## SPEED with DURABILITY!!

## Specify "PRODORAQUA" Liquid Waterproofer

"Prodoraqua" is a liquid waterproofer and hardener which has been PROVED to be the perfect medium for definitely making concrete waterproof, dustproof and oilproof.

One of the chief advantages of "Prodoraqua" is that it CONSIDERABLY SHORTENS THE SETTING TIME, which is a matter of greatest importance in these busy days. For instance, Floors can be used a few days after being laid.

"Prodoraqua" is quick and easy to use and is ideal for waterproofing Cement and Concrete Pits, Retaining Walls, Floors, Tanks, Sewers, Channelling, Swimming Pools, Air Raid Shelters, Foundations, Basements, etc.

May we send you full particulars?

EAGLE WORKS WEDNESBURY

Phone - - WEDnesbury 0284 (Private Branch Exchange)



ARTILLERY HOUSE ARTILLERY ROW LONDON, S.W.I

Phone - Abbey 1547 and 1548

## The Roof Tiles for War-time Restorations

Many consider the "Reynardo" the most handsome of all Roof Tiles. It is a shape that suits either large or small buildings and really first rate for exposed positions, for when fixed with C.S. Secure system clips cannot be dislodged by high winds. Every year we supply hundreds of thousands.



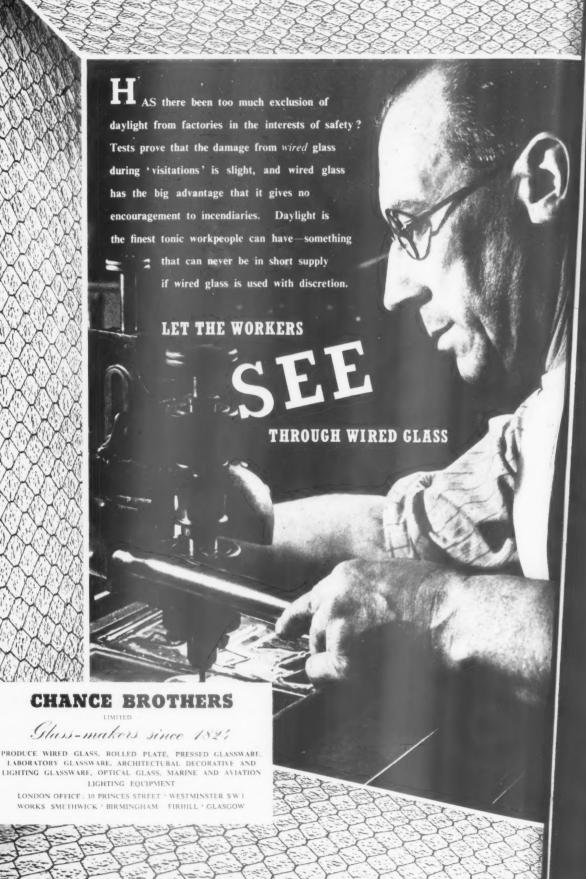
## REYNARDO

Write for our illustrated catalogue illustrating our numerous types in full colour.

## Hand - made ROOF TILES

One great advantage of the "Reynardo" is the ease and rapidity with which it can be fixed. We supply with plain finish or in numerous coloured glazes.

COLTHURST, SYMONS & CO. LTD.
PATENT TILE WORKS, BRIDGWATER, SOMERSET









## BEATING TIME

Time is all-important to-day. Yet, in the world of building, time must never be saved at the expense of dependability. That is why Franki piles are playing an ever-increasing part in to-day's numerous and varied engineering projects.

Because Franki "carry more tons per pile," their use effects a considerable saving (financial and time) in pile driving operations without necessitating any modification of the original design. In truth, the dependability of Franki piles is such that many Engineers specify Franki piles exclusively, on account of their time-factor and economy. You will appreciate their choice after reading a copy of the Franki brochure, which will be sent free upon request.

THE FRANKI COMPRESSED PILE CO., LTD.

Head Office:

"SUNNYDOWN," COURT HILL, CHIPSTEAD, SURREY

Phone: Downland 3621-5. 'Grams: "Frankipile, Chipstead, Coulsdon"



## Alphabetical Index to Advertisers

	PAGE		PAGE		PAGE
Accrington Brick Co., Ltd		Foyles	xxxii	Milners Safe Co., Ltd	-
Adamite Co., Ltd	XX	Franki Compressed Pile Co., Ltd., The	V-	Moler Products Ltd	XXXIV
Airscrew Co., Ltd., The		Frazzi Ltd	xiv	Morris, Herbert, Ltd	
Anderson, D., & Son, Ltd		General Electric Co., Ltd		Oliver, Wm., & Sons, Ltd	xxxii
Anderson, C. F. & Son, Ltd		Gillett & Johnston Ltd		Petters, Ltd	
Architectural Press, The	xxxiii	Girlings Ferro-Concrete Co., Ltd	xvii	P.I.M. Board Co., Ltd	xxix
Arens Controls, Ltd	xxxii	Gray, J. W. & Son, Ltd	xxxii	Positive Flow Ventilators Ltd	XXV
Associated Metal Works	XXX	Greenwood's & Airvac Ventilating		Pressure Piling Co. (Parent), Ltd	
Bell, A., & Co., Ltd.		Co., Ltd	ii	Prodorite Ltd	iii
Birmabright Ltd		Gyproc Products Ltd		Rawlplug Co., Ltd., The	xxix
Bolton Gate Co., Ltd		Haden, G. N., & Sons, Ltd	xiii	Reinforced Concrete Association, Ltd.	757174
Boulton & Paul, Ltd.	viv vvv	Harris & Sheldon Ltd	ix	Reynolds Tube Co., Ltd. & Reynolds	
Bowran, Robert & Co., Ltd	AIA, AAV	Haywards Ltd.	XXXV	Rolling Mills Ltd	xxvii
Braby, Fredk., & Co., Ltd.		Helliwell & Co., Ltd	ii	Ruberoid Co., Ltd., The	xxxi
Braithwaite & Co., Engineers, Ltd	xxxii	Holden & Brooke Ltd.	XXX	Rustproof Metal Window Co., Ltd	- AAAI
	AAAII	Hopton-Wood Stone Firms, Ltd	222	Sadd, John, & Sons, Ltd	xxii
Bratt, Colbran, Ltd					
British Celanese Ltd		Horseley Bridge & Thomas Piggott,		Sankey, J. H. & Son, Ltd	XXVI
British Reinforced Concrete Engineer-		Ltd	Z.A.	Sankey, Joseph & Sons, Ltd	
ing Co., Ltd.		Hy-Rib Sales	72.1.	Scaffolding (Great Britain), Ltd	XXIII
British Steelwork Association	XXI	I.C.I. (Paints), Ltd.		Sealocrete Products Ltd	ii
British Trane Co., Ltd		Jenkins, Robert, & Co., Ltd		Sharman, R. W	XXXII
Broadcast Relay Service, Ltd	vii	Kerner-Greenwood & Co , Ltd		Sharp Bros. & Knight Ltd	XXXV
Brockhouse Heater Co., Ltd	xxviii	Ketton Portland Cement Co., Ltd	XXXV	Smith's Fireproof Floors Ltd	XXX
Callender's Cable & Construction Co.,		Kleine Co., Ltd., The	xxxiii	Square Grip Reinforcement Co., Ltd.	
Ltd	XII	Laing, John & Son, Ltd		Stainless Steel Sink Co., Ltd	
Cellactite & British Uralite, Ltd		Leaderflush Ltd		Stelcon (Industrial Floors) Ltd	XXXIII
Cellon Ltd		Lillington, George & Co., Ltd		Sutcliffe, Speakman & Co., Ltd	
Chance Bros., Ltd	iv	Limmer & Trinidad Lake Asphalte		Taylor, Woodrow Construction, Ltd.	ii
Colthurst, Symons & Co., Ltd	111	Co., Ltd		Tentest Fibre Board Co., Ltd	
Constructors Ltd	XXV	McCall & Company (Sheffield), Ltd.	X	Tretol Ltd	
Copper Development Assoc		McKechnie Bros., Ltd	xxxi	Trussed Concrete Steel Co., Ltd	
Crittall Manufacturing Co., Ltd		McNeill, F., & Co., Ltd	xvi	Tudor Accumulator Co., Ltd	xxxi
Crittall, Richard, & Co., Ltd		Magnet Joinery Co		Tullis, D. & J., Ltd	ii
Davidson, C. & Sons, Ltd	-	Matthews & Yates, Ltd	xxvi	Turners Asbestos Cement Co	xi
Ellison, George, Ltd	xxxii	Mellor, Bromley & Co., Ltd		United Steel Companies, Ltd	
En-Tout-Cas Co., Ltd		Merchant Trading Co., Ltd	xxiv	Wadsworth, William, & Sons, Ltd	viii
Etchells, Congdon & Muir Ltd	xxviii	Metropolitan Plywood Company	xxxvi	Walker, Crosweller & Co., Ltd	viii
Evertaut Ltd.	xxxiii	Midland Joinery Works Ltd., The	xxxii	Ward, Thos. W., Ltd.	XXXV
Fordham Pressings Ltd		. Mills Scaffold Co., Ltd.		Zinc Alloy Rust-Proofing Co., Ltd	vi
E 4 S.	. (34)	. I W . C . C . D			

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

# SHERARDIZING PREVENTS RUST!

SHERARDIZING IS FULFILLING AN IMPORTANT ROLE IN THE NATIONAL EFFORT

## ZINC ALLOY RUST-PROOFING CO. LTD.

Crawford Street, Rochdale, Lancs Shakespeare Street, Wolverhampton Minerva Road, Chase Estate, London, N.W.10

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

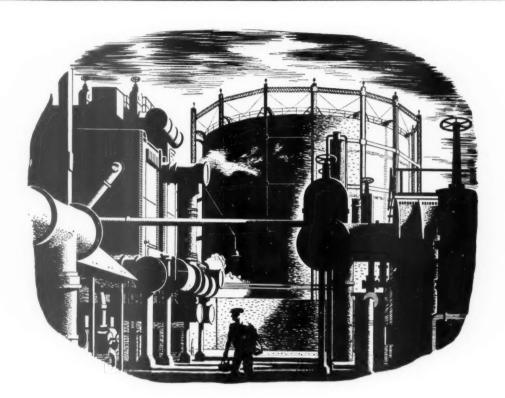
## PUBLIC SERVICE

AGE

XXV iii XXix

xxii xxii xxii ii xxii xxv xxx

ii xi viii viii



## Company's Gas

No one to-day would willingly run a private plant to supply his house with gas. A constant and reliable gas service is something which British housewives have come to expect as a matter of course from a public utility service. Credit for the use of coal gas for domestic purposes belongs to a Scotsman, William Murdock, who, in 1800, used gas to light a factory in Soho. In 1812 the first Gas Lighting Company — now the Gas Light and Coke Company — was founded in London. To-day, the gas industry, operated by experts, distributes its benefits in all the towns of the British Isles. Rediffusion applies the same skilled care in distributing to its subscribers the available news, views, entertainment and announcements. Every house in the future should be served by Rediffusion as it is served by gas to-day.

## REDIFFUSION

is the service which gives to broadcast reception the simplicity of a switch and a loudspeaker. It connects you by wire to the world's radio and to local announcements.

## They hold the temperature steady.



Leonard-Thermostatic hot and cold Water Mixing Valve serving a shower at a day nursery.



By means of a quick-acting thermostat the Leonard-Thermostatic Water Mixing Valve delivers blended water from hot and cold and keeps it at a steady temperature in spite of variation of pressures or temperatures in the supplies. It holds the temperature of the blended water steady and avoids risk of scalding.

Leonard - Thermostatic Valves save water, save heat, save installation costs. They are widely used for all types of group washing equipment and process work.



Specify

## Leonard-Thermostatic

hot and cold

### WATER MIXING VALVES

for group washing equipment

WALKER, CROSWELLER & CQ LTD

CHELTENHAM, GLOS. and 6 Gordon Sq. London W.C.1

**8** 61,1069

16,000 passengers carried in 24 hours!



WADSWORTH LIFTS

create an impression of EFFICIENCY—and "first impressions are lasting," they say. "Safety Always" is the watchword of WADSWORTH craftsmen—safety with reliability and freedom from breakdowns, plus economical upkeep. There may be cheaper lifts but there are no cheaper WADSWORTH LIFTS.

Fifty years' experience has taught us that you cannot economise on safety. The lift illustrated is situated in one of the busiest parts of a famous sea-side resort which attracts millions of visitors every year.

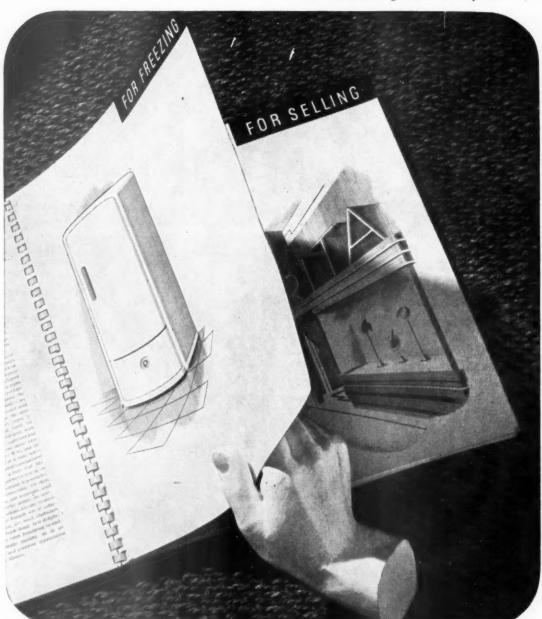
Whatever your needs in Lifts and Transporters—get in touch with us and be happy in the knowledge that you have bought safety.

\* Wadsworth >

1

## PASSENGER LIFTS

WILLIAM WADSWORTH & SONS LTD. BOLTON AND LONDON



When an architect orders a refrigerator he does not have to specify its individual parts. All he wants is a freeze. And the good maker sees to it that he gets it. Just as a refrigerator is a machine for freezing, so a shop is a machine for selling. Because shops cannot be mass-

produced, HARRIS & SHELDON, makers of shops, work out designs and build shops individually to architects' requirements. HARRIS & SHELDON supply showcases, display stands and all individual parts. But their real business is to give architects well-built shops that work.

## Harris & Sheldon Ltd.

MAKERS OF SHOPS

STAFFORD STREET, BIRMINGHAM 4, and 27 BERKELEY SQUARE, LONDON, W.1

# Micall's And Harry Call's And Harry Call

WELDED FABRIC REINFORCEMENT

MADE FLAT DELIVERED FLAT LAID FLAT

Lay your reputation with the job—by using McCall's "Matobar" welded fabric reinforcement—the perfect mesh for all purposes; square mesh for roads, slabs and rafts, long mesh for suspended work. "Matobar" being made flat, delivered flat and laid flat, ensures correct positioning with the minimum of labour. McCall's manufacture also mild and high tensile steel reinforcing bars, which can be

bent to specification if required; helicals, hoops, welded units, etc.



Take advantage

McCALL & COMPANY (SHEFFIELD) LTD., TEMPLEBOROUGH, Sheffield: and at LONDON



This is one of a series of advertisements designed to show how Asbestos-cement can help to solve an almost infinitely varied range of problems. At present, war-time needs have a monopoly of its service, but when peace comes the manufacturers look forward to extending further its usefulness.



TRAFFORD PARK MANCHESTER 17 "EVERITE" "BIGSIX" Asbestoscement Corrugated Sheets, EVERITE" Asbestos-cement Rainwater Goods and Fittings

EVERITE" Asbestos-cement Shelving and Racking.





Ti fin

H



CALLENDER'S CABLE & CONSTRUCTION CO. LTD. HAMILTON HOUSE, VICTORIA EMBANKMENT, E.C.4

## 125 YEARS OF ENGINEERING DEVELOPMENT

## Series No. 8



Pipe work by Hadens

THE firm has always led the way in the centralisation of services.

In the middle of the last century the firm designed and installed single heating systems covering wider and wider areas, using steam to reach distant calorifier chambers.

Towards the end of the century, with the advent of the electric motor, the firm developed first the water screw, and then the centrifugal pump. Before the end of the century installations covering a square mile were warmed by hot water circulated from one central point.

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



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

## G. N. HADEN & SONS LTD \* \* Estd. 1816

FULLY EQUIPPED		NCI	HE.	SA	T:		
Manchester 2, 4 Albert Squar	re -		-				Blackfriars 6356
Birmingham 3, 45 Great Char	ries St	reet		-			- Central 8391
Glasgow C.2, 86 St. Vincent	Street						- Central 3196
Bristol I, Orchard Street -							- Bristol 20286
Bournemouth, Avon Works,	Avon I	Road			-		Boscombe 512
Torquay, Castle Road				-			Torquay 3831
Lincoln, Guildhall Street -		-					- Lincoln 993
Newcastle-on-Tyne, 13 Mosl	ey Str				New	cast	le-on-Tyne 26780

York, 39 Micklegate Aberdeen, 80-82 Upper Denburn	-	•	•	•		- York 4256 - Aberdeen 392
Temporary Addresses						
Eastbourne: 19-29 Woburn Place, I Canterbury: 19-29 Woburn Place, I	onde	on, 1	W.C.I	-	-	Terminus 2877 Terminus 2877
Liverpool: 4 Albert Square, Manch	ester	2			•	Blackfriars 6356
WORKS: TROWBRIDGE -					-	Trombridge 723

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

Head Office: 19-29 Woburn Place, LONDON, W.C.1 'Phone: TERminus 2877 (10 lines) Wires: Warmth, Westcent, London

## FRAZZI

CONCRETE SLAB FLOOR CONSTRUCTION (reinfortament not shown)

HOLLOW BLOCK FLOOR CONSTRUCTION (reinfortament not shown)

SELF-CENTERING FLOOR CONSTRUCTION

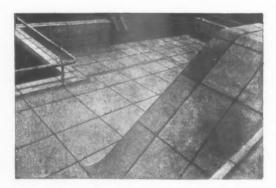
FLOORS. Frazzi are specialists in all forms of floor construction. Our experience and knowledge are freely at your disposal.

### PRECAST CONCRETE.

Frazzi produce precast concrete units of all types including beams and slabs. Enquiries for any type of precast concrete units are welcomed.

## BLAST PROOFING AND BLACKOUT PROTECTION

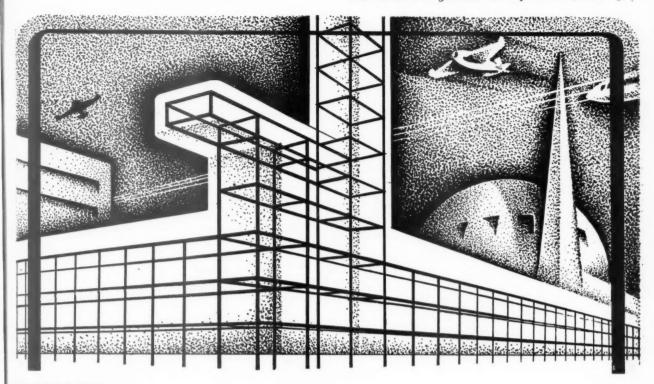
to glass of industrial buildings is being carried out efficiently, rapidly and economically throughout the country.



**ROOFING.** Paropa patent roofing is still available and in addition an inexpensive yet efficient waterproof roofing has been developed for use on emergency buildings.

FRAZZI LTD · LENNOX HOUSE · NORFOLK STREET · STRAND · W.C.2

Telephone: TEMPLE BAR 5371



## FRANEY CRI OF THE FUTURE

structurally speaking, post-war Britain will be framed in steel. For rigidity and strength—for resistance to every conceivable kind of impact—for permanence (and therefore ultimate economy) steel has Ino rival.

The Horseley-Piggott organisation has been born and bred in the steel tradition. For 170 years we have handled steel in the fabrication of Bridges, Piers, Chemical, Gas, and Water Plant, Pipe lines, Tanks and Steel framed buildings of almost every type. Our varied experience is in these days enlarged by war production. In due time, where men are free, it will become available for Constructive Cooperation in rebuilding the world of the future.

# HORSELFY BRIDGE AND THOMAS PIGGOTTLTD

dructural Engineers

BRIDGES • STEEL FRAMED BUILDINGS GAS HOLDERS
CHEMICAL PLANT • WATER PURIFICATION PLANT

HORSELEY WORKS . TIPTON . STAFFS . PHONE: 1104 P.B.X.

## WHEN A NATION IS AT, WAR...



# VITAL POINTS need protection against fire

THERE is but little that can withstand the withering blast of fire . . . and yet in the time of war this ever-present danger is multiplied to an incalculable degree.

On the sea, and on dry land also, the use of M<sup>C</sup>Neill's SLAGBESTOS has been the means of saving life and property. SLAGBESTOS—perfected slagwool—is completely and absolutely fire-proof. Built around danger points it effectively

contains or excludes fire—no matter how fierce and destructive the blaze. In specific cases a protective surround of Slagbestos may completely smother combustion at its source and prevent the spread of the conflagration.

Slagbestos, in loose form and in specially made mattresses, has proved of value in counteracting the damage done by incendiary bombs.

As may be judged, the ability of Slagbestos to resist fire, makes

it also an efficient insulator, sealing in heat, cold, noise and damp. Slagbestos is light in weight, rot-proof, vermin-proof, sterile and unaffected by climatic changes. It is available as Slagbestos Wool or made up in blankets of any thickness.

The House of M<sup>C</sup>Neill has been privileged to serve the Nation and its Government in many spheres of activity for more than 100 years.

## THE HOUSE OF MCNEILL

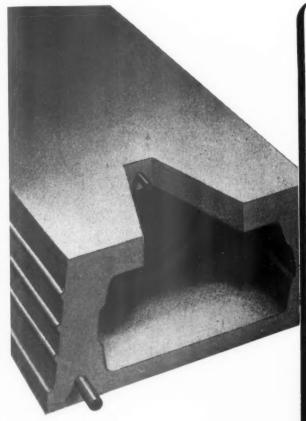
F. MCNEILL & COMPANY LTD.

Pixham Firs, Pixham Lane, Dorking

Telephone: Dorking 3271/2

Telegrams: "Eyeball," Dorking

## To speed up essential building...

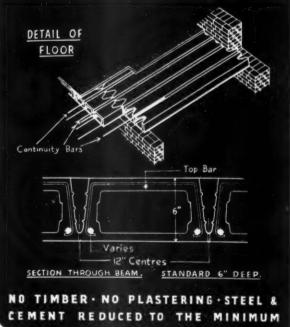




# GIRLING'S HOLLOW CONCRETE BEAMS

for Floors & Roofs

SPEED is vital in the erection of essential wartime structures. Easily and quickly installed by semi-skilled labour, GIRLING'S Precast Concrete Floor and Roof Beams form a solid, firm platform upon which following trades can proceed without delay thus reducing building time to the minimum. On recent priority contracts fixing progress at the rate of over 1,000 yards per day was consistently maintained. For speed . . . safety . . . economy . . . specify GIRLING Beams.



GIRLING'S FERRO-CONCRETE CO., LTD.

SOUTH: Great West Road, Feltham, Middlesex, Phone: HOUnslow 115 MIDLANDS: Rothwell, near Leeds,
Phone: Rothwell 3174 (Leeds Extension).

SCOTLAND: Southbank Road, Kirkintilloch, Glasgow, Phone: Kirkintilloch 1785

#### ARCHITECTS'



### JOURNAL

THE ARCHITECTS' JOURNAL WITH WHICH IS INCORPORATED THE BUILDERS' JOURNAL AND THE ARCHITECTURAL ENGINEER IS PUBLISHED EVERY THURSDAY BY THE ARCHITECTURAL PRESS (PUBLISHERS OF THE ARCHITECTUS' JOURNAL, THE ARCHITECTURAL REVIEW, SPECIFICATION, AND WHO'S WHO IN ARCHITECTURE) War Address: 45 THE AVENUE, CHEAM, SURREY.

The annual subscription rates are as follows: By post in the united kingdom . . . .  $\pounds 1$  3 10 By post to canada . . . . .  $\pounds 1$  3 10 By post elsewhere abroad . . . . .  $\pounds 1$  8 6 Special combined rate for subscribers taking both the architectural review and the architects' journal : inland  $\pounds 2$  6s.; abroad  $\pounds 2$  10s.

SUBSCRIPTIONS MAY BE BOOKED AT ALL NEWSAGENTS

SINGLE COPIES, SIXPENCE; POST FREE, EIGHTPENCE. SPECIAL NUMBERS ARE INCLUDED IN SUBSCRIPTION; SINGLE COPIES, ONE SHILLING; POST FREE, 1s. 3d. BACK NUMBERS MORE THAN TWELVE MONTHS OLD (WHEN AVAILABLE), DOUBLE PRICE.

SUBSCRIBERS CAN HAVE THEIR VOLUMES BOUND COMPLETE WITH INDEX, IN CLOTH CASES, AT A COST OF 12s. 6d. EACH. CARRIAGE 1s. EXTRA

War Address: 45 The Avenue, Cheam, Surrey TELEPHONE: VIGILANT 0087-9 (3 LINES)

The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, SEPTEMBER 3, 1942.

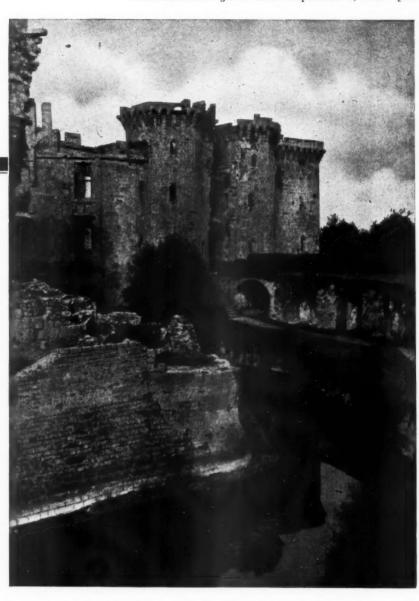
Number 2484: Volume 96

#### PRINCIPAL CONTENTS

News		• •			* *	145
D.I.A. Exhibition						146
This Week's Leading Articl	e					147
Notes and Topics  Astragal's Notes on Current		• •		• •		148
Letters from Readers	* *					150
Wall Newspaper		**				152
MOWP Standard Hut						154
House in Ireland: By Ken	neth	Bayes		• •	• •	156
The War Damage Act: By T. J. Sophian	• •	• •			9 0	157
Economy in Building Cons	struct	ion				158
Information Sheet Structural Steelwork (875			• •	facing	page	158
Information Centre		**		* *		160
Prices						vvi

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this JOURNAL should not be taken as an indication that they are necessarily available for export.

Owing to the paper shortage the JOURNAL, in common with all other papers, is now only supplied to newsagents on a "firm order" basis. This means that newsagents are now unable to supply the JOURNAL except to a client's definite order.



Raglan Castle.

147 148

157

158

158

160

xiv

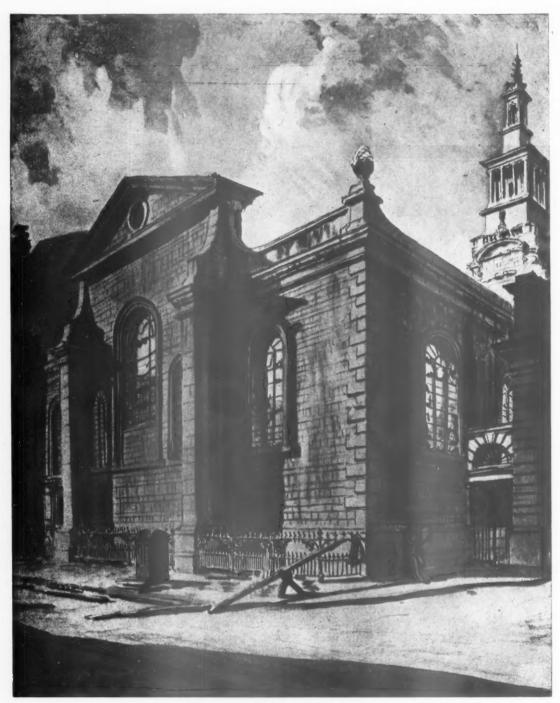
After the siege of Raglan, the garrison was allowed to march out with drums beating, banners flying and all the honours of war. The spirit of the garrison in these last days befitted the proud magnificence of the castle itself. Even in ruins, what an impressive record this is of the skill and artistic genius of the early 15th-century architects. Raglan had lofty walls with elaborate machicolations, a fine gatehouse, and a great hexagonal keep.

Design in the Middle Ages was emphasised by defensive structure—towers, curtain walls, fortified moats, machicolations and many other features. The emphasis to-day is on convenience, hygiene, light—and such considerations call for steelwork in a structure if the best is to be made of designers' ideas.

Boulton & Paul Limited
STRUCTURAL ENGINEERS

London

Norwich



CHRISTCHURCH, NEWGATE, by Wren. The Church of Christ's Hospital School. Galleries inside were reserved for boys of the school.

For the reconstruction, use— • "REDALON" Liquid • "ATLAS WHITE" Cement • "BULL DOG" Clips • "ELLICEM" Cement Paint • "COLEMANOID" Waterproofer and Hardener • "ALUNDUM" Non Slip Products • "ADAMITE" Mixture.

The Adamite Company Ltd., Head Office: Manfield House, Strand, London, W.C.2 TEMple Bar 6233.

In common with every other periodical and newspaper in the country, this JOURNAL is rationed to a small proportion of its peace-time requirements of paper. This means that it is no longer a free agent printing as many pages as it thinks fit and selling to as many readers as wish to buy it. Instead a balance has to be struck between circulation and number of pages. A batch of new readers may mean that a page has to be struck off, and conversely a page added may mean that a number of readers have to go short of their copy. Thus in everyone's interest, including the reader's, it is



including the reader's, it is important that the utmost economy of paper should be practised, and unless a reader is a subscriber he cannot be sure of getting a copy of the JOURNAL. We are sorry for this but it is a necessity imposed by the war on all newspapers. The subscription is £1 3s. 10d. per annum.

calling the Conference is to give form an emphatic expression to an ever-growing con-viction that in the past engineers have not taken sufficient interest in the building industry, to consider how such errors of omission can now be rectified, and to survey the whole organization of this great and widespread industry in a critical yet constructive spirit. Industry in a critical yet constructive spirit. After the war building and the construction of public works will assuredly form a large portion of our national effort and, boldly conceived and intelligently allocated, such work should go a long way to counteract the menace of a post-war industrial depression.

Lord Portal, Minister of Works and Planning:

The building industry is enjoyed by the badden. The building industry is going through a bad time. Its members are asked to do all they can to help in a very large building programme now being prepared by the Government, and since that programme has been started it has had full support from all sections of the At the present Conference and the others that are to follow it a great deal of sound advice might be given to the Govern-My Ministry has been brought being to represent and assist the building industry. It is important that the various sections of that industry should work in harmony with one another: good feeling and unanimity will add enormously to the strength of the industry after the war. No one strength of the industry after the war. No one likes control unless it is necessary, but shortage of material is bound to prevail after the war and control will have to be retained. If you control material you must have control of prices and a certain control over the industry itself. One advantage the building industry has is that most of the materials it uses are produced in this country: it also has the advantage of knowing beforehand that there will be a vast amount of building to be done in this country after the war. It is for those presiding over the industry to prevent a slump occurring by having a balanced programme extending over a number of years. There will have to be housing and other special priorities. The balanced programme I have spoken of must abolish the casual nature of the industry: it will be impossible to get the best out of the operative unless the operative knows that he will have continuity of employment. In the Ministry of Works and Planning we are thinking out a scheme for this and also a scheme for the education and apprenticeship of young builders. If lads are to be asked to come into the building industry it must be possible to promise them continuity

of employment in it.

Mr. W. H. Ansell, P.R.I.B.A.: If we look on the post-war building needs of the nation as a glorious scramble with everyone trying to get what he can out of it, we are heading for failure. The first and most important consideration is not the prosperity of the building industry as such, but the ensuring that what the industry produces can be of the greatest national benefit. The Chairman has mentioned that engineers have not in the past taken much interest in the building industry; but for many years there has been no particular reason why they should. Building has been in the hands of the operative craftsman, the organizing master builder, the quantity surveyor and the architect, and in probably the majority of buildings until comparatively recent times the engineer had not been much concerned; he has been occupied with designing and carrying out railways, roads, water supplies and other works of public utility. Civil engineering and building are not the same thing: there are building ideas and traditions that have little place in many civil engineering schemes, and to endeavour to bring them into the same form of contract is to do a disservice to both. We should recognize the true values of each and then encourage a system which will foster these, but we should not compress them into one schedule. For a completely satisfying building three things are essential—good design, good material and good craftsmanship—and the present Conference will not be in vain if it does something to secure them in all buildings as the result of a genuine co-operation.

#### from AN ARCHITECT'S Commonplace Book

The narrowness of spirit which was so often fatal to small churches was doubly dangerous when the revivalists attempted a large church or cathedral, for the mediæval cathedral, even more than the parish church, was a centre of human activity in all its manifestations. In such buildings were concentrated, over a very long period, the best endeavours and aspirations of a whole district; whereas the large churches of the Revival were built with strict limitations as to price and time, and without the smallest interest being taken in them by the community as a whole. No one saw this difficulty more clearly than Pugin, who used to alarm diocesan councils by saying that his design would take from fifty to sixty years to carry out, and on one occasion wrote to a bishop, 'My dear Lord,—Say thirty shillings more, and have a tower and spire at once. A. W. P.' But the consideration that mediæval architects frequently gave their whole lives to one or two buildings did not, as we have seen, deter Gilbert Scott from working on more than seven hundred and thirty. As a result his buildings have a ready-made look which, of all things, is fatal to Gothic architecture. For, as Ruskin never tired of pointing out, true Gothic is not made in the architect's office, but in the mason's yard.

From the Gothic Revival by Kenneth Clark.

## N E W S

and material must be directed to prosecution of the war. At the same time planning should be done.

Reconstruction of heavily raided towns and cities need not wait until after the war. Local authorities can get on with a good deal of preparatory work. For the present, Mr. Morrison, Minister of Home Security, told a conference in London last week, labour

The relationship of civil engineering with the building industry was the subject of a conference at the Institution of Civil Engineers. Lord Portal, Mr. Ansell, and others addressed the Conference. Professor C. E. Inglis (President, Institution of Civil Engineers): The primary objective in



## design round the clock

The headline to this caption is the title of the exhibition now being held at the A.A. by the Design and Industries Association. The exhibition was opened by Lord Sempill, President of the D.I.A., last week; he is here seen congratulating the designer, Mr. John Grey, F.R.I.B.A. In the photograph are two of the winners who were awarded prizes in the D.I.A. competition for an essay on "The House I Should Like

to Live in, with its Equipment and Furnishings." The object of the exhibition is to show that everything used throughout the day is the result of design—the beds we sleep in, the trains in which we go to work, the factories or offices we work in, and so on. The exhibition will run until September 5, when it will be transferred to the Geffrye Museum, Kingsland Road, E.2. After a period there it will go on tour.

Mr. R. Coppock (General Secretary, National Federation of Building Trades Operatives): I want the co-operation of the Institution of Civil Engineers in the problems facing the building industry now and the problems that will face it after the war. I want to see civil engineers get down from the pedestal they have occupied so long and become mixers in the industry. In the past they have been too much concerned with problems of scientific development to be concerned with the interests of the workman. Our problems are not altogether internal, they are also external; becaus we have Dominions, in the development of which engineers, will possibly be required to use British labour.

Mr.T. Howarth (President, National Federation of Building Trades Employers): Don't let us build the post-war world with poured concrete and steel. Builders should be registered, and

this should be done by people competent to say whether a man is able to build. Good design is sometimes spoiled because there is not the care there should be in carrying out the work. Everybody in the industry should be cducated from the standpoint of understanding what building is.

With the help of members of the R.I.B.A. it is proposed on the suggestion of a member to form an Ordnance Map "pool" or series of pools in appropriate centres throughout the country.

It is clear that all members will benefit if the R.I.B.A. is able to form a central ordnance map collection. All architects have been compelled to buy maps for a job—used the maps two or three times and then filed them away with the job papers never, perhaps, to use these particular sheets again. If the wholehearted co-operation of the profession can be enlisted it will be possible to build up a really good collection covering at least the

wholehearted co-operation of the profession can be enlisted it will be possible to build up a really good collection covering at least the more important areas of most larger towns. It is proposed to form the London and Home Counties Pool immediately and members who have 25 in. or 6 in. maps of that area whether or not they live or work in it are asked to send these maps to the Institute, addressed to the Librarian.

Members who have maps of other parts of Britain are asked in the first place to send lists of them only to the Librarian giving the

scale, the sheet number, the date of the edition and the names of the city, town, or village. When it is seen what maps of areas other than London and the Home Counties

other than London and the Home Counties are available it will be possible to plan for the establishment of other well placed depositories in, preferably, Allied Society Libraries, or if no suitable Allied Society Library exists in some other easily accessible place.

All maps deposited will become the property of the R.I.B.A. It will not be possible to accept maps for return to members after the war. But it is proposed to arrange the transfer from private ownership to the R.I.B.A., so that each dono will retain special use rights over the ma is originally special use rights over the mas originally deposited by him and will be entitled to borrow these for limited periods for use in his own office. Maps other than those his own office. Maps other than those deposited by a particular member can of course to consulted at the R.I.B.A. but it will not be permissible for the R.I.B.A. to lend the n unless the borrower produces a licence from a Chief Officer of Police in conformity vith the Control of Maps Order, 1940. The maps at the R.I.B.A. will be kept in a position of comparative safety from war damage greater, certainly, than could be attained in most private offices.

All R.I B.A. members who read this notice are asked to make the scheme known to any of their friends who for one reason or another may fail to see it. The more collaborators there are the bigger and better the pool will be.
The Librarian will gladly answer any questions and the R.I.B.A. will welcome suggestions from members as to the organiza-tion and development of the scheme.

Sir John Hammerton, the author, was fined f. 15 with f. 3 3s. costs 'a' Hailsham, Sussex, for spending about £600 on building a library to house his 7,000 books (private work over f. 100 is not permitted without a licence).

The Home Secretary has appointed a committee under the chairmanship of Mr. John W. Morris, K.C., to consider the future planning of bombed public houses.

ject

in

on.

be

E.2.

the

ance

hem

the

sion

d up

the wns.

and

sked

ssed

ts of

send the

Terms of reference: To consider what will be the best means of ensuring, when rebuilding is practicable, that the provision of licensed houses in place of those destroyed or damaged by enemy action shall be planned with due regard to local requirements and in harmony with proposals for redevelopment and reconstruction and redevelopment and reconstruction, that for this purpose due attention shall be given to questions of reducing and redistributing licences; and in particular to consider how best to coordinate the functions exercised by authorities responsible for schemes of reconstruction and development and the functions under the Licensing Act now exercised by the licensing justices and confirming and compensation authorities. The members of the committee are: Mr. G. A. Bryson, Captain A. J. Dyer, Mr. H. T. Edwards, Mr. F. B. Gillie, Mr. H. G. Griffiths, Mr. E. J. Hayward, Mr. Frank Hunt, Mr. F. H. Jones, Mrs. L. L'Estrange Malone, L.C.C., Sir Miles Mitchell, Sir Sydney Nevile, and Miss J. I. Wall. The secretary is Mr. H. B. Wilson, of the Home Office, to whom communications may be addressed at the Home Office, Cornwall House, Stamford Street, S.E.I. by authorities responsible for schemes of S.E.1.

The Dudley Committee has been set up by the Ministry of Health to lay down minimum standards for post war housing. Type plans for kitchens worked out for them by the Association for Planning and Regional Reconstruction were published in the JOURNAL last week. technical standard is exceedingly high, but are we sufficiently aware of the fact that the reasons for State intervention are social rather than te hnical?



## AFTERTHOUGHT ON KITCHENS

Home is the girls' prison and the women's workhouse. Bernard Shaw: Maxims for Revolutionists.

THANKS to evacuation the housing problem has come Lalive. There are people who are afraid of political unrest and think better housing the best protection against it. Others want the State to set standards because they dislike the appearance of the houses in which the majority of people, left to themselves, seem content to live. And the nation as a whole is worried by the growing discontentedness of women, which shows itself by the unmarried ones refusing to do housework, and by the married ones, who are unable to avoid it, failing to have an appropriate number of children. Of all the reasons for improving housing conditions after the war, the last is surely the most urgent and the most important.

The first step in tackling this awkward problem is perhaps to analyse it and to define with reasonable accuracy what the average married woman must do if her household is to be considered a satisfactory foundation for English democracy and the British Empire. The next is to plan things so that all this work can be done in a normal working week, i.e. 40-48 hours of concentrated work. No use shirking the issue. No use taking refuge in the comforting thought that women 100 years ago were perfectly happy working all round the clock. So were their husbands. The trouble is relative. The Association for Planning and Regional Reconstruction, whose valuable monograph on kitchens we published last week, base their plans not on what ought to happen but on what in fact usually does. "Activities concerned with the maintenance of a household," they say, "fall roughly into four classes, namely: the provision of meals; washing and laundry work; household cleaning; and the disposal of refuse produced by these three operations." Now this may be a very apt description of the work to be done in a commercial hotel, but does it really describe home life? What about the children? After the age of five perhaps, if one takes the lowest possible view of family life, the work children cause can be analysed in this way. But for the preceding five years such a classification is, to say the least of it, misleading. Then of course children have to be produced, a fact which should be taken into consideration when houses are designed and working hours for married women discussed, but which, unfortunately, it's normally considered polite to overlook.

Their classification leads the Association for Planning and Regional Reconstruction to conclude that the kitchen is the hub of the house and their evidence is concerned entirely with the correct planning of kitchens. They assume that "a fair standard of work" is to be maintained and that "a fair standard requires adequate equipment arranged in a reasonable space." But supposing the question were approached from the point of view that the woman and not the kitchen is the hub of the house, the problem being not merely to provide a certain standard of service but a reasonable working day as well, what difference would it be likely

to make?

Not much perhaps to the design of individual kitchens though some details might be affected. For instance, it has been suggested in America that it might be worth providing refrigerators large enough to hold a week's supply of milk and fresh vegetables, to cut out the waste of time involved in a daily shopping expedition, assumed now to be necessary. But the chief effect of approaching the problem from a more human, one might almost say humane, point of view, would be to emphasise the need for optional communal services, crèches, restaurants, nursery schools, etc., to be designed as an integral part of every housing estate. housewife with a family of young children cannot possibly live up to modern standards without working abnormally long hours unless outside help of some kind is provided. To begin with, a child of a year old or less represents six hours solid work a day for seven days a week.

The kitchens worked out by the Association for Planning and Regional Reconstruction are technically of a very high standard. But it is worth remembering that it may be worse than useless, from a long-term point of view, to raise standards in a lopsided fashion. The only result of mass producing perfectly equipped kitchens (unless steps are taken to make available the time to use them) will be to make the average housewife, who is also the potential mother, and who cooks at present perhaps two or three times a week, more conscious than ever of the hopelessness of her task—more determined than ever to limit her commitments to cooking, cleaning, washing and disposal of waste.



n

fc

sl

C

d

p

q

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

N 0 T E S & T O P I C S

THE SCOTT REPORT: FIRST THOUGHTS

A first reading of the Scott Report makes one regret that copies were not available to the Press a fortnight before publication. In these days it is almost impossible for newspapers to find space for full review of a Report which is a fortnight old; and I do not think that justice could be done to the Scott Report in a shorter time.

It is long and eccentrically, though not by any means uncunningly, drafted. Above all, it has a flavour-distinctive, persistent, extremely elusive which seems to become the more suggestive the more one struggles to track it down. One is left at last with the belief that this persistent flavour has its origins in a complexus of self One feels that the restraints. authors passionately desire the prosperity—in the fullest sense—of rural areas; that they fear, as well they may, that post-war times and general ignorance of rural needs will be against them; and that therefore they have decided for strategic reasons to ask for what can be obtained—if good fortune does not desert our nation-without raising a political storm of first rate magni-

Having once pinned their faith in a policy of Liberal painless gradual-

ness, of skilled co-operative control rather than of nationalization, it was inevitable that the Committee's recommendations should be somewhat of a catalogue of all the things intelligent people have asked for for twenty years, and that they should seem to expect a lot from post-war good-will. And it is natural that the Report should have been attacked on these grounds.

To these charges the Committee can make a good defence. That certain reforms should have been asked for for twenty years does not make them the less desirable. And they were not asked to describe the machinery by which their recommendations should be carried out.

Nevertheless they make the essential point that Planning must not be left to be the final result of pull-devil-pull-baker between interested Ministries. Ministries must be consulted but after full consultation, the Minister of Planning will direct what is to be done. This is the peg on which hangs the value of all postwar planning. And on the next page there appears the hardly less important statement: local planning must be compulsory and not permissive.

From this last, architects should turn to paragraph 240 and read it again and again. It contains a home truth which the profession may feel unwilling to admit: that neither town planners nor architects, including architects who are both, possess knowledge and ability adequate to the work they will be asked to carry out.

The Report contains nothing which is more pungently true. In the last few years of discussion about planning a fatuous complacency has become apparent in the architectural and engineering professions: it has been assumed without the slightest foundation, that because a man can lay out a small group of buildings, or a drain, or a small byepass road, he can solve with com-. plete success the ten thousand problems which affect the development of a city or a county. Nothing could be more ludicrous—unless it has been the architect v. borough



Some of the celebrities at the D.I.A. Exhibition Design Round the Clock opened last week at the Architectural Association. Left (back), three of the prize winners (one of them Miss Eleanor Godfrey of Wycombe Abbey School); centre, Lady Sempill, F. R. Yerbury, G. E. W. Crowe, John Grey, and Lord Sempill. In front, right, Commander Goldsmith (retiring Vice-Chairman of the D.I.A., whose place has been taken by Mr. Yerbury), and Miss Marjorie Morrison, Secretary D.I.A.

engineer argument as to which was likely to make the worse mess of it.

The facts are that a man who has been thoroughly trained as an architect or civil engineer and who has acquired a fair knowledge of the methods of work of allied professions is *potentially* an efficient town planner. But to become an efficient town planner in fact he must both undergo a specialized training for several years and read very widely about a multitude of things which he cannot encounter in his daily work—however varied.

The professions have refused to recognize these things and have refused to subsidize young men who were prepared to make the effort needed. With the result that the town planning officers appointed between 1919-1939 were too often ill equipped for their jobs and were far too often hired by local authorities at minimum salaries to protect them from claims for compensation and for no other purpose.

Now, in the middle of a war, we are going to pay—architects are going to pay—for our negligence. Young men in municipal engineers' offices throughout the country (reserved for the vital job of protecting and repairing essential services, but with not much to do

while they wait) have an opportunity to learn how to become town planners. Young architects, in the Army or up to their necks in war building, have no such opportunity.

#### EXHIBITION AT THE A.A.

The D.I.A. exhibition, which was opened the other day at the A.A. by Lord Sempill, is designed to give soldiers with nothing to do a solid hour's work. The moral is a simple one; everything we use, from a bus to a matchbox, has to be designed by somebody and there is no reason why it shouldn't be designed well. The argument is equally simple; good and bad examples of everyday things are shown side by side with a written criticism to make the main points clear.

The exhibition which was planned—and very brilliantly planned—by John Grey for the D.I.A., is displayed on stands of a new kind, which allow all the material to be taken out and reused in a different context. They (the stands) will be illustrated in the JOURNAL next week.

#### WORKS COMMITTEES

I wrote recently that, so far as the Building Industry was concerned, there were no such things as production committees. The joint works committees, although encouraged

irrey

~

GHTS eport were night

days newseview night ustice eport

cally, unill, it stent, ns to the ck it

r has f self the prosrural they meral ll be refore

agnith in dual-

n be

s not

aising

by the Ministry of Works, in fact only deal with matters of welfare. This comment has evoked further information from the A.A.S.T.A. Technical Committee, whose organizer is looking into the facts on the sites.

It appears that when a works committee has dealt with the main troubles over transport, billets, the canteen, and so on, it does take up technical issues. This is the Unions' war policy, and it is also a natural effect of payment by results. Most works committees discuss bonusing, and so are led on to consider any obstructions to high output. Irregular supply of materials, delayed or vague instructions, or misuse of plant, are all noticed at once and can be discussed on the site.

The criticisms on the site ignore official jargon. "The excavators," an engineer complains, "are whisked about the site like sand fleas," without any method. On another site, where the committee runs a paper complete with Auntie's Correspondence Column, the central mortar mixer was half an hour to an hour late each morning in sending out "Dear Aunt Fannie," supplies. wrote a bricklayer, "My mates and I try to play a game at 7.30 each morning called 'Getting Down the Bricks' but we don't seem able to get 'compo.' What can we do to get this game going? Answer: 'Each bring a bucket of compo from home, dear." "\*

But on technical subjects the operatives' suggestions are usually most diffidently made. This is where professional men are wanted. Efficient building is so much their concern that it is puzzling to learn how few technicians are members of the 40 or so committees meeting on MOWP sites. The argument that the committees do not discuss technical points need not apply. The time has come for technicians to make a move.

#### UTHWATT

I understand that the Uthwatt report is to be published at the end of next week.

ASTRAGAL



## LETTERS

Walter O. Hudson, Secretary Institute of Registered Architects.

H. G. G. Spencely, B.Arch., A.R.I.B.A.

B. A. P. W. Lewis

Robert G. Tarran, Managing Director, Tarran Industries Ltd.

F.R.I.B.A.

#### Registration Council Scholarships

SIR,—Mr. Colin Penn's letter on this subject contains so many inaccuracies that I trust your readers will remedy his omission and acquaint themselves of the facts before accepting his invitation to try to get members of the Council to see the point he has expressed.

His statements that applications for the scholarships from British subjects are now very few, is not true. In fact, there were 128 bona fide applications for this year's awards, and after the usual examination tests had been made the finance available made it possible for only eleven scholarships to be awarded. Even this small number of awards had the effect of exceeding by over £100 the monies which had been allocated for scholarship purposes for this year.

Again, Mr. Penn asserts that the funds involved in granting scholarships to aliens "are not large," and whilst making every allowance for his enthusiasm for his subject I emphatically deny him the right to make such a baseless assertion. As a member of the Registration Council, the Board

of Architectural Education, which is the responsible body for recommending the awards, and of the Finance Committee which administers the funds, I do not know, and have no means of forming even a remote idea of the funds that would be involved, and there is no member of any of these bodies who would be so foolish as to hazard even a guess. Since Mr. Penn is not one of those whose duty it is to control the scholarships and the finance of the Council, it would be interesting to learn upon what grounds he makes such an astonishing assertion.

I will not take up valuable space by attempting to describe all the details involved, but it can, and should be stated that it is because—by reason of the widely differing amounts of the awards—of the utter impossibility of assessing the funds which will be required for completing the training of British students now serving with the Forces, that the Council has decided that "means shall not, for the time being, be made available for granting scholarships to aliens." In my opinion, and in spite of having inside knowledge I must emphasise that it is only my personal view, the scholarship fund together with the reserve and invested funds, will be hopelessly inadequate to meet the needs which will arise among British students after their discharge from the Forces. That view may not be shared by all of my colleagues on the Council, but if the happenings after the first World War can be regarded as a criterion, it will be found that my view is correct. Having been one of those students who suffered so bitterly last time, I hope I shall be forgiven for being an enthusiast in the interests of those whose lives will be similarly affected in this war.

I am quite sure that the Registration Council has acted with wisdom and foresight in this matter, and I very much doubt if even Mr. Penn would agree with the principle of granting maintenance scholarships to all aliens who might qualify at this juncture and whose services we cannot be sure of retaining when we need them most after the War, if such action had the effect of rendering it impossible for probably hundreds of British students whose lives have been so violently interrupted, to complete their training for the profession of their choice.

Charten a a a

WALTER O. HUDSON. Secretary, Institute of Registered Architects. London.

SIR,—Is the A.R.C.U.K.'s decision to withold scholarships from aliens as unfair as Mr. Penn suggests?

He admits that British subjects are fighting and working: does he think that aliens would like to profit by the shelter thus afforded, using the funds, admittedly not large, which the Council may be conserving for all students,

<sup>\*</sup> The wall newspaper this comes from is illustrated on pages 152, 153.

British or alien, returning from the war?

Registration is not compulsory, nor does the registration fee entitle everyone to a scholarship. But it does permit any person of any race or creed, having the necessary qualifications, to practise architecture. Perhaps Mr. Penn will kindly tell your readers of those foreign countries where the architectural door is open as wide for Britishers.

If Mr. Penn knew how aliens are admitted to our register as freely as Britishers he might realize that it is his charge of national discrimination against the A.R.C.U.K. which is unfair.

London.

l is

ling

om-

nds,

s of

the

and

aese.

s to

enn

t is

the

he

inds

ion.

by

tails

be

n of

the

y of be

g of

the

ided

time

ting

ion,

low-

only

fund ested

te to

ong

arge

not

1 the

after

rded

t my

e of

terly

n for

ts of

larly

ation

and

very

ould

ating

liens

and

re of

most

l the

e for

dents

ently

ining

tects.

cision

ns as

s are

think

y the

unds,

uncil

lents,

ON.

H. G. C. SPENCELY

#### Architect's Registration Acts

Sir,—Under the above Acts the title and style Architect may only be used by those on the register. There appears, however, to be nothing in the Acts preventing any person from practising architecture nor advertising the fact that he carries out works usually done by architects. Moreover, anyone employing an architect as an assistant may, under certain conditions, style himself architect, e.g. an estate agent employing an architect as an assistant in charge of all architectural work.

Surely the Acts at present fail to achieve their purpose of protecting those on the register. Too often one sees advertisements of so-called builders and others, such as "plans and specifications prepared and submitted to local authority" or "architectural work designed and carried out." No self-respecting builder has recourse to such devices to obtain business. Unless prevented the jerry-builder will in a new guise emerge from his hiding place to smother town and country with badly constructed and still worse designed buildings despite the finest town plans.

Would it not be in the immediate public interest in view of the vast amount of building in post-war reconstruction if an amending Act were passed to remedy the present anomaly.

London.

B. A. P. W. LEWIS

#### Prefabricated Huts

SIR,—With reference to your comments on the Tarran System of Construction, we wish to bring clearly and concisely to your technical mind the point that neither the Nashcrete nor Maycrete units compare in any novel way with the unit designed, produced, manufactured and used in the Tarran System of Construction.

With reference to the Tarran System of Construction, three points are being

confused :-

1. The parabolic shape;

2. The material of the infilling, or panel, between its ribs;

 Classing Portland Cement Lignocrete of 14 years extensive, practical use with Maycrete, Nashcrete, or other sawdust concretes.

The Tarran System of Construction is now being manufactured in plywood to the parabolic shape and is the lightest and quickest erected, factory-produced hut in the world. These huts could be simply made in compact small units nested together, and would form valuable equipment for airborne troops who are going to be landed in isolated parts of enemy territory.

Will you please note that the Tarran unit in Lignocrete is reinforced. There are only two things with which we can reinforce material in building construction to-day—these are steel and timber. In this development of the Tarran System of Construction we have used, as the main reinforcement for handleability and transport, light timber ribs, with a cross steel wire reinforcement linked to the side wood with

You mention also excessive moisture movement. We do not know what this movement is in Sawdust Concrete. We have a group of three drying kilns, 80 ft. long by 9 ft. high, built seven years ago and constructed throughout in Lignocrete. They have stood all weathers of this country and appear to be in as good condition as when built. There is no noticeable movement in the 80 ft. walls in spite of excessive heat and excessive moisture. Hull.

#### Unity in the Architectural Profession

Sir,—Mr. Athoe, still more concerned with anonymity than unity, refuses to answer my questions about the membership of the I.A.A.S.; the inference is obvious.

His delusion that my object in starting this correspondence was to attack the I.A.A.S. and the misunderstandings which have become manifest in letters from other correspondents compel me to ask your permission to conclude by restating my arguments which are based on a belief in the necessity for unity in the profession.

(1) If architects are to take their rightful part in post-war reconstruction, it is urgent, and essential in the interests of architecture and of the architectural profession, that the profession should be united in one representative body, democratically constituted

(2) This end might be reached by (a) the creation of a new body composed of representatives of the R.I.B.A., I.A.A.S., the Faculty of Architects, the Institute of Registered Architects and

the unattached architects, or by (b) the inclusion of all architects in the membership of one of these organisations, which would become the representative body for the whole of the profession.

(3) With all due respect to the three bodies which I have consistently termed the alternative societies. their status and conditions of membership are such that they cannot be compared with the Royal Institute with its great prestige and over a century of service to the profession behind it. Although a numerically proportionate representation on a joint body would give a majority to the R.I.B.A., and a correctly weighted apportionment would give the Royal Institute an overwhelming majority, I believe that the establishment of another new body is both undesirable and impracticable.

The merging of the membership of the three alternative societies and the unattached architects into the R.I.B.A. is, in my opinion, a practicable solution. The multiplication of institutions is highly undesirable. Separate bodies representative of town planners, structural engineers, surveyors and quantity surveyors are obviously necessary, but providing it is democratically constituted, there can be no need for more than one institution to

represent architects.

Moreover, the only examinations which qualify an entrant to the profession to practise as an architect are those which qualify him for membership of the R.I.B.A., and it is logical to assume that, providing the present standard is maintained, all future entrants will choose to become Associates of the R.I.B.A., and that unity will thereby be achieved in any case when the present generation passes on.

(4) That unity could be promoted now, when it is an urgent necessity, by the merging of the alternative societies and the unattached architects into the R.I.B.A., and this could be attained by the extension of the Licentiate class as I have advocated. Such a course might seem a hard sacrifice to make, but unity is worth the sacrifice, and once the present generation of architects is unified, continuance would be assured by the operation of the examination qualification for registration. The policy I advocate aims not at limiting the profession to members of the R.I.B.A. but, on the contrary, at the extension of the R.I.B.A. to include the whole of the profession.

Mr. Oldham may not know that the R.I.B.A. has already invited unattached architects to apply for admission as Licentiates; I merely suggest that the invitation should be extended to all registered architects not already chartered architects, either directly or by negotiation with the alternative societies of which they are members.

Cheshire.

F.R.I.B.A.

last lap than the Blind

BE MITH YE

We are nearer the

TE QUOTE.

Runners approaching the think. Like Distance

end of the course let

us throw our last strongth

into the sprint.

2

Z

Guesday 25th Aug. 42.

For Organisation and Progress

Published Fornightly,

ADDUDICEDANTS

A Wall newspaper published courtesy of the Ministry of by the Works Committee at Battlesham and printed by Works and Planning. Extracts from the minutes of the Com-Mostly they deal with welfare; suggestion boxes are to be canteens are to be built; mittee are given in the bottom spotted about the site, new a feeder bus service is to be run half of the second column.

communicate with either Mr. Benco, M.O.F.P., Sureyors Department, J. Browns Engineers Department, Department, This paper is published by the Works Committee and printed by courtesy of the Ministry of Works & Planning. All material for publication should be given or addressed to the Editor, J.J. Finn, (Site (opposite First Ald Rut) A.A.S.T.A. is being formed here. Will persons interested Officer), at the N.F.B.T.O. Office communication and

## Sergeant Blaney! Solute to

We are honoured to have the opportunity of paying tribute to the heroism and achievement of Sergt. raid. We balleve we are correct in stetling that never before has a British bomber shot down this number of enemy fighters on one fetty. B. Blaney, the son of Mr. John Blaney, foremen on the main dreates here. Only 20 years of ege, he was the first Wireless Operator Air Gunner of the Stirling bomber which shot down three Messerschmitts while returning from the Bremen times fieres struggle to get work; it was only matural and human for the people of our industry to wonder and hope that they had secured some

It reveals an almost tragic lack

Some people are misguided and selfish enough still to ask this HOW LONG WILL THE JOB LAST? Editorial

Battlesham. The rest of the

contents might be described as

for the benefit of workers at

of green of present day conditions and needs. At one time the quest-lon did hold some validaty, in the

a mixture of slapstick fun and

elevating sentiment. But a small note in the top left hand corner of the sheet presages change. It announces that a branch of the A.A.S. T.A. is to be formed on the site. The A.A.S.T.A., now busy

days of unamployment and the some-

Both the Stirling and 11:9

James Hook heavy puntainment, Sergi,
Blancy himself suffered arm injuries

- probably for more severe than he
has revealed in his obsery letters
to his dad, "Poblisher his may
visit Endelighus Palace shortly to
receive the homorur of D.P.M. Good
shooting Sergi, Blancy and best
wishes for a speedy recovery. urgency of the present situation now relegates such personal consider-ations to secondary importance,

The grave

Those days are past.

Keenly sware of our duty to our mates in the fighting forces we are giving this job everything we have got and if it falls to our jot to

# -AND COMOR IN FIGHTING AT THE BELL! The Next Round.

Words to set British heerts and nerves a-tingling! The last minute instructions of the referee! the usual prelude to an honourable conflict between worthy foss! Great words thosel Bracing words

But we have a fight on - you ond I end our fifteen hundred mil-lion makes - in which our fees are worthy only of externalmation, in

Many are the examples to inspire us. Dwell for a moment upon the human splendour of those Russian

# "they say"

That Battlesham is now a "hive " of industry, but that there aren't many

That the Battlesham News is purposely printed on paper of an inconvenient thickness. That owing to the speed of work the Management is erranging for shields to be fixed to all showels and trowels to protect the users from the sparks.

The Frinciple of "each man for himself and the devil take the hind-most" was driven to it's bitter

continuity of employment.

conclusion - small wonder we were dubbed "Industry's Soldiers of Portamos."

That Rockingshire people are very pewin of that Assayearts water course, the River Brabourse. Ratilsaham people soy it has nothing on their temporary mater supply which disappeare daily.

which there is no referee, no Queens-bury rathe, and no bell - unless it be the final marning of doom which on still befall Britain and her Allies in the next two months, values we now throw all wo we got into this last round and "box more claver" than we ever knew! SERGEANT MEDILL K.O. 'S THE HURI

sallors who were fired ashore from the torpodo-tubes of submarines to signal targets in the rear of the enemy investing Sebsatopoli

John them when it is finished, so be it, at least we shall join them developing itself as an integral

Correspondence.

The scooping up of a 30 ib Salmon Or of Sergeant Hedill - member with a pailt of Tubber boshily rocatly of the orew of the Stirling which was no mean feat. Solve us the

The A.A.S.T.A., now busy

developing itself as an integral work and a purposeful policy to pursue. It aims to make technicians play a part on realise the Unions' dream of as a side line (for Astragal's ment, has a paid organiser at works committees and help committees with welfare only wall sheet, reproduced here is part of the trade union moveturning them into production comments see page 149). The a genuine example of site journalism and Aunt Fannie's ulations. Where this has Corner shows that bricklayers know how to drop a hint. It has of course been necessary to alter all names in conformity with censorship | regmade nonsense of puns the text has been regretfully omitted.

join them when it is finished, so be it, at least we shall join tham with our hands clean,

mates in the fighting forces we are

10 01 0V

giving this job everything we have got and if it falls to our lot to

greater will be consumed with a resolute determination that the old days of individual hardship shall never return. The better we play our part in present collective effort the the

Here then is the enswer to the ontvellers :-

THE JOB WILL LAST NOT A DAY LONGIST THAN WE CAN HELP.

# Give them "the Works

The labels on some of our trains us we "do to It". That about tell us we "do to It". What abo broken pieco-meal?

in 1942 but the Japanese built one like it with foreign help-garks ago, they are often despise for the way they cay foreignes. Fou all way from shown he way enquire for drawings from showed and then build the things themselves, orething a cool when plance of Sandry cert them drawings of adestroyer with turned turits when it was launched. But they have got modern equipment, swan if Japanese vorkens uppend the might shift parched like disidense on any conventions take and indicate out any conventions to be souther like the British tank fitter on anygive who we were the himself We are building this factory on nights who woke up attacking Smolensk.)

Uncle Joe, of ocurse, got on the Job early, way back behind the Urals, laffor miles from Mossow, 400 miles to the macrest them in Siberian cold of 90 degrees of frost, with a forest to clear first. (That andres bellynching about dead and alive holes seem a bit out of place.)

specialists there and even they made mistakes. One blew himself up through raising the air preheat on the boilers when the pulverised ocal familia to that factory being built in 1929; with Soviet people tightening their belts to pay for foreign specialist service, they are keeping the chopper off our They had German come in with snow on, The factory was important enough for Molotor, Voreshilov and Joe himself to pay special visits, using as see, plane to lend on the lake by the plant.

All this has one point only; don't underrate the foreigner, friend or foe. Plenty of people said the Russians wouldn't lest,

contd. in last column.

# Correspondence.

Dear Sir.

We are writing through the Battlesham News, to see If it can possibly be arranged, for Battlesham workers also Carr workers Baiding at the Nosta to have a Bus take us fatto Tellowstone once a week, for shopping puryeses, also as a slight travestion, owing to there being no transport, me would approache this very much, all tegether hout 60 men, possibly more, would like this change to wisit a town once a week, Hoping this will receive your sarnest attention.

Tours respectfully Handroof Hostel Rosidents.

O.K. Handroofers . The Federation Steward has egreed to raise the master at the next Forks Committee meeting. Ed.

We give below extracts from the minutes of the Works Committee. Any operative who wishes a matter radied to the committee should contact his steward.

Mr. Fowl and the Secretary reported on their attendance at the meeting of the West Fillington Trans-port Consultative Committee and Tellowstone on 15th July.
That a feeder bus service will

operate on and from Monday 20th July on the return journey from Granleigh Station to Meles.

residents and that the application for Corrington and Pechingham passen-gers to be transported by bus would be The service to operate every eventy exact that on Fridays pariority would be given to Battlesham workers on the sormal service buses. The scheme to be given one month's frida.

That the existing work train will be extended to include Fitten

SUGGESTIONS BOXES. Browney and Foved by Messis, Browney and Received and Approved. given consideration.

Bradley and Resolved, this this com-mittee recommends that suggestions to him daily and any worthy suggestthe site. Hr. Ransom said that he welcomed this move and would put it have the contents of the boxes sent boxcs be placed a focal points on into effect ismediatelys he would

questions and explanations by Mr.
Indersons, it was more by Mesre.
Fudsiay and Garrady and resolved,
that this Committee axpresses it is
approved and appreciation of the decislan, of the administration to erect
new canteens. After discussion on CAUTERIS

The scooping we of a 30 th salamn with a pair of rubber books recently was no mean feet, "faye us the foots, we'll do the job's said the navel salamen extens when our see reported tried to buy the fish.

Shakespeere said "Glothes make the mann". The Steel Bolters say it is time Scale Bolters and it saw it is safter the Ruddy Painters.

To save petrol "Twillgo" the famous Statute Organion, has been hired to knock out Engineer's page quicker than Flant Drivers.

# Aunt Farmies Corner

My dear fellow cogs in the wheels of Battleaum Sar Stotory. Goall What a mouthful! I thank you for the tremendous reception you have given this little corner. It is impossible for me to answer all the 593637 queries before 1936 so please be

Quite a "Fenny" nail, chi

o vory interesting lotter sake if I can give him way they on the stuffing of bixds. As this County abounds in all species of wild bixds and as the sanving and shorting of fine specimens in of interest to every sportsman, I have decided to every igorisman, I have decided to write it few extracts from the diary of my quickest men on the trigger. In the next issue of the 'Here' I will deal with the type of bird to hunt. Gangor Frank S of Aginport in old friend Professor Nutneg who was considered Carlisle's finest and

My Mates and I try to play a game at 7.30 every morning called "Getting down the bricks" but we don't seem able to get 'compo'. That can we do to get this game Dear Auntle Fenny,

Lach bring a bucket of ready made 'compo' from home.

to pick us up and my girl, who is only 18 and very greekty, broke every-thing off. She says she wants as man who is constant. Gan you help? The other night the bus failed Dear Fenny,

Yes, let me have her name and nddress as soon as possible. I went out with one of Engineers the other night. Deer Aunt Foury.

Tee Oirl.

You ought to know best deer.

It's very true.

Or of Sergeant Heddll - member of the orew of the Stiffing which shot down 3 Heastradmatts on 4ths return Journey from the Bremen raid - who got a pal to write a cheery letter from hospital in order to hide the extent of his injuries from his fether, a foreman on this

signal targets in the rear of the enemy investing Schastopoli

on their temporary water supply which disappears daily.

# NO SPRIOTATIONS, PLEASE

or ser or throdults do no equip us for feate of arms, we must be the more sure that we are not spect-ators, in any way, or for the meret second. We must that it has even high level of service as those workfort, in a West of Meghand structurate factory, men and wesen, who, - after working a day shift - volunteered to work or throughout the might in order to filight. he r Allies. But the resolution and will to victory of the whole population can and will. If trowel however, will not save Britain and he r Allies. But the resolution Individual heroism, alone

mination, we can soon remove any obseque which hinders our efforts and makes us feel "browned off".

call 400 years ago, for the first round and the last round alike:-Bill Shakespeare gave us the "On, on you noblest English! For there is non of you so meen and base noble lustre

I see you stand like greyhounds in the slips Straining upon the start. game's afoot: FOLLOW YOUR SPIRIT! " in your eyes

S.J. Anderson.

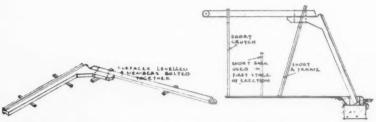
the Japs would crack at the first Gave them she Works contd.

sober thought on our own defects We can do the job and we've We could do with a little and undeserved luck.

"The gives quickly, gives twice." There's an old Latin motto:-

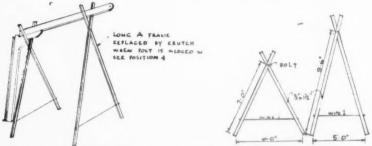
## STANDARD HUT

MOWP has designed a Standard Hut for rapid erection, to speed the construction of army camps, hostels for factory workers, and so on. This hut can be adapted for use as a dormitory, a recreation room, a dining room or a canteen. One of these huts is now on view on a site behind the Tate Gallery, London; the method of erection is illustrated and described here.

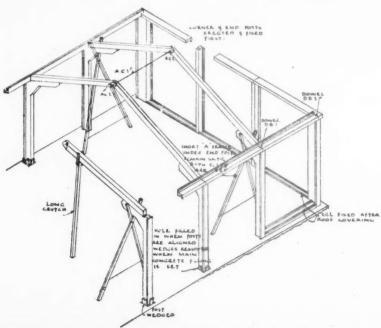


POSITION 1. Sketch showing bolting of rib to post on ground before erection.

POSITION 2. Sketch showing post placed in hole and short "A" frame in first position.



POSITION 3. Short and long "A" frames used. The sketch on the right gives the measurements of the short and long "A" frames.



POSITION 4. A frame and crutch holding post and rib in position until the opposite post is erected and apex bolted.



The units are unloaded from a lorry outside the entrance to the Tate Gallery site.



2 The stanchion and rafter are laid horizontal and the bolts fitted by one of the workmen.

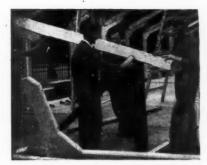


3 The large "A" frame is removed and a long crutch is put in position in its place.

Reinforced concrete transverse frame of ribs bolted to bracketed posts and held at the apex by a continuous bar. Corner and end posts flat topped. Concrete floor—sill and lintols span between the posts, providing uniform panels throughout for the wall cladding. ROOF: Timber purlins wired to the concrete ribs with Big 6 or Standard corrugated asbestos cement sheeting. GABLE (SPANDREL): Timber gable truss, prefabricated, with Standard corrugated asbestos cement sheeting. When brick or clay block wall cladding is used, gable spandrels are of similar materials. WALLS: Filling of panels may be of any suitable wall cladding. The following are standardized: Brick: 4½ in. brick walling. Clay Blocks: 4 in. hollow clay blocks, 8½ in. high. Special blocks for gable bonding. External face painted. Plasterboard:



The frame is lifted and the "A" frame is inserted under the bracket of the stanchion.



7 Frame is lifted and temporarily supported by a piece of timber and a small crutch is ready for next lift.



General view of the temporarily erected frames. Note the temporary wedging.



The small crutch is held in position and a small "A" frame is ready for the next lift.

laid

oved

t in

DRK: f ribs

the d end and

viding wall wired ndard ABLE prebestos k wall re of panels The 4½ in. gable

board:



" A" frame is inserted. Large The ridge pivot is lifted as high possible.



Partially completed roof, showing wiring on of purlins.



The remaining half-frame is erected similarly to the first half frame. Wedges are inserted.

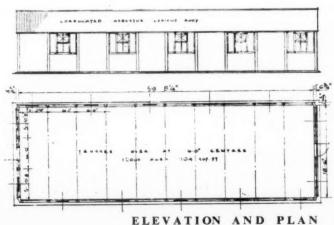


A workman stands on a ladder to fasten one of the ridge links; they are fastened stage by stage.



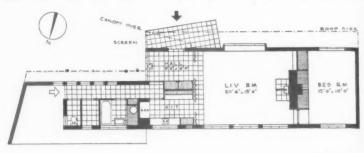
The finished roof. The off-cuts from one set of gable sheets form the gable sheets at opposite end.

Prefabricated panels, wood framed with plasterboard internally and felted plasterboard plasterboard internally and fetted plasterboard externally. Seco: Prefabricated panels wood framed with wood wool between two sheets of asbestos cement. Wood Cement: Special moulded blocks of wood cement laid dry. moulded blocks of wood cement laid dry. Lined with plasterboard after erection. Wood Wool: Slabs of wood wool of special size bedded in cement mortar and rendered externally and internally after building in. WINDOWS: Prefabricated windows, with top hung sash opening outwards in the upper central light. Sides covered with asbestos sheeting externally and plasterboard internally or left for full glazing. An additional opening sash can be provided in the lower portion if required. The windows are incorporated in the plasterboard units where this type of wall cladding is used. DOORS: Prefabricated units incorporate a door, with surround of asbestos cement externally and plasterboard internally. With Seco wall cladding, a "Seco" door unit is provided with flanking Seco panels.



ELEVATION AND PLAN

#### HOUSE AT SHAN



SITE—Shanagarry, Co. Cork, Ireland. The site has a road on the north side and the sea on the south. The big window of the living-room on the south front is focused on a lighthouse and island, the focal point of the bay.

PLAN—The origin of the plan is the traditional Irish cottage—one large general living-room with a fireplace at one end and a bedroom beyond. This has been elaborated by the subdivision of the living space into three separate but openly planned units—living-room, hall and kitchen—and by the addition of a "utilities" block at one end. The house is for two people only, and was required to be of minimum size and to be run without domestic help, but added accommodation is planned for a later date in the form of a bedroom wing of two storeys projecting to the south, at the east end of the passage. The present bedroom will then be used as a study.

CONSTRUCTION AND FINISHES—Walls are of 9 in. concrete blocks, laid in limemortar and plastered inside and out. Roofs are of timber, boarded and insulated and finished with grey corrugated asbestos cement sheeting. Windows are steel, in Columbian pine frames, except the large south window, which has a reinforced concrete frame.





DESIGNED

### AGARRY, IRELAND



The living-room, with seapebble wall, whitened, as background to stove. In the interior the sloping roofs and rafters are visible in all rooms, except in the hall and kitchen, where low, flat ceilings contrast with the lofty livingroom and give tank and storage space above. Right: the kitchen. Facing page (right), view from the north and (left) a detail



of the south front, showing the large living-room window. Walls are lime-washed, picked out in bright colours. The photographs of the house were taken by J. B. Haynes.

The War Damage (Amendment) Act 1942 received the Royal Assent last month. In the following article a Barrister-at-Law gives a short survey of the Act.

## WAR DAMAGE

[By T. J. SOPHIAN]

THIS Act makes very important changes in Part I of the principal Act of 1941, which relates to Immoveable Property and to fixed machinery and plant. It also introduces some minor amendments of the "Commodity Insurance Scheme," under the War Risks Insurance Act, 1939, and also of the Business Scheme under Part II of the War Damage Act, 1941. I propose to make here a short survey of the Act and to leave, for future occasions, a detailed consideration of its more important features.

The risk period, during which the protection afforded by the Act will be available, has now been extended indefinitely and it will be terminated eventually by a Treasury Order. For the moment the burden of contributions has not been increased. Both the number and the rate of contributions remain as before. Payments will still have to be made for the remaining three out of the five contribution years, 1940-1945, and the rate of contribution will be still 2/- in the £ or, in the case of certain properties, to the list of which must now be added land used for the purpose of an aerodrome, flying school or landing ground, 6d. in the £.

Severe penalties have been introduced for giving false or *reckless* information when making claims, and one of the architect's duties when advising clients is to give them a tactful warning about exaggerated claims.

Strangely enough the most substantial amendments that have been introduced are to be found not in the body of the Act, but in the various schedules. The First Schedule contains general amendments of the scheme under Part I of the 1941 Act in relation to Immoveable Property. The Second Schedule contains amendments as to the ultimate incidence of the contribution under Part I of the 1941 Act, as between Mortgagors and Mortgagees and as between Landlords and Tenants, while the Third Schedule contains amendments of the Business Scheme under Part II of the 1941 Act.

The valuation and compensation provisions of the 1942 Amending Act will, perhaps, be of particular interest.

The scrap value of materials provided when making temporary repairs will be taken into account when the permanent repairs are executed if they are

N

e but
-room,
y the
ock at
or two
red to
to be
o, but
lanned
n of a

rs proie east present l as a

9 in. limele and oarded with cement eel, in ept the

has a

- G

E D

available in connection with the latter repairs; and similarly where materials are used for permanent repairs ranking for a cost of works payment, their scrap value will be taken into account if they are available in connection with any subsequent repairs, and the cost of works payment will accordingly be adjusted.

If the damaged premises are licensed premises, then in making any valuation, such as the pre-damage-or the postdamage-value, for the purpose, for example, of determining what is the appropriate type of compensation, or what should be the amount of a value payment, it must be assumed that the licence is and will remain unaffected by the damage.

Certain amendments are also made as to the extent to which regard is to be paid to restrictions affecting the property, when valuing the premises for the purposes of calculating a value payment.

What is a most important innovation is the right now conferred on owners what may be described building rentcharges to share in the value payment. This right will arise where the owner of the rentcharge can show that his rentcharge is no longer secured on the property out of which it issues because of the war damage suffered and the consequent deterioration in the value of the property, but where a share of the value payment is received by the owner of the rentcharge, a corresponding portion of the rentcharge will be extinguished. This is an extremely complicated provision in the Act which will call for detailed examination later.

A new type of compensation has been introduced, which is in part cost of works and in part value. This compensation will be appropriate in cases where the property, although it ranks for a cost of works payment, is not intended to be completely reinstated by the owner.

This type of compensation will also be payable in cases where the damaged property is only partially repaired at the time when it is to be compulsorily acquired. In such cases the acquiring authority will pay compensation on the basis of the property being in its then unrepaired state, and the vendor will be left to claim his cost-of-workscum-value compensation from the War Damage Commission.

Where property becomes subject to a clearance or demolition order or compulsory purchase order under the Housing Act, the contributions will be remitted, to the extent to which the property has been unoccupied during the particular contributory year. This privilege cannot be claimed, however, for the year 1941.

In considering whether property has been rendered unfit, account must be taken of the fact, if that be the case, that the property can be used for some other purpose substantial in relation to the purpose for which it was being previously used. If that be so, the property may well be regarded to be still fit notwithstanding the damage. Moreover, in considering the question of fitness, regard must be had to, inter alia, the class of occupier likely to use similar properties which are not unfit for that purpose and also to the standard of accommodation available at the material time. This definition brings the War Damage Act into line with the Landlord and Tenant (War Damage) Acts.

Where contributions are in arrear power is now conferred on the collector to recover the arrears by directing any rent payable to the contributor, by any lessee of the property, to be paid over directly to him instead of to the contributor. Where a person is entitled, or is under an obligation to remove any building or work on the damaged property, he will be treated as having a notional proprietary interest in the building or work, which will thus entitle him to a proper share of any value payment made in respect of the

property.

Formerly attempts were made to shift the obligation with regard to contributions, by entering into arrangements with holders of short tenancies (i.e., for seven years or less), whereby the burden of the payment was transferred by the direct or indirect contributor on to the shoulders of the latter. This loophole has now been closed. Any such arrangements with such tenants or licensees are prohibited and if already entered into will be null and void. Incidentally it should be observed that a tenancy at will or for a term limited to expire within a period of not longer than seven years, calculated from the termination of the war, will be treated as a short

Further, if no rent is reserved, the proportion of rent to value for the purpose of the Table to the Fourth Schedule of the 1941 Act will be taken as being less than one-quarter (Col. (d)), and if the rent is not a money rent, the money value of the rent must be taken as being the amount of the rent.

#### B.S.I.

The British Standards Institution has issued a further specification in the series of standards for engineers precision tools, namely for Engineer's Comparators for external measurement. B.S. No. 1054. The type of measuring tool which forms the subject of this specification comprises a rigid standard supporting a measuring head over a work table. The specification applies to comparators with measuring heads of low and minimum magnification factors. It is applicmeasuring heads operated by mechanical, electrical, optical, fluid or pneumatic means. Owing to the diversity of designs of this type of measuring tool, the

specification is concerned mainly with the desirability of accuracy of performance.

Copies of this Specification may be obtained from the British Standards Institution, 28, Victoria Street, London, S.W.I, price 2s., 2s. 2d. post free.

## ECONOMY

### in Building Construction

In order to secure the utmost economy in the labour and materials required for building programmes, the memorandum below has been prepared to supplement the "Notes on Methods of Construction and Uses of Materials recommended by the Directorate of Con-structional Design '' issued on February 12, 1942, in Works and Building Committee Paper B.P.(O) (42) 9, and circulated to local authorities. These recommendations will require to be observed to give effect to the instructions of the Minister of Production and the Minister of Production's Council as set out in Works and Buildings Committee Papers B.P.(O) (42), 25 and 26, circulated to all Departments on April 22 and 23, 1942. Departments will be aware of the pressing need for the most rigid economy in planning and construction, and further memoranda will be issued from time to time embodying the requirements of Wartime British Standard Specifications, Building Bulletins, the decisions of the Building Materials Standardization Committee, and the restrictions imposed by the exigencies of the allocation of labour and the supply of raw materials. In the mean-time, effect should be given to the "Notes" and the attached supplement, and it is hoped that full advantage will be taken of the facilities available for discussion with the Directorate of Constructional Design at all stages of schemes of construction to ensure that the maximum economy shall be secured without delaying progress. Particular attention is drawn to the desirability of arranging for such discussions as early as possible.

#### GENERAL DETAILS AND FINISHES.

Note.—See also Section A (iii) (Miscellaneous Construction Details), which will be incorporated in this section in any future editions.

Prohibited Without Reference.

Permitted.

#### ACOUSTIC.

quilts.
Acoustic cork, fibre tiles and wallboard.

Acoustic plaster . . . The use of woodwool for structural purposes, i.e., roofing, walling and partitions.

#### CONCRETOR.

Decorative texture treat-ment to concrete sur-faces.

Pumice aggregates and concrete.

Foamed slag, stone and brick aggregates and concrete.

colour-

#### BRICKLAYER. Distempered or co washed brickwork. Common brickwork.

Glazed brickwork

Special facings Special facings for decorative purposes. Pumice block partitions unless obtainable from stock.

Purpose made moulded bricks, cutters and rubbers.

Copper, lead and lead cored bituminous damp proof courses. for

Bronze or gunmetal wall

Copper gauze, cast-iron air bricks and black-out ventilators unless available from stock.

Splayed, bullnosed and common brick.

Slates and impervious engineering bricks, blue Staffs in cement; coal tar pitch felt.
Common brick headers, clay block wall ties, hoop iron or coated malleable iron ties where necessary in cavity walls over 8 ft. in height.
Terracotta, concrete or asbestos - cement air bricks and ventilators.

Natural

atural rock asphalt (except in R.O.Fs.)

Bitumen and tar in accordance with the materials Standardization Committee's Circular EM 2 ('' Bitumen and Tar-Economy in use and consumption '').

g

n in ling has on-ials on

Š. in-

ol for

and i con-

olour-

con-ns.

aders, hoop leable essary r 8 ft. e or air ors.

n ac-the zation ircular n and se and

## THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

TABLE GIVING EFFICIENCY COEFFICIENTS FOR CENTRALLY-LOADED COLUMNS MADE UP OF TWO BSS. (EQUAL) CHANNELS TOE-TO-TOE.

+	SIZEOF	ULICHY PER	OVERALL SIZE		WO B	-								
	EACH CHANNEL Inches.	FOOT RUN, lbs.	OF COL., Ins.	sion a ins.	G.	7.	NGTH 8.	OF CO 9.	LUMN 10.	OR ST 12.	RUT IN 14.	I FEET IG.	18.	<b>20</b> .
	3 x 11/2	4.60	3×3	9	070	0·64	0.57	0.49	0:37	0-33	025			
	4 × 2	7-09	4×4		0.80	0.76	072	066	062	0.57	041	0-34	0-28	
TYPICAL DETAILS	5 × 2½	10.22	5×5		0.83	0-81	078	0.75	0.71	0.63	0:54	0.46	0.39	0:33
OF COLUMN SECTIONS.	6 x 3	16-51	6×6		0.86	0-84	0-82	0.78	0.76	0.72	0.64	0-28	0:51	0-44
Casing	6 × 3½	IG:48	6×7		0.86	0.85	0.83	0.81	0.79	0.74	0.67	0.62	056	049
concrete.	7 × 3	14.22	7×6		0.86	0.84	0.82	0.80	0.76	0.72	0-64	0-58	0.51	044
	7 × 31/2	18-28	7×7		0.87	0-86	0-84	0-82	0.80	0.76	071	0-65	0.60	053
	8 × 3	15-96	8×8	2.	0 <del>.</del> 86	0 <del>.84</del>	0.82	0.80	0.76	0.72	0.64 0.64	0.78	0.52 0.51	0:50 0:44
figure 1:	8 × 3½	20.21	8x7		0.87	0.86	0.84	0.85	0.80	0-76	0.71	0.65	0.00	0.23
Channels lack-welded loe-lo-loe	9 × 3	17:46	9×8·5 9×6	21/2	: 0.86	0.85	. 0.82	0.81	0.79	0.74	0.67	060	0-58 0-54	0:54 0:47
Ballen plate	9 × 31/2	22:27	9×9 9×7	2	0-87	0.86	0·84	. 0.88	0 <del>-8</del> 0	0.76	071		0.60	0-54 0-53
	10 × 3	19-28	10×9 10×6	3	0.86	0-85	0.82	0-81	0.79	0.74	067	0.63 0.60	0.61 0.54	0-58 0-47
	10 × 3½	24·4G	10×10 10×7	3	0.87	0 <del>8</del> 6	0-85	0-83	0-81	0-77	0.73	0.63 0.67	0.61 0.62	0-5e 0-8
	11 × 3½	26.78	11×10-5 11×7	31/2	0-87	0.86	0.85		0.81	0.77	0.73	0.67	0.63 0.62	0.60 0.56
figure 2: Channels placed	12 × 3½	2G-37	12×10-5 12×7	31/2	0.88	0:86	0-85	0-83	0.82	0.78	074	0.68	0.64 0.63	0.78 0.05
apart.	12 × 4	31-33	12×8		0.89	0.87	086	O-82	0-83	0-80	0.77	0.73	0.68	063
	13×4	33-18	13×12 13×8	4	0.89	0.87		. 28-0	. 0.83	0.80	077	0.73	0.68	0·64 0·63
	15×4	<b>3G</b> ·37	15×13	5		0.87	0-86	. 0-85	0.83	0.80	0.77	0.73	0-68	0.66 0.64
	17×4	44.34	17×14-5 17×8	G1/2	0.89	0 <del>8</del> 7	0.86	0.85	0.83	0.80	077	073	0-68	0.67 0.64

Isrued by Braithwaite & Co., Engineers, Ltd. Compiled by Samuely & Hamann, Consulting Engineers.

INFORMATION SHEET: STEEL FRAME CONSTRUCTION, 82: WELDING 38.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

## INFORMATION SHEET • 875 •

## STRUCTURAL STEELWORK

Subject: Welding 38: Comparative Efficiencies of Centrally Loaded Columns made up from Two B.S.S. Channels, Toe-to-Toe.

#### General:

This series of Sheets on welded steel construction is a continuation of a preceding group dealing with riveted and bolted construction, and is intended to serve a similar purpose—namely, to indicate the way in which economical design as affected by general planning considerations may be obtained.

Both the principles of design, and the general and detailed application of welded steelwork are analysed in relation to the normal structural requirements of buildings. The economies in cover and dead weight resulting from the use of lighter and smaller steel members and connections are taken into consideration in the preliminary arrangement of the building components, in order to obtain maximum economy in the design of the steel framing.

This Sheet is the second of a group giving comparative Efficiency Coefficients of welded steel columns, and deals with boxed channels (placed toe-to-toe).

### Choice of Section:

Columns consisting of two channels, placed toe-to-toe, resemble those made up of two angles, which were described in Sheet No. 37, and columns of similar dimensions have similar Efficiency Coefficients. It is slightly easier to detail the channels, as the arrangement is symmetrical about both normal axes. On the other hand, there is not the same choice of section as there is when angles are used. Moreover, it is not possible to keep a constant overall size by varying the thickness of flanges and webs.

Two channels are definitely superior, however, where bending moments occur about one of the axes.

#### Efficiency

The Efficiency Coefficients, which may be used in accordance with the formula set out

on Sheet No. 37, may be increased for long columns by moving the channels apart. It must be remembered, however, that batten plates are then required and that, apart from the additional labour involved in welding these plates, the whole assembly of the columns becomes more difficult. This is expressed in the Efficiency Coefficients which are 20 per cent. lower than those corresponding to equivalent rolled sections.

It can be seen from the foregoing that only on rare occasions is it worth while to spread the channels. For columns with batten plates the Efficiency Coefficients have been given only where they show an advantage over the closed type. The required distance between the channels is given in column "a" of the table.

#### Fabrication:

The channels which make up the column should, under all circumstances, have their flanges facing each other, and not turned outwards as in riveted construction, as the Efficiency Coefficient is reduced if the latter arrangement is used. All channels placed toe-to-toe have to be tack welded for the whole length, a comparatively small outlay, and the two ends must also be sealed. By comparing Figures I and 2 it can be seen that the closed column, toe-to-toe, requires considerably less casing concrete.

#### Example:

Find a suitable column for a central load of 80 tons, and a buckling length of 14 ft. 0 in. From the formula on Sheet No. 37 of this series it can be found that:

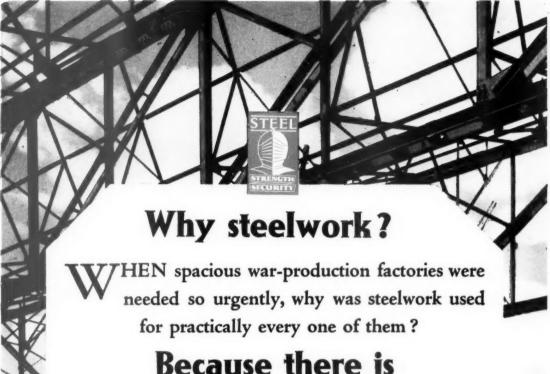
From the table on the front of this Sheet it can be seen that two 10 in.  $\times$   $3\frac{1}{2}$  in. channels will be sufficient.

#### Previous Sheets:

Previous Sheets of this series on structural steelwork are Nos. 729, 733, 736, 737, 741, 745, 751, 755, 759, 763, 765, 769, 770, 772, 773, 774, 775, 776, 777, 780, 783, 785, 789, 790, 793, 796, 798, 799, 800, 801, 802, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 816, 819, 821, 822, 823, 824, 826, 827, 829, 830, 832, 836, 837, 838, 839, 840, 842, 843, 845, 847, 848, 849, 850, 851, 852, 853, 855, 856, 857, 859, 860, 862, 863, 865 revised, 867, 869, 870, 871 and 874.

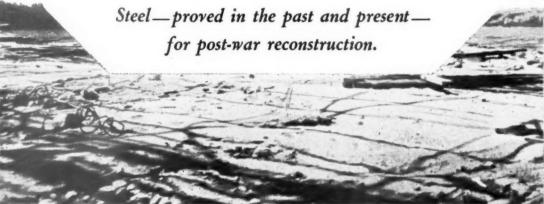
Issued by: Braithwaite & Co., Engineers, Ltd.

London Office (Temporary Address):
King's House, Haymarket, London, S.W.1.
Telephone: Whitehall 3993.

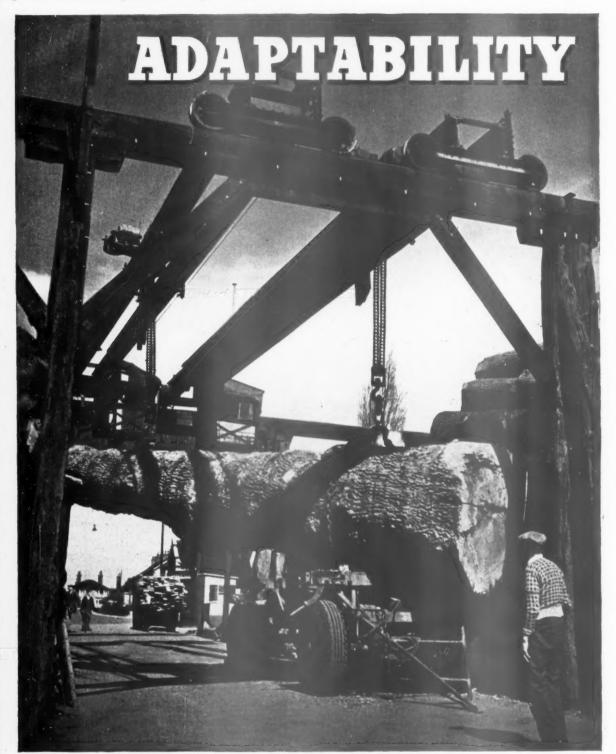


## Because there is no other system

which is so speedy in building, so economical, and so simple to repair if hit.



BRITISH STEELWORK ASSOCIATION, STEEL HOUSE, TOTHILL STREET, WESTMINSTER, S.W.I



Adaptability has been the keynote of Sadds' organisation since September 1939. The wood-working shops have been replanned, a light metal assembly department and the services of an ironworks have been added to produce a production-line in keeping with the needs of the times.

## **IOHN SADD** AND SONS LIMITED MALDON Telephone: Maldon 131 ESSEX

Permitted Paints in accordance with War Emergency B.S.S. 925/929 (not more than

Washable distemper or colourwash.
Creosote (in accordance with B.S.S. 144) wood

with B.S.S. 144) wood preservative and proprietary preservatives. Walls to be treated with washable distemper or colourwash. Ceilings-common distemper. Stain and one coat of varnish or distemper where necessary. Grey paper to be left untreated or distempered after sizing. Washable distemper or colourwash.

Omit, except in special buildings in R.O.Fs. Tar varnish for "touching up."

ashable di colourwash.

three coats).

Prohibited Without	
Reference.	Permitted.
ASPHALTE	R (continued).
Bitumen	Bitumen and tar used in accordance with the MaterialsStandardization Committee's Circular EM 2 ("Bitumen and Tar-Economy in use and consumption").
Synthetic asphalt flooring.	Pitch mastic flooring.
	LAYER.
Galvanized step irons and brackets.	Concrete or brick steps; ungalvanized step irons where essential. Iron bar or gas barrel, etc.
Galvanized gully gratings.	Concrete or stoneware
Cast-iron gully gratings where not subject to traffic.	Concrete or stoneware gratings.
Cast-iron gullies	Concrete or stoneware gullies.
Cast - iron manhole covers and frames,	Pre-cast reinforced con- crete covers.
where not subject to	Cast-iron manhole covers

## drains. ast-iron drains and fittings, except at shallow depth under roads carrying heavy ARTIFICIAL STONE, FAIENCE AND SIMILAR WORK.

soil

Cast-iron manhole covers and frames for soil

drains.

Concrete or stoneware pipes and fittings surrounded with concrete.

traffic.

where not subject

except

Reconstructed artificial stone dressings and facings.	Omit.
Ornamental cast concrete. Faience slabs	Omit. Distempered brickwork and concrete.
Glazed wall tiles	Distempered brickworl
Tiled bath panels	Omit.

Stonework construction except in parts of the country where stone- work is more econo- mical in materials, labour and transport	MASON.  Brickwork, concrete and other materials, not prohibited elsewhere.
than brickwork, etc.	

## Stone facings and dress-ings for appearance only. Stonework where essential for making safe damaged buildings.

## MARBLE MASON AND MOSAIC WORKER. Work prohibited entirely.

			OL	VIEW W	THE CHAIN	LER.	
All	slatin	g a	nd	tiling		os-cement	
go	cept ood operty	for to		making maged	plast	d woodwo terboard concrete.	

#### CARPENTER AND JOINER. Section "B"— ber, as amended. Amendment List.

Wall plates	Padstones, use of offsets in the wall or insertion of joists suitably protected, into openings in brick-
Wood or metal legs for sinks.	work.  Corbelled out brickwork.  Brick piers, pre-cast con- crete legs, etc.
Rubber components generally.	See Building Materials Standardization Com-

IRONM	ONGER.
Non-ferrous metal kick- ing plates, hat and coat hooks, door furniture and fittings.	Hardwood plates, pegs and door knobs, etc., resin bonded plywood kicking plates, mild steel door furniture.
Brass butts, except in danger buildings in R.O.Fs.	Mild steel butts and tee hinges.
Galvanized iron tongues and water bars. Metal surrounds to mat	Ungalvanized iron and hardwood tongues. Omit.
sinkings.	

Metal curtain tracks	Hardwood rods or "Sir
	plex '' tubing.
Double action floor door springs and checks.	Spring hinges where n cessary.
Metal lettering	Painted lettering.
Non-ferrous metal or	Mild steel.
malleable cast iron	
fittings, cups, screws,	
etc., except in danger	
buildings in R.O.Fs.	
Perforated zinc sheeting.	Omit
remorated zinc sneeting.	Omit.

Omit. See Building Stee Building Materials
Standardization Committee's Circular EM.3.
(Alternative materials for use in place of rubber.)

SMITH AND FOUN	DER AND MET
WOI	RKER.
he use of cast-iron components other than in accordance with the	See E.M.4.
Building Materials Standardization Com- mittee's Circular EM.4. (Cast Iron.)	

components

generally.

P		ted Witho	ut
	and	wrought	iror

Pro

M

Pro Me W

Ca

M

felted

eel and wrought iron railings and gates.	Pre-cast concrete posts and wire or pre-cast concrete panels, where necessary, for agricultural purposes and for safety.
essed steel stairs	Concrete or brick. Cast iron stairs for fire escapes.
etal skirtings	See Section "B"—(Timber).
essed steel partitions	Brick, hollow tile, concrete or breeze partitions.
etal canopies to shop fronts.	Omit.
rought iron balus-	Brick or pre-cast concrete

Permitted

trades and hand rails.	balustrades and pre- concrete rails where cessary.
ast iron window span- drels.	Omit.
etal lantern lights	Concrete, glass bricks asbestos-cement.
etal mouldings	Omit.
alvanizing to coal	Omit.

Metal moundings		Omit.
Galvanizing to co bunkers.	oal	Omit.
tilators.	en-	Concrete or asbestos- cement.
	on ter	Asbestos-cement; pressed steel for valley gutters.
Bronze counter screens	* *	Gas barrel or similar improvisation where

	necessary.
Purpose made metal windows.	Standard metal or concrete windows.
Non-ferrous metal win- dows.	Standard metal or concrete windows.
Folding and sliding metal windows.	Standard metal or concrete windows.
Galvanizing to metal windows.	Omit.
Zinc and copper roofing	Asbestos-cement sheeting,

Zinc and copper roofing	Asbestos-cement sheetin felted woodwool, felte
	plasterboard, pre-ca concrete slabs.
Galvanized wrought iron	Coated mild steel section

#### and cast iron cisterns over 250 gallons. tanks; small asb unit tanks. PLASTERER. PLAS' internal plastering for new work. Washable distemper, colour-wash, or other brush applied finish.

	FLU	VIDER.	
than in a	ilar E.M.1. in the use and pipe in		to lead use nce with E.M.

Flush bath panels	
Non-ferrous metal	pipes,
sparges, gratings,	etc.
Galvanized iron gra	atings.

Galvanized	
mium pla Chromium	
finished Water ta	. in

gency				
1942. Stainless Gunmet	stee	l sin	ks	

Metal ventilators and smoke pipes. Rubber components generally.

The

A

Open " baths. Ungalvanized steel tubing and gratings.
Concrete, stoneware and mild steel gratings.
Ungalvanized steel tubing.

Taps in accordance with War Emergency B.S.S. No. 1010/1942.

Unplated fittings

Stoneware sinks.
Unpolished cast br stopcocks and valves.
Asbestos-cement.

See Building Materials Standardization Com-mittee's Circular E.M.3. (Alternative materials for use in place of rubber).

#### CLAZIER

ULA	LIER.
e use of putty other han in accordance with the Building	See the Building Materials Standardization Com- mittee's Circular E.M.5.
Materials Standard- zation Committee's Circular E.M.5. (Putty).	(Putty).
ad coated natent glazing	Bitumen coated and paint-

coated patent glazing	Bitumen coated and paint- ed patent glazing where necessary; standard metal windows in vertical positions.
material alazina word	Standard metal and con-

			metal v	vindows ns.	in ve	rtic	
	patent tically.	glazing	used	Standard crete bricks.	metal windov		gla

cades and copper Brazil	6	crete windows.
fetal paving lights	* *	Glazed reinforced concrete lights if essential.
tained, coloured, e graved sandblasted ar embossed glazing.	n- nd	Plain glazing.

#### PAINTED, STAINER, FRENCH POLISHER, AND CELLULOSE POLISHER AND PAPER HANGER. Hand finished cellulose Omit.

r French polis	h.	
h quality Speciality	and paints.	Paints in accordance v War Emergency B.
openin,	partition	925/929 (not more t three coats).

## Prohibited Without

Paints containing chro-
mium, synthetic oxide
of iron (except resi-
due black oxide and
Burnt Island Red
Oxide), Titanium
Oxide (except in
danger buildings in
R.O.Fs.) asbestine
and paints contain-
ing more than 10 per
cent. oils, 8 per cent.
zinc oxide, or 20 per
cent. white lead by
weight of the paint.
Cilding and againing

Critishing an	in Frin	шив	
Painting	of	exte	rnal
woodwo	ork.		

f internal

Painting	of	internal
hard	wallboard.	

plasterb	oard.	interna
Painting	of	interna

Painting	of inte	rnal
brickwor		cept
	buildings	in
R.O.Fs.		
Varnishing		

Painting of non-struc-tural steelwork, railings, etc.
Wallpapers for new work.

Rul

Or

Co

Washable distemper or colourwash.

		FLOOR	NG.
bber	flooring		Concrete (pitch mastic finish where necessary). See Building Materials Standardization Com- mittee's Circular E.M.3 (Alternative materials for use in place of rubber).
	(See al	en under "	Acabalter '')

	(See	also under	" Asphalter.")
namental	tile	flooring.	Concrete (pitc
ork tile floo	oring		finish where

Asphalter.")
Concrete (pitch mastic
finish where necessary),
concrete (pitch mastic
finish where necessary),
n sick bays where mastic
finishes have not been
laid and in strips in
cubicles, and also in
reading and writing
rooms, common rooms
and lounges where hair
carpet cannot be supplied. Lino on wood floors in office accommodation and on all concrete floors including can-teens, except danger buildings in R.O.Fs.

#### ROADS AND PAVINGS.

ituminous surfacing	to	See	Building	Materials	ŀ
service roads.		(B)	ittee's Cir	n use and	

## ROOFING

New Regulations controlling the sale and distribution of roofing felts and bitumen or pitch dampcourses came into force on August 24, when telegrams were sent to all manufacturers and trade associations by the Roofing Felt Industry Executive Committee for the Ministry of Works and Planning as follows: "New Regulations controlling the sale of all classes of roofing felts and damp-courses posted you this day. Pending receipt you are prohibited from making any deliveries. You may telephone for instructions regarding any orders deemed urgent.-Burboard.

As from this date, all deliveries of roofing felt and dampcourse must be made in strict accordance with the new regulations—this applies equally to manufacturers and distributors.

To facilitate the obtaining of Certificates "A" and Declarations "B" in the early stages of the New Control (and until manufacturers can obtain supplies from their own printers) a supply of forms was sent to all manufacturers and trade associations.

Agriculturists or private consumers, desiring roofing felt for an agricultural purpose, portable building and poultry appliance manufacturers should sign a declaration stating the purpose for which the material is required. The declaration to be given in the manner of Form B.

- \* We consider that the general rise in the cost of building since the war is in the neighbourhood of 33\frac{1}{3}\frac{1}{9}\frac{1}{9} = \quad \quad 957

to bring about the extension or unless there was a definite agreement that commission should be paid on the rent for the extended tenancy.

In order to substantiate a claim for commission an agent must not only have made the introduction, but must also have been the effective cause of the transaction, and although he may have been the cause of the original letting, he must show that he was also the effective cause of the tenant remaining on, if a claim for commission on the extended tenancy is to be justified. This ruling remains the same whether or not there is an option to extend in the letting agreement.

0

# INFORMATION CENTRE

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

War Address:

45 THE AVENUE, CHEAM, SURREY.

Telephone:

VIGILANT 0087

## Q 957

ARCHITECT, YORKS.—My clients have asked me if I could give them any idea as to increased cost of building after the war. The reason I ask is for increasing existing INSURANCE PREMIUMS to meet extra cost on Fire Loss (not war damage) say for the first few years after the war has terminated. I might add that soon after the war started I advised them to increase premiums by approximately 15 per cent. but, obviously, this amount should be increased as the war continues. The buildings in question are nearly all licensed premises.

It is very difficult to state the increased cost of building since the war except in relation to a particular building, but we consider that the general rise is in the neighbourhood of 33\frac{1}{3} per cent., this would not be sufficient, however, in the case of a building containing a large proportion of either timber or steel.

One has to take into consideration the fact that rebuilding would not necessarily take its original form if the methods of construction proved to be uneconomic, but in the case of a steel-framed building or where exceptional spans necessitate heavy timber scantlings in floors and roof, the increased cost might well be 40 or 50 per cent.

It is quite impossible for us to state what the extra cost is likely to be during the first few years after the war.

## Q 958

ENQUIRER, CORNWALL.—Can you help me to trace some SPECIAL PLANT? Briefly, it's a power spraying plant with 2 guns—1 nozzle spraying a solid (in the original case it was asbestos) and the other paint (originally a rubber solution). The two materials coalesced in mid air arrived on the surface well mixed. I gather its use in peace time was to apply a special acoustic coat and I want it for rapid texturing if it's at all possible.

The Aerograph Co., Ltd., of Lower Sydenham, London, S.E.26, have supplied 2-nozzle spray guns to firms specializing in acoustics, and although you may not want exactly the same type of gun, it is most probable that they will be able to meet your requirements.

## Q 959

ENQUIRER, SOMERSET.—A FURNISHED HOUSE is let for 6 months through an agent. In the event of the let being continued for a further indefinite period, is the agent entitled to his 5 per cent. COMMISSION on this further period?

This point was settled in the case of *Curtis* v. *Nixon*, 1871, and the agent is not entitled to commission on the extended tenancy unless he intervenes

Q 960

STUDENT, GLOS.—I desire to prepare my LAYOUT FOR the R.I.B.A. HOUSING ESTATE FINAL PROBLEM, No. 54. Please give me details of the Ministry of Health's Model By-laws, stating density figures, road widths and building lines.

Lack of space in these pages forbids us giving you the full recommendations to planning authorities under the Ministry of Health Town and Country Planning Model Clauses for use in preparation of schemes (to which we think you refer), as the section devoted to streets and building lines covers 23 pages, and the section devoted to density space about buildings and height of buildings, 27 pages. Following is a brief general guide to the recommendations, but we would advise you to obtain a copy of the Model Clauses, price 2s. 0d. from H.M. Stationery Office, or from any bookseller.

1.	Roads.			
	Maximum Length.	Minimum Width of	Minimum Width of	Minimum Width of
	_	Street. 36 feet	CarriageWay 20 feet	Footpath.
	1,500 feet	36 "		4 ft. 6 ins.
	750 ,,	30 ,,	16 ,,	4 ft. 6 ins.
	450 ,,	24 ,,	14 ,,	_

Service Roads 25 ,, 2. Building Lines.

No definite recommendations are given although the planning authorities have wide powers.

5 feet

3. Density.

Twelve, eight and six dwelling houses per acre are given as common standards, but planning authorities are informed that more than 12 per acre may be justified.

4. Size of Building.

The minimum sizes of plots recommended, according to the density standards adopted,

Density. Minimum Size of Plot.

12 per acre 250 square yards.

8 3400 32 32

6 22 500 32 32

5. Amount of Site to be Occupied.

In the case of dwelling houses not exceeding 30 feet. in height on the outskirts of towns, it is recommended that not more than one-third of the site should be occupied by buildings.

You are not likely to be worried about the height of buildings in relation to housing estates, so we are not giving the recommendations here.

## PATENT WELDED TUBULAR CONSTRUCTION

Data Sheet No. 6

## METHODS OF FABRICATION

This form of construction lends itself admirably to the prefabrication of single storey buildings of any The standard sections (roof trusses, wall frames and columns, and door and window frames) are light in weight and conveniently transportable. Assembly on the site is simply and rapidly effected, the sections being bolted or welded together according to specification. The buildings can be dismantled with equal facility, and only the loss of foundations is involved since the various sections all remain available for re-erection-thus it may be said that this form of construction has all the essentials of a permanent building plus the facilities of a portable building. A further consideration is the flexibility of the system, allowing alterations or extensions to be made to existing buildings simply and quickly.

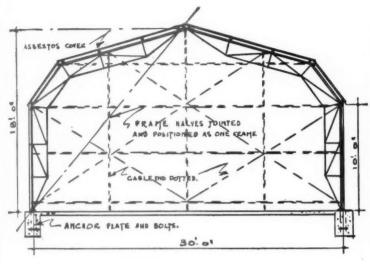
Three alternative methods of fabrication are available:-

Complete factory prefabrication, leaving (1) assembly only to be carried out on the site. Site welding. The welding of the final

fixings and connections is sometimes more satisfactorily effected on the site; where site welding is not practicable or economical special bolt joint or joint plates are supplied for such connections (see Figs. 3 and 4 reproduced from data sheet No. 3).

Site fabrication and welding. In certain circumstances complete site fabrication is advantageous. Though more costly than factory prefabrication, in cases where transport costs are heavy and access to the site difficult, and where the fabricated sections required are large in number and simple in design, it sometimes proves economical to erect temporary portable workshops on the site where the fabricators and mobile welding units can execute the whole of their work.

The method to be adopted is in each case dependent upon the circumstances prevailing, and the type and size of the building, or buildings, to be erected, and it is well that proper consideration should be given to these factors before a decision is made.



at 10

01 70

80

1e

ve

1e

re

ed

ıg

re

ng

A.

ils

us,

nd

us

to

гу

ng

of

r),

nd

he

ut

27

de

ld

el

1.

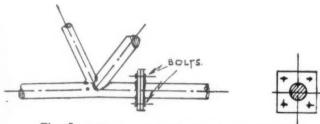


Fig. 3. DETAIL. JOINT FOR SMALL SPANS.

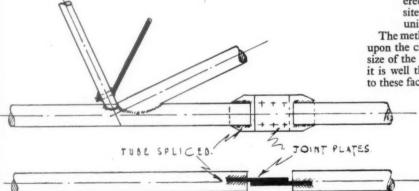


Fig. 4. Bolt connection for larger trusses.

- Speed in erection
- Economy in steel
- Lightness of structure with great strength

NOTE.—These data sheets are appearing weekly in THE ARCHITECTS' JOURNAL - they will be available shortly in complete Folder form and application for these Folders should be addressed to Scaffolding [Great Britain] Limited, 77, Easton Street, High Wycombe, Buckinghamshire

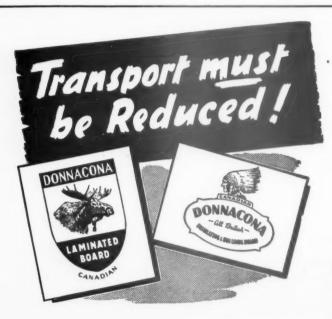
ADVERTISERS' ANNOUNCEMENT

## PRICES

## BY DAVIS AND BELFIELD, CHARTERED QUANTITY SURVEYORS

Except for Cement, there has been no alteration during August in the prices of the Basic Materials and the Rates of Wages given below.

BASIC MATERIALS		Increase over pre-war prices at end of						
Diolo Milania	January, 1942	February, 1942	March, 1942	April, 1942	May, 1942	June, 1942	July. 1942	August, 1942.
Portland cement 2-in. Unscreened ballast Fletton bricks (at station) Stoneware drainpipes (British Standard) 2 tons and	+71·01 +11·89	Per cent. +37 ·8 +71 ·01 +11 ·89	Per cent. +37 ·8 +71 ·01 +11 ·89	Per cent. +37 ·8 +71 ·01 +11 ·89	Per cent. +37 ·8 +71 ·01 +18 ·38	Per cent. +37.8 +71.01 +18.38	Per cent. +37.8 +71.01 +29.19	Per cent +41 ·46 +71 ·01 +29 ·19
over Roofing tiles Steel joists (basic sections) ex mills Lime greystone Sheet lead Iron rainwater goods and soil pipes Copper tubes White lead paint	$+30$ $+47.5$ $+35.29$ $+54.35$ $+26\frac{1}{2}$ $+29.79$	$+28 \cdot 13$ $+30$ $+47 \cdot 5$ $+35 \cdot 29$ $+54 \cdot 35$ $+26\frac{1}{2}$ $+29 \cdot 79$ $+31 \cdot 82$	+28·13 +30 +47·5 +35·29 +54·35 +26½ +29·79 +36·36	+28·13 +30 +47·5 +35·29 +54·35 +26½ +29·79 +36·36	+28·13 +30 +47·5 +35·29 +54·35 +26½ +29·79 +36·36	+28·13 +30 +47·5 +35·29 +65·22 +26½ +29·79 +36·36	+37½ +42½ +47·5 +35·29 +65·22 +26½ +29·79 +38·64	$+37\frac{1}{2}$ $+42\frac{1}{2}$ $+47 \cdot 5$ $+35 \cdot 29$ $+65 \cdot 22$ $+26\frac{1}{2}$ $+29 \cdot 79$ $+38 \cdot 64$
RATES OF WAGES (Central London Area)  Labourers Craftsmen	1 14 00	+22·22 +16·67	+22·22 +16·67	+22·22 +16·67	+22 ·22 +16 ·67	+22·22 +16·67	+22·22 +16·67	+22 ·22 +16 ·67
LABOUR—R: LONDON DISTRICT Within 12 miles radius From 12-15	Craftsmen 2s. 0½d. 2s. 0d.	Labo	urers 7}d.	N.B.—Pair d. less the other crafts	nan	6		
GRADE CLASSIFICATIONS  A $A^1$ Craftsmen $1/11$ $1/10\frac{1}{2}$ $1/10$	A <sup>3</sup> B 1/9½ 1/5 1/5 1/4	B <sup>1</sup>	B <sup>2</sup> 1 /8 1 /4	B <sup>3</sup> 1 /7½ 1 /3½	C 1/7 1/3‡	Oa.	Wa	F.S.I.



DONNACONA and other Wallboards in most districts (against Licence) without delay. Stocks are held by us at convenient points throughout the country. We thus reduce transport to a minimum, while giving fully efficient service.

FOR

GATI

RONW CONS

Ask your local wallboard distributor how you can obtain your requirements, or apply direct to:

The MERCHANT TRADING COMPANY Limited.

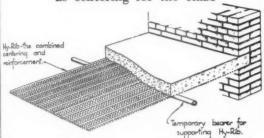
COLUMBIA HOUSE, 69, ALDWYCH, LONDON, W.C.2.

Telephone: HOLborn 3291 (5 lines).

Telegrams: "Themetraco, Estrand, London."

## HY-RIB is the answer to your centering problem

Use the reinforcing steel as centering for the slabs



HY-RIB is a centering for concrete during construction

HY-RIB is a reinforcement for the structural slab

Over 11.000.000 square feet of HY-RIB combined centering and reinforcement has been used in wartime buildings.

For the guidance of Con-structional Staffs we proworking drawings for particular applications of Hy-Rib.

s of

9

22

64

67

I.



HY-RIB SALES, 6 COLLINGHAM GARDENS, EARLS COURT LONDON, S.W.5 TELEPHONE: FROBISHER 8141

@ 4/526A

## The SOLUTION OF THE CYCLE STORAGE PROBLEM WRITE FOR CATALOGUE A.J.201 AND COMPLETE SERIES OF INFORMATION SHEETS SEE OUR EXHIBIT AT THE BUILDING CENTRE

## NSTRUCTORS

RUCTORS

LIMIT

## Fencing for Factories

encine 100 201900818

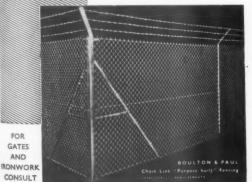
FOR

AND

Almost any fence discourages the trespasser but peace or war most properties must be fenced definitely to prevent the trespasser. Special designs for obstructive Chain Link Fencing have been perfected by Boulton & Paul. This purpose-built fencing is of permanent quality requiring little maintenance. Where feaces must also provide obstruction to view, there are alternative specifications, but each has the fundamentals associated with efficiency and economy.

## **BOULTON & PAUL**

B.P. Brand in ROLLS always obtainable through the Trade



BOULTON & PAUL LTD . FENCING DEPARTMENT . NORWICH



## The Quality Ventilator

for Performance

Performance of the P.F.V. ventilator is unbeatable. It is unaffected by any weather and operates without variation where static types fail. Specification and workmanship are of the best quality.

Plan for better ventilation with the P.F.V.

ASK FOR COPIES OF VENTILATOR DATA SHEET PUBLICATION No. 249A

## POSITIVE FLOW VENTILATORS LTD

ASSOCIATED WITH DALLOW, LAMBERT & CO., LTD.

SPALDING ST., LEICESTER 20 KINGSWAY, LONDON

Phone: 27932-3 Phone: CHAncery 8325-6



The "Cyclone" Air Conditioning Apparatus

## Specify . . .

## CYCLONE

## EQUIPMENT

PLANTS FOR VENTILATION · PLENUM HEATING AIR CONDITIONING · DRYING · DUST, STEAM AND FUMES REMOVAL · INDUCED DRAUGHT

Makers of the well-known "CYCLONE" FANS FOR ALL PURPOSES (including Centrifugal Fans for High and Low Speeds) — UNIT HEATERS — AIR WASHERS — VISCOUS AIR FILTERS

May we have the opportunity of serving you? Brachures sent on request. Please state our Ref. AB/P.

MATTHEWS & YATES LTD.
SWINTON MANCHESTER AND LONDON
GLASGOW LEEDS BIRMINGHAM CARDIFF



Temporary
Wartime London Address:"GREENACRES," WATERSFIELD, Nr. PULBOROUGH, SUSSEX

## **Cranham can't contract, crumble or crack**

Sankey's Cranham Blocks are made of burnt Terra Cotta fired at high temperature. They do not expand or contract. Being fire, damp, and frost proof, and possessing excellent sound and heat insulating qualities, together with lightness, combined with great mechanical strength, Sankey's Cranham Blocks have been used for more than 30 years with marked success by leading architects and builders throughout the country.

Prices and full particulars on application.



J.H. SANKEY & SON, LTP

ESTABLISHED 1857

Telephone: HOLborn 6949 (14 lines). Telegrams: BRICKWORK, ESTRAND, LONDON. 22, ALDWYCH HOUSE, ALDWYCH, LONDON, W.C.2

## MATERIAL·FOR·THOUGHT

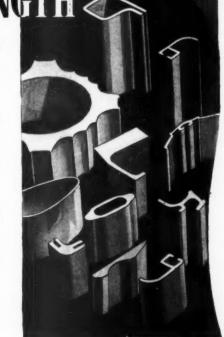


At 10 a.m. one day the two fungi illustrated pushed their way through a gravel path which had been heavily rolled at 6 o'clock the previous evening.

Consider the tenacious strength of such light "edifices"—and realising that—you will appreciate the important role Reynolds' Light High-Strength Hiduminium (Aluminium Alloy) Components will play in "the building" of the future.

The age of bulk and sheer ponderosity, as representative of strength, is past. When new buildings arise 'gainst the skyline, Reynolds will be well represented in structural members, windows and interior decoration — for lightness sake.

Architects planning to build in the future are invited to get in touch with us now.



Reynolds

TUBES - RODS - STRIP - SECTIONS - SHEET IN "HIDUMINIUM" ALUMINIUM ALLOYS

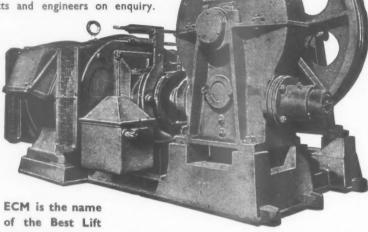
REYNOLDS TUBE CO. LTD. & REYNOLDS ROLLING MILLS, LTD., BIRMINGHAM, 11

## INDING GEAR

HIS winding gear and brake are the fundamentals of ECM reliability. Their immense strength is equal to any emergency. ECM designers are now engaged on war-time problems of great complexity and many new ideas which may not be revealed publicly have been perfected and are available to architects and engineers on enquiry.

DIRECT-COUPLED ELECTRIC WINDING GEAR. ECM Self-Lubricated Gear with motor and brake mounted on bedplate forming one unit. Designed and manufactured to fine limits to work on heavy and continuous duty.





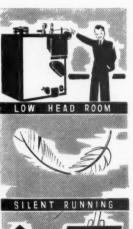
ETCHELLS, CONGDON & MUIR, LTD.

ANCOATS. MANCHESTER Telephone: Ardwick 4111 LONDON LIVERPOOL

BIRMINGHAM

EDINBURGH

And Branches SHEFFIELD





## PLANNING FOR TOMORROW

The Brockhouse "Selfstoke" Boiler was planned to help you plan for tomorrow. It links up with to-day's sane trend for efficiency and cleanliness. Gravity feed makes constant supervision a thing of the past.

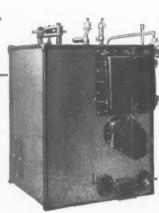
You must make a point of discovering more about this unique Heater. It was produced essentially for tomorrow's needs.

Our booklet is a mine of information on the subject.

Send to-day to:

THE BROCKHOUSE HEATER CO., LTD., VICTORIA WORKS, WEST BROMWICH.







## ERNATION about CONDENSATION

... is a thing unknown in buildings where INSULWOOD Insulation Board has been provided as a safeguard against such a contingency. Used extensively for the lining of ceilings in kitchens, bathrooms, workrooms, laundries, and premises where warm temperatures must be maintained INSULWOOD is a perfect preventive against heat losses and condensation, and retards pattern staining. Full details on request.



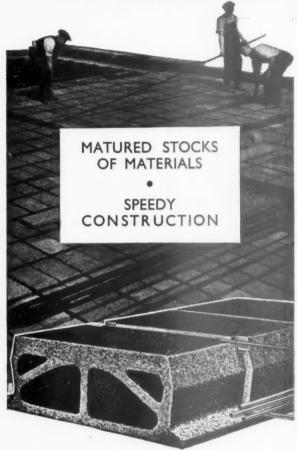
P.I.M. BOARD CO., LTD.

SUNBURY-ON-THAMES

Phone: SUNBURY 341/3



## Ready FOR ANY (EM)URGENCY!



The Smith two-way reinforced fireproof floor can be employed immediately for any flooring or roofing requirement. Matured stocks of standardised concrete units are available for light or heavy loadings. Speedy construction, without timber, is obtained with Patent telescopic centers. Our engineers will gladly assist with designs for flooring for any project in military, civil or domestic construction. Approved protection against incendiary bombs and splinters.

## **SMITHS**

TWO-WAY REINFORCED

## FIREPROOF FLOORS

SMITH'S FIREPROOF FLOORS LTD.
(DEPT. A), IMBER COURT, EAST MOLESEY, SURREY
Tel.: Emberbrook 3300 (4 lines). Licensees in principal provincee.

## Stainless Steel METAL WORK

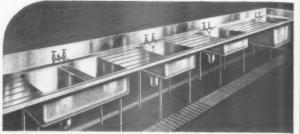


Illustration shows a range of Stainless Steel Sinks installed in a famous club

We are Specialists in

## STAINLESS STEEL METAL WORK

FOR

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 Catalogues to

Associated Metal Works

## **CALORIFIERS**

(STORAGE AND NON-STORAGE TYPES)



for hot water supplies in:—
BATHS
SCHOOLS
BARRACKS
HOSPITALS
BREWERIES
FACTORIES
LAUNDRIES
GAS WORKS
DECONTAMINATION
CENTRES
ETC., ETC.

Other products include:
"SUPER SELFIX" &
"LINK" CIRCULATORS

## HOLDEN & BROOKE LTD.

SIRIUS WORKS MANCHESTER 2 66 VICTORIA ST. LONDON, S.W.I TH

safeguard that your fied with lators are cities wh tests and issuing bodies to Tudor A excellence facts spec

Tudor es advice os trated ca

(Licens
The Tudo
pletely me
darkness.
rupted, th
the Electri
that keeps
automatica
emergency

u TUDOR

bec

the r grade Publi

THE I

## SAFEGUARD THE LIGHTING OF

WHEN you specify Tudor to safeguard lighting you can rest assured that your client will be completely satisfied with your choice. Tudor Accumulators are used by Corporations of big cities who make exhaustive comparative tests and a close study of costs before issuing contracts. Important public bodies too—the B.B.C. for example—use Tudor Accumulators where technical excellence is of first importance. These facts speak for themselves.

Tudor engineers will gladly give expert advice on accumulator problems. Illustrated catalogue sent on request.

### SAFETYLYTE

(Licensed under British Patent No. 313248)

(Licansed under British Patent No. 313248)
The Tudor Emergency Lighting System completely meets the risk of a sudden plunge into darkness. Should the normal supply be interrupted, through causes beyond the control of the Electricity Undertaskings, the control panel that keeps the Tudor Accumulators charged, support of the control panel of the control panel to the control panel that keeps the Tudor Accumulators charged, support of the control panel of the control pane

- \* HOSPITALS
- \* GINEMAS
- \* FACTORIES
- \* STORES
- \* BANKS

AND OTHER IMPORTANT BUILDINGS



K

nd

NK

TUDOR ACCUMULATORS

THE TUDOR ACCUMULATOR CO., LTD., 50 GROSVENOR GDNS., LONDON, S.W.I. Sloane 0168/9

WT 22/42

Every year sees a growing demand for



ilenbuck Court, Surbiton. Dampcourse: "Standard" Astos. Architect: R. Ward, Esq., Lor

because . . . it is impermeable, contains no perishable ingredients, and gives lasting service under the most exacting conditions. One quality only. Two grades-Standard and Lead-lined. Write for samples and Publication No.351, which gives full detailed information. THE RUBEROID Co. Ltd., 2 Meadow Mills, Stonehouse, Glos.





## McKECHNIE

BROTHERS LIMITED

ROTTON PARK ST., BIRMINGHAM, 16

The Makers of "Tank" Brand Non-Ferrous Metal Alloys, including:-

Extruded Brass and Bronze Rods and Sections.

Brass and Bronze Stampings, Metal and Phosphor Bronze Ingots,

Cast Gunmetal Chill Phosphor Bronze Bars, and

Terne Metal and Cupro Nickel Ingots and Granules,

regret their inability to satisfy all the requirements of clients for their products for the time being.

When Peace returns to the World again, however, they look forward to being in a position to supply their old and new friends with all their needs of the Non-Ferrous Metal Alloys they produce and to be able to prove once again that "McKECHNIE" products are second to none and that clients' complete satisfaction is their chief concern. In the meantime, they crave the indulgence of their friends and thank them for the understanding and the forbearance already extended to them.

### **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 week'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.: Stoane 5615

## Architectural Appointments Wanted

ARCHITECT, experienced in carrying through large and small schemes, all parts country. Salary £800 to £1,000 per annum, according to locality. Box No. 468.

REGISTERED ARCHITECT, exempt from military service, requires responsible position. Eight years in general practice and with public authorities. Experienced in design and construction of factories, housing, war buildings, etc., civil defence schemes. Reconstruction and post-war planning. Can drive car, Available immediately, Write: Architect, "Keeper's House," Roffey Park, Faygate, nr. Horsham.

A.R.I.B.A. requires part-time work, many years ex-perience all types of work, including war damage. Box 472.

EXPERIENCED SURVEYOR offers part-time services in connection with war damage repairs, bills of quantities, estimates, specifications, etc. North-west London area. Box No. 477.

QUANTITY SURVEYING—drawing office (architectural). Youth 161, Technical School training, seeks opening, London. Box 482.

YOUNG MAN, exempt military service, studying for R.I.B.A. Final, seeks constructive post of national importance, P. H. F. Stiles, East Lodge, Vigo, South importance. P. H. Holmwood, Surrey.

DRAUGHTSMAN (Architectural), requires change, aged 17, 2½ years' experience in preparing working drawings of small structures under supervision, contructional details, tracing and building surveys. Write A.H., 61, Openview, Earlsfield, S.W.18.

ARCHITECTURAL STUDENT, at present engaged as Engineering Draughtsman, requires part-time Architectural Drawing work. D. Wheeler, 28, Endymion Road, Hatfield, Herts.

ARCHITECT, Alien, Swiss and Hungarian University Degree, 10-years' practice, good draughtsman, experi-enced designer, desires full or part-time work with firm or at home. Box No. 489

ARCHITECTURAL ASSISTANT, just completed 5 years' course at Regent Street Polytechnic School of Architecture and qualified for election as A.R.I.B.A., seeks employment. London or Kent preferred. Write, J. T. Dannatt, Church Road, Halstead, Nr. Sevenoaks, Kent.

REGISTERED ARCHITECT, available shortly, requires whole or part-time post. Experienced in supervising work on site. Designing and drafting, building maintenance and surveys (W. D. claims), variations builders accounts. Salary £450—£500 per annum. Box 491.

Box 491.

THOROUGHLY EXPERIENCED ESTATE
CLERK-OF-WORKS desires post as CLERK-OF-WORKS, MANAGER, &c. Experienced in Estate
Management; control of all contract work; estate and
maintenance staffs; supervision all branches of the
building, allied and specialists trades; all office work;
plans; specifications; and rent collecting; keen,
energetic, alert and conscientious. Not liable for military plans; specifications; and plans; specifications; and conscientious. Not liable for miniary energetic, alert and conscientious. Please apply Box service. Highest recommendations.

REGISTERED ARCHITECT, R.I.B.A. Diploma, with REGISTERED ARCHITECT, R.I.B.A. Diploma, with over 15 years experience in building and architectural work abroad, photographs, drawings, testimonials, references, Hungarian nat., is anxious for the utilisation of his services in any professional capacity and invites correspondence. Box 493.

DRAUGHTSMAN, last 21 years civil engineering, requires engineering or building appointment, available September 1. London area. Box 494.

PART TIME WORK, surveys, war damage, etc. Qualified and experienced Senior Assistant offers services in London area.

ARCHITECTS' AND SURVEYORS' ASSISTANT ARCHITECTS' AND SURVEYUND ASSESSMENT (25). Exempt from military service, desires post preferably in Midlands. Has passed R.I.B.A. Final, Part I. Nine years general experience in design and construction including war damage repairs and A.R.P. work. Excellent testimonials. Write E.W.D., 48, Thurlow Leicester. 497 Road, Thurlow, Leicester.

ARCHITECT AND SURVEYOR (Registered), requires responsible position (West or Mid-Wales preferred). Age 36, married, experienced in Factories, Commercial Buildings, Licensed Premises, Hospitals, Alterations to Existing Buildings, One-Eighth Scale Working Drawings, Details, Specifications, Preparing Bills of Quantities, Estimating, Land Surveying and Levelling, Checking Building Contractors' Accounts, Measuring War Damage and Preparing Schedules of Repairs. Salary £9 per week. Box 498.

ARCHITECT'S ASSISTANT (28), having 10 years' experience in an architect's office, seeks position as architectural draughtsman or supervisor of works. Experienced in surveying, levelling, the preparation of working drawings and details, and the supervision of work. J. C. O'Dwyer, River View, Ballinacurra, 499

### 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.

SPECIFICATIONS AND BILLS OF QUANTITIES, etc., expeditiously and accurately typed or duplicated. Translations and Facsimile, Typewriting. All work treated confidentially. Miss G. Saunders, Typewriting Bureau, 17, Dacre Street, Westminster, S.W.1. Tele-phone: Whitchall 2605.

WANTED. Copy of the "Architectural Review" for September, 1940 Box 475.

WANTED. Complete set of copies of "The Architectural Review," July, 1940—June, 1942. Box 495. \*\*WALLCRAFT\*\*\* PLASTIC PAINT. Approx. 50 cwts, in powder form. Reasonable offers accepted for all or part. Samples supplied. A. R. & W. Cleaver, Ltd., Wood Street, Northampton. Thome 1434.

#### **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.
Short Term Wartime Tultion Arranged.
Courses by Correspondence and Personal in Studio.
115, Gower St., London, W.C.I. Telephone: Euston 3906

R.I.B.A. AND T.P. INST. EXAMS. Private Courses of tuition by correspondence arranged by Mr. L. Stuart stanley, M.A., F.R.I.B.A., M.T.P.I. Tutor, St. Catherine's College, Cambridge.

MANCHESTER MUNICIPAL SCHOOL OF ART. CAVENDISH STREET, ALL SAINTS, MANCHESTER 15. Telephone: Ardwick 3480.

Principal:

JOHN M. HOLMES, Dip. Fine Art. Lond. N.R.D.

ARCHITECTURE, INDUSTRIAL DESIGN AND DRAWING AND PAINTING.
SCHOOL OF ARCHITECTURE.

Head of School:
A. Douglas Jones, A.R.I.B.A., Dip. Arch. (Liverpool),
Athens Bursa:
COURSE:

Athens Bursar.
COURSE:
Intermediate.—Three years full-time (inclusive of Probationer Year) leading to the Studentship of the Royal Institute of British Architects.
Final.—Five years full-time (including Probationer and Intermediate Years) leading to the School Diploma (D.A. Manc.), to the examinations for the Associateship of the Royal Institute of British Architects (A.R.I.B.A.), and for Registration under the Act.
Part-time Day and Week-end Courses for pupils and junior and senior assistants in offices lead to the examinations of the Royal Institute of British Architects.

### 12 12s. for one year's full-time day attendance.
Part-time day and week-end course fees according to scale.

SCHOLARSHIPS, PRIZES, ETC.

Free Entrance, Continuation and Senior Art Scholarships; School Prizes; Travelling Scholarships.
SESSION BEGINS SEPTEMBER 21st.

SESSION BEGINS SET TO SHEET SMITH,

W. O. LESTER SMITH,

Director of Education.

Classified Advertisements continued on page xxxiv.

Established over 100 years

## STEEPLEJACKS

CHIMNEY SHAFTS AND TALL STRUCTURES CAMOUFLAGED.

J.W. GRAY & SON, LTD.

"FRANKLIN HOUSE," 37 RED LION ST., HIGH HOLBORN, LONDON, W.C.I me : CHANCERY 8701 (2 LIGHTNING CONDUCTOR

## STEELWORK BY

SWAN WORKS, HANWORTH, MIDDX.

'Phones : Felthom 3007. Sunbury 2367.

'Grams : '' Sharman, Feltham.''

LARGE DEPT. FOR BOOKS ON BUILDING

\* BOOKSELLERS TO THE WORLD \*

119-125 CHARING CROSS RD., LONDON, W.C.2 Open 9 a.m .- 6 p.m., including Saturday. Telephone: GERrard 5660 (16 lines).

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

HOME GROWN HARDWOODS SOFTWOODS

> Quota Merchants for NATIONAL STOCK

## SWITCHGEAR

See Information Sheets Nos. 411, 414 & 415
Copies may be obtained from:
GEORGE ELLEDON LTD. PERRY BARR, BIRMINGHAM, 22

## BRAITHWAI PRESSED STEEL TANKS

BRAITHWAITE & CO., ENGINEERS, Ltd.

London office, Temporary address

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

## ARENS WINDOW CONTROLS

THE MODERN METHOD OF OPERATING ALL
TYPES OF VENTILATORS NO UNSIGHTLY RODS, LEVERS OR CORDS, ETC.

SEND FOR INFORMATION SHEET No. 441 ARENS CONTROLS LIMITED

Tunstall Rd., East Croydon. ADDiscombe 3051-2-3-4

## THE MIDLAND JOINERY WORKS Ltd. BURTON-ON-TRENT

Architects can rely on a quality unmatched, by men who have learnt their craft.

Phone: 3685 (3 lines).

Grams: "Midjoin" Burton-on-Trent.



## WORKING DETAILS

Volume 1.

NG

C.2

R

KS

Ltd.

ALL

ETC.

1-3-4

Domestic

Edited by Mildred W. White, A.R.I.B.A.

A series of photographs and fully dimensioned working drawings of architectural details in modern houses designed by well-known architects. The principal aim has been to show various types of contemporary construction and built-in equipment.

Price 12s. 6d. Postage 7d.

144 pages, size  $12\frac{1}{2}$  ins. by 9 ins.

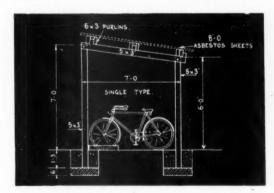
ARCHITECTURAL PRESS War Address:

45, The Avenue, Cheam, Surrey



THE Stelcon (ALL CONCRETE) SYSTEM OF

## BICYCLE PARKING



"A simple device with many merits"



(British Patent No. 425265)

STELCON (INDUSTRIAL FLOORS) LTD. CLIFFORD'S INN - - - LONDON, E.C.4

Telephone: HOLborn 2916

#### UNIVERSITY OF LIVERPOOL

#### LIVERPOOL SCHOOL OF ARCHITECTURE

INCLUDING DEPARTMENT OF CIVIC DESIGN

## Professor of Architecture: L. B. BUDDEN, M.A., F.R.I.B.A.

I. B. BUDDEN, M.A., F.R.I.B.A.

The School provides a thorough theoretical and practical training for students wishing to enter the Architectural Profession. The courses, which lead to a Degree (B.Arch.) and a Diploma, begin early in October. These qualifications both carry with them exemption from the series of Examinations leading to the Associateship of the Royal Institute of British Architects, with the exception of Professional Practice. A written paper and oral test in this subject are now conducted in the School. A Degree of Master of Architecture (M.Arch.) has been established, and the Degree of M.A. malso be taken in Architecture.

### DEPARTMENT OF CIVIC DESIGN

Professor of Civic Design:
W. G. HOLFORD, B.Arch., A.R.I.B.A., M.T.P.1.

The Department provides a training for Architects and Engineers who wish to specialise in Town Planning. The courses, which begin in October, lead to a Certificate and Diploma.

and Diploma.

Prospectuses of Classes may be obtained on application to the Registrar of the University.

S. DUMBELL,
Registrar.
780

#### EDINBURGH COLLEGE OF ART.

Principal:
ROBERT LYON, M.A. (Dunelm), A.R.C.A. (London).

The School of Architecture and Department of Town and Country Planning of the Edinburgh College of Art will re-open on THURSDAY, 1st OCTOBER. The Head of the School will interview new students from Monday, 28th September.

Further information may be had from the Registrar and Secretary, Edinburgh College of Art, Lauriston Place, Edinburgh 3.

## NORTHERN POLYTECHNIC HOLLOWAY, LONDON, N.7.

Principal: T. J. DRAKELEY, D.Sc., Ph.D. (London), F.I.C., F.I.R.I., F.C.S.

Head of Department of Architecture: Τ. Ε. Scott, F.R.I.B.A.

### DAY SCHOOL OF ARCHITECTURE

The Five Years' Course qualifies for exemption from the Final Examination for Associateship of the R.I.B.A., and for registration under the Architects (Registration) Acts, 1931-1938. Students who complete satisfactorily the first Three Years of the course are granted exemption from the Intermediate Examination of the R.I.B.A.

School year begins 21st September, 1942. Fees-£20 per annum, or £7 per term.

### EVENING SCHOOL OF ARCHITECTURE

(Five years' Course recognized by the R.I.B.A. for exemption from the Intermediate Examination)

New session begins 21st September, 1942.

Fees from 10s. to 50s. per course according to age of student.

Special Design classes, and lectures on the Theory of Structures, Hygiene, Materials, Specifications, and Professional Practice in preparation for the Final Examination of the R.I.B.A.

SPECIAL COURSE IN TOWN PLANNING for xaminations of the T.P.I.

ENTRY TO THE SCHOOLS. Intending Day students are interviewed at any time by appointment. Intending Evening students will be interviewed from 6-8 p.m. on 14th and 15th September, 1942, or on any subsequent evening.

Prospectus post free on application. Telephone NORth 1686.

## THE POLYTECHNIC REGENT STREET, LONDON, W.1.

#### SCHOOL OF ARCHITECTURE

President of the School: SIR BANISTER FLETCHER, P.P.R.I.B.A., M.Arch., F.S.A., F.R.S.L., F.S.I. Head of the School: JOSEPH ADDISON, M.C., F.R.I.B.A., M.T.P.I., M.I.Struct.E.

DAY SCHOOL DAY SCHOOL

The Day School of Architecture is fully recognised by the Royal Institute of British Architects and by the Town Planning Institute. The Final Diploma Examination of the School is a qualification for registration under the Architects (Registration) Act.

The course includes all aspects of Architectural Education, including Town Planning, Interior Design, Structural Design and Equipment, and the Science of Building Materials.

There are also full-time courses in Building, Quantity and Valuation Surveying, and Building Technology.

Session commences 14th September, 1942.

EVENING SCHOOL.

Session commences 14th september, 1942.

A wide range of professional courses are open to pupils and assistants in the Architectural, Town Planning and Surveying professions and in the Building industry.

Detailed Prospectus (Day or Evening) free on application to the Director of Education.

789

## the least can

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

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

## HEATTING and

## AIR-CONDITIONING of BUILDINGS

By Dr. Oscar Faber & J. R. Kell

THE authors-who have acted as engineers for some of the most important installations in England-deal with their subject in wellinformed but simple language, so that the book may be recommended equally well to the student and the architect as well as the technician. The opening chapters describe the various heating systems and how to choose the right one. Other problems dealt with are: Boilers, Combustion, Chimneys and Heating Calorifiers, Oil-firing, Warming by Hot Water, Hot Water Supply, Heating and Hot Water Supply by Gas and Electricity, Heating by Steam, Air Conditioning and Description of Plant, and Refrigeration. The engineer will find of particular value the information about running costs.

434 pages. Size 9" × 61".

Price 25s. Postage 8d.

War Address :

THE ARCHITECTURAL PRESS. 45 THE AVENUE, CHEAM, SURREY

Hythe Works COLCHESTER

- "FOSALSIL" Economite Insulating Bricks and Slabs
- "FOSALSIL" Solid Grade Insulating Bricks
- "FOSALSIL" '1100' Insulating Refractory Bricks
- "FOSALSIL" Super High Temperature Insulating Bricks
- "INSULITE" Solid Grade Insulating Bricks
- "INSULITE" Porous Grade Insulating Bricks
- "FOSALSIL" Insulating Powders, Aggregates, Mortars and Plastic Composition.



ised the ina-inder ural sign, e of

to ning try. dica-789

you or of tails

st l-l-ne ns :: g, er ng

d.

Y