W.C.1. MUS 6000. 597

573

Clark, 44, Gt. Russell Street, W.C.1. MUS. 0500. 573 WANTED.-Bxperienced practical Assistant, around 40 years of age, for London Archi-tect's office, with sound knowledge of materials and construction, to take charge of works in progress; duties will include correspondence with anthorities. contractors, quantity surreyors, district surveyors, etc., and general site super-vision, preparation of site, meeting notes and progress reports for Local (Housing) Authority clients; applications are to be in own handwriting, stating age, qualifications, experience, salary re-quired, and date available. Box 506. ARGE ENGINEBRING CO. requires Building Engineer (30-35), with civil engin-cering training, as Assistant to Chief Works Engineer; experience in factory design, mainten-ance, alterations, site surveys and general super-vision; give experience, qualifications, positions held, in chronological order, age, salary required. Box 558.

A ROHITECTURAL ASSISTANT required im-mediately for priority housing. Reply, stating age, experience, salary, etc., to D. C. Denton-Smith, L.R.I.B.A., 40, Regent Street, Cambridge. 56

Box 558.

1 SENIOR and 1 JUNIOR ASSISTANT required for basy practice in East Anglia; state experience and salary required. Box 595. A RCHITECT, Saffolk Coast, requires two Assistants; £250.£400 p.a., according to training and experience. All particulars to Box 596.

Box 5%. SHOPFITTING and Architectural Draughts-man; experienced in construction design, perspectives, specification writing, and esti-mating. Apply Steane's (Bournemouth), Ltd., Bournemouth, stating age, experience, and salary formered 597

JUNIOR required. 3947 JUNIOR ASSISTANT required in busy Country Architect's Office; good draughts-man, knowledge of surveying and levelling; pre-terably able to drive a car. Full particulars of training and salary required to Parkinson & Doe, L./A.B.I.B.A., Montagu House, Huntingdon. 598

L./A.K.I.B.A., Montagu House, Huntingdon. 598 WANTED, for West Dorset seaside practice. Marchitect's Assistant, with good general knowledge; applicant must be able to prepare full working drawings and specifications rapidly from sketch design, with little supervision; single man preferred. Write in first instance, giving full details of experience, when available. and salary required, to Lambert & Oliver, Chartered Architects, 21, West Street, Bridport. 525 STRUCTURAL ENGINEER DESIGNER/ DEMIGHTSMEN required for steelwork and

S TRUCTURAL ENGINEER DESIGNER/ DRAUGHTSMEN required for steelwork and for reinforced concrete structures. Applicants please state qualifications, experience, and salary required, to The Secretary, Ministry of Works, 122, George Street, Edinburgh. 608

LEWISS, LTD., Liverpool, require the services of a first-class Architectural Draughtaman; must be registered, and had experience in Store Planning. Apply to the Store Equipment Con-troller, Lewis's, Ltd., Ranelagh Street, Liverpool.

598 A sitist arge private practice in India; early opportunity of partnership for suitable man; desirable that applicants should be familiar with the design of simple steel and R.C. construction, and should have some knowledge of quantities; salary dependent on qualifications and experience. Rs.1,200 per month (£1,100 per year) for qualified man. Apply C. G. Biomfield, F.R.I.B.A., F.S.I... Statesman House, Calcutta, India. Further information may be obtained from D. A. G. Reid, L.C.C. Brixton School of Building, Ferndale Road, London, S.W.4.

Partnerships Six lines or under, 10s.; each additional line, 1s. 6d.

CONTINENTAL ARCHITECT of standing, ex-perienced this country and abroad, own independent practice since 1924, would like to meet British colleague to discuss collaboration or partnership; studio facilities in own S.W. London house; modern 2-roomed s.-c. flat and garage may be available. Box 606. FULLY qualified Civil and Structural Enginecr desires meet Architect with view to collaboration or partnership. Box 599.

Architectural Appointments Wanted

Advertisements from Architectural Assistants and Students seeking positions in Architects offices will be printed in "The Architects' Journal" free of charge until further notice.

A RCHITECTURAL ASSISTANT (male), 6 years' A RCHITECTURAL ASSISTANT (male), 6 years' thoroughly competent, able to execute working drawings, 1 in. and full size details, sketch plans, etc., also surveying and levelling, supervision of works in progress, and alight knowledge of quantities and specifications, desires -situation with firm which can offer suitable accommoda-tion; anywhere considered; salary moderate. Box 22.

tion; anywhere considered; salary moderate. Box 22. A RCHITECT'S ASSISTANT, with several until end of September; also willing to undertake spare-time work. Box 28. REGISTERED ARCHITECT (31), married, ambitious and energetic, ex-Capt. R.E., awaiting results final R.I.B.A., desires per-manent and progressive post; first-class experi-ence, domestic, industrial, commercial buildings, shops, structural iseel and R.C. work, specifica-tions, quants, surveys, all drawings, accounts, etc.; able to take complete cfarge. Box 24. A RCHITECTURAL DRAUGHTSMAN (26), reactly demobilised, keen student of indus-trial design, 71 years' experience U.K. and abroad, requires progressive appointment; whole or part time; preferably Yorkshire or abroad. Box 25.

Box 25. SENIOR ASSISTANT ARCHITECT, L.R.I.B.A.. 37, desires change to position of permanent nature on the coast; one leading to a partnership preferred; but not essential if good prospects offered; able to take control of jobs, and re-sponsibility and hard work welcomed; wide ex-perience in all types of offices in London and provinces for 21 years; commencing salary, £500 p.a. or mear. Box 31.

TWO ARCHITECTURAL ASSISTANTS require L posts together, preferably West End, London; Inter. Standard experience in working drawings, details, surveys, specifications, general procedure. Box 26.

QUALIFIED SENIOR ASSISTANT, Uni-ence with leading architects, holder of senior appointments with Local Authorities (Housing and Schools) during past two years, desires responsible position in private practice; preferably in London area. Box 29.

Arca. DOX 29. ARCHITECTURAL DRAUGHTSMAN would like work in or near Northumberland; sketch plans, working drawings; a. and F.S. surveys; supervision of work; experience varied, including housing, war damage, conversions, alterations; small salary. Box 30.

Other Appointments Wanted Four lines or under, 2s. 6d.; each additional line, 1s.

REGISTERED ARCHITECT, with 9 pre-war years' varied experience, offers part-time assistance in London or Brighton district. Box 580.

 Box 580.

 PERSPECTIVES in any medium; also Sketch Plans. Box 602.

 POSITION as Works Manager or Agent, on small contracts; speciality: reinforced concrete; 10 years' experience in England, with various contractors and Ministry; 11 years in America and the Colonies; references can be supplied from previous employers. Box 611.

 A RCHITECTURAL ASSISTANT, willing to undertake private work at home; accurate and capable draughtsman; final taken. Box 592.

Property Wanted

WOULD Owner or Trustee or Agent of Free-hold Shop Property let to Substantial or Multiple Firm in Main thoroughfare, be interested to sell direct to Trustees, at good prices? Please write Mr. Mackey, c/o Samson Clarks, 57, Mortimer Street, London, W.1. 593

For Sale

Four lines or under, 55.; each additional line, 18. 6d.

1s. 6d. **E**LECTRICITY FOR COUNTRY HOUSE.— Complete equipment for Sale, including 20 h.p. Oil Engine, Electric Generator and Beoster Set, Switchboard, Battery and Motors, 200 volts supply; in good running order; inspec-tion.—Apply Baily, Grandy & Barrett, Ltd., Electrical Engineers, Cambridge. 687



Competition

Six lines or under 10s.; each additional line. 13. 6d.

FORDINGBRIDGE WAR MEMORIAL GROUNDS.

TARGET £10,000.

COMPETITION.

Entries are invited from HAMPSHIRE EX.SERVICE LANDSCAPE GARDENERS and/or ARCHITECTS of Designs for a Sports and Play-ing Field, incorporating a small Garden of Remembrance, on a site of 104 acres. A PRIZE OF 225 will be awarded to the entrant of the Design accepted by the Committee. Closing date : 31st August, 1946. Write now for full details and plan of site to the Hon. Secretary. Mr. S. W. L. Poole, Lloyds Bank, Limited, Fordingbridge, Hants. 601

Miscellaneous

Four lines or under, 5s.; each additional line, 1s. 6d.

A. J. BINNS, LTD., specialists in the supply and fixing of all types of fencing, tubular guard rail, factory partitions and gates. 53, Gt. Mariborough St., W.1. Gerrard 4223-4224-4225.

F. J. BAYNES, LTD., established over 100 Engineers, 99/107, St. Paul's Road, N.1. Canonbury 2061-3.

FENCING AND GATES of every type, supplied and erected. Specialists in chain link. Boulton & Paul, Limited, Nerwich.

55,000 to 2550,000 INVHSTMENT TRUST wishes to purchase PROPERTY LET to good tenants. Details of Houses, Flais or Shops to John Swait & Sons, Surveyors, The Mall, W.5. EAL. 2866 804

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

A MOUNTS of £25,000 upwards available for Industrial Expansion, also arranged on commercial properties; low interest rates; authentic enquiries invited. Buxton, Ltd., Corporation Loans Brokers, 9, Clements Lane, Lymbard Street, E.C.4. 577

WANTED to purchase, copies or bound volumes of "Architectural Review" and "Architects' Journal" complete from first issues up to date. Box 466.

MONOMARK Service; Permanent London Address; letters redirected; confidential; 5s. p.a.; Royal patronage. Write Monomark BM/MONOGR, W.C.1. 881

SPECIFICATIONS AND SCHEDULES OF QUANTITIES duplicated speedily and efficiently; reasonable charges; write for list. contractors to H.M. Government. Brown's Type-writing Service, Ltd., Helena Street, Burnley, Lancs. Tel.: 2124/5. WANTED.-Complete set of "Typography." Box 487.

Box 487.
 "CAN I HELP YOU!" I have on my staff Architectural and Civil Engineering Draughtsmen, Building, Estimating, Land, Measur-ing and Quantity Surveyors. Write C. F. Rumble, 29/31, Whitehall, S.W.I. Tel.: "Whitehall 8514.
 FREE preliminary advice to Architects by Specialist in R.C. and steelwork construc-tion; complete details, together with supply of steelwork, ready for erection or reinforcement; bent ready to place if desired. Box 600.
 DLANS. Tracings and Drawings from rough

steelwork, ready for erection or reinforcement; bent ready to place if desired. Box 600. PLANS, Tracings and Drawings from rough sketches, Surveys, House Designs; all Architectural work; further particulars upon receipt of details. J. H. Walker, A.N.Inst.E., 104, Battersby Road, Catford, S.E.6. 613 FENCING FOR ALL PURPOSES.—Supplied and erected; established 100 years. Parker, Winder & Achurch, Ltd., 80, Broad Street, Birmingham. 1. DRAWING OFFICE SUPPLIES.—"Classic" And tree-squares, made from well-seasoned Honduras mahogany; 12 in., 38, 9d; 18 in., 58, 12 4 in., 66, 6d; 34 in., 105, 6d; 42 in., 138, 6d; post free). "CLASSIC" SRT-SQUARES, made from stout celluloid; 45 deg.—4 in., 18; 5 in., 18, 2d; 5 in., 18, 6d; 94, 50 deg.—5 in., 18; 6 dir, 18, 3d; 15 in., 48, 3d; 18 in., 38, 9d; 12 in., 38, 3d; 15 in., 38, 3d; 15 in., 38, 9d; 6d deg.—5 in., 18; 6d; 50, 10, 15 in., 48, 3d; 18 in., 38, 6d; 21 in., 28, 10d; 15 in., 48, 3d; 18 in., 38, 6d; 21 in., 28, 10d; 15 in., 48, 3d; 18 in., 38, 6d; 21 in., 28, 10d; 15 in., 48, 3d; 18 in., 38, 6d; 21 in., 28, 10d; 15 in., 48, 3d; 18 in., 38, 6d; 21 in., 28, 10d; 15 in., 48, 3d; 18 in., 38, 6d; 21 in., 28, 10d; 15 in., 48, 3d; 18 in., 38, 6d; 30 BRASS DRAWING PINS, with screwed steel points, bevelled tops, milled edge, packed three dozen to the box; 21 in., 68, 9d; 3 in., 78, 7d; 3 in., 25 in., 26 in., 18, Stobart & Son, 9, Victoria Street, London, SW.1. 900

Street, London, S.W.1. MODELS.—Architectural Scale Models of every description faithfully constructed from plans or pholographs; post war reconstruction, dioramas, structural details. Randall Page, 11b. Royal Terrace, Southend-on-Sea, Essex. 521 RAPID WRITING for busy people. Send 3d. (S30), 92, Gt. Russell Street, W.C.1. 666

E

Four lin

B.I.B Mr. Courses 115, Gow R.I.

F.B.I.B N.W.1.

Wm

(of Bu

HOM

N

· FR

C

FI

PI

CARE !

UN

THE ARCHITECTS' JOURNAL for July 25, 1946 [lix



line,

IRE

d/or lay-of

sign

e to byds 601

line,

ply

ula

53, 1226.

100

N.1.

ype,

0015, 804

iers

for

B. 9, 577

and and

don 55. ark 881

OF

and list.

ype-ley, 951

hy."

staff ring sur-able, 4.

by

rucent;

ough

all 104, 613 613

lied

ker, reet.

sic " oned 5s.; (all 'rom 2d.;

in.

in. in. in., elled oox : in., oria 950

very lans tion,

11b 521 3d. and 666

Alphabetical Index to Advertisers

Adams, Robert (Victor), Ltd. rvii Foyles Aidas Electric, Ltd. rvii General Electric Co., Ltd. Allminium Development Assoc. rxii Gilksten Doors, Ltd. Anderson, C. F. & Sons, Ltd. vi Gray, J. W., & Son, Ltd. Anderson, D., & Sons, Ltd. vi Graenwool's & Airvac Ventilating Co., Ltd. Architects' Benevolent Society xiviii Griffiths Bros. & Co., London, Ltd. Ashey Accessories, Ltd. xiviii Griffiths Bros. & Co., Ltd. Baitwin, Walk Co., Ltd. tiviii Hall, J, & E., Ltd. Beiling & Co., Ltd. tiviiii Hall, J, & E., Ltd. Beiling & Co., Ltd. tiviiii Hall, J, & E., Ltd. Beiling & Co., Ltd. tiviiii Hall, J, & E., Ltd. Beiling & Co., Ltd. tiviiii Hannond & Con, Ltd. Beiling & Co., Ltd. tiviiii Hannond & Con, Ltd. British Electrical Development Assoc. xii Hobdel Engineering Co., Ltd. Broidscast Relay Service, Ltd. xii Hobdel Engineering Co., Ltd. Broidscast Relay Service, Ltd. xii Hobdel Engineering Co., Ltd. Brows, Donald (Brownal), Ltd. International Correspondence Schools		PAGE	
Alluminium Development Assoc. xix Gilksten Doors, Ltd. Anderson, C. F. & Sons, Ltd. vi Greenwood's & Airvac Ventilating Co., Anderson, D., & Sons, Ltd. vi Greenwood's & Airvac Ventilating Co., Architects' Benevolent Society xiviii Ltd. Architects' Benevolent Society xiviii Ltd. Ashely Accessories, Ltd. xiviii Hall, J, & E., Ltd. Balawin, Son & Co., Ltd. iii Hall, J, & E., Ltd. Bandster Walton & Co., Ltd. iii Harrey, G. & Co., Ltd. Benhaw & Sons, Ltd. iiii Harrey, G. & Co., Ltd. Benhaw & Sons, Ltd. iiii Harrey, G. & Co., Ltd. Benke & D., The, & Sons, Ltd. iiii Harrey, G. & Co., Ltd. British Electrical Engineers, Ltd. iii Holden & Brooke, Ltd. British Electrical Engineers, C. Ltd. iii Holden & Brooke, Ltd. Browa, Donald (Brownal), Ltd. iii Holden & Brooke, Ltd. Browe, Nonald (Brownal), Ltd. iii International Correspondence Schools. Browe, White & Co., Ltd. iii Leak Boilers & Radiators, Ltd. Browe, White & Co., Ltd. iiiiiiii Leak Boilers & Rooler, Lt	Adams, Robert (Victor), Ltd.		Foyles
Anderson, C. F., & Sons, Ltd. vi Gitksten Doors, Ltd. Anderson, C. F., & Sons, Ltd. vi Great, J. W., & Son, Ltd. Architects' Benerolent Society xivii Greenwood's & Airvac Ventilating Co., Ltd. Ascot Gas Water Heaters, Ltd. xiviii Grifths Bros, & Co., Ltd. Grifths Bros, & Co., Ltd. Baldwin, Son & Co., Ltd. xiviii Hall, J. & E., Ltd. Hall, Mathew, & Co., Ltd. Benling Co., Ltd. 1 Hall, Mathew, & Co., Ltd. Hall, Mathew, & Co., Ltd. Benlaw & Cons, Ltd. 1 Hall, Robert H., & Co. (Kenf), Ltd. Hall, Mathew, & Co., Ltd. Buck & Decker, Ltd. 1 Hall Mathew, & Co., Ltd. Hall, Mathew, & Co., Ltd. Brathwaite & Co., Engineers, Ltd. 1 Hills Patent Glazing Co., Ltd. Hall, Bobel Engineering Co., Ltd. British Gas Council xiv Holden & Brookse, Ltd. Hall, Mathew, & Co., Ltd. Hall, Mathew, & Co., Ltd. Browan, Donaid (Brownal), Ltd. 1 Huntley & Sparks, Ltd. Hantley & Sparks, Ltd. Hantley & Sparks, Ltd. Bryt, Vhit & C., Ltd. 1 Huntley & Sparks, Ltd. Hantley & Sparks, Ltd. Hantley & Sparks, Ltd. Browan, Donaid (Brownal), Ltd. 1 Huntley & Sparks, Lt	Aidas Electric, Ltd	xvii	General Electric Co., Ltd.
Anderson, C. F., & Sons, Ltd. vi Graz, J. W., & Son, Ltd. Architects' Benerolent Society xiviii Ltd. Architects' Benerolent Society xiviii Ltd. Architects' Benerolent Society xiviii Greenwood's & Airvac Ventilating Co., Ashely Accessories, Ltd. mithits Bros. & Co., Ltd. Griffiths Bros. & Co., Ltd. Banister Walton & Co., Ltd. 1 Hall, Matthew, & Co., Ltd. Benling & Co., Ltd. 1 Hall, Matthew, & Co., Ltd. Benkaw & Sons, Ltd. 1 Harvey, G. A. & Co. (London), Ltd. Black & Decker, Ltd. 1 Harvey, G. A. & Co., (London), Ltd. Briggs, William, & Sons, Ltd. 1 Hilton, James, & Son, Ltd. British Electrical Development Assoc. xii Hobdell Engineering Co., Ltd. British Gas Council xivi Holloway, W. F., & Brother, Ltd. Brown, Donald (Brownall), Ltd. Huntery & Sparks, Ltd. International Correspondence Schools Garilisie Electrical Mirg, Co., Ltd. 2 Johnskon Bros. (Contractors), Ltd. Bull Motors (E. R. & F. Turner), Ltd. Xiviii Laterational Correspondence Schools Garlisle Electrical Mirg, Co., Ltd. 2 Johnskon Bros. (Contractors), L	Allied Ironfounders, Ltd.	XXXVIII	Gillett & Johnston, Ltd
Anderson, C. F., & Sons, Ltd. vi Graz, J. W., & Son, Ltd. Architects' Benerolent Society xiviii Ltd. Architects' Benerolent Society xiviii Ltd. Architects' Benerolent Society xiviii Greenwood's & Airvac Ventilating Co., Ashely Accessories, Ltd. mithits Bros. & Co., Ltd. Griffiths Bros. & Co., Ltd. Banister Walton & Co., Ltd. 1 Hall, Matthew, & Co., Ltd. Benling & Co., Ltd. 1 Hall, Matthew, & Co., Ltd. Benkaw & Sons, Ltd. 1 Harvey, G. A. & Co. (London), Ltd. Black & Decker, Ltd. 1 Harvey, G. A. & Co., (London), Ltd. Briggs, William, & Sons, Ltd. 1 Hilton, James, & Son, Ltd. British Electrical Development Assoc. xii Hobdell Engineering Co., Ltd. British Gas Council xivi Holloway, W. F., & Brother, Ltd. Brown, Donald (Brownall), Ltd. Huntery & Sparks, Ltd. International Correspondence Schools Garilisie Electrical Mirg, Co., Ltd. 2 Johnskon Bros. (Contractors), Ltd. Bull Motors (E. R. & F. Turner), Ltd. Xiviii Laterational Correspondence Schools Garlisle Electrical Mirg, Co., Ltd. 2 Johnskon Bros. (Contractors), L	Aluminium Development Assoc.	xxi	Gliksten Doors, Ltd.
Anderson, D., & Sons, Ltd. Trial Greenwood's & Airvac Ventilating Co., Ltd. Architects' Benerolent Society Xiviii Griffiths Bros. & Co., London, Ltd. Ascot Gas Water Heaters, Ltd. Xiviii Griffiths Bros. & Co., Ltd. Siviii Baldwin, Son & Co., Ltd. Xiviii Hall, J. & E., Ltd. Hall, Matthew, & Co., Ltd. Benister Walton & Co., Ltd. Iniii Hall, Matthew, & Co., Ltd. Hall, Matthew, & Co., Ltd. Benham & Sons, Ltd. Iniii Hanmond & Champness, Ltd. Hall, Matthew, & Co., Ltd. Biack & Deoker, Ltd. Iniii Hanwood's & Airvac Ventillating Co., Ltd. Hall, Matthew, & Co., Ltd. Brids Beetrical Development Assoc. Xir Hellwell & Co., Ltd. Hills Patent Glazing Co., Ltd. Bruth Electrical Development Assoc. Xir Holden & Brookee, Ltd. Sir Brounsgrove Guild, Ltd. Xir Holden & Brookee, Ltd. Hantley & Sparks, Ltd. Bruth Bectrical Degimeering Co., Ltd. In untey & Sparks, Ltd. Hantley & Sparks, Ltd. Scattal. Bruth Weiled Core Ltd. Xir Holden & Rookee, Ltd. Hantley & Sparks, Ltd. Scattal. Bruth Bectrical Degimeering Co., Ltd. Xir Holden & Rookee, Ltd. Sc		vi	Grav. J. W., & Son, Ltd.
