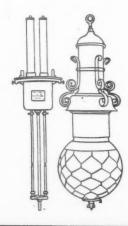
### BENEFACTORS OF MANKIND



#### CHARLES FRANCIS BRUSH (1849-1929)

His outstanding work was in the field of light, a subject, akin to life itself, which still engages the seeker after scientific truth, and awaits final definition. In his great old age he was described as "A Pioneer of Light". Could any epitaph be more honourable?



# Rioneering

THIS brilliant American scientist interested himself in the study of gravitation and molecular physics, but his great obsession was electricity. He lived through the progressive stages of candle light, lamp light and gas light, and then he contributed the electric arc lamp to the amenities of civilisation, bringing noonday light at midnight to city squares, boulevards and broadways. His inventions include a dynamo, and he claimed the lead storage battery as one of his original conceptions. The Brush Electrical Engineering Co. Ltd., which bears his name, sprang directly from his activities, and has carried on the tradition of his pioneering through half a century of progress.



ELECTRICAL ENGINEERING CO. LTD. LOUGHBOROUGH, ENGLAND.

5-127

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

### Alphabetical Index to Advertisers

	PAGE		PAGE		PAGE
Accrington Brick & Tile Co., Ltd	-	Crittall Manufacturing Co., Ltd., The		Lloyd Boards Ltd	xliv
Adams, Robert (Victor), Ltd	-	Crittall, Richd., & Co., Ltd	X	McCall & Company (Sheffield), Ltd	
Aero Pipe and Glass Co., Ltd		Croft Granite, Brick & Concrete Co.,		McCarthy, M., & Sons, Ltd	xlviii
Aga Heat Ltd	xlv	Ltd	xxxviii	McNeill, F. & Co., Ltd	
Aidas Electric Ltd	xvii	Davidson, C. & Son, Ltd		Mavitta Drafting Machines, Ltd	
Airwork General Trading Co., Ltd		Eagle Pencil Co		Mellowes & Co., Ltd	
Aluminium Union, Ltd		Edgar, Wm., & Son, Ltd	XXIX	Merron, Ltd	
Architectural Press Ltd	ii, xlvii	Ellison, George, Ltd	xlviii	Mills Scaffold Co., Ltd	xlix
Ardor Insulation Co., Ltd	xliii	English Joinery Manufacturers Assoc.	xxvi	M.K. Electric, Ltd	
Ash's Manufacturing Co., Ltd	XXV	Etchells, Congdon & Muir, Ltd		Newalls Insulation Co., Ltd	
Associated Metal Works	xlii	Ewart & Son, Ltd	XXXV	Newman, Wm., & Sons, Ltd	
Austins of East Ham	vi	Fordham Pressings Ltd	xlvii	Newsum, H., Sons & Co., Ltd	xlvi
Bakelite Ltd	xxvii	Foyles	xlviii	Northampton Building Society	xlii
Baldwin, Son, & Co., Ltd	ii	Franki Compressed Pile Co., Ltd	xix	North Wales Slate Quarries Assoc	XV
Bell, A., & Co., Ltd	xvi	Freeman, Joseph, Sons & Co., Ltd	xli	Palorit Ltd	XXXXX
Birmetals, Ltd	vii	Gaze, W. H., & Sons, Ltd	iv	Parsons, C. H., Ltd	
Blackburn, Thomas, & Sons, Ltd	xlv	Gillett & Johnston Ltd	xliv	Pilkington Bros., Ltd	XXXII
Bolton Gate Co., Ltd	xlvi	Gray, J. W., & Son, Ltd	xlviii	Prodorite Ltd	viii
Booth, John & Sons (Bolton), Ltd		Greenwood's & Airvac Ventilating Co.,		Pyrene Co., Ltd., The	xxxiv
Boulton & Paul, Ltd	-	Ltd	ii	Roberts, J. W., Ltd	
Braithwaite & Co., Engineers, Ltd	xlviii	Hammond & Champness Ltd	xxxvi	Ross, S. Grahame, Ltd	XXX
Bratt Colbran, Ltd	xxviii	Harris & Sheldon, Ltd		Ruberoid Co., Ltd	xliii
Brightside Foundry & Engineering		Haywards, Ltd	XXXVIII	Rubery Owen & Co., Ltd	
Co., Ltd	XX	Henleys Telegraph Works Co., Ltd		Rustproof Metal Window Co., Ltd	
British Steelwork Association	xxxiii	Higgs & Hill, Ltd	ix	Sankey, J. H. & Son, Ltd	Xii
Broad & Co., Ltd	xliii	Hills Patent Glazing Co., Ltd		Scaffolding (Gt. Britain), Ltd	
Broadcast Relay Service, Ltd		Hope, Henry, & Sons, Ltd	xxiv	Sharman, R. W	xlviii
Brown, Donald (Brownall), Ltd		Hopton-Wood Stone Firms Ltd	xli	Smith's Fireproof Floors, Ltd	xlvii
Brush Electrical Engineering Co., Ltd.	111	Horton Manufacturing Co., Ltd	xliii	Spooner's of Hull	
Cable Makers' Association	XXXVII	Ilford, Ltd		Steel Scaffolding Co., Ltd	
Callender's Cable & Construction Co.,		International Correspondence Schools		Tarslag, Ltd.	
Ltd.	xiv	Ltd.	xlviii	Taylor Woodrow Construction Ltd	XXII
Carrier Engineering Co., Ltd	1.	Jenkins, Robert, & Co., Ltd.	ii	TenTesT Fibre Board Co., Ltd	
Caston & Co., Ltd		Kerr, John & Co. (Manchester), Ltd.		Tretol, Ltd.	~~~
Cement Marketing Co., Ltd	XVIII	King, J. A., & Co., Ltd	xliv	Trussed Concrete Steel Co., Ltd	XXI
Chance Bros. Ltd.	xiii	Konquest Products, Ltd	xlii	Tullis, D. & J., Ltd.	ii
Colthurst Symons & Co., Ltd	xl	Laing, John, & Son, Ltd	1	United Steel Co., Ltd	
Copper Development Association	***	Langton, Wilfrid, Ltd	xlvi	Vulcan Products Ltd	XI
Copperad Ltd		Lead Industries Development Council	xlii	Wardle Engineering Co., Ltd	xlviii
Crabtree, J. A. & Co., Ltd		Lillington, George, & Co., Ltd	xvi	Wright Anderson Co., Ltd	1z

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Educational Legal Notices, Miscellaneous, Property and Land Sales—400 pages xlvi and xlviii

## W. H. GAZE & SONS LTD

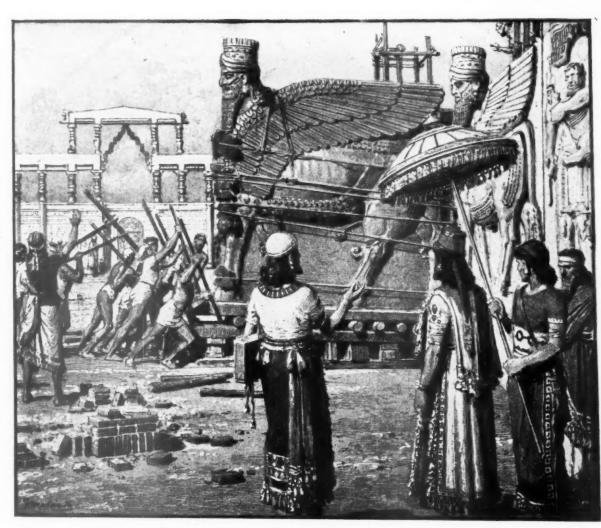
## BUILDING & CIVIL ENGINEERING CONTRACTORS KINGSTON-ON-THAMES, SURREY

and at WASHINGTON HOUSE, 40 CONDUIT STREET, LONDON, W.1.

Works: Kingston Hall Road Kingston-on-Thames.

Branches: Surbiton & Walton-on-Thames





PLACING THE WINGED BULL AT THE ROYAL ENTRANCE OF THE PALACE COURT AT KHORSABAD

The Assyrian legacy to posterity was wide discovery in pharmacy, architecture and chemistry.

xliv

xlix

xlvi xlii xv xxxix xxxix xxxii viii xxxiv

xliii

xii xlviii xlvii

XXII

ii

xlviii

At a time when potentially powerful nations knew little but barbarism, the Assyrians were enjoying an advanced civilisation. Why?——

History shows that their progress was due almost entirely to an "ideal" climate which stimulated remarkable mental and physical activity.\*

The effect of this stimulus is well illustrated by the concentration of the Assyrian and other early civilisations within a climatic belt where areas of moderate humidity coincided with a yearly average temperature of 70°F. For 4,000 years no comparable civilisation developed outside this area until man replaced his brazier and roof smokehole by the hypocaust and later by the chimney fireplace.

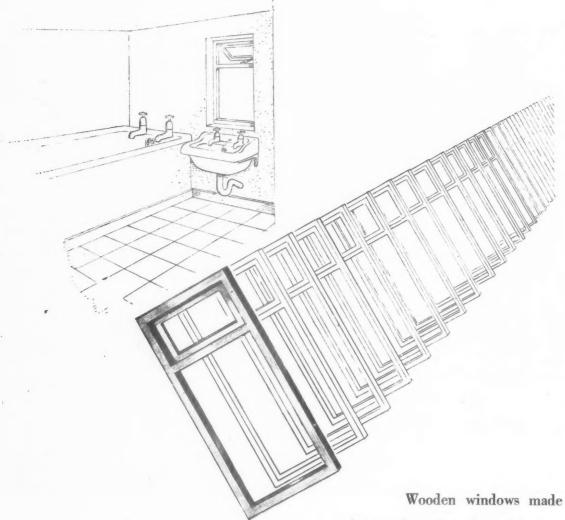
These improved defences against extremes of temperature are recognisable as the rudiments of Air Conditioning and resulted in the spread of civilisation to the unfriendly climates.

The modern analogy is the Carrier installation, producing in any enclosed space—in any climate, the atmosphere in which we may live and work with maximum comfort and efficiency.

\*Since that time it is significant that deterioration of climate has been followed by deterioration in national prosperity and world influence.

#### CARRIER ENGINEERING COMPANY LIMITED

24 BUCKINGHAM GATE, LONDON



Single light windows for bathrooms, lavatories and larders are obtainable from the EJMA range of Standard Wood Casements in a number of combinations of fixed light or opening sash, with or without vent.

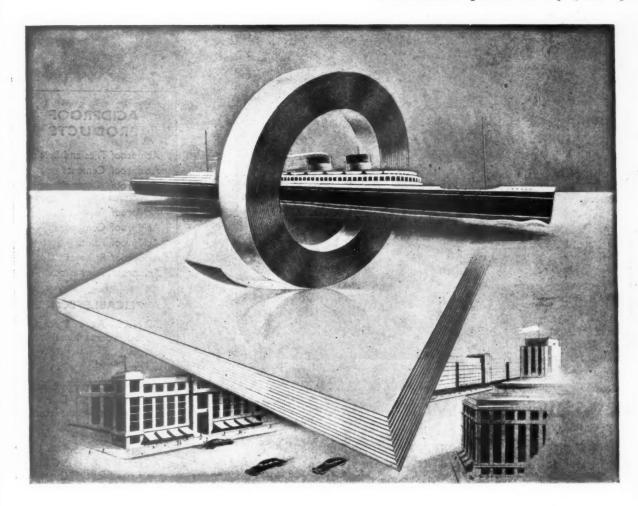
fast, made well and attractive to look at, that is the EJMA range. And that is why they have been adopted by Austins to be made by their method.

## AUSTINS

LONDON, E.6

[LIMITED]

**GRAngewood 3444** 



#### "STREET and SHIP"-(Sheet and Strip)

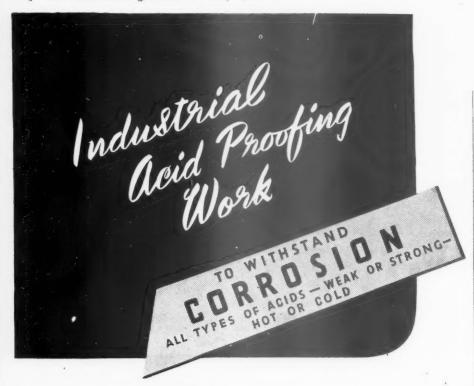
A slip of the pen-or more correctly of the typine-yet a very happy slip ... don't you think?... For in these post-war years-yet to come-light metal sheet and strip, to say nothing of other wrought forms, will be used more and more for both street and ship. Before the war the architect, builder, and shop fitter, had found

that light metals had a definite place in the street scene . . . and constructors of great and little ships were discovering manifold uses for light metals in the maritime world. "STREET AND SHIP"...

it is a happy phrase.

"SHEET AND STRIP" if in light metal—is a happy solution.





#### NOW OR POST-WAR-

If you are engaged in present or post-war planning, then look to Prodorite for an Acid-proofing Service that will give you the benefit of many years' research and practical experience.

#### OUR COMPLETE SERVICE INCLUDES—

- Materials of Construction
- Time-proven Designs
- A full Contracts Department and
- Supervision of Construction.

We have installed successfully for others innumerable acidproofing contracts and can do the same with equal success for you. Our Technical Staff is at your service and a Representative will be pleased to call and explain in detail the advantages we offer.

Our war effort has been 100% all the time.

#### EAGLE WORKS, WEDNESBURY

Telephone: Wednesbury 0284 (Private Branch Exchange)



#### ACIDPROOF PRODUCTS

Acidproof Tiles and Bricks
Acidproof Cements
Acidproof Channels and
Sections
Acidproof Asphalt
Acidproof Compounds
Acidproof Paints
Acidproof Rubbers
Acidproof Synthetics.

#### APPLICABLE TO-

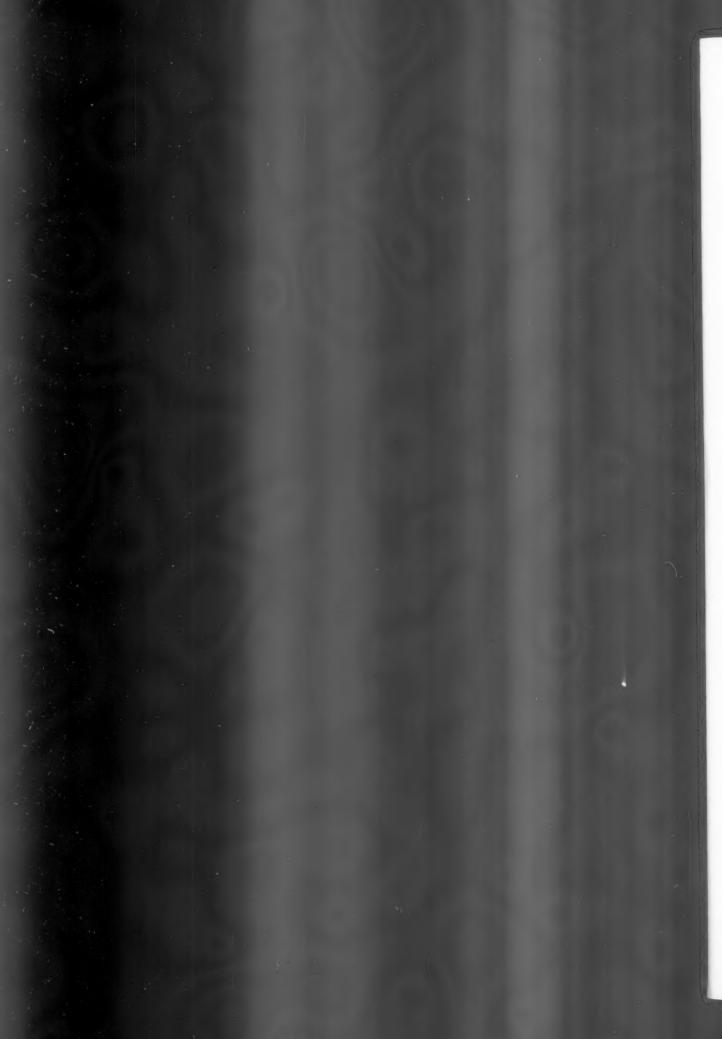
- TANKS—Acid Storage, Acid Process, Metal Descaling, Chemical, Beer, Milk, Food.
- FLOORS—Pickling Shops, Plating Shops, Dairies, Breweries, Food Factories and for all acid conditions.
- ACID DRAINAGE— Channelling and Guttering.
- LININGS—Acidproof Linings for Tanks, Sumps, Towers, Chimneys.

NEUTRALISING AND EFFLUENT SYSTEMS

ARTILLERY HOUSE, ARTILLERY ROW, LONDON - S.W.I

Telephone: Abbey 1547 and 1548

SE, W, V. I



## CREATING A COMMUNITY

"The provision of houses and a few such compulsory facilities as schools is no satisfactory method of creating a community in the fullest sense of the term. Such a community requires Assembly Halls, Hospitals, Welfare Centres, Recreational and Cultural Centres and so on, to be planned as integral parts of the community structure."

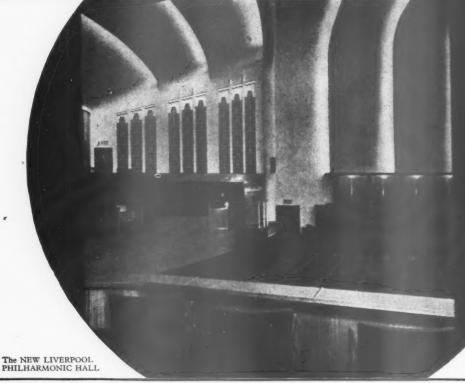
Mr. W. DOBSON CHAPMAN President of Town Planning Institute

## HIGGS AND HILL LIMITED

BUILDING AND CIVIL ENGINEERING CONTRACTORS

CROWN WORKS
LONDON, S.W.8

COVENTRY . WARWICK ROAD LEEDS ST. PAUL'S STREET PLAN FOR CONTROLLED COMFORT



Architect: Heibert J. Rowse, F.R.I.B.A.



BY APPOINTMENT ENGINEERS TO H.M. KING GEORGE VI Just as Crittalls installed invisible embedded panel warming, inlet and extract mechanical ventilation and hot water equipment in the impressive new Liverpool Philharmonic Hall, so will they install 'controlled comfort' in many other important public buildings in post-war Britain.

Other services undertaken include Oil or Gas Fired Boilers, Electric Thermal Storage, Air Conditioning, Thermostatic Control, Steam Supplies, Compressed Air Supplies, Radiator Warming, Dulrae Electric Warming, Cooking Equipment.

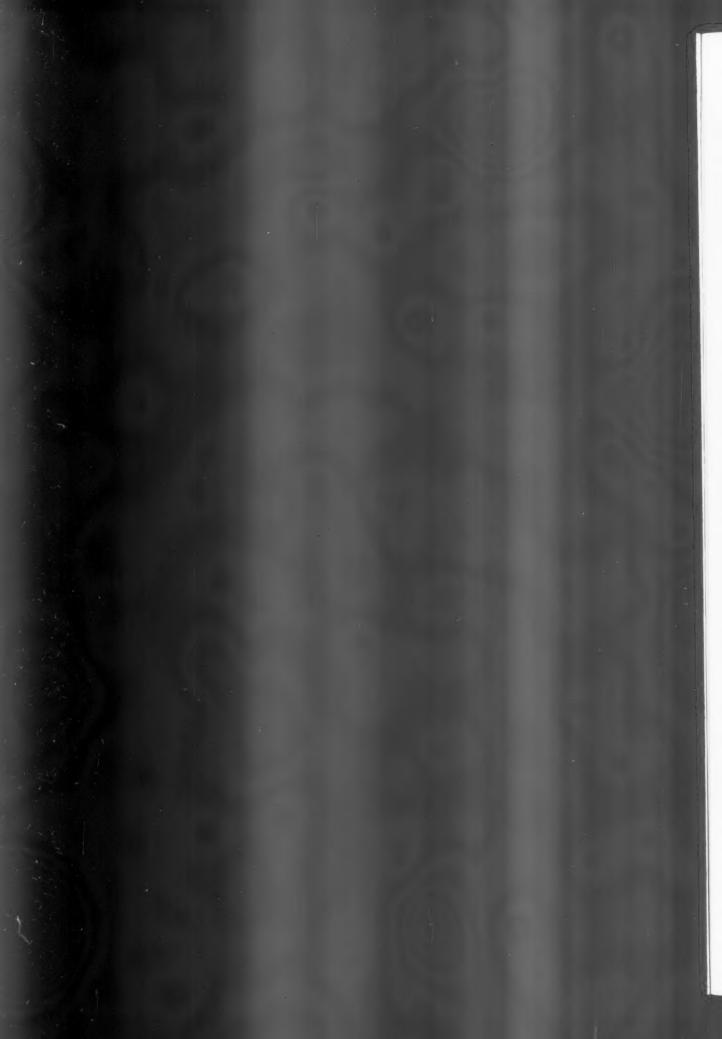
RICHARD CR

BIRMINGHAM: Prudential Buildings, St. Philip's Place Central 2478 LIVERPOOL: Martin's Bank Building, Water Street. Central 5832

ALDWYCH HOUSE, LONDON, W.C.2

Telephone: TEMPLE BAR 7777

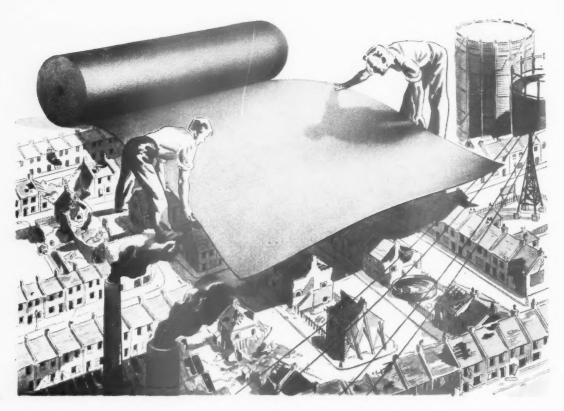




GLOSSEX DISTINCTIVE FINISHES



VULCAN PRODUCTS LTD., SLOUGH. And 24, Ryder St., St. James, London, S.W. 1. Abbey 4161/2



#### A PRE-REQUISITE OF RE-PLANNING

When Britain's architects, with unmatched skill, have finished planning the brave new world we all have promised for ourselves after the war, then will be the beginning of the end of overcrowding... mean and sordid streets... ugliness... and those bugbears of our generation—damp, dirt, and draughts: and then, too, it will be found that Sisalkraft has again proved itself to be the pre-requisite of all good re-planning.

Yes, Sisalkraft—vast quantities of it—will be needed to control dampness . . dirt . . . and to banish draughts. Sisalkraft will provide all that is needed for the efficient sarking of roofs . . . damp-proof linings for walls and under floors . . . perfect hydration of concrete-mix and the sealing of

porous subsoils . . . protection for work in progress and materials in transit. Sisalkraft will prove to be Britain's bulwark against damp and draughts wherever they may be found.

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

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



#### J. H. SANKEY & SON, LTD

FELEPHONE: HOLBORN 6949 (14 LINES TELEGRAMS BRICKWORK ESTRAND LONDON SOLE DISTRIBUTORS FOR BRITISH SISALKRAFT LTD ALDWYCH HOUSE ALDWYCH LONDON WC2







Though the sun never sets... on the British Empire, we in Britain see precious little of it. What trace of sunshine we get, however, is carefully recorded by means of solid glass balls, four inches in diameter, accurately ground and polished for this special purpose. These glass spheres are made by Chance Brothers, who do that sort of obscure scientific job because they like it. It has also been recorded that Chance Brothers have brought a lot of sunshine into the lives of men who needed glass to do unusual jobs. Their Research Department can find the answer to most technical questions, and any manufacturer can ask.

#### FOR SCIENCE, INDUSTRY AND THE HOME CHANCE GLASS

CHANCE BROTHERS LIMITED, GLASS-MAKERS SINCE 1824. PRODUCE ROLLED PLATE. WIRED GLASS, PRESSED GLASSWARE, LABORATORY GLASSWARE, ARCHITECTURAL, DECORATIVE AND LIGHTING GLASSWARE, OPTICAL GLASS. SCIENTIFIC AND OTHER SPECIALISED GLASS PRODUCTS, MARINE AND AVIATION LIGHTING EQUIPMENT. HEAD OFFICE: SMETHWICK. BIRMINGHAM; LONDON OFFICE: 10, PRINCES STREET, WESTMINSTER, 5.W.1.

# Pallender

CABLESEFLEXIBLES



Manufactured to the highest possible standards in a very wide range for every electrical purpose, backed by years of practical experience and scientific research . . . . . the cable with a world-wide reputation for long life and satisfactory service.



## TIME · · · IN THE MOUNTAINS

## A THOUSAND MILLION YEARS TO PRODUCE AN IDEAL ROOF FOR MANKIND

FOR millions of centuries the work of Nature has gone on in the mountains which are now North Wales. Under pressure of uncountable tons per inch Time has produced a substance impervious to moisture, defiant of heat and frost and wholly suited to form a roofing that will give full service under hard conditions for a century or more.

There is no roofing like slate and no slate like that from North Wales. Their permanence, economy and the scope they afford for attrac-

tive roofing effects make slates-for-roofing an investment that no other roofing material can approach.





No. I Metallic Liquid provides a dustless surface and guarantees the maximum degree of hardness in any cement-bound paving.



The certain means of ensuring a hard-wearing dustless concrete floor, without sacrificing ease of working, is to use

LILLINGTON'S No. I METALLIC LIQUID

It gives a dustless surface and greatly increases the plasticity of the mix, thus reducing the amount of gauging water necessary for workability; obviating the danger of excess water content and making the floor waterproof and highly resistant to attack by oils and chemicals. The setting time is accelerated and the strength permanently increased by 33\frac{1}{2} per cent.



Several hundred thousand gallons of No. I Metallic Liquid have been used at Aerodromes, Aircraft Factories and Munition Works, and by Municipal Authorities. During thirty years this solution has been regularly used by the Government Departments and the foremost Architects and Building Contractors, for waterproofing concrete retaining walls, flat roofs, concrete tanks and cement renderings. Strongly recommended for waterproofing derings. Strongly recommended for waterproofing A.R.P. shelters and static water tanks.

For a surface dressing to make old concrete floors dustless apply No. 5 Metallic Liquid.

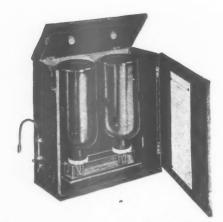
**SOLD UNDER GUARANTEE** 

TALLIC LIQUID

From 5/- PER GAL. [according to quantity] Special prices for large Contracts

Write for Brochure No. 15 GEORGE LILLINGTON & CO., LTD.

TATE RD., SUTTON, SURREY: 'Phone EWELL 1851



This simple £18'18'0 CHLORINATOR

will treat 250,000 gals. of water PFR DAY!

- SIMPLE
- COMPACT
- EFFICIENT
- EASY TO
- INEXPENSIVE

MAINTAIN

commonsense

on water chlorination . . . .

The importance of water sterilization cannot be overemphasised, and it is advisable to take every precaution against possible pollution. In arranging the chlorinating system it is obviously advantageous to adopt a method that will give the working efficiency desired, from the most simple and least expensive operation.

That is why the "Belco" Chlorinator is now being so widely used. It reduces the system of chlorination to an extremely simple operation and at an almost infinitesimal cost.

The model illustrated will deal adequately with up to 250,000 gallons of water per day, involves practically no up-keep costs, and its efficiency in operation proves how unnecessary it is to go to the expense of installing more elaborate apparatus.

Send for folder BC41 illustrating the 'Belco' Chlorinator.

The



CHLORINATOR

A. Bell & Co. Ltd. (Dept. A), Gold Street, Northampton. Tel. 771 Also at 98. Bath Street, Glasgow.



A constant hot water supply at the kitchen sink plus baths whenever required, that is the purpose of the SADIA Post-War Electric Water Heater.

R

Is.

over-

aution nating

m the

ing so

almost

up to

es how more

rinator.

Tel. 77 (2 lines).

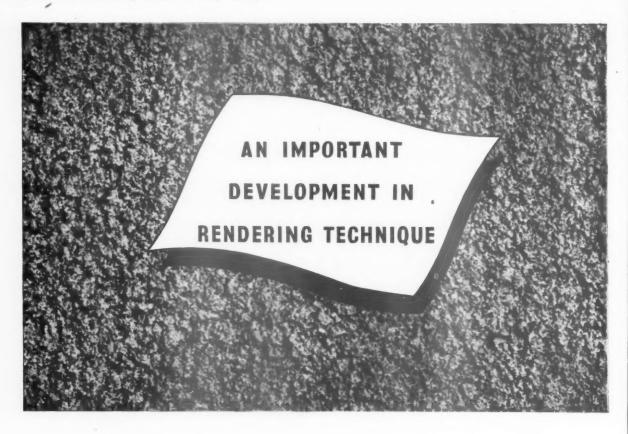
Designed to fit in with future kitchen units and occupy the least possible space, the SADIA Type U.D.B. (UNDER DRAINING BOARD) will be welcome to

both architect and user. To the Architect because it provides a complete hot water installation with the minimum of pipe work, no flues or ventilation required, thereby saving on constructional costs. To the User, because it is entirely automatic, silent, fumeless, odourless, constant and so cheap to run.

Write for further particulars before planning new houses.



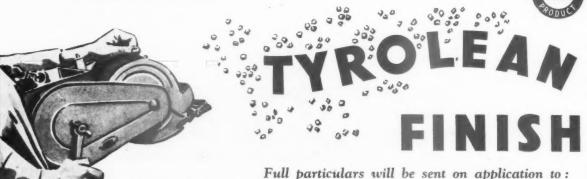
Aidas Electric Limited, Sadia Works, Rowdell Road, Northolt, Middlesex. 'Phone: WAXIow 1607



EXTERNAL renderings finished with a rough texture do not crack or craze or show blemishes like smooth surfaces.

Tyrolean Finish provides a rough texture which is waterproof, uniform in colour and appearance, it has no joint marks and weathers evenly.

This is the finish recommended for post-war building. It is produced by applying to an absorbent backing a facing of Tyrolean 'Cullamix'. The mixture is flicked on with a machine.



The Cement Marketing Company Ltd., The Club House, Coombe Hill, Kingston-on-Thames
Northern Agents: G. & T. Earle Ltd., Wilmington, Hull.

## LOOKING BACK

Although the Franki management, for security reasons, cannot at the moment publish details of their present and recent work, a glance into the past reveals many instances of the superiority of the Franki systems of cast-in-situ piling, of which the following example is illustrative.

A few years ago four hundred Franki piles, varying in depth from 28 ft. to 30 ft., were driven at the Gravesend Sewage Disposal Works. The soil consisted mainly of Thames mud, but at 28 ft. down there was a thin stratum of Thames ballast of an average thickness of 4 ft. Owing to the unique advantages of Franki piling, it was possible to stop the piles on top of this ballast, their enlarged bases spreading over a sufficient area to give the necessary end-bearing. Had it not been possible to stop on this ballast, the piles must of necessity have been driven to a very considerable depth.

Three load tests were carried out on piles picked at random. One was loaded to 110 tons, showing a final settlement of  $\frac{1}{16}$  in. and the other two to 75 and  $\frac{7}{16}$  tons respectively, showing no settlement whatsoever. These tests prove conclusively the stability and adaptability of Franki Piles.

Our illustrated Brochure, giving full particulars of the Franki system, will gladly be sent post free on receipt of one penny.

THE FRANKI COMPRESSED PILE CO. LTD.

39, VICTORIA STREET, LONDON, S.W.I.

'Phone: ABBey 6006-7.

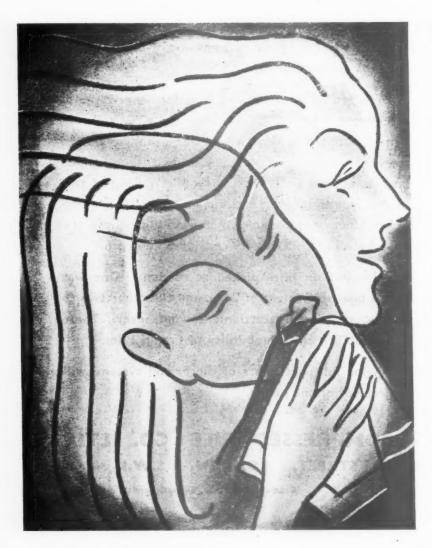
to:

'Grams: Frankipile, Sowest, London.

# FRANKI PILES Carry MORE TONS per pile!

## BRIGHTSIDE

Conditioned Comfort.



## one of the BIG THINGS ?

The services which Brightside convey to mankind comprise the fundamentals of hygiene—hot and cold water, equable living and working temperatures, clean fresh air in sufficient quantity. Not only do they comprise the essentials of man's comfort, but they minister to his health, and so to his efficiency and happiness.

Brightside Conditioned Comfort will be one of the biggest things in a world planned for right living.

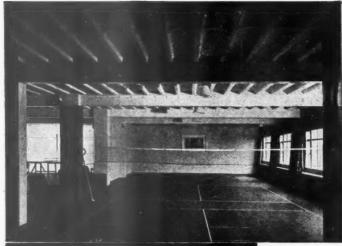
## BRIGHTSIDE Conditioned COMFORT

HEATING . PIPING . AIR CONDITIONING

THE BRIGHTSIDE FOUNDRY & ENGINEERING COMPANY LTD

Hand Office: SHEPFIELD, and BIRHBNGHAM, BRISTOL, LIVERPOOL, LONDON, NEWCASTLE, PORTSHOUTH, EDINBURGH, GLASGOW, BELFAST 17 222

(RDCC.6.



★ NOTE

THE DECORATIVE

EFFECT OF THE

EXPOSED SOFFITE



de ise eole raent

n's

his n**cy** 

fort

est

for

LTD

MCCA.

Labour and Materials saved by the use

TRUSCON PLOORS

IN

MINISTRY of SUPPLY HOSTELS



- SAVE SITE LABOUR
- SAVE TIMBER
- PROVIDE WORKING PLATFORM FOR FOLLOWING TRADES
- SAVE COST
- SAVE WEIGHT

#### TRUSCON FLOORS

6, Collingham Gardens, London S.W.5

AN ADVERTISEMENT OF THE TRUSSED CONCRÈTE STEEL CO. LTD

Q 4.523



### NEW CHAPTER

Leaders in the field of war rest on their laurels. The task of building the New Britain begins. Into their place step the leaders in construction, bringing to the new problems the skill and reputation of the years.

#### CONTRACTORS TO:

Ministry of Works • Ministry of Aircraft Production • Admiralty War Office • Air Ministry • London County Council

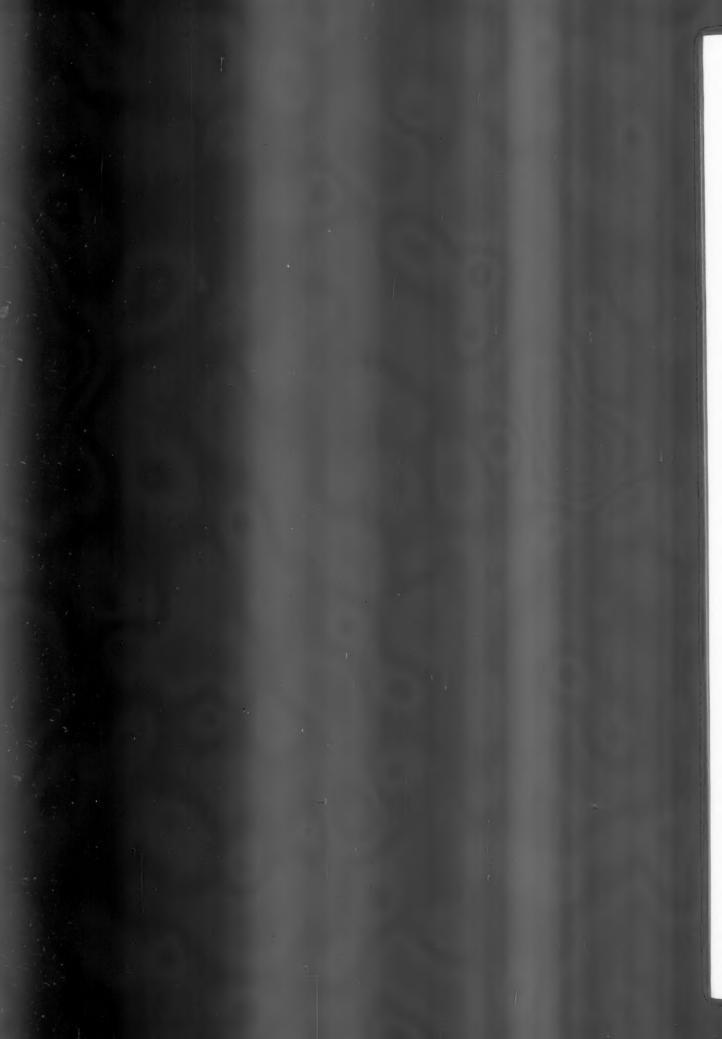
# TAYLOR WOODROW CONSTRUCTION LTD

Building and Civil Engineering Contractors

RUISLIP ROAD . SOUTHALL . MIDDLESEX

LONDON OFFICE: 10 ST. GEORGE STREET, HANOVER SQUARE, LONDON, W.I..
Telephone: WAXLOW 2366 (10 lines). Telegrams: TAYWOOD SOUTHALL. Code: BENTLEY'S SECOND.







Warmth and Ventilation, these are two of the main factors for healthy living. The "COPPERAD" UNIT HEATER provides both from the same equipment. It requires the minimum amount of space and may be recessed in the walls or made to match the existing decorative scheme.

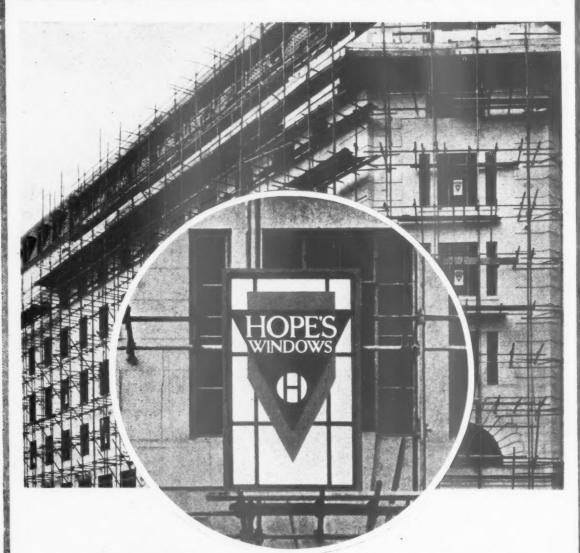
At present the "COPPERAD" UNIT HEATER is supplied only for work of immediate National importance, but remember, when planning for Post War rebuilding, it is THE Heater for offices, schools and public buildings.

UNIT HEATERS

(PROPRIETORS: THE BRITISH UNIT HEATER CO.LTD.)

PANCRAS WAY-LONDON-NWI

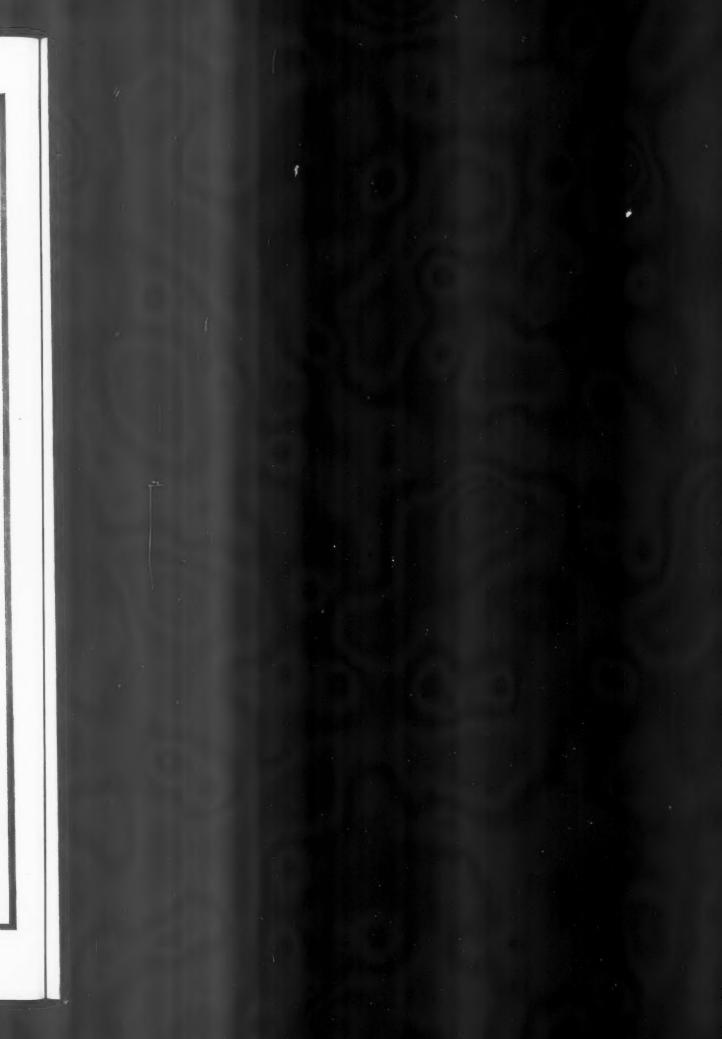
## REBUILDING BRITAIN



Use Windows Made By HENRY HOPE & SONS LTD.

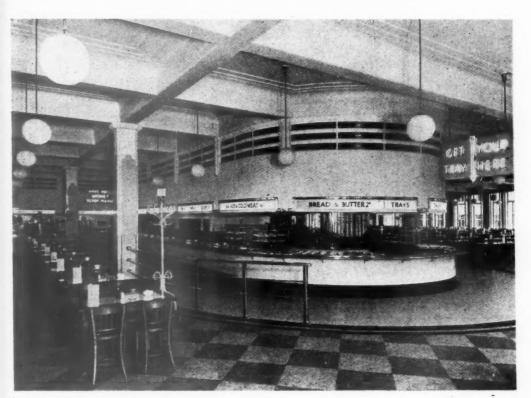
Makers of fine metal Windows & Doors

SMETHWICK, BIRMINGHAM and 17 BERNERS STREET, LONDON, W.1





### CATERING FOR THE NEW ERA



Self-Service Counter installed in a well-known stores

Catering Equipment Installations by

Though our production is at present confined to austerity kitchen equipment we are able to give expert attention to post. war Kitchen and Service installation proposals in the layout and preliminary scheme stages, For 20 years we have been closely identified with the

service side of catering equipment as is evidenced by our installations in many parts of the country.

We offer assistance gratis in the planning of catering installations for factories, hospitals, schools, department stores, hotels and restaurants, etc.

MANUFACTURING CO. (B'FRIARS) LTD.

GARLAND WORKS · STAPLEHURST RD · LEWISHAM · LONDON SEI3

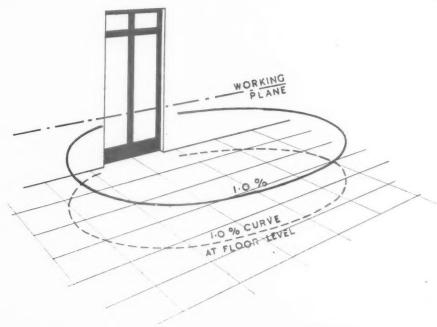
Fele: LEE GREEN 2277 (3 lines)



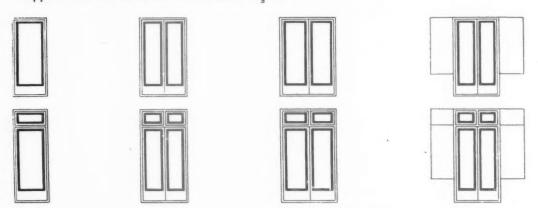
## STANDARD WOOD CASEMENTS

SOUND LIGHTING PRINCIPLES

Sheet Eight



The many activities of a living-room, such as reading, writing, sewing, are carried on more or less at what is termed the working plane, i.e., at a height of about 2 ft. 9 in. from the floor. But there are many occasions when the "working plane" is lowered to floor level, such as when reading the titles of books on the lowest shelf of a bookshelf placed at the back of the room, cutting out of dresspatterns, and so on. The EJMA Standard Casement Doors help materially to give good all-over lighting (Fig. 15), besides improving the appearance of both the room and the façade.



For other sheets of this series and for full particulars of the EJMA range of Standard Wood Casements apply to :—

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



Is it because gear wheels made of Bakelite Plastics run so silently that only the instructed few seem ever to have heard of them? For obviously they deserve to have made a great noise in the world!

For years, gears of toughened steel have been meshed with Bakelite gears-and they run for years!... There is less wear on the steel gear wheel. Where resistance to corrosion is imperative, the Bakelite gear cannot be beaten.

Gear wheels may not be your particular problem : yet it may be important to you to remember that there is available to you today a man-made material capable of standing up to hardened steel. Just one more instance where Bakelite Plastics have replaced a natural material because they do the job in hand more efficiently . .

BAKELITE LIMITED, 18 GROSVENOR GARDENS, LONDON, S.W.1

BAKELITE (3)



**PLASTICS** 

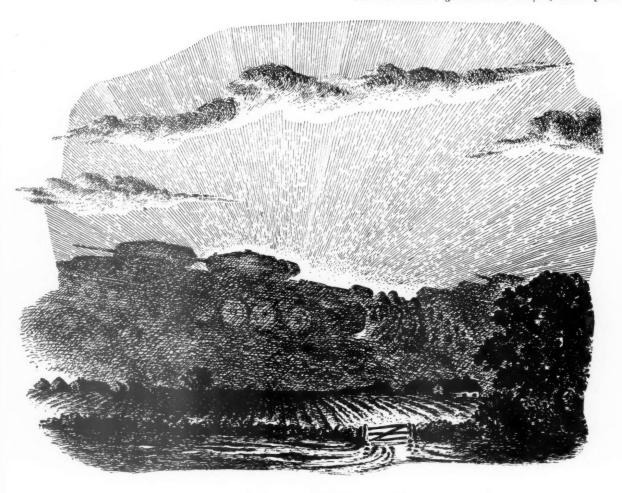
Pioneers in the Plastics World



#### A PRE-WAR EXAMPLE OF FIREPLACE CRAFTSMANSHIP

When the time comes to turn again to the tasks of peace, we look forward to making renewed progress in a tradition of craftsmanship we have made esantially our own.

## BRATT COLBRAN LIMITED 10, MORTIMER STREET, LONDON, W. 1.



" And as to Peace ... "

Behind the clouds the light grows ever brighter. Those who devise today the structure of tomorrow find in the rising dawn new inspiration. Prominent among them are the Architect and the Builder, in whose concerted plans we have shared so largely in the past . . . . and shall doubtless share in the future.





# WM. EDGAR & SON, LTD

Gas Apparatus Manufacturers and Contractors

BLENHEIM WORKS . HAMMERSMITH . LONDON . W.6.

RIVerside 3486

# THE SHAPE OF THINGS TO COME

AND THE SPIRIT AND TRADITION OF THE PAST.



AS IN THE PAST, CRAFTSMANSHIP OF
THE HIGHEST STANDARD, AS SET BY
ROSS METAL-WORKERS IS ESSENTIAL
TO THE CREATION OF FINE ARCHITECTURAL
WORK, WHETHER IN THE EXECUTION OF
ARCHITECTS OR IGINAL DESIGNS OR OF
REPRODUCTIONS, IN BRONZE, WROUGHT
AND CAST IRON, LEAD, ETC.
ALL ENQUIRIES RECEIVE CLOSE
AND PROMPT ATTENTION.

S. GRAHAME ROSS Itd.

ARCHITECTURAL CRAFTSMEN AND ENGINEERS.~

BATH ROAD, SLOUGH. TELEPHONE: BURNHAM, 686.

LONDON OFFICE, 47. DORSETST, W. I.

TELEPHONE: WELBECK. 8464.

Information Centre

THURSDAY,

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

# IARY M A YFORU N E

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

GLOUCESTER. Rebuilding Britain Exhibition. At Gloucester Technical College. Guide lecturer: Miss Henry. (Sponsor, MAY 4-6

HYDE. Living In Cities Exhibition.
Bayley Hall, Hyde. (Sponsor, BIAE.) MAY 4-6

ISLE OF WIGHT. Homes to Live In Exhibition. Accompanying CEMA Design Exhibition. (Sponsor BIAE)

LIVERPOOL. Can the Re-housing of the People be Achieved without Prefabrication. Discussion opened by J. Grieve. At the Stork Hotel, Queens Square, Liverpool. (Sponsor, Association of Building Technicians, Liverpool Area Branch.) 7 p.m. May 5

LONDON. Artists International Association's 1944 Exhibition. At 61 Suffolk Street, S.W.I. This year is the tenth anniversary of the founding of the Association. Members come from every school of painting. Every work of every works of every school of painting. exhibition is chosen by an elected committee, for membership carries with it no right to exhibit. This year the exhibition includes all schools, and students have contributed a number of works, as well as the association's better-known members. For the first time the Association has invited the London Philharmonic Orchestra to show a series of drawings of its members by Kapp, together with a series of portrait busts by Ann Mahler, wife of Fistoulari, the orchestra's principal conductor, and daughter of Gustav Mahler, the Austrian composer. MAY 4-6

W. N. C. Clinch and F. Lynn. The Design and Performance of Domestic Electric Appliances, At the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2.

Arthur Ling. Housing and Town Planning in the Soviet Liberated Areas. At the London School of Hygiene and Tropical Medicine, Gower Street, W.C.1 Chairman, Professor C. H. Reilly. (Sponsor, Society for Cultural Relations with the USSR.) 2.30 p.m.

MAY 6

The Artist and the Theatre. Fourth fectors on the Artist and Reconstruction. Under the auspices of the Artists' International Association. At the National Gallery, Trafalgar Square, W.C.2. Admission Is., members 6d. The Artist and the Theatre. Fourth lecture

George Laws. Chief Sanitary Inspector to the Richmond Corporation. A Hundred Years of Sanitary Progress. At the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W.I. Chairman, Kenneth R. Hay. 2.30 p.m. MAY 9

Evelyn Gibbs. Art in Education. lecture on the Artist and Reconstruction. Under the auspices of the Artists' International Association. At the National Gallery, Trafalgar Square, W.C.2. Admission 1s., members 6d. 3 p.m. MAY 14

AA Election of Officers and Council for Session 1944-45. At ordinary general meeting at 34-36, Bedford Square, W.C.1. 6 p.m. May 16

Dr. J. H. Paterson. *The Welding of Plastics*. At Institution of Civil Engineers, Great George Street, S.W.1. (Sponsor, Institute of Welding.) Dr. Paterson's paper will be followed by a demonstration. 6 p.m. May 17

Philip James. The Patronage of Art in the Post-War World. Sixth lecture on the Artist and Reconstruction. Under the auspices of the Artists' International Association. At the National Gallery, Trafalgar Square, W.C.2. Admission 1s., members 6d. 3 p.m. May 21

H. J. Manzoni, City Engineer and Surveyor, Birmingham. Sanitation in Post - War Birmingham. Birmingham. Sanitation in Post - War Building. At Royal Sanitary Institute, 90, Buckingham Palace Road, S.W.1. Chairman, Osmond Cattlin, Vice-President of the Royal Sanitary Institute. 2.30 p.m. MAY 23

RA Exhibition. Weekdays 9.30 a.m. to 7 p.m. Sundays 2 to 6 p.m. Admission: One Shilling. May 4-Aug. 7

RIBA Council Election Results. announced at general meeting at 66, Portland Place, W.I. Followed by informal meeting at which Sir Malcolm Trustram Eve, Chairman of the War Damage Commission, will talk on The War Damage Act and Architects. (Sponsor, RIBA). 6 p.m. June 27 RIBA). 6 p.m.

NEWTON ABBOT. Colour Exhibition. At Newton Abbot School of Art. (Sponsor, CEMA.) MAY 4-13

K. The Englishman Builds
At Holly Lodge High School SMETHWICK. for Girls, Smethwick. (Sponsor, BIAE.) MAY 4-11

SOUTHEND. Rebuilding Britain Exhibition. At Southend Municipal College. (Sponsor, (Sponsor, May 4-5 CEMA).

.. 339

No. 25	71.			Vol.	99
News					325
	Detail				326
This We	ek's Lea	ding	Article		327
Astragal	's Notes	and '	Topics		328
Letters !	from Rea	aders			329
Window	Treatn	nent			
Informa	tion She	eet	facing	page	330
Domes	tic Water	Heat	ing 15 (	936)	
Plan for	Plymor	uth.	By J.	Paton	
	on and				
Abere	crombie				331
Flats ar	nd Ciner	ma a	t Stock	holm.	
By S.	Frölén				335

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

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

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

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

Considerable inroads into the country's SUPPLIES OF STANDING **TIMBER** been made by the heavy fellings which have yielded large quantities of timber for war purposes. To reduce the inevitable damage to woodlands in Scotland as far as this can be done without endangering essential supplies, the Minister of Supply, after consultation with the Secretary of State for Scotland, has appointed a Landowners' Timber Consultative Committee for Scotland to advise on this matter. The Committee will consist of: Scottish Land and Property Federation: The Duke of Buccleuch, and Major John Stirling of Fairburn. The Royal Major John Stirling of Fairburn. The Royal Scottish Forestry Society: Sir George Campbell of Succoth. Chartered Surveyors' Institution: Major R. Hunter Murray. Land Agents' Society: Mr. G. R. McGarva. Association for the Preservation of Rural Scotland: Lt.-Col. Sir J. D. Ramsay. Department of Agriculture for Scotland: Mr. T. B. Manson. Forestry Commission: Mr. A. H. Gosling, Assistant Commissioner for Scotland for Scotland.

On Friday of last week the DEATH OF MR. CHARLES ERNEST ELCOCK, F.R.I.B.A. occurred in the Royal Masonic Hospital at the age of 65. Mr. Elcock was the architect who, in partner-ship with Mr. Frederick Sutcliffe, designed the Daily Telegraph building in Fleet street. He specialized in modern hospital design and had a share in the architecture of more than 20 hospitals all over England.

# ADVERTISER'S ANNOUNCEMEN

# THE NEXT QUESTION IS—

Another unbroadcast Brains Trust Session

UESTION MASTER: To-night's Brains Trust is again loaded by a super brain, an anonymous expert, who will keep us all on our toes. Dr. Treat M. Roughly, Professor Noad-Hall and Captain Campstool are also here, ready for anything that comes. The first question is from Clarence Footle, of Little Dithering. He asks, "Is there any means whereby glass can be made more cheaply and without those wavy lines in the windows?" Campstool?

Captain Campstool: Well, it seems to me it ought to be so. Look at radio sets or, er—bicycles. They were much more expensive when they first came out than they are now, but standardisation and big demand have brought down prices, and have given the public a very good article, very cheaply, though I think, and always have thought, loud-speakers are a nuisance!

Dr. Roughly: Apart from the masterly touch of irrelevance in the matter of loud-speakers, I must really take exception to Campstool's parallel. Glass is far from being a new discovery and it is already made by mass production. If price is to be reduced or quality improved, or both, then the change must come as a result of something other than mass demand—either by some new discovery which will cheapen or speed up processes or by a drop in the price of raw materials.

Professor Noad-Hall: There is, of course, a third way—for the Government to subsidise glass in order to help its housing plans along.

Dr. Roughly: But that does not answer the question, "Is there any means whereby glass can be made more cheaply?" Subsidies may reduce prices but they will not reduce the cost of production. Moreover, a subsidy cannot improve quality.

Captain Campstool: Surely, though, if everybody specified better quality glass—glass which did not make the scenery wave about and look like the morning after—the better quality glass would then sell in greater quantities and its price could be reduced.

 ${\it Question~Master}:$  I think this is where I call upon the expert.

The Expert: I am going to make some qualifying comments on this question of price. The questioner, presumably, refers to transparent glass, and by wavy lines he apparently means the distorting character of sheet glass. He really asks two questions. "Is it possible to reduce the cost of all glass?" and "Is it possible to provide glass that doesn't distort vision?" Now sheet glass is what we call fire finished, and this means that the two surfaces cannot be perfectly flat and parallel. Hence the distortion. Plate glass is different. It is ground, smoothed and polished on both sides, so that they are absolutely flat and parallel. This costs money. The use of plate glass, then, puts an end to distortion, but it is considerably more expensive.

When you think of the cost of the raw materials, the cost of transport, the cost of fuel used in melting, the cost of skilled technicians to keep control, the cost of the highly technical process of drawing, the cost of cutting, packing and delivering—when you think of all these expenses, not to mention overheads, does a price ranging from 3\frac{3}{6}d. to 8\frac{1}{6}d. per square foot for sheet glass seem excessive? What

more do you want? After all, it is the cheapest of all building materials, per superficial area. Of course, miracles of production have been performed, and will no doubt be performed again—but I think Mr. Footle will agree that prices have been brought down to very narrow margins. That is the best answer I can give to the first part of the question. To the other, I have to say that the undistorted vision of plate glass will always cost more than the slightly distorted vision of sheet glass.

Question Master: After such an undistorted answer I'm sure anything more would only blur our vision—so we will move to the next question, which comes from a young surveyor, Mr. Rollo Portworthy, of Gout-under-Foot. "Is it not a fact that there will be no glass used in the future, plastics taking the place of windows?"

Professor Noad-Hall: That depends upon when we mean by the future. If the questioner is thinking of the period immediately following this war, then the answer is a safe No. Apart from any technical pros or cons, the cost of transparent plastic sheets is not likely to compete with the comparatively low price of glass, unless some new revolutionary discovery is made. These things can't happen overnight.

Captain Campstool: Plastics—wouldn't they be a bit sticky to clean—as windows, I mean!

Professor Noad-Hall: Why! Are you confusing plastics with toffee or chewing gum?

Captain Campstool: Well, aren't they sticky? They sound sticky.

 $Professor\ Noad-Hall:$  The letters "stick" occur in the word plastics; are you attempting to make a complicated pun ?

Captain Campstool: Well, I mean to say, there is a sort of suggestion of glue, or something—but  $\Gamma$ m no chemist.

Dr. Roughly: Obviously. But for once I am in partial agreement with Noad-Hall—on the matter of gradualism. But it still leaves the question whether, even by gradual degrees, plastics will ever completely replace glass for window lighting. Superficially, an unbreakable material has advantages over a breakable material, but there are other factors which will be assessed only after plastic windows have been in use for some considerable time.

Question Master: Mr. Expert, what have you to say?

The Expert: There is little to be said in answer to this question. As we know them to-day, plastics lack the durability and surface hardness of glass, so it is reasonably certain that existing plastics will never replace glass in any universal sense. The potentialities of the plastic industry are so great, however, that any of a hundred notions of this sort may conceivably materialise in time. But we simply don't know.

Question Master: Well, there you are, Mr. Portworthy, the answer is in the plastic future. And now our time is up. Once more I must say how grateful we were to be helped over these technical stiles by our able expert, who, you may have guessed, is a member of the glass manufacturing firm of Pilkington Brothers Limited, of St. Helens, Lancashire.

Advert

# from AN ARCHITECT'S Commonplace Book

ELEGANCE OF THE VICTORIAN WATER-CLOSET. [From Cleanliness and Godliness, by Reginald Reynolds (Allen and Unwin)]. As to the Simplicitas, we learn that it is . . . constructed in one piece of stoneware, also glazed ware, or the more ornamental kinds of Queen's ware. This insistence upon decoration shews us how the Victorians, in the importance which they attached to elegance, carried their principles to the bitter end; and an illustration shows us a most ornate closet, garnished with a florid conglomeration of Second Empire and South Kensington Acanthus, twined with vine leaves; a model worthy to be placed beside the Albert Memorial as a monument to an illustrious age.

Mr. Henry Willink, the Minister of Health, stated in the House of Commons that 997 FARM WORKERS' COTTAGES ARE FINISHED and 667 occupied.

All the tenants, Mr. Willink said, are agricultural workers. A question on house building turban authorities) was put by Mr. R. Duckworth, who asked the Minister what urban local authorities are now actually building new houses; and whether these receive any State subsidy. Mr. Willink: One urban local authority (Burnham-on-Crouch Urban District Council) is building four of the war-time agricultural cottages which are subsidized, and, so far as returns have been received, 17 urban fauthorities are completing 280 unfinished houses to meet urgent housing needs in their district, most of them without subsidy.

A Ministry of Health inquiry is being held at Croydon into a STRUGGLE TO RETAIN AN OPEN SPACE.

On the one side is the council, who want to erect 470 houses, shops, a church and schools on Beckenham golf course, while on the other side is the East Ward Electors' Association, supported by youth and athletic clubs, who want to preserve the open space. The council own the land and are hoping to start building as soon as possible after the lease expires in December. Councillor R. A. Dippie, said: We are fighting on behalf of the youth of Croydon. I feel the borough must have all the open space it can.

The character of Belgravia and MAYFAIR SHOULD NOT BE SPOILED by the building of large numbers of working-class flats. This opinion is expressed in a report by the Westminster Planning and Improvement Committee on the County of London Plan. The Committee states: Every capital city of importance contains a high-class residential area close to the centre. While the large houses of the past are giving way to flats and smaller houses, the high-class residential character of the area is being maintained and should be encouraged. The proposals in the Plan to erect a substantial number of flats would damage the distinctive character of the residential portions of the West End, are economically unsound, and would not serve the best interests of London. Suggestions and criticisms by the Committee include: Government and Commonwealth Centre round the houses of Parliament and Westminster Abbey might be extended along Carlton House Terrace and in the neighbourhood of Trafalgar Square. Bridges.—New bridges at Charing Cross and the Temple are not required. Embankment.—Proposal to make river front accessible for 11.7 miles instead of 3.6 miles by sweeping away wharves from so many

frontages fails to pay regard to their value to the commercial life of the Metropolis. Oxford Street and Regent Street.—Any proposal to exclude public transport and make them merely shopping streets would be a serious injury to the West End. The Committee considers the provision of airfields within easy reach of London of the utmost importance.

Mr. T. Alwyn Lloyd, F.R.I.B.A., P.P.T.P.I., has been advising several towns near Birmingham in relation to POST-WAR PLAN-NING and re-development.

A report, illustrated by maps, was recently submitted to the Bromsgrove Urban District Council with reference to the future of the Georgian High Street, sites for public buildings, replanning of the traffic routes at key points and provision of open spaces. For the Borough of Bilston a layout has been prepared for a large housing estate, with community and youth centres, together with a public park on land that has been derelict for many years. Further surveys are now proceeding in relation to another part of Bilston, which is to be replanned as a community for industrial location, housing, open spaces, shop and social centre for a large neighbourhood which in past years has been developed at random and now comprises a considerable area of derelict land. An outline planning scheme based on local survey and detailed report has been submitted to the Brierley Hill Urban District Council, in relation to re-development of the central area, siting of civic centre, internal by-pass and shopping precinct. Proposals have been made for creating new community centres in the outlying neighbourhoods of the Urban District, with a generous allocation of park belt. In this work Mr. Lloyd has collaborated with Mr. H. Jackson, F.R.L.B.A., of Birmingham. An outline planning scheme for the Dudley County Borough is in course of preparation by Messrs. Lloyd and Jackson in relation particularly to the creation of a series of communities, with their own schools, social and cultural centres, open spaces, etc. Much had already been done prior to the war in central replanning at Dudley, and this is to be co-ordinated under the new proposals and by improvement of

Two farms, Millbeck and Harry Place, in Great Langdale, Westmorland, with 289 acres of land, have been GIVEN TO THE NATIONAL TRUST by the Master of Trinity, Dr. G. M. Trevelyan, O.M. The Trust already owns the Dungeon Ghyll Hotel and three farms at the head of the valley, thanks almost entirely to Dr. Trevelyan's earlier generosity, and this addition of two typical Lakeland farms in important positions lower down towards Chapel Stile will con-

communications brought into better relation with the rest of the Borough.

tribute most valuably towards the consolidation of the Trust's property in the valley. Millbeck Farm includes part of the lower slopes of the Langdale Pikes and the paths up to it. The National Trust will shortly come into possession of more property near Hawkshead, in the Lancashire part of the Lake District. The late Miss Bertha Peacock, who died in January, devised to the Trust her farm Sykeside, between Colthouse and Wray, and the hill Latterbarrow, a conspicuous landmark which commands good views of the head of Windermere and the surrounding fells. The total area is about 157 acres. Miss Peacock had also given to the Trust four cottages in the village of Hawkshead near the house where Wordsworth lodged when he went to school. In addition, Miss Peacock and her two sisters (who died in 1939) have each left to the National Trust their shares in Green End, which is a house with cottage and land at Colthouse and includes fields on the shore of Esthwaite Water. Green End is a small seventeenth century house, but seems to have been refronted about 1800 by Mr. Braithwaite Hodgson, who at that time was a considerable landowner in the neighbourhood.

A deputation from NFBTE to the Minister of Health opposed the Government's proposal to employ big contractors using equipment released for aerodrome contracts in preparing BUILDING SITES FOR POST-WAR HOUSING.

The deputation urged that preparation of the sites would be better and more economically done by local firms. The type of plant required, being mostly hired, should be equally available to large, medium and small contractors; and labour directed by the Ministry of Labour equally available to all.

The erection of houses during the first two years after the war SHOULD BE A NATIONAL RESPONSIBILITY and not a charge upon local rates. Camberwell Finance Committee, in expressing this opinion, urges the Council to ask the Government to make good any financial loss during the first two years of peace. The Committee's chairman, Councillor Alfred C. Warwick, states that during the war local authorities have been given Government permission to requisition property, adapt houses into flats and to carry out war damage repairs, the cost of each case falling upon the Government. The Committee believes that the question of providing homes after the war will be just as urgent and state: It is clear that those local authorities who have suffered most severely from air raids will be financially handicapped in any schemes that they may desire to carry out owing to the loss of rateable value.

is up. l over have rm of

1g

oed

ve

he iss of

ill

ng

Is

re.

an

iod

No. ent

elv

ery

bit.

tics

und

the

sort

rtial

lism.

dow

has

other

dows

this

rtain

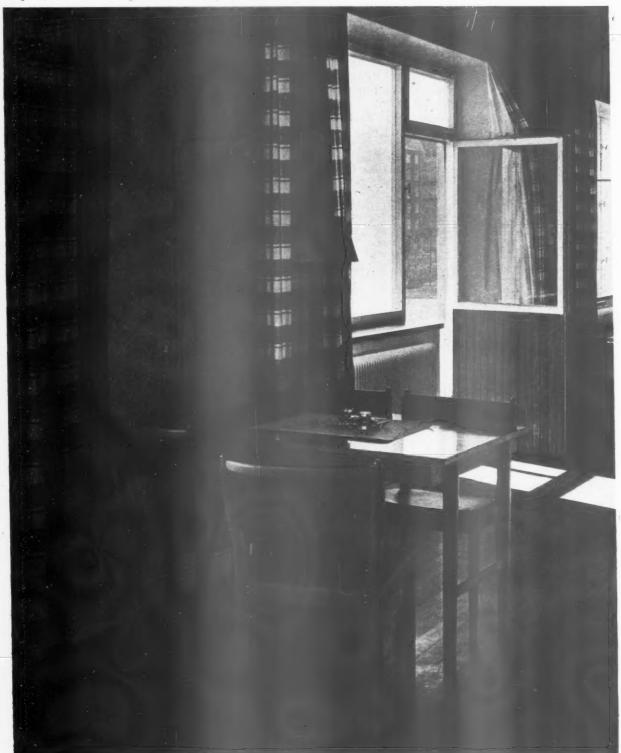
zersal

great,

may

orthy,

111 01



# Swedish Detail

typified by the treatment of the desk lamp shown above. The photograph was taken in the common room of a secondary school for girls in Stockholm by Nils Ahrbom and Helge Zimdahl. In the design of standard or desk lamps the flex leading to the lamp is usually considered

An outstanding characteristic of contemporary Swedish architecture is its refined and careful detail, a fact indicated by the examples illustrated in this issue of the Journal, and typified by the treatment of the desk lamp shown above. incorporated into the whole design with an effect which adds to the tidy simplicity of a gay and charming room. This photograph and the others dealing with Swedish work in this issue are by G. E. Kidder Smith of New York.

London M.P.s have formed a Building Committee to discuss PARLIAMENTARY BUILD-ING QUESTIONS AS THEY CROP UP with representatives of the London Master Builders' Association. The Labour Party has appointed Alderman C. W. Key, Messrs. S. P. Viant and Lewis Silkin; and the Conservatives, Messrs. E. H. Silkin; and the Conservatives, Messrs. E. H. Keeling, Geoffrey Hutchinson, K.C., and Sir Harry Selley. The decision follows a meeting held shortly before Easter at the invitation of Mr. H. C. Harland, President of the London Master Builders' Association, which was attended by over 40 M.Ps. of all parties. At the meeting Mr. Harland suggested that as building was likely to bulk largely in discussions in the House of Commons during the next few months, M.P.s in the London area should be in closer touch with the Association, and offered to place all the Association, and offered to place all the information the Association might have on specific questions at the disposal of M.P.s. prior to discussions in Parliament. Col. G. F.
Doland, secretary of the London Conservative
Members Group, and Mr. Lewis Silkin, a
member of the Central Housing Advisory
Committee, both welcomed the suggestion for
closer liaison between the building industry and the House of Commons. The general feeling of the meeting was that nothing but good could come of it, and it was left to the ondon members to nominate a Committee from their numbers to keep in touch with the Association Executive. The above Committee is the result.

The Poplar Borough electricity engineer, Mr. Robert Illingworth, has devised PREFABRICATED ALL-ELECTRIC KIT CHEN.

To prove that the kitchen will go into any house he will instal one in Poplar in the next few weeks, choosing the housewife by ballot. The kitchen is made of cream-painted metal and is 10 ft. 6 in. wide, 7 ft. 6 in. high, and nearly 2 ft. deep. It is in 72 parts, and its size can be adjusted to the size of the house by adding or taking away parts. It has airing, broom, cutlery and cleaning cupboards; several drawers; a 15-gallon water heater; ironing board; refrigerator; electric oven; hot plates; electric clock; plate racks, and fluorescent lighting. A ventilating system carries away steam and the smell of cooking food. Designs of the kitchen have been submitted to the Minister of Health.

The number of houses required after the war will be so great that there will be plenty of ROOM FOR PRIVATE ENTERPRISE and local authorities, said Mr. Willink. Speaking in London at a luncheon of the National Federation of Registered House-builders, Mr. Henry Willink, the Minister of Health, said: Quality is as important as quantity. The country expects that every house will be well built, and he congratulated the federation on having united in a common resolve to maintain an approved standard of workmanship in every house they build. We workmanship in every house they build. We owe it to the young men and women in the Forces, who will want new houses in which to set up homes of their own after the war, to see that they get good ones, said Mr. Willink.

d

rt

### THE CONTROL OF RENTS

T is dangerously easy to overlook the effect the Rent Restriction Acts have had and must have on housing. Of the 4,105,000 houses built in the twenty years between 1919 and 1939, 2,968,000 were built by private enterprise for private ownership, which means that nearly three out of every four owners of houses built within these twenty years regard their houses as things which, actually or potentially, will yield them some kind of a return on the capital invested. If the return is good, there are many anxious to build. If the return is bad, new building must be stimulated, usually

at the expense of the State.

In times of war, every commodity in short supply is subjected to some form of price control. In the case of consumable goods, the process is theoretically simple, being based on the cost of the goods with either an addition, for profit, or a subtraction, made good by subsidies, if the price must be kept down. It is much more difficult to apply the principle of cost where the article is durable, and the experience of price control in the furniture trade has not provided any conclusive answer. But there, at least, a principle with some recognisable element of justice in it has been applied. On the other hand, control of rents has been left to chance, and chance, while sometimes satisfactory in the life of an individual, is not the best basis for governmental action. At the moment, whether you receive a good return on an investment in house property depends on the rent at which it happened to have been let at a date arbitrarily selected. If the house was built before 1914, that date may be one nearly thirty years ago, and thirty years is an appreciable time, even in the life of a house. The existing Departmental Committee on Rent Control cannot be considered a premature appointment.

As the cost of living rises, it is fair that the owners of house property should be entitled to some increase in rent. It can never be fair to single out the owners of any particular class of legitimate property for treatment more harsh than that generally applied. It is not only unfair. It is also stupid, for we shall depend on private ownership of house property for some percentage of any post-war housing programme. At the moment, the rents of identical properties may vary appreciably simply because they became empty and were re-let at different times. The result may not be unjust in bulk, but it may be so in individual cases, and, while hard cases make bad law, it is a bad law that makes hard cases. The problem of the fair regulation of rent control depends in the essence upon finding a fair datum line on which increases, or decreases, may be calculated. At the moment we use as the datum line a former rent. As the Chartered Surveyors' Institution points out, in a memorandum it has submitted to the Rent Control Committee, a more equitable datum line does in fact exist. It consists of the valuation list for rating The CSI proposes that the controlled rent purpose.

of every occupied property affected by the Rents Acts should either be based on its gross value for rates or on the existing standard rent, whichever is the greater. Its proposals also make provision for rents which include some element of ser-The weakness of that case is that, while they provide a machinery for levelling rents upwards, thus remedying hard cases among landlords, they leave untouched the case of the tenant whose arbitrarily fixed standard rent is too high. No one will be surprised if a surveyor attempts to make the best of both worlds, but then, surveyors are not accustomed to having their initial proposals accepted without some debate. The real urgency of the problem lies in the situation which will arise when the war is over. Private enterprise will build houses but the cost of building may be such that some form of subsidy will be essential if these houses are to be let to, or bought by, wage earners in the lower levels. Houses will still have a scarcity value and uncontrolled rents will be very much inflated rents. We have seen once what kind of situation results from that kind of vicious circle. As the Surveyors' Institution points out, the rateable value of every house can be reduced to a common national formula and can come into existence before ever the house is let. The obvious answer is to use that as the datum line, instead of what rent a landlord can secure, and let Parliament decide what, if any, is to be the percentage increase over the pre-war figure that the post-war landlord may legally demand.



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

$\mathcal{N}$	0	7	_	$\cdot E$	S
		8	7		
T	O	P	I	C	S

WEST WYCOMBE COMPETITION

Some time ago I obtained the conditions of the West Wycombe competition the winning scheme for which was published in the JOURNAL for April 20. The conditions seemed hopeful and commendably brief. They implied that here in the village of West Wycombe the National Trust was anxious to provide reasonable homes for post-war

They encouraged competitors by hinting that a contemporary design would not necessarily clash with the general character of the village; the conditions seemed to recognize that an honest, straightforward design without concession to the tradition neurosis which paralyses creative thought in this country might prove acceptable.

Let me quote from them: "A group of cottages, which, at one and the same time, will be a new contribution to the design of country cottages, and serve to enhance rather than detract from the beauty of West Wycombe. Though the new cottages should not be strangers to the village, yet, it is hoped that they will be something more than replica work, and that they will give evidence of modern planning and equipment."

Anyone who examines the schemes published will find that the signposts leading to peace all indicate that Ye Tea Shoppe complex is still on top-even in the minds of architects. I had entertained a shy and shrinking

hope that we would not return to pre-1939 conditions in the world at It is evident in architecture that we are going back even further. The bogus romanticism which characterizes the design of the three winning schemes is saddening. They should be circulated widely in the Services so that the younger architects who are fighting in this war will know what they are returning to. The West Wycombe competition might have assisted in breaking down the sentimentalities associated with half-timber work on the by-pass, might have helped to show the public at large that good modern houses could be designed which would fit in with our landscape and with traditional building. The assessors appear to have made no attempt to do this.

W

goo

car

to

it (

tov

fol

T

ex

a

it

of

M

PC

MOTCP, MOH AND OXHEY

There may be stalemate at Anzio and motionless suspense on the invasion coast, but in Whitehall the battle is still in full swing. Silent, inexorable, as complicated as the Burma campaign, it moves up and down the corridors of the Ministries, marked only by the heavy breathing of the contestants, by the occasional shrill cry of triumph as a White Paper or manual is produced in defiance of a rival, or by shreds of evidence which are thrown out occasionally like scraps of clothing from a Rugger scrum.

By piecing such shreds together you can sometimes tell how goes the day, and the two scraps which recently emerged from the MOH versus MOTCP struggle seem to indicate that the former is still game and on its feet.

Two Government enquiries are now under way, one into the pros and cons of having a Dr. Barnardo Home in the New Forest, the other into the LCC scheme for Oxhey. The second which deals primarily with the right use of land and the layout of roads and housing, is being conducted by MOH, while the former, which is of minor importance (except to Dr. Barnardo and the local residents), has been tossed to MOTCP presumably to keep it out of the way.

Whether the Oxhey scheme is a good one or not only later evidence can show, but as, apparently, it is to be bisected by an arterial road, it does not sound as if contemporary town-planning principles were being followed.

There is plenty of talent and experience in MOTCP and it seems a pity not to use it. Unless perhaps it is being used by means of a sort of Wingate's Column behind the MOH lines.

# POETS' CORNER

to

at

i-

n

m

of

n-ed

ie

g

re

e

in

es

n

to

d

d

e

ie

10

10

le.

11

t,

ie

d

s,

g

al

te

n

of

ıt

g

PS

h

H

to

ie

re os lo er

ly

ig ie ce

to

Each panic voice engraves upon the night. The trace and pattern of a crystal pier, Shaft-laden, mounting in confined flight. To crown the city with a vault of fear; And each electric tocsin stoops and springs. And spins to meet the sky-vibrating crest. Of crescent ribs and criss-cross crenellings, A fever-fretted heaven of unrest. Now, silence. Now, the galleries of noise Hang in the quiet sky, and in my heart. Pulse the re-echoes of their equipoise. Now am I school'd in Piranesi's art,

Who dream'd the converse, dream'd of Rome unbound,
Temples dissolved, cascading into sound. *John Coolmore* 

### STAMP DESIGN BY DULAC

Postage-stamp design is a law unto itself. Although many postagestamps issued to-day are frankly propaganda for the country issuing them, their design has been but little influenced by modern poster or commercial-art technique. Most stamps fall into one of two groups; either the classic-simplicity group started by the early head-of-Queen-Victoria issues of Great Britain, or the give-'em-all-you've-got group, in which the designer's aim is to crowd a mass of detail worthy of a full-size landscape painting into a canvas only one or two square



The stamp design by Dulac referred to by Astragal.

inches in area. The second type, though much sought after by juvenile philatelists, usually fails æsthetically for the obvious reason that the artist does not adapt his technique to his medium.

Interesting as an exception to both these groups is the new issue of stamps for the Free French colony of Réunion, designed by Edmund Dulac, who has had experience of stamp design previously and also of package design. The influence of the latter can be seen in his new stamps. Illustrating typical products of the island of Réunion, they are reminiscent of some of the labels one saw before the war on high-class products, though perhaps even here the detail is overdone and out of scale with the area surface designed. The way in which the essential lettering is made a part of the design, instead of being stuck on at top and bottom as an apparent afterthought, is, however, notably different from the common run of stamp design. An artist with commercial experience has been able to use that experience in a field where a breath of fresh air from outside, such as he provides, was needed.

ASTRAGAL



# LETTERS

J. Nelson Meredith, F.R.I.B.A.
(City Architect, Bristol)
N. C. Stoneham

# Buildings of Historic and/or Architectural Interest

SIR,—In my opinion, the above buildings should be marked and I am pleased to say that I have received the authority from the Bristol Planning Committee to mark as a beginning the buildings of Historic and/or Architectural Interest in the ownership of the Corporation. As far as I am aware, Bristol is the first city to take this step, but I hope it will become a national matter.

In enemy action a case could occur where an important building is damaged, demolition and clearance put in hand, with the result that valuable material is possibly lost, whereas had some distinguishing mark been used it might have proved a means of preservation. Incidentally, I feel the marking of buildings would add interest to cities, towns and villages. It is the intention in Bristol firstly to use the





SCALE OF INCHES

Signs to be fixed to buildings of historical and/or architectural interest by the Bristol City Architect. Left, historical interest, centre, architectural interest, and right, historical and architectural interest. See letter from Mr. J. Nelson Meredith, the City Architect.

### TREATMENT WINDOW





Windows in flats designed by Cyril Marius in the Abrahamsberg district of Stockholm illustrate the care taken by Swedish architects in the design of details. Top, a view from a living room showing the entrance on to the balcony and the large pane of glass doubled for insulation; a feature is the radiator of light steel, which has a pleasant decorative value. Below, an under-window vent which admits air in winter when it is too cold to open the large windows; the vent runs through the cill and is about a foot wide and an inch deep; turning the knob, a controlled amount of air is admitted; being above the radiator the rising heat circulates the incoming fresh air throughout the room; note the neat metal window catch and the marble window slab.

marks by means of stencils and later to provide and fix permanent plaques.

J. NELSON MEREDITH

# Architects and Industry

SIR,—Could some architectural students be more orientated towards industry during their period of training? In peacetime their period of training? In peacetime architectural schools all over the country turn out hundreds of new architects, full of hope, enthusiasm, lofty ideals—and little chance of making a living. If, then, some of them could, say, half-way through their curriculum be steered towards industry—and especially that part of industry associated with building—they might find an outlet for their endeavours that would be profitable to themselves industry. that would be profitable to themselves, industry and architecture.

and architecture.

At present industry is viewed, especially by the newly fledged, rather with a condescending toleration, similar to the Victorian regard of tradesmen. Yet industry deserves so much more than that. Part of it, the part that makes the bits and pieces which the architect requires in order to be an architect is only. requires in order to be an architect, is only another facet of the same diamond from which the architect is cut. All are part of what is

known as the building industry.
Why, then, should the budding architect, and the fully blossomed one as well, not seek to know and work with his counterpart as much as possible?

The building industry is more and more realizing the need for the assistance of archi-tectural training. Every month yet another firm calls upon an architect to help its development. Why, then, should not the architectural schools recognize this fact officially and prepare some of their students for this particular type of work?

As the matter stands at present, industry calls in an architect, often one who has made some sort of a name designing in a particular material, and then has to sit down to teach him about manufacturing, of which he knows

precisely nothing. Would it not be a good idea to teach both simultaneously?

Architects are quick to criticize the design of an industrial product. But are they as ready to sit down and devote study to the industrial problems which may have conditioned that design?

But leaving actual manufacture, there are many other ways in which an architectural training can assist industry. One of the reasons why architects mistrust industry is because of the salesman. "I want somebody to come and talk to me who knows what he's talking about, not one who just talks blah and blather and says nothing.'' Many times has the architect expressed those sentiments. Well? Is not the answer one who can talk both the architects' and the manufacturers' language? Call him a technical representative, if the word Salesman stinks too much. Then there is the whole field of architectural publicity and journalism. Architects bewail the way that the popular press treats architectural matters. Yet reading the average architect's writing on the same subject is something that is just too painful. So, once again, the problem suggests the answer. In my own field of advertising the same trouble crops up. Asking an architect, critical of architectural advertising, to produce a series of advertisements or a booklet, results in much the same effect as asking an architect. to come and talk to me who knows what he'

series of advertisements or a booklet, results in much the same effect as asking an architecturally minded advertising man to design a house—something pretty awful. Yet a real knowledge of both can work wonders. Is not, then, a prima facie case made out for teaching would-be architects something more than just architecture? If there be, is not the idea well worth exploring and seriously considering by those who regulate these matters?

Demobilization is going to send many service men back to the architectural schools. Would it not be worth while considering how a percentage of them could be steered into other walks of life than the architect's drawingboard, and still make valuable use of their architectural training?

