

THE ARCHITECTS' JOURNAL



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. 2596] [VOL. 100
THE ARCHITECTURAL PRESS
War Address: Forty-five The Avenue,
Cheam, Surrey. Phone: Vigilant 0087-9

Price 9d.

Registered as a Newspaper

★ The war has both multiplied the number of Official Departments and encouraged Societies and Committees of all kinds to become more vocal. The result is a growing output of official and group propaganda. A glossary of abbreviations is now provided below, together with the full address and telephone number of the organizations concerned. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association. 34/6, Bedford Square, W.C.1.	Museum 0974
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
APRR	Association for Planning and Regional Reconstruction. 32, Gordon Square, W.C.1.	Euston 2158-9
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Welbeck 9738
ASB	Architectural Science Board of the Royal Institute of British Architects. 66, Portland Place, W.1.	Welbeck 5721
BC	Building Centre. 23, Maddox Street, W.1.	Mayfair 2128
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. Shobnall Road, Burton-on-Trent.	Burton-on-Trent 3350
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	British Steelwork Association. 11, Tothill Street, S.W.1.	Whitehall 5073
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CEMA	Council for the Encouragement of Music and the Arts. 9, Belgrave Square, S.W.1.	Sloane 0421
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CSI	Chartered Surveyors' Institution. 12, Great George Street, S.W.1.	Whitehall 5322
DIA	Design and Industries Association. Central Institute of Art and Design, National Gallery, W.C.2.	Whitehall 2415
DOT	Department of Overseas Trade. Dolphin Square, S.W.1.	Victoria 4477
EJMA	English Joinery Manufacturers Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
FMB	Federation of Master Builders. 23, Compton Terrace, Upper Street, N.1.	Canonbury 2041
FS (Eng.)	Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
GG	Georgian Group. 55, Great Ormond Street, W.C.1.	Holborn 2664
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
HPS	Housing Production Society. 1, Old Burlington Street, W.1.	Regent 3380
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 3158
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128-29
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3767
MARS	Modern Architectural Research. 46, Sheffield Terrace, W.8.	Park 7678
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Belgrave Square, S.W.1.	Sloane 4522
MOH	Ministry of Health. Whitehall, S.W.1.	Whitehall 4300
MOI	Ministry of Information. Malet Street, W.C.1.	Euston 4321
MOLNS	Ministry of Labour and National Service, St. James's Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Abbey 7711
MOTCP	Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.	Whitehall 8411
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalt Mine-Owners and Manufacturers Council. 94, Petty France, S.W.1.	Abbey 1010
NBR	National Buildings Record. 66, Portland Place, W.1.	Welbeck 1881
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041
NFBTO	National Federation of Building Trades Operatives. 9, Rugby Chambers, Rugby Street, W.C.1.	Holborn 2770
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 2881/2/3
NT	National Trust for Places of Historic Interest or Natural Beauty. 7, Buckingham Palace Gardens, S.W.1.	Sloane 5808
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
PWB	Post War Building, Directorate of. Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
RCA	Reinforced Concrete Association. 91, Petty France, S.W.1.	Whitehall 9936
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Welbeck 5721
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Temple Bar 8274
SFMA	School Furniture Manufacturers' Association. 13, New Square, Lincoln's Inn, W.C.	Chancery 5313
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 75, Cannon Street, E.C.4.	City 6147
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815

MELLOR-BROMLEY

& Co. LTD.

AIR CONDITIONING
ENGINEERS

CONSTANT
CONTROLLED
HUMIDITY

MELLOR BROMLEY & CO. LTD.
MINOTAUR WORKS, LEICESTER

Cementone

Has served in 12 WARS and is still
ON ACTIVE SERVICE

For 168 years **FREEMANS** have served the building industry, for 168 years we have only supplied materials of proved quality. We are still serving and continuing our policy of supplying only proved materials, but our services are now mainly rendered to Government Departments and those employed on work of National Importance. Meantime **YOU** may have problems that **CEMENTONE PRODUCTS** can solve. We would be pleased to receive your enquiries for colouring cement, waterproofing, hardening, and dustproofing concrete, cement paints and colourless waterproofers for brickwork. Write for our technical handbook.

JOSEPH FREEMAN, SONS & Co. LTD.
CEMENTONE WORKS, GARRATT LANE, WANDSWORTH, S.W.18.

"HARCO"

**TANKS.
CYLINDERS.
& CISTERNS**

GALVANISED AFTER
MANUFACTURE

★

*Durable
Construction*

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

ELECTROLUX REFRIGERATORS

*operate equally well
by ELECTRICITY, GAS
or PARAFFIN*

*Having no moving
parts, Electrolux
Refrigerators are
silent and free from
vibration*

*"Built-in" and Free
Standing Models
will be available.*

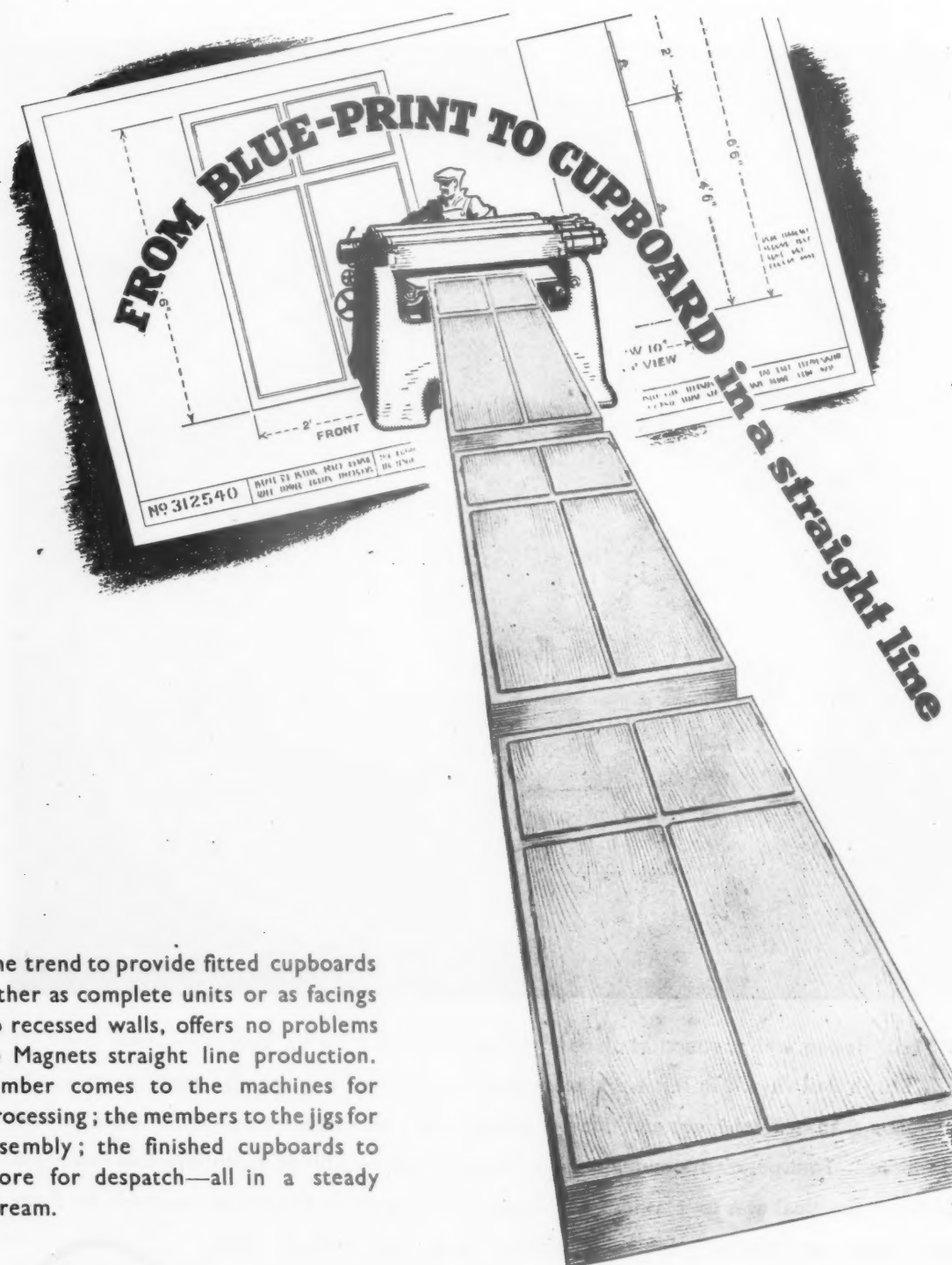
ELECTROLUX LTD • LUTON BEDS.



THE design and production of new rolling stock will be an urgent post-war need for British Railways. In this work plastics will probably play a smaller part in actual construction than in furnishings and fitments which offer considerable scope to the designer and decorator. Transparent or opaque coloured panels, lighting fittings, mouldings and laminated parts are practical uses for plastics. I.C.I. make all the types of plastics most suitable for these and other applications. Included among them are methyl methacrylate sheet, polyvinyl chloride and polythene for cable coverings, moulding powders, cements, glues, laminating resins and nylon for bristles. Information concerning them will be supplied on application.



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



The trend to provide fitted cupboards either as complete units or as facings to recessed walls, offers no problems to Magnets straight line production. Timber comes to the machines for processing; the members to the jigs for assembly; the finished cupboards to store for despatch—all in a steady stream.

MAGNET JOINERY

WHITLEY STREET, BINGLEY, YORKS
 WEST THURROCK, GRAYS, ESSEX • ANNE ROAD, SMETHWICK, BIRMINGHAM

Stoneham and Kirk

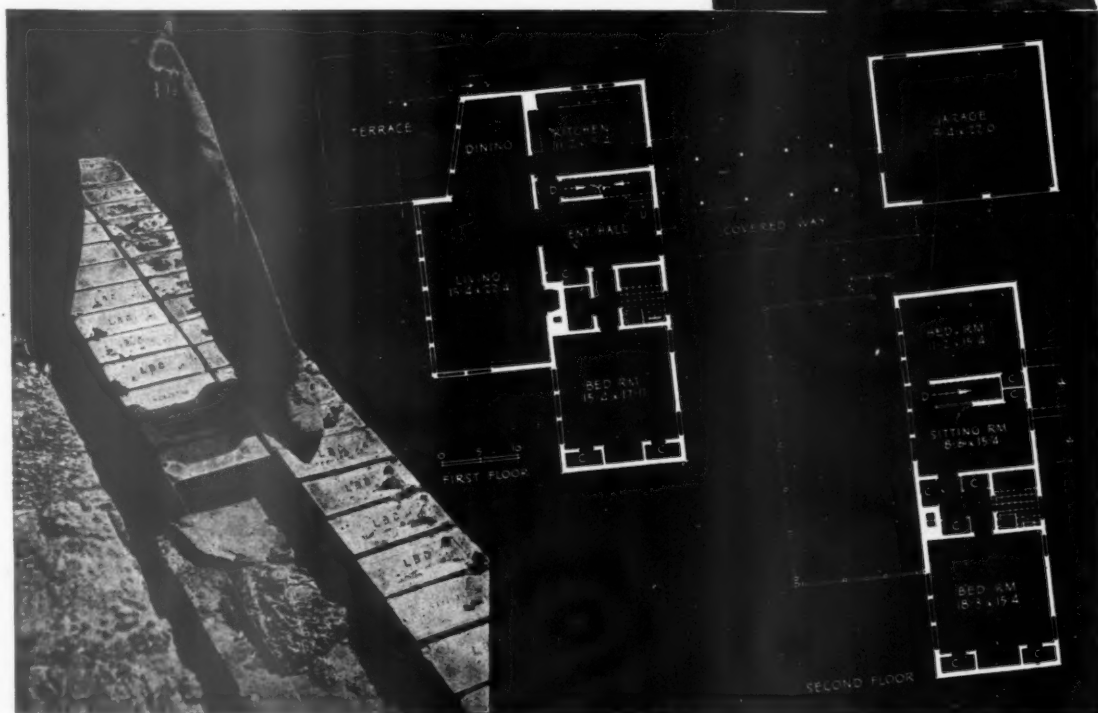
There is no peace for the bricks in an industrial

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

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

chimney

Hartford Brewery (McTear & Son Ltd.) Mark Jenkins—Consulting Engineer
Contractors: The Reading Potter, Stoke Co. Ltd.



LONDON BRICK COMPANY LIMITED

HEAD OFFICE: STEWARTBY, BEDFORD, BEDS.

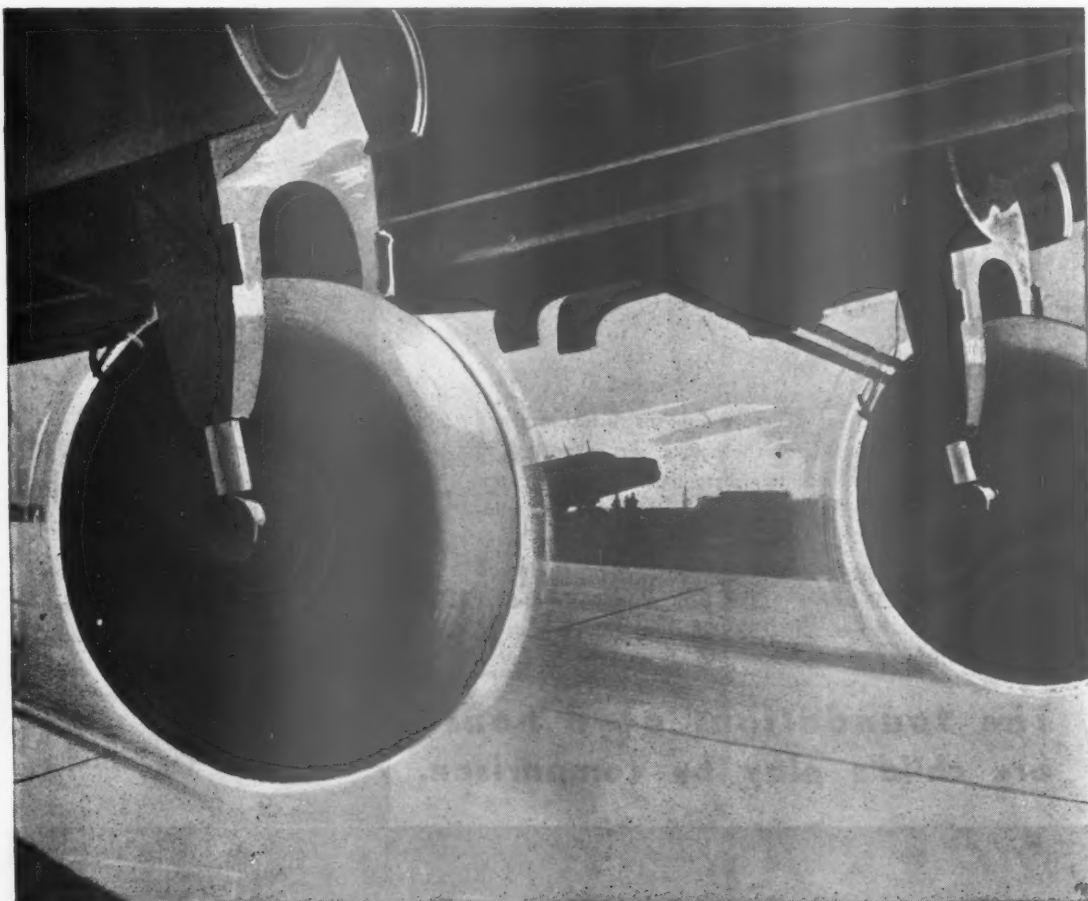
BIRMINGHAM OFFICE: PRUDENTIAL BUILDINGS, ST. PHILIP'S PLACE, BIRMINGHAM, 3

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

Telephone: KEMPSTON 3131

Telephone: COLMORE 4141

Telephone: BRISTOL 46572



30 Ton Halifax runs over 6 hours old concrete bay

Thanks to '417 Cement' the concrete was undamaged. This is, indeed, further convincing proof of the value of '417 Cement.'



417 CEMENT **ULTRA
RAPID-HARDENING**

PRODUCES CONCRETE
SUFFICIENTLY STRONG
FOR ALMOST ANY
PURPOSE WITHIN 24 HOURS

THE CEMENT MARKETING COMPANY LIMITED • THE CLUB HOUSE, COOMBE HILL, KINGSTON-on-THAMES
NORTHERN AGENTS: G. & T. EARLE, LTD., Cement Manufacturers, HULL.

PIPES

for every purpose



Experimental Prefabricated Plumbing Units have already been prepared by us in copper for Heating and Sanitary Engineers who appreciate the necessity for preparing and obtaining approval to their post-war specifications now. Our priority programme at the moment requires first consideration, but we shall be happy to discuss your post-war needs which may involve the use of manipulated pipes and standard or machined fittings.

AERO PIPE & GLASS CO. LTD.

KINGSLEY WORKS, GRANGE ROAD
WILLESDEN GREEN, LONDON, N.W.10



**"We're at the
Service of all
the Services"**



says

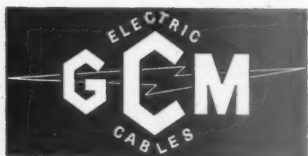
GENERAL CABLE

V.I.R., P.V.C., T.R.S., L.C., etc.

COLLABORATION complete, enthusiastic and unreserved—that's what we aim at here," says General Cable.

"All three services are working towards one end, and if we can help any of them to do a good job we're proud to do so."

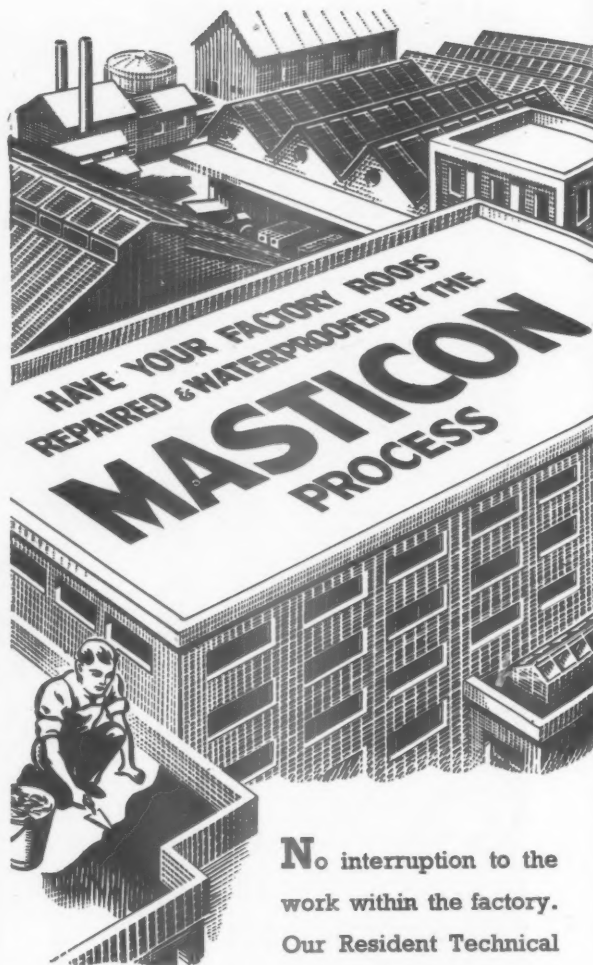
"When the fighting is over, maybe I'll be allowed to tell you of the man-size task we've been tackling down here in Surrey. By then, too, we'll be able to give the whole world the benefit of the advances in production technique and cable efficiency achieved by our technical staff. In the meantime if you have any present problems on which you'd like expert opinion or maybe even a spot of research or experiment, we'll be glad to hear from you and give you all the assistance we can."



GENERAL CABLE MANUFACTURING CO. LTD.
LEATHERHEAD, SURREY.

Telephone : Leatherhead 3021-2.

Telegrams : Isolde, Leatherhead.



No interruption to the work within the factory. Our Resident Technical Representative will

survey your roofs and estimates will be submitted without charge or obligation. Work will be undertaken by our local skilled staff. We have specialised in this service for 30 years. Write or telephone now for an appointment.

**MASTICON
ROOF
SERVICE**

Head Offices: Industrial Engineering Ltd.
Commonwealth House, London, W.C.1.

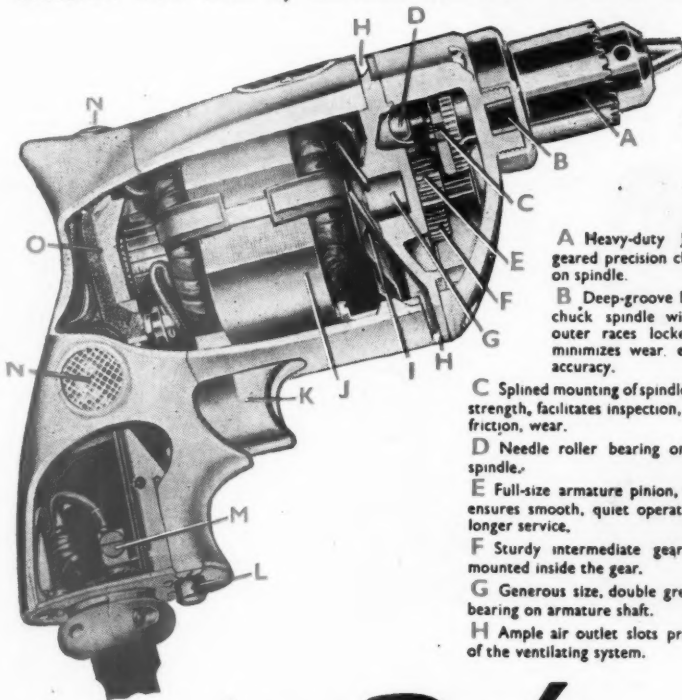
Telephone : Chancery 5171-2.



**OVER 250,000
HOLGUNS IN USE!**

This remarkable number of Holgun Drills has been produced in record time, and the service demanded from them by war-time industries

has far exceeded our claim for $\frac{1}{4}$ " lightweight drills. The Holgun has proved the lightweight drill for all industries—now and in the future...



*And here's
the reason*

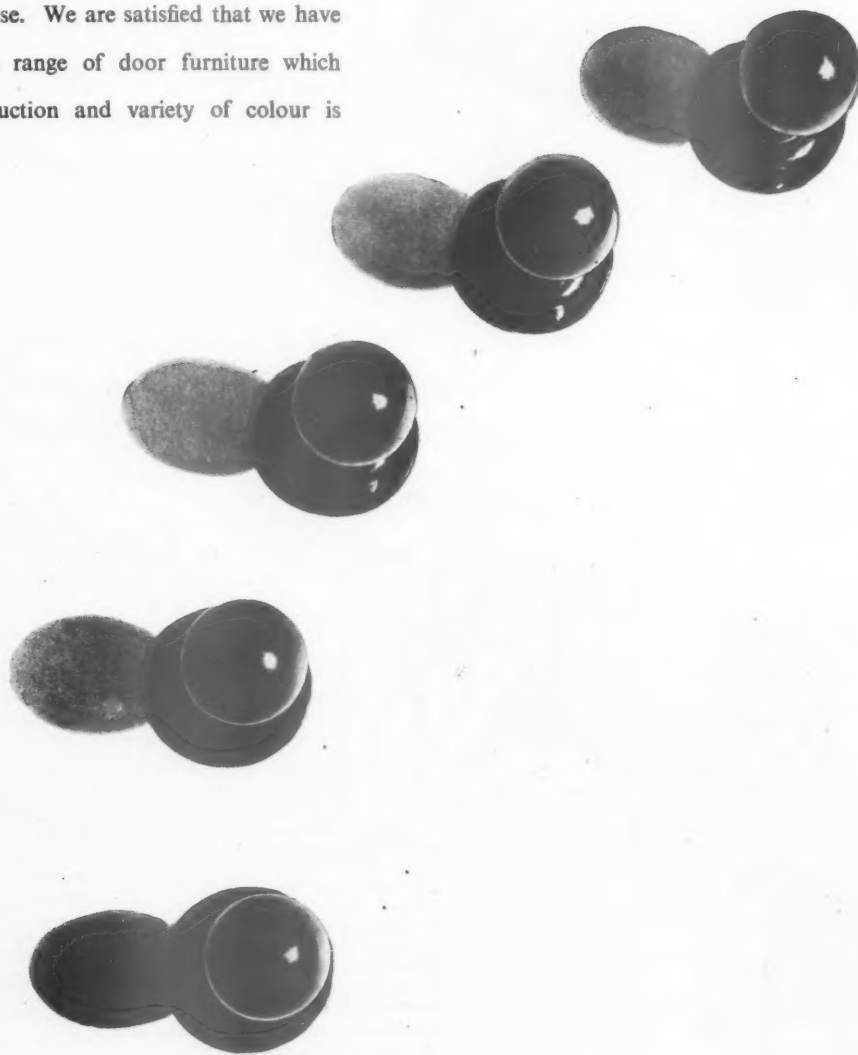
- A Heavy-duty Jacobs 3-jaw geared precision chuck, threaded on spindle.
- B Deep-groove ball bearing on chuck spindle with inner and outer races locked in place—minimizes wear, ensures spindle accuracy.
- C Splined mounting of spindle gear increases strength, facilitates inspection, reduces noise, friction, wear.
- D Needle roller bearing on back end of spindle.
- E Full-size armature pinion, with 12 teeth, ensures smooth, quiet operation, less wear, longer service.
- F Sturdy intermediate gear, ball bearing mounted inside the gear.
- G Generous size, double grease-sealed ball bearing on armature shaft.
- H Ample air outlet slots prevent clogging of the ventilating system.
- I Full-size fan mounted on armature shaft.
- J Powerful Black & Decker Universal Motor; through-bolts hold field securely.
- K Famous "Pistol Grip & Trigger Switch." Instant release switch control convenient for right or left-hand use.
- L Switch-locking pin for optional use on continuous operations.
- M Two-pole automatic release switch, locking pin, cord protector and 3-wire cable are mounted in handle as one complete unit.
- N Three screened air inlets (on top and both sides), any two of which provide ample ventilation.
- O Brush holders and springs mounted on moulded bakelite brush ring, locked in place by the switch handle.

Black & Decker

PORTABLE ELECTRIC TOOLS

BLACK & DECKER LTD • HARMONDSWORTH • MIDDX
 PHONE: WEST DRAYTON 2681/6.
 BRANCH SERVICE STATIONS: LONDON • BIRMINGHAM • BRISTOL • GLASGOW • LEEDS • MANCHESTER • NOTTINGHAM

OUR AIM is to produce door furniture, functionally perfect, pleasant to both hand and eye, strong enough to stand up to the hardest wear, and at a price that will ensure its widest use. We are satisfied that we have now developed a range of door furniture which in design, construction and variety of colour is outstanding.



LACRINOID

for plastics

DOOR FURNITURE - CABINET HANDLES - KNOBS FOR ALL PURPOSES

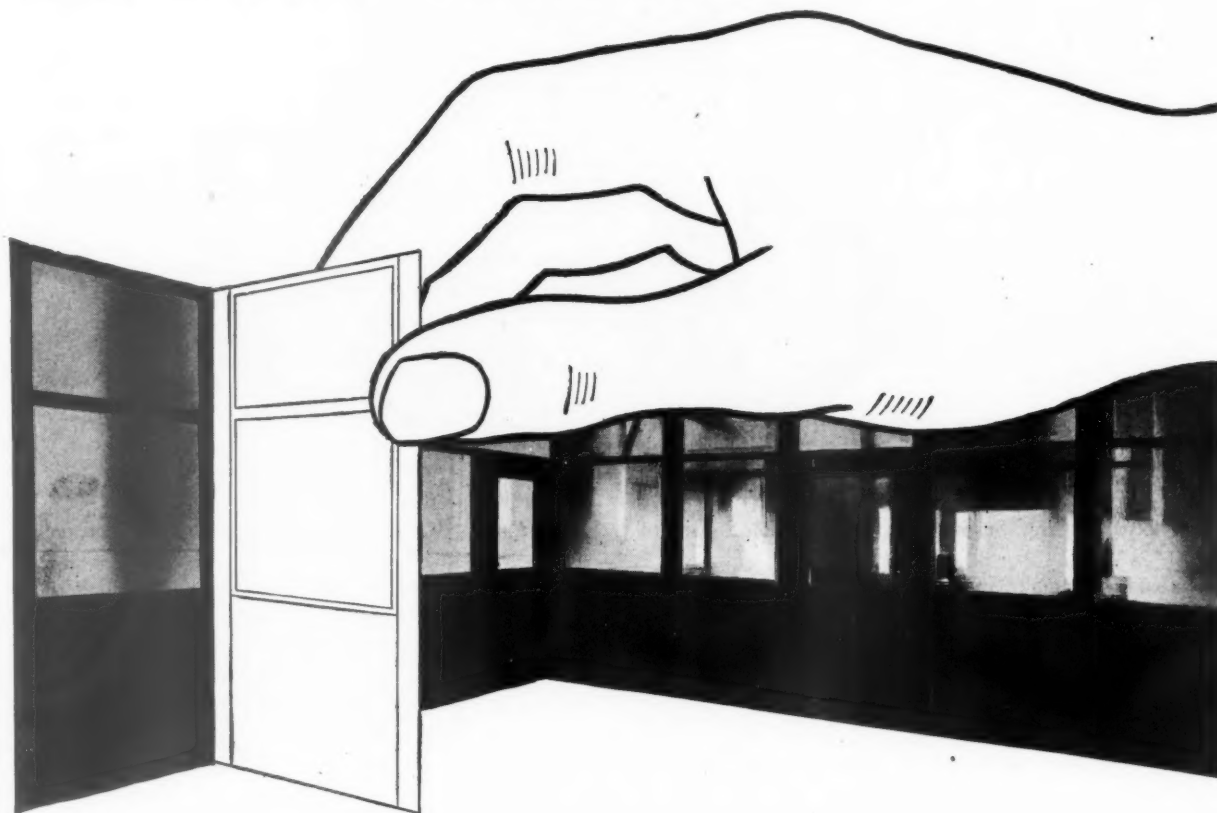
LACRINOID PRODUCTS LTD • MOULDERS, MANIPULATORS & FABRICATORS OF ALL PLASTICS • GIDEA PARK • ESSEX
Telehone Hornchurch 2981



PLAN FOR CHANGE

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

PARTITION WITH STEEL



SANKEY-SHELDON

STEEL EQUIPMENT AND FURNITURE

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

ALSO HARRIS & SHELDON LTD., MAKERS OF SHOPS

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



It's no part of our business to draw up a blue print of post-war building plans, but it's already obvious that, as a building medium, Brick will be as popular as ever. As manufacturers of Brick-making and Briquetting plant for over 50 years, we're glad to place our experience at the disposal of people who make bricks or are interested in doing so. The experts in our advisory department can help you select the best machinery for your particular purpose, and to supply full information regarding brick making procedure.

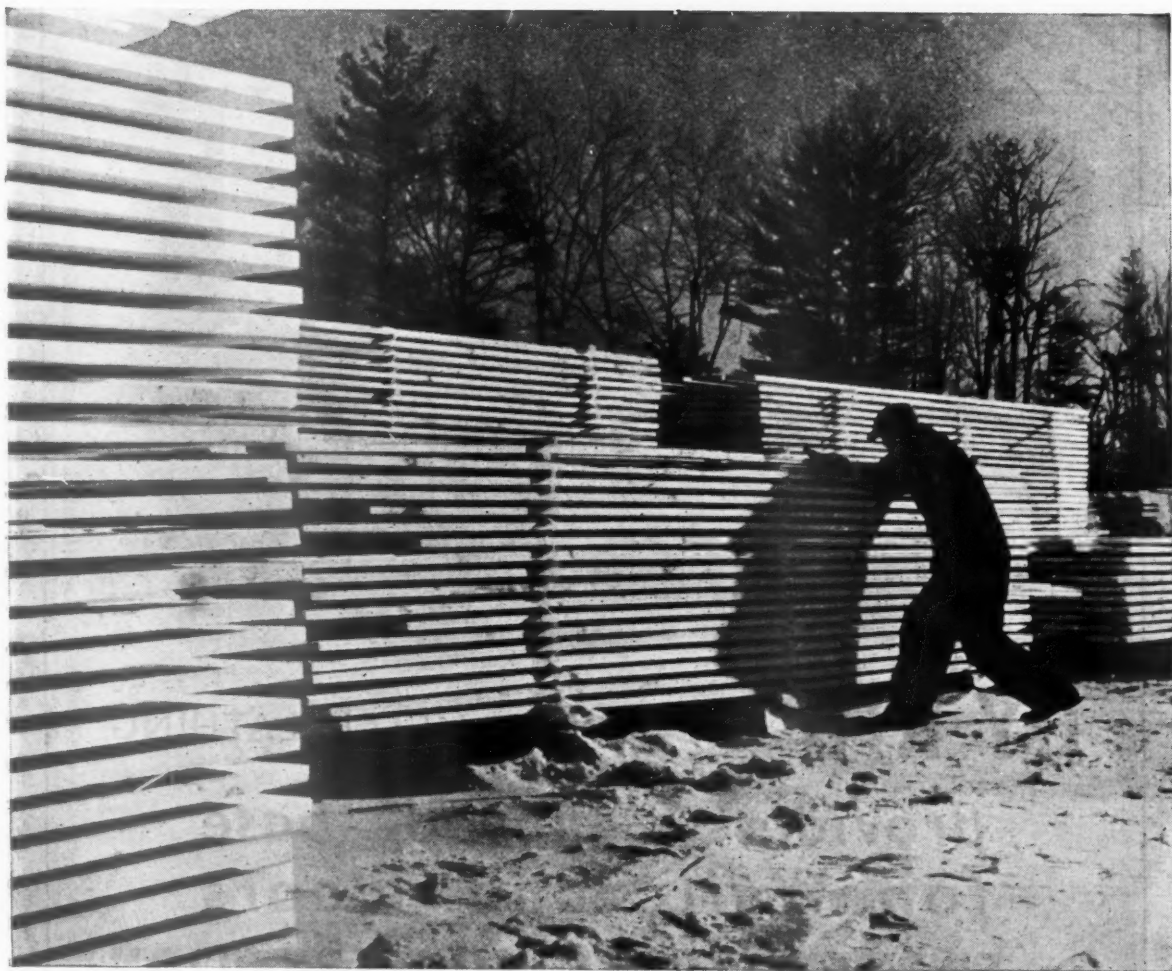
Our "Emperor" Presses are made in various sizes capable of producing 1,200 to 2,400 bricks per hour and of exerting pressure from 100 to 200 tons. They produce high quality bricks of various types, including:

REFRACTORY BRICKS, SAND LIME BRICKS, AND BRICKS FROM WASTE MATERIAL SUCH AS SHALE, CLINKER, ASHES, ETC.

SUTCLIFFE, SPEAKMAN

AND COMPANY LIMITED, LEIGH, LANCASHIRE

London Office: 66 Victoria Street. Tel: VICTORIA 7982-3



Wood — the servant of man, 'pre-tested' to stand up to all kinds of weather — comes to us from all over the world to be fashioned by skilled British craftsmen to the requirements of builders and rebuilders.

The
Midland Woodworking
Company Ltd

MELTON MOWBRAY

Craftsmen in Domestic Joinery

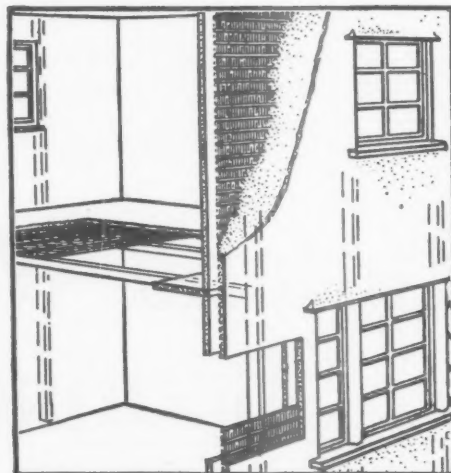


HY-RIB THE RIBBED METAL LATHING

*provides a 'keyed' base
for Walls and Floors*
in FRAMED HOUSE CONSTRUCTION

Hy-Rib in conjunction with Portland cement and sand render forms a reliable jointless external cladding for houses where the main structural supports are on the framed principle. The illustration above shows a house having frames at 4' 0" intervals with Hy-Rib and render external cladding, which is over 22 years old.

Hy-Rib in conjunction with a thin P.C. concrete slab is also an economical medium for first floor construction to provide a monolithic diaphragm, which will add stability to framed structures.



HY-RIB SALES, 6 COLLINGHAM GARDENS, EARLS COURT, S.W.5

Telephone : Frobisher 8141

Telegrams : Truscon Fuiroad London

An Advertisement of THE TRUSSED CONCRETE STEEL CO. LTD., London, Manchester, Newcastle-on-Tyne, Birmingham, Glasgow, Cardiff, Taunton



THE BIRMINGHAM GUILD LTD

CRAFTSMEN IN DECORATIVE METALWORK



GROSVENOR WORKS, GROSVENOR ST. WEST, BIRMINGHAM 16

Telephone:
MIDLAND 6175-8



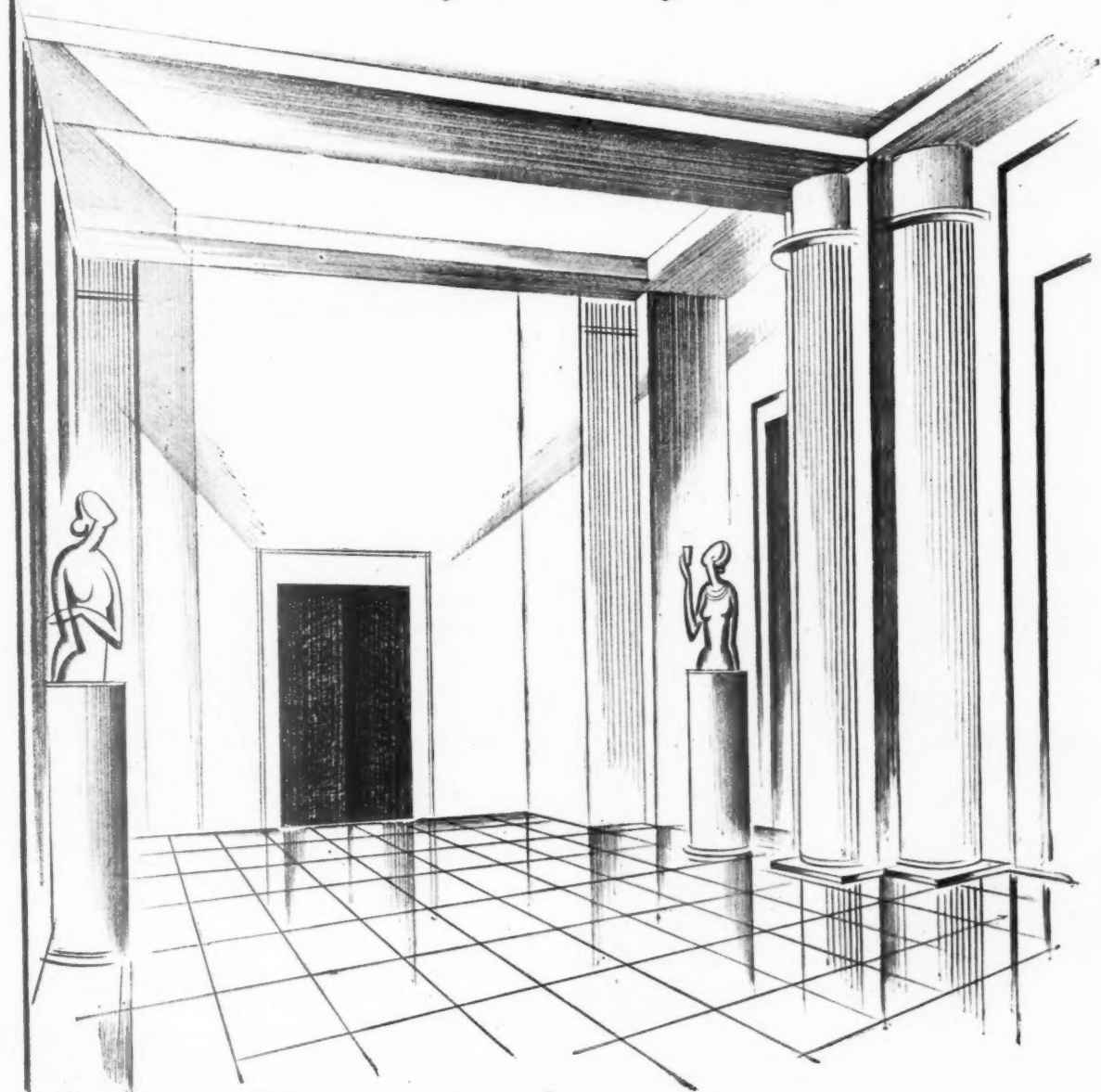
There is no shelter for a bridge. It must stand full square to the wind, rain and snow: to blistering tropical suns or the corroding bite of brine-laden air. For steel bridges paint is the first line of defence against the ruthless elements—but only paint of the finest quality is good enough for this purpose. That is why I.C.I. paints are so frequently specified in many parts of the world. Constant research and experiment have been applied to the production of all I.C.I. paints, whether for use on bridges or buildings. At the moment the nation's war needs take priority, but in peace I.C.I. paints—such as “Dulux”, “Du-Lite” and “Beldec”—will continue to fulfil the most exacting demands for the protection and decoration of houses, hospitals, schools, bridges and, in fact, of the thousand and one places on which good paint is essential.

IMPERIAL CHEMICAL INDUSTRIES LIMITED
PAINTS DIVISION • SLOUGH, BUCKS.

(successors to Nobel Chemical Finishes Ltd.)



The door of the future



'replicate' doors *frankly a reproduction.*

Although we cannot offer "REPLICATE" doors for the time being, we are able to announce that we have perfected a new method of processing which reproduces with fidelity the utmost detail of any grained wood, including the choicest specimens.

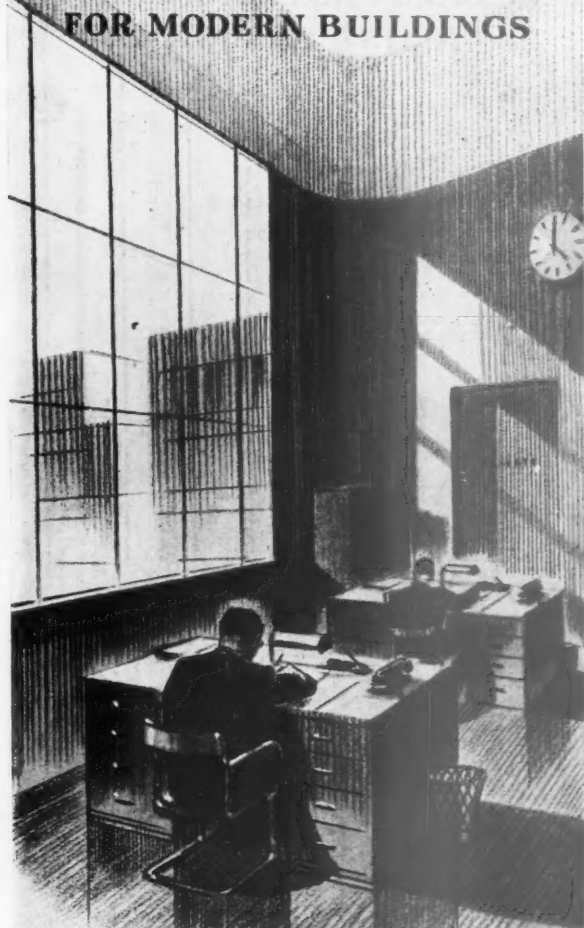
"REPLICATE" doors will put a range of these new durable and attractive reproductions at your choice.

F. HILLS & SONS LIMITED . MANCHESTER, 17.

RD. 3.

ATMOSPHERIC CONDITIONING

SCIENTIFICALLY PLANNED
FOR MODERN BUILDINGS



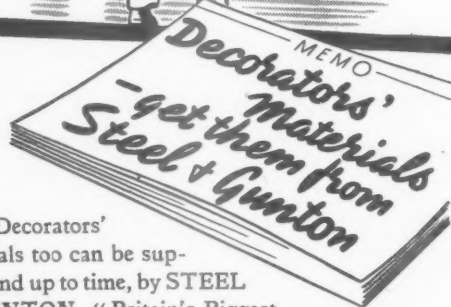
It is necessary to secure clean, pure air which is definitely essential for health and efficiency. We have designed and installed the equipment for space heating, ventilation, air conditioning and domestic hot water supply for some of the largest and most modern offices in the country. We shall be pleased to advise on your particular problem.

SAUNDERS & TAYLOR LTD

IMPERIAL BUILDINGS, 13 OXFORD RD. MANCHESTER, 1

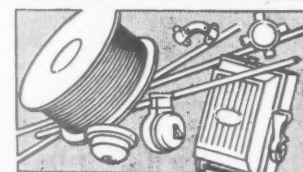
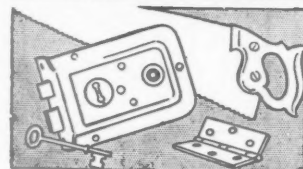
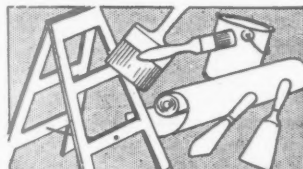


WHAT'S MISSING



Yes—Decorators' materials too can be supplied and up to time, by STEEL & GUNTON, "Britain's Biggest Builders' Merchants." Modern Building schemes must work to schedule and you will keep to yours if you buy from the reliable source of supply.

EVERYTHING FOR
THE DECORATOR
JOINER
MASON
BRICKLAYER
PLUMBER
PLASTERER
GLAZIER and
ELECTRICIAN



Decorators' Materials

Paints - Distempers
Brushes - Trestles
Ladders, Plaster, Paper
Strippers - Sponges,
etc.

*"Britain's
Biggest
Builders'
Merchants"*

STEEL



STEEL & GUNTON LTD
STEELS OF SUNDERLAND
Holmeside, Sunderland 3236 (7 lines)
GUNTONS OF NORWICH
St. George Street, Norwich 21401 (7 lines)

HENDON PURLIN TILES

only need

RAFTERS
AT 6' 0"
CENTRES



No Purlins, Battens or
Boards are required for
"HANDCRAFT" Asbestos-Cement

HENDON PURLIN TILES

The Tiles are laid direct on either timber, steel or concrete rafters, with a sidelap which does not involve any mitred corners. They are made in Grey, Russet Brown, Red, Dark Brown, and Green. Net cover of Tiles: $5\frac{1}{2}$ sq. ft., i.e., 6ft. 0in. width \times 10 $\frac{1}{2}$ in. up roof slope. Weight per square: 465 lbs. approx.

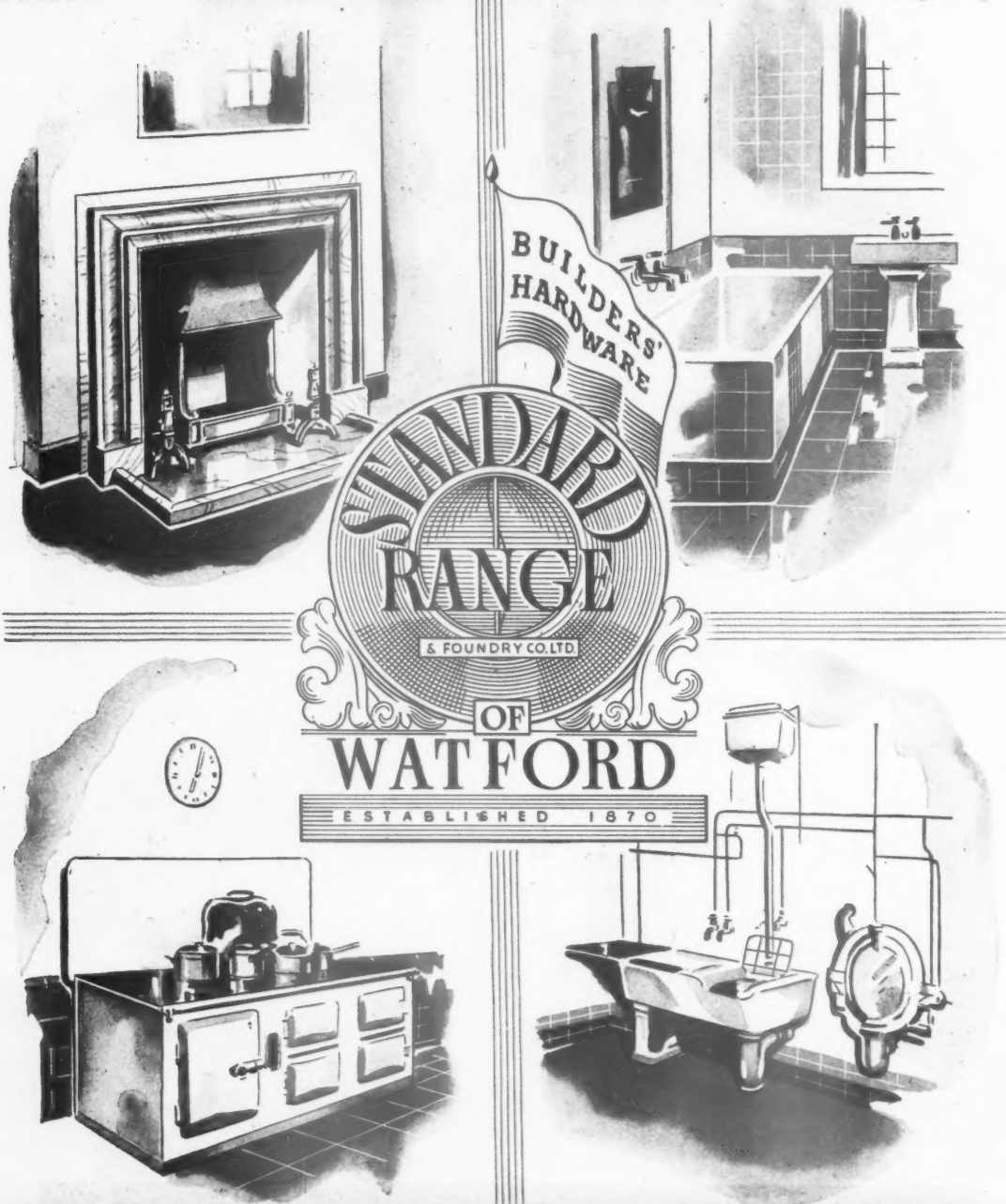
For complete Technical Details and method of fixing
write for Catalogue Section 24.

THE
UNIVERSAL ASBESTOS MFG. CO. LTD.
HANDCRAFT WORKS TOLPITS WATFORD HERTS Phone Watford 3371
Branches BIRMINGHAM BRISTOL MANCHESTER GLASGOW

for the WIDEST RANGE of

Sanitaryware • Bathroom Requisites • Stoves • Fireplaces

Boilers • Architectural and Builders' Ironmongery



A cordial invitation is extended to all Architects interested in seeing the wide range of products displayed at our Watford Showrooms. Quotations gladly submitted whether for estimating or contractual purposes.

STANDARD RANGE & FOUNDRY CO LTD WATFORD, HERTS. TELEPHONE WATFORD 2261 (6 lines) TELEGRAMS. STANDARD.WATFORD.



What a welcome we shall give those boys when they return from "over there" to join in our Victory parades!

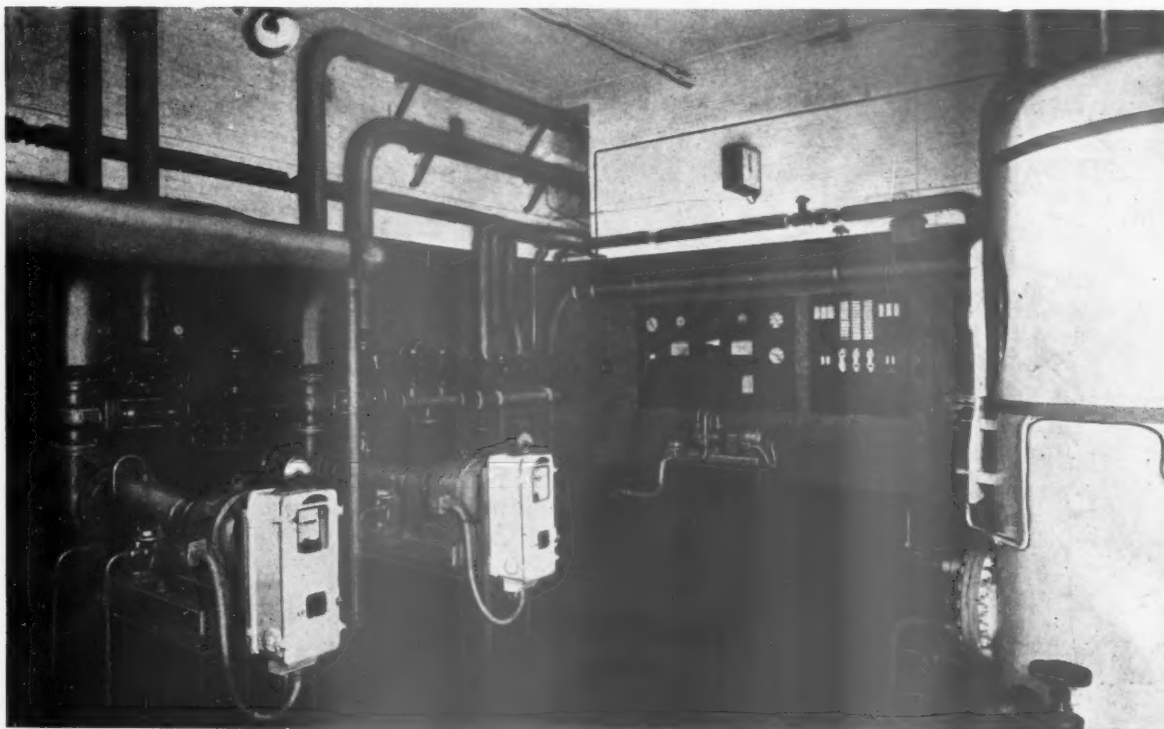
... and an equally enthusiastic welcome will be given to "Twisteeel" and "Wireweld" by those who are ready to put into operation those post-war developments for which plans have already been made—for "Twisteeel" and "Wireweld" are symbolic of a service that is as sincere as it is efficient in all matters where concreting and reinforcement problems are involved.

TWISTEEL REINFORCEMENT LTD., ALMA STREET, SMETHWICK, STAFFS
and at London, Belfast, Warrington and Glasgow

Telephone Nos. :

SMETHWICK	-	-	1991 (5 LINES)
LONDON	-	-	SLOANE 9218 (3 LINES)
BELFAST	-	-	24641 (3 LINES)
WARRINGTON	-	-	273
GLASGOW	-	-	CITY 7661 (4 LINES)

MODERN ENGINEERING INSTALLATIONS by HADENS



THE pump and control chamber of a high pressure hot water heating installation designed and erected by Hadens in a chemical factory.

HEATING
BY ALL SYSTEMS
HIGH PRESSURE HOT WATER
SYSTEMS FOR HEATING AND PROCESS WORK
AIR CONDITIONING AND VENTILATION
PLUMBING & SANITATION, ELECTRIC LIGHTING & POWER



JAMES WATT

IN WAR TIME:
A.R.P. VENTILATION
AND GAS FILTRATION
HOT WATER SUPPLIES
FOR CLEANSING STATIONS
PATENT DEINFESTING APPARATUS FOR CLOTHING, ETC.

G. N. HADEN & SONS LTD

★ ★ Estd. 1816

MAIN BRANCHES:

Manchester 2, 4 Albert Square	- - - - -	Blackfriars 6356
Glasgow C.2, 86 St. Vincent Street	- - - - -	Central 3196
Birmingham 3, 45 Great Charles Street	- - - - -	Central 8391
Bristol 1, Orchard Street	- - - - -	Bristol 20286
Lincoln, Guildhall Street	- - - - -	Lincoln 993
Bournemouth, Avon Road	- - - - -	Boscombe 512
Torquay, Castle Road	- - - - -	Torquay 3831

Sub-Branches:

Newcastle-on-Tyne 1, 13 Mosley Street	- - - - -	Newcastle-on-Tyne 26780
York, 39 Micklegate	- - - - -	York 4256
Liverpool 1, St. Luke's Chambers, Bold Place	- - - - -	Royal 5699
Norwich, City Chambers, Upper King Street	- - - - -	Norwich 22638

Evacuated Branches:

Eastbourne, c/o London Office	- - - - -	Terminus 2877
Canterbury, c/o London Office	- - - - -	Terminus 2877

HADENS ENGINEERING CO. LTD., 199 Pearse Street, Dublin, C.5 Dublin 43987

19-29 Woburn Place, LONDON, W.C.1

*Phone: TERminus 2877 (10 lines)
Wires: Warmth, Westcent, London

When

THE MAZDA

FLUORESCENT LAMP

is released from War Service

TO-DAY the Mazda Fluorescent Lamp can be used only in factories engaged in essential war work. But when the war ends and restrictions are removed this amazing product of BTH Research and manufacturing resource will provide the architect with almost unlimited opportunities.

In the first place it will enable him to produce architecturally-appropriate results in almost any type of interior. Secondly, with the Mazda Fluorescent Lamp, he can make very much better use of floor space: for fluorescent light approximates to daylight and can therefore be used to reinforce natural lighting at points distant from windows.

Thirdly, fluorescent lighting shows tremendous economy in current consumption: the Mazda Fluorescent Lamp gives nearly *three times* the light

of the finest tungsten lamp. (Incidentally, fluorescent lighting, even with its use restricted to war factories, is saving more than 200,000 tons of coal annually.)

The immediate post-war period holds the promise—indicated by present BTH Research—of major developments in fluorescent lamps which will be of particular interest to architects and planners. These developments will make inevitable the use of fluorescent lamps in every field of architectural and decorative lighting, especially those in which colour is an important factor.

So, to the "planners of the future" we say this: our Lighting Advisory Service is at present fully occupied on war work; but when peace is restored all our experience and material resources will be freely and immediately at your disposal.

MAZDA

Fluorescent Lamps

LIGHTING ADVISORY SERVICE

The British Thomson-Houston Co. Ltd., Crown House, Aldwych, London, W.C.2





AT the moment H & C LIFTS are fully occupied supplying the needs of other "landings" but your H & C LIFT will come, silently, swiftly, safely, on the heels of peace.

HAMMOND & CHAMPNESS LTD.

HASKINS WORKS, WALTHAMSTOW, LONDON, E.17

TELEPHONE: LARKSWOOD 1071

*When the lights
go up again*



**STEEL
WINDOWS**
will be to the fore

Make a note for Your specification.

HELLIWELL

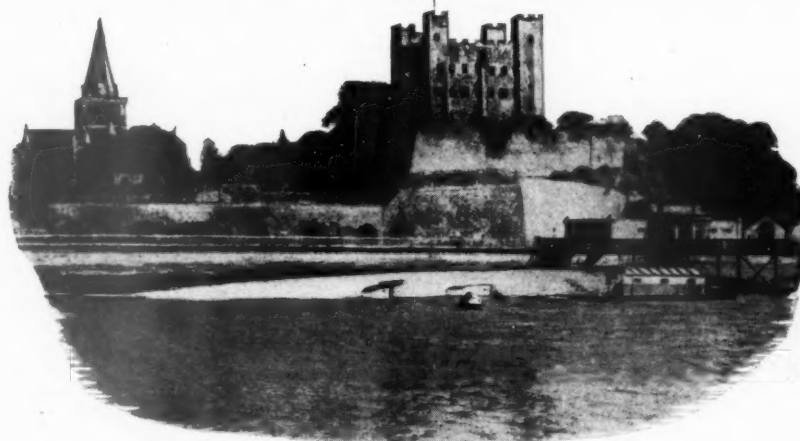
AND COMPANY LTD.

BRIGHOUSE, YORKSHIRE

AND

68 VICTORIA ST., LONDON, S.W.1

BIRMINGHAM · BRISTOL · MANCHESTER · SHEFFIELD · HULL
GLASGOW · ABERDEEN · DUBLIN



Permanent Building . . .

★ "CANTIUM is situated at the extremity of the division called Britannia Prima, and contains the cities of Durobrivis and Cantiopolis. Cantium is watered by many rivers. The principal is Madus."

. . . These are Roman names : we read Kent for Cantium, Rochester for Durobrivis, Canterbury for Cantiopolis, and the Medway for Madus on which stands the famous Rochester Castle, the actual date of which is unknown. Some say it was the very first castle to be built, but certainly it is over eight hundred years old. What historic events it has witnessed ! What men it has seen, sheltered and imprisoned ! It knew

" 1066 " and all that : saw Thomas a Becket and Henry II quarrel over its custody : withstood King John's siege : detained the Queen of Robert Bruce of Scotland, together with Bruce's sister and daughter, the Bishop of Glasgow and the Earl of Mar ; it aided Wat Tyler's rebellion of 1281 and witnessed Jack Cade's 69 years later. . . . Yes, indeed, a permanent building.