Architects' Benevolent Society xiviii Ltd. Ardor Insulation Co., Ltd. Griffiths Bros. & Co., London, Ltd. Ashley Accessories, Ltd. Xiviii Griffiths Bros. & Co., Ltd. Banister Waiton & Co., Ltd. Hall, Matthew, & Co., Ltd. Hall, Matthew, & Co., Ltd. Benling & Co., Ltd. Hiii Harvey, G. A., & Co., (London), Ltd. Benling & Co., Ltd. Hiii Harvey, G. A., & Co., (London), Ltd. Benker, Ltd. Hiii Henderson, P. C., Ltd. Hiii Henderson, P. C., Ltd. Briggs, William, & Sons, Ltd. Hii Henderson, P. C., Ltd. Hiitsh Electrical Development Assoc. British Electrical Development Assoc. Xii Holdell Engineering Co., Ltd. Broudcast Relay Service, Ltd. Xiv Holdell Science, Ltd. Brous Donald (Brownall), Ltd. Huntley & Sparks, Ltd. Huntley & Sparks, Ltd. Browns, Donald (Brownall), Ltd. Huntley & Son, Ltd. Huntley & Sparks, Ltd. Bull Motors (E. R. & F. Turner), Ltd. Xii Hotonal Correspondence Schools Carlisle Electrical Mirg, Co., Ltd. Johnston Bros. (Contractors), Ltd. Carlisle Electrical Storage Co., Ltd. Johnston Bros. (Contractors), Ltd. Carlisle, Electrical Storage Co., Ltd. Kiii Lead Industries Developme			Greenwood's & Airvac Ventilating Co.
Ardor Insulation Co., Ltd	Architects' Benevolent Society	vlviii	
Ascot Gas Water Heaters, Ltd. international constructs, Ltd. Balakien, Son & Co., Ltd. international constructs, Ltd. Banister Walton & Co., Ltd. international constructs, Ltd. Belling & Co., Ltd. international constructs, Ltd. Benker Walton & Co., Ltd. international constructs, Ltd. Benker Walton & Sons, Ltd. international constructs, Ltd. Biack & Decker, Ltd. international constructs, Ltd. Biack & Decker, Ltd. international constructs, Ltd. Briges, William, & Sons, Ltd. international constructs, Ltd. British Electrical Development Assoc. xli British Electrical Engineering Co., Ltd. international correspondence, Ltd. Browan, Donald (Brownall), Ltd. international correspondence Schools Bryree, White & Co., Ltd. international correspondence Schools Baryce, White & Co., Ltd. international correspondence Schools Carlie Electrical Mrg. Co., Ltd.			Griffithe Bros & Co. London Ltd
Ashley Accessories, Ltd. xiviii Hall, X. & E. Ltd. Baldwin, Son & Co., Ltd. 1 Hall, Robert H., & Co., Ltd. Benling Co., Ltd.	Agoot Gas Water Heators Ltd		Gynroe Products Itd
Baldwin, Son & Co., Ltd. 1 Hall, Matthew, & Co., Ltd. Banister Walton & Co., Ltd. Hall, Mobert H., & Co. (Kent), Ltd Benling & Co., Ltd. Hall, Mobert H., & Co. (Kent), Ltd Benling & Co., Ltd. Hall, Mobert H., & Co. (Kent), Ltd Binek burn, Thomas, & Sons, Ltd. Henderson, P. C., Ltd. Briggs, William, & Sons, Ltd. Hill thon, James, & Son (Ltd	Ashlay Accessories 1 td	** 1 *** 1 1 1	Hall T & E Itd
Banister Walton & Co., Ltd.			
Belling & Co., Ltd. Iiii Benham & Sons, Ltd. Iiii Black & Decker, Ltd. Iiii Black Buen, Thomas, & Sons, Ltd. Iiii Briggs, William, & Sons, Ltd. Iiii British Electrical Development Assoc. Xii British Electrical Development Assoc. Xiii British Gas Council Xiii Broadcast Relay Service, Ltd. Xiii Bromas Council Xiii Bronoke, Co., Ltd. Iiii Bronoke, Sons, Ltd. Xiii Bronoke, Sons, Ltd. Xiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	Daniatan Walton & Co. Itd.	1	Hall, Matchew, & Co., Ltu
Benhaim & Sons, Ltd. — Harrey, G. A., & Co. (London), Ltd. Black & Deoker, Ltd. … Heiliweil & Co., Ltd. … Braithwaife & Co., Engineers, Ltd. … Hills Patent Glazing Co., Ltd. … British Electrical Development Assoc. xliv Holdenl Engineering Co., Ltd. … Bronsgrove Guild, Ltd. … Xxxvi Holden & Brooke, Ltd. … Brown, Donald (Brownall), Ltd. … Ixi Houton Manufacturing Co., Ltd. … Bryce, White & Co., Ltd. … … Imperial Chemical Industries, Ltd. … Bryce, White & Co., Ltd. … … International Correspondence Schools … Carliel Electrical Mrg. Co., Ltd. … … Jenkins, Robert, & Co., Ltd. … Catalie, R., Ltd. … … Jenkins, Robert, & Co., Ltd. … … Catalie, R., Ltd. … … Jenkinson (Tipton), Ltd. … … Catalie, R., Ltd. … … … Jenkinson (Tipton), Ltd. … Catalie, R., Ltd. … … … … Jenkinson (Tipton), Ltd. … Catalie, R., Ltd. </td <td>Danister walton & Co., Ltd.</td> <td>*</td> <td>Han, Robert H., & Co. (Kent), Ltd</td>	Danister walton & Co., Ltd.	*	Han, Robert H., & Co. (Kent), Ltd
Black & Decker, Ltd. Helliwell & Co., Ltd. Black burn, Thomas, & Sons, Ltd. lix Briggs, William, & Sons, Ltd. lix British Electrical Development Assoc. xli British Electrical Development Assoc. xli British Electrical Development Assoc. xli Broadcast Relay Service, Ltd. xli Bromsprove Guild, Ltd. xli Brown, Donald (Brownall), Ltd. lia Brown, Donald (Brownall), Ltd. lia Brush Electrical Mrg. Co., Ltd. xli Brown, Donald (Brownall), Ltd. lia Bulk Motors (E. R. & F. Turner), Ltd. xli Bulk Motors (E. R., Ltd. xli Carliale Electrical Mrg. Co., Ltd. xx Carliale Electrical Mrg. Co., Ltd. xx Carliale, Ltd. xxx Challin, Ltd. xxxx	Being & Co., Ltd.	hn	
Blackburn, Thomas, & Sons, Ltd. xiri Henderson, P. C., Ltd. Braithwaite & Co., Engineers, Ltd. ii Hills Patent Glazing Co., Ltd. British Gas Council xiii Hilton, James, & Son (Leigh), Ltd. British Gas Council xiii Holdenl Engineering Co., Ltd. Broadsast Relay Service, Ltd. xiiii Holdenl Engineering Co., Ltd. Broadsast Relay Service, Ltd. xiiii Houtel W & Sparks, Ltd. Brown, Donald (Brownall), Ltd. International Correspondence Schools. Bryze, White & Co., Ltd. International Correspondence Schools. Carlisle Electrical Mfrg. Co., Ltd.	Bennam & Sons, Ltd.		Harvey, G. A., & Co. (London), Ltd
Braithwaite & Co., Engineers, Ltd. lix Hills Patent Giazing Co., Ltd. Britgs, William, & Sons, Ltd. ii Hills On, James, & Son (Leigh), Ltd. British Electrical Development Assec. xii Hobdell Engineering Co., Ltd. Brondcast Relay Service, Ltd. xxivi Holloway, W. F. & Brother, Ltd. Bronsprove Guild, Ltd. xxivi Holton Manufacturing Co., Ltd. Brown, Donald (Brownall), Ltd. Lideal Boilers & Radiators, Ltd. Bryce, White & Co., Ltd. merinical Industries, Ltd. Bull Motors (E. R. & F. Turner), Ltd. xi Garliale Electrical Mfrg. Co., Ltd. Jenkins, Robert, & Co., Ltd. Carliale Electrical Mfrg. Co., Ltd. yohnston Bross. (Contractors), Ltd. Carliale Electrical Storage Co., Ltd. Johnston Bross. (Contractors), Ltd. Charle, R., Ltd. xxxi Laing John, & Son, Ltd. Chorde Eros, Ltd. xxxi Laing John, & Son, Ltd. Clarke & Vigilant. Iix Limmer & Trinidad Lake Asphalt Co. Courteney Pope, Ltd. xxvi Magnet Joinery Co., Ltd. Courderey Pope, Ltd. xxvi Magnet Joinery Co., Ltd. Durako Rever, Ltd. xxvi Magnet Joinery Co., Ltd. Electro	Black & Decker, Ltd.		Helliwell & Co., Ltd.
Briggs, William, & Sons, Ltd. ii Hilton, James, & Son (Leigh), Ltd. British Gas Council xliv Holden & Brooke, Ltd. Broadcast Relay Service, Ltd. xiv Holden & Brooke, Ltd. Broadcast Relay Service, Ltd. xxxvi Holden & Brooke, Ltd. Broadcast Relay Service, Ltd. xxxvi Holden & Brooke, Ltd. Broadcast Relay Service, Ltd. Ixi Horton Manufacturing Co., Ltd. Brown, Donald (Brownall), Ltd. International Correspondence Schools. Bryze, White & Co., Ltd. International Correspondence Schools. Carliele Electrical Mfrg. Co., Ltd.			Henderson, P. C., Ltd.
British Electrical Development Assoc. xii Hobdell Engineering Co., Ltd. Broadcast Relay Service, Ltd. xxxvi Holloway, W. F. & Brohker, Ltd. Broms Electrical Engineering Co., Ltd. Ixi Horton Manufacturing Co., Ltd. Brown Donald (Brownall), Ltd. Ideal Boilers & Radiators, Ltd. Bryce, White & Co., Ltd. International Correspondence Schools Garlisle Electrical Mfrg. Co., Ltd. International Correspondence Schools Carlisle Electrical Mfrg. Co., Ltd. Johnston Bros. (Contractors), Ltd. Carliale Electrical Mfrg. Co., Ltd. Johnston Bros. (Contractors), Ltd. Carliale Electrical Storage Co., Ltd. Johnston Bros. (Contractors), Ltd. Chalte, R., Ltd. Xxx Charle & Feon, Ltd. Iii Clarke & Vigilant. Iii Cortital, Richd., & Co., Ltd. Xxv Courderope, Ltd. Xii Durako multicol, Ltd. Xviii Durako multicol, Ltd. Xviii Durako multicol, Ltd. Xviii Durako multicol, Ltd. Xviii Magnet Joinery Co., Ltd. Xviii Durako & Sen, Ltd. Xviii Durako & Son, Ltd. Xviii <td< td=""><td></td><td></td><td></td></td<>			
British Gas Council xiiv Holden & Brooke, Ltd. Bromsgrove Guild, Ltd. ixi Hoton Manifacturing Co., Ltd. Brush Electrical Engineering Co., Ltd. ixi Horton Manifacturing Co., Ltd. Bryze, White & Co., Ltd. international Correspondence Schools Garlisle Electrical Mrg. Co., Ltd. international Correspondence Schools Carlisle Electrical Mrg. Co., Ltd. international Correspondence Schools Carlisle Electrical Mrg. Co., Ltd. jenkins, Robert, & Co., Ltd. Catalis, Ltd. international Correspondence Schools Catalis, R. Ltd. international Correspondence Schools Catalis, K. Katter Plastics, Ltd. jenkins, Robert, & Co., Ltd. Catalis, K. Fenn, Ltd. ixi Clarks & Fenn, Ltd. ixi Clarks & Fenn, Ltd. ixi Constructors, Ltd. ixi Constructors, Ltd. ixi Constructors, Ltd. xxxi Constructors, Ltd. xxxi Malinson, Willam, & Sons, Ltd. ixi Durhon Rubber Co., Ltd. xxxi Edgar, Wm., & Son, Ltd. ixi Edgar, Wm., & Son, Ltd. ixi Edgar, Wm., & Son, Ltd. <			Hilton, James, & Son (Leigh), Ltd
British Gas Council xiiv Holden & Brooke, Ltd. Bromsgrove Guild, Ltd. ixi Hoton Manifacturing Co., Ltd. Brush Electrical Engineering Co., Ltd. ixi Horton Manifacturing Co., Ltd. Bryze, White & Co., Ltd. international Correspondence Schools Garlisle Electrical Mrg. Co., Ltd. international Correspondence Schools Carlisle Electrical Mrg. Co., Ltd. international Correspondence Schools Carlisle Electrical Mrg. Co., Ltd. jenkins, Robert, & Co., Ltd. Catalis, Ltd. international Correspondence Schools Catalis, R. Ltd. international Correspondence Schools Catalis, K. Katter Plastics, Ltd. jenkins, Robert, & Co., Ltd. Catalis, K. Fenn, Ltd. ixi Clarks & Fenn, Ltd. ixi Clarks & Fenn, Ltd. ixi Constructors, Ltd. ixi Constructors, Ltd. ixi Constructors, Ltd. xxxi Constructors, Ltd. xxxi Malinson, Willam, & Sons, Ltd. ixi Durhon Rubber Co., Ltd. xxxi Edgar, Wm., & Son, Ltd. ixi Edgar, Wm., & Son, Ltd. ixi Edgar, Wm., & Son, Ltd. <	British Electrical Development Assoc	xli	Hobdell Engineering Co., Ltd.
Broadcast Relay Service, Ltd. xxxvi Holloway, W. F. & Brother, Ltd. Broush Electrical Engineering Co., Ltd. ix Horton Manufacturing Co., Ltd. Brown, Donald (Brownall), Ltd. it Horton Manufacturing Co., Ltd. Bryce, White & Co., Ltd. it International Correspondence Schools Bull Motors (E. R. & F. Turner), Ltd. international Correspondence Schools Carrier Engineering Co., Ltd. international Correspondence Schools Cartiele Electrical Mfrg. Co., Ltd. international Correspondence Schools Catalin, Ltd. international Correspondence Schools Catalin, Ltd. international Correspondence Schools Cattle, R., Ltd. international Correspondence Schools Cattle, R., Ltd. ix Chorde Electrical Storage Co., Ltd. it Calarke & Vigilant. it Coolt Ventilation, Ltd. it Courtney Pope, Ltd. it Courtney Pope, Ltd. xxxi Courtney Pope, Ltd. xxxi Currier Proof Doors, 1930, Ltd. xxxi Dunlop Rubber Co., Ltd. xxii Edgar, Wm, & Son, Ltd. it Eulectrolux, Ltd. xiii <	British Gas Council	xliv	Holden & Brooke, Ltd.
Bromsgrove Guild, Ltd. Ixi Horton Manufacturing Co., Ltd. Brown, Donald (Brownall), Ltd. Huntley & Sparks, Ltd. Huntley & Sparks, Ltd. Bryce, White & Co., Ltd. Imperial Chemical Industries, Ltd. Imperial Chemical Industries, Ltd. Bull Motors (E. R. & F. Turner), Ltd xl International Correspondence Schools. Carlisle Electrical Mfrg. Co., Ltd.	Broadcast Relay Service, Ltd.	xxxvi	Holloway, W. F., & Brother, Ltd.
Brush Electrical Engineering Co., Ltd. — Huntley & Sparks, Ltd. Brown, Donald (Brownall), Ltd. — Ideal Boilers & Radiators, Ltd. Bull Motors (E, R. & F. Turner), Ltd xi International Correspondence Schools. Carlisle Electrical Mfrg. Co., Ltd.		lxi	Horton Manufacturing Co., Ltd.
Brown, Donald (Brownall), Ltd. — Ideal Boilers' & Radiators, Ltd. Bryce, White & Co., Ltd.			Huntley & Sparks, Ltd.
Bryce, White & Co., Ltd.			Ideal Boilers & Radiators, Ltd.
Bull Motors (E. R. & F. Turner), Ltd			Imperial Chemical Industries Ltd
Carlisle Electrical Mfrg. Co., Ltd.	Bull Motors (E. B. & F. Turner) Ltd	vl	International Correspondence Schools
Carlier Engineering Co., Ltd.	Carligle Electrical Mfrz Co. Ltd		
Catalin, Ltd. xx Kautex Plastics, Ltd. Cattle, R., Ltd. xxxii King, George W., Ltd. Chance Bros., Ltd. xxxiii Laing, John, & Son, Ltd. Charle Electrical Storage Co., Ltd. iii Lever, James, & Son, Ltd. Clark & Fenn, Ltd. iii Lever, James, & Son, Ltd. Colt Yentilation, Ltd. iii Lever, James, & Son, Ltd. Constructore, Ltd. iii Lockerbie & Wilkinson (Tipton), Ltd. Contractore, Ltd. xiii Lunn, Sir Henry, Ltd. Ourlog Fubber Co., Ltd. xxiii Magnet Joinery Co., Ltd. Duralop Rubber Co., Ltd. xxiii Mallinson, William, & Sons, Ltd. Edgar, Wm, & Son, Ltd. xiii Macaret Joinery Co., Ltd. Edgar, Wm, & Son, Ltd. xiii Midalad Electric Mrg. Co., Ltd. Edgar, Wm, & Son, Ltd. xiii Midland Woodworking Co., Ltd. Emplies Electric Co., Ltd. xiii Midland Woodworking Co., Ltd. Emplies I Solnery Manufacturers Assoc. xxiv Moris Singer Co. Explish Electric Co., Ltd. xiii Ministry of Labour & National Service. English Joinery Manufacturers Assoc. xxiv Moris Singer Co., Ltd. <td>Carrier Engineering Co. 1td</td> <td></td> <td></td>	Carrier Engineering Co. 1td		
Cattle, R., Ltd. xxx King, George W., Ltd. Chance Bros., Ltd. xxxii Laing, John, & Son, Ltd. Clark & Fenn, Ltd. iii Lead Industries Development Connell Clark & Fenn, Ltd. iii Lever, James, & Son, Itd. Constructors, Ltd. iii Lorderbie & Wilkinson (Tipton), Ltd. Constructors, Ltd. iii Lorderbie & Wilkinson (Tipton), Ltd. Constructors, Ltd. xxviii Lunn, Sir Henry, Ltd. Dreadnought Fireproof Doors, 1930, Ltd. willianson, Willam, & Sons, Ltd. Durhon Rinber Co., Ltd. xxiii Eagle Pencil Co., Ltd. xxiii Edgar, Wm, & Son, Ltd. 1 Electrolux, Ltd. xiii Emplish Electric Co., Ltd. xiii Emplish Electric Co., Ltd. xiii English Electric Co., Ltd. xiii English Electric Co., Ltd. xiii Milles Scaffoid Co., Ltd. xiii Ministry of Labour & National Service. xiii English Electric Co., Ltd. xiii Fordham Pressings, Ltd. iii Fordham Pressings, Ltd. iii Fordham Pressings, Ltd. i	Catalia Ltd		
Chance Bros., Ltd. xxxii Laing, John, & Son, Ltd. Chark & Fenn, Ltd. Iiii Lever, James, & Son, Ltd. Clark & Vigilant. iii Lever, James, & Son, Ltd. Constructors, Ltd. Iii Lever, James, & Son, Ltd. Constructors, Ltd. iii Lever, James, & Son, Ltd. Constructors, Ltd. iii Lockerbie & Wikinson (Tipton), Ltd. Constructors, Ltd. xxii Lunders, Ltd. Contral, Richd, & Co., Ltd. xxii Magnet Joinery Co., Ltd. Duralop Rubber Co., Ltd. xxii Mallineon, William, & Sons, Ltd. Buge Penell Co., Ltd. xxii Mallineon, William, & Sons, Ltd. Edgar, Wm, & Son, Ltd. xiii Middand Electric Mfrg. Co., Ltd. Empire Tea Bureau. xiii Midland Woodworking Co., Ltd. Empires Tea Bureau. xxiv Millis Scaffold Co., Ltd. English Electric Co., Ltd. xxiv Ministry of Labour & National Service. English Joinery Manufacturers Assoc. xxiv Mortis Singer Co., Ltd. Fordham Pressings, Ltd. lii Noves wum, H., Sons & Co., Ltd. Fordham Pressings, Ltd. lii Oliver, Wm, & Sons, Ltd. <t< td=""><td></td><td></td><td></td></t<>			
Chloride Electrical Storage Co., Ltd. Iiii Lead Industries Development Council Clarke & Yigilant. Iii Lever, James, & Son, Ltd. Colt Ventilation, Ltd. Iii Lordt adders, Ltd. Constructors, Ltd. Iii Lordt adders, Ltd. Constructors, Ltd. Xxv Lordt Ladders, Ltd. Courtney Pope, Ltd. Xxviii Lunn, Sir Henry, Ltd. Duradon muther Fileproof Doors, 1930, Ltd. Magnet Joinery Co., Ltd. Magnet Joinery Co., Ltd. Durhop Rubber Co., Ltd. Xxxiv Mallinson, Willam, & Sons, Ltd. Magnet Joinery Co., Ltd. Edgar, Wm., & Son, Ltd. Xxxiv Mather Mindow Information Bureau 1 Electrolux, Ltd. Xiii Midland Electric Mfrg. Co., Ltd. 1 Emplish Electric Co., Ltd. Xiii Midland Woodworking Co., Ltd. 1 Emplish Electric Co., Ltd. Xiii Mille Scaffold Co., Ltd. 1 English Electric Co., Ltd. Xiii Ministry of Labour & National Service. English Electric Co., Ltd. Xiii Ministry of Labour & National Service. English Johnery Manufacturers Assoc. Xiii Morgrave & Co., Ltd. For Appointments (Wanted or Vacant), Co	Clattle, R., Ltd.		
Clark & Fenn, Ltd. ii Lever, James, & Son, Ltd. Clark & Vigilant. iii Lockerbie & Wikinson (Tipton), Ltd. Constructors, Ltd. iii Lockerbie & Wikinson (Tipton), Ltd. Constructors, Ltd. xxiv Lotdeders, Ltd. Crittall, Richd, & Co., Ltd. xxiv Magnet Joinery Co., Ltd. Duralop Rubber Co., Ltd. xxiv Mallinson, William, & Sons, Ltd. Durlop Rubber Co., Ltd. xxiv Mallinson, William, & Sons, Ltd. Edgar, Wm, & Son, Ltd. xiii Maclarthy, M., & Sons, Ltd. Edgar, Wm, & Son, Ltd. xiii Midiand Electric Mrg. Co., Ltd. Empire Tea Bureau. xiii Midiand Woodworking Co., Ltd. Empire Tea Bureau. xxiv Mille Scaffold Co., Ltd. English Electric Co., Ltd. xxiv Mortis Singer Co. Evertaut, Ltd. will Norse Singer Co., Ltd. English Joinery Manufacturers Assoc. xxiv Mortis Singer Co., Ltd. Fisher & Ludlow, Ltd. iii Nowsum, H., Sons & Co., Ltd. Fordham Pressings, Ltd. iii Oliver, Wm, & Sons, Ltd. For Appointments (Wanted or Vacant), Competitions, Open, Drawi For Appointments (Wanted or Vacant), C	Chance Bros., Ltg.		
Clarke & Vigilant. lix Limmer & Trinidad Lake Asphalt Co Colt Ventilation, Ltd. iii Lockerbie & Wilkinson (Tipton), Ltd. Constructors, Ltd. xxv Loft Ladders, Ltd. Courtney Pope, Ltd. xviii Lunn, Sir Henry, Ltd. Dreadnought Fireproof Doors, 1930, Ltd. writii Magnet Joinery Co., Ltd. Durhop Rubber Co., Ltd. xxiii Malinson, Willam, & Sons, Ltd. Eagle Pencil Co., Ltd. xxiii Market Joinery Co., Ltd. Edgar, Wm., & Son, Ltd. iii Micland Electric Mfrg. Co., Ltd. Electrolux, Ltd. xiii Midland Woodworking Co., Ltd. Emplish Electric Co., Ltd. xiii Mille Scaffold Co., Ltd. English Electric Co., Ltd. xiii Milles Scaffold Co., Ltd. English Electric Co., Ltd. xiii Milles Scaffold Co., Ltd. English Joinery Manufacturers Assoc. xiii Morgrave & Co., Ltd. Fisher & Ludlow, Ltd. iii Nobles & Hoare, Ltd. Floor Renovations, Ltd. lii Oliver, Wm., & Sons, Ltd. Fordham Pressings, Ltd. lii Paragon Glazing Co., Ltd. For AppoIntments (Wanted or Vacant), Competitions, Open, Drawi Sone, Lt			
Colt Yentilation, Ltd. iii Lockerble & Wilkinson (Tipton), Ltd. Constructors, Ltd. xxiv Lott Ladders, Ltd. Crittall, Richd, & Co., Ltd. xviii Lunn, Sir Henry, Ltd. Duralop Rubber Co., Ltd. xxiv Malinson, William, & Sons, Ltd. Durlop Rubber Co., Ltd. xxiv Malinson, William, & Sons, Ltd. Edgar, Wm, & Son, Ltd. xxiv Macley Tile Co., Ltd. Edgar, Wm, & Son, Ltd. 1 McCarthy, M., & Sons, Ltd. Electrolux, Ltd. 1 McCarthy, M., & Sons, Ltd. Empire Tea Bureau. xiii Midland Electric Mrg. Co., Ltd. English Electric Co., Ltd. xxiv Mille Scaffold Co., Ltd. English Joinery Manufacturers Assoc. xxiv Mortis Singer Co. Evertaut, Ltd. Newsum, H., Sons & Co., Ltd. Fisher & Ludlow, Ltd. 1 Nobles & Hoare, Ltd. Fordham Pressings, Ltd. 1 Paragon Glazing Co., Ltd. For Appointments (Wanted or Vacant), Competitions, Open, Drawi For Appointments (Wanted or Vacant), Competitions, Open, Drawi			
Constructors, Ltd. xxv Loft Ladders, Ltd. Courtney Pope, Ltd.	Olarke & vignant		Limmer & Trinidad Lake Asphalt Co
Courtney Pope, Ltd.			
Crittall, Richd., & Co., Ltd. xviii Lunn, Sir Henry, Ltd. Dreadnought Fireproof Doors, 1930, Ltd. Magnet Joinery Co., Ltd. Magnet Joinery Co., Ltd. Durhop Rubber Co., Ltd. xxxiv Mallinson, William, & Sons, Ltd. Edgar, Wm., & Son, Ltd. i McCarthy, M., & Sons, Ltd. Edgar, Wm., & Son, Ltd. iii Midland Electric Mfrg. Co., Ltd. Ellison, George, Ltd. xiii Midland Woodworking Co., Ltd. Empire Tea Bureau. iii Mille Scaffold Co., Ltd. English Electric Co., Ltd. xiii Milles Scaffold Co., Ltd. English Electric Co., Ltd. xxiiv Morgare & Co., Ltd. Ferguson, Edward, & Co. (London), Ltd. woils Singer Co. Nowswum, H., Sons & Co., Ltd. Floor Renovations, Ltd. iii Nobles & Hoare, Ltd. Nowsker, Ltd. Fordham Pressings, Ltd. iii Paragon Glazing Co., Ltd. Iii For AppoIntments (Wanted or Vacant), Competitions, Open, Drawit Son, Ltd. Son, Ltd.		XXV	
Dreadnought Fireproof Doors, 1930, Ltd. Magnet Joinery Co., Ltd. Durhon Rubber Co., Ltd. XXII Bagle Penell Co., Ltd. XXII Edgar, Wm., & Son, Ltd. 1 Edgar, Wm., & Son, Ltd. 1 Electrolux, Ltd. 1 Ellison, George, Ltd. 1 Empire Tea Bureau. 1 English Electric Co., Ltd. 1 English Electric Co., Ltd. 1 Millame Safe Co., Ltd. 1 Millame Safe Co., Ltd. 1 Explicit Electric Co., Ltd. 1 English Electric Co., Ltd. 1 Millars Safe Co., Ltd. 1 Millars Safe Co., Ltd. 1 Millers Safe Co., Ltd. 1 Millers Safe Co., Ltd. 1 Morris Singer Co. 1 Evertaut, Ltd. 1 Fisher & Ludlow, Ltd. 1 Fordham Pressings, Ltd. 1 Ii 1 Nobles & Hoare, Ltd. 1 Fordham Pressings, Ltd. 1 For Appointments (Wanted or Vacant), Competitions, Open, Drawi	Courtney Pope, Ltd.		London Brick Co., Ltd.
Dunlop Rubber Co., Ltd. XXXiv Mallinson, William, & Sons, Ltd. Edgar, Wm, & Son, Ltd. i MacCarthy, M., & Sons, Ltd. Edgar, Wm, & Son, Ltd. i McCarthy, M., & Sons, Ltd. Electrolux, Ltd. iii Midland Electric Mrg. Co., Ltd. Emplire Tea Bureau. xiii Midland Woodworking Co., Ltd. Explanded Metal Co., Ltd. iii Midland Woodworking Co., Ltd. English Electric Co., Ltd. iiii Ministry of Labour & National Service. English Electric Co., Ltd. iiii Norsi Singer Co. Evertaut, Ltd. iii Norsi Singer Co., Ltd. Forginson, Edward, & Co. (London), Ltd. viii Nobles & Hoare, Ltd. Floor Renovations, Ltd. lii Paragon Glazing Co., Ltd. Fordham Pressings, Ltd. lii Paragon Glazing Co., Ltd. For Appointments (Wanted or Vacant), Competitions, Open, Drawi For Appointments (Wanted or Vacant), Competitions, Open, Drawi			Lunn, Sir Henry, Ltd.
Dunlop Rubber Co., Ltd. XXXiv Mallinson, William, & Sons, Ltd. Edgar, Wm, & Son, Ltd. i MacCarthy, M., & Sons, Ltd. Edgar, Wm, & Son, Ltd. i McCarthy, M., & Sons, Ltd. Electrolux, Ltd. iii Midland Electric Mrg. Co., Ltd. Emplire Tea Bureau. xiii Midland Woodworking Co., Ltd. Explanded Metal Co., Ltd. iii Midland Woodworking Co., Ltd. English Electric Co., Ltd. iiii Ministry of Labour & National Service. English Electric Co., Ltd. iiii Norsi Singer Co. Evertaut, Ltd. iii Norsi Singer Co., Ltd. Forginson, Edward, & Co. (London), Ltd. viii Nobles & Hoare, Ltd. Floor Renovations, Ltd. lii Paragon Glazing Co., Ltd. Fordham Pressings, Ltd. lii Paragon Glazing Co., Ltd. For Appointments (Wanted or Vacant), Competitions, Open, Drawi For Appointments (Wanted or Vacant), Competitions, Open, Drawi			Magnet Joinery Co., Ltd.
Eagle Penell Co., Ltd. 1 McCarthy, M., & Sons, Ltd. Edgar, Wm., & Son, Ltd.			Mallinson, William, & Sons, Ltd.
Eagle Penell Co., Ltd. 1 McCarthy, M., & Sons, Ltd. Edgar, Wm, & Son, Ltd.			Marley Tile Co., Ltd.
Edgar, Wm., & Son, Ltd.	Eagle Pencil Co., Ltd	1	McCarthy, M., & Sons, Ltd.
Electrolux, Ltd. xiii Midland Electric Mrg. Co., Ltd. Empire Tea Bureau. iii Midland Woodworking Co., Ltd. Expanded Metal Co., Ltd. iix Midland Woodworking Co., Ltd. Expanded Metal Co., Ltd. xxxii Mille Scaffold Co., Ltd. English Electric Co., Ltd. xxxii Ministry of Labour & National Service. English Electric Co., Ltd. xxxii Morris Singer Co. Evertaut, Ltd. worsenve & Co., Ltd. Newsum. H., Sons & Co., Ltd. Fisher & Ludlow, Ltd. viii Nobles & Hoare, Ltd. Fordham Pressings, Ltd. lii Paragon Glazing Co., Ltd. Forest, George, & Son, Ltd. xxxiii Peglers, Ltd. For Appointments (Wanted or Vacant), Competitions, Open, Drawi For Appointments (Wanted or Vacant), Competitions, Open, Drawi	Edgar, Wm., & Son, Ltd.		Metal Window Information Bureau
Ellison, George, Ltd. lix Midland Woodworking Co., Ltd. Empire Tea Bureau. Mills Scaffold Co., Ltd. Mills Scaffold Co., Ltd. English Electric Co., Ltd. xxxiv Millners Safe Co., Ltd. English Joinery Manufacturers Assoc xxiv Morris Singer Co., Ltd. Evertaut, Ltd.	Electrolux, Ltd.	xiii	Midland Electric Mfrg. Co., Ltd.
Empire Tea Bureau. Mills Scaffold Co., Ltd. Expanded Metal Co., Ltd. Milners Safe Co., Ltd. English Electric Co., Ltd. Ministry of Labour & National Service. English Electric Co., Ltd. Morris Singer Co., Ltd. English Joinery Manufacturers Assoc. Xxii Ferguson, Edward. & Co. (London), Ltd. Morris Singer Co., Ltd. Fisher & Ludlow, Ltd. Newsum. H., Sons & Co., Ltd. Floor Renovations, Ltd. Iii Fordham Pressings, Ltd. Iii Forrest, George, & Son, Ltd. Yaxiii For Appointments (Wanted or Vacant), Competitions, Open, Drawi	Ellison, George, Ltd.	lix	Midland Woodworking Co., Ltd.
Expanded Metal Co., Ltd. xxxiv Milners Safe Co., Ltd. English Johery Manufacturers Assoc — Ministry of Labour & National Service English Johery Manufacturers Assoc xxiv Morris Singer Co., Ltd. Evertaut, Ltd. — Musgrave & Co., Ltd. Ferguson, Edward. & Co. (London), Ltd. — Musgrave & Co., Ltd. Fisher & Ludlow, Ltd. — Nobles & Hoare, Ltd. Floor Renovations, Ltd. Iii Oliver, Wm., & Sons, Ltd. Fordham Pressings, Ltd. Iii Paragon Glazing Co., Ltd. For Appointments (Wanted or Vacant), Competitions, Open, Drawi For Appointments	Empire Tea Bureau		
English Electric Co., Ltd.	Exnanded Metal Co., Ltd.	XXXIV	Milners Safe Co., Ltd.
English Johnery Manufacturers Assoc xxiv Morris Singer Co. Evertaut, Ltd. — Musgrave & Co., Ltd. — Musgrave & Co., Ltd. — Sinser & Ludlow, Ltd. — Newsum. H., Sons & Co., Ltd. — Sinser & Ludlow, Ltd. — Sinser & Sin	English Electric Co., Ltd.	Colorado Michael Materia	Ministry of Labour & National Service
Evertaut, Ltd Musgrave & Co., Ltd Ferguson, Edward, & Co. (London), Ltd Nowsum, H., Sons & Co., Ltd Fisher & Ludlow, Ltd Iii Nobles & Hoare, Ltd Floor Renovations, Ltd Iii Oliver, Wm., & Sons, Ltd Fordham Pressings, Ltd Iii Paragon Glazing Co., Ltd Forrest, George, & Son, Ltd For Appointments (Wanted or Vacant), Competitions, Open, Drawi	English Joinery Manufacturers Assoc.	x x iv	
Ferguson, Edward, & Co. (London), Ltd. Newsum, H., Sons & Co., Ltd. Fisher & Ludlow, Ltd. viii Floor Renovations, Ltd. lix Oliver, Wm., & Sons, Ltd. lix Fordham Pressings, Ltd. lii Forrest, George, & Son, Ltd. xxxiii For AppoIntments (Wanted or Vacant), Competitions, Open, Drawi		aarr	Muserave & Co. Ltd
Fisher & Ludlow, Ltd	Ferguson Edward & Co. (London) Ltd		Newsnm H. Song & Co. Ltd
Floor Renovations, Ltd Fordham Pressings, Ltd. lii Paragon Glazing Co., Ltd Forrest, George, & Son, Ltd		1-111	Nobles & Hoase Itd
Fordham Pressings, Ltd lii Paragon Glazing Co., Ltd Forrest, George, & Son, Ltd			Olivon Win & Song Itd
Forrest, George, & Son, Ltd xxxiii Peglers, Ltd For Appointments (Wanted or Vacant), Competitions, Open, Drawi			Daragon Cloring Co. 1td.
For Appointments (Wanted or Vacant), Competitions, Open, Drawi			
	Forrest, George, & Son, Ltd	XXXIII	regiers, Ltd
	For Appointm	ents (War	ited or Vacant), Competitions, Open Drawi

PAGE	Potterton, Thomas (Heating Engineers),	
1	Ltd. Precision Roofs, Ltd Pritchett & Gold & E.P.S. Co., Ltd	
	Pritchett & Gold & E.P.S. Co., Ltd	1
lix	Prodorite, Ltd.	
	Radiation, Ltd.	
ii	Ranalah, Ltd.	1
Ix	Range Boilers, Ltd. Renfrew Foundries, Ltd.	
	Renfrew Foundries, Ltg,	1
	Restall, Fredk., Ltd Rolyat Tank Co., Ltd	1
xxvi	Ross, S. Grahame, Ltd.	
AAVI	Rownson, Drew & Clydesdale, Ltd.	
	Rushton, J. V. (Birmingham), Ltd.	
	Rushton, J. V. (Birmingham), Ltd Sadd, John, & Sons, Ltd	
lviii	Sankey, J. H., & Son, Ltd.	
	Sankey, J. H., & Son, Ltd Schori Metallising Process, Ltd	
ii	Service Electric Co., Ltd.	
lii	Sharman & Sons	
	Sharp Bros. & Knight, Ltd.	-
xlvi	Smith's Fireproof Floors, Ltd	-
lii	Smith & Rodger, Ltd	-
	Smith & Wellstood, Ltd	
	Southern Lime Assn., The	-
х	Spon Bookshop, The Staines Kitchen Equipment, Ltd	
	Stainless Steel Sink Co., Ltd	
	Stent Precast Concrete, Ltd.	
xxii	Sundeala Board Co., Ltd.	
xix	Taylor Woodrow Construction, Ltd	
	Telephone Rentals, Ltd	
	Tentest Fibre Board Co., Ltd	
lii	Thompson Beacon Windows, Ltd., John	
lxi	Thornton, A. G., Ltd	
xlix	Thorp, John B.	
xxvii	True Flue, Ltd.	
	Trussed Concrete Steel Co., Ltd.	
xlix	Turners' Asbestos Cement Co., Ltd	-
XXXV	Tylers, Ltd. Uni-Seco Structures, Ltd. United Steel Companies, Ltd., The	-
xxxix	United Steel Companies Itd. The	
lix	Val de Travers Paving Asphalte Co., Ltd.	
xxxi	Venesta I.td	
4441	Vulcanite, Ltd.	
ix	Vulcan Products, Ltd.	-
lxii	Walsall Conduits, Ltd.	-
	Walker, Crossweller & Co., Ltd	-
vii	Wardle Engineering Co., Ltd.	
xlix	wareite. Ltd.	
xlvii	Wellington Tube Works, Ltd.	
	West & Partners, Ltd., A.	
11-	Wheeler, F. H., & Co., Ltd	
lix	Wimpey, George, & Co., Ltd	-
xliv	Winget, Ltd Wood Wool Building Slab Mfrs.' Assoc.	
gs. Trac	ings, etc., Educational,	

PAGE

xii XV

H

iv

xliii xiv xxviii lix lix

XXX xlvii xlii

xxiii 1. lix

xly xvi

lix

li xlviii

lix xxix xxvil lix l

xlv

petitions, Open, Drawings, Tracings, etc., Education d Land Sales—see pages lv, lvi, lvii, lviii and lix.









TO THE LATE KING GEORGE

BROMSGROVE GUILD LD

ARCHITECTURAL METALWORKERS

BROMSGROVE

WORCESTERSHIRE





Printed in Great Britain for the Proprietors of "THE ARCHITECTS' JOURNAL" (The Architectural Press, Ltd.; Editorial 13, Queen Anne's Gate; Westminster, S. W. I Subscriptions and Advertising : 45 The Avenue, Cheam, Surrey by HARRISON & SONS LTD., Printers to His Majesty The King, 44-47, St. Martin's Lane, London, W C.2