London

N. C. STONEHAM

to

ng ne rn

ld, be

at

irs ry by

ng of

ch

ect

lv

ch

is

nd

ch

hi-

er

p-ral

nd nis

lls

ne

ch

od

of

dy

ial iat

re

ral

he

is dy e's nd

as

lk

ta-

ral

ail

hi-

ge

ce

me

cal a

lts ec-

eal

for

he

sly

ny ols.

ito

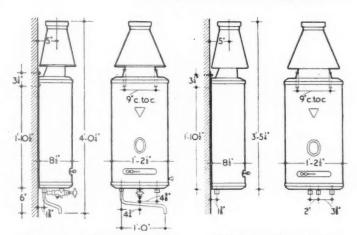
eir

# THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

. DOMESTIC WATER HEATING IS: ASCOT INSTANTANEOUS AND STORAGE GAS WATER HEATERS

# ASCOT MULTIPOINT-Type NEA 32 . . .

and SINGLE POINT-Type SG 32 . . .



SINGLE POINT SG 32/I.

**MULTIPOINT NEA 32.** 

### SPECIFICATION:

Output: 1,300 B.Th.U./minute

or from 2.2 gallons heated by 60°F. (50° to 110°F.)

to 1.3 gallons heated by 100°F. (50° to 150°F.)

Types NEA 32TI and NEA 32MTI incorporate temperature selector showing five settings; intermediate positions may also be used.

Setting No	1	2	3	4	5
Temperature increase °F	45	59	72	88	107
Governed flow in gallons/min.	2.9	2.2	1.8	1.47	1.21

Note.—The above figures are subject to +5 per cent. variation.

Input: 1,650 B.Th.U./minute

or 3.25 cubic feet of gas c.v. 500.

Exterior Finish: White vitreous enamel case with all exposed metal parts chromium plated.

Automatic Valve: Prevents gas passing to burner unless a minimum quantity of water is flowing through the heater.

**Draught Diverter:** Supplied integral with the heater, with socket for 5" internal diameter flue.

Main Gas and Pilot Cocks: Interlocking.

### INSTALLATION SPECIFICATION.

SG 32/1: Single point bath gas water heater with spout.

NEA 32/6: Multipoint gas water heater, to supply all points in flats or houses. Suitable for low pressure water supply or mains connections up to 100 lbs./sq. in.

NEA 32/I : Similar to above, but only suitable for connection to mains. May be used up to 250 lbs./sq. in.

NEA 32TI: Similar to above, but automatic valve incorporates water governor and temperature selector.

NEA 32M...: The letter M indicates gas SG 32M...: Volume governor fitted to any of the above types of heater.

### (a) Gas.

**Connections:** All types  $\frac{3}{4}$ " tapered B.S.P. male thread.

Supply Pipes: All types  $\frac{3}{4}$ " up to 15 ft. run from the meter; 1" or larger over 15 ft. depending on distance.

Meter: Rated capacity to be not less than 200 cu. ft. per hour in addition to requirements for all other appliances.

Stop Cock: Must be fitted on the supply pipe close to the appliance to facilitate maintenance and regulation.

### (b) Water.

Connections (Hot and Cold): NEA 32/1, NEA 32/1, SG 32/1—½" tapered B.S.P. male thread. NEA 32/6—¾" tapered B.S.P. male thread.

Supply Pipes: May be from the mains for all types (the permission of the local water authority having first been obtained). For mains connection—\frac{1}{2}" to 1" depending on the head of water available. (See Information Sheet, Domestic Water Heating 13).

Stop Cock: (With valve secured to lift with the spindle) must be fitted on the cold water supply close to the appliance to facilitate maintenance and regulation.

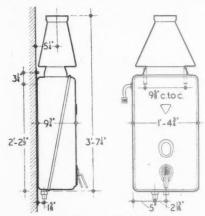
Head of Water: NEA 32/I, NEA 32TI for mains connection only with pressure not less than 15 lbs./sq. in. NEA 32/6 can be connected to tank supply with not less than 8-10 ft. head measured as difference in level of water and the highest draw-off tap.

# (c) Flue.

Must be fitted (in all cases); 5" internal diameter asbestos cement flue pipe to be used (See Information Sheets, Domestic Water Heating 10, 11, 12), or preferably a built-in flue of equivalent cross sectional area. All appliances supplied with integral draught diverter.

TURN OVER

# ASCOT MULTIPOINT APPLIANCE—Type NEA 38.



### MULTIPOINT NEA 38.

# SPECIFICATION :

Output: 1,500 B.Th.U. per minute

or from 2.5 gallons heated by  $60^{\circ}F./min.$  (50° to 110°F.) to 1.5 gallons heated by 100°F./min. (50° to 150°F.)

Input: 1,875 B.Th.U. per minute or 3.75 cu. ft. of gas with c.v. 500.

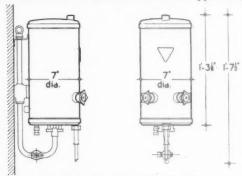
Exterior Finish: White vitreous enamel case with all exposed metal parts chromium plated.

Automatic Valve: Prevents gas passing to burner unless a minimum quantity of water is flowing through the heater.

Draught Diverter: Supplied integral with the heater, with socket for 5" internal diameter flue.

Main Gas and Pilot Cocks: Interlocking.

# ASCOT STORAGE GAS WATER HEATER-Type A 3/6.



STORAGE HEATER A 3/6.

A thermostatically controlled storage water heater, specially designed for hairdressers, dentists and other purposes where small quantities of hot water are required with accurate temperature control.

# SPECIFICATION:

Output: 9,000 B.Th.U. per hour

or 1.5 gallons raised 100°F. in 10 minutes.

Input: 11,200 B.Th.U. per hour

or 0.375 cu. ft./minute of 500 c.v. gas or 22.5 cu. ft./hour of 500 c.v. gas.

Exterior Finish: All chromium plated with black ebonite handles.

Thermostat: Capsule type, cuts down gas consumption to standby rate when temperature reaches 165°F.

Inlet and Mixing Valves: Incorporated in the appliance.

### INSTALLATION SPECIFICATIONS.

### NEA 38

### (a) Gas.

Connections: I" tapered B.S.P. male

Supply Pipes: 3" to I" according to the length of run.

Meter: Capacity to be not less than 225 cu. ft. hour in addition to other requirements.

**Stop Cock:** Must be fitted on the supply pipe close to the appliance to facilitate maintenance and regulation.

### (b) Water.

### Connections

(Cold): ½" union and lining. (Hot): Union to take B.S.P. male thread on ½" pipe.

### Supply Pipes:

**Main:**  $\frac{1}{2}$ " to  $\frac{3}{4}$ " depending on length of run and available pressure.

Tank: ¾" to I" according to length of run and available head of water. (See Information Sheet, Domestic Water Heating 13).

Stop Cock: (With valve secured to lift with the spindle) must be fitted close to the appliance to facilitate maintenance and regulation.

Head of Water: Of not less than 8-10 ft. should be available. May also be connected direct to the main. (The permission of the local water authority having first been obtained.)

### (c) Flue.

Must be fitted (in all cases) 5" internal diameter asbestos cement flue pipe to be used (See Information Sheets, Domestic Water Heating 10, 11, 12), or preferably a built-in flue of equivalent cross sectional area.

### A 3/6.

# (a) Gas.

Connections: 3" female B.S.P.

Supply Pipes:  $\frac{3}{8}$ " to  $\frac{1}{2}$ " according to length of run and available pressure.

Meter: Rated capacity to be not less than 25 cu. ft./hour in addition to all other requirements.

Stop Cock: Must be fitted on the supply pipe close to the appliance to facilitate maintenance and regulation.

# (b) Water.

Connections: 3" bent union and lining.

Supply Pipes: \(\frac{1}{4}\)" to \(\frac{1}{2}\)".

Stop Cock: Must be fitted to facilitate

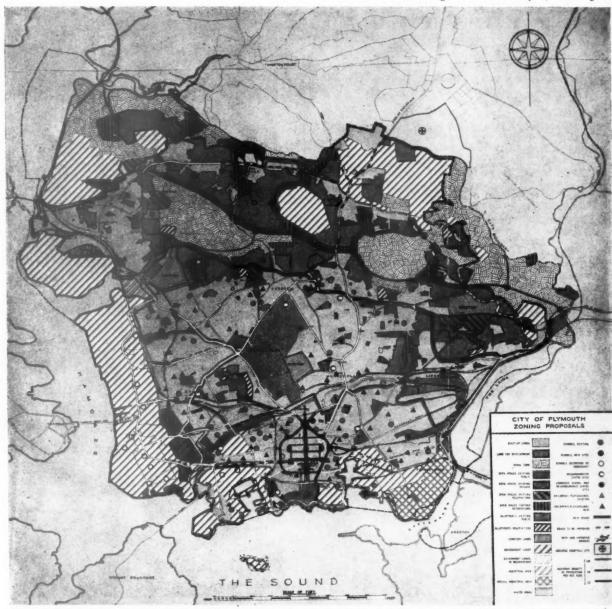
Head of Water: 12-15 ft. minimum.

(c) Flue: Not required.

Issued by Ascot Gas Water Heaters Ltd., North Circular Road, Neasden, N.W.10. Telephohe: Willesden 5121 (14 lines).

Information from Research & Development Department, Ascot Gas Water Heaters Ltd.

INFORMATION SHEET: DOMESTIC WATER HEATING 15 JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WOL



Above are shown the main zoning proposals contained in the new plan. It recommends zoning of areas outside of which no building development should take place, and encourages the development of surrounding satellites in order to house the proposed population overspill of 40,000.

# PLAN FOR PLYMOUTH

# J. PATON WATSON AND PROFESSOR ABERCROMBIE

The Plan for Plymouth, reviewed on these pages, is the work of Mr. J. Paton Watson, the City Engineer and Professor Abercrombie. It is now on exhibition at the Plymouth Municipal Art Gallery, and represents a magnificent achievement for a city the size of Plymouth. As the guide to the exhibition states, it is only by popular interest, popular understanding, popular participation and popular backing that this plan can be achieved. The authors have fulfilled their part admirably. It is now up to the people of Plymouth.

# BASIS OF THE PLAN

Plymouth has been created by its position on the national map and on the regional coast. For four hundred years the naval occasions of the country have given the special character to its marine development. And this remains its chief occupation. Its basic industries are (a) Dockyard; (b) Shopping; (c) Holiday and Tourist; (d) Miscellaneous Industry.

The pattern of Plymouth is a complicated one. It was, until 1914, three separate towns, Plymouth, East Stonehouse and Devonport, which had all grown up separately along the river

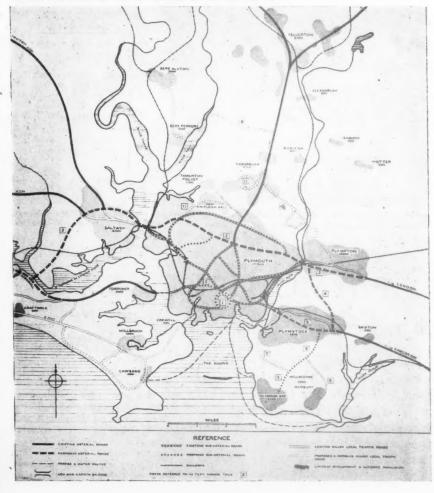
# POPULATION



1939 (above): City Population 220,800. Over-centralization and scattered expansion continue with increase of mechanical transport. 1960 (right): City Population 180,500. Proposal for ordered de-centralization into planned suburban satellites.



# COMMUNICATIONS



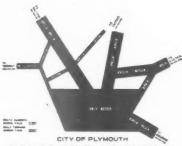
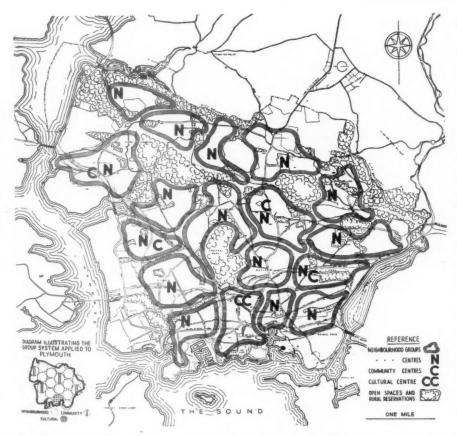
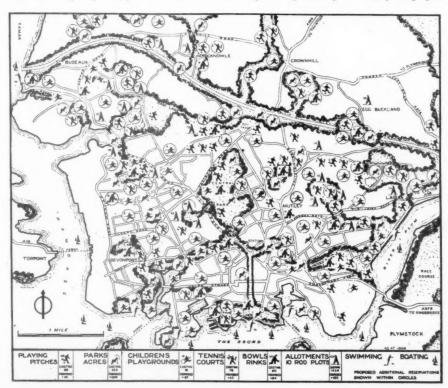


DIAGRAM SHOWING TRAFFIC INTENSITY BASED ON MINISTRY OF TRANSPORT 1936 CENSUS FIGURES.

Traffic congestion in Plymouth, before the war, was, except for London, the worst in Southern England. The main by-pass route through the Forder Valley and Crownhill to St. Budeaux was much built-up, narrow, tortuous and hilly. The plan provides radial roads which join an inner-ring road enclosing the shopping and business area of the city, through which there would be no direct road forming a short cut.



The plan above shows the division of Plymouth into neighbourhood and community groups. The authors point out that at this stage it is not possible to define areas covered by the smallest or Residential Unit; these will be worked out in detail during reconstruction. Below is a plan of the open-space proposals. Much of the open-space, before the war, was situated beyond easy reach of the bulk of the people.



estuaries until they merged; still, however, keeping their separate entities and centres, surrounded by rings of high densities and congested housing. Its develop-ment is amorphous and has no focal point.

The overall density of the popula-tion of the City of Plymouth did not rank high in comparison with that of other towns of similar size. It had a gross density of 22.7 persons per acre. Although the average density works out at 71.2 persons per acre, there are two wards with a net density exceeding 200 persons per acre, whilst there are many more with densities between 100 and 200.

The combined area of derelict properties (blight and blitz) in the central areas, which cover some 900 acres of the city, amounts to a total of about 300 acres.

The density of the traffic at St. Andrew's Cross, in the centre of Plymouth was, before the war, the highest in Southern England, except for London itself. There is a serious deficiency in circumferential roads.

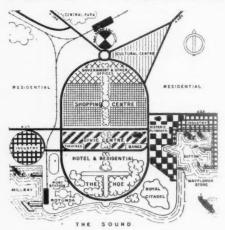
Plymouth has now either existing or in town planning reservations a total of 3.6 acres only of public open space and I acre of private open space per 1,000 of the popula-

### THE PLAN: OCCUPATION.

The planners have assumed that the activities of H.M. Dockyard will continue. An increased and more completely self-contained area is provided. The destruction of Plymouth's secondary main shopping centre at Devonport has led the planners to concentrate the greater area of shopping floor space in the new Plymouth centre. In addition to this there will be subsidiary shopping centres grouped on the basis of the communities. The proposals include recommendations for increased facilities for holiday-makers and tourists, and for areas which are suitable for light industry.

POPULATION. It is recommended that a maximum density in the city of 100 persons per acre should be adopted. Around this central core there should be an intermediate zone where a density up to 50 persons per acre would be permitted. Finally, on the outskirts of the city, 25 persons per acre would be the maximum. On the basis of these figures there is land available within the present city boundary for the accommodation of only 171,540 persons. Assuming the population of the city to be the same as in 1939, accommodation for some 40,000 will have to be found

# CITY CENTRE



beyond the city's present boundaries. Proposals are made for housing this overspill by the expansion of selected areas within the Plymouth region.

COMMUNICATION. It is urged that connecting roads and radial roads converging on Plymouth should be treated as proper traffic routes if safety is to be achieved. In general the plan provides for the following requirements: (a) The by-passing of through traffic; (b) Segregation of through traffic; (c) Elimination of unnecessary intersections; (d) Car parking; (e) Provision for pedestrians.

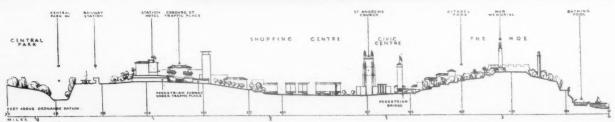
COMMUNITY. Proposals are made for the division of the city into at least eighteen neighbourhood units, each with a distinct focal point. Centripetal grouping is suggested by the provision of Community Centres serving five or six neighbourhood units. The City Centre knits together the region as a whole. It is planned on the principle of precincts. The main feature will be a great Parkway, stretching from the proposed Station Hotel through the City Centre to the Hoe.

OPEN SPACE. The Zoning Proposals map, on p. 331, shows existing public open spaces, existing reservations, and proposed further reservations amounting to a total of 6.8 acres per 1,000 population within the city.

This page shows a functional analysis, plan, aerial perspective, and section, all illustrating the proposals for the new city centre, which includes the cultural, commercial, civic, residential and recreational centres of the new Plymouth.









# DETAILS

OF A BLOCK OF FLATS AND CINEMA
IN THE GÄRDET DISTRICT, STOCKHOLM

Above, the entrance door to the flats illustrates the careful and refined, if at times rather mannered detailing; the return wall on the right is covered with reeded wood. Below, the complete building; on the right is the cinema entrance which falls well into the façade.



# DESIGNED BY STURE FRÖLÉN

The Gärdet is a residential district on the north-east of Stockholm, consisting mainly of flats of medium and high rents. The project planned as a whole and built on ground leased from the Crown was begun about twelve years ago. Most of the building has been carried out in the last few years, including the job inustrated here, which is the end block of one of the more expensive rows and contains a cinema.

The building as a whole is not entirely satisfactory, and its chief interest lies in its detail, both as regards design and use of materials. Some of the detail, as in the balconies, is admirably restrained

and refined; some of it, as in the entrance door to the flats is perhaps too highly mannered; some of it, as in the collapsible curtain across the cinema screen, is frankly vulgar; all of it has received careful attention.

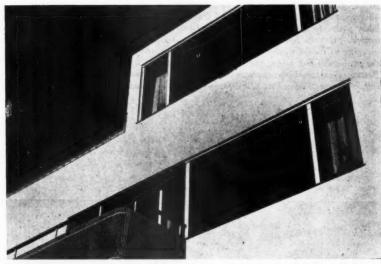
Two features worth noting are: (1) the use of large panes of glass in the windows which the architect has rightly not felt compelled to break up into small panes in order to give what is to-day an artificially achieved scale; and

(2) the effective way in which the difficult problem of controlling advertisement posters has been solved in the cinema lobby.



FLATS AND
CINEMA,
GÄRDET,
STOCKHOLM

BY S. FRÖLÉN

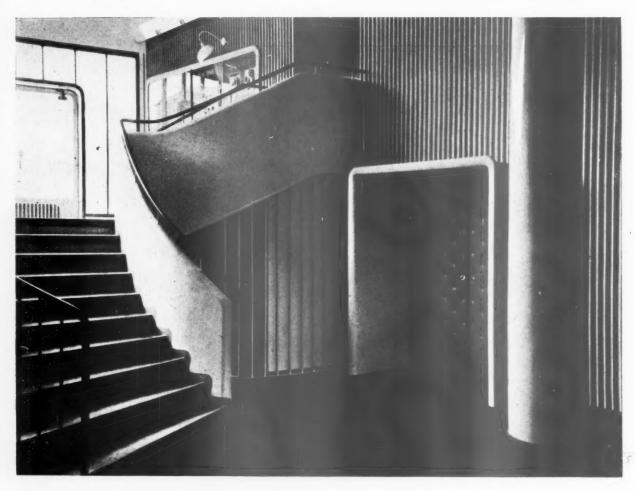


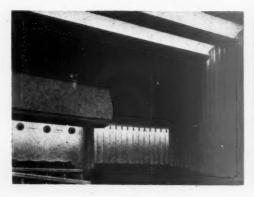
On the facing page, a close-up of the entrance to the cinema, which is reached by a few steps down from the street level. Above, a view of two of the flat windows with their large unbroken panes of double glass. Below, the flat balconies with fronts made of thin strips of wood fixed to steel tubes and topped by a wood railing.



Right, the cinema lobby with its mirrored end wall and effectively controlled advertisements in their dish-shaped frames. Below, another view of the lobby; the door is padded and the walls around it are covered with reeded timber. Bottom left, the auditorium of the cinema where the same wall covering of reeded timber as in the lobby is repeated for acoustical reasons; the projection box is covered with mahogany set in brass expansion strips. Bottom right, looking towards the screen which has a fantastic curtain, collapsing and expanding like a fan for a reason known only to the designer.









FLATS AND
CINEMA,
GÄRDET,
STOCKHOLM

# 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.

# PHYSICAL PLANNING

Aerodromes

AVIATION AS A STIMULUS TO ARCHITEC-TURE. Francis R. Meisch. (New Pencil Points, November, 1943.) New ideas on layout of aerodromes and their

architectural implications.

architectural implications.

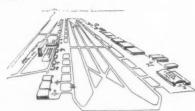
1. The standard design (Fig. 1) is now shown to have a number of faults: (a) its operational limits can only be increased by double or triple runways; (b) the loading ramp positions are insufficient for more than dual-runway traffic; (c) operational conflicts arise at the ends of the runways—becoming increasingly difficult when these are doubled; (d) runway and taxi distances vary in length: (e) the and taxi distances vary in length; (e) the standard field can only accommodate 60-75. operations per hour.

2. The central design (Fig. 2) appears to have many advantages: (a) possibility of runway expansion as well as the separation of runways by 1,000 ft. or more; (b) by the use of land stations round the central control building 20 stations round the central control building 20 to 60 loading ramp positions can be set up; (c) the lack of conflict between flight operations; (d) uniformity of runways and taxi distances; (e) cost studies have indicated that savings from smaller taxi distances and impressed operating efficiency would scope page. increased operating efficiency would soon pay for the necessary underground access to the

field's centre.

3. Special international airports (Fig. 3) of entry and departure will be necessary to handle problems of customs, immigration, language, etc., that would unnecessarily encumber fields designed for domestic traffic. These airports might be designed as a single





Design of Aerodromes. See No. 1470.

system of parallel runways 3-10 miles long, each separated by 1,000 or more feet. Taxiways would run parallel to the runways. In place of cross runways a V-shaped paved area is provided at each end of the parallel runway system to allow for landing and take-off with reference to wind direction and velocity. Expansion could be anticipated by limiting buildings to one side of the field.

# HEATING

and Ventilation

Electrical Installations

ELECTRICAL INSTALLATIONS—THE PRESENT AND THE FUTURE. Ramsey. (Journal of the Institution of Electrical Engineers, January 1944, p. 21.) Reviews shortcomings of present electrical installations, and remedies for these defects.

Author considers that electrical apparatus Author considers that electrical apparatus tends to be too complicated, with high cost of production, and difficulties in maintenance. Newer and simpler designs are possible. Standardization of accessories, with reduction in the number of types, should lead to lower costs, simplification, and better service and easier maintenance. The standardization of 230-v. a.c. supply, and the unification of tariffs are regarded as of vital importance. Electric light fittings have in most cases been designed without regard to factors such as

designed without regard to factors such as diffusion, glare, colour and so on. The study now being made should lead to great improvements, in collaboration with the architect and decorative artist. Regarding domestic appliances the housewife has the right to expect not only reliable apparatus, but service in the widest aspects. Further, she should be able to plan her requirements in advance; this is impossible without dimensional standards. There is a need to modify and simplify designs, to develop new ideas, to reduce the number of types and to produce electrical goods in common demand at the minimum cost con-sistent with good and safe practice. There is also a need to educate the consumer to demand reliable and adequate service, in preference to something cheap and nasty. A number of possible improvements in domestic wiring practice are discussed. In standardizing domestic appliances, the scope of BSS should be enlarged to include dimensional standards, ratings and loadings of cookers, boiling plates, water heaters, refrigerators and

# **Electricity Distribution**

Co-ordination of Distribution. (Electrical Times, February 3, 1944, p. 128.) Proposals of Joint Committee of Electricity Supply Associations for future policy and practice in distribu-

tion of electricity.

The memorandum, which has been submitted to the Ministry of Fuel and Power by the

JCESA, first outlines the history and development of electricity supply in this country. Part II deals with criticisms and suggestions for improvement. The five principal criticisms are (a) too many forms of tariff for similar supplies, some of which are not understood by the consumer: (b) too many different voltages and systems of supply; (c) lack of hire facilities and maintenance for domestic appliances; (d) overlanping supplies: domestic appliances; (d) overlapping supplies; and (e) non-uniformity of rural development. Greater uniformity of bulk charges is desirable.

A national form of tariff for domestic supplies is advocated, but the form is not decided. Three-phase, 400/230-v. 50-cycle a.c. system is suggested as the most suitable standard supply. Adoption of this should lead to a reduction in the cost of appliances. Development would be speeded up by making hire and hire-purchase schemes for domestic appliances obligatory. An adequate maintenance service would also aid development. With regard to rural supplies, the memorandum is against subsidy

at the expense of urban consumers.

In the future, distribution is essentially for local control and action, but there should be organized co-operation between neighbouring undertakings, by means of Area Committees which should be set up. The duties of these committees are outlined; they should lead to greater efficiency and service to the

consumer.

The memorandum urges that the Electricity Commissioners should be brought up to full strength after the war. The financial year throughout the industry should be uniform, and the calendar year is suggested. A uniform system of rating undertakings is recommended. Revision and consolidation of the Electricity Acts is urged.

The memorandum does not favour elimination

of competition with gas and other fuel indus-

# **Electric Services and Costs**

BUILDING COSTS AND ELECTRICAL SER-VICES. E. Jacobi. (Electrical Times, January 27, 1944). Possible post-war costs for building and electrical services.

This article is addressed mainly to the electrical industry, but architects will be interested in Mr. Jacobi's cost analysis. The assumption is made that building costs will be about 100 per cent. up, and electrical costs only about 40 per cent. up. From this it is concluded that electrical costices will described the electrical costs only about 40 per cent. up. only about 40 per cent. up. From this it is concluded that electrical services will drop from being some 6 per cent. of total cost to only 4 per cent. There is an intense appeal to make architects and others concerned electrically minded.

# **Electricity Supply**

REPORT ON ELECTRICITY SUPPLY, DIS-TRIBUTION AND INSTALLATION. (Journal of the Institution of Electrical Engineers, January, 1944). Standardization of voltages considered. Costs estimated. Recommendations for National Plan and two-part tariff.

The Report falls into two main parts, Supply

The Report falls into two main parts, Supply and Distribution, and Installation. Under Supply and Distribution the problem of standardizing the non-standard voltages is considered. Costs are estimated, and it is recommended that standardization of all low-voltage systems should be carried out as a National Industrial Plan. The completion part of the verses. National Industrial Plan. The completion period is put at five years.

On availability of supply it is recorded that of 10.7 million houses some 2.8 millions, 26 per

cent. of the total, remain without electricity.

cent. of the total, remain without electricity. A large part of this number are in sparsely settled districts where supply is uneconomic. No mention is made of wind generators. (See Information Centre No. 1285: 11/11/43). Wayleaves and service charges are discussed, and also the tariff question. The Committee considers the two-part tariff with favour, and thinks that fixed charges should be based on floor areas.

On Installation problems, mention is made principally of safety, and suggestions for general measures as well as for Codes of Practice are discussed.

# **Electricity and Sales**

LIAISON WITH THE ARCHITECT. G. A. T. Burdett. (Electrical Times, December 30, 1943.) Urges that electricity sales officer should keep in close contact with architect when new buildings are being planned and gives reasons.

The first essential in any building in which electricity is to be used is the provision of incoming mains of sufficient capacity. This may entail the provision of a sub-station or transformer chamber, and space for this is often difficult to acquire (especially at later often difficult to acquire (especially at later stages) and the high rent may make it costly. Provision should be made for (a) indirect lighting; (b) space heating, for which panel heaters, inset fires, convectors or tubular heaters are suggested; (c) water heating, usually of storage type; and (d) cooking and kitchen equipment. The hot water storage tank is best placed in the linen cupboard in houses. Author points out that for large buildings with a central supply of hot water. buildings with a central supply of hot water, early consideration is necessary to obtain the required space. The extent to which kitchen required space. The extent to which kitchen equipment can be provided depends on the size and arrangement of the kitchen; and collaboration with the architect and the designer of the equipment is necessary. The sales development officer must ensure that electricity is considered along with other fuels at the design stage, and not as an affect hought. at the design stage, and not as an afterthought.

### Industrial Electricity 1476

INDUSTRIAL POWER SUPPLY. Houghton. (Journal of the Institution of Electrical Engineers (Part I), February 1944, p. 65.) Conditions compared where industrial electric power should come from public or private supply. Private generation of current often worth while, particularly when large quantities of process steam are needed as well.

Most industries can be classed under three heads, namely:—(a) those in which the cost of electricity is relatively a small part of the cost of the product, and where little process steam is required; (b) those requiring both process steam and electricity; and (c) those requiring large supplies of electricity, and in which the cost of power is a large proportion of the total

costs. The first class is the commonest and ought to purchase the power required from public utility undertakings. The second class should consider private generation in a thermal-electric station. The condenser loss in ordinary power stations can be reduced or eliminated power stations can be reduced or eliminated where process steam is required by the use of extraction or back-pressure turbines. The efficiency of electricity generation should be up to 65 or 70 per cent, even with a capacity as low as 150 kW. If the electrical load is greater than the power which can be generated by the steam discharged to process, careful consideration is needed whether to purchase or generate the excess. If the power generated is in excess of the demand, every effort should is in excess of the demand, every effort should

be made to dispose of it to other users.

The overall efficiency of steam and electricity output may reach 85 per cent. A plant requiring 300,000 lb. of steam per hour could generate 11,500 kW. at an annual coal consumption of 136,000 tons. On the other hand, if the nursery wares purposed the total coal if the current were purchased, the total coal consumption would amount to 192,000 tons. consumption would amount to 192,000 tons. In one case quoted, there is a case for private generation when the load factor exceeds 15 per cent. for the highest tariff, and 45 per cent for the lowest. It is even more favourable if d.c. is wanted. In another example, the plant provides 100,000 lb. of steam and 10,000 kW. at a combined efficiency of 76 per

cent., and the coal saving amounts to 18,000 tons annually. The author estimates that 2½ million tons of coal could be saved annually

2s million tools of coal could be saved annually if public supply undertakings distributed steam or hot water in a similar way.

For the third type of industry, private generation is definitely favoured. The capital cost per kW. is generally lower, there are no transmission losses, it is less liable to interruption failure, there is less standby plant, and the output per kW. installed is high.

# 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.

# Demobilization

Q I have followed the question of post-war planning and reconstruction with great interest, but am wondering what is going to be the position of assistants like myself, being in the T.A., called up just before the outbreak of war and since that day completely cut off from my profession. After service on the Burna Border my health broke down; I have been graded category C.1 permanently and feel that gradea category C.1 permanently and feet that now I would be doing far more good back in my job, yet I am told my release is impossible. What action is the RIBA, taking to see that people such as myself are released as speedily as possible when hostilities cease?

The RIBA has set up a Demobilization Committee, dealing with the demobilization of architects. Only members are likely to be able to secure the aid of the RIBA, who assure us that, as far as can be ascertained, Forces at home will have no priority in release over those overseas, and no favouritism will be expressed. The Ministry of Labour states that the matter of different medical grades of men in the Forces affecting their release, is still unsettled and, therefore, the RIBA is unable to make a ruling on this point. The RIBA will give further advice to members if they communicate with Mr. S. P. Spragg, the Acting General Secretary, the Demobilization Committee of the RIBA, 66, Portland Place, W.1.

### Cube Cost of Cottages

With reference to the National Trust Competition, West Wycombe Cottages, what were the prices for foot cube which were ruling in Spring 1939?

Prices for agricultural workers' cottages in the Spring of 1939 varied from 10d. to 1s. 2d. per foot cube.

### 1479 Ideas on House Construction

O I have some ideas concerning speeding up erection of houses, minimizing sound from outside, heating, etc., and should be pleased to know if you could inform me what Committee would be interested to have particulars placed before it.

A We suggest that you might submit your ideas to Mr. A. M. Chitty, M.A., A.R.I.B.A., A.A.DIP., Ministry of Works, Directorate of Post-War Building, Lambeth Bridge House, London, S.E.1. Apart from this you might consider submitting them to the appropriate Committee of the RIBA (presumably the Housing Committee).



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

# HC

# Tyrwhitt

At the Housing Centre, 13, Suffolk Street, S.W.1. Talk on ADAPTING WAR-TIME SITES FOR POST-WAR INDUS-TRY by Miss J. Tyrwhitt. Chairman: W. F. B. Lovett, A.R.I.B.A., A.M.T.P.I.

J. Tyrwhitt: A sound plan must be based upon an adequate survey in which due regard has been paid both to the natural features of an area and to those that man has imposed upon it, many of which —in the course of years—may have become an integral part of the landscape. A set of A set of twelve maps has been prepared as a simplified

twelve maps has been prepared as a simplified version of such a survey.

At the present time labour for planning schemes is terribly—perhaps even catastrophically—scarce and there is danger that, unless an obviously clear and rapid method of planning survey is put forward, very many plans will be made, based upon no surveys at all. It is not suggested that this set of twelve maps represents a diagnostic study of an area—they are more in the nature of a an area—they are more in the nature of a preliminary overhaul, a general reconnaissance. All that is claimed for them is that they serve to throw into relief the inter-relation of the main characteristics of an area.

The work is experimental and the intention was threefold :-

was threefold:—
(1) To discover whether it was possible to produce an adequate survey of an area from information already available in published form.
(2) To discover the minimum number of survey maps that were really necessary for a planning scheme.

a planning scheme.

(3) To discover whether it was possible to work out a technique for drawing out the survey maps in a manner
(a) that would be attractive to the average

town councillor;
(b) that would not demand too high a degree of artistic skill on the part of the draughtsman; and

s - s r - t d e 





# STEEL:

the most concentrated form of strength for all structures

THE BRITISH STEELWORK ASSOCIATION



# $A \cdot N \cdot T \cdot I \cdot C \cdot I \cdot P \cdot A \cdot T \cdot I \cdot O \cdot N$



The designer of beautiful architecture who anticipates and provides in his design for all the essential "accessories" to his building will go a very long way towards achieving perfection.

There is no accessory more important than Fire Fighting Equipment: it must be there ready for immediate use. But modern architects have devised many ingenious arrangements for recessing and blending it into the scheme. Copies of Information Sheet No. 105 giving dimensional details of equipment and recesses are available to the profession.





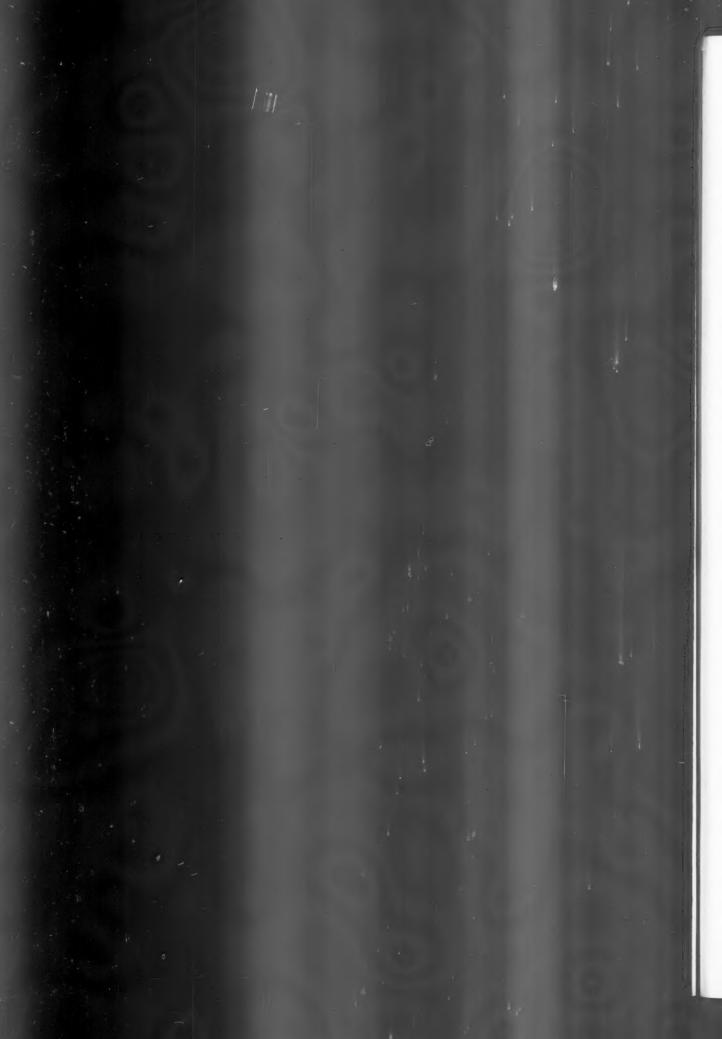
# THE PYRENE COMPANY LIMITED, Fire Engineers

GREAT WEST ROAD, BRENTFORD, MIDDLESEX

Telephone: Ealing 3444 (14 lines).

Telegrams: "Pyrene, Brentford."





(c) that would reproduce clearly and graphically in black and white.

Until recently town planning has considered the prerogative of the architect, the engineer or the surveyor. The official the engineer or the surveyor. The official town planner has first to be a member of one of these three professions. Gradually it is becoming apparent that other professions have a great part to contribute to town planning: The geographer, the economist, the doctor, the sociologist—and many others. In addition, war-time contacts have shown that the people of a town—the general populace, not only the property owners—are prepared, indeed anxious, to take not only an interest but an active part in the re-planning at least of the immediate area in which they

Survey before plan. If we believe this to be necessary for the experts—who, presumably know quite a bit about the problems of the -how much more is it necessary for the populace—who must be expected to know very little about it at all.

Geddes ideal Civic Survey Centres may not yet be possible, but if one could get the survey maps, just the essential surveys, into the hands of the public of a town, might one not hope that a good planning scheme for that town would be backed by the consent and goodwill of the townspeople? Might one not equally hope that a bad planning scheme—warped perhaps in deference to local interests or for fear of local sentiment-would be rejected by a populace that knew by having studied the survey maps, that certain short-term or pennysaving measures would not be for the general welfare of the town as a whole? This is not to suggest that every Tom, Dick and Harry living in the area will either be able or willing

and the hope-underlying this set of simplified Planning must be based on survey: Planning must be carried out with the co-operation of the population. Unless we hold firmly to the population. Unless we hold firmly to these two criteria we shall get either monu-mental schemes imposed by a dictator or derelict areas forgotten by a time-serving parliament. A planning democracy will be something new—and rather exciting.

to study survey maps, but only that all those who are able and willing should have the opportunity of doing so. This is the idea—

TWELVE SURVEY MAPS

Now to the maps. There are twelve of them.

The first three show the natural features of an area: the next eight various "humanized" aspects and the last a synthesis of some of the physical features. This forms a sort of base map for the subsequent plan. The information shown can be deduced from published sources. The technique of presentation can easily be mastered and, as no colour is used, prints of photographs of the original maps can readily be made for distribution to members of local government committees and others concerned

with planning.
It is advisable to repeat some one general so that places can be readily related by eye throughout the series. In the twelve maps shown, the line of the river is included through-

out for this purpose.

The whole series of maps must, of course, be drawn to the same scale. In this case the scale chosen was two miles to the inch. In the reproductions this is reduced to 1 mile

to the inch.

For actual planning purposes all the survey maps must be on transparent paper. If a black and white technique is adopted this is quite simple: the original drawings are done on stout tracing paper from which dyeline and true-to-scale prints can easily be taken. The originals are then available for the use of the planning office. The special features of each of the maps are:—

Contours from Ordnance Survey One Inch to One Mile Fifth Edition maps. Ordnance Survey Six Inches to One Mile maps (for additional spot-heights).

This map is quite straightforward. contour lines are shown at 508 intervals and tinted at 2,008 intervals and spot-heights are included. The additional feature on this map is the emphasis of steep slopes. Two gradients are shown: over 1 in 7 and between 1 in 7 and in 20. In planning, the slope of the ground is often of greater importance than its altitude and the strengthening of these areas serves to throw the landscape of the district into sharper relief. For instance the central hill only just rises to 300 ft., but its steepness and suddenness in the river plain make it a more prominent landmark than much of the rolling downland to the south-west.

ROCK TYPES

Adapted from Geological Survey One Inch to One Mile maps, with help of Geological Survey Sheet Memoirs.

A direct geological map--either of solid or drift geology—is not of immediate value to the planner. He is more concerned with the relative character of the rock types than with their relative age and therefore this lithological map has been included. This is the only map for which the survey draughtsman may require expert guidance, as the data is derived, rather than directly copied, from the source material. This guidance could be given by any geographer—and most planners would probably be able to consult with a member of the staff of either a university or a secondary school. The map is a particularly valuable one and—even failing expert help—an attempt should be made to interpret the geological survey maps in this way.

Streams, springs, wells, reservoirs, and land liable to flood, as shown on Ordnance Survey Six Inches to One Mile maps. Other material deduced or adapted from Geological Survey One Inch to One Mile maps, Sheet Memoirs, and Memoirs (county) on Water-Supply.

In this map the location of existing water courses, springs and wells is combined with the demolition of areas of permeable and impermeable land. Land liable to flood; zones of springs; the routes of piped water supplies (when this information is available) and water-sheds can well be included in this map.

FARMLAND Land Utilization Survey One Inch to One Mile maps, and County Reports (The Land of Britain, edited L. Dudley Stamp).

This is a direct transcript of arable and pasture land, heaths, orchards and built-up areas from the Land Utilization Survey. All other categories of land (mainly woodlands) have been left blank.

SITES FOR PRESERVATION

Land Utilization Survey One Inch to One Mile maps, with additional information on Commons supplied by Ministry of Town and Country Planning.

County Reports of Royal Commission on Ancient Monuments, Victoria County Histories, Ordnance Survey Six Inches to One Mile maps.
Woodlands and Parklands (whether in public

Barrows and Trackways; historic buildings and monuments are all shown on the same map. In this case a disused canal, that might form part of a footpath system, has also been included.

DISTRIBUTION OF POPULATION
1931 Census Reports: County Volumes Parish tables. Parish boundaries and settlement distribution as shown on Ordnance Survey One Inch to One Mile Fifth Edition maps. (Some additional Fifth Edition maps. (Some additional detail is shown on Ordnance Survey Six Inches to One Mile maps, but these are usually less up-to-date).

This method of presentation of the groupings of the population has been found the most satisfactory, but it breaks down when there is

a great difference of population between towns and villages to be shown on the same map. and villages to be shown on the same map. The population dots have been grouped approximately in the pattern of the built-up areas in which the people live. Bus routes and railway stations are also shown on the same map, and areas more than a mile from a bus route have been tinted, to bring out their inaccessibility. The railway line has not been included as the trains can only be boarded at the stations. The even pattern of spacing of villages over the good farming land—1½ to 2 miles apart—is not unusual.

ADMINISTRATIVE AREAS AND POPULATION CHANGES

Ordnance rdnance Survey County Diagrams of Administrative Areas (Half Inch to One Mile).

Census Reports.

Statistical summaries for individual parishes for period 1801-1901 are available in tabulated form in second volumes of Victoria County Histories.

Only the administrative boundaries that most directly affect the social life of the area have been shown, that is the various local government boundaries, the parliamentary divisional boundary and the petty sessional boundaries. In addition, population changes between 1851 and 1931 are shown by hatching the built-up areas within which these changes have occurred. The information is available only for civil parishes as a whole, but it has been considered misleading to imply that any considerable population changes can have occurred in the unbuilt-up areas.

OCCUPATIONS AND INDUSTRIAL WORKS Statistics from 1931 Census, Industry Tables, Table 3.

Locations of industrial works from:-

Kelly's County Directories. H.M. Stationery Office Lists of Mines and of Quarries. Ordnance Survey Six Inches to One

Mile maps.
Land Utilization Survey One Inch to One Mile Fifth Edition Maps

Information regarding industrial occupation can only be obtained for Rural and Urba... Districts as a whole, so that it is important to devise a technique which gives the observer the actual numbers of workers in each main occupational group, and not only show them as a percentage of the total. The method shown on this map was finally considered to the most satisfactory of those tried out. This map also shows the villages possessing a water supply, electricity and gas, and the electricity transmission grid. The routes of the water and gas mains are not shown as these were not available from any published

Finally the map shows the location of all pre-war industrial undertakings though the numbers employed at each could not be included-again for lack of published informa-

tion.

Both these two gaps could have been filled by local enquiry but the gaps would seldom seriously affect the planning schemes as the information that has been shown would normally be sufficient to deduce the rest within reasonable limits.

COMMUNICATIONS

Ordnance Survey One Inch to One Mile Fifth Edition maps.

Ordnance Survey Half Inch to One Mile

Ministry of Transport Road maps. Local 'bus time-tables.

Ministry of Transport Road Traffic Census 1938.

Four categories of roads have been shown and two of railways. Footpaths have not been shown but might usefully be included if this

did not complicate the map too much.
Bus routes have been included and traffic densities along main roads. Railway densities are not added as the railway track is at all times kept apart from the surrounding countryside and the life of the district is little affected

whether two, twenty or two hundred trains pass over the tracks daily—except at level crossings or entrances to tunnels.

EDUCATION AND MEDICAL SERVICES

Board of Education List of Public Elementary Schools in England (H.M. Stationery Office).

Schools (H.M. Stationery Office).

Ordnance Survey Six Inches to One Mile

maps for locations. Hospitals Year Book, 1938. Kelly's County

Directories. Schools and hospitals have been shown at their approximate position in relation to the built-up area of each town or village, but similar information was not available for doctors or district nurses. The bus routes have again been included on this map because of their importance to the school children.

SOCIAL AND COMMERCIAL FACILITIES

Shops—Kelly's County Directories. Banks—Bankers' Almanack and Year Book.
Ordnance Survey One Inch to One Mile

Fifth Edition maps.

Post Offices—List of Post Offices, Cinemas—Kine Year Book.

Places of Worship and Public Halls-Kelly's County Directories.
Ordnance Survey Six Inches to One Mile

maps. The particular facilities shown were chosen for their value in pointing out the importance and aliveness of the towns and villages; and also because reasonably up-to-date information on these facilities could be obtained without any field survey work. Both the last two maps need to be studied together with the map of Population Distribution before their significance is apparent. The boundaries of the built-up areas are again included on this map to give a general impression of the area within which these facilities are concentrated. The scale of the map did not make it possible to show the facilities geographically though this information would have been available in the case of churches, post offices and public-houses from the Ordnance Survey

LAND CHARACTERISTICS

maps.

Based upon a synthesis and interpretation of the foregoing maps with additional information from such local soil surveys as are available:

available;
This map is derived from a judicious blending of the first four maps of this series. It would be possible to include other features on it—such as an indication of the liveness and size to the towns and villages, but the degree of reduction of this series of maps made this inadvisable. A suggested method of measuring liveness of towns and villages is to list, by initials and symbols, the villages is to list, by initials and symbols, the existence in Towns of a Market, Secondary Schools, Assembly Hall, Hospital and Cinema; in Villages, Water Supply, Electricity Supply, Public Telephone, District Nurse and Village

# SMMT

# A. F. P. Phillips

April 20, at the annual general meeting of the Society of Motor Manufacturers and Traders. Speech including a reference to NATIONAL MOTORWAYS by the president, A. F. Palmer Phillips.

A. F. P. Phillips: The cost of a national system of motorways running to £100,000,000 happens to represent the surplus payments made by motor users in the last seven years of peace.

I understand from public statements that the principle of motorways has been accepted by the Government, but it is disappointing to

hear at the same time that only experimental stretches are to be considered. The experts who are in daily touch with our road usage are satisfied that a comprehensive system of long-distance roads suitable for modern traffic is essential, and I would take this opportunity of complimenting the County Surveyors on their enterprise in providing an outline of such a system which, I believe, has been substantially adopted by other prominent technical bodies also closely interested in the question.

would urge the Government to declare definitely for a policy of national motorways on lines at least approximate to those suggested and at the same time to arrange to tackle the equally serious problem of making suitable for their purpose the large number of existing roads which to-day, through growth of traffic or changing means of transport, are almost totally unsuitable for the work they are called upon to perform and which, in the opinion of those competent to judge, provide the cause of the vast majority of road accidents to-day, the number of which will not be seriously reduced until such steps as are suggested are taken.

On the question of finance a good deal of misapprehension has been created by the loose quotation of large sums of money alleged to be involved. Apart from the fact that the estimated cost for the proposed system of roads of 100 millions would be spread over the number of years required for its construction, the balance of payments made by motor users to the Exchequer in the last seven recorded years before the war showed a surplus of just that sum over and above the total cost of constructing, maintaining, cleaning, sweeping and lighting every road, street and alleyway in Great Britain during that period. The financing of such a programme should present no problem and could be done by way of a loan, the services for which could be provided out of a much reduced motor taxation.

# LPC

# Reiss

April 17, at Frascati's, Oxford Street, Meeting of the London London. Publicity Club. Talk on REBUILDING LONDON — NEED WE FOLLOW NEW YORK? by R. L. Reiss.

R. L. Reiss: A comprehensive plan for the gradual replanning of London County has been published by the LCC. The replanning of London is a vital concern not merely for Londoners but for the nation at large, in fact, for the Empire. The LCC plan is not submitted as a final proposal but the public is invited to consider it and to make constructive suggestions.

It is natural that when considering London, one should look for guidance both as to what we should do and also what we should avoid, to the nearest parallel, and New York most naturally occurs to one's mind. But first let us consider what we mean by London In Wren's day London really meant the City of London. Westminster was a separate city, of London. Westminster was a separate city, Southwark had a separate identity. Most of what now constitutes London County was still open fields or market gardens or a series of detached separate communities. Towards the end of the last century, when the London County Council was first brought into being, most of the then continuously built-up London was included within its boundaries. was included within its boundaries. Even then, it is true, there were growing suburbs outside of which West Ham was the most populous. During the last 50 years, although the LCC boundaries remain what they were, continuously built-up London stretches far away beyond them. It is now possible to go through continuously built-up streets for 30 miles from one side of London to the other. In fact, London is now really the 440,000

acres constituting the Metropolitan Police district and not merely the 74,000 acres within London County boundaries. Londoners have a general idea that during the 20 years between the wars there was a continuous spread of the London suburbs. Most also realize that within the London County boundary itself there was a considerable amount of redevelopment and rebuilding. A few, however, realize the extent of the transformation which took place during that period. during that period. May I remind you of a few of them.

1. Between 1921 and 1931 the population of London County fell by about 90,000, but between 1931 and 1939 it fell by a further 360,000, and yet there were actually more dwellings within the county in 1939 than there were in 1921, but the average size of the family occupying them was much smaller. was a migration of population outwards into the suburbs. Meanwhile, what was happening in outer London, i.e. that portion of the Metropolitan Police district outside the county boundaries? Between 1921 and 1931 the population of outer London went up by over 800,000, and between 1931 and 1939 by a further 800,000. Actually in 1939 there were 700,000 more people in outer London than there were within the county boundaries. This large increase in outer London was only partly due to movements from Central London. It was due in greater measure to migrations from other parts of the country—in particular from the depressed areas. The cause for this was the fact that an overwhelming proportion of the new light industries settled in outer The first thing therefore to consider in the rebuilding of London is as to whether it is in the interests of Londoners and of the nation that London should continue to spread in size and increase in population. The Barlow Commission which reported at the beginning of the war, emphasized the national menace presented by the concentration in Greater London—a menace both socially and strategically.

2. As a result of this, London should no longer be considered merely as the area within tonger be considered merely as the area within the London County but the whole of greater London. The LCC plan, therefore, is only a plan for the central area and must be considered in relation to the plan for the whole London region which is being prepared in the Ministry of Town and Country Planning. 3. Because of the growing spread of London

and because of the congestion in the central area, the LCC between the wars adopted a

area, the LCC between the wars adopted a three-fold policy with regard to housing.

(a) At the start they acquired all available residential building land for housing schemes.

(b) Because there was not enough of this they acquired large estates outside the boundary. (c) Because the distance of these estates from

the workplaces of large numbers of people living in the central slums, they built 4- and 5-storey tenement dwellings within the county, rehousing people in many cases at densities of over 200 persons to the acre as compared with the 40 or 50 on their outer estates.

4. As the result of this and of the large amount of speculative building in the suburbs, those people who remained in central London had fewer open spaces and were still further

removed from the open country.

5. Finally, the LCC in conjunction with the neighbouring county authorities embarked on a policy of acquiring land outside greater London to preserve a green belt round it.

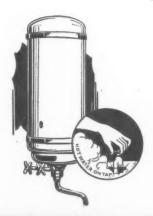
The fundamental questions which have to be considered in connection with the rebuilding of London are:

(a) Whether the population and industry of greater London should remain stationary, should increase, or be reduced. We have to know what population we are rebuilding for.

(b) If the population is to remain stationary or increase, rehousing in the central area will have to be done at high densities, and it will be difficult to acquire sufficient additional open space. The LCC recognize that half a million people should be decentralized from London County, but even then the LCC plan provides



# 'Light Fires at 6 a.m. - Not me!'



With a EWART Geyser—a Multi-point—Bath—or a Sink Geyser—you can obtain INSTANTANEOUS hot water—cheaply—without waste of fuel—at any time of the day or night. EWART specialist service in water heating is at the disposal of all interested—architects, builders and users.

# EWART GEYSERS

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

for a large part of London to be rebuilt at densities of 200 persons to the acre.

(c) If the population is to be reduced, where is the surplus population to go, and closely associated with this, what about the redistribution of industry?

Now, let use digress to consider New York

Now let us digress to consider New York. In central New York there are far higher densities and far higher buildings than in London, or than would be legal in London under the London Building Act, but in con-sequence land values in central New York are much higher than in London and rents are much higher. On the other hand, in the outer parts of New York densities are lower than in the outer parts of London and land values are lower. I suggest emphatically that instead of trying to compete with New York with high buildings and high densities, New York shows us what not to do. The slum conditions of New York are, in my opinion, far worse than the slum conditions in London, and the problem of clearing the slums in central New York is even more difficult than in London. So far from increasing the heights of our working-class tenement buildings, we ought to reduce them. Instead of working to an increasing concentration, we should de-centralize. It will only be possible to get a dignified and reasonably spaced London if it becomes part of national as well as social policy, to decentralize both industry and population from greater London, and par-ticularly from the county area. Only in this way will it be possible to rebuild the city satisfactorily, to preserve adequate open spaces, to widen our traffic routes and to mitigate the intolerable congestion upon the tubes and buses. Only in this way will it be possible to give to every working-class family reasonable conditions of life—only in this way will it be possible to obviate the strategic dangers of London as a large target area. In

the past we have tended to measure the greatness of London by its size, to be dis-appointed if it did not keep pace with New In future the measure of our success will be the extent to which we can reduce the population of London and so give better living conditions to those who remain.

# NFBTE

# Memorandum

Following its deputation to the Minister of Health on the Advance Preparation of Housing Sites for the Government's post-war housing programme, the National Federation of Building Trades Employers has sent an explanatory memorandum to the Society of Town Clerks, the Institution of Municipal and County Engineers, the Society of Clerks of Urban District Councils, and the Institute of Municipal Treasurers and Accountants.

Considerable apprehension, says the memorandum, was caused by the proposals in Circular 14/44, issued by the Ministry of Health, for the Advance Preparation of Housing Sites to be carried out by the grouping of sites and letting the work to large contractors. That apprehension was increased when it appeared that a small list of some 60 contractors, considered as specially capable of doing the work, had been prepared by the Ministry of Works.

It appeared to the Federation that the

proposals in practice would be neither economical nor in the best interests of the

country, while they would result in further detriment to the small and medium builders whose existence and efficiency will be so vitally necessary to the successful and expeditious carrying out of the post-war building programme. building programme.

On Friday, March 31, 1944, a deputation of members of this Federation, including the President of the National Federation of Registered House-Builders, therefore waited upon the Minister of Health, who was accom-panied by the Director-General to the Ministry of Works, and put before him the views of

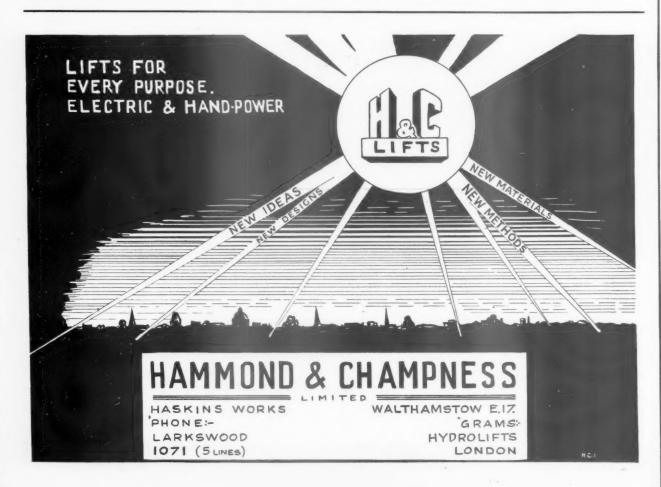
the two Federations.4

The Minister assured the deputation that the Government fully recognised the good housing work done by small and medium builders before the war, and appreciated that if houses were to be built quickly after the war it would be necessary to employ builders of all types. He further said that in connection with the advance preparation of housing sites it was not intended to distinguish between larger or smaller firms nor to restrict Local Authorities to a select list prepared by the Government. Local Authorities could advertise for tenders for the work in the ordinary way, or, if they preferred, make their own select lists. The Ministry of Works would ensure that, where necessary, plant would be made available for the finally accepted tenderers.

As a result of the interview, concludes the memorandum, it is clear that Circular 14/44 has been misunderstood, and that Local Authorities are free, if they so choose, to carry out this work in accordance with their normal practice and not under the grouping proposals. The National Federation hopes that Local Authorities, whether they decide to enter into a grouping arrangement or not, will give local builders the opportunity of

tendering for the work.

\* See Architects' Journal, April 13, p. 288.



# ENERGY FOR THE NATION'S FACTORIES, WORKS & PUBLIC SERVICES

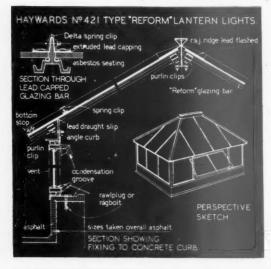
The last war taught this country the tremendous industrial and military importance of nation wide supply of electricity. In the quarter century that has elapsed electric transmission by C.M.A. Cables has increased by leaps and bounds and is daily sustaining the nation's enormous production of munitions of war.



Union Cable Co. Ltd.

# REFORM LANTERN LIGHTS Regd. Trade Mark ETC

HAYWARDS Roof Lights include Lantern Lights, Skylights, Conical Skylights, Dome Lights, Laylights and special types to cover all architectural requirements. The "Reform" Glazing Bar is of particular merit and is generally approved throughout the industry.



Enquiries are invited for present or post-war requirements. We shall be happy to assist you as far as possible on work in preparation. CAN WE SERVE YOU?

Delta spring clip
extruded lead capping
asbestos seating
SECTION THROUGH
LEAD CAPPED
GLAZING BAR.
spring clip
bottom
stop
purlin clip
angle curb
purlin clip
angle curb
sizes taken
overall asphalt

SECTION SHOWING FIXING TO CONCRETE CURB

HAYWARDS LTD. UNION ST., BORO', LONDON S.E. I Telephone: WATErloo 6035/9

# CROFT ADAMANT

PRECAST HOLLOW CONCRETE

# FLOOR BEAMS

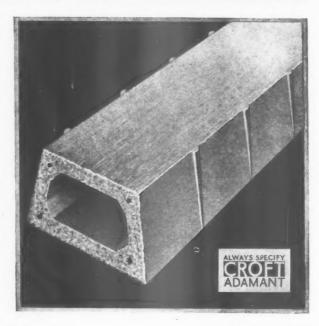
FOR GREAT STRENGTH, EASY AND RAPID ERECTION

Made with Best British Portland Cement and Granite Aggregate from our own Quarry.

Your enquiries are invited.

CROFT GRANITE, BRICK AND CONCRETE CO. LTD. CROFT, near LEICESTER

Telephones-Narborough 2261-2-3



Tel.—Leighton Buzzard 3228
Tel.—Widnes 2656-7

London Office evacuated to 57 Rosebery Avenue, Linslade, Leighton Buzzard. Branch Office and Works—West Bank, Widnes.

# LUMINOUS PAINT

used for three years for London's luminous lamp-posts and road obstructions.

# FIRE-RESISTING PAINT

conforms to the Ministry of Home Security Specn. BS/ARP 39. Safeguards fire risks.

# ANTI-HUMIDITY PAINT

counteracts condensation.

GOVE

GOVERNMENT & PUBLIC AUTHORITIES
PLEASE NOTE

Supplied for approved purposes.

PALORIT LTD., PRINCES HOUSE, 39 JERMYN ST., LONDON, S.W.1

Tel.: REGent 0056/7/8

One of the first things to need attention is the roofs. For repairing a damaged roof C.S. hand-made No. 7 Double Roman Tiles are excellent. None more so!

First, they are light of weight. Second, can be fixed easily and securely so as to preclude any risk of them being blown off in gales. Third, being made by hand, they do not laminate or crack with frost.

C.S. Double Roman Tiles are equally suitable for new roofs. These handsome tiles afford permanent protection to the buildings they cover.

Having large stocks of No. 7 Double Roman Tiles we are able to deliver any quantity on receipt of your instructions. State your requirements.



COLTHURST · SYMONS & Co. Ltd. Patent Tile Works . Bridgwater · Somerset

CONTRACTORS TO ADMIRALTY, WAR OFFICE, AIR MINISTRY, H.M. OFFICE OF WORKS, Etc.



Telegrams: " Construct, Gates head."

Telephone: Gateshead 72246. London: Holborn 9811.

# THE MANUFACTURERS

of

Cementone PRODUCTS\_

are, of course, on Service for the Government's special wartime requirements from the Paint Industry, helping to solve many services' problems.

Meantime, you may have problems connected with equipment production factories, improvising or rehabilitating housing accommodation etc., etc. on which we may be able to help you.

The Cementone Handbook of technical advice on Waterproofing, Hardening, Colouring, etc. of Concrete, Plaster, Asbestos, and other building materials, is very practical, and at your service on request to



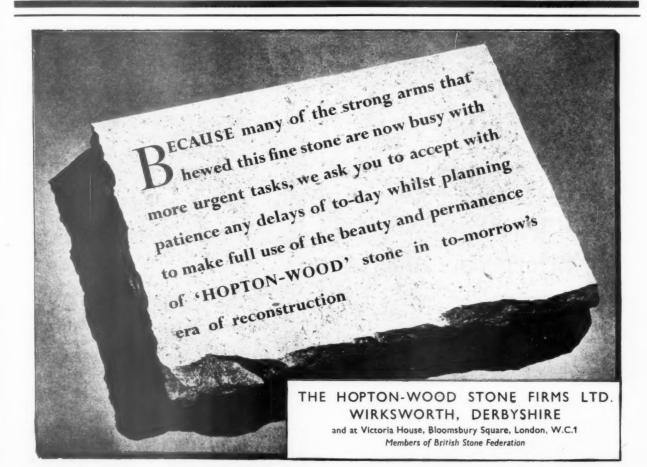
SONS & CO. LTD.

CEMENTONE WORKS, WANDSWORTH, S.W.18

Telegrams: Cementone Phone London.

Telephone: BATtersea 0876

Established 1776



# KONQUEST CHIMNEY TOP

OF THE

# FUTURE

We succeed where others fail in overcoming severe smoke trouble.



PATENTED

Specified by Edinburgh Corporation

Full particulars upon request

KONQUEST PRODUCTS LTD.

31, BEETHOVEN STREET, LONDON, W.10

★ Price 5/ but obtainable FREE OF CHARGE

# The best practice in LEAD

is fully detailed in

# \*44 Information sheets

Copies of sheets of special interest may be obtained free of charge by architects, housing authorities, builders, plumbers and students who will write for the list of Lead Technical Publications and indicate thereon the sheets they wish to receive. Any number of sheets is available in this way without charge. Alternatively "complete sets" are obtainable at a charge of 5/-. Lead Industries Development Council, Eagle House, 109 Jermyn Street, London, S.W.1.

h



# Stainless Steel METAL WORK

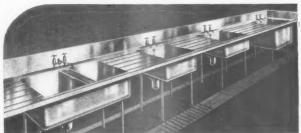


Illustration shows a range of Stainless Steel Sinks installed in a

We are Specialists in

# STAINLESS STEEL METAL WORK

Institute, Hospital, Hotel, Ship and Domestic Use

STAINLESS STEEL SINKS, SINK UNITS, SINK RANGES, TABLE TOPS, SHELVINGS, TANKS, PIPING, ETC.

Can be made to suit special requirements

Write for Catalogue to

Associated Metal Works 30 St. ANDREW'S SQUARE, GLASGOW, C.I.

# 4 times Better BLACK-OUT VENTILATION and Greater Durability

Unique in conception, the "Spirovent" Ventilator has rapidly become recognised as by far the best solution to the problem of black-out ventilation.



# SPIROVENT' BLACK-OUT VENTILATOR

(Patents pending in Great Britain, Canada, U.S.A.)



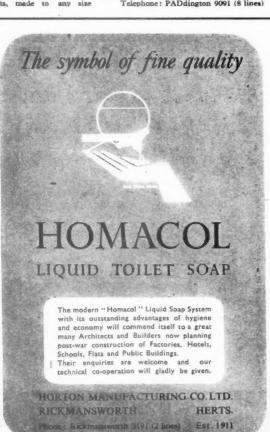
Black-out Panela incorporating "Spirovent" Units, made to any size

d

Practical tests prove it to be 150% more efficient than common types of sheet metal louvres, and 400% better than terra-cotta louvres used in pairs. At the same time, obscuration is absolutely complete. • Easily and quickly installed. Thousands already supplied to Government Departments, Municipal Authorities, Factories, Hotels, etc.



4, South Wharf, Paddington, London, W.2
Telephone: PADdington 9091 (8 lines)

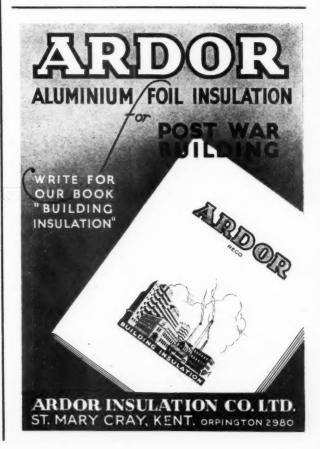




Withdean Court, a delightful block of flats at Brighton, is PROTECTED by Lead-lined Astos Dampcourse. Astos is impermeable; does not perish, and gives lasting service in the most exacting conditions. One quality only; two grades: Standard and Lead-lined. Write for samples and Publication No. 351 giving full detailed instructions.

As our Industry is controlled and priority has to be given to Government work, our ability to execute orders is subject to the regulations imposed on our Industry by the Ministry of Works.

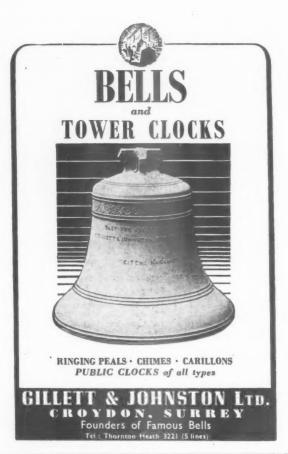
THE RUBEROID CO. LTD.
2, COMMONWEALTH HOUSE,
NEW OXFORD STREET,
L O N D O N——W. C. I



# LL®YD BOARD



LLOYD BOARDS LIMITED 86 STRAND LONDON W.C.2

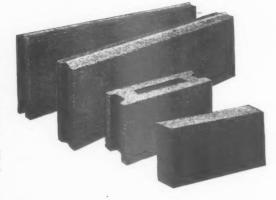




BALLAST CLINKER PLASTER HOLLOW TILE

SAND AND CEMENT FACED BLOCKS SAVE TIME AND LABOUR AND NEED NO FINISH-ING COAT.

All types of PRECAST CONCRETE UNITS made.



J. A. KING AND COMPANY LIMITED 181 QUEEN VICTORIA STREET, LONDON, E.C. 4

TELEPHONE CENTRAL 5866 4 LINES

TELEGRAMS KINOVIOUE CENT LONDON

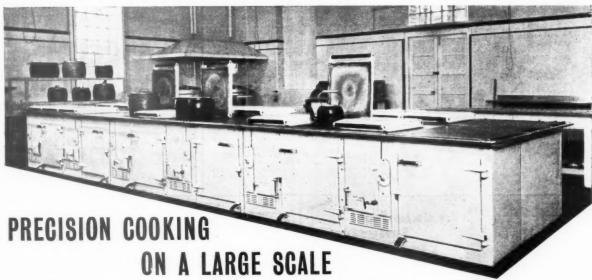


Our specialists are at your service.

# **ACKBURN & SONS**

INCORPORATING: RUSSELL EDWARDS & CO. AND

PRESTON-LANCS



This battery of Aga Heavy Duty Cookers, now in use at the Derby Canteen of the L.M.S. Railway, shows how cooking on a large scale can be undertaken with an accuracy usually found only in mechanical production. All the heat of the fires is kept stored within the cooker, output being thermostatically controlled at every cooking point. It is this that enables Aga Heat Ltd. to guarantee an exceptionally low fuel consumption. The kitchen remains cool, fume-free and dust-free. Refuelling is necessary only twice or three times in 24 hours. Meanwhile, the cook can maintain an unvarying quality of cooking at any hour of the day or night.

Regd. Trade Mark

AGA HEAT LTD. (PROPRIETORS: ALLIED IRONFOUNDERS LIMITED) ORCHARD HOUSE · 30 ORCHARD STREET · LONDON, W.I.

# 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 Monday 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 9911

### GOVERNMENT OF NORTHERN IRELAND.

Applications are invited for the post of Housing Inspector in the Ministry of Home Affairs. The appointment will be temporary and will be terminable at any time on one month's notice.

AGE: Applicants must be not less than 35 unless medically unfit for military service.
QUALIFICATIONS: Candidates must be qualified Architects and must have first hand and fairly extensive experience of housing work.

REMUNERATION: The salary will be fixed according to qualifications and experience within the range of £350—£500 per annum. In addition a war bonus of 19s. per week is at present payable.

Applicants should write quoting EA.913A to the Ministry of Labour and National Service, Room 432, Alexandra House, Kingsway, London, W.C.2, for the necessary forms which should be returned completed on or before 17th May, 1944, together with copies of two recent testimonials.

### CITY AND COUNTY OF THE CITY OF EXETER.

APPOINTMENT OF CITY ARCHITECT.

Applications are invited for the above appointment at a salary of £900 per annum rising by annual increments of £30 to £1,000 per annum plus cost of living bonus now £33 16s. 0d. per annum. Applicants must not be under 35 years of age.

The person appointed must be a member of the Royal Institute of British Architects and will be responsible for designing and carrying out the Council's Architectural work, including its Housing and Educational Building Programmes.

Building Programmes:
He will be required to advise the Council on all Architectural matters under its control, and be responsible for the upkeep and maintenance of the Council's Buildings and Properties and the control of the staff

for the discontinuous and Properties and the control of the engaged on such work.

The appointment will be subject to three months' notice on either side and to the provisions of the Local Government Superannuation Act, 1937. The person appointed will be required to pass a medical examination. Applications stating age, qualifications and full record of experience, together with copies of three recent testimonials should be sent to the undersigned not later than the 2nd June, 1944.

No application forms will be issued.

C. J. NEWMAN,

Town Clerk.

Town Clerk's Office, 28th April, 1944.

### CARDIGANSHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of an Architectural Assistant in the above Department, which will be made permanent in twelve months if services are satisfactory.

Candidates must have had good general experience and be capable of preparing specifications and quantities. Applications, stating salary required, qualifications, age, experience and when free to commence duties, accompanied by a copy of one recent testimonial and the names of two referees, to be sent to the undersigned not later than Monday, 15th May, 1944.

IVOR EVANS, Clerk of the Council.

County Council Offices, Aberystwyth, Cardiganshire. 27th April, 1944.

# 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

JUNIOR ARCHITECTURAL ASSISTANT required for West Norfolk. Apply stating experience, age and salary required, to Box 271. Permanent position with good prospects. [Architect and Surveyor].

TEMPORARY ARCHITECTURAL ASSISTANT required for Architectural Section of Local Authority (Greater London Area). Salary may be up to £400 plus war bonus, according to qualifications and experience. Before any appointment is made the approval of the Ministry of Labour and National Service will be necessary. Box 617.

PIRST CLASS ARCHITECT-DRAUGHTSMAN wanted for new firm engaged on Prefabricated Housing, steel framework and new type of panels. Interesting work. Good salary and fine post-war prospects. Work Central London, and to start immediately. Write fully, stating age, experience, and salary required, also if exempt Roy 618. stating age, experiexempt. Box 618.

ARCHITECT required by the Gambia Government for one tour of 12 to 24 months in the first instance. Salary £1,000 a year. Free quarters and passages. Candidates should be Associates of the Royal Institute of British Architects, and be competent to prepare plans for a new Government House, schools, hospitals and other new Government buildings. Applicants should write quoting £.911A to the Ministry of Labour and National Service, Room 432, Alexandra House, Kingsway, London, W.C.2, for the necessary forms which should be returned completed on or before 24th May, 1944. 615

ARCHITECT AND DIOCESAN SURVEYOR, West Country, requires temporary junior assistant. Suit one awaiting calling up or exempt. Accommodation with principal. Apply giving full particulars to

# 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.

COST INVESTIGATOR AND MEASURING SURVEYOR, would like situation in Lancashire district.—18 years' experience with contractor and two years' experience with Quantity Surveyors. Box 268.

ARCHITECT, A.R.I.B.A., A.M.T.P.I., would be glad to undertake preparation of drawings in own office in Birmingham district. 15 years' experience in varied high-class work. Box 269.

ARCHITECT, L.R.I.B.A., 33, married, exempt M.S., seeks permanent position in Southern Counties; 15 years' experience in private and public offices; allround knowledge architectural design and construction; surveying, leveling, estimates, etc. Salary £900. Write Box 274.

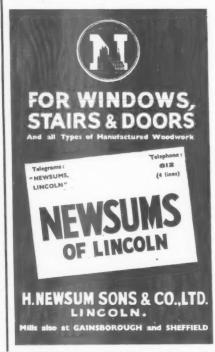
PROBATIONER, R.I.B.A., aged 17 years, with matric. and knowledge draughtsmanship, taking recognized evening course, requires permanent position in architect's office; London area. Box 282.

ARCHITECTURAL ASSISTANT, member of the R.I.B.A., requires post with architect or group working on post-war design and planning, preferably in country near London. Experienced in housing, schools, civic buildings. Box 283.

ARCHITECT'S ASSISTANT, age 24, desires progressive post in Midlands; 6 years' experience in all types of work. Salary by arrangement. Only progressive firms need apply. Box 285.

ARCHITECT, SURVEYOR AND CLERK-OF-WORKS, with over 25 years' theoretical and practical experience in all branches of the profession, seeks permanent and responsible position. Experience includes war damage, dilapidations, property management and maintenance, and a sound knowledge of estate agency; not liable for military service, rendered war service during 1914-18. Box 286.

Classified Advertisements continued on page xlviii.



FOR

Irish



# Whatever the size of the opening,

a gate for

whatever the function of the gate, whether it is required to keep things in or out, or cope with a constant stream of varied traffic, if it is a Bolton Gate, it will fulfil its purpose with absolute efficiency.

industry

Catalogue on request.

BOLTON GATE CO. LTD., BOLTON, LANCASHIRE

Telephone: Bolton 4240 (2 lines)



# BRUSH

AT



YOUR

SERVICE Wilfrid Langton Ltd. 5 STRATFORD PLACE. MAYFAIR 5531



.... no doubt that the silent efficiency of the Fordham Cistern will be one of the many reasons why it will be specified by Architects and Contractors in the future. Attractive in appearance the shell is a one-piece unbreakable steel pressing, strong and light and therefore easy to install. A sound engineering job Fordham Cisterns will continue to give long trouble-free service.



Phone: Wolverhampton 23861

FORDHAM PRESSINGS LIMITED, DUDLEY RD., WOLVERHAMPTON
Irish Agent: Messrs. D. GAMBLES & Co., 63, Dublin Road, Belfast,

To be published shortly-

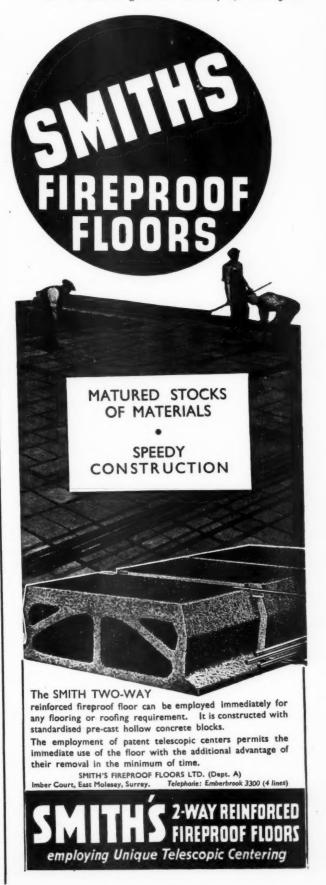
# SPECIFICATION 1944

Edited by F. R. S. Yorke, F.R.I.B.A.

THE ANNUAL REFERENCE WORK
FOR ARCHITECTS, SURVEYORS,
ENGINEERS AND FOR ALL THOSE
ENGAGED ON BUILDING AND
PUBLIC WORKS. OVER 600 PAGES

PRICE 15s. postage 9d.

THE ARCHITECTURAL PRESS
War Address • 45 The Avenue • Cheam • Surrey



ARCHITECTURAL AND SURVEYING ASSISTANT (26), five years' experience, discharged Army, desires change of appointment with Local Authority or private firm. Full particulars on request. Box 287.

ARCHITECTURAL DRAUGHTSMAN, willing to prepare and draw schemes for an Architect. Able to work week-ends and evenings. Box 289.

ARCHITECT, A.A.Dipl. (28), wants position in Southwest London or Surrey. All-round experience. Box 290.

DIP. ARCH. AR.I.B.A., 38, exempt, versatile, seeks free lance or part-time work in East London; conversions, estate and post-war development, licensed premises, factories, war damage, prefabrication, and industrial designing. BM/ZTYJ., W.C.I.

ASSISTANT ARCHITECT, Registered (36), seeks part-time appointment with firm of architects. Special experience in design, construction, heating and electrical services, etc., and specifications for industrial and commercial buildings. Box 293.

SENIOR ASSISTANT, passed A.R.I.B.A., P.A.S.I. exams., urgently requires spare-time work. Surveys, working and detail drawings, specifications, estimates, schedules of condition, war damage or dilapidations prepared at reasonable charges. Box 294.

ASSISTANT, 9 years' experience; exempt military service. Can secure release conditional upon an appointment of National importance. Reconstruction preferred. Salary £450—£500. Box 296.

ARCHITECT (chartered), experienced in carrying through works in London and provinces. Box 297.

EXPERIENCED ASSISTANT (28) undertakes work at home in off-duty hours from National Service.
Tracing, colouring, drawing from rough sketches; also
typing and duplicating Specifications, Schedules, Bllis,
etc. Fees by arrangement. R. L. Booker, 28, Elmwood
Road, Herne Hill, S.E.24.
288

### 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 service of our Technical Department is available to any Architect planning or modifying farm buildings for this purpose. Write in confidence to:—The Planning Dept., Gascoignes (Reading). Ltd., Gascoigne House, Berkeley Avenue, Reading.

# Other Appointments Vacant

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

ASSISTANT EDITOR wanted for Architectural Paper. Write, with full particulars of qualifications, salary required, &c., to Box 51.

A GENTLEMAN with architectural training, at present in the Forces or other war-time occupation, will be wanted by a Joinery Firm specialising in High Quality Joinery and Modern Woodworking Techniques, to act as post-war Technical Salesman. Must be used to dealing with Architects, Government and Local Authorities, and Large Building Contractors. The applicant must understand all classes of Woodworking including Plywood, Veneer-work, etc. The applicant may also be required to organise and take charge of the Sales Department.

Applicants are asked to write in the first instance giving full details of past experience, particularly with regard to salesmanship, and are requested to give some indication of remuneration required. Box 619.

# Factories Wanted

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

COMPANY engaged on Essential Engineering Work requires factory with covered area of not less than 10,000 square feet, on site area of at least 2½ acres. Bombed building with sound foundations would be considered, district as near Central London as possible. Immediate post-war possession would be considered. Replies treated in strictest confidence. D. Sebel & Co., Ltd., 55, Lant Street, S.E.1. Hop 3803.

### 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 parti-tions and gates. 53, Great Marlborough Street, W.1. Gerrard 4223-4224-4225.

AUTHORS are invited to submit Stories for children, poems, fiction, and MSS all types, for book publication. Stockwell, Ltd., Elms Court, Ilfracombe (Duration Address).

WANTED. Complete set or part Architect's Journal Library of Planned Information Sheets. Bound or Unbound. Good price offered. Box 621.

SPECIFICATIONS AND BILLS OF QUANTITIES, etc., expeditionsly and accurately typed or duplicated. etc., expeditiously and accurately typed or duplicate Translations and Facsimile, Typewriting. All wo treated confidentially. Miss G. Saunders, Typewriti Bureau, 17, Dacre Street, Westminster, S.W.1. Tephone: Whitehall 2605

WANTED. The published price will be paid for a copy of The Architectural Review for April, 1943. Box 295.

WANTED, a copy of *Ideal Home*, April, 1944; also New Era, July and August, 1937. Box 614.

### **Educational Announcements**

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

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

R.I.B.A. AND T.P. INST. EXAMS. Private Course of tuition by correspondence arranged by Mr. L. Stuanes, M.A., F.R.I.B.A., M.T.P.I. Tutor, St. Catherine College, Cambridge.

# It's the least you can do-

GIVE ONE PENNY EACH WEEK TO HELP THE RED CROSS CARE FOR THE WOUNDED

Start a 'Penny-e-week' scheme where you work. Send a post-card to the Lord Mayor of London, Mansion House, E.C. 4, for full details

LARGE DEPT. FOR BOOKS ON BUILDING



119-125 CHARING CROSS RD., LONDON, W.C.2

Open 9 a.m.—4 p.m., including Saturday Telephone: GERrard 5660 (16 lines).

# BRAITHWAITE PRESSED STEEL TANKS

BRAITHWAITE & Co., ENGINEERS Ltd.

35, KINGS HOUSE, HAYMARKET, S.W.1 Telephone: WHI 3993. Telegrams: Bromkirk-Ph





# STEELWORK BY & SONS

SWAN WORKS, HANWORTH, MIDDX.

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

Established over 100 years

# J.W.GRAY&SON LTD.

"FRANKLIN HOUSE," 37 RED LION ST., HIGH HOLBORN, LONDON, W.C.I. Phone: CHANCERY 8701 (2 lines).

# LIGHTNING CONDUCTORS

Manufacturers and Erectors

# 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 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., Town Planning Inst., 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 KINGSWAY, LONDON, W.C.2





(S. P. W. BRAND)

TÉLEPHONE & TELEGRAMS BULWELL 78237-8

M. McCARTHY & SONS, LTD NOTTINGHAM ad ad ac estable as E., I.,