★ From the treatise "The Ancient State of Britain" by Richard of Cirencester.

THE WINGET HOUSE

Over 20 years ago Winget Concrete in one of the many Winget systems of house construction won national recognition. Some 3,712 houses (amongst other thousands) were built for the Hull, Glasgow, Wakefield, and Norwich Corporations.

Today, the Winget folk offer a complete range of the most up-to-date concrete making machinery which includes Crushers, Screening Plants, Concrete Mixers, Block-making machines, Placers, with Stationary and Portable plants of all kinds.

Before the war Winget Limited was the only

factory in the world concentrating exclusively on concrete machinery. After the war (and after having done a grand engineering job that included much concrete making machinery) Winget Limited will proudly offer a new and still bigger range incorporating the very latest developments in modern engineering practice—evolved by the firm's own group of first class engineers !

Winget Plant for all types and shapes of Concrete Building Units, and for Concrete work *in situ*.

Wall panels and blocks, heads and sills, jambs, etc., etc.

Winget Plant designed to meet the Architects' and Civil Engineers' actual needs.

WINGET CONCRETE IS GREAT CONCRETE . . .

Send your problems to

WINGET LTD.

Engineers and Ironfounders. Concrete Machinery Manufacturers

WINGET WORKS, ROCHESTER, KENT

LARGE-SCALE APPARATUS FOR THE COOKING AND SERVING OF FOOD



*A view of the Women's Service
of a large Canteen Kitchen
equipped by*

R. & A. MAIN LIMITED



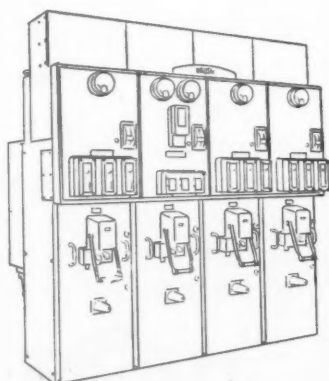
LONDON AND FALKIRK

BENEFACTORS OF MANKIND



JOHN FREDERIC DANIELL (1790-1845)

This brilliant life, all too short in point of time terminated at the peak of its activities. His great reputation as a scientist was equalled by his high personal character. In the prime of life he passed the torch to other pioneers.



5-124

Versatility

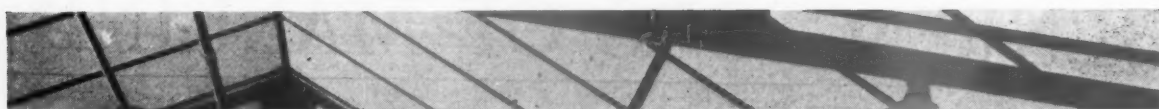
DISTINGUISHED in his research on the atmosphere, meteorology, chemistry and electricity, he brought together scattered knowledge, re-applying it, and adding the results of his own versatile gifts. He insisted upon accuracy of measurement, and invented the hygrometer which bears his name, for measuring atmospheric moisture, and also a new pyrometer for registering high temperatures. In the field of electricity his work was original; it included the invention of the Daniell cell, of great utility for telegraphic and other purposes. He added much to the knowledge of voltaic combinations and of electrolysis.

The products of the Brush Electrical Engineering Co. Ltd. are versatile, comprising a very wide range of world renowned machines for the generation and distribution of power and electricity.

The
BRUSH

**ELECTRICAL ENGINEERING CO. LTD.
LOUGHBOROUGH, ENGLAND.**

**TURBO-GENERATORS, TRANSFORMERS, E.H.T. and M.T. SWITCHGEAR, A.C. and D.C.
MOTORS and GENERATORS, CONVERTORS, ELECTRIC TRUCKS, BUS and COACH BODIES**



Insulating existing buildings



GRAMPIAN REPRODUCERS LIMITED

Directors
F. V. Summer (Chairman)
J. H. Whitfield (Vice-Chairman)
A. R. Williams M.C. (Honorary)
A. Smith, M.Inst. S.E.
V. Lovelock, M.I.E.E.

Ref. ARW/GS

Manufacturers of Loudspeakers, Microphones
and Sound Amplifying Equipment

Hampton Road, Hanworth, Middx

Contractors to
Administration
War Office
P.A.P. etc.

BENTLEY'S CODE
Phone FELtham, 2457/8

The Tentest Fibre Board Co. Ltd.,
BARNET, HERTS.

9th August, 1944.,

Dear Sirs.,

You will recall that in October 1943 you carried out the work of lining the roof of our factory with $\frac{1}{2}$ " Tentest. A comparison between Winter conditions in the building before and since is interesting, and certainly seems to prove all that you claim as to the value of insulation. The following facts speak for themselves:-

- 1). During the past Winter we secured indoor temperature of 24° F. above outdoor, instead of a maximum of 11° as previously.
- 2). Complaints from our workers, particularly those girls who work seated, regarding cold and draught, ceased.
- 3). Output was better and steadier. On the coldest day, output was 100% higher than on similar days previously.
- 4). During the first three months of 1944, we used 42% less fuel than over the same period of 1943.

We are naturally very pleased with these results. We also appreciate the way your Specialised Construction Dept. carried out the work without interfering with production, which was so vital at that time.

Yours faithfully,
For GRAMPIAN REPRODUCERS LTD.
[Signature]
Director.

EXAMPLE No. 2 SOUND EQUIPMENT FACTORY

"... facts speak for themselves"

1. Better temperature
2. No complaints
3. Better output
4. 42% fuel saved

We can advise on all aspects of
STRUCTURAL INSULATION in
new or existing buildings and,
as in the building illustrated,
we can supply and fix complete.

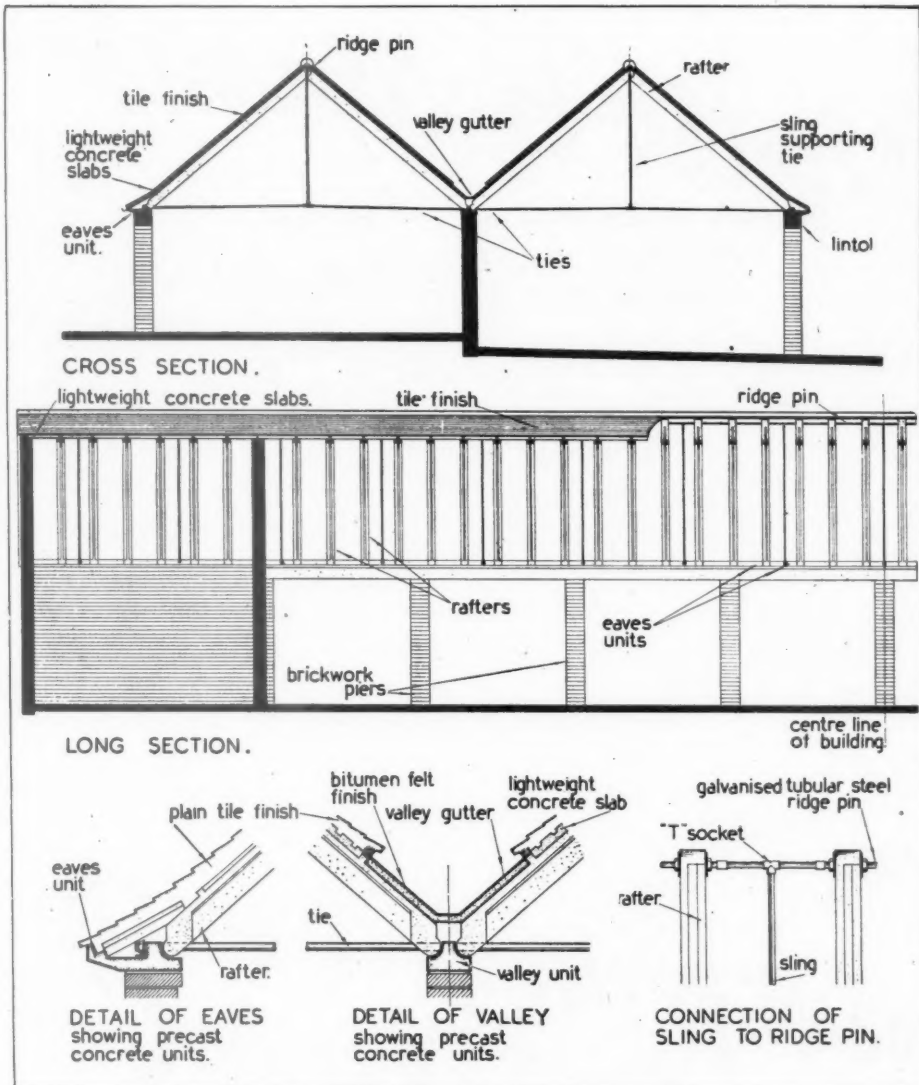


Made in Canada

TENTEST FIBRE BOARD CO. LTD., 75 CRESCENT WEST, HADLEY WOOD, BARNET, HERTS.

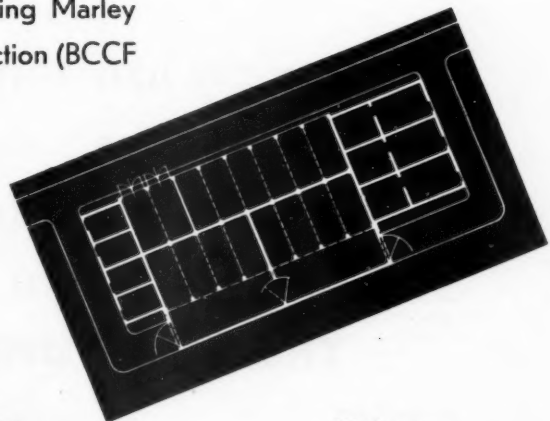
Telephone: BARNet 5501 (5 lines).

Telegrams: Fiboard, 'Phone, London



Bull pens and implement store embodying Marley re-inforced concrete pitched roof construction (BCCF system) with Marley sand-faced tiles

For: Dowsett-Mackay (Properties) Ltd., Freshfield Manor Farm, nr. Haywards Heath, Sussex.
Contractors: Dowsett Engineering Construction Ltd., Richmond, Surrey.



MARLEY

THE MARLEY TILE COMPANY LIMITED

Head Office: London Road, Riverhead, Sevenoaks, Kent. Telephone and Telegrams: Sevenoaks 225
Scottish Office: Cadder, Bishopbriggs, nr. Glasgow. Telegrams: Bishopbriggs 415. Works throughout the Country

"Not for an age
but for all time"

Synthetic Harbours

AY. OCTOBER 16, 1944

HE FABRICATED HARBOURS

PORTS

AS BIG AS DOVER HARBOUR

It was disclosed last night that the "prefabricated harbours" which removed many of the terrors of the Normandy invasion over open beaches were roughly the size of Dover Harbour.

The plan for the use of these prefabricated ports for the invasion was approved by the Chiefs of Staff at the Quebec Conference, says Sir J. D. Thompson, a member of the staff of the Admiralty.

They had to be built and towed over the area a few days before the invasion.

...ed by ... of ...

INVASION PORT MADE IN FACTORY

One Penny

Biggest D-Day secret out

HERE, at last, is the incredible secret of the Normandy landings: the story of the artificial harbours.

ALLIES USED SYNTHETIC HARBOURS FOR FRANCE

BUILT IN SECTIONS AND TOWED ACROSS CHANNEL

... official account of how Britain and America ... for the invasion ... the ... of the ...

HOW INVASION PORTS WENT INTO ACTION

DON'T argue the matter: The Allies will argue for themselves.

... message, it is revealed ... to-day ...

Port was Towed 100 Miles to France

THE 'D-DAY' DOVERS

waterproofed with Tretol

Nearly half-a-million yards super
of Surface Waterproofing to
concrete caissons was carried
out with

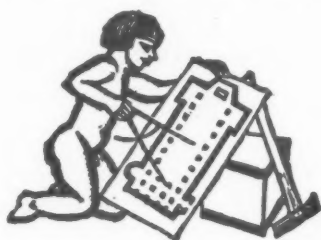
TRETOL BITUMINOUS COATINGS



12 North End Road, London, N.W.11. Tel.: SPE 2866

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

Subscription rates: by post in the U.K. or abroad, £1 15s. 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.



DIARY FOR OCTOBER NOVEMBER AND DECEMBER

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

BIRMINGHAM. *Housing Equipment Exhibition.* At the West End Dance Hall, Suffolk Street, Birmingham. The exhibition, prepared by MOW, illustrates the principal items of housing equipment as recommended in *Housing Manual*, 1944, and the advances possible in the standard of equipment available in post-war housing as a result of the employment of mass production methods. (Sponsor, MOH).

OCT. 26-Nov. 11

CAMBRIDGE. *Rural Housing. Exhibition.* (Sponsor, BIAE). OCT. 26-Nov. 6

COVENTRY. *Living in Cities. Exhibition.* (Sponsor, BIAE). OCT. 26-Nov. 6

DURHAM. *When We Build Again. Exhibition and film.* (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.). Nov. 12-18

HERTFORD. *Homes to Live In. Exhibition.* Land Army Tour. (Sponsor, BIAE). OCT.-Nov.

HOLBEACH, SPALDING, LINGS. *The English Town—Its Continuity and Development. Exhibition.* (Sponsor, TCPA). DEC. 4-16

IPSWICH. *Homes to Live In. Exhibition.* At the Central Premises of the Industrial Co-operative Society. (Sponsor, BIAE). OCT. 26-Nov. 6

LONDON. *Water Colour Drawings of H. S. Merritt. Exhibition.* At the Batsford Gallery, 15, North Audley Street, W.1. (Sponsor, Batsford, Ltd.). Monday to Friday, 10 a.m. to 4 p.m. OCT. 26-Nov. 3

Herbert Read. *Decentralization of Art.* At 2, Savoy Hill, W.C.2. Chairman, F. J. Osborn. (Sponsor, TCPA). 1.15 p.m. Nov. 2

Dr. R. F. Sudell. *The Garden* At 13, Suffolk Street, S.W.1. (Sponsor, HC). 1.15 p.m. Nov. 7

ICE Presidential Address. By F. E. Wentworth-Shields. At the Institution of Civil Engineers, Great George Street, S.W.1. 5.30 p.m. Nov. 7

F. C. Fuke. *Electrical Accessories for Domestic Purposes; some Notes on their Design and Installation.* At Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2. (Sponsor, IEE). 5.30 p.m. Nov. 9

A. W. Kenyon, Chairman of the RIBA Central Planning Advisory Committee. *The National Plan.* At the RIBA, 66, Portland Place, W.1. (Sponsor, RIBA). 6 p.m. Nov. 14

Guy Howard Humphreys, President of the Institution of Sanitary Engineers. *Some modern trends in Sanitary Engineering. Bosson Gift Lecture.* At the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W.1. Chairman, Alfred C. Bosson. (Sponsor, Chadwick Trust). 2.30 p.m. Nov. 14

D. V. H. Smith, Consulting Engineer, Glasgow. *District Heating and the Smokeless City.* At the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W.1. Chairman, G. L. Pepler, Member of the Council of the Institute. 2.30 p.m. Nov. 15

G. E. Moore. *Planning the Future Electricity Meters.* At Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2. (Sponsor, IEE). 5.30 p.m. Nov. 17

The Effect of Welding on Electricity Supply. Discussion. At the Institute of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2. (Sponsor, IEE). 5.30 p.m. Nov. 20

LUDLOW. *Twenty Women at Home. Exhibition.* (Sponsor, HC). OCT. 26-30
Living in the Country. Exhibition. (Sponsor, HC). OCT. 26-28
Town House. Exhibition. (Sponsor, HC). OCT. 26-28

MANCHESTER. Brains Trust arranged by the Institute of Fuel. *The Efficient utilization of Industrial Waste and Town's Refuse.* At the Engineer's Club, Manchester. 2.30 p.m. Nov. 8

The Insulation of Buildings, Domestic and Industrial. Fifth paper in series on *Thermal Insulation.* At the Institution of Mechanical Engineers, Storeys Gate, S.W.2. 2.30 p.m. DEC. 13

RYTON-ON-DUNSMORE. *Good Neighbour. Exhibition.* (Sponsor, HC). OCT. 26-30

STAMFORD, LINGS. *When We Build Again. Exhibition.* A conference will be held by the Town and Country Association on the first day of the exhibition. Speaker, R. L. Reiss. (Sponsor, TCPA). OCT. 26-28

NEWS

THURSDAY, OCTOBER 26, 1944
No. 2596. VOL. 100

News	299
Sackcloth and Sanctuary ..	300
This Week's Leading Article ..	301
Astragal's Notes and Topics ..	302
Letters from Readers	303
Town and Country Planning Summer School	305
Conversion of Old Houses into Flats. By James. I. Wolfsohn	311
Information Centre	315
Societies and Institutions ..	316

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.

Plans for modernising Brighton include A RAIN-PROOF PROMENADE.

The broad covered promenade or sun-walk with glass screen on the sea side would replace the present arches, which would be demolished. The arches—running under the promenade and roadway for about a mile—belong to the Corporation and private owners. For defence reasons the arches have been closed and bricked up since 1940. A booklet setting out suggested schemes for a modernised Brighton is being prepared by the Corporation, but it is not likely to be made public for some months.

Britain's most fly-bombed area, Croydon, has BEGUN ITS POST-WAR PERMANENT HOUSING.

The Mayor, Alderman A. Lester Boddington, climbed into a bulldozer and cut the site of the first of nearly 500 houses which are to be built at Beckenham golf course. The new housing estate will have shops, two schools (one secondary) and a site for a church. The estate will be ranged on the south side by parkland, where cricket and football pitches are planned. This housing move comes despite the staggering demands made upon Croydon Corporation by the flying-bomb raids—the borough had over 50,000 houses damaged and 1,400 others completely demolished.

We have always considered our work to be of National Importance—but during the past five years the degree of importance has taken on a new significance—hence the name

BROMSGROVE GUILD LTD.

has not appeared in the Architectural Press.

We feel we may now contemplate Post-War activities and therefore offer our services to the members of the Profession who desire to have

ARCHITECTURAL METALWORK

repaired or replaced, particularly if originally executed by us, and to be allowed to consider new schemes for execution when circumstances permit.

Our organisation is intact and strengthened by the experience and effort of the past years.



BROMSGROVE
WORCESTERSHIRE

Telephone:
Bromsgrove 2201-2

Telegrams:
"Guild" Bromsgrove

From AN ARCHITECT'S commonplace Book

ELECTRIFIED INTERIOR OF THE SECOND EMPIRE. [From Jules Verne, by Kenneth Allott (*The Cresset Press*).] It was natural enough for Verne to write about a branch of invention which made his contemporaries, and particularly his countrymen, enthusiastic: and it is interesting that the name of Captain Nemo's submarine should be that of the primitive craft offered to Napoleon by Fulton—the *Nautilus*. Nemo's *Nautilus* was certainly not primitive. It had the spaciousness of a great yacht, and its appointments were those of a Jay Gould or Sam Goldwyn nightmare. The library contained twelve thousand books; the salon was hung with priceless tapestries and old masters . . . ; a huge organ occupied one wall of the room; and there was a superb museum of marine biology. The whole submarine ran on electricity. Electricity supplied not only the motive force but light and heat to the inmates of the *Nautilus* while electric pumps stored fresh air under pressure. "There is a powerful agent," said Captain Nemo, "which is the soul of my mechanical devices. That agent is electricity."

At Birmingham an exhibition is being held of GOVERNMENT SPONSORED DESIGNS FOR STANDARD FITTINGS for the post-war home.

Organized by the Ministry of Works in co-operation with the Ministries of Health and Fuel and Power and opened by the Lord Mayor of Birmingham, the exhibition shows details of the standards of the equipment recommended in *Housing Manual, 1944*. Among them are two porcelain enamelled cast-iron baths, two sizes of wash basins, several types of bath fireclay and steel sinks, and storage units for kitchen and heating equipment. Heating installations are suggested for the three basic types of houses set out in the Manual: the kitchen-living-room house, the working-kitchen house with separate living room, and the dining-kitchen house, also with separate living room. The heating installations shown include a heavily insulated continuous smokeless fuel burning cooker, which will also provide full domestic hot water; open fires for burning smokeless fuel, a back-to-back grate for bituminous coal as well as smokeless fuels, electric and gas cookers.

★

A decision having the following effect was made on October 11 by the National Joint Council for the Building Industry concerning WAGES IN THE BUILDING TRADE.

Submissions have been made to this National Joint Council by the Executives of the Adherent Bodies to the effect that, upon an examination of the relation between existing levels of building wages and those in other industries and of recent changes in the conditions of working in this industry, the parties generally concur in the view that there is justification for the exercise by this Council of its powers under Clause 5 (e) of its Constitution in order to adjust the standard rates of wages. Having considered these submissions from the Adherent Bodies (being the parties to the National Joint Agreement) the National Joint Council hereby decides to take action under the powers given to it by clause 5 (c) in the following respects:—(1) As from November 1, 1944, the standard wage-rates for craftsmen shall be increased by 1d. per hour, the corresponding labourers' rates by ½d. per hour—the existing sliding scale of Rule 11 (b) (i) to be adjusted accordingly. (2) As from July 1, 1945, the standard wage-rates for craftsmen shall be further increased by 1d. per hour, the corresponding labourers' rates being adjusted in conformity with Rule and the necessary further

adjustments being made in the sliding scale. The Council records with warm approval the intentions of the Parties to the National Joint Agreement to use their best endeavours to secure and encourage the utmost possible production of good quality building work in order to meet the long-term needs of the community for accommodation and to co-operate jointly in efforts to remove obstacles thereto.

The Research Division of the Ministry of Town and Country Planning is assembling some of the preparatory work for the eventual FORMATION OF A NATIONAL ATLAS.

Making this announcement at the opening of the Town and Country Planning Summer School at St. Andrews University, Mr. W. S. Morrison, Minister of Town and Country Planning, said: This is a long-term job organized by the national atlas committee of the British Association. By the end of the war this atlas will be brought a big step nearer publication. It will be a great resource to planners. Its aim is to show not only all the physical aspects of the country, but such things as the distribution of industry and population, essential services, transport, electricity, land use, types of farming, potential fertility, and so on. A report on national parks and extensive surveys of almost the whole coastline of England and Wales has also been prepared. (See page 305.)

Mr. R. W. Mugford, Senior Vice-President (Duncan Tucker (Tottenham), Ltd.), has been ELECTED PRESIDENT OF THE ENGLISH JOINERY MANUFACTURERS' ASSOCIATION for the ensuing two years.

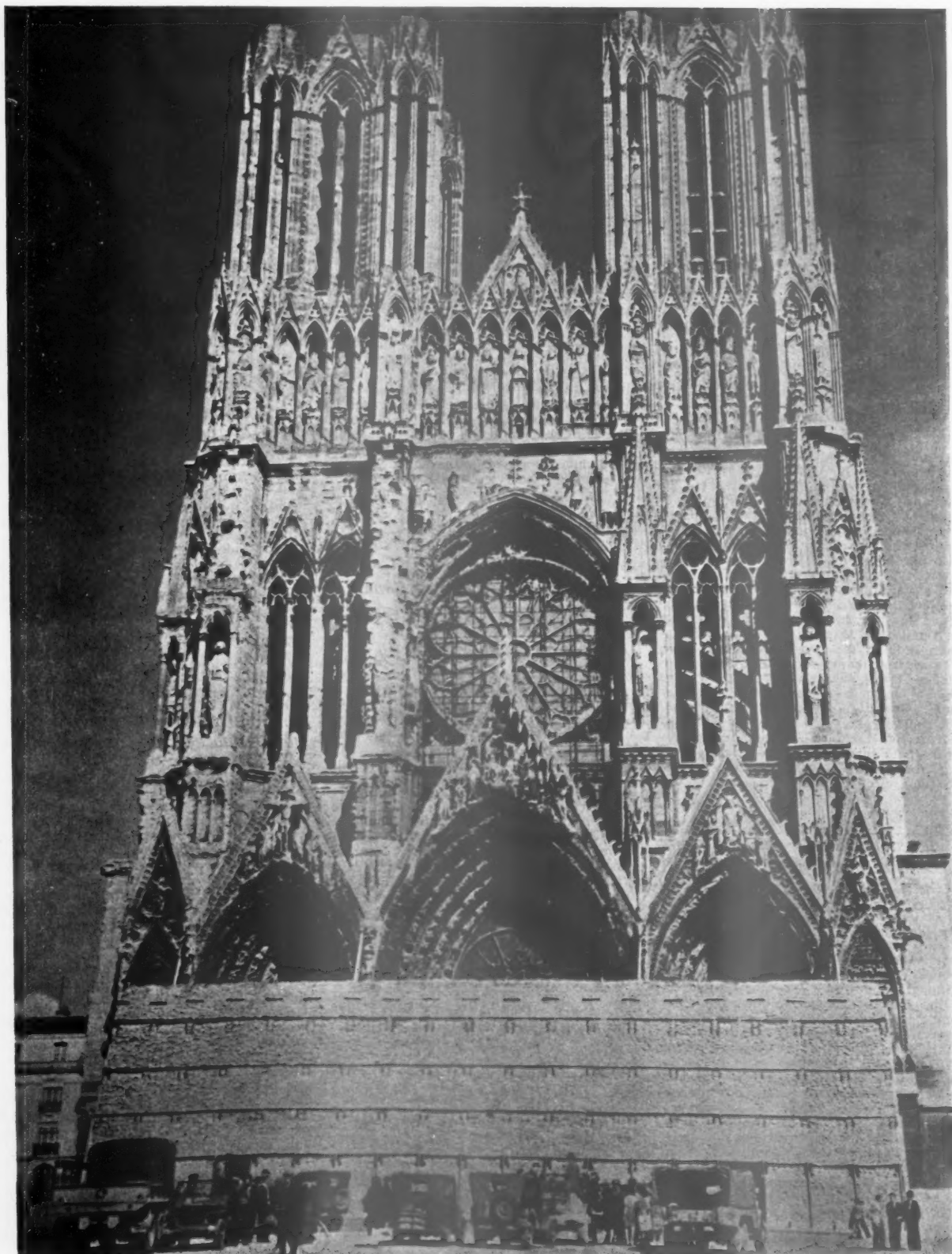
Other elected officers of the Association are:—Vice-Presidents: James Austin (Austin's of East Ham, Ltd.), John Duxbury (Magnet Timber, Ltd.), M. van Westerborg (Joinery & Builders' Supplies, Ltd.). Honorary Treasurer: W. E. Adams (John Sadd & Sons, Ltd.). Council: The five retiring members, Matthew Beer (Southampton Steam Joinery Co., Ltd.), E. Boot (Rothervale Manufacturing Co., Ltd.), A. F. Clarke (Midland Woodworking Co., Ltd.), L. Shaw (Arthur Foulds, Ltd.), and J. Welch (J. R. Welch & Co., Ltd.), were re-elected; R. J. W. Appleton was also elected. Price, Waterhouse & Co., Ltd., were elected auditors.

The Secretary of the Department of SCIENTIFIC AND INDUSTRIAL RESEARCH has made the following announcement:—

Under the provisions of the Order in Council dated February 6, 1928, the Lord President of the Council has appointed Mr. W. J. Drummond, Mr. H. L. Guy, D.Sc., C.B.E., F.R.S., Sir William Halcrow, M.Inst.C.E., and Mr. W. F. Lutyens to be members of the Advisory Council to the Committee of the Privy Council for Scientific and Industrial Research from October 1, 1944. Sir Joseph Barcroft, Sir Harold Hartley and Sir Frank Smith retired from the Council on completion of their terms of office on September 30.

The only damage to THE LEANING TOWER OF PISA was done by an Italian anti-aircraft shell which knocked off one colonette.

A survey of Pisa, by allied art experts, in which this information is given, states, according to the special correspondent of *The Times*, that the damage to its principal monuments is relatively slight in view of the fact that the front line for some time ran through the centre of the city. In the cathedral area only the camposanto suffered much damage. That the remainder has escaped almost intact bears eloquent witness to the restraint and accuracy of the American gunners, since the cathedral, at the north-east angle of the town, was in a very exposed position. In the camposanto the shell set fire to the roof, which was completely gutted. Molten lead poured into the interior, seriously damaging several frescoes. American engineers, however, are already constructing a temporary roof, in order to protect the remainder against the winter rains. All that part of the city which lies on the north bank of the Arno escaped fairly lightly, though Lungarno shows a few gaps. The south bank is badly wrecked, but the picturesque mediæval chapel of La Spina fortunately remained substantially intact. In the neighbouring towns and villages on the lower Arno the Germans did much wanton damage in their retreat, demolishing campanili on the slender pretext of creating road blocks or eliminating observation posts. This was done twice at Empoli, where the campanili of Collegiata were brought down right across the chancel. Neither would have been useful for observation. The Torre Federico Secondo at San Miniato was destroyed in this manner. At Fano the campanili of five churches and the tower of the Palazzo Della Ragione were sacrificed. In only two cases did even a partial road block result. At Terranova all four mediæval gateways were destroyed.



Sackcloth and Sanctuary

A contemporary view of Rheims Cathedral taken immediately after the American Army took the town from the retreating enemy. It shows that the Cathedral is undamaged. A low protective wall of sandbags

provides a striking foil to the splendid soaring stonework behind. Charles VII was here crowned King of France in 1429 under the banner of Jeanne d'Arc. To-day, jeeps, not horses, are drawn up outside the Cathedral.

★
Messrs.
Lawrence
promoted
association
on the
Architects
the
I N
T E

Professor
course
been co-
Planning
sultant
New York
the Car-
tant on
ton and
Rye, N.
London.
Adams,
of Clar-
York d-
of Rad-
of Penn-
the vil-
chester
Adams
School
1932, a
planning
and a
of the
served
govern-
editor
Adams
of Plan-
Comm-
the Ar-
which
tive co-
commi-
Residen-
went to
in 1933
sota, a
work a
Prize.
two ye-
land,
Greece
in this
Ecole
associa-
in 1933
bert I.
Profess-
alumi-
Beckw-
and th-

★
The
has
as D-
CO-
TH-
WE-
cess-
Har-

It is
BR-
CO-
It will
traffic
August

CONVERTING OLD HOUSES

DURING the years immediately following the war, there will be no question of whether or no obsolete buildings should be demolished, for the war devastation will compel the best possible use of every available structure. The question of old and obsolete buildings is therefore, rather one of how they can best be made of practical, if only temporary, use.

Among the most numerous of such buildings are the Victorian mansions, built for large families and a host of servants, which are too big and inconvenient for modern conditions and too costly to maintain in their present state. Though still structurally sound, they are socially obsolete. They are often situated in the more sparsely populated and healthier parts of our cities, and surrounded by gardens or open spaces. They still have a useful life ahead of them, if they are properly converted into smaller units or flats, and could provide a reasonable standard of accommodation, with relatively little cost in materials and labour, for a section of the population which is likely to find its needs more difficult to satisfy than those at lower or higher income levels.

A few examples of how these houses can be converted effectively with surprisingly little structural alteration and, therefore, with little expense, are illustrated on pages 311 to 314 of this issue. They show how the same original plan can be used in a variety of different ways to suit individual needs. They show, moreover, that though the alterations are simple and need little technical building knowledge, skill and experience in planning the conversion is required. The job is not so easy as it may at first appear. Few ordinary builders or owners would be capable of carrying out such jobs effectively. Indeed, they are more likely to harm buildings and make their conversion uneconomical. The use of the trained imagination of the architect is essential if homes of convenience and character, giving an economic return are to be provided.*

At the same time, this kind of job offers the ideal opportunity for the small builder. Schemes for the quick erection of vast numbers of cheap houses call for the organization of the large contractor who can use fully rationalized and mass production methods. These methods are not suitable for reconditioning old houses, for every job will be an individual one, varying according to the particular problem and the wishes of owners and prospective tenants, and, therefore, eminently suited to the local jobbing builder.

The move to convert old houses can be left to the private property owner, rather than to the Government or local authorities. In most cases, if the work is done efficiently by a competent architect, conversion offers a reasonable return on capital investment. Property owners should therefore need little official encouragement. Where owners are slow to

* Some useful suggestions on converting houses into flats were given in a lecture by Dr. J. Fenton reported in the Journal of March 30, pp. 250 to 252.

★
Messrs. Frederick J. Adams, and Lawrence B. Anderson have been promoted from the rank of associate professor to professor on the faculty of the School of Architecture and Planning of the MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

Professor Adams, who is in charge of the course in city planning at the Institute, has been consultant to the Massachusetts State Planning Board since 1936, and was consultant to the Regional Plan Association of New York last year. He is chairman of the Cambridge Planning Board and consultant on city planning and zoning for Arlington and Gloucester, Mass., Hartford, Conn., Rye, N.Y., and Springfield, Vt. Born in London, the son of the late Dr. Thomas A. Adams, he was associated with the office of Clarence Stein & Henry Wright of New York during the construction of the town of Radburn, N.J., and was also on the staff of Penrose V. Stout during the planning of the village of Lawrence Farms in Westchester County, New York. Professor Adams joined the faculty of the Institute's School of Architecture and Planning in 1932, and became associate professor of city planning in 1938. He is secretary-treasurer and a member of the executive committee of the American Institute of Planners and served as a member of its board of governors from 1937 to 1939. He is also editor of the *Planners Journal*. Professor Adams is a member of the American Society of Planning Officials and a member of the Committee on the Hygiene of Housing of the American Public Health Association, which he serves as a member of the executive committee, and chairman of the sub-committee on Environmental Standards for Residential Areas. Professor Anderson went to the Institute as assistant professor in 1933. He is a native of Geneva, Minnesota, and in the final year of his graduate work at the Institute was awarded the Paris Prize. He was in Europe for more than two years, during which he studied in England, Spain, Italy, Sweden, Denmark, Greece, Germany, and Holland. His work in this period won several medals at the Ecole des Beaux-Arts in Paris. He became associate professor of architectural design in 1939. In association with Professor Herbert L. Beckwith, of the Institute's staff, Professor Anderson designed the Institute's alumni swimming pool and, with Professor Beckwith, designed the Briggs Field House and three of the Institute's new laboratories.

★
The War Damage Commission has appointed Mr. W. H. Ansell as DEPUTY WAR DAMAGE COMMISSIONER FOR THE LONDON (SOUTH WEST) REGION in succession to Mr. E. Vincent Harris, who recently resigned.

It is expected that WATERLOO BRIDGE WILL BE FINALLY COMPLETED in a week or two. It will then be available for six lines of traffic instead of two lines permitted since August, 1942.

convert their property, especially when it is falling into decay through lack of upkeep, local authorities should, in future, make far greater use than hitherto of the powers they already possess to commandeer and convert property for housing.

Though conversion of houses is a matter that can be left to individuals or local authorities, the Government is concerned at one point. Where houses are damaged by bombs there is no need to rebuild them to their original condition. Yet compensation for war-damage is only paid to enable the owner to restore the original state of affairs. The owner should be allowed to rebuild according to the amount of compensation in any way he likes, especially when he wishes to convert an old house into flats. In many cases, the cost of converting a damaged house will be no more than returning a property to its original state. In other cases, cost of conversion may be more, and then the authorities should, we suggest, consider subsidizing the owner, if necessary, to provide for adequate alterations.

No possible help in solving the serious housing problem should be overlooked. The conversion of large and out-of-date houses into flats is one such help, and not an insignificant one. That houses should be skilfully converted by those with trained imagination is important, for a national asset is at stake.



The Architects' Journal
War Address: 45, The Avenue, Cheam, Surrey
Telephone: Vigilant 0087-9

N O T E S & T O P I C S

STATISTICAL EXERCISE

In spite of the many housing reports, or reports partly concerned with housing, which have appeared in the last year and continue to appear, we have still only a rough idea of the amount of materials and labour which will be needed for house building and repair in Britain during the first post-war decade. The number of war damaged houses is known, and that is about all that is definitely known, since the war-time displacement of population must invalidate local estimates of post-war need.

The preparation of an accurate estimate of total need would not at present be worth while undertaking even if it were possible: demand must exceed supply so greatly for several years that it is only necessary to know the amount and broad geographical distribution of the most needed classes of work. But one can obtain some idea of the grandiose proportions of the total of housing work awaiting the building industry in Britain by looking at the Northern Ireland housing reports.*

The Committee on Housing decided that a survey of housing conditions throughout the Province was a necessary preliminary to their work, and this survey was carried out in the summer of last year. The survey covered all urban houses, and samples in rural districts were carefully chosen and the figures expanded to cover each county as a whole.

Some of the main findings of the survey were these: Northern Ireland, with a population of about 1,290,000, possessed in 1943, 323,000 houses. Of these 100,000 needed minor repairs (up to £20), 100,000 needed repairs costing between £20 and £100, and

* *Housing in Northern Ireland. Interim Report of the Planning Advisory Board. July, 1944. Cmd. 224. HMSO Price 1s.*

20,000 needed repairs costing between £100 and £200, and 40,000 were either beyond repair or would cost more than £200 to put right. A third of all the houses were either overcrowded or unfit for habitation, and nearly 90 per cent. of all houses in rural areas had no running water.

The Committee calculates that 100,000 new houses are needed in Northern Ireland merely to remedy existing deficiencies, and sets this need (together with the quarter of a million houses needing repairs), against an inter-war housing production which averaged only 2,000 a year.

The situation in Great Britain may not be, proportionately, quite as bad. Less than 1/6th of all Northern Ireland houses were built between the wars, compared with 1/3rd for Britain; and house maintenance in the Province may have been as much neglected as house building. Yet this British advantage must have been largely lost by the much greater damage which we have suffered from air raids. So that by and large the situation in Great Britain must be, proportionately, *very nearly* the same as in Northern Ireland.

I leave each reader to calculate for himself how long the job will take, and remind him not to forget in doing so the additional maintenance work which will accrue during each year of the programme. There are now about 13½ million dwellings in Great Britain.

THE PORTALS 'OPE

Phase two of the Portal House Campaign has now opened. The preliminary "softening-up" process (during which everybody tried to prove that they could plan the thing better than MOW), having only succeeded apparently in hardening the defender's determination, a new line of approach is being tried—this time a flanking movement on MOH, which is responsible for allocation and siting.

Pointing out that the Portal (as at present designed) takes up double the frontage of a normal semi-detached house, and yet houses fewer people, the local authorities are enclosing with their orders requests for information on how the things are going to be

fitted in. Already open spaces are being scheduled by desperate housing officials as possible sites, and Kingston has even asked permission to erect 50 in Richmond Park:

While sympathizing with Kingston's problem—it is apparently the second most densely populated area in Great Britain—this scheme has terrifying possibilities when you think of how Kensington and Westminster might react to the precedent. As we are now apparently committed to Portals, is it not time that some advice was officially issued on how they are to be sited and combined with later permanent development?

ON PUBS

Crouched morosely over our beer in one of the West End's well-known flush-panelled foxholes, a colleague and I were turning over the pages of the *True Temperance Quarterly* (issue No. 47). Around us gleamed the peach mirrors, the zebano and the Rexine. "Modernistic"—as Mr. Betjeman used to sing—"shone the lamplight, there in London's fairy-land." The lettering on the lavatory doors was in Gill Sans, the ashtrays were—you'll never guess—pavement lights. As a background it was as bright and impeccable as a new set of false teeth.

"Drinking," started off the *Quarterly* on a lofty note, "might be defined as an individual reaction to individual circumstances, conditioned by the prevailing social customs of the time, which customs are themselves conditioned by the collective reactions of a multiplicity of individuals affected also by their circumstances." Listlessly we read on, as fragments of conversation drifted by . . . "aw c'marn sister . . . and then the engine stopped . . . I said straight, you can kid gloves, but you can't kid me . . . but when he started kissing my ankles, well . . ."



"Look, Ernie—Gothic!"

Reproduced by permission of the Proprietors of *Punch*.

Pert and pink as little sugar pigs beneath elaborately sculptured coiffures young women sipped daintily at their gins. "The presence of women in the public house," continued the *Quarterly* severely, "is more likely to be restraining in its effect than an incentive to immoderation, and so no very good reason can be seen why the habit should be deplored." (Where, we wondered, does the Editor of the *Quarterly* go for his evening pint of individual reaction?)

For six pages the plea for more and better public houses was argued by this curious little paper. "The True Temperance Association," it concluded, "has consistently advocated the improvement of the public house as the best means of avoiding most of the abuses associated with drinking. Improved houses symbolize and encourage a new attitude towards the habit."

Perhaps so, but what is meant by "improvement"? Is it possible to make a success of a contemporary pub—and if so how, as architects, would we accomplish it? Endlessly we argued in the deathly fluorescent glare. Is Lord Brocklet's famous stylistic formula (Tudor for Cheshire, you remember, and Georgian elsewhere) the correct one? Will the Sheffield experiment of mixing beer and Beethoven be a success—or will the bars become so full of choral societies that customers won't be able to gain entry?

Does the regular beer-drinker really prefer his change planked down on Bakelite rather than upon old mahogany? Is this nostalgia for carved cherubs, silvered mirrors, and shabby leather merely a precious sentimentality shared only by intellectuals and pedants and keepers of left-wing bookshops? Is the atmosphere of these places genuine or false? Do chromium plated beer engines, rubber floors and concealed lighting seem cheerless to anyone but a handful of romantics?

To these questions the *True Temperance Quarterly* gives no answer. That is left to the architects—and so far, we decided, as we picked our way through the tubular chairs to the sand-blasted revolving door, they don't seem to have solved the problem.

ASTRAGAL.



LETTERS

J. Lewis Womersley, A.R.I.B.A.

Anxious

G. Goddard Watts

(Director, Technical Information
Bureau of Lead Industries Development Council)

Ianthus

Scotland Hydro-Electric Development Scheme

SIR,—I have followed with great concern the progress of the scheme for the hydro-electric development of Scotland, from the days of the Cooper Report to your recently published article by Hugh Quigley on Construction Scheme No. 1, and the further comment in the October 5 issue of the *Journal*.

Even if we admit that "peace and beauty must inevitably give way to progress," as Lord Lovat says in his letter to *The Times*—and in this case the point is debatable—it surely behoves us when dealing with such a large-scale project to ensure that the best brains in the country are used to create a development of the highest order of efficiency and aesthetics. But what in fact is happening is that the Engineers of the Northern Electricity Board are going rapidly ahead with their operations apparently unhampered by any necessity to submit plans for public or any other approval.

It simply beggars the imagination to think that in these days of Town and Country Planning Acts and bloody warfare on behalf of democracy an undertaking which will permanently affect the larger and grander part of Scotland can suddenly be launched without the public at large having the slightest opportunity either to understand what it comprises or to see plans of any of the vast building works which will so transform this unrivalled landscape.

With the brilliant example of the Tennessee Valley Authority before us, achieved by

wholehearted co-operation of engineers, architects and scientists from the inception of the scheme, we have an obligation to produce in our hydro-electric project a development of at least the same high standard. This result will certainly not be attained if the work is allowed to continue in the same hole-in-the-corner manner in which it has begun.

There has been much praiseworthy indignation expressed at the proposals to erect power stations near to the Cathedrals at Lincoln and Durham, but in the Highlands it is natural and not man-made beauty which is endangered. Here, the Electricity Board apparently thinks it can trade on the fact that there are no nearby populations of a size able to oppose its activities; but,

in fact, the widest interests of the British public are involved.

Surely it is the duty of every cultured body to demand that a halt be called to the precipitate launching of what may prove to be vandalism on the largest scale known even in these badly defaced islands.

It would seem appropriate for the architectural profession, which should be well qualified to speak on the matter, to give a lead in this demand for an immediate review of the whole situation.

Rainford, Lancs. J. LEWIS WOMERSLEY

Stepping up Land Values

SIR,—The War Damage Commission of Birmingham is sending out the final figures of those claims that come under the heading of "Total Loss," and which are to be settled by a value payment.

As you are no doubt aware, the formula for dealing with this involves the valuation of the site concerned as a "virgin" building site.

The Commission and the Public Valuers seem to be taking this opportunity for a *considerable* stepping up of land values.

There is a great deal of discussion and planning going on for post-war needs, notably regarding a ring road round the centre of the city. When the Corporation does start to acquire land for this and other purposes surely this stepping up of land values is going to affect them, and the ratepayer, adversely.

Could you or any reader throw light on the questions involved?

ANXIOUS

The Churchill House

SIR,—In considering the Churchill house correspondence it would appear that there is a factor affecting the possible internal arrangement which requires emphasis.

It is known that one of the reasons calling for modification of the original prototype was the necessity of overcoming poor circulation of the hot water system. Astragal's plan, brilliant as it is, seems to have retained, like at least one of the others, the original weakness of making a proper return pipe from the boiler to the cylinder difficult to the point of impracticability.

With proposed post-war housing generally it has been noted that several excellent plans impose similar difficulties. When a back boiler is to be utilized for the hot water supply, economy and efficiency can only be achieved by close grouping not merely the sink, bath, wash basins and WCs, but also the water heating unit. The restrictions which this imposes on planning are very great, and in most cases can only be overcome by abandoning the back boiler principle and making use of an independant heating unit. A gas water heater is the only satisfactory solution to the problem in the majority of the published plans.

London

G. GODDARD WATTS

Labourers and Architects

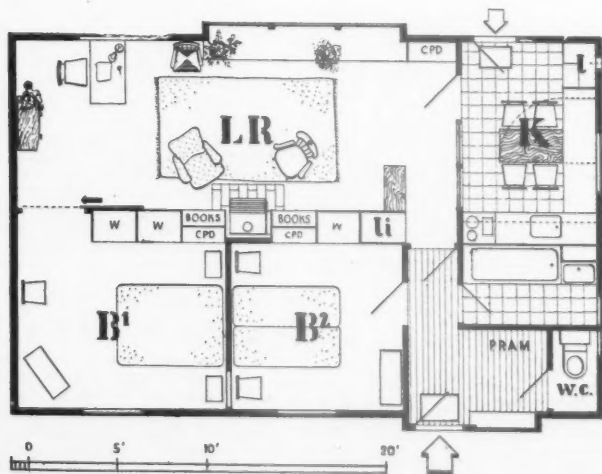
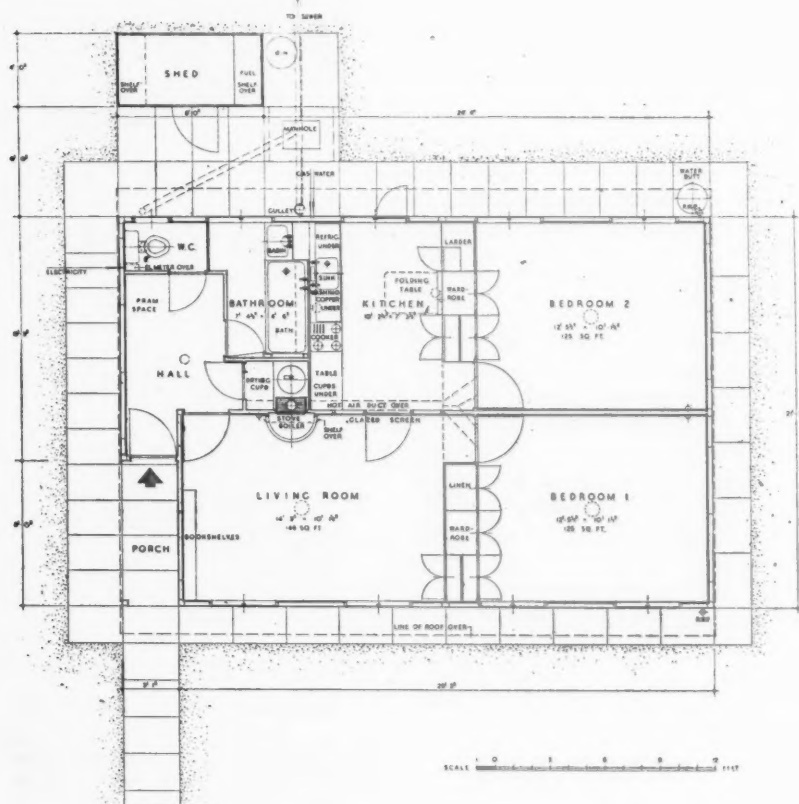
SIR,—I am an architect serving in HM Forces. Now after five years in the Army I look forward most eagerly to the not-too-distant future when, I hope, I may be able to return to the profession, an older and more responsible man.

In this connection I should like to direct the attention of local authorities (and others) to the leading article in a recent issue of the *Daily Express*. This article reveals that a male worker in this country now earns an average weekly wage of £6 4s. 2d.

A glance at the Situations Vacant column of the architectural journals any week will, in view of the above information, quickly convince the most casual observer that it is more profitable to be a tractor driver or a semi-skilled labourer than to be a young architect.

"We all want very much to get back to the profession. But at the wages or "salaries" offered, can we afford it? Most of us now have families to keep (we're five years older), and it seems a pity if a return to our profession will entail the acceptance of a life of genteel, but very real, poverty.

IANTHUS



The Churchill House. Top, the amended plan of the Ministry of Works. Bottom, suggested plan by Astragal.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

BLOWN GLASSES

Reamy Antique :

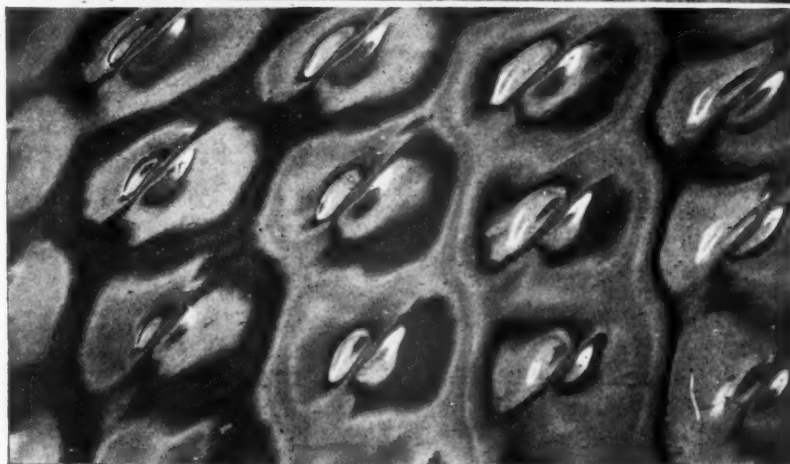
Blown : Pattern inherent in glass itself due to manufacturing process.

The accompanying photographs are full-sized illustrations of a typical section and elevation.

**Antique Venetian :**

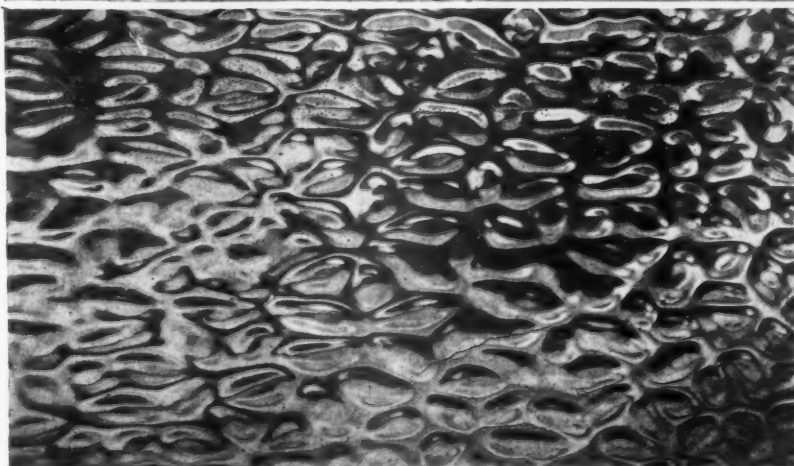
Blown : Pattern inherent in glass itself due to manufacturing process.

The accompanying photographs are full-sized illustrations of a typical section and elevation.

**Antique, Muffled Sheet :**

Blown : Irregular pattern imprinted on both surfaces. Medium obscuration. Natural fire-polished surfaces give brilliant appearance.

The accompanying photographs are full-sized illustrations of a typical section and elevation.



Information from Chance Brothers Ltd

INFORMATION SHEET: GLASS 18: TYPES OF GLASS 10
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1

INFORMATION SHEET • 950 • GLASS No. 18

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 950 •

GLASS : No. 18

Subject :

Flashed Coloured ; Antique ; New
Crown ; glasses.

General :

This Sheet is the eighteenth of the series dealing with glass and glass products, and the tenth of the section on types of glass.

Flashed Coloured :

Description : Blown. A thin layer of coloured or opal glass is flashed upon one surface during manufacture.

Flashed Opal : A fully diffusing glass of high light transmission giving a lower absorption than "pot" Opal or rolled Opal.

Flashed Ruby : A pure red sheet glass with clear surfaces.

Flashed Blue : An alternative to through-coloured "pot" blue.

Light Transmission : Opal, 40 to 60 per cent.
Ruby, 5 to 20 per cent.
Blue, 0.1 to 10 per cent.

Maximum standard sizes : 50 by 36 in.

Nominal thicknesses and weights : 15 oz. and 21 oz. per sq. ft.

Quality : Made in one quality only.

Colour : Available in Opal, Ruby and Blue.

Standard variations : Two densities in Blue. None in other colours.

Packing : Packed in crates containing approx. 250 sq. ft.

Specialised applications : Flashed Sheet, as an alternative for glass coloured full thickness.

Flashed Opal as an alternative for glass opaque full thickness.

Antique : Antique Reamy, Antique Venetian, Antique Celtic.

Description : Blown glass having a variety of textures.

Light transmission : 70 to 85 per cent.

Maximum standard sizes : 24 by 15 in.

Nominal thickness and weight : $\frac{1}{8}$ in. to $\frac{3}{16}$ in. ; 32 oz. per sq. ft., approx.

Quality : Made in one quality only.

Colour : Crystal white or pale tints, and wide range of colours and rich streaky glass.

Packing : Packed in crates containing approx. 100 sq. ft.

Specialised applications : For heraldic designs.

Antique : Norman Slabs.

Description : Blown. Made in small rectangular panes. One side slightly convex. Considerable obscuration.

Light transmission : 80 to 85 per cent.

Maximum standard sizes : 13 by 10 in.

Thickness : $\frac{1}{8}$ in. at edges.

Quality : One quality only.

Colour : Available in a variety of tints.

Standard variations : None.

Packing : Packed in crates containing approx. 100 sq. ft.

Specialised applications : In leaded panels and for heraldic designs.

Antique : Muffled Sheet.

Light transmission : White, 85 to 90 per cent.

Ruby, 7 to 15 per cent.

Maximum standard sizes : 50 by 36 in.

Nominal thickness and weight : 18 oz. per sq. ft.

Quality : One quality only.

Colour : White and Ruby.

Standard Variations : None.

Packing : Packed in crates containing approx. 250 sq. ft.

New Crown :

Description : Glass produced to simulate the appearance of Old English Crown glass, having a slight convexity which imparts a brilliant appearance.

Standard sizes : Up to 18 by 12 in.

Nominal thickness : 18 oz. per sq. ft.

Quality : One quality only.

Specialised applications : For reglazing old houses where it is desired to maintain the original appearance given by Crown glass.

Previous Sheets :

Previous Sheets of this series on Glass are Nos. 914, 917, 919, 922, 925, 927, 929, 932, 937, 938, 940, 945, 946, 947, 948 and 949.

Issued by :

Chance Brothers Limited

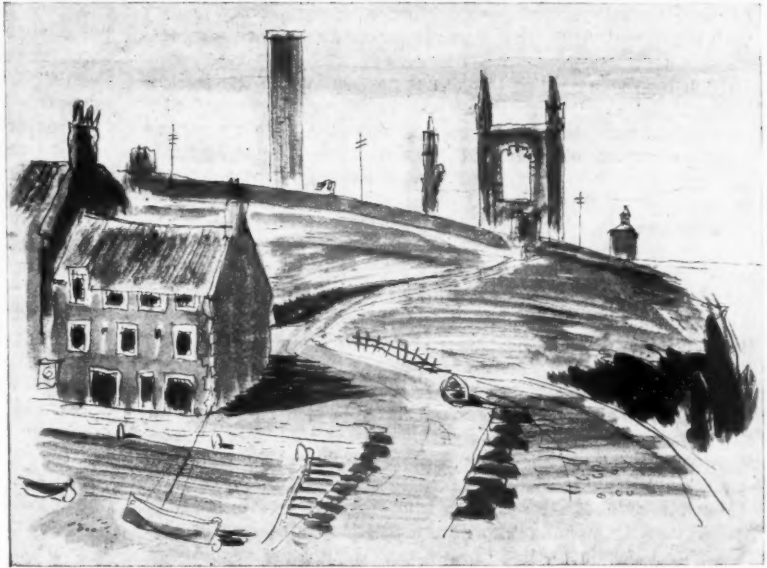
Address : Glass Works, Smethwick, 40, Birmingham

Telephone : West Bromwich 1051

Telegrams : Chance, Smethwick

PHYSICAL PLANNING SUPPLEMENT**ST. ANDREWS, 1944**

This year's Town and Country Planning Summer School (under the auspices of the Town Planning Institute) was held at the University of St. Andrews, from September 18 to 25. The objects of the school are to provide an opportunity for the discussion of principles and methods of town and country planning and kindred subjects; to enable those engaged in the practice of town and country planning to exchange views regarding their several experiences of its administration and application; and generally to promote education in all matters relating to the science and art of planning in town and country. On the following pages the Journal presents extracts from three of the nine lectures given at the Summer School. The opening address by Mr. W. S. Morrison is reported in page 316. Right, and on page 310, are sketches of St. Andrews by Hugh Casson.

**TOWN AND COUNTRY PLANNING SUMMER SCHOOL****1 INDUSTRY and its environment****LORD FORRESTER, M.A., F.I.I.A.**

Planning is a conception not unfamiliar to industry, although industry has seldom itself taken part in the types of planning with which the Town and Country Planning Summer School is concerned. "Progress-Planning" is, however, an essential function in every modern plant, more especially since the wartime demand made increased production from limited resources of machines and labour supply necessary; it is concerned with a proper guiding and control of materials of work flowing through the factory, and it is four-dimensional planning in as much as the time factor enters into it at every turn. On the physical side, factory layout has for long been regarded as important by the progressive firm, even though the care given to layout of plant and equipment inside the four walls has seldom been extended to the factory itself in relation to its wider environment.

If there is to be planning as between industry itself and those responsible for its surroundings, this can only be achieved as a two-sided co-operation, that is to say co-operation between industry and Local, Regional and National Authorities.

In the past such co-operation has been regarded with the gravest suspicion by industry, and industry in consequence has been looked at with distrust by those responsible for Town and Country Planning. In a number of directions the war has helped to alter this, or at least to prepare the ground for collaboration between the two.

In industry, as in Local Government, collaboration demands a high standard of individual intelligence, particularly in those fields which do not directly concern the industry in the course of its ordinary work; so far as industry is concerned that means that the present managerial revolution which has affected factory management and industrial administration throughout the country, must continue; it is no longer possible, let alone desirable, that the working conditions of fifty, a hundred or more human beings should be

in the hands of an inexperienced eldest son or of a dyspeptic financial director. Industrial administration as such has come to stay, the factory manager as such is increasingly giving his spare time to the study of those subjects which will give him the necessary qualifications, and that means that those responsible for production to-day are, to an increasing extent, able to meet on common, or at least mutual ground, those who have been trained in the wide field of environmental planning.

This relationship between factory and environment must, as has been said, be two-sided; there are also two main divisions in which it can take place, the human and the physical fields.

Industry should not meddle in housing, for example, but there is much that it can do in collaboration with the Local Authority in the fields of preventive medicine and education. Industry is responsible for one quarter of the life of each of its employees; it should see that conditions of work are at least subject to competent medical and lay supervision. A standard is set, for instance, in some of the new industries that contrasts strongly with the conditions prevailing in older centres such as Dundee, where management has seldom troubled to make itself familiar with progress that has been made elsewhere.

In education, that is to say education for industry, it is encouraging that one of the most constructive experiments should be that of a famous firm of Clydeside marine engineers, whose handling of the problem of youth in the factory, in conjunction with the Local Authority, has been admirable ever since they first turned their attention to the problem shortly after the close of the last war.

On the physical side industry itself has undergone much change. During the war years new methods have developed which make it possible to move to new situations industries hitherto thought to be immovable, the chief among these developments are the coming of the electric furnace and the final triumph of the electric motor which gives individual drive to every machine. Hardly less important has been the key developments in plastics, aluminium, and magnesium, in heat treatment and radio frequency heating, and in the newer alloys of the older metals.

Industry can directly affect its physical environment unfavourably by neglect of these major factors: the disposal of

waste of materials whether solid, liquid or gas, which may be either harmful or disfiguring to the surroundings; secondly, by the creation of noise; thirdly, by unnecessary ugliness. Modern technique, and co-operation from within the factory with the Local Authority, can render all this either unnecessary or harmless.

Much has been said in the recent past following the Barlow Report and the White Paper on Employment Policy concerning the necessity for balance of industry. This principle is now accepted by nearly all, and it means in practice that not more than one-fifth of the working populations employed in any one place should be engaged in the same industry, because the place then becomes prey to economic stress. In this connection the Census classifications of industry are quite useless. For instance, modern developments have made the terms "engineering" and "textiles" meaningless. This balance, which must be sought, has therefore to be worked out afresh by those with knowledge of present industrial conditions, but it must be worked out in terms of regions, or of sub-regions, rather than for individual towns. Further, it is not sufficient for one large firm itself to provide a great diversity of types of employment. This is another type of unbalance that leads equally surely to psychological complications.

This talk on the possible close relationship between industry and its environment has been concerned rather with industry as it might be than with industry as it is, and the suggestions made can only be carried out if there is a willing co-operation between industry and those concerned with the widest aspects of environmental planning, and a co-operation that can recognize and overcome the differences on either side, which are generally considerable.

2 SOCIAL ASPECTS of town-planning RUTH GLASS, M.A.

There are three major phases in town-planning which require specific sociological investigation. First of all, dwellings must be designed and built, and the required sizes and types should, therefore, be known. Consequently, the facts concerning the population structure and trends of the place to be planned, should be at the disposal of the planner. Secondly, the houses need to be grouped and decisions concerning social and geographical groupings and re-grouping need, therefore, to be made. Thirdly, not only houses, but institutions, schools, shops, churches, clubs and pubs are designed and fitted into the group patterns: the requirements for these should, therefore, be available also.

These three chief social aspects of town-planning have, at least in part, received a good deal of attention recently. The absence of adequate and up-to-date census material is obvious to all who are concerned with housing and town-planning. The current idea of the neighbourhood unit has stimulated plans presenting, and investigations into, group patterns within towns. The need to discover institutional requirements has been illustrated by our lack of knowledge concerning retail distribution and shopping habits. Yet in each of these fields we do not yet even know precisely what and how much we ought to know.

For instance: even if an up-to-date population census were available, its material, if collected along the lines of previous censuses, would not suffice for the purpose of planning. The basic units adopted by the census are (a) the individual and (b) the private family. Houses are not built for individuals, and aggregates of individual characteristics are, therefore, not

very useful for housing programmes. Houses are built for households and, wherever possible, for voluntary, not for compulsory households. However, the private family is a category covering both voluntary and compulsory households, that is households the members of which wish to live together, and households the members of which are thrown together for lack of income, accommodation, or for other reasons. Existing statistics do not distinguish between these two major types of households and, consequently, actual housing requirements are obscured.

Some efforts to obtain workable estimates have been made. For instance, in the survey of Middlesbrough which is now under way, the material on household structure and attitudes is provided by a sample enquiry undertaken by the Wartime Social Survey, who interviewed about 1,400 separate households, a random sample of one in 23 of all Middlesbrough households. A new classification of households was adopted, which is being applied to all those interviewed, to show up "concealed" households. This classification comprises household types of varying complexity. It will show which households need splitting up most urgently. Consequently, minimum, intermediate and optimum housing programmes can be worked out. Yet that is only the first step on the part of the planner to estimate population and hence potential housing needs.

The second step is to estimate population trends and changes in population structure for specific localities. There is an established method for computing these estimates. When applied locally it is, however, difficult to base them on realistic assumptions.

The third step in estimating population potentialities is to inquire into the territorial mobility of households. Facts on the causes, frequency and boundaries of mobility, help to estimate potential obsolescence and the need for different types of dwellings as well as the number of marginal dwellings required for the purpose of mobility. The territorial range of mobility reveals the requirements for the mixing of dwelling types in given areas. It is likely that fairly general tendencies are at work, that people by and large prefer to stay in their original neighbourhoods provided they can find there the type of accommodation to meet their changed circumstances. If that were so we should expect to find a high incidence of territorial mobility within areas of mixed types of housing. We have found that to be the case in one area which is now being investigated, Bethnal Green in the East End of London.

However, patterns of territorial mobility should not only be observed for the purpose of estimating population shifts and housing requirements. They are also an index of group cohesion, and thus relevant to the second major social aspect of town-planning: the grouping and re-grouping of people.

III

The need to plan and reconstruct cities in terms of their component units has led to the now popular idea of the neighbourhood unit. It is supposed that within its boundaries neighbourhood life will be resuscitated.

Two aspects of neighbourhood units have chiefly been considered: their size and the types of institutions which they should contain. Three further considerations have so far received less attention: first, what types of people will live in these neighbourhood units? Can there and will there be a considerable admixture of occupational, religious and age-groups within the neighbourhood unit, or will each have distinct social characteristics? Will the social differences between our existing urban sub-sections be maintained? Secondly, are there existing natural neighbourhoods which could be incorporated into neighbourhood units? Thirdly, what are the prerequisites of neighbourliness? Will neighbourhood life be stimulated by the unit design?

Observations of the present structure of towns show first of all that unless a complete reshuffling of people and habits are to take place, neighbourhood units will be socially as distinct from each other as the old sub-sections of towns.

In all
differen
tion. I
settled
tion
appear
Berm
always
differ
of old
banned
strative
only di
wide d
It wil
relation
has cre
in area
neighb
Of co
existin
appear
it may
appear
Morec
re-shu
make
neighb
If th
differ
as flex
service
lations
much
deman
divide

The
major
institu
neighb
geogr
devel
move
who I
encou
Wha
these
butio
such
ing n
are v
age-g
consi
and t
schoo
neigh

Wh
group
exist
can b
differ
Seco
mate
and
attit
scho
tiona
bring
life.
need
a fin

3 Planning by LEASE CONTROL

H. W. WELLS, F.S.I., F.A.I.

[Note.—The Town and Country Bill now before Parliament enables Local Authorities to acquire and lease land for development and redevelopment. The new powers provide the Authorities with a new machine by which they can control the planning and replanning of parts of their areas. This paper is an attempt to set out some of the problems with which Local Authorities will be faced when implementing their proposed new powers.]

Introduction

Most of us will agree that we are watching at this moment a social revolution—a symptom of which is a national awakening to the necessity of the right use of land. I believe that in the post-war world we shall see a new Renaissance. Changes in this country even at their most rapid are gradual. Traditional customs are seldom thrown completely overboard all at once; as a nation we are proud of our capacity to mould old habits to suit new conditions. British revolutions are adaptations. Just as the modern Architect-planners are influenced by the best in British historical planning such as the village green or London square, and are adapting the original conceptions to suit the present need, so are our legislators adapting traditional customs and principles.

It is not therefore surprising to find that in the Town and Country Planning Bill now before Parliament the Government legislators have, perhaps subconsciously, selected as a basic principle the one traditional custom from the muddle of British law relating to land ownership—a custom which has brought about and preserved most of the urban planning of which we can boast. I refer to the leasehold system of land ownership and the custom of granting building leases to developers. The leasehold system, particularly during the 18th and early 19th centuries, was the instrument of planning by which the dignified squares of London, the lovely terraces of Bath and other examples were created. It has also become an ingenious and effective means of controlling the development once it has taken place. In other words, it permits the landowner to plan positively and subsequently to control the use to which the buildings are put, and to protect the architecture from irresponsible commercialism.

The wise landowner watches his estate as a whole, and to him his estate is a living thing, but like a living thing subject at times to ill-health. The health of the estate may be endangered by factors outside his control. The areas around his estate may have slowly changed in character, with the result that it is, for example, no longer a fashionable area where the quality reside, and many houses are empty. The landlord can in these circumstances decide to take one of several courses. He can consent to the houses being let off in apartments which might be the first step towards creating a slum, or consent to the houses being used for commercial purposes provided the elevations are not marred by the ugly display of advertisements. He has his choice, but there is one important limitation. Seldom, if ever, is his estate a sufficiently large unit for him to disregard, in making his choice, the changes that are taking place on adjoining land. In the long run he has to give in to circumstances and now to the dictates of Interim Development Control which may not always coincide with his own aims.

In the leasehold system, the ground landlords discovered a sound planning machine over two centuries ago, and until comparatively recently, subject to the limitations I have just mentioned—a very effective machine.

The Town and Country Planning Bill, by giving local authorities wide powers of land acquisition, puts them in some ways into a similar position as the private ground landlords, with this important advantage, that they, unlike the historical landlords, will be able to control their estates with proper regard to the pattern of the whole neighbourhood.

In all modern towns and cities social and occupational differentiation has been translated into territorial differentiation. People of like origins, occupations and habits have settled together. And there are not only the obvious distinctions as between Mayfair and Bermondsey. Even apparently homogeneous areas, even Mayfair and Bermondsey, have marked internal splits. There are not always social tensions, but there is also socio-geographical differentiation. It cannot be ignored either in the re-planning of old or in the planning of new towns. For it will not be banned from the newly planned towns by mere local administrative decisions. Socio-geographical differentiation will only disappear, and disappear slowly, as a result of a nationwide deepening of democratization.

It will not disappear otherwise because the very lack of relationships between the different socio-geographical groups has created close social relationships within them. In fact, in areas where such homogeneity is most marked, natural neighbourhoods have developed.

Of course, the easiest and the most desirable solution to the existing socio-geographical differentiation in our cities, appears to be social mixing within neighbourhood units. But it may not be so easy after all. At present, neighbourliness appears to develop naturally in areas of social homogeneity. Moreover, there is at present stubborn resistance to such re-shuffling of people. Such mixing would, furthermore, make it necessary to split many of the existing natural neighbourhoods.

If the negative features of the present socio-geographical differentiation are to be mitigated, the unit design should be as flexible as possible. Except for the most essential daily services, the unit should not be self-contained. Social relations between the different units should be encouraged as much as possible. There should be no strict physical demarcation; units should be physically linked rather than divided.

IV

The observation of institutional requirements, the third major social aspect of town-planning, illustrates the manifold institutional requirements of each individual and of each neighbourhood. Division of labour has produced the socio-geographical differentiation previously described; it is also developing its antidote: the diversity of interests and of movements which in time will help to bring together those who live apart. This diversity should, therefore, surely be encouraged.

What institutions are needed and where? To establish these points, we have to observe in some detail their distribution, their functions and their catchment areas. So far, such observations have demonstrated first the fact that existing neighbourhoods are not self-contained. Secondly, there are varied neighbourhood boundaries for members of different age-groups. School catchment areas, for instance, differ considerably from those of adult clubs, even where the school and the adult club are next to each other. Consequently, the school would not appear to be the natural focal point of a neighbourhood.

V

What methods are used to obtain a picture of the existing group and institutional requirements of a town? First of all, existing statistics collected by the central or local government can be utilized to tabulate and map the distribution of the different family, social and age-groups within the town. Secondly, sample surveys are used to supplement the existing material on social characteristics, to discover neighbourhoods and institutional requirements, and to inquire into people's attitudes. Thirdly, the picture of the catchment areas of schools, clubs, churches and shops is derived from institutional censuses. The fourth method, systematic observation, brings out all the less tangible aspects of neighbourhood life. Participation in and observation of people's lives are needed to weld together all the other material so as to provide a final concrete and complete picture.

Perhaps this Bill is a signpost to the future. Perhaps in the years to come all development will be controlled by a Central Planning Authority, through machinery comparable to that of ground leases. Who knows? One thing is, however, certain: if this Bill becomes law, planning by lease control will be on trial during the next few years.

It is, therefore, of paramount interest at this time that the procedure, problems, advantages and dangers, of what I have named "planning by lease control," which is really another name for Estate Management, should be examined and well understood.

Of the many planning problems the reconstruction of our blitzed cities is the most important. In order to facilitate and expedite their reconstruction the Government are proposing municipal ownership of the devastated areas and the control of the redevelopment of their ruined centres through the granting of municipal building leases. This paper is written with particular regard to the urgent problem of War Damage Reconstruction, although most of the issues discussed will arise wherever sizeable areas are acquired and redeveloped by local authorities under the varied powers of acquisition and subsequent disposal proposed in the Bill.

For the purpose of this paper I am assuming that the Bill becomes law in its present published form. I propose to treat the new powers in three parts:—

- (1) Disposal Procedure and Problems.
- (2) Control after Disposal.
- (3) Advantage and Dangers of Planning by Lease Control.

Part I. Disposal procedure and problems

In practice it will be found unworkable to regard the detailed planning, the acquisition and subsequent disposal of reconstruction areas as separate or clearly defined stages. The outline planning (*i.e.*, layout of road, use zoning) is, however, a preliminary and separate stage, and will cover a much wider region than the reconstruction area. Once this is settled the detailed planning of the area to be acquired can be considered. At this stage the problems which we are examining to-day begin.

Consideration of the detailed plan raises the awkward problem of how to satisfy the requirements of the owners who will be displaced. Clearly this cannot be settled even tentatively without consultation with the owners. But an owner is primarily interested in the financial implications of the proposed transactions, and it is unlikely that he will give serious thought to the location of his new premises until he has some indication as to (1) the acquisition cost of his existing site; (2) the ground rent of suitable alternative sites in the new layout; (3) the cost of the building which the local Planning Authority will require him to build under the building lease. The financial issues arising out of the acquisition and subsequent disposal are therefore unavoidably introduced at the formative stage of the detailed plan. Failure to recognize this may lead to an unworkable plan.

The existing set-up of some Local Authorities is, if the officials work as a team, capable of dealing with this fundamental problem, but for other Local Authorities it may be advisable to appoint a specially qualified co-ordinator to undertake this and other tasks in connection with the organization of the redevelopment of the reconstruction area. The disposal after acquisition, that is to say, the terms of the building lease, particularly the ground rent, and the conditions governing the erection and subsequent control of the building, are primarily the concern of the Local Authority. The disposal must, however, under the Bill be sanctioned by the Minister. This it seems to me may postulate very close administrative arrangements between the Local Authority and the Ministry of Town and Country Planning unless the speed of reconstruction is to be seriously braked. Furthermore the acquisition negotiations are likely to be in the hands of the District Valuer. We are, therefore, faced with this state of affairs. It is impossible to dissociate the detailed planning from the acquisition and the disposal negotiations, and at least four interests are conse-

quently concerned, the owners, the Local Authority, the Valuation Office, and the Ministry of Town and Country Planning. Each of these interests should be in the picture as soon as the detailed planning of the reconstruction is commenced, and should be in regular consultation as the plan is being evolved.

Practically speaking, every important Local Authority is now deeply interested. The Town Clerk, the Town Planner (Consultant or Official), Architect (Consultant or Official), Engineer or Surveyor, Treasurer, Valuation Officer or the equivalent and the heads of the public services departments. Statutory Undertakers are also very much concerned. The detailed plan is taking shape as the requirements of the developers become known and as these requirements are fitted into an architectural conception. At the same time the form of building lease, together with the rent and the restrictions that will be incorporated therein, is the subject of negotiations with the prospective building leases, at any rate with those who are likely to develop large or key sites. I do not anticipate a standard form of building lease. Local Authorities will wish to adapt the customary practice which prevails in their district.

When discussing the problem of architectural control it must never be forgotten that in so far as our war devastated city centres are concerned, the acquisition, disposal, and physical reconstruction may take many years, perhaps fifteen to twenty. During a period of this length views as to design and construction will change. The original City Architect's conception of the completed development may become lost as a result of attempts of his successors to stamp the development with their own and in their view more up-to-date ideas.

The problem of architectural control by the local authority over the developers in a Reconstruction Area is fraught with snares. Although I do not consider it one for full examination in this paper, there are one or two random comments which I should like to make. First, the powers given by the Bill to the Local Authorities to control the architectural design of buildings to be erected in the reconstruction area will be as absolute as is possible to give anyone who is not himself the actual developer. Secondly, if these powers are so used that they place on the developer a burden which is likely to become a financial load, the effects may be disastrous to the economy of the area. Thirdly, it seems to me that the architectural control must be in the hands of one person. Any attempt at control by Committee has not in the past proved successful. The Local Authority should, in my view, be prepared to give freedom of action to one architect, and his successors must be of the same school of thought, with the same freedom, if the completed scheme is to have some semblance of uniformity. Fourthly, if it could be so arranged, I think there would be advantages if the Local Authority insisted in the building lease that the architect to the developers worked in consultation with, as opposed to approval by, the Local Authority's appointed architect. This is a practice on some private landed urban estates.

I should now like to touch on the control of building construction. The 1936 Model By-laws and various Local Acts, and in London the London Building Act, are likely to be out of date in the light of post-war building construction innovations.

The Bill provides a power for the Minister to suspend by-laws and Local Acts. It would be tragic, in my view, if the proper reconstruction of city centres was hampered by unnecessarily restrictive or out of date building codes. The initiative to remove the obstacles seems to lie with the Local Authorities, although guidance may be forthcoming from the central government. I hope that the initiative will be taken.

The prime consideration of the Local Authority must be the rehabilitation and improvement of the economy of the area. Any attempt to impose ideas, which do not meet with the approval of commercial and industrial interests as well as the man in the street, produces either stalemate or a white elephant, either of which may ruin the prospects of the Local Authority, as a healthy economic unit. However, an attempt

on the
of hope
industry
undevel
increas
It may
mentary
stances,
nominal
of the
the Loc
the deta
and on
in the r
ing suit
tion on
asking
give the
being o
therefor
before
with as
those v
within
The te
must ne
land.
lease by
Local A
be, in
intendi
to over
This, a
strates.
There
guard
that th
for un
practic
rent al
and ac
the les
side.
I hav
to sati
placed
The q
The e
There
possib
develo
differ
Local
displa
him w
origin
not, h
larger
wishes
the ar

The
subse
lease
tenan
is to
comm
I p
head
(1)
(2)

on the part of the Local Authority to plan on the basis of hoped-for but as yet unproved increases in commerce, industry or population may result in large areas remaining undeveloped, which is just the way to prevent the hoped-for increases.

It may be that when the Bill has gone through the Parliamentary minding machine, the Minister, under certain circumstances, will have to hold an inquiry which, although not nominally, is, in effect, an inquiry into the detailed planning of the reconstruction area. If this proves to be the case, the Local Authority may be pressed to answer queries on the details of the control to be exercised through the leases and on the rent to be asked for sites, from those interested in the replanning of the area from the point of view of finding suitable new sites. Although there may be no obligation on the Local Authority to answer such questions, the asking of them may prove to be embarrassing, for it may give the Counsel acting for an objector plenty of scope for being obstructive, if not attempting to ridicule. It would therefore be wise on the part of the Local Authority to get, before the inquiry, provisional agreement on these points with as many intending developers as possible, particularly those who are being displaced and desire to reconstruct within the proposed acquisition area.

The terms of the Bill seem to imply that the Local Authority must not pursue a highest bidder policy in disposing of their land. This rules out any idea of letting sites on building lease by public auction, a method at present adopted by some Local Authorities on their Corporation Estates. There may be, in the post-war scramble, an inclination on the part of intending developers, particularly I think shopping interests, to overbid their hands in order to secure key positions. This, as the earlier history of Regent Street, London, demonstrates, may lead to unfortunate, possibly disastrous, results.

There is one way, in my opinion, of providing some safeguard against this, and I suggest with the greatest respect that the following is considered by Local Authorities as a rule for universal application. Avoid accepting, unless it is impracticable, the full value of the land by way of ground rent alone, but capitalize some of the ground rental value and accept the capitalized value as a premium, thus keeping the lessee's annual commitments by way of rent on the low side.

I have already referred to the Local Authorities' obligation to satisfy as far as reasonable the requirements of the displaced owner who wishes to return to the reconstruction area. The question as to what is reasonable is clearly a difficult one. The economic effect of the reconstruction proposals is untried. There is an element of speculation against which it is impossible to safeguard. The value of the land in its redeveloped state is unknown. There are likely to be great differences of opinion. I suggest that the maxim which the Local Authorities should apply in their negotiations with the displaced owner who wishes to return should be "to provide him with a site of equivalent area and equivalent value to his original site at equivalent annual value." This maxim cannot, however, be hard and fast for some owners will want larger or more important sites, and the acceptance of their wishes may be in the interests of the quick rehabilitation of the area.

Part II. Control after disposal

The extent of the control over the Reconstruction Area subsequent to its development is settled for the length of the lease (say 99 years) by the terms of the lease. The maintenance of, the physical alteration to, the use and even who is to occupy buildings can be controlled subject to certain common law rulings by the terms of the lease.

I propose to deal with control after disposal under two headings:—

- (1) Use and Occupiers.
- (2) Maintenance and Alterations.

1 Use and Occupiers

The control over the use of a property or a part thereof can clearly be made much more absolute and refined in a lease than under planning powers. But if the lease is drafted in the proper way and the Local Authority reasonable, the lessees should never have to fall back on their rights in order to secure a change of the permitted use of their premises.

The right use of buildings and land is the prime object of Town and Country Planning. The exceptionally strong position of the Local Authority to regulate for all time, the detailed use of buildings within the boundaries of their reconstruction area is therefore probably one of the most important effects of the Bill. But for the sake of securing fairness between owner and Local Authority, it might be worth considering the inclusion in the lease of a clause which provided for some sort of arbitration machinery in the event of disagreement arising on a proposed change of use. The lease should also require the lessee to obtain the landlord's (*i.e.*, the Local Authority's) consent to assignments and sub-lets. This is the normal practice. The Local Authority can thus in theory exert some control over the actual occupiers of the properties.

It follows that certain lessees (particularly those who have been treated sympathetically because they were displaced by the acquisition) may hold beneficial leases. These lessees could, unless prevented, sell their beneficial leases for cash immediately after the lease had been granted to them. They could also sub-let at a profit rent. Either action would be against the spirit of the initial bargain. It is probable that a clause in the lease requiring no more than the Local Authority's consent to an assignment or a sub-let of the lease will not in itself be strong enough to prevent profiteering of this sort. It has, I believe, been suggested that one way of safeguarding against this form of profiteering is to prevent an assignment or sub-let for a period of years (say five) from the date of the lease. For my part I do not think such an arrangement would be satisfactory. In practice the cases where sympathetic terms have been conceded will be known, and I suggest that in those cases the Local Authorities have every justification for permitting the sub-lets or assignments on conditions that the profit which would otherwise accrue to the head lessee is paid to them. The Local Authorities' right to this profit would, however, have to be made clear in the lease.

2 Maintenance and Alterations

Although the terms of the ground lease will include a covenant under which the lessee must keep the property in repair, the landlord's position in enforcing the covenant may not be strong. Comparatively recent legislation (*e.g.*, Landlord and Tenant Act, 1927) makes it difficult for the landlord to enforce repairing and reinstatement covenants unless the landlord can show that he will suffer loss when the property falls into his possession at the end of the lease. The further away the reversion is the more difficult is the loss to prove. This legislation makes the Local Authorities' position as regards enforcing repairing covenants in 99-year building leases somewhat problematical. For example it is unlikely that a covenant in the lease to repaint at regular intervals could be rigidly enforced. I suggest that were the painting in a uniform colour it is desirable to preserve the architectural finish to, for instance, a terrace of buildings, the Local Authority should reserve the right to paint the buildings themselves when necessary and recover the cost from the lessees.

I believe this is a practice on some crown property (*e.g.*, Regents Park, London). A covenant of this nature can be enforced without difficulty. Although the control over maintenance cannot be absolute, the Local Authority will, however, be at least able to prevent lessees from allowing their properties to get into a dilapidated condition.

If the usual practice is followed in the lease the lessee will have to obtain the Local Authority's consent to any structural alterations. But the consent cannot be unreasonably with-

held. The alterations to the buildings will, however, have to be reinstated by the lessee at the end of the lease unless the reinstatement is of no benefit to the landlord.

In the Building leases the Local Authorities have powerful instruments by which they can control the general amenities of the Reconstruction Area. Within reasonable limits rubbish disposal, smoke abatement and similar problems could be dealt with.

Part III. Advantages and dangers of planning by lease control

In Parts I and II, I referred to the advantages and the dangers on particular aspects of the novel powers which it is proposed to give Local Authorities. In this part of the paper I intend to direct my remarks to general comments.

The advantages are more obvious than the dangers; for here at last are the Local Authorities able to effect limited positive as opposed to regulatory planning. Absolute positive planning cannot be achieved, in my view, unless the planner is also the owner and the developer. The idea of extensive absolute positive planning is abhorrent to many, as not suiting the British way of life.

The Bill enables the Minister to permit Local Authorities to carry out development in certain circumstances, but the wording of the Bill limits the Local Authorities' activity in this direction. It is a moot point as to whether it is desirable that Local Authorities should have wide powers to build commercial and industrial buildings. I do not intend to say any more on this thorny question except to remind you that in my opening remarks I pointed out that the ground landlords of 200 years ago were able to secure sound planning of their estates without developing the estate themselves.

Housing development by the Local Authority is of course another matter because of the existing powers. The development and subsequent management of housing estates is clearly outside the scope of this paper. But land for housing purposes can be purchased under the proposed acquisition machinery, and in the case of Extensive War-damaged land the cost incurred as a result of the acquisition and clearance is subject to grant assistance under the Bill until the housing development is commenced, when presumably the Housing Act grant assistance formula becomes operative.

The powers of Local Authorities to plan absolutely positively will be restricted in effect to Municipal Housing, the limited cases where Local Authorities already have special powers, and to those cases sanctioned by the Minister under Clause 16 of the Bill. It seems to me that in the future, but ignoring the possibilities of the White Paper on *The Control of Land Use*, Local Authorities will be able, broadly speaking, to plan by three systems. First, in the special cases just mentioned they can plan absolutely positively. Secondly, in areas of reconstruction or redevelopment and overspill acquired under the Bill, they will for the most part be planning by lease control. Thirdly, the extended powers of the regulatory Interim Development control which will still be the main method.

The three methods will be operating concurrently in different parts of the Local Authority's area, but in the course of time more and more land will be planned by acquisition and lease control. The interim development control must therefore be so operated as to fit in with the Local Authority's intentions to acquire land and plan by lease control. The interim development Order shortly to be issued has in part been drafted so as to assist Authorities in relating the two systems. The chances of success of planning by lease control are in no small measure dependent upon wise and far-sighted interim development control.

There is one great danger in Municipal land ownership on a large scale, and it is summarized in the word Bureaucracy. The system will not be a success if the Local Authorities attempt to control their estates by regulations and rules too rigidly applied. The relationship between the Local Authority as lessor and the developer or his successor in title as lessee should be that of partners in a

joint undertaking. The relationship is much closer than that of Interim Development Authority and Developer. It should therefore be a more human and understanding relationship. The Authority should make every effort to avoid quibbling over unimportant legal technicalities. Appeals for small concessions should be listened to, and, if really justified, allowed. An authority who has a good name as a good landlord will bring prosperity to its area, but an authority who is a bureaucratic landlord will drive away prosperity. Particularly in so far as planning by lease control is concerned, both Local and Central Government must be on continual guard against the temptation to become bureaucratic. We are concerned with people as well as property. Furthermore, no two buildings—no two pieces of land—are identical. The administration must, therefore, be flexible—capable of adapting itself to any set of circumstances. Regulations there must be, but they should be, in so far as possible, broad guides to principles of policy rather than attempts to provide for all contingencies, some of which may never arise. Furthermore, detailed regulations may be embarrassing to the administrator, and cannot cover every possibility in this novel and very wide field of Local Government administration. The people will be anxiously watching a bold national experiment; it is our task to see that the experiment is successful.

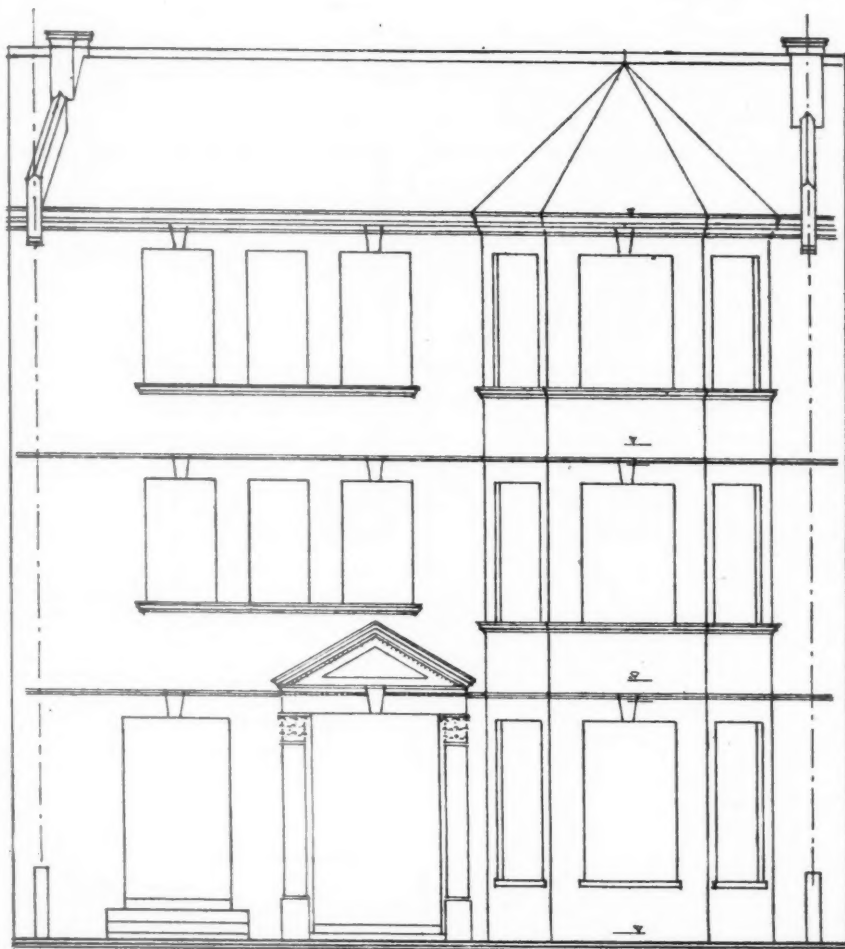
We who are particularly interested in planning and the general public have talked, argued, yes and squabbled, about the future shape of our cities, towns, villages and countryside—

"With wonderful deathless ditties

We build up the world's great cities."

The time for ditties is over, for we shall delay urgent reconstruction if we wait to decide whether precincts are better than shopping streets, or flats better than houses, or terrace development better than pairs of semi-detached houses. A compromise of opinions must be found now in those cases where the immediate reconstruction of devastation is vital to the rehabilitation of the economy of a town. The Government will have produced, when the Bill becomes law, a machine by which the bombed towns can be speedily reconstructed. The planner should understand this machine, for it is the tool with which he will work. Good workmen understand their tools—appreciating their advantages and knowing their limitations. The tool given to us may not be a bull-dozer—able to clear away in one shove all the filth and rubble that has accumulated through the ages in our industrial towns. But I suspect that the bull-dozer went through many stages of trial before it evolved in its present form and was capable of doing the herculean tasks now attributed to it.

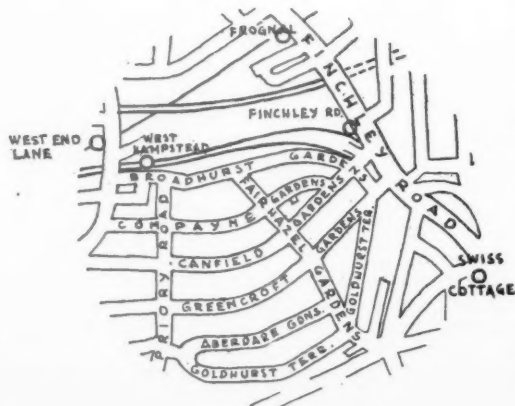




Left, typical elevation of the type of brick houses in Hampstead which have been converted into flats. Below left, a map of the district where every road contains Victorian houses of this kind, which are now socially obsolete in their original state, but which have a useful life still if properly converted.

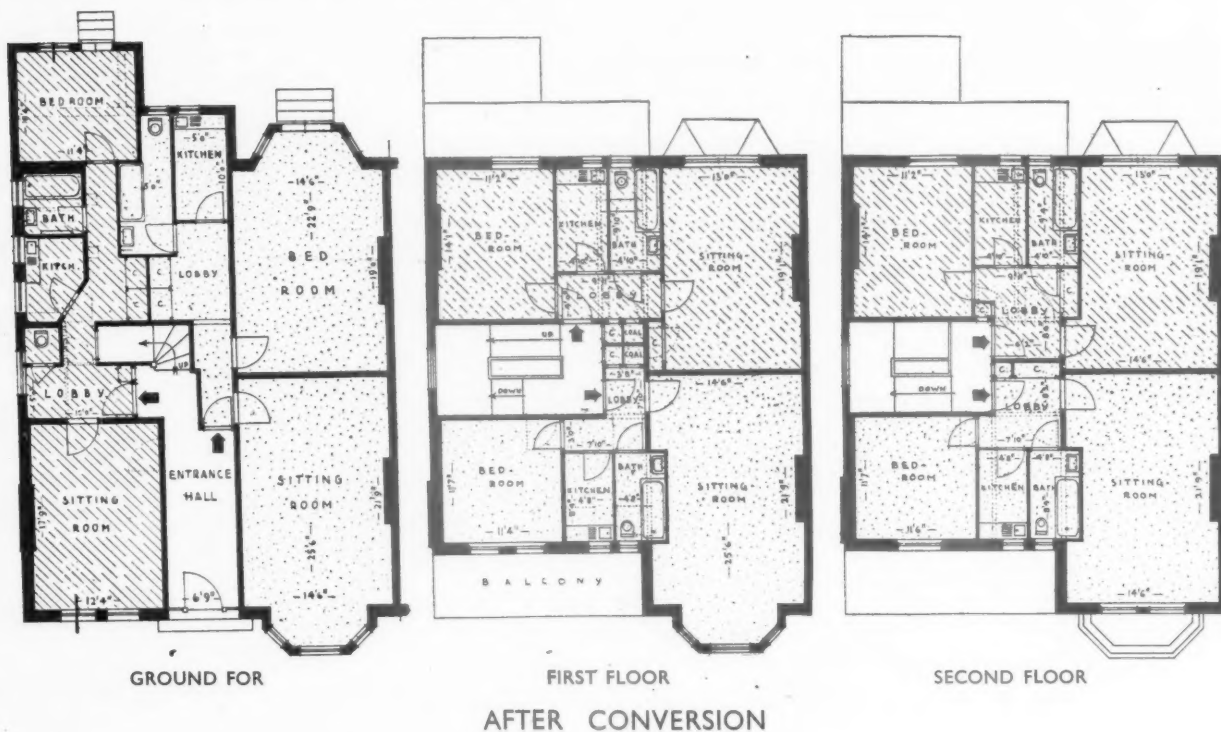
CONVERSION OF OLD HOUSES INTO FLATS AT HAMPSTEAD

By JAMES I. WOLFSOHN

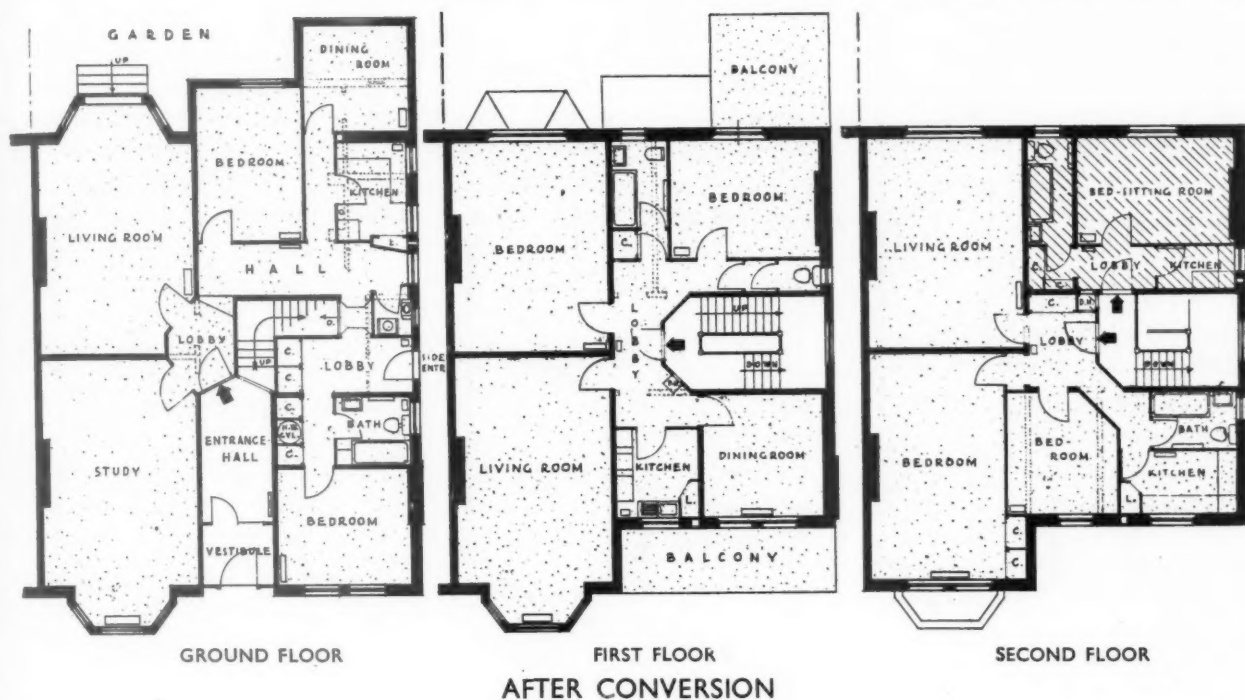


On the following pages are three typical examples of a number of conversion jobs carried out by Mr. Wolfsohn on nineteenth century middle-class family houses in the N.W.6 district of Hampstead. Such houses, though structurally still sound, are now more or less socially obsolete, but in view of the post-war housing shortage they can still fulfil a useful function, and repay capital expenditure, if they are properly converted into flats. As the leading article points out this week, this is essentially a job for the architect, and cannot

be left to the builder alone. Though it may appear on the surface to be a simple job, much skill and thought is actually needed in conversion of this kind, where expenditure must be limited, and yet convenience and some distinction of character and neatness in planning must be provided. The examples shown here are interesting in illustrating how pleasant and spacious accommodation can be given with surprisingly little structural alteration; the elevations in each case have been scarcely touched.

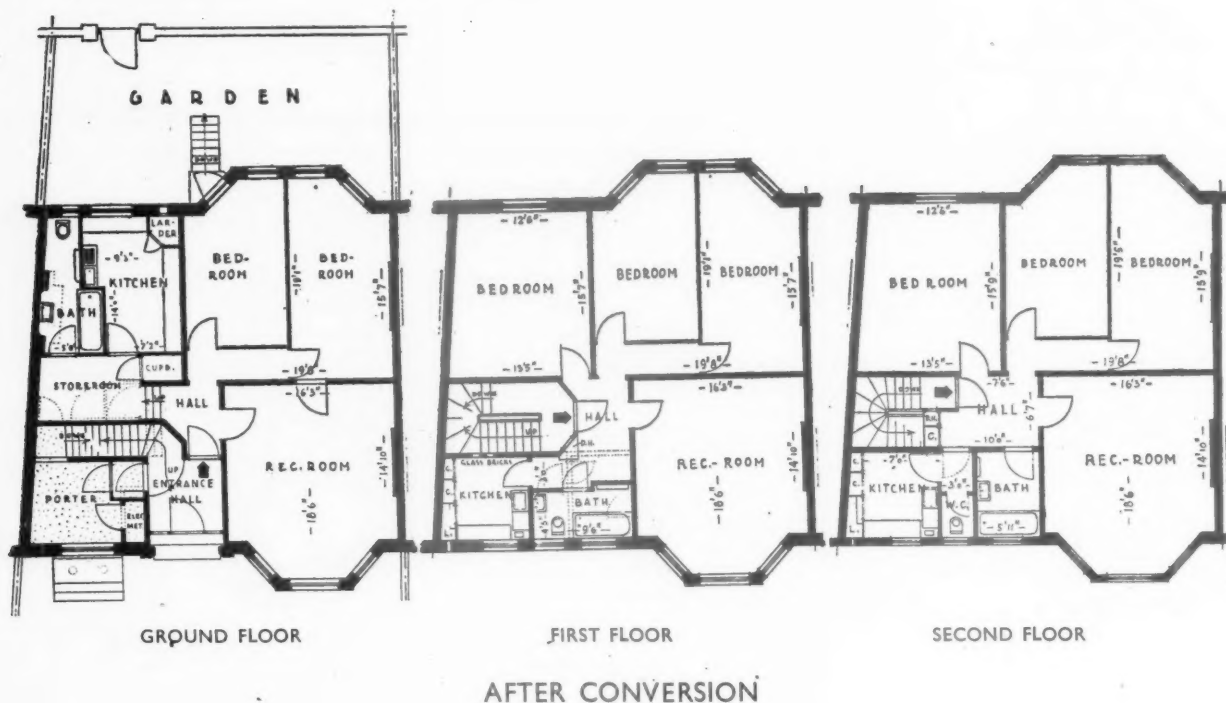


70, Canfield Gardens. This is a semi-detached house with a central entrance from the street, and a long central hall. It has been converted into six self-contained two-room flats, two flats to each floor. The amenities the owner wanted were: small entrance hall with delivery-hatch and a fuel store; all rooms to be accessible from the entrance hall; every room to have a fireplace, points for gas or electric power, and built-in cupboards; a hot water supply in the kitchen heated by gas. The ground floor flat with access to the garden was for occupation by the owner himself. In all conversions arrangements were made for extra storage space for tenants, either in the loft or in the basement.

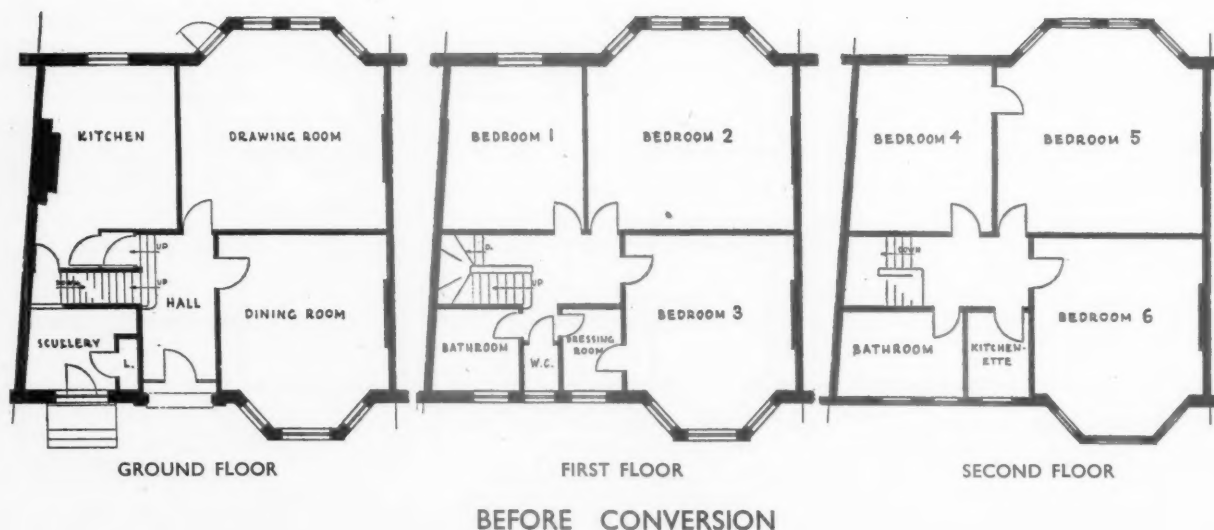


2 99, Canfield Gardens. This is the same type of house as the previous example, but the conversion is different for it contains only four flats. The owner had been his own landlord for decades. When the house became too heavy a burden to keep up, he decided to convert the house and live on the ground floor. This floor was made into a five-room flat which had to be arranged carefully round the staircase. The architect was given an elaborate Schedule of Accommodation and finally provided a satisfactory solution in which all the owner's wishes were incorporated in the plan: Study and living-room near the entrance; a gallery hall with window; a small dining-room facing the garden; two bedrooms. On the first floor a four-room flat had to be arranged and on the top floor a one-room flat for an elderly spinster and another three-room flat. The whole house had to be centrally heated, and have a central supply of hot water. Built-in cupboards, delivery hatches, etc., were also provided.

HOUSES CONVERTED INTO FLATS AT HAMPSTEAD



1 0 5 10 15 20 25 30 35 40 ft.
[Scale : $\frac{1}{16}$ " = 1' 0"]



3 17, Compayne Gardens. This is a different type of house to the two previous examples, being a terrace house of smaller size. On each of the three floors, one self-contained flat had to be built. The whole house is heated with thermostatically controlled gas central-heating, and domestic hot water. In this, as in the other examples, the kitchens are small, but this disadvantage has been overcome by careful individual planning and detailing of the fittings and equipment.

HOUSES CONVERTED INTO FLATS AT HAMPSTEAD

IN

The
all cu
the w
kind
spec
staff
and
ments

ST

1643

PEDE
Chica
Divis
tectur
The
190-1
Drive
arch
way.
concr
monit
mater

1644

A SH
TURE
(Alle
ence
278 i
not c
but t
ing.
techn
well

H I

a

1645

POST
WITH
WAL
Mar
post
dwel
prac
use

1646

AVA
ANCH
Tim
disc
goo
dom
It i
devel
equip
Ther
befor
Time
the f
need
teen
fore

INFORMATION CENTRE

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

STRUCTURE

1643 Steel and Concrete Bridge

PEDESTRIAN BRIDGE, CHICAGO, ILL. *Chicago Park District Engineering Division. Ralph H. Burke. (Architectural Forum, July, 1944, pp. 97-99, The Builder, September 3, 1944, pp. 190-1.)* Passerelle across Lake Shore Drive. Three hinged welded steel arch of 187 ft. span transecting footway. Approaches in rigid reinforced concrete frame construction. Harmonious combination of the two materials.

1644 Dictionary of Architecture

A SHORT DICTIONARY OF ARCHITECTURE. *Dora Ware and Betty Beatty. (Allen & Unwin, 6s.)* Practical reference book containing 791 terms and 278 illustrations intended to be of help not only to students of architecture, but to everybody with interest in building. Clear and simple explanation of technical terms. Illustrations neat and well selected.

HEATING and Ventilation

1645 Fuel Policy

POST-WAR DOMESTIC FUEL POLICY, WITH SPECIAL REFERENCE TO SOUTH WALES. *W. R. Branson. (Gas Journal, March 22, 1944, p. 371.)* Estimate of post-war demand for heat in new dwellings. Conclusion is that most practicable way of providing it is by use of gas and solid smokeless fuel.

1646 Electrical Appliances

AVAILABILITY OF ELECTRICAL APPLIANCES AFTER THE WAR. *(Electrical Times, July 6, 1944, p. 2.)* Leader discussing time necessary to produce good and inexpensive electrical domestic equipment in quantity.

It is pointed out that little research and development has been possible on domestic equipment in this country during the war. Therefore there will be a serious time lag before production is effective afterwards. Time is needed to design and manufacture the first models, and six months or a year is needed for proving in service. Thus eighteen months to two years may elapse before good new types of cookers, water-

heaters, refrigerators and the like can be rapidly produced.

One can foresee two possible unfortunate results of this circumstance. One, the first houses built after the war may be deficient in equipment. The other is that, when the equipment is finally available, the same models may stay in production too long.

1647 Fuel Conservation

CONSERVATION OF FUEL—II. (*Plumbing and Heating Journal, April, 1944, p. 29.*) Insulation of houses. Heat loss and fuel consumption. Costs.

The article illustrates by means of block diagrams the effect of various procedures on the heat loss and fuel consumption. Weatherstripping of windows (a practice not usually recommended in England) reduces fuel consumption by 5-10 per cent.; the use of storm sashes, 10-25 per cent.; insulation of the ceiling and roof, 10-20 per cent.; and insulation of walls, 10-20 per cent. A total saving of some 40-60 per cent. is possible.

The cost of providing the insulation in various ways is considered, and on assumptions representing specific American conditions, it is shown that the cost of insulation varies but little with thickness and type. An average figure is \$500 per 1,000 sq. ft. fixed.

1648 Fuel Conservation

CONSERVATION OF FUEL—III. (*Plumbing and Heating Journal, May, 1944, p. 24.*) Condensation within building structure. Methods of prevention. Vapour barriers.

Structural condensation (i.e., within the construction) is dependent on (a) the temperature difference between inside and outside, (b) the vapour pressure difference between in and out, (c) the vapour resistance of the wall or ceiling. This form of condensation is more likely to occur in well-insulated houses. Methods of preventing such condensation are (a) control of the humidity of the inside air, (b) use of vapour barrier on the warm side of the insulation, (c) treatment of the inside plaster surface, and (d) attic ventilation.

Adequate ventilation may prevent trouble when the humidity cannot be controlled, but this costs fuel. Proper vapour barriers are (a) asphalt-saturated paper with a glazed surface, (b) asphalt sandwiched in kraft paper, (c) kraft paper, surface glazed asphalt, and (d) paper coated with paraffin. The cost of a vapour barrier is negligible compared with the total cost. Special priming paint on plaster offers satisfactory moisture resistance (composition, 40 per cent. pigment, 60 per cent. vehicle—the pigment is 100 per cent. titanium calcium, and the vehicle is 16.7 per cent. resin, 28.8 per cent. vegetable oil, and 54.5 per cent. dryer and thinner).

(It is not known whether under English conditions the use of a vapour barrier is required.)

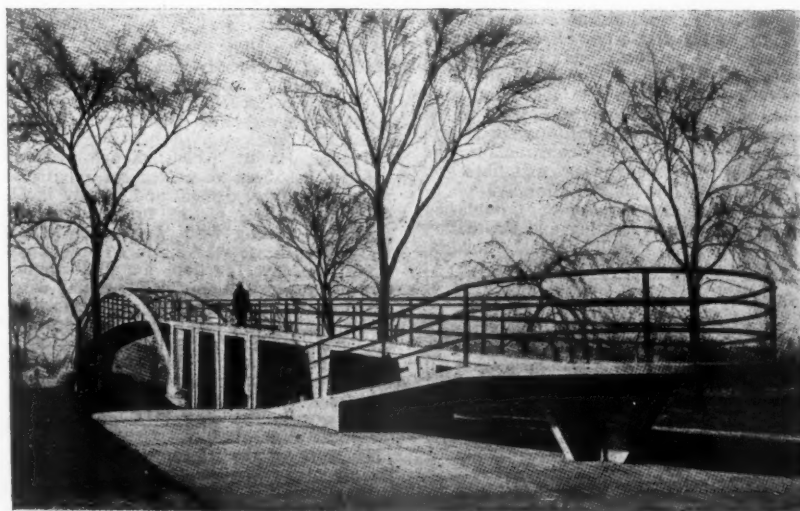
1649 Hot Water Supply

GAS-FIRED HOT WATER SUPPLY FOR INDUSTRY. *E. G. Brooks. (Gas Journal, March 15, 1944, p. 338.)* Discussion of suitable plant for various needs.

1650 Electric Cookers

DOMESTIC APPARATUS—IV. (*Electrical Review, March 17, 1944, p. 371.*) Survey of probable electric cooker developments.

There is a considerable demand for an additional hot cupboard in electric cookers, since the normal cupboard cannot be used when the grill is in operation. The drop-down oven door appears to be growing in favour, and it obviates the need for right- and left-hand doors. Modification of design to facilitate cleaning are likely. Thermostatic control should be incorporated as the lack of it is one reason why some housewives prefer gas cooking. A time control may also become a standard fitting. The best design of hot-plate has not been



Pedestrian bridge, Chicago of reinforced concrete rigid frame construction with welded steel arch. The bridge is approached from both ends by long, curving ramps which accommodate prams and bicycles. See No. 1643.

decided, but cavities for the vessels may be used. Thermostatic control for hot-plates is regarded as inevitable. The heat storage cooker has many possibilities, but the consumption may be 2,500 Kws. per annum more than for ordinary cookers.

1651

Heating System

ENGINEERING SERVICES FOR RESTAURANT, STORES AND FLATS. (*Air Treatment Engineer, June, 1944, p. 83.*) Description of heating system and hot water supply in a block of flats with store below.

The building is to have a restaurant on the ground floor, with a store occupying part of the ground floor, and the first and second floors. The upper floors contain the flats.

Heating is by steel shell boilers with automatic stokers. Radiators are connected on the two-pipe up-feed system. The boilers generate steam at 15 lb./sq. in. for use in the kitchens of the restaurant. Hot water is to be distributed to the radiators from calorifiers. The stores and public rooms are heated by a plenum plant, with dry filter, spray washer, heater and cooler. Each flat has room thermostat control.

Hot water is supplied on a two-pipe system with dead-legs not more than 2 ft. long.

QUESTIONS

and Answers

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

1652

Churchill House

Q Can you state the heat transmission coefficient for the walls and roof of the Churchill House, and for the aluminium foil used in their construction?

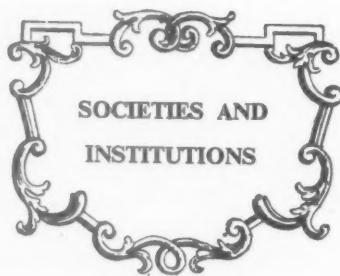
A The heat transmission coefficients for the walls and roof of the Churchill House have not been published, but the walls are said to be equivalent to 11-in. cavity brick. We suggest that you compute the figures for yourself. MOW would probably give you such information as you are lacking as regards the construction. The coefficients for the various materials you will probably find in *The Computation of Heat Requirements for Buildings*, published by the Institute of Heating and Ventilating Engineers, 21, Tothill Street, London, S.W.1, price 2s. post free.

1653

Sweet's Catalogue

Q In the booklet issued by the Ministry of Works on *Methods of Building in the USA* mention is made on page 7 of *Sweet's Catalogue*, containing information on all classes of buildings in the USA. Where can I obtain this book, and what is its cost? Is it possible to obtain old copies from 1941-1943?

A Sweet's catalogue is not being sent to the British Isles during the war. There is always a possibility of being able to obtain second-hand copies from a bookseller, in which case the price would vary.



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

MOTCP

W. S. Morrison

September 19, at St. Andrew's University. Opening of the TOWN AND COUNTRY PLANNING SCHOOL. Address by W. S. Morrison, Minister of Town and Country Planning.

W. S. Morrison: The school provides a valuable opportunity for the exchange of ideas and information between all those, professional and otherwise, engaged in the practical work of planning, and a tribute should be paid to the Town Planning Institute, whose officers are largely responsible for its organization. I am glad to see many elected representatives of local authorities present. A testing time lies ahead, both in the centre and locally, but I face every test with confidence as long as I feel that local and national forces are collaborating intelligently, each with a real sense of the other's needs and problems.

My Department, which though recently formed, has been organized on a basis to meet the unprecedented, and largely incalculable, demands of the future. Separate Divisions dealing with Legislation, Plans and Research are working in co-ordination. Their respective functions are the formulation of new legislation, the day-to-day work of administration through local authorities, and the gathering of all the scientific data on which planning policy must be based.

An important part of the Plans Division is the Regional Organization, which includes ten Regional Officers who are the living links between the central Department and the local authorities.

The work of the Research Division is of the greatest importance. They are the channel through which not only my own, but other Departments are advised and informed on planning technique. They conduct surveys, and provide the essential background of knowledge, without which sound

planning decisions cannot be taken. Their technical services are much in demand by local authorities, and in their Maps Section they produce specialized maps of all kinds, in close collaboration with the Ordnance Survey. In addition to many pressing tasks of the moment, such as the production of special large scale maps of urban areas, including those now being considered for reconstruction purposes, they are also assembling some of the preparatory work which will eventually go to the formation of a National Atlas, a long-term job organized by the National Atlas Committee of the British Association. By the end of the war this Atlas will be brought a big step nearer publication, whoever may be its eventual sponsor, and it will clearly be a great resource to planners. The aim of the National Atlas is to show not only all the physical aspects of the country, but such things as the distribution of industry and population, essential services, transport, electricity, land use, types of farming, potential fertility, and so on.

A report on National Parks and extensive surveys of almost the whole coastline of England and Wales has also been prepared.

MOH

London Housing

A circular (134/44) has been issued by the Ministry of Health to the Clerks of all housing authorities in the London Civil Defence Region on LONDON HOUSING: WINTER PLANS, 1944-45. Extracts are given below, together with drawings and specifications of the two types of temporary huts which will be erected to ease the housing situation.

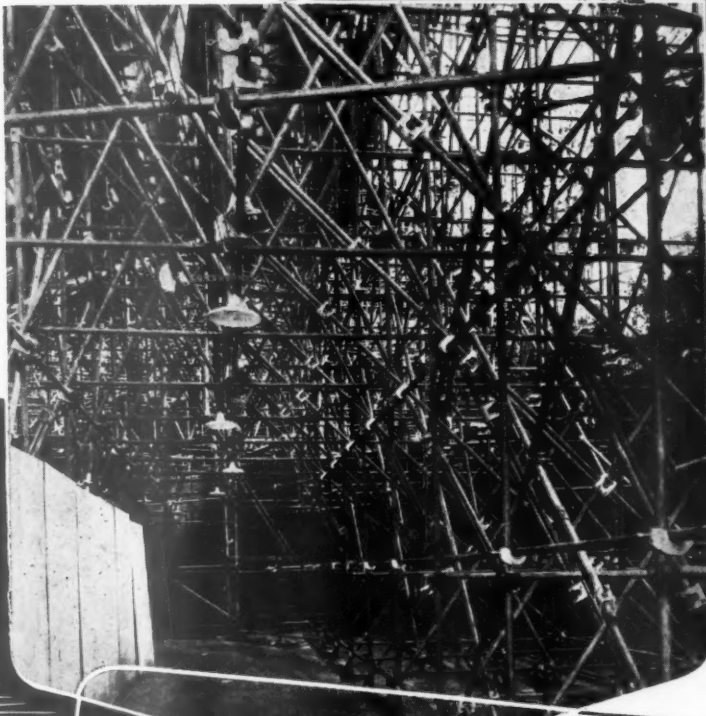
Steps have been taken to increase substantially the head of labour at present engaged on the repair of war damage in London: first by reducing the licensing limit of £100 to £10, and so concentrating on really essential work the building labour at present in London, and secondly by transferring to London employers and workmen, including those whose homes are in London, from the provinces. (It is proposed to continue the procedure set out in the Ministry of Health Circulars 2871, 9/44 and 49/44, under which applications for building work on houses and flats, whether war-damaged or otherwise, costing more than £100, are referred by the Regional Licensing Officer of the Ministry of Works to the appropriate local authority for a certificate of essentiality before a licence is granted.)

In general the Government has given work on the provision of houses for the winter in London the highest priority for both labour and materials, but the demands are so great that resources are bound to be limited for some time to come, and it is vital that both labour and materials should be used to the greatest advantage and with the greatest economy. Proper planning and supervision of the work is therefore essential, and the Government are doing all they can to arrange for the return to local authorities of their transferred staff, which, but for their transfer, would have been engaged on urgent housing work. In view of the difficulties, however, the employment of firms of architects and quantity surveyors is strongly recommended.

Repair of War Damaged Houses

Notes have already been issued to local authorities advising them as to the standard to be adopted in the repair of war damaged houses. The various phases within the standard can perhaps be broadly illustrated

INGENIOUS *but extremely* SIMPLE



Ingenious but extremely simple . . . that approximately sums up tubular scaffolding—and, as the inventors and pioneers, we should know. But 100% efficiency is dependent on many factors—a competent designing staff, highly skilled technicians, trained scaffolders, express transport facilities, and 'precision' organisation backed by the closest inter-departmental co-ordination. AND, above all, *experience* . . . and we, as the inventors and pioneers, have the widest possible experience.

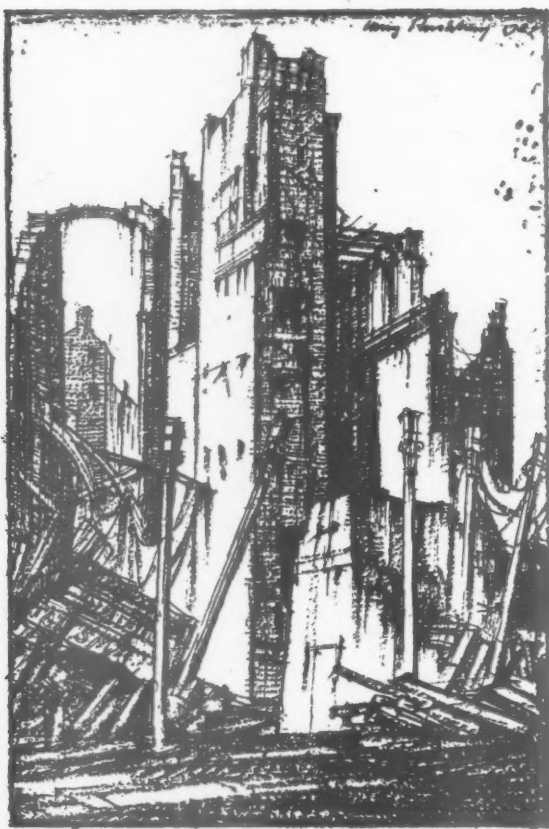
SCAFFOLDING (GREAT BRITAIN) LTD

SAUNDERTON · PRINCES RISBOROUGH · BUCKS

LONDON OFFICE: PLOUGH LANE S.W.17

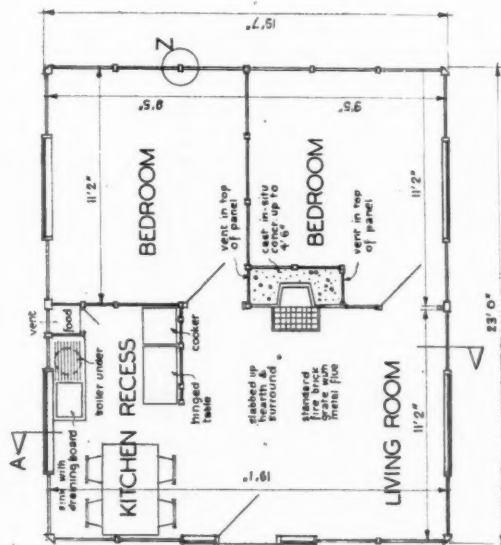
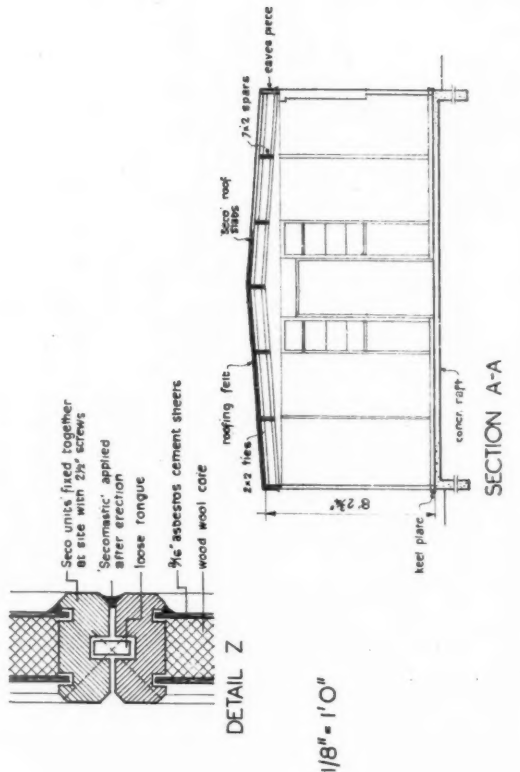
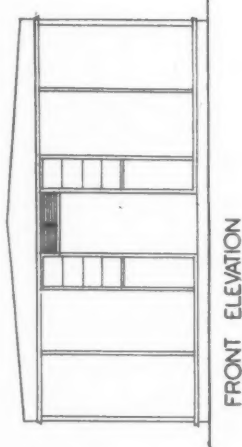
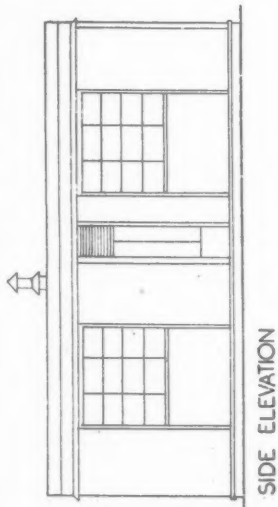
BRANCHES AND DEPOTS THROUGHOUT THE COUNTRY

CRITTALL WINDOWS

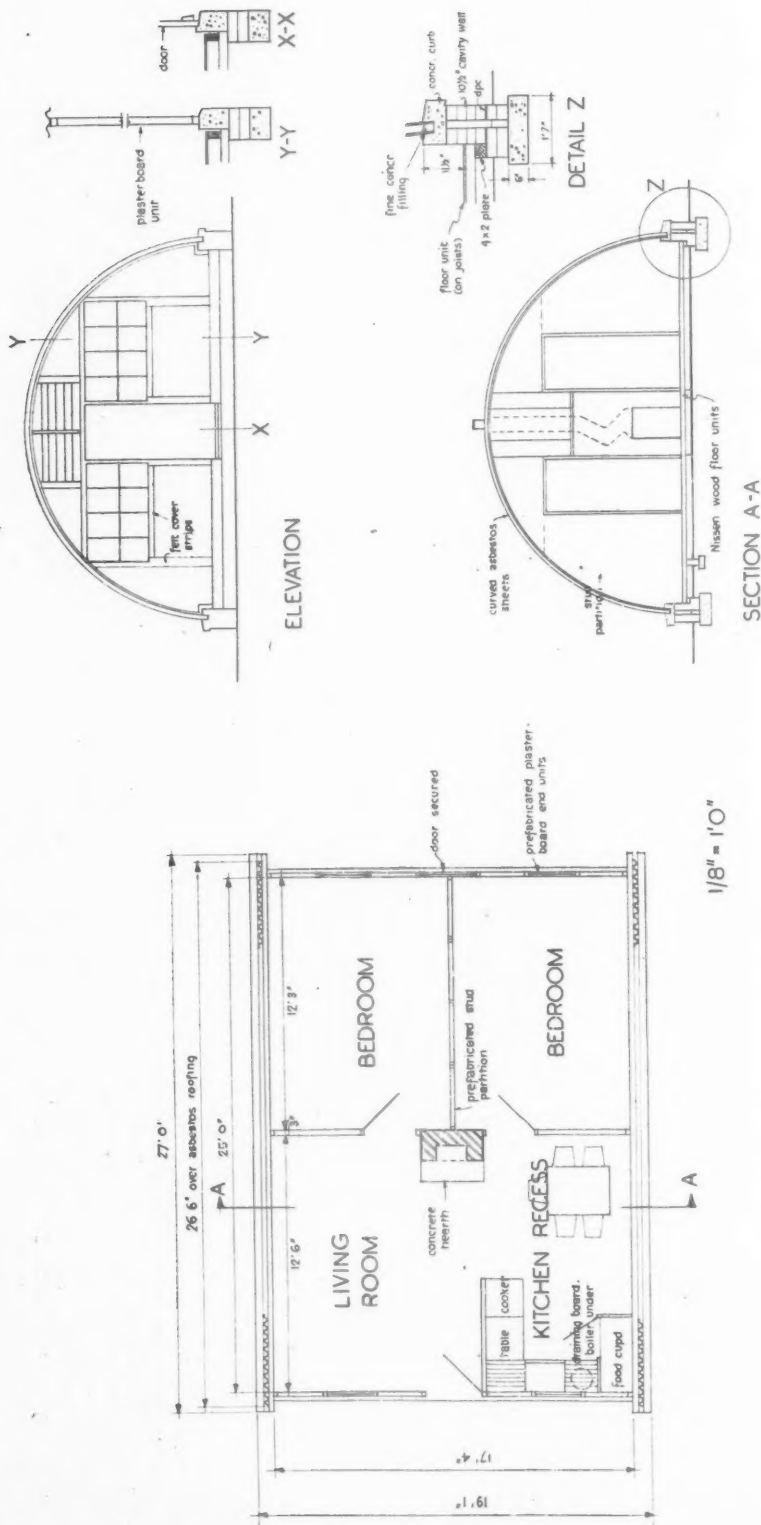


WHEN YOU
REBUILD

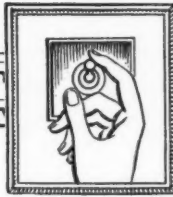
THE CRITTALL MANUFACTURING CO. LTD., 210 HIGH HOLBORN, W.C.1.



The Seco hut, one of the two types of temporary huts mentioned in the accompanying extracts from the M.O.H. circular, which will ease London's housing situation this winter. The building is constructed of Seco Units manufactured by Uni-Seco Structures, Ltd. The walls and partitions are formed from standard panels of timber framing filled in with $1\frac{1}{2}$ in. thick wood wool faced both sides with $\frac{3}{8}$ in. asbestos cement sheeting, grooved into the timber frame work. The panels are erected on a timber keel plate, jointed with loose tongues, screwed together after erection and the external joints filled with a special mastic. The roof is formed with panels of similar construction supported on timber spars and cross ties. The spars are fixed to plywood boxed beam filler pieces above the partitions and walls which transmit the weight of the roof to the vertical panels. The roof is made watertight by a covering of roofing felt which should be provided and laid by a specialist firm. The building is supplied with metal windows and with external and internal doors, and with shelving and doors for the food cupboard. The site is first levelled and the concrete floor laid to required finished datum. The concrete wall foundation is laid continuous with the floor and sockets are left for the keel plate bolts. The floor can be finished as required to suit the floor covering to be used. A standard 15 in. firebrick grate with surround and hearth is used. The surround is fitted to the roof and canopy are supplied. Ventilators provided in two partition units will induce the warm air from the space around the flue pipe to enter the bedrooms. Semi-detached outbuildings of Seco Unit construction will be supplied, sub-divided for 2 W.C.'s and 2 Fuel Stores. Sinks and W.C. pans, water waste preventers, flush pipes, etc., cookers, wash boilers, fireplaces and draining boards can be supplied but as far as possible these will be obtained from salvage. Local Authorities will be responsible for the installation of artificial lighting and for the connection of gas or electricity to the cooker and wash boiler. They will also decide the type and standard of decoration. Total erection time of one of these buildings is about 472 man-hours.



The Asbestos Cement Nissen Hut, the other of the two types of temporary huts mentioned in the accompanying extracts from the MOH circular. The hut is constructed of large section corrugated asbestos cement sheets curved to a 9 ft. radius. The sheets are bolted together to form a continuous semi-circular vault, 3 sheets in span. The arch rests in the channel of a concrete curb which restrains the foot of the sheets and is raised on a brick wall to give additional height to the hut. The ends are supplied in prefabricated sectional units incorporating a door and two windows of a simple type in each end. The units are timber framed and covered with plasterboard internally and felted plasterboard externally. The units are assembled and held in position by metal hook straps fitting in the roof corrugations. The external joints between the units and against the asbestos cement are flashed with strips of roofing felt. The hut is lined with flexible asbestos sheeting nailed to timber grounds held in place by the curve of the arch. Standard Nissen Hut timber floor units, joists and bearers are supplied. Partitions are of units of framed timber studding. Plasterboard sheets in bundles and nails are supplied for covering the units. Local Authorities are to erect outbuildings to provide W.C. and Fuel Store. Fittings, lighting and decoration are the same as for the Uni-Seco huts.



On Active Service

Electricity

is basic in building

Electricity has become the *mainpower* of production; and new and better homes will be the main necessity of peace production. In building and equipping these homes the cheap flexible power of Electricity will be a requirement as basic as bricks, as sure as steel, as capable as concrete. In each future dwelling the universal versatility of Electricity will cause it to be not an adjunct to, but the presiding genius of the home.

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, W.1, provides interesting illustrations of electrical applications in domestic and industrial premises.



as the keeping out of the wind and the rain; the repair of the minimum number of rooms required in order that the occupants may live in decency with some degree of comfort; and the completion later of the work required to make the entire home, or most of the home, habitable. In order to ensure that the maximum labour force is available for this work, all registered builders have been invited to apply for contracts with the local authorities, who it is hoped will be able to employ them all. Where the local authority are unable to employ a particular firm, or a particular firm apply to have a contract with the Ministry of Works, arrangements will be made for them to be employed direct by that Department, who will organize the small builders into working parties for employment either by the local authorities or by the Ministry of Works.

A new form of contract, for use of local authorities in employing contractors in repair of war damaged houses, is being discussed with the Associations of Local Authorities and with the National Federation of Building Trades Employers. It will replace for this purpose the model form of Ministry of Home Security contract, and must in future be adopted by local authorities in all cases.

In general, labour can be used to best advantage on war damage repairs, if local authorities continue their policy of concentrating, in the first instance, on the slightly damaged houses, working upwards to those more seriously damaged, and giving preference to those which are occupied. Experience suggests that on the broad average over this range of operations the number of man hours required to repair a house of moderate size would be about 250, a figure normally lower than that required for providing any alternative form of accommodation.

Adaptation and Conversion of Existing Premises

Clearly the quickest and most economical way of securing accommodation in existing premises is by the requisition and adaptation of small empty houses under the powers already delegated to Clerks of local authorities. No furnished houses should be requisitioned without prior consultation with the absent householder.

It may be that, in some districts, additional housing accommodation can be provided quickly by taking over existing large houses and adapting them for use by more than one family. Local authorities were encouraged some months ago to requisition such houses and carry out any necessary conversions or adaptations provided the cost did not exceed £400 per flat or similar tenement. In present circumstances full conversion is probably impracticable in most cases, and only the provision of elementary amenities can be contemplated. The criterion should be the number of man-hours necessary to carry out the work of adaptation, and any proposed work should be compared with the figure given above for the repair of war damage.

As this work will be carried out on requisitioned property, the cost will be borne by the Ministry of Health under the arrangements set out in Circular 2845, dated the 4th August, 1943.

Huts

In some districts the housing shortage is so acute that it will be essential to provide emergency temporary accommodation. In these cases, the Government are prepared to supply temporary hutments similar to those which have been erected as an experiment in Poplar, and to pay the cost of their erection. The huts are of two types—Uni-Seco and Asbestos Cement Nissen; of

which the latter can be supplied the more readily. Where needed, the fixtures indicated in the Notes will be supplied centrally by the Government.

As sites for these huts will be required at once, the Minister in the exercise of his powers under the Defence (General) Regulations, 1939, has decided to extend, and hereby extends, the powers already delegated to you in Circular 1,949, dated the 18th January, 1940, to include the taking possession of sites required for this purpose, if they cannot otherwise be obtained quickly. The delegation is subject to the following conditions:—(a) The powers shall not be exercised in advance of the occasion on which the sites are required. (b) The prior consent of the Senior Regional Officer of the Ministry of Health shall be obtained. In the case of war damaged sites only those which are "total losses" under the War Damage Acts should be selected.

The supply of these huts must not be confused with the provision of emergency factory-made houses under the terms of the Housing (Temporary Accommodation) Bill now before Parliament. The temporary huts now in question are being supplied by the Ministry of Health as part of the provision for the homeless and the approved cost will be borne by the Ministry.

It is intended that the huts should be occupied only for a short time and should then be removed. The selection of the occupants (who will be licensees and not tenants) will be in the discretion of the local authority, and the charges made should be in accordance with the principles laid down in Circular 2,234, dated the 12th December, 1940. It is suggested, for the guidance of local authorities, that the charges made should not exceed 10s. per week, inclusive of rates.

**AIR
CONDITIONING.
VENTILATING.
HEATING...**

by

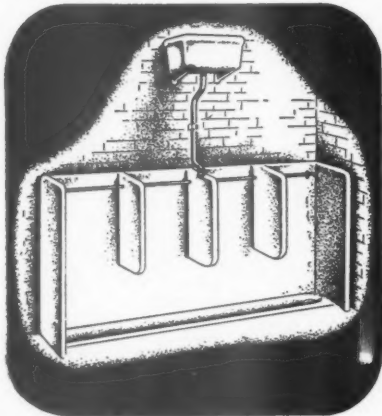
Cheethams
OF OLDHAM

H. CHEETHAM & CO. LTD., MANCHESTER ST., OLDHAM.

PHONE MAIN 3881-2-3
GRAMS
"HYGROLIT," OLDHAM.

One of several 9ft. diameter Multivane Fans installed by Cheethams of Oldham for the Air Conditioning of one of the largest Aircraft Factories in England.

CORNOLITH



In your post-war plans, include for Cornolith Terrazzo Urinals, Shop Fronts, Tiles and Fireplaces. Let us help you plan economically. A post card will bring full particulars from:—

JOHNSTON BROTHERS

(Contractors) Ltd.,

DOSELEY QUARRIES · DAWLEY · SALOP

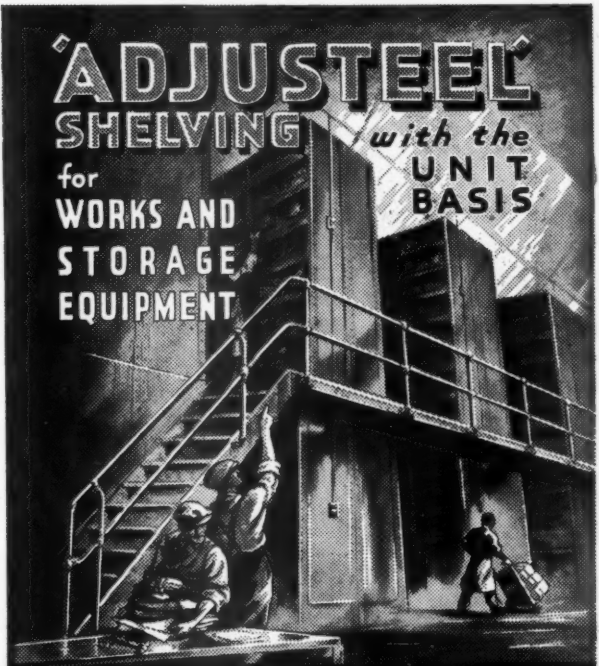
*Grams: JOHNSTONS, Dawley.

*Phone 362.

ADJUSTEEL SHELVING

for WORKS AND STORAGE EQUIPMENT

with the UNIT BASIS



Send for Catalogue—AJ/820

CONSTRUCTORS

TYBURN RD · ERDINGTON
BIRMINGHAM 24

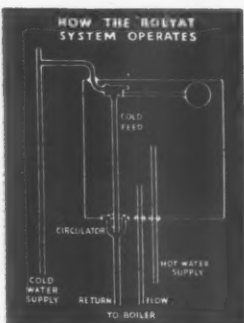
SAVES LABOUR COSTS—FLOOR SPACE & FUEL

—Completely satisfies Architects, Builders & Tenants!

Post-war housing demands many improvements and a hot water system which eliminates much unnecessary piping. The Rolyat Hot Water Tank is the most up-to-date apparatus of its kind—one tank being sufficient for five consecutive baths—was included in the pre-fabricated plumbing unit which attracted so much attention at The Scottish Housing Exhibition at Clydebank.

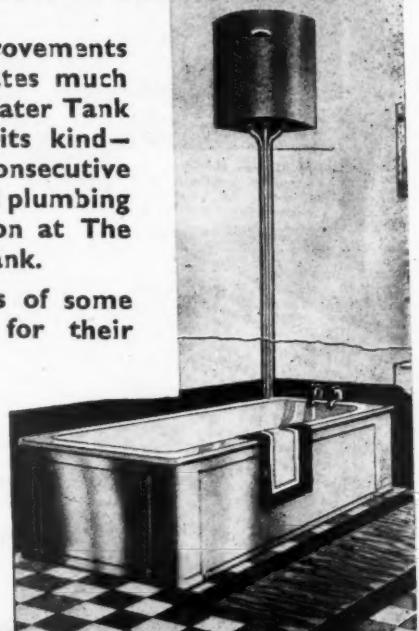
It is also included in the Specifications of some of the leading Housing Authorities for their post-war schemes.

Fullst details on request.



ROLYAT

PATENT DOMESTIC HOT WATER SYSTEM

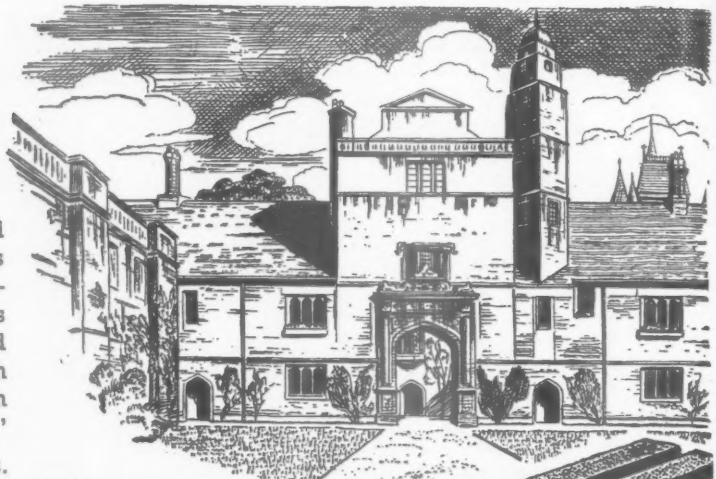


THE ROLYAT TANK CO. LTD. · TOFT GREEN · YORK

The Test of Time

When architects responsible for distinguished buildings employ Sankey's Cranham Blocks for the construction of partitions, it is a striking endorsement of those sterling qualities of fire and damp resistance; heat and sound insulation; great mechanical strength; which Sankey's Cranham Blocks possess. With these virtues they stand "the test of time."

Please send 1d. stamp for full particulars.



CAIUS' COLLEGE, CAMBRIDGE,
Where Sankey's Cranham Blocks
were used.

SANKEY'S

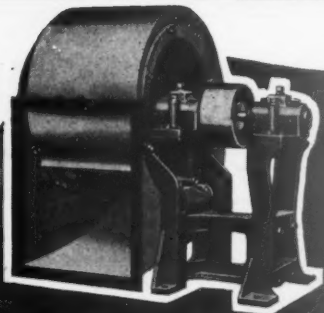
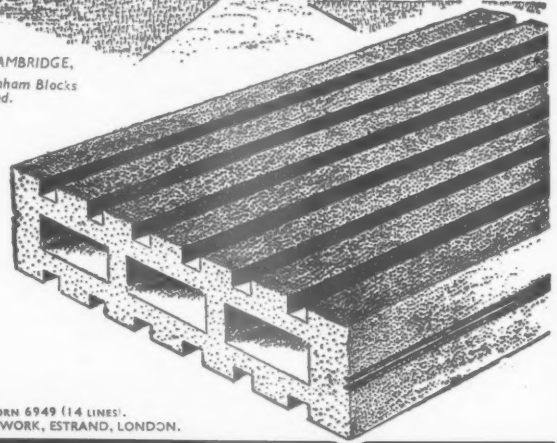
CRANHAM BLOCKS

J. H. SANKEY & SON, LTD.

ESTABLISHED 1857

22 ALDWYCH HOUSE, ALDWYCH, LONDON, W.C.2

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



Slow Speed Multivane Fan
which can be fitted with Patent
Laminated Fan Casings for
super-silent running.

All "CYCLONE" Products are backed by over 60 years practical research and experience, and the first and only considerations are quality and suitability for their purpose.

Our Specialities include:—WARMING AND VENTILATING PLANTS, AIR WASHERS, HUMIDIFIERS, AIR PROPELLERS (BELT AND ELECTRIC), MULTIVANE FANS with Patent Laminated Fan Casings for super-silence, HEATER UNITS (Gilled Copper Tubes), COTTON WOOL FILTERS (Throw-away Type), DRYING MACHINES, DUST-COLLECTION AND REMOVAL PLANTS, etc.

An expert technical staff is always available to discuss your particular problems.

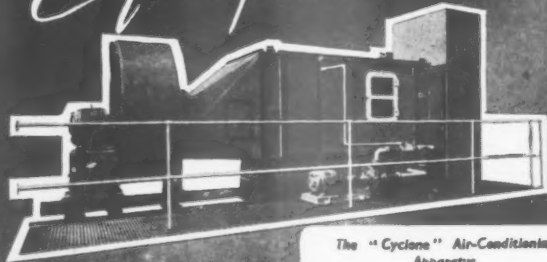
Write for illustrated Brochures with much helpful information. Please quote Ref. AB/p.

Our London Office is again at 20 BEDFORD ROW, W.C.1.

SPECIFY...

CYCLONE

Equipment



The "Cyclone" Air-Conditioning
Apparatus.

MATTHEWS & YATES LIMITED
SWINTON (LANCS.) and LONDON
and at GLASGOW, LEEDS, BIRMINGHAM and CARDIFF



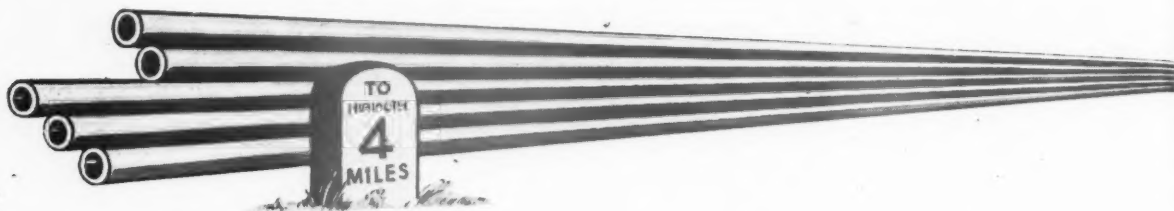
PROVED GOOD FOR DEFENCE



**WILL BE BETTER
FOR RECONSTRUCTION**

Manufactured by
THE KETTON PORTLAND
CEMENT CO. LTD.
WORKS-KETTON

Distributed by
THOS W. WARD LTD.
SHEFFIELD.
*Grams:- FORWARD SHEFFIELD
*Phone:- 26511 (15 Lines)



Miles and miles of piping . . . pounds and pounds of steam pressure . . . tons and tons of fuel consumed . . . yet even the Chief is chilly. You've been faced with this problem heaps and heaps of times . . . and have always solved it. There are Vectairs, Univectairs and Projectaires . . . each of them does the same job in a different way, but very, very efficiently. The type of heater recommended depends upon the job it has

to do . . . you generally know which type you want . . . If you are in doubt, please write us about your particular problem. We are confident that your contracts total will improve with the appropriate use of these modern heaters.

Vectair installation at Inver Court, Bayswater W.I.



VECTAIRS

(PRODUCT OF BRITISH TRANE CO. LTD.)

● For Vectairs, write for Brochure No. V/AS.
For Electric Vectairs, Brochure No. EV/A7.

for HEATING

BY STEAM, HOT WATER OR ELECTRICITY

BRITISH TRANE CO. LTD., VECTAIR HOUSE, 52 CLERKENWELL CLOSE, LONDON, E.C.1
TELEPHONE: Clerkenwell 6864 & 3826. AGENCIES at: Belfast, Birmingham, Cardiff, Dublin, Glasgow, Liverpool, Manchester, Newcastle, Nottingham, Sheffield and Torquay

TAKE THIS NOTE MISS JONES...

"Contact Evertaut Ltd., and get them to advise us on re-fitting the office and works with modern seating and storage equipment.

P.S. And get an Evertaut posture chair for Miss Jones"

**EVERTAUT
LIMITED**

(Proprietors: J. B. Brooks & Co. Ltd.)

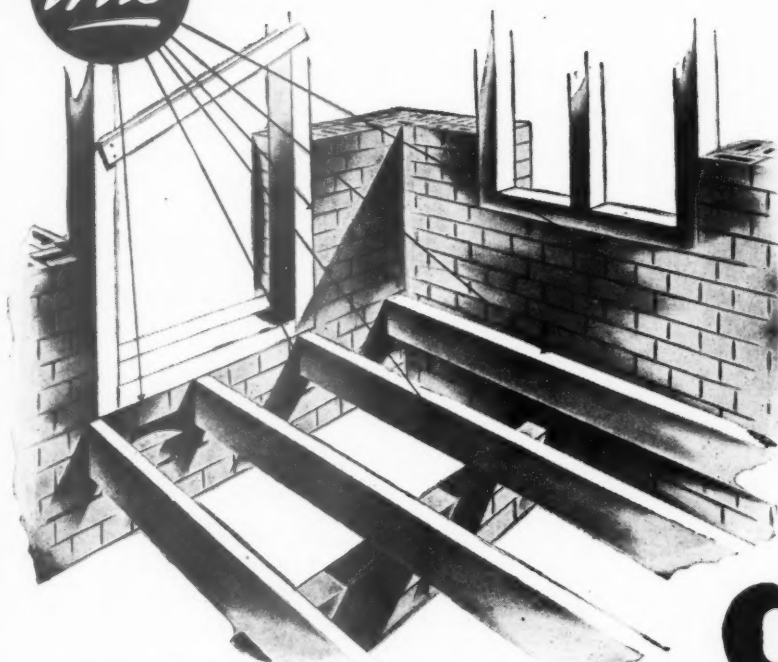
➔ **ADVISORY SERVICE
NOW** is the time to plan.
The skilled staff of Evertaut Ltd. is at your disposal to advise on all questions of efficient seating and storage problems for Office or Works.



EVERTAUT LTD., WALSALL ROAD, PERRY BARR, BIRMINGHAM 22

this

IS WHERE THE TROUBLE BEGINS!



This is where it is possible to get down to the real roots of dry-rot trouble. Built-in timbers in floor joists and wall-plates, floorings, door and window frames, are particularly susceptible to dry-rot attacks. They are surrounded by other building materials which tend to accumulate moisture and produce damp conditions in which Dry-Rot thrives. That is why all such timbers should be treated, and it is the soundest economy to treat them with S.Q.D. Green or Clear CUPRINOL, which, for an approximate cost of only one third of a penny per square foot, prevents rot and obviates expensive repairs. Cuprinol moreover has the added advantage in that it may be polished, painted or varnished over when thoroughly dry. S.Q.D. Green Cuprinol should also be used for stamping out existing dry-rot outbreaks.

CUPRINOL

WOOD AND FABRIC PRESERVATIVE

(Manufactured by Cuprinol, Ltd., London)

Specified and used by the Admiralty, War Office, Air Ministry, Home Office, Ministry of Works and Planning, Ministry of Supply, Public Authorities, Architects, Builders and Contractors

Write to JENSON & NICHOLSON LTD., CUPRINOL SECTION, 36 ST. JAMES'S ST., LONDON, S.W.1

DISTRIBUTORS OF CUPRINOL PRODUCTS IN THE UNITED KINGDOM AND NORTHERN IRELAND

BRABY

COPPER AND ZINC ROOFING



Copper makes an excellent material for covering roofs. It may be laid on boarding or concrete direct. It is light, very ductile, offers great resistance to fire and is very little affected by changes in temperature.

We are specialists in all styles of PLAIN & ORNAMENTAL ZINC and COPPER WORK suitable for coverings for DOMES, TOWERS, TURRETS, etc.

FREDK. BRABY & CO. LTD.

AINTREE LIVERPOOL

TELEPHONE: AINTREE 1721 (6 lines).

TELEGRAMS: "BRABY, PHONE, LIVERPOOL."

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.

Public and Official Announcements

Six lines or under, 8s.; each additional line, 1s. THE INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. ADDRESS: 75 EATON PLACE, LONDON, S.W.1. TEL.: SLOANE 5615. 991

ESSEX EDUCATION COMMITTEE SOUTH-EAST ESSEX TECHNICAL COLLEGE AND SCHOOL OF ART, LONGBRIDGE ROAD, DAGENHAM.

Applications are invited for the permanent post of Full-time SENIOR LECTURER IN ARCHITECTURE.

Candidates should have a recognised qualification in Architecture, and preference will be given to those having professional experience and membership of the R.I.B.A. The post will be one of special responsibility, and this may be recognised for salary purposes. The successful applicant will be given opportunity for research.

Salary: Burnham (Provincial) Scale. Forms of application can be obtained, by sending a stamped addressed envelope to the Clerk to the Governors at the College, to whom applications should be returned by the 31st October, 1944.

B. E. LAWRENCE, Chief Education Officer. County Offices, Chelmsford. 831

COUNTY BOROUGH OF WEST HAM. EDUCATION COMMITTEE.

WEST HAM MUNICIPAL COLLEGE. Principal: H. BAKER, M.Sc., Ph.D., A.M.I.C.E., A.M.I.E.E.

Applications are invited for the post of HEAD OF THE SCHOOL OF BUILDING.

Candidates should have teaching experience, a sound knowledge of the Building Industry, and must have organising ability.

The School comprises a Junior Technical School of Building, together with Part-Time Day and Senior Evening Courses in Architecture, Building and Building Crafts.

The initial salary scale will be £580 by £25 by £20 to £625. The enlargement of the School to form a recognised Department is envisaged.

Canvassing, either directly or indirectly, is prohibited and will disqualify.

Particulars and form of application may be obtained from the Principal on receipt of a stamped addressed envelope, and must be returned not later than 6th November, 1944.

This appointment is for the War period in the first instance, with every prospect for permanency for a suitably qualified candidate.

IRVINE G. JARDINE, Education Officer. Education Department, 95, The Grove, E.15. October, 1944. 827

BOROUGH OF BALLYMENA. TOWN PLANNING APPOINTMENT OF AN ARCHITECT.

The Ballymena Borough Council require the temporary services of an ARCHITECT to prepare a Town Planning, Housing and Boundary Extension Scheme in the Borough in consultation with the Borough Surveyor. The Scheme will require to be co-ordinated with the Antrim County Scheme.

The person appointed must be a Fellow or Associate of the Royal Institute of British Architects, and comply with the other provisions specified in the Northern Ireland Local Authorities (Architects' Qualifications) Order, 1936 (S.R. & O., 1936, No. 140), and, in addition be at least an Associate Member of the Town Planning Institute and have had practical planning experience.

The salary for the position will be at the rate of £500 per annum.

The appointment, which is subject to the sanction of the Ministry of Health and Local Government, will be full time, temporary and terminable by three months' notice on either side. When appointed, the Officer will be required to take up duty as soon as possible.

Vouched travelling expenses will be recouped to applicants selected to attend for interview.

The necessary Form of Application can be obtained from the undersigned.

Applications, accompanied by copies only of two recent testimonials, are to be enclosed in a sealed envelope marked "Architect" and addressed to the undersigned, and will be received not later than the 15th day of November, 1944.

(Sgd.) THOS. B. WHITESIDE, Town Clerk. Town Hall, Ballymena, Northern Ireland. 17th October, 1944. 835

Architectural Appointments Vacant

Four lines or under, 4s.; each additional line, 1s. Wherever possible prospective employers are urged to give in their advertisement full information about the duty and responsibilities involved, the location of the office, and the salary offered. The inclusion of the Advertiser's name in lieu of a box number is welcomed.

ASSISTANT required; general practice, war damage repairs, surveys, etc.; South-West county; state age, qualifications, experience and salary; good prospects. Box 820.

ARCHITECT and SURVEYING ASSISTANT, with good knowledge of specifications and quantities, required; salary £2400 per annum. Reply with full details to Box 832.

TOWN PLANNING CONSULTANT requires:—

(1) ARCHITECTURAL ASSISTANT, with some knowledge of Town Planning. Salary £350 per annum, rising to £500, plus travelling and subsistence allowance.

(2) TWO JUNIOR ASSISTANTS, at salaries of £220 per annum, rising to £300 per annum, plus travelling and subsistence allowance.

Applications should be made to G. E. Payne, 2, King Street, Gloucester, by the first post on Thursday, 26th October, 1944. 825

LARGE and active firm of Architects and Surveyors in Midlands require:—

(a) SENIOR ARCHITECTURAL ASSISTANT. A.R.I.B.A. or equal; highly skilled and experienced Designer and Draughtsman; able to prepare schemes and illustrate with finished and original drawings and perspectives in various media.

(b) SENIOR ARCHITECTURAL ASSISTANT. A.R.I.B.A. or equal; experienced in design and construction of modern cinematograph theatres, etc.

(c) SENIOR ARCHITECTURAL ASSISTANT. A.R.I.B.A. or equal; experienced in design of modern hotels and licensed houses.

Applicants to state whether applying for appointments (a), (b) or (c), and to state age, liability for National Service, salary required, when available, and to give brief résumé of previous experience. Box 833.

Architectural Appointments Wanted

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

A.R.I.B.A., with good all-round experience, desires spare time work. Box 345

CHARTERED ARCHITECT, A.R.I.B.A., able to undertake part-time work in London. Box 374.

ARCHITECT, experienced in carrying through works complete; London and provinces. Box 346.

JUNIOR seeks position, Architect's office, Birmingham, district; school certificate. Box 356.

QUANTITY SURVEYOR'S ASSISTANT (33) requires progressive position; provinces preferred.—Write 27, Roupell Street, Lambert. S.E.1. 373

YOUTH (16), general school certificate, attending architectural classes, desires position as Junior in Architect's Office. Goodwin, 10, Leigham Vale, Streatham, S.W.16. 370

ARCHITECT (Chartered) offers services in responsible position, preferably with view to later partnership; 20 years' varied experience, with specialist knowledge of cinema and factory design. Box 369.

L.R.I.B.A. offers part-time assistance; architectural, structural steel and reinforced concrete; own accommodation; Cardiff district or near. Box 364.

CHARTERED STRUCTURAL ENGINEER offers services for part-time Preparation of Design and Detail Drawings, etc.; R.C. or steel work. Box 817.

SENIOR QUALIFIED ARCHITECT, wide experience housing and flats, offers services; central or N.W. London. S. G. Wilson, M.A., c/o 3, Greenhill Street, Stratford-on-Avon. 368

HIGHLY qualified and experienced Civil Engineer, aged 31 (University graduate) desires appointment with Architect, with view to future partnership. For further particulars apply Box 361.

CLERK OF WORKS; extensive pre-war experience, also war damage; used to re-measurements and adjustments of accounts; highest London references. C. A. Staples, 49, Highview Avenue, Edgware, Middlesex. 371



See Information Sheet Nos. 411, 414 & 415. Copies may be obtained from GEORGE ELLISON Ltd., PERRY BARR, BIRMINGHAM, 22B.



FOLD AS EASILY AS A FAN

Wm. OLIVER & SONS, Ltd.
(of Bunhill Row), 12/13 Bow Lane, E.C.4

HOME GROWN { HARDWOODS
SOFTWOODS

Quota Merchants for
NATIONAL STOCK

STEELWORK BY
SHARMAN & SONS
SWAN WORKS, HANWORTH, MIDD.X.

Phones: Feltham 3007. Sunbury 2367. Grams: "Sharman," Feltham.

WAXED KRAFT THE CHEAPEST
EFFICIENT BUILDERS' & CONCRETERS' PAPER

WAX IMPREGNATED PAPERS LIMITED
NUNHEAD LANE, LONDON S.E.15

BRAITHWAITE
PRESSED STEEL TANKS
BRAITHWAITE & Co., ENGINEERS Ltd.

London Office: Temporary address:
35, KINGS HOUSE, HAYMARKET, S.W.1
Telephone: W-41 3993. Telegrams: Bromkirk-Phone

FIRE PROTECTION

See Information Sheet No. 78. Copies may be obtained from:

CLARKE & VIGILANT SPRINKLERS LTD.
Atkinson St., Deansgate, Manchester, 3.
Phone: Deansgate 2727 B and
10 13, Bedford St., Strand, W.C.2
Phone: Temple Bar 8314 5.



Slide rule for 5/6

HARDTMUTH'S meet a popular need of the moment with the "Classic" Slide Rule. Four scales—adequate for all ordinary calculations. Inch and centimetre scales on edges. Completely accurate, and strongly made of seasoned Honduras mahogany, tongued and grooved and reinforced with flexible stock unaffected by climatic change. The strong, view-free, unbreakable cursor has metal ends.

Classic Slide Rule, in strong, pull-off shoulder box with full instructions:—Series 1:—5in. Pocket Model, Price 5s. 6d. Series 1:—10in. Model, Price 7s. 6d.

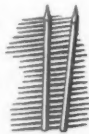
From all Stationers and Drawing Material dealers, but if any difficulty in obtaining, write direct.

Other "Classic" Successes.—T. Squares, 74in. seasoned Honduras Mahogany, bevelled, Price 6s. Set Squares (of stout celluloid)—6in., 45°, Price 1s. 4d. 2ach; 8in., 60°, Price 1s. 4d. each; 8in., 45°, Price 2s. 2d. each; 10in., 60°, Price 2s. 2d. each.

(Other sizes supplied to order.)

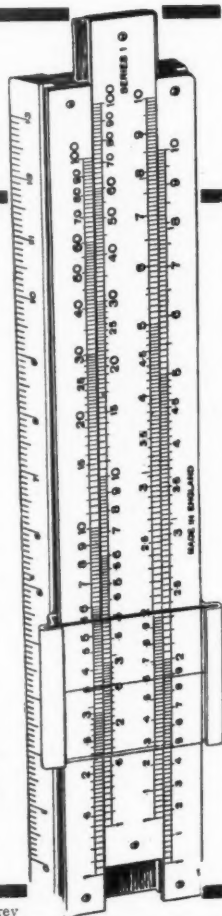
—and after the War

"KOH-I-NOOR" & "MEPHISTO"—perhaps the two best-known pencils in the world, will be in plenty again.



L. & C. HARDTMUTH GREAT BRITAIN LTD.

Temporary address:—44 Alexandra Rd., Epsom, Surrey



When the time comes . . .

At this very moment architects and technicians are planning the homes of the future and these homes will, to a large extent, shape the lives of those who live in them. When the time comes to put those plans into practice the Abbey National Building Society will play their part with proper regard to public needs and the national interest.

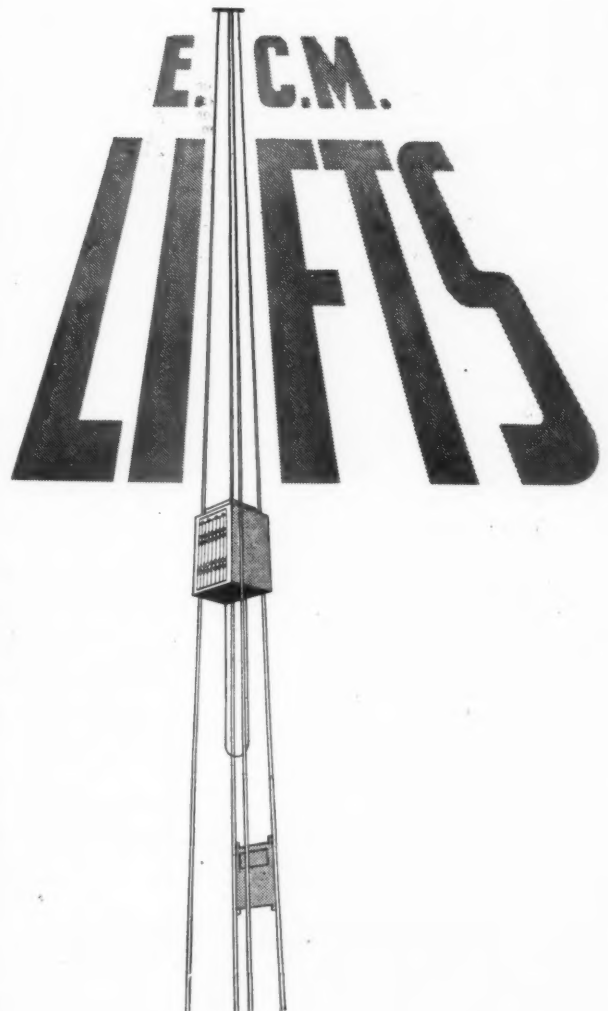
ABBAY NATIONAL BUILDING SOCIETY

Joint Managing Directors:

Sir Harold Bellman, J.P., LL.D. R. Bruce Wyckley, M.C., F.R.I.S.

**LARGE RESOURCES AVAILABLE
TO ASSIST HOME OWNERSHIP**

HEAD OFFICE: ABBAY HOUSE, BAKER ST., LONDON, N.W.1
Chief City Office: National House, Moorgate, E.C.2



for VERTICAL TRANSPORT

- Architects, Engineers, Production Managers and others responsible for the erection and equipment of modern buildings are invited to consult

ETCHELLS, CONGDON & MUIR, LTD.
ANCOATS, MANCHESTER.

Also at Birmingham, Sheffield, Leeds, Liverpool and Edinburgh.
LONDON (Temporary Address):
31 WOLSEY CRESCENT, MORDEN, SURREY



SENIOR DRAUGHTSMAN requires free lance work for Architects, Contractors, or Surveyors, now or in the future; domestic, flats, factories, prefabrication, etc.; expert detailer; moderate charges. Write Box 366.

QUANTITY SURVEYOR, 6 years' experience professional office and public works, presently employed by public works contractor in South Devon, seeks post with professional firm, preferably in London area. Box 365.

ASSISTANT ARCHITECT, experienced licensed premises, domestic, shop, canteens, desires post with private firm of Architects in Shropshire, Worcester or neighbouring districts; possesses own car; disengaged shortly. Box 363.

ARCHITECT'S ASSISTANT, M.Inst.R.A.; registered Architect (age 40); good all-round practical experience in all classes of housing, specifications, surveying and levelling, reconstruction and alteration work; desires change of position to office that can offer sound permanent post-war prospects. Box 367.

R.I.B.A., (43), at present engaged as Senior Assistant in the Architectural Dept. of a Local County Authority, desires change, with promotion, with another Local Authority or a Private Firm, with a view to eventual partnership; long experience of both first-class private practice and local Government work, particularly school design and town planning. Box 372.

Other Appointments Wanted

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

GROUP of Three CHARTERED ENGINEERS (B.Sc., A.M.I.Mech.E., A.M.I.E.E., etc.) offer spare time services; specialists in design of engineering layouts for hospitals and laundries. Write to Group Consultants, 234, Alexandra Avenue, South Harrow, Middlesex. 785

Planning

As originators of the Auto-Recorder System of Machine Milking, we have had extensive experience of planning layouts to accommodate the new technique. The Ministry of Agriculture's Clean Milk Bill, when passed, will mean a large increase in the number of new or modified farm buildings required. The position will be affected also by the findings of the English and Scottish Commissions on this important

subject. The service of our Technical Department is available to any Architect who may be consulted in these matters. Write in confidence to: Gascolgne (Reading), Ltd., Berkeley Avenue, Reading.

Miscellaneous

Four lines or under, 4s.; each additional line, 1s.
A. J. BINNS, LTD., specialists in the supply and fixing of all types of fencing, tubular guard rail, factory partitions and gates. 53, Great Marlborough Street, W.1. Gerrard 4223-4224-4225.

WANTED, to Purchase, 1939 Ed. "Planning," by E. and O. E. Box 834.

"ARCHITECTURAL REVIEWS" wanted; all numbers from 1930 to 1942. Please send dates and prices to Box 821.

FENCING AND GATES of every type, supplied and erected. Specialists in chain link. Boulton & Paul, Limited, Norwich. 662

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

REQUIRED—Stratton's "Elements of Form and Design in Classic Architecture"; Holmes' "Colour in Interior Decoration"; Curtis' "Architectural Composition." Box 810

J. O. SHEPPARD, late of 21, Bedford Row, W.C.1 (and the Granwood Flooring Co., Ltd.), now at 1, East Road, Chadwell Heath, Essex, and on war work, thanks Architects for past cordiality, and looks forward to meeting them again when his new office opens. 800

For Sale

Four lines or under, 4s.; each additional line, 1s.
COMPLETE Copies of "The Architect's Journal," July, 1941, to July, 1942, and August, 1942, to July, 1943; all in excellent condition. Box 829.

FOR SALE—42 in. by 28½ in. Drawing Board and Tee-Square; in Darlington. Offers to Box 830.

CHIPPENDALE Mahogany Architect's Table; in very fine original condition, and un-restored. Thomas, 10a, South Grove, Highgate Village, London, N.6 (telephone: Mount View 2527). 819

Educational Announcements

Four lines or under, 4s.; each additional line, 1s.
R. I.B.A. AND T.P. INST. EXAMS. Private R. Courses of tuition by correspondence arranged by Mr. L. Stuart Stanley, M.A., F.R.I.B.A., M.T.P.I. Tutor, 161, West Heath Road, N.W.3. 231

R.I.B.A. QUALIFYING EXAMINATIONS. Mr. C. W. Box, F.R.I.B.A., M.R.San.I. Courses by Correspondence and Personal in Studio. 115, Gower St., London, W.C.1. Telephone: EUSTON 3305 and 3906.

SOUND INSTRUCTION by Postal Method

is offered by the world's largest and greatest correspondence school in the following subjects:

Architecture
Architectural Drawing and Designing
Building Contracting
Building Construction and Interior Work
Building Construction and Quantities
Building Specifications and Quantities
Quantity Surveying
Structural Steelwork
Civil Engineering

Surveying and Mapping
Municipal Engineering
Plan and Map
Draughtsmanship
Structural Engineering
Concrete Engineering
Structural Drawing
Construction Draughtsmanship
Sanitary Engineering
Air Conditioning
Heating and Ventilation

Special Courses for the Diplomas of the R.I.B.A., I.O.B., C.S.I. Inst.C.E. Inst.M. & Cy.E., Inst.Struct.E., R.S.I., Inst.S.E., etc.

Special Terms for members of H.M. Forces.

Write to-day for Syllabus of our Courses in any of the subjects mentioned above

INTERNATIONAL

CORRESPONDENCE SCHOOLS, LTD.
Dept. 141, International Buildings
KINGSWAY, LONDON, W.C.2



SECO

is a system of dry Unit Construction for
HOUSES, SCHOOLS, HOSPITALS & FACTORIES,
which gives utmost speed of erection on the site.

JOINERY

FOR IMMEDIATE & POST-WAR REQUIREMENTS

SHARP BROS. & KNIGHT LTD.

BURTON-ON-TRENT

Telegrams:
"JOINERY," BURTON-ON-TRENT

Telephone
BURTON-ON-TRENT 3350 (4 lines)

MOLER PRODUCTS LIMITED

Hythe Works
COLCHESTER

"FOSALSIL"

Flue Bricks and Setting Powder

"FOSALSIL"

Aggregate for Insulating Concrete

FLUE BRICKS POWDERS PARTITION BLOCKS

Everite

PLASTIC HARDWARE

SERRATED PIN

BRASS BUSHED NECK

SERRATED SPINDLE

SPINDLE OPENS OUT IN NECK OF KNOB AND IN FOLLOWER, ELIMINATING ALL RATTLE

ELIMINATE GRUB SCREWS BY ORDERING EVERITE DOOR FURNITURE WITH MICROTITE MULTI-ADJUSTING SPINDLE (Patent No. 465364)

A full range of Everite Plastic Hardware is available. Details on request.

*The Choice of those
Planning for Tomorrow... TODAY*

EVERED AND COMPANY LIMITED, SURREY WORKS, SMETHWICK, 40, ENGLAND

BUILT INTO THE FOUNDATIONS

OF MODERN BRITISH ARCHITECTURE



For a Century and a half HORSELEY has been a household word in British Structural Engineering. This great organisation—originally the HORSELEY COMPANY, later the HORSELEY BRIDGE AND ENGINEERING COMPANY and now HORSELEY BRIDGE AND THOMAS PIGGOTT LTD.—has been responsible for Structures of all kinds which are historic—from the first iron steamship and the earliest locomotives to numberless Bridges in Britain and Europe, and modern Steel-Framed buildings of all types including the imperially planned Headquarters of Commercial Aviation in Britain.

HORSELEY-PIGGOTT STEELWORK

will play its part in the Reconstruction of Britain.

HORSELEY BRIDGE
AND THOMAS **PIGGOTT** LTD

HORSELEY WORKS • TIPTON • STAFFS • PHONE: 1104 P.B.X.
LONDON OFFICE: 21, CARLISLE PLACE, WESTMINSTER, S.W.1

BRIDGES • STEEL
FRAMED BUILDINGS •
GAS HOLDERS • PRESSED
STEEL TANKS • WATER
PURIFICATION PLANT

Alphabetical Index to Advertisers

	PAGE		PAGE		PAGE
Abbey National Building Society	xliv	Evertaut, Ltd.	xliv	McKechie Bros. Ltd.	xliv
Accrington Brick & Tile Co.	—	Ewart & Son, Ltd.	—	Mellor Bromley & Co. Ltd.	ii
Aero Pipe & Glass Co., Ltd.	ix	Flexo-Plywood Industries, Ltd.	—	Midland Electric Manufacturing Co., Ltd.	xv
Aidas Electric, Ltd.	—	Fordham Pressings, Ltd.	—	Mills, Scaffold Co., Ltd.	—
Airwork General Trading Co., Ltd.	—	Freeman, Joseph, Sons & Co., Ltd.	iii	Moler Products, Ltd.	xlvi
Anderson, C. F., & Son, Ltd.	—	Gaze, W. H., & Sons, Ltd.	—	Newalls Insulation Co., Ltd.	—
Anderson, D., & Son, Ltd.	—	General Cable Mfrg. Co. Ltd.	x	Newsom, H., Sons & Co., Ltd.	—
Architects' Benevolent Society	xliv	Gray, J. W., & Son, Ltd.	—	Northampton Building Society	xliv
Ashwell & Nesbit, Ltd.	—	Greenwoods & Airvac Ventilating Co., Ltd.	—	Oliver, Wm., & Sons, Ltd.	—
Austins of East Ham (Ltd.).	—	Haden, G. N., & Sons, Ltd.	xxiv	Positive Flow Ventilators, Ltd.	—
Baldwin, Son & Co., Ltd.	—	Hardtmuth, L. & C. (Gt. Britain), Ltd.	xliv	Prodorite, Ltd.	—
Birmingham Guild, Ltd., The	xvii	Harvey, G. A., & Co. (London), Ltd.	iii	Rolyat Tank Co., Ltd.	xxxix
Black & Decker, Ltd.	xi	Hammond & Champness Ltd.	xxvi	Rownson, Drew & Clydesdale, Ltd.	—
Blackburn, Thomas & Sons, Ltd.	—	Helliwell & Co., Ltd.	xxvi	Ruberoid, Co., Ltd.	—
Booth, John & Sons (Bolton), Ltd.	—	Hiduminium Applications, Ltd.	—	Sankey, J. H., & Son, Ltd.	xl
Braithwaite & Co., Engineers, Ltd.	xliv	Hills, F. & Sons, Ltd.	xix	Sankey-Sheldon	xiii
Braby, Fredk., & Co., Ltd.	xlvi	Horseley Bridge & Thomas Piggott, Ltd.	xlvi	Saunders & Taylor, Ltd.	xx
Briggs, William & Sons, Ltd.	—	Imperial Chemical Industries Ltd.	v, xviii	Scaffolding (Gt. Britain), Ltd.	xxxv
British Electrical Development Assoc.	xxxvii	Industrial Engineering, Ltd.	x	Semtex, Ltd.	—
Brush Electrical Engineering Co., Ltd.	xxix	International Correspondence Schools, Ltd.	—	Sharman, R. W.	xliv
British Thomson-Houston Co., Ltd.	xxv	Johnston Bros. (Contractors), Ltd.	xxxix	Sharp Bros. & Knight, Ltd.	xlvi
British Trane Co., Ltd.	xlvi	Jenson & Nicholson, Ltd.	xlvi	Smith's Fireproof Floors, Ltd.	—
Bromsgrove Guild, Ltd.	xxxiv	Kerner-Greenwood & Co., Ltd.	—	Standard Range & Foundry Co., Ltd.	xxii
Cement Marketing Co., Ltd.	viii	Ketton Portland Cement Co. Ltd.	xli	Steel & Gunton, Ltd.	xx
Cheetham, H. & Co., Ltd.	xxxviii	Lacrinoid Products, Ltd.	xii	Stott, James & Co. (Engineers), Ltd.	—
Clarke & Vigilant Sprinklers, Ltd.	xliv	Laing, John, & Son, Ltd.	—	Sutcliffe, Speakman & Co., Ltd.	xiv
Colt, W. H. (London), Ltd.	—	Lancashire Dynamo & Crypto, Ltd.	—	Tentest Fibre Board Co., Ltd.	xxx
Constructors Ltd.	xxxix	Lead Industries Development Council London Brick Co., Ltd.	vii	Tretel Ltd.	xxxii
Crittall Manufacturing Co., Ltd.	xxxvi	Long, J. & Sons (Bath), Ltd.	—	Trussed Concrete Steel Co., Ltd.	xvi
Crittall, Richard, & Co., Ltd.	—	Magnet Joinery	vi	Twistell Reinforcement, Ltd.	xxiii
Davidson, C., & Sons, Ltd.	—	Main, R. & A., Ltd.	xxviii	Uni-Seco Structures, Ltd.	xlvi
De La Rue Plastics, Ltd.	—	Marley Tile Co., Ltd.	xxxi	Universal Asbestos Mfrg. Co., Ltd.	xxi
Edgar, William, & Son, Ltd.	—	Matthews & Yates, Ltd.	xl	Warwick Rim & Sectioning Co., Ltd.	—
Electrolux Ltd.	iv	Mavitta Drafting Machines, Ltd.	—	Waxed-Papers, Ltd.	xliv
Ellison, George, Ltd.	xliv	McCall & Co. (Sheffield), Ltd.	—	Winget Ltd.	xxvii
Esavian, Ltd.	—			Wood Wool Building Slab Mfrs. Assoc.	—
Ethells, Congdon & Muir, Ltd.	xliv			Zinc Alloy Rust-Proofing Co., Ltd.	xlvi
Evered & Co., Ltd.	xlvi				

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

SHERARDIZING PREVENTS RUST!

SHERARDIZING IS FULFILLING AN IMPORTANT ROLE
IN THE NATIONAL EFFORT

ZINC ALLOY RUST-PROOFING CO. LTD.

Crawford Street,
Rochdale, Lancs

Shakespeare Street,
Wolverhampton

Minerva Road,
Chase Estate, London, N.W.10

Copies of Information Sheet No. 108 and
Text Book "Sherardizing" free on application

HO

ADV

(

(

(

N.B.

Parti

A. E

H

S

S

S

S

S

ST

S

S

S

A. B. S. HOUSE PURCHASE SCHEME

An Endowment Assurance effected now may be utilised in connection with future House Purchase transactions.

ADVANTAGES:

- (a) It is a method of providing for all or part of the cash deposit required (assuming that at least two annual premiums have been paid).
- (b) The premium is based upon the present age of a prospective borrower.
- (c) The term of the mortgage when taken out would be shortened, hereby effecting an economy in payment of interest.

N.B. In general, House Purchase advances will be considered on the basis of present-day values.

Particulars from:—

The Secretary,
A.B.S. INSURANCE DEPARTMENT
66 Portland Place, London, W.1.
Tel.: WELbeck 5721.

AN UNSURPASSED MORTGAGE SERVICE

We should be glad to send you, without any obligation, a prospectus which sets out clearly the society's generous and easy mortgage terms

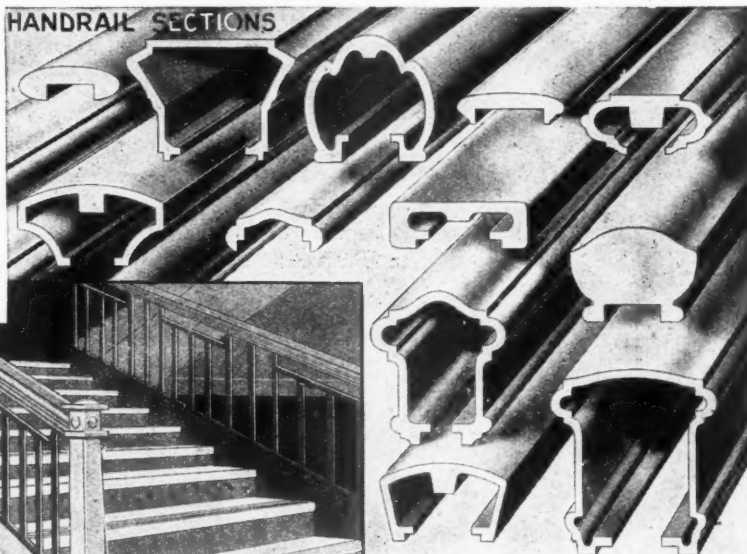
NORTHAMPTON TOWN AND COUNTY BENEFIT BUILDING SOCIETY

HEAD OFFICES:
**85, ABINGTON ST.
NORTHAMPTON**
H. PRESTON F.C.I.S. SECRETARY

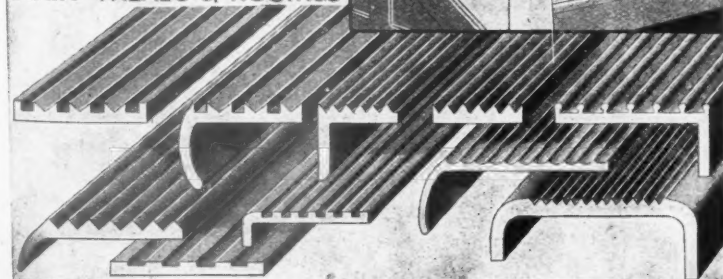


specify
**HANDRAIL &
STAIRTREAD**
sections by

HANDRAIL SECTIONS



STAIR TREADS & NOSINGS



McKECHNIE
BROS. LTD.

NICKEL SILVER AND GUN METAL • COLOURED BRASS

Registered Office

ROTTON PARK STREET • BIRMINGHAM 16

Telephone • Edgbaston 3581 (7 lines) Grams • McKechnie, Birmingham

THERE'S PRACTICALLY NO END TO THE KIND OF JOB MILLS CAN DO WITH STEEL SCAFFOLDING

THERE'S GOOD SUPPORT FOR THESE STOREYS IF YOU ASK ME

MILLS
SCAFFOLD CO., LTD.

TRUSSLEY WORKS, HAMMERSMITH GROVE, LONDON, W.6. Tel: RIVerside 5026/9.

