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THE ARCHITECTS' JOURNAL

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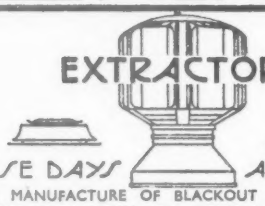
NO. 2514] Price 6d. [VOL. 97

REGISTERED AS A NEWSPAPER

GREENWOOD-AIRVAC VENTILATION

NATURAL AND MECHANICAL

INDUCERS EXTRACTORS DIFFUSERS



FOR THESE DAYS AND THE MORROW

SPECIALISTS IN THE MANUFACTURE OF BLACKOUT AND GAS PROOF VENTILATORS.
AIRVAC VENTILATORS PROVIDE BALANCED VENTILATION WITH SUPREME PERFORMANCE FOR BUILDINGS, SHIPS AND VEHICLES.
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TAYLOR WOODROW CONSTRUCTION LIMITED,

BUILDING AND CIVIL ENGINEERING CONTRACTORS

London Office: 10 ST. GEORGE ST. W.1

also at

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and branches throughout the Country.

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Owing to the vastly increased demand for the above, we find it necessary to announce that for the time being we are generally unable to supply from stock. Deliveries, where possible, are quoted to special enquiry only.

A. G. THORNTON, LTD., Manufacturers, 41, Gartside Street (late of Paragon Works), MANCHESTER, 3.

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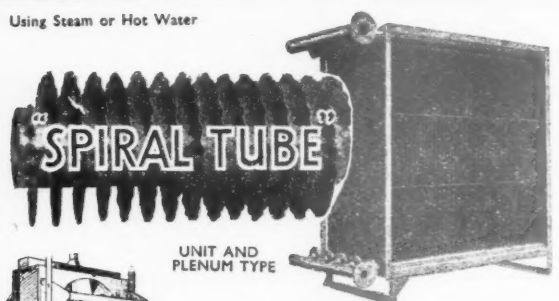

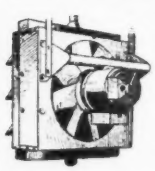

UNIT AND PLENUM TYPE

AIR HEATERS

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for

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PLYMAX WAS BEING USED

for years before the war for partitions in offices and in municipal buildings, for shop counters, for table tops, for cinema front decoration, for exhibition kiosks and in scores of other ways.

PLYMAX IS BEING USED

in every kind of war emergency building, for partitions in hostels, canteens, factories; for cubicles in hospitals and in camps. Its special advantage in war is the ease and speed with which Plymax can be erected or dismantled.

PLYMAX WILL BE USED

after the war for every kind of interior or exterior partitioning or panelling where strength with rigidity and lightness are essential, where hygiene is insisted upon, where decorative brightness must be accompanied by resistance against the weather, or bath-room splashing, or the intrusion of rats and mice, or the hard wear and tear of public buildings.

A VENESTA PRODUCT

PLYMAX THE METAL-FACED PLYWOOD

Ask about supplies, which are available for all official work, by writing to Venesta Limited, Vintry House, Queen Street Place, London, E.C.4

Alphabetical Index to Advertisers

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

Mighty Atoms of POWER!

PETTER Air Cooled Engines are mighty atoms of Power. There is no water to splash away, boil or freeze. They have been adopted as the standard unit by important makers of power-driven machinery for building and road construction.

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(4 STROKE). 1½, 2 & 3 B.H.P.

PETTERS LTD · LOUGHBOROUGH · ENGLAND

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LARGE-SCALE APPARATUS FOR THE COOKING AND SERVING OF FOOD

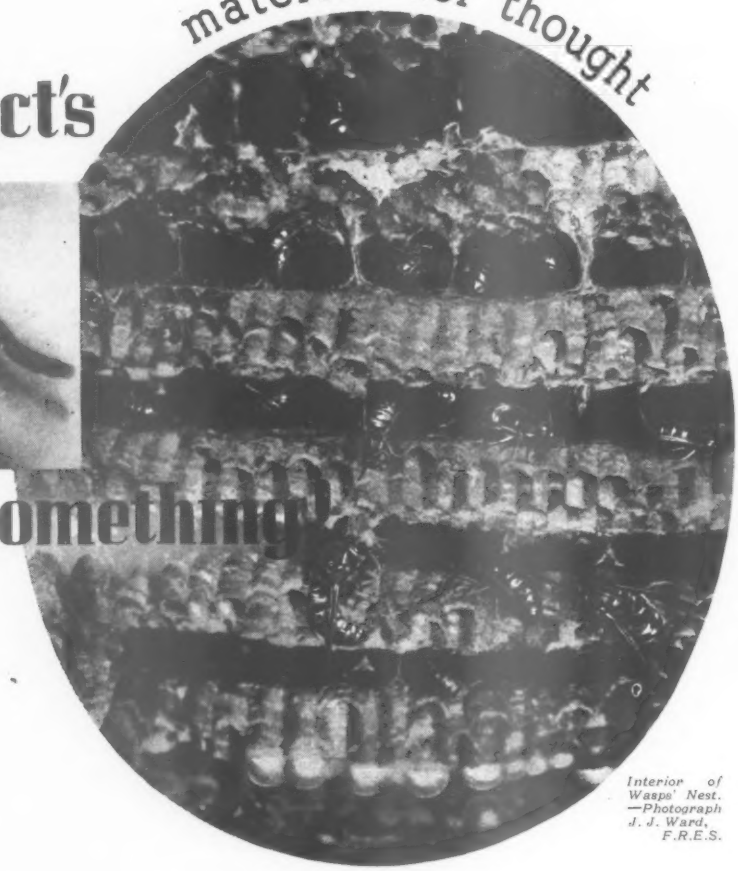
A view of the Servery Side of a Women's Canteen

The complete Kitchen Installation planned and equipped by

R. & A. MAIN LIMITED — LONDON AND FALKIRK

material for thought

This Architect's forgotten something!

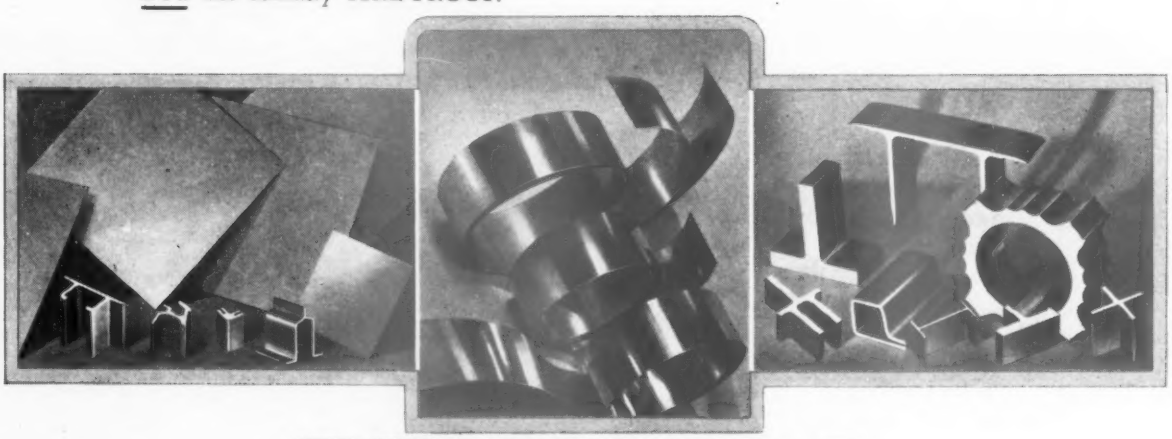


Interior of Wasps' Nest. —Photograph J. J. Ward, F.R.E.S.

His plans have proved in practice, that his building, in lightness and strength, surpasses any edifice constructed by man – that the multitude of its "rooms" in comparison with its over-all dimensions could make Hotel proprietors green with envy. But – his materials are NOT Fire-proof.

Without wishing to vex Vespa unduly – may we remind the World of Men of close analogy of Reynolds' "Hiduminium" Aluminium Alloys with the materials employed in the architecture illustrated above –

Exceptionally light: Very strong:
Non-corrosive and untarnishable,
BUT also definitely FIRE-PROOF.



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

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

A Perfected HYGIENIC PAINT with high Reflective Properties

"SNOWCEM" cement paint possesses many features which make it particularly suitable for use in public and private buildings and workshops, factories and A.R.P. shelters.

HYGIENIC: CAN BE WASHED OR SCRUBBED.

"SNOWCEM" can be applied direct to brick or concrete and gives a hard dustless surface. It is unaffected by humidity, rapid changes of temperature or condensation. It can be applied to newly completed work without being affected by the moisture and alkalies almost always present. It will not flake or peel. It can be washed or scrubbed when necessary. It is hygienic and is impervious to moisture.

EASY TO APPLY.

"SNOWCEM" cement paint is applied with a brush like ordinary paint, and is available in two shades only: white and broken white.

BRIGHT REFLECTIVE SURFACE.

It gives a clean pleasing finish which is strongly reflective and therefore in most cases actually increases the value of lighting by day and night. "SNOWCEM" is thus a definite asset in saving light and fuel.

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1 lb. of "SNOWCEM" gives two coats to a superficial area of approximately 3-4 sq. yards. It is delivered in airtight metal containers at the following prices:—

112 lbs. 56/- 56 lbs. 32/6 28 lbs. 21/-
14 lbs. 14/- 7 lbs. 7/-

No permit is required for "SNOWCEM" and prompt delivery is assured. You are invited to write for leaflet (enclosing 1d. stamp):

"SNOWCEM"

THE NEW CEMENT PAINT FOR BRICK OR CONCRETE

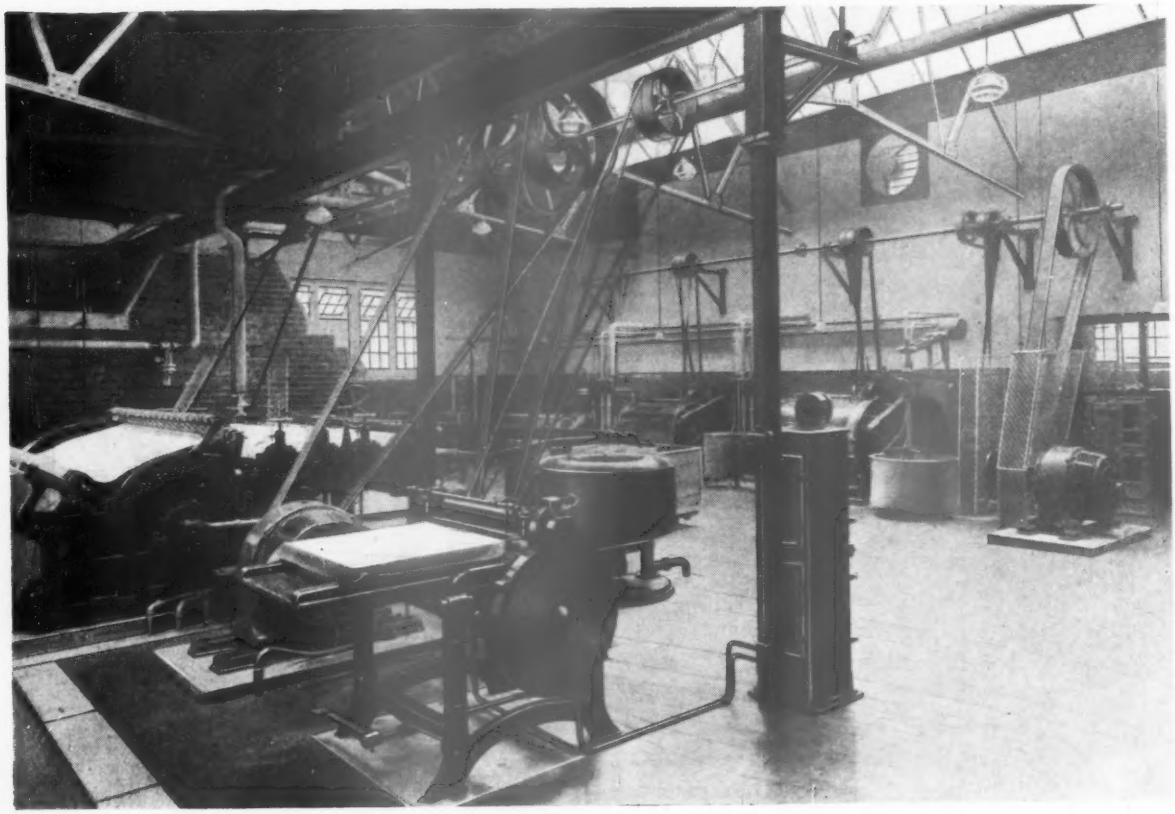
A BLUE CIRCLE CMC PRODUCT

THE CEMENT MARKETING CO. LTD., THE CLUB HOUSE, COOMBE HILL, KINGSTON-ON-THAMES

Northern Agents: G. & T. EARLE, LTD., WILMINGTON, HULL

SERIES No. 7

MODERN ENGINEERING INSTALLATIONS *by* HADENS



THE laundry of a large hospital designed and installed by Hadens. The needs of every department of an institution must be understood by the engineers if their design of all the engineering services is to be "clean" and efficient.

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

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

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STEPPING UP TO A BIG IDEA

Gyproc walls and ceilings in a works canteen.

Gyproc ceilings being erected at Woolwich.

"SPEED-BUILDING" means building at speed *but without haste*. This is made possible by the creative use of standardisation, employing appropriate materials and constructional methods. Already we have gone a long way in exploring the possibilities of speed-building in modern structures. We realise that such wisdom did not begin with us. Other firms are engaged in active experimental work that may help the progress of speed-building; and we should be interested to hear about such work.

WE PRODUCE **GYPROC:** A high-grade gypsum board with high resistance to fire and vermin. It is strong, light in weight, and non-warping. Gyproc is already known to be one of the most advanced wall-lining and ceiling materials.

GYPSTELE: Is a unit construction system for using Gyproc board in steel-frame units. These are very strong, with a high resistance to fire, and are designed to make construction rapid and removal easy. For linings to walls and ceilings, and for partitions.

GYPKLITH: A wood wool building slab. It is strong, with high thermal insulation, and resists vermin, fungus and dry rot. It is sound absorbing and sound resisting.

In order to conform with recent Paper Control regulations, each request for literature should be accompanied by a penny stamp.

GYPROC PRODUCTS LIMITED

"WESTFIELD," UPPER SINGLEWELL ROAD, GRAVESEND, KENT

The Key

to the solution of many

problems can be found in the

Corrosion Resisting Strong Light Alloy

BIRMABRIGHT

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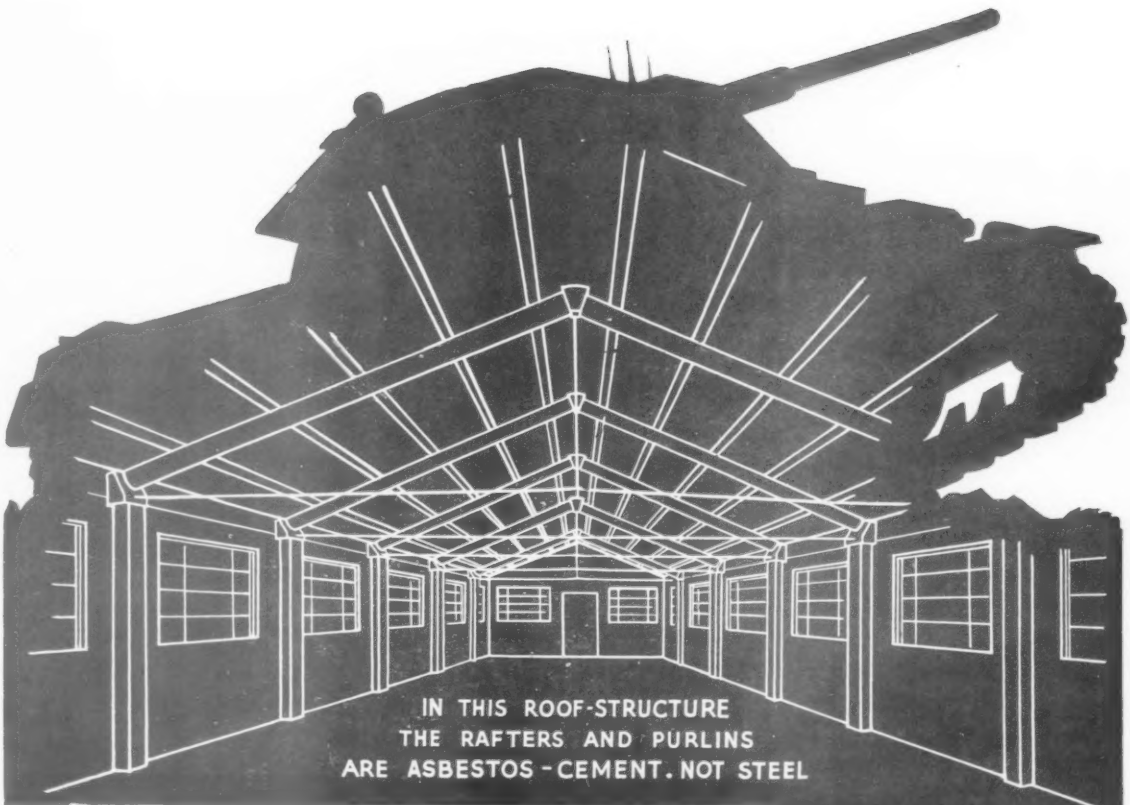
ASBESTOS-CEMENT

solves this problem



The nation's need to save **STEEL**

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.

TAC

TURNERS ASBESTOS CEMENT CO. LTD.
TRAFFORD PARK
MANCHESTER 17

TAC

The sketch shows TURNERS AND UNIVERSAL TUBULAR ROOF CONSTRUCTION (Asbestos-cement)

WAR AND PEACE

In the days of peace it was the practice of the Franki management to produce chapter, verse and photographs of important work recently carried out, thereby providing convincing evidence of the superiority of the Franki system of cast-in-situ piling.

Nowadays such a practice cannot be continued as all our work is in connection with the National effort. However, up-to-the-minute evidence, even more convincing, is available and will be produced as soon as circumstances allow.

In the meantime we shall be pleased to send you, on request, a copy of the Franki Brochure which contains full details of a range of jobs carried out before the present war.

THE FRANKI COMPRESSED PILE CO., LTD.

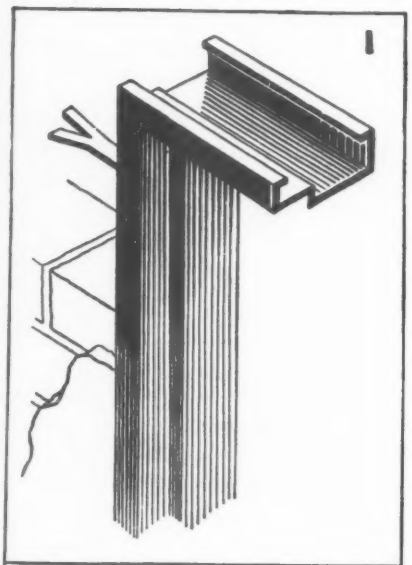
39, VICTORIA STREET, LONDON, S.W.1.

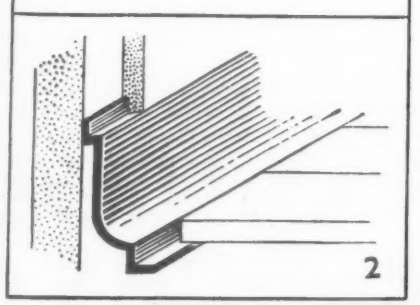
'Phone : ABBey 6006-9. *'Grams : "Frankipile, Sowest, London."*

B1

STEEL INSTEAD OF WOOD

Sankey METAL TRIM



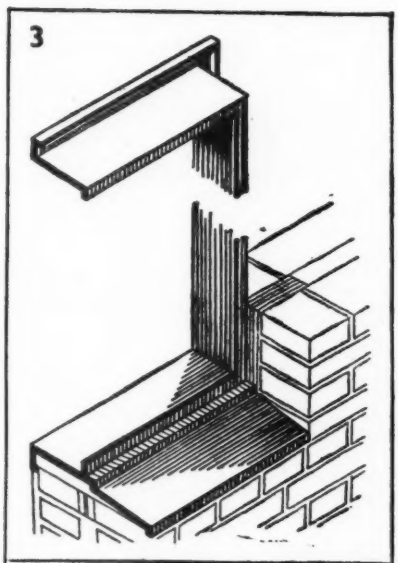


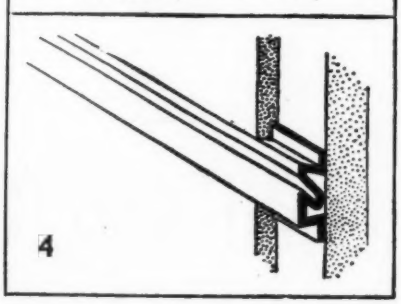
1
Pressed Steel Door Frame. Corners Welded and Complete with Hinges, Strike Plate and Lugs for fixing.

2
Coved Skirting. Stock Lengths 10ft. or cut accurately to size. Corners may be Mitred or Special Corner Pieces used.

3
Lining for Interior Window Reveal and External Cill. All sections Purpose Made and Rust Proofed if desired.

4
Flush Picture Rail fixed by Nailing and Corners Mitred in the usual way. Stock Lengths 10 ft.





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

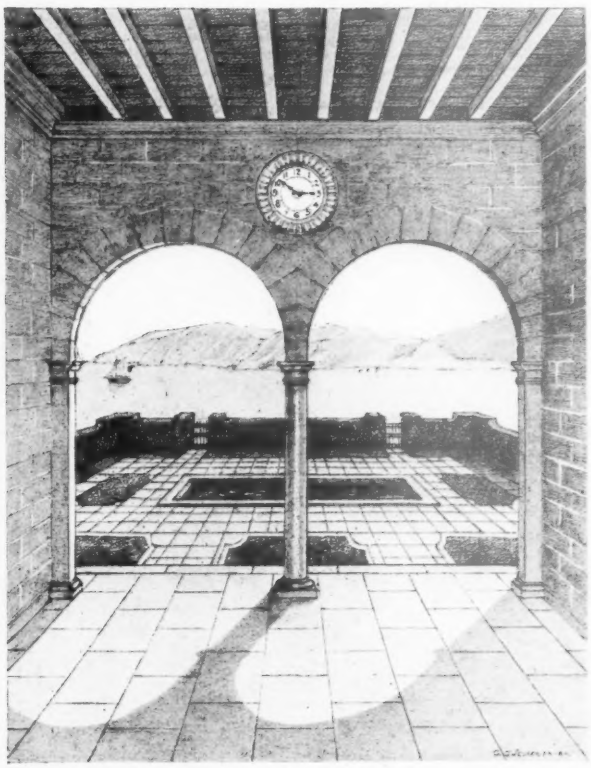
JOSEPH SANKEY & SONS, LTD., WELLINGTON, SHROPSHIRE. London Office : 168, REGENT ST., W.1.

SERIES No. 4

Settings for "Sectrics"

by

GEORGE O. SCORER, F.R.I.B.A.



Sketch for a loggia specially drawn for Smith's English Clocks Ltd.

ARCHITECTS at present considering schemes for post-war construction or reconstruction, for private clients and corporate bodies, are cordially invited to approach Smith's architectural department for all necessary technical data concerning the installation of appropriate Smith 'Sectric' Clocks.

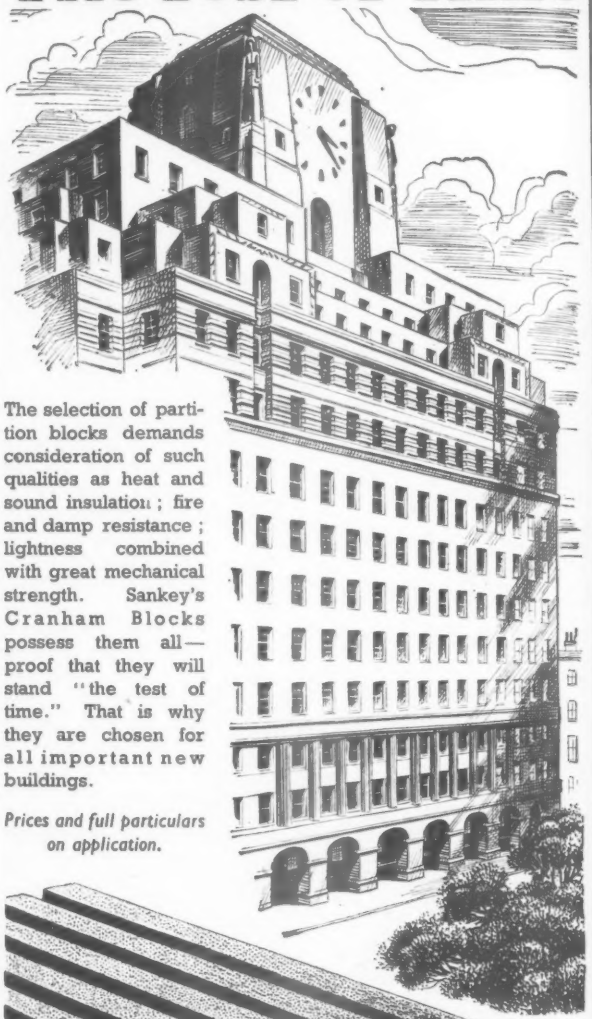
SMITH SECTRIC CLOCKS

&

"SECTRIC" CLOCK CONNECTORS

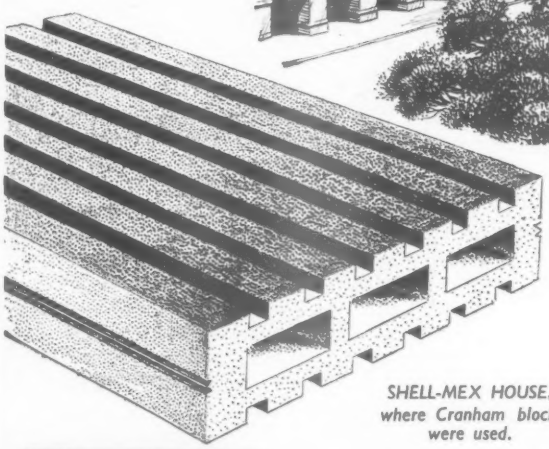
Issued by : SMITH'S ENGLISH CLOCKS LTD., Cricklewood Works, London, N.W.2

The Test of Time



The selection of partition blocks demands consideration of such qualities as heat and sound insulation ; fire and damp resistance ; lightness combined with great mechanical strength. Sankey's Cranham Blocks possess them all—proof that they will stand "the test of time." That is why they are chosen for all important new buildings.

Prices and full particulars on application.



SHELL-MEX HOUSE, where Cranham blocks were used.

SANKEY'S

CRANHAM BLOCKS

J. H. SANKEY & SON, LTD

Established 1857

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

Telephone : HOLborn 6949 (14 lines).

Telegrams : Brickwork, Estrand, London.

POST-WAR SANITATION

THE ESSENTIALS

LOW RENTAL HOUSING. The provision of greater amenities by means of completely modern sanitary equipment can be made available by Standardisation, and perhaps Pre-fabrication, and equally, by well-ordered Plumbing designs, incorporating protected, simplified, and accessible pipe work.

PUBLIC BUILDINGS—REPAIR AND RECONDITIONING. The reinstatement of Domestic Engineering Services in large houses and Public Buildings, whether damaged by enemy action, misuse or neglect, is work for the experienced specialist accustomed to such installations. Haphazard or patchwork methods are always more expensive in the end.

HOSPITALS. Specialist Architects demand planned plumbing and workmanship of a high standard. Emergency establishments, erected under emergency conditions, with stock equipment selected without too much discrimination, having served their purpose, should give place to modern Buildings with specialised appliances designed directly to serve the cause of **HYGIENE AND PUBLIC HEALTH.**

Dent & Hellyer, who designed and constructed the first One Pipe plumbing installation in the County of London—The Cumberland Hotel with nearly 1,000 suites, and have supplied the sanitary appliances for over 1,000 Hospitals—have a very real contribution to make to the future of Plumbing and Domestic Engineering:

(I) HOUSING. **The Sanitary Equipment of large communal establishments whether low cost—moderate or luxurious.**

(II) HOSPITALS. **An experienced staff trained to respond to progressive thought and design is immediately available to specialist Hospital Architects, as is also the "Protector" series of Modern Hospital Appliances.**

NEW MATERIALS.

The adoption of new materials to replace those in short supply or under control is vital, but discrimination enlightened by experience and not mere enthusiasm is here necessary.

PRE-FABRICATION.

Pre-fabrication in connection with Sanitary Appliances comprehends sanitary fixtures with the adjacent plumbing pipe work made together in units. This pipe work should be so arranged as to connect readily by short symmetrical branches to the main services, supply or waste, which are presumed to be installed to a preconceived plan laid out to accommodate and take advantage of such arrangement.

This Pre-fabrication has great possibilities, but must necessarily be the result of exhaustive experiment founded upon sound sanitary practice and due observance of by-laws and Regulations made in the interest of Public Health.

Dent & Hellyer, with their unequalled experience of the design and manufacture of all sanitary appliances from the days when there were no other Sanitary Manufacturers or Sanitary Potters, have information available and are ready to make their contribution to Pre-fabrication when they are released from their urgent and **ESSENTIAL WORKS ORDERS.**

Kingsway House,
103 Kingsway,
London, W.C.1.

NEW!

"V" CLIP FIXING

for Building Boards

FIXING SIMPLICITY ITSELF

Fixer has only to slide "V" Clips on T section, fix latter to purlins, insert board between clips and flange and the job is done!

NOTE THESE ADVANTAGES

- Saves time and labour.
- No special tools or skill required in fixing.
- No bolts or screws. Nothing to work loose. Nothing to adjust.
- Once fixed clips cannot be disengaged by vibration or atmospheric changes.
- No awkward fixing in confined spaces, the clips are fixed entirely on the bench.
- One-piece slotted hangers obviate punching or drilling of holes in T web.
- Installations by Pimco Systems' staff or contractors' own workmen as desired.

Simplicity is the Keynote of this new "V" Clip Fixing introduced by PIMCO SYSTEMS. Comprising a flanged head T section on which is threaded a slotted "V" section steel clip (see illustration), it provides the most simple, rapid, and foolproof method of permanently fixing any type or thickness of board for interior wall or ceiling linings yet devised. Full details and information sheet on application.

METAL FIXINGS
PIMCO SYSTEMS
FOR WALLBOARDS

P.I.M. BOARD CO. LTD., & T.T. TRADING CO., LTD.
ALDWYCH HOUSE, LONDON, W.C. Phone : Chancery 8159

RAPID WEEK-END FLOOR REPAIR WORK!!

The exceptionally heavy and continuous wear on factory floors at the present time renders the week-end repair practically impossible when ordinary cement is used, since it cannot mature in time.

With

FERROGRAN STEEL-FACED FLOOR FLAGS

however, Maintenance Departments can repair floors *in sections*, thus preventing the whole of the floor being out of action at the same time, a great advantage where speed is of vital importance.

Ferrogran Flag Flooring by Prodorite Ltd.

Ferrogran Flags stand up to very heavy traffic, and being made in squares 12 in. × 12 in. they are quick and easy to handle. They are non-dusting and non-slip. They are made entirely at our own Works from very best quality materials and can be despatched to suit reasonable requirements.

May we send you particulars and advise on any flooring problems you may have ?

EAGLE WORKS
WEDNESBURY
Phone : WEDnesbury 0284
(Private Branch Exchange).

PRODORITE LTD.

ARTILLERY HOUSE,
ARTILLERY ROW
LONDON, S.W.1
Phone - - Abbey 1547 & 1548

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E,
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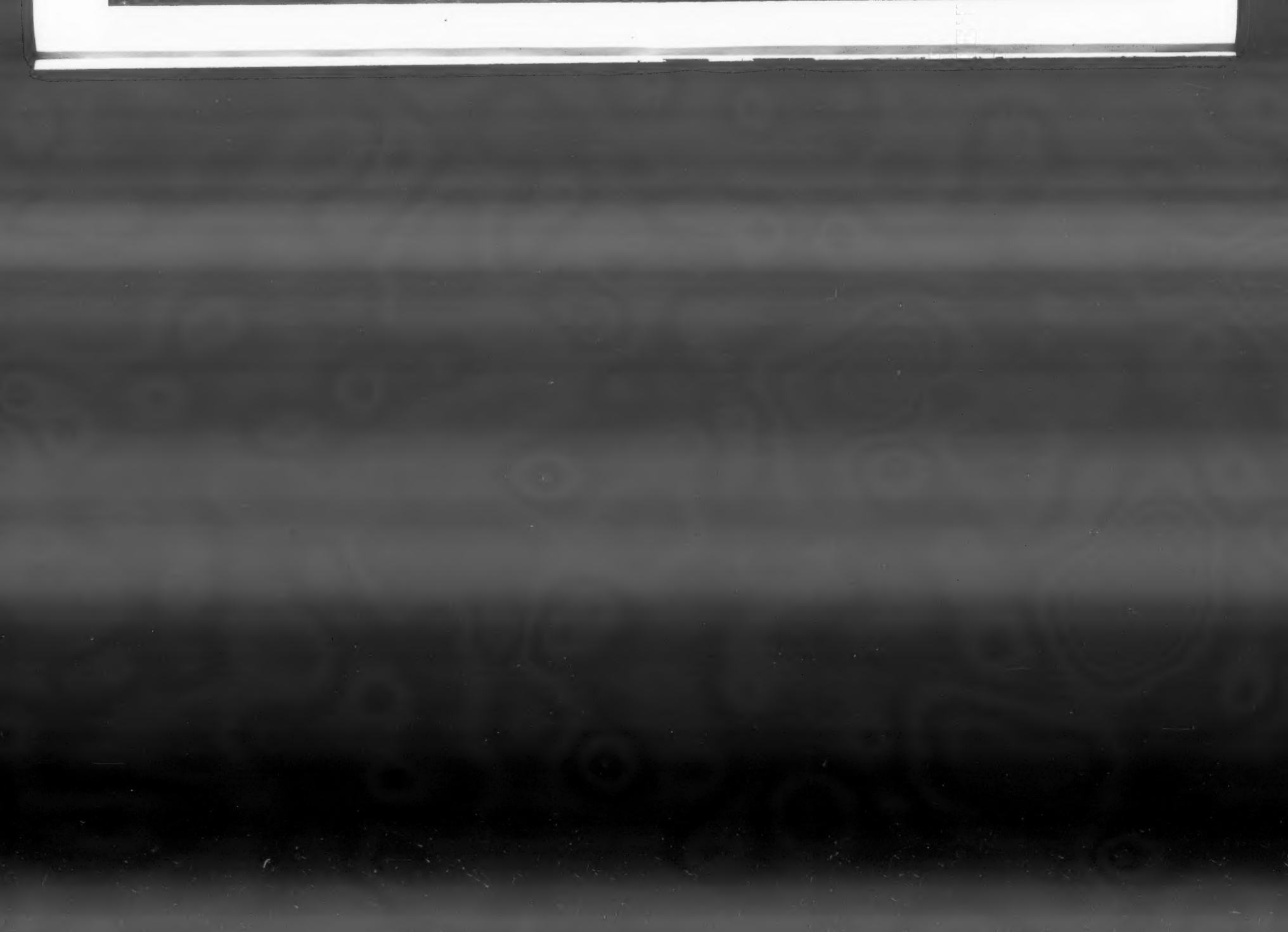
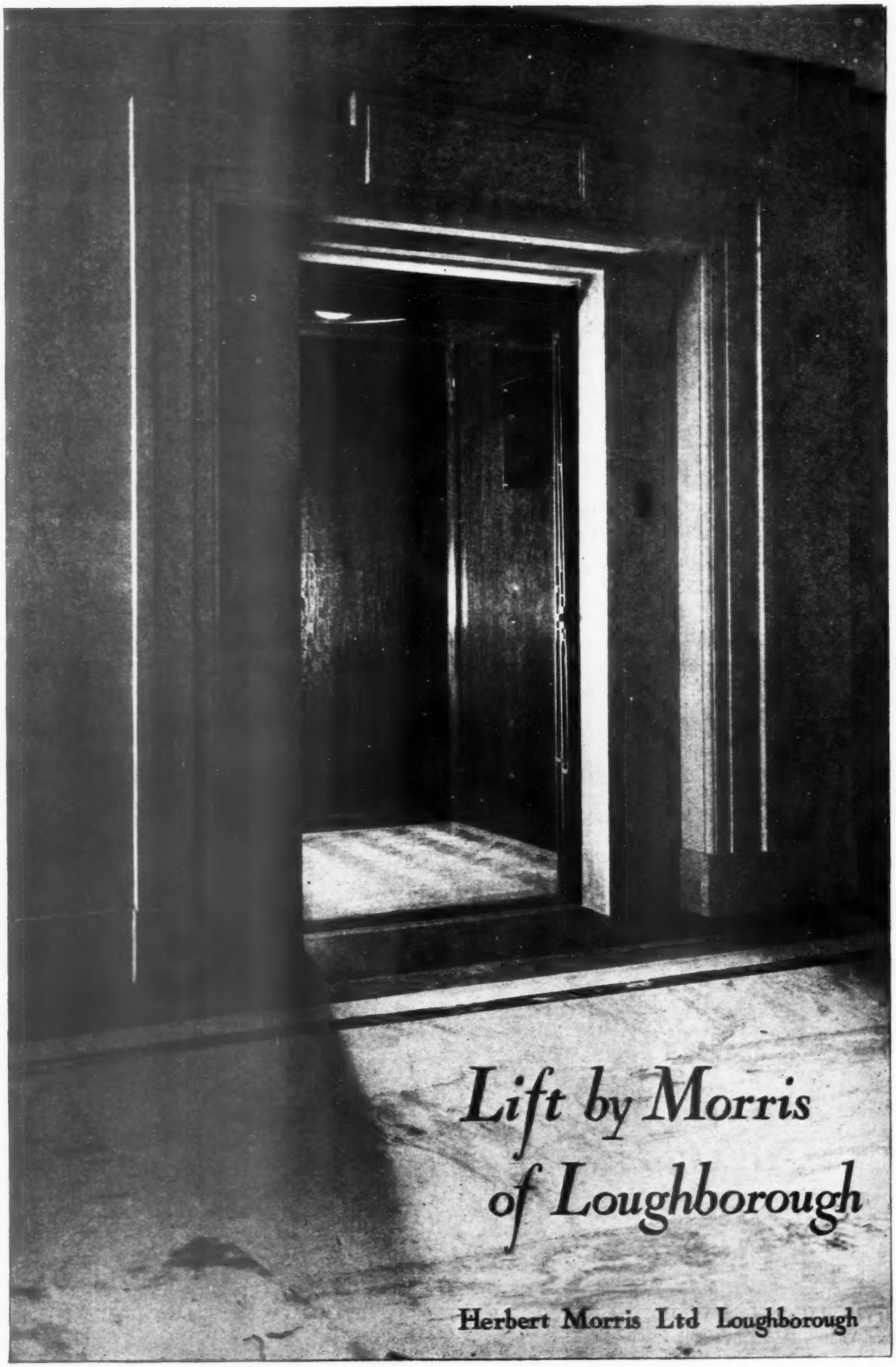



Lift by Morris
of Loughborough
Herbert Morris Ltd Loughborough

Away with

Dangerous Damp!

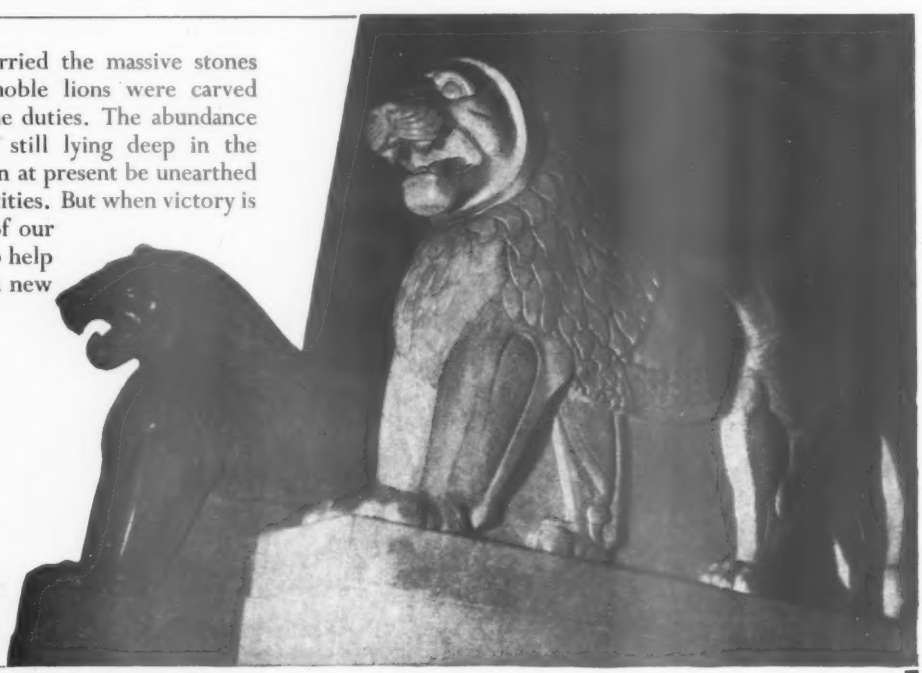
Wet apparel must be thoroughly dried—not merely surface dried. But are these drying conditions always carried out? In the cloak-rooms damp clothing may mean ultimate chills for the scholars, perhaps to epidemic extent. The most modern schools are installing Vectair Heating, which circulates fresh warm drying air, capable of drying and airing damp clothes at the same time. The welfare of children is a precious responsibility. Don't treat it lightly. Rely on Vectairs to safeguard the health of the rising generation of maybe future Ministers, Matrons and Magnates.

If you think that our collaboration would be of help to you—don't hesitate to invite it.

Vectair
CONVECTION HEATING

BRITISH TRANE Co., Ltd., Vectair House, 52, Clerkenwell Close, London, E.C.1. *Telephone Clerkenwell 6864 & 3826.*
Agencies at: Birmingham, Cardiff, Glasgow, Liverpool, Manchester, Newcastle, Nottingham, Sheffield and Torquay.

The men who quarried the massive stones from which these noble lions were carved are called to wartime duties. The abundance of 'Hopton-Wood' still lying deep in the Heart of England can at present be unearthed only in limited quantities. But when victory is won, this treasure of our land will be there to help grace the fabric of a new and better Britain.



SHEFFIELD CITY HALL
Architect: E. VINCENT HARRIS, A.R.A., F.R.I.B.A.
Sculptor: JOHN HODGE.

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THE HOPTON-WOOD STONE FIRMS LTD., WIRKSWORTH, DERBYSHIRE
and Victoria House, Bloomsbury Square, London, W.C.1. 'Phone: Holborn 0895 *Members of British Stone Federation*

Two recent CELLON *developments*

LETHANE OIL

N-butyl carbitol thiocyanate 6.25%
β-thiocyanoethyl laurate 18.75%
Refined Mineral Oil 75%

A NEW SPECIFIC FOR THE CONTROL OF THE HEAD LOUSE

A field in which the new organic thiocyanates are pre-eminent on account of their low toxicity, lack of odour, non-inflammability and trouble-free application.

PROTECTIVE HAND CREAM (No 1)

Possessing anti-dermatitis properties. Materially reduces the risk of many irritant skin troubles which develop on the hands in various industries where oil, grease, paint and other grime is unavoidable. The cream fills the pores and forms a protective layer. An invaluable preparation for use by industrial workers in Aircraft, Building, Engineering and kindred industries.

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CELLON

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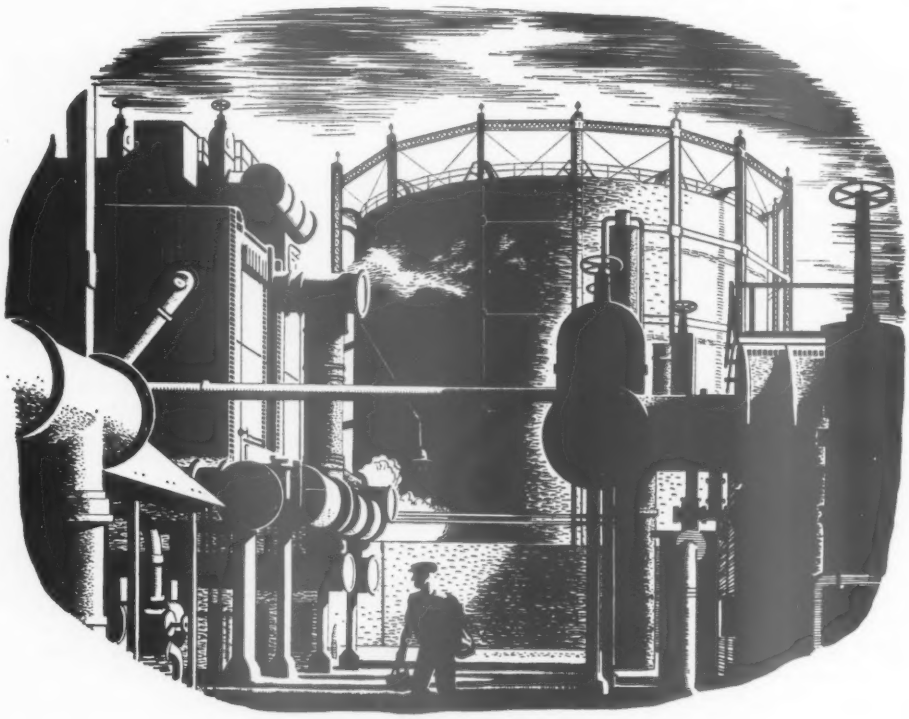
CYS—23

PUBLIC SERVICE



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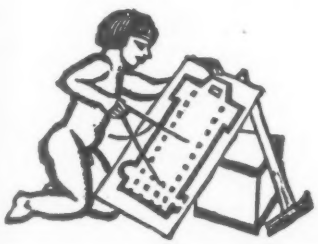


Journal Abbreviations

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974.
ABT	Association of Building Technicians. 113, High Holborn, W.C.1.	Holborn 1024-5.
APRR	Association for Planning and Regional Reconstruction. 32, Gordon Square, W.C.1.	Euston 2158-9.
ARCUK	Architects' Registration Council. 68, Portland Place, W.C.1	Welbeck 7938.
BC	Building Centre. 23, Maddox Street, W.1.	Mayfair 2128.
BINC	Building Industries National Council. 110, Bickenhall Mansions, W.1.	Welbeck 3335.
BCG	British Commercial Gas. 1, Grosvenor Place, S.W.1.	Sloane 4554.
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434.
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140.
BPVM	British Paint and Varnish Manufacturers. Waldegrave Road, Teddington.	Molesey 1063.
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246.
BSA	British Steelwork Association. 11, Tothill Street, S.W.1.	Whitehall 5073.
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
CDA	Copper Development Association. Grand Buildings, Trafalgar Square, W.C.2.	Abbey 2677.
CMC	Cement Marketing Company, Coombe Hill, Kingston, Surrey.	Kingston 2140.
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.1.	Sloane 4280.
CSI	Chartered Surveyors' Institution. 12, Great George Street, S.W.1.	Whitehall 5322.
DOT	Department of Overseas Trade. Dolphin Square, S.W.1.	Victoria 4477.
DIA	Design and Industries Association. Central Institute of Art and Design, National Gallery, W.C.2.	Whitehall 2415.
FGLMB	Federation of Greater London Master Builders. 23, Compton Terrace, Upper Street, N.1.	Canonbury 2041.
GG	Georgian Group. 55, Great Ormond Street, W.C.1.	Holborn 2646.
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881.
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 3158.
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215.
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172.
ISPH	Industrial & Scientific Provision of Housing. 3, Albemarle Street, W.1.	Regent 4782.
LIDC	Lead Industries Development Council. Rex House, King William Street, E.C.4.	Mansion House 2855.
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3767.
MARS	Modern Architectural Research Society. 8, Clarges Street, W.1.	Grosvenor 2652.
MICE	Member of the Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577.
MOH	Ministry of Health. Whitehall, S.W.1.	Whitehall 4300.
MOI	Ministry of Information. Malet Street, W.C.1.	Euston 4321.
MOLNS	Ministry of Labour and National Service. St. James' Square, S.W.1.	Whitehall 6200.
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.2.	Gerrard 6933.
MOTCP	Ministry of Town and Country Planning. Lambeth Bridge House, S.E.1.	Reliance 7611, Ex: 1519.
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611.
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041.
NFBTO	National Federation of Building Trades Operatives. 9, Rugby Chambers, Rugby Street, W.C.1.	Holborn 2770.
NT	National Trust for Places of Historic Interest or Natural Beauty. 7, Buckingham Palace Gardens, S.W.1.	Sloane 5808.
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245.
PWB	Post War Building, Directorate of. Ministry of Works and Planning, Lambeth Bridge House, S.E.1.	Reliance 7611.
RCA	Reinforced Concrete Association. 91, Petty France, S.W.1.	Whitehall 9936.
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Welbeck 6927.
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1	Holborn 2646.
TCPA	Town and Country Planning Association. 13, Suffolk Street, S.W.1.	Whitehall 2881.
WLA	Wrought Light Alloys Development Association. Union Chambers, 63, Temple Row, Birmingham, 2.	Midland 0721.
ZDA	Zinc Development Association. 15, Turl Street, Oxford.	Oxford 47988.

NEWS

THURSDAY, APRIL 1, 1943
No. 2514. VOL. 97

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

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

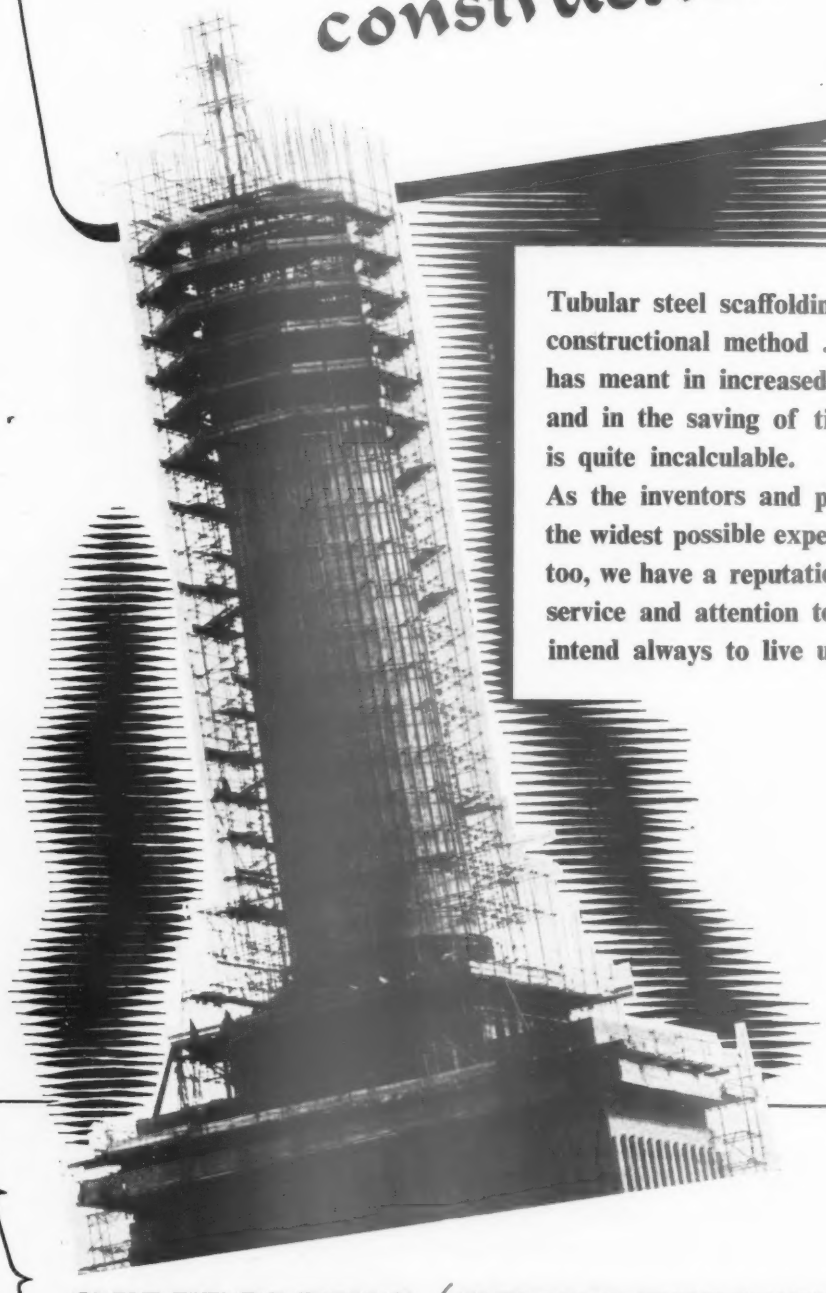
★★ *means important news, for reasons which may or may not be obvious.*

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

Since the beginning of the war, said Sir Andrew Rae Duncan, Minister of Supply, at a luncheon in London given by the Waste Paper Recovery Association, NEARLY THREE MILLION TONS OF WASTE PAPER HAD BEEN RECOVERED. *Still more is needed for essential war purposes if legitimate needs of everyday life are not to be further curtailed.* There is not a battle on the land, or an engagement on the sea, not a fighter sortie in the air nor a bomber raid, in which paper has not been used at innumerable stages in connection with the manufacture of the munitions that actually engage the enemy, said the Minister of Supply.

Lady Apsley asked the Minister of Health in the House of Commons whether he will give an assurance that the 4,000,000 houses, which it is proposed to erect immediately after the war, will in all possible cases HAVE A SMALL GARDEN attached? Mr. E. Brown: Yes, Sir.

HIGH ALTITUDE construction



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from AN ARCHITECT'S *Commonplace Book*

DREAM HOMES OF THE FUTURE. [*From* People's Homes. *A Report conducted by Mass Observation.* (John Murray.)] We see thus that the " dream home " of the majority is still the small modern suburban house, preferably possessing all modern conveniences, such as a labour-saving kitchen, hot and cold water laid on to a sink in the scullery, and a bathroom with a separate lavatory. Small but light windows, built-in cupboards, coal fires for warming, electric points in most rooms—these and a hundred other things would be appreciated. This " dream home " should have a garden, and should be situated both near the open country and near the town, so that while good shopping and recreational facilities are available and the wage-earner's workplace is near at hand, fresh air and open country are within easy reach of the home. Well-designed flats are and would be appreciated, but the great mass of people as yet hanker after " a house of their own." The area of 100 per cent. agreement is very small indeed. The range of personal wants is immense—but happily the elasticity of true democratic planning can offer an almost infinite variety, and so satisfy the healthy, contradictory categories of human need and hope and hate. Their wants are difficult—but happily for the planners they will make the best of a bad lot or a good little.

Post-war education will include the completion of the programme of building technical colleges and institutes TO FORM UNIVERSITIES OF INDUSTRY, said Mr. R. A. Butler, President of the Board of Education, speaking at Manchester.

In the House of Commons Sir R. Tasker asked the Minister of Health whether, in cases where STRUCTURAL FIRST-AID REPAIRS have been made and the owner lacks financial resources to decorate and thus enable premises to be let, local authorities have power under regulation to perform this work at the owner's expense, recovering the amount so expended by way of rent until the indebtedness to the authority is cleared?

Mr. E. Brown : The provisions of the Housing (Emergency Powers) Act, 1939, as amended by the Repair of War Damage Act, 1941, enable local authorities to execute permanent repairs, as well as first-aid repairs in special circumstances and where the owner is unable or unwilling to do the work himself. The restrictions on the supply of material do not however permit of more than the minimum amount of decoration. There is no question of the costs being recovered from the owner, since the local authority is reimbursed by the War Damage Commission, who would also meet the proper cost of any work carried out by the owner himself.

Twenty organizations who are interested in REBUILDING THE CITY are represented on the City of London Reconstruction Advisory Council.

The main functions of the Council will be to advise the City Corporation on the needs of the principal financial, mercantile and other institutions and their staffs. It does not intend to undertake any planning of its own. Represented on the council are : Accepting Houses Committee, Association of Investment Trusts, Baltic Exchange, Bank of England, British Insurance Association, Chamber of Shipping of the United Kingdom, City Churches Commission, City Companies, Committee of London Clearing Bankers, Corporation of Lloyd's, Dean and Chapter of St. Paul's, London Corn Trade Association, London Metal Exchange, London Passenger Transport Board, Newspaper Proprietors' Association, Port of London Authority, Railway Companies' Association, Rubber Trade Association of London, Stock Exchange, and the Wholesale Textile Association. Mr. B. G. Catterns, deputy Governor of the Bank of England, has been appointed chairman, and Mr. A. E. Wildey, secretary.

On March 23 Her Majesty the Queen visited the Dudley House Committee in London and at the request of Lady Ward, the Chairman, handed a cheque representing a MEMORIAL TO THE LATE MRS. ROBERT E. STRAWBRIDGE of Philadelphia to Mr. Reynell Wreford, an official of the Papworth Village Settlement. The memorial will take the form of six cottages at the Settlement, in which former patients from the Papworth Hospitals will live with their families while working in the Papworth Industries. Plans of the cottages were shown to the Queen by the architect, Mr. Amyas D. Connell, A.R.I.B.A.

From the beginning of 1940 Mrs. Strawbridge sent all the supplies made by her British Auxiliary No. 1 of the South Eastern Pennsylvania Chapter of the American Red Cross to the Dudley House Committee to be distributed entirely at their discretion.

Her Majesty the Queen examines the plans of the cottages to be built on the Papworth Village Settlement, as a memorial to the late Mrs. Robert E. Strawbridge, of Philadelphia. With Her Majesty is Mr. Amyas D. Connell, the architect for the scheme.

Principal of the AA School

The AA School now holding its annual exhibition of students' work in London came under the direction of Mr. Frederick Gibberd, F.R.I.B.A., in 1941. This has been, from the architectural point of view, one of the outstandingly successful appointments of the war. Frederick Gibberd has practised in London since 1932. Four of his chief buildings are particularly well known. Three of these are blocks of flats in the London area: Pullman Court, Streatham; Park Court, Crystal Palace; and Ellington Court, Southgate. The fourth is the nurses' home in Macclesfield, which he won in open competition. Including Macclesfield he has taken part in five competitions, and secured first, third and fourth places in three of them. Born in Warwickshire in 1908 he received his architectural education as an articled pupil for four years and as a student of the Birmingham School of Architecture. A member of MARS and the RIBA Reconstruction Committee he has written two books: *The Modern Flat*, jointly with F. R. S. Yorke, and *The Architecture of England*, now in its third edition. The AA exhibition is described and illustrated on pages 222-224.

We regret to record the DEATH OF MR. G. H. PARKER, C.B.E., at the age of sixty-four. Chairman of the National Joint Council for the building industry since 1937, he had previously been President of LMBA and President of NFBTE.

George Henry Parker was the eldest son of Mr. George Parker, of Sutton, Surrey, who, at the age of 90, is still in good health. He was chairman and managing director of Messrs. George Parker & Sons, building contractors, of Peckham, a firm which was founded by his father, and whose activities he himself largely extended. He was chairman of the Conciliation Panel of the National Joint Council from its inception in 1932 to 1937, and chairman of National Emergency Disputes Commissions during the same period. In 1937 he succeeded the late Mr. W. E. Collier, J.P., as chairman of the National Joint Council for the industry, a position he filled up to the time of his death. He presided over the negotiations which led to the introduction last February of the Holidays with Pay scheme, and was chairman of the Uniformity Joint Board for the building and civil engineering industries, established in 1940, which has done much to facilitate the Government's war-time building programme. Mr. Parker represented the National Federation on almost

every Government Advisory Committee connected with the building industry. He was chairman of the Advisory Council of the Building and Civil Engineering Industries set up last year by Lord Portal, and a member of the Education and Special Training Committee of the Central Council of Works and Buildings.

★

The RIBA announces that the NEXT GROUP OF ASB LECTURES will be held on two consecutive Saturdays in May, the 8th and 15th. As before the lectures will be at the RIBA, 66, Portland Place, W1, the first on each afternoon starting at 2.15 p.m. The lectures will deal with the following: May 8, heating and ventilating from both medical and technical aspects, and with particular reference to housing. This lecture will be followed by medical and technical speakers who will deal with the problems of hygiene affecting various aspects of the planning and construction of buildings. May 15, lighting, both artificial and natural, and the various principles which govern their supply to the human being. Technical data will be given as to how best these ends may be achieved. Arrangements have been made so that no notification of intention to be present is necessary.

Mr. Henderson Stewart asked the Secretary of State for Scotland in the House of Commons, what reasons have now induced him to set up A LAND UTILIZATION COMMITTEE IN SCOTLAND, in view of the previous refusal to appoint a similar committee so that the Scottish people might be informed about the nature and scope of the land problem in Scotland, in relation to the Report of the Scott Committee for England and Wales? Mr. Johnston: It was not thought necessary to set up a Land Utilization Committee on the lines of the committee for England and Wales over which Lord Justice Scott presided. Such an inquiry would duplicate the work of the many Scottish committees already appointed to deal with subjects of vital importance to rural Scotland. I have set up the committee of which Lord Normand is chairman solely to ensure that any recommendations of the English committee, so far as applicable to Scottish conditions, are covered by the work of the Scottish committees or otherwise.

Mr. J. W. Stephenson, J.P., President of the NFBTO, will succeed the late Mr. G. H. Parker C.B.E., as CHAIRMAN OF MOW ADVISORY COUNCIL of the Building and Civil Engineering Industries. Mr. F. L. Wallis, J.P., President of NFBTE, will succeed Mr. Stephenson as Vice-Chairman.

Mr. CHURCHILL'S SPEECH

THERE has been a tendency in this country to split into two distinct camps on the question of post-war reconstruction. There are those, who, with Lord Beaverbrook, say: "Surely the time for considering the development of land is when the war is over. By bringing forward these issues now, we are simply taking our eye off the ball." The other camp claims that we must begin to consider reconstruction now while the war is still being fought.

Which of these camps is right? Clearly the first and most urgent job on hand is to win the war, for there would be little pleasure to us in living to rebuild Britain as a great concentration camp, a mere island annexe to a germanic confederation ruled by some despotic Gauleiter. Apart from the obvious practical necessity of having a working scheme ready for the days of demobilisation it is doubtful, nevertheless, whether the two objects of (a) the winning of the war and (b) the so-called winning of the peace can really be disassociated.

It is commonly believed that Hitler and Hitlerism are the direct causes of the present parlous state of the world. Once we have defeated Hitler, they say, all will be well. A little consideration will show, however, that Hitlerism is not a cause but an *effect*—an effect of the social-economic chaos of the years between the two wars which, though world-wide, had its worst effects in Germany. Do we hope merely to defeat Hitler and at the same time to maintain the very system that has produced not only two major wars in one generation, general insecurity, fear, frustration, squalor and "poverty amidst plenty," but *Hitlerism itself?*

Without vision the people perish. As Astragal pointed out, men do not fight effectively with arms alone. They must have something that is more powerful than any tank, plane or gun—an Idea. Hear the words of Captain Liddell Hart, perhaps the most far-sighted military strategist in Britain today, and a former military correspondent of *The Times.* This is no idealistic dreamer speaking but a realistic military expert:—"It is in the psychological sphere that this war may be decided. True leadership must provide creative ideas from which a positive faith can be generated. To get the best out of men it is not enough to tell them that they must be ready to die in the last ditch. They must be given a new vision of the future. And a new hope."

Just as ultimate peace plans must be linked with immediate war aims, so must a rebuilding programme form an essential element of a general social objective. Fine building, as part of a cultural expression, does not rise from the fortuitous existence of a large number of good architects, nor indeed from co-ordinated planning alone but from the existence of a sound and whole society.

Now at last, Mr. Churchill's great BBC speech of March 21 affords strong evidence that the Government has fully realised that reconstruction plans can no longer be shelved. The Premier's words make it clear that while the Government is determined to concentrate everything on defeating *Hitler*, it is already at work on the preliminaries of the post-war attack against *Hitlerism*, both at home and abroad.

It is still doubtful, however, whether the Government yet fully realises the great possibilities for developing the new and splendid culture that now lies in the proper use of applied science and modern technique. The general attitude of the Government appears so far to be somewhat lacking in inspiration. We are told, for instance, that the post-war years will be as difficult in their way as the years of war. Blood, toil, sweat and tears we must accept for the present, but not for ever. The time of reconstruction need not be one of unrest and misery. Dynamic leadership must bring a new spirit of creative energy whose end is not the merely negative one of keeping people secure though submissive, or of maintaining the old war-generating commercial struggle, but of building a new world in which each individual living in plenty and in true *economic* freedom, by virtue of those mechanical slaves measured in Horsepower and Kilowatts now at man's disposal, could add his creative share to the common good.

"Houses live and die: there is a time for building, and a time for living and generation, and a time for the wind to break the loosened pane." Like houses, civilisations live and die. The loosened pane of our Waste Land has been broken by something more violent than the wind. We cannot, even if we would, return to the pre-war world. The time for building a new civilisation is returning and the future holds far greater promise than many of our leaders can yet believe.

It is the Government's duty to ensure that we do not rebuild Britain with the meanness of a by-pass villa, or worse still, with the tyranny of a well-planned, secure and hygienic prison but with the generosity of a spacious, serene and sun-lit house constructed for the pleasure of free human beings liberated at last from the degredations of poverty, war and needless toil.

It is its duty also to place before the people a vivid picture of the kind of world we want to build. Apathy and war-weariness are an ever present threat to national morale. The war is not yet over. We need that vivid picture, that "new vision" of a Britain radically rebuilt. Its broad outlines must be considered *now*.

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

NOTES & TOPICS

POST-WAR KITCHENS

Some good points on rebuilding were raised by Professors Julian Huxley and William Holford on the BBC Brains Trust last week, notably the suggestion by Professor Holford that while the body of new houses could well be of local materials, the working machine, the hub of the house, should be mass produced and houses designed to take standardised products.

★

This gives me an opportunity to open up an important argument on the design of kitchens. Since war began many pre-war designers of houses and flats have spent more time in kitchens than they did in the preceding decade. Their opinions on kitchen design have thereby acquired added precision and value. And it seems clear that the inefficiency of the pre-war kitchen had two main causes: public prejudice and thoughtlessness, and the lack of any body which could persuade interested manufacturers to co-operate to their mutual and public benefit. The first cause is, for the time being, inoperative and the post-war Building Section of MOW has all the authority needed to remove the second cause. There is thus a real chance to do something.

★

In the past, those about to build a small house made stipulations about the size, finish and equipment of living-rooms, bedrooms, hall and bathrooms, but rarely about the kitchen. When other rigid demands had been more or less fulfilled, the architect had to try to fit into a space

Captain Hubert Bennett, F.R.I.B.A., the winner of the Ilkley Architectural and Town Planning Competition, points out a feature of his design to the Earl of Lytton, Mr. H. G. Strauss, M.P., and Mr. Percy Dalton (extreme left), who sponsored the competition. The photograph was taken when Mr. Strauss opened the exhibition of competition drawings at the Building Centre on March 17.

of 12 ft. by 8 ft. or less the following things : preparation table, storage, sink and drainers, cooker, boiler, shelving, serving hatch, broom cupboard, door to house, door to larder, often a door to outside and, of course, a window. He was lucky if the client's wife did not ask for a refrigerator, a washing machine, an ironing board, a hatch to fuel store and perhaps a sewing machine and a chair to be slipped in as well. As all these things were made by different manufacturers and differed in size and height, the result was rarely better than a draughty make-shift, honeycombed with insanitary crannies.

★

In the late thirties more and more designs for kitchens, showing all necessary equipment arranged in proper sequence, were published by interested organizations, and great use might have been made of them had it been possible to buy all the fittings shown from one organization at one reasonable supply-and-fix price. But it was not possible to do this, and the cost of a single such kitchen reproduced piece by piece from architects' details was out of the question for most clients.

★

But now the Post-war Building Section of MOW has been at work for some time, and behind the curtain of official silence immense strides have no doubt been made in tackling problems of precisely this kind. One can assume that five or six standard kitchens to suit various types of small house or flat have already been designed, that each type has two or three variations to suit different fuels, and that the co-operation of all interested manufacturers has been obtained.

★

It is therefore probable that after the war the architect, builder or private person will be able to choose one of 25 national standard kitchens with the certain knowledge that for a single payment of £35 to £150 a well-designed, complete kitchen—proof against backache, draughts, dirt-holding corners or stunning blows on the back of the head—will be delivered and fixed complete and thereafter be maintained in all its parts for a year.

BOT DOES BETTER

In the *Count Your Coupons* exhibition at Charing Cross Underground Station, BOT has done a good deal better in design than in its catalogue of Utility Furniture, about which I had some very hard words to say. The exhibition is propaganda (euphemistically called "Information" in this country) telling you how the Robinsons, a family of somewhat depressing homeliness, resurrect their time-worn garments and plan the spending of their clothing coupons. There is something decidedly rotten in the state of the Robinson underwear.

★

Though produced for BOT by MOI, the exhibition is not up to MOI's usual high standard. It is, however, far better than anything that would have been presented by a Government department, say, ten years ago.

ASTRAGAL

PLANNING NOTES

TCPA STATEMENT

The Town and Country Planning Association has issued a statement on the urgent need of a Government announcement as to the principles to be followed in town and country planning after the war. "The Minister of Health . . . has requested local authorities to acquire sites at once and to go ahead with programmes for their first year's building. But as local authorities have been given no guidance as to an intended change in the direction of town-growth, they are almost forced, in considering their programmes, to go on pre-war assumptions. . . . It is essential, therefore, that the Government should . . . implement the Barlow Report . . . and secure for MOTCP adequate powers. . . . The problem of compensation is insoluble locally . . . unless the local authorities are assured that they will be covered for compensation . . . they cannot escape their pre-war dilemma."

HOSPITAL PLANNING

A brief article on Hospital Planning and some interesting drawings of hospital layouts in Germany, Italy, France and Finland make the Spring number of *Art Notes* (St. Michael's Workshop, Oxford, 1s. 3d. net) pleasant reading. N. Notley says that a perfect town site for a hospital is unattainable. In the country the ideal site is on high ground, above river mists, well sheltered from the prevailing wind, and preferably near sea or mountains. The supreme importance of ventilation is stressed. Recent experiments have shown that by regulating the oxygen and humidity content and temperature of the air a patient's recovery can be hastened. The use of colour in hospital decoration has not received sufficient attention. Chocolate brown and various shades of dark green are not likely to give a patient fresh hope.

LETTERS

John C. Tickle

A. C. Manuel, A.R.I.B.A.

Peter Shepheard, B.ARCH., A.R.I.B.A.

Gordon F. Taylor, Student, R.I.B.A.

Farm Workers Cottages

SIR,—In your issue for February 25 it is stated that agricultural workers' cottages are to be built by the Rural District Councils and that the type plans issued by MOH should be adapted by the Rural District Councils' architect or officials to suit local conditions, in other words, that the Rural District Councils are responsible for both building and supervision.

Our local Rural District Council has been allotted twelve cottages, but it maintains that after selection of sites it has nothing further to do with the matter, and that drawings will be prepared, tenders obtained and work supervised by MOH or MOW.

Can you state which view is the correct one and, if possible, quote authority?

This council has selected six separate sites for its twelve cottages, so if other Councils do the same it means the total number will probably reach 1,500 sites. I cannot see how building on these sites is possible without *local* professional aid!

Letchworth. JOHN C. TICKLE

The Parable of the Spec. Builder

SIR,—Mr. C. J. Cragg, whose letter appeared in your issue for March 4, may be interested in the following parable:

And it came to pass that a spec. builder and an architect each desired to build a house, and so they went in unto the meeting place, yea, even unto the council chamber.

And when the plans had been examined by the council it was spoken thus:

We will allow the spec. builder to erect his house, but we say unto the architect Cast your plan into outer darkness for it pleaseth us not. For are we not judges of what is good in a house even as we are judges of what is good in a sausage. For are we not spec. builders and pork butchers ourselves who are the judges.

And the architect went forth into the wilderness and there was weeping and gnashing of teeth.

A. C. MANUEL

London.

Articled Pupils

SIR,—Mr. Yorath's letter in the JOURNAL for March 11, with his plea for a two-year University course following three years of articled pupilage, raises very important questions. Admittedly the present position of articled pupils is unsatisfactory; but is not the remedy to abolish the system altogether?

It is the business of architectural education to awaken and develop the visual imagination. This faculty distinguishes the architect; it enables him to plan, to organize, to formulate his designs; it is his proper virtue. I believe that this faculty can develop fully only in the free and vital atmosphere of a good school of architecture. Certainly at the age of 16 it is unlikely to be well enough developed to survive the rigours, the dullness and isolation of the average pupilage (16 is in any case too young for the prospective architect to leave school; in no profession is a higher school education more desirable).

If the curriculum of the school of architecture gives a reasonable amount of time, as it usually does, to the constructional side of architecture, inculcating a feeling for materials and structure as the basis of design; if the usual modicum of training in professional practice is included; and if the student spends his vacations, as is normal, as a pupil in architects' offices, then after five years the student will be well on the way to becoming a fully-fledged architect. (He will not, even then, be fully qualified; both RIBA and TPI demand a term of experience in an office before their qualification is granted.)

Most students realize very well that there are many things they still have to learn when they start their first jobs. But your average Bachelor of Architecture will have learnt at least to plan in three dimensions, to express himself by drawing, to use a library, and to collect and sift data. He will also have acquired a wide knowledge of current architectural theory and practice in all countries; he will be well grounded in the history, technique and aesthetic of his profession, and will have a sense of the relative importance of theory and practice. He will thus be in a position to acquire his Practical Experience

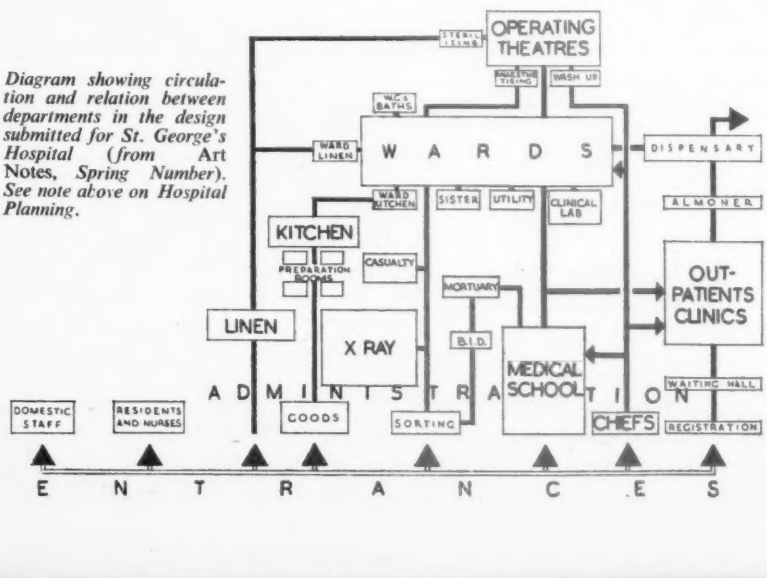
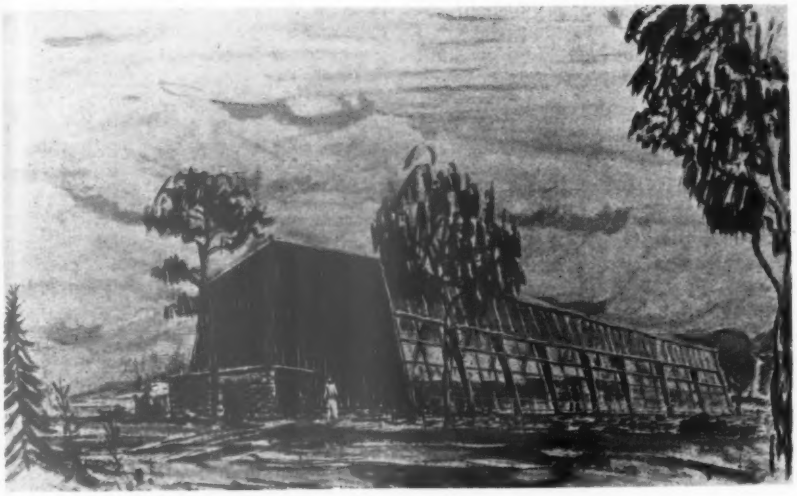
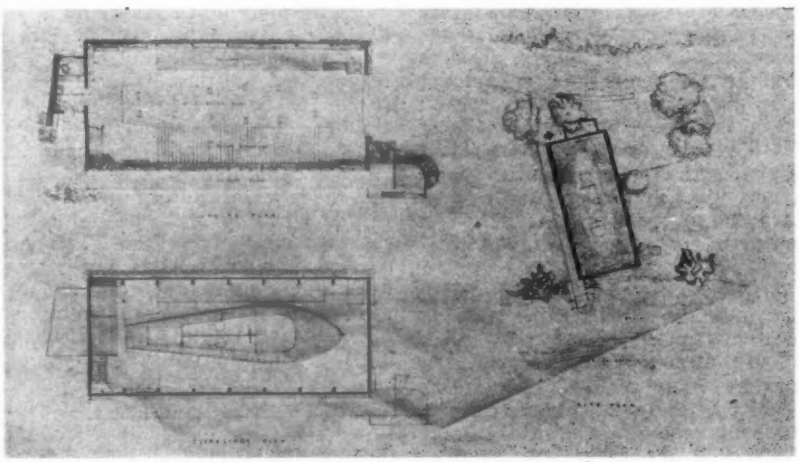
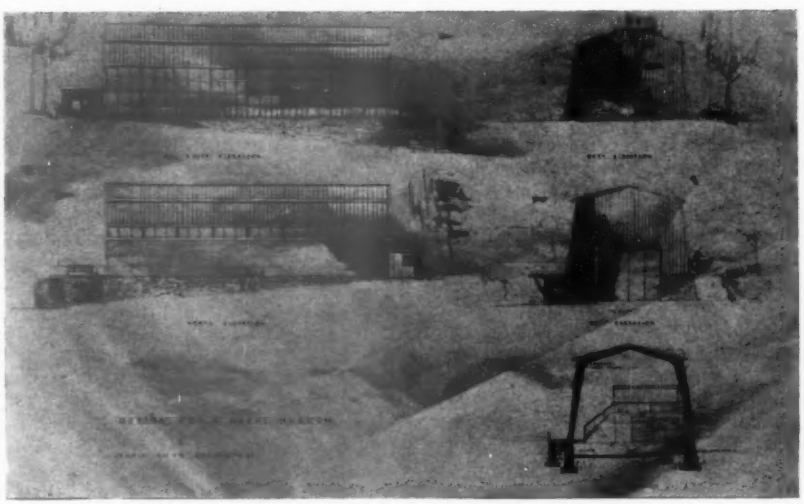


Diagram showing circulation and relation between departments in the design submitted for St. George's Hospital (from Art Notes, *Spring Number). See note above on Hospital Planning.*

A NAVAL MUSEUM







One of the most outstanding designs at the exhibition of the year's work of the students of the Architectural Association School of Architecture, now on show at Bedford Square, is a project for a naval museum by Barbara Priestley, a second-year student. The structural members are of laminated timber, the roof is covered with asbestos tiles, and the walls with weather boarding. The plinth is of stone. *For photographs of the work of other students see pages 222 to 224.*

rapidly and with reference to a sound theoretical background. It is impossible to overestimate how seriously the articled pupil is handicapped by the lack of this previous scientific professional training.

After all, most of this so-called practical experience consists of small commonsense matters of business organization and routine; to suggest that these should take first place in an architect's education is indeed to put the cart before the horse! Mr. Yorath mentions two disadvantages of the articled pupil system—the unsuitable masters, the lack of variety in the work of any one office. But are there not many more than these? Is not the whole system so unsystematic, so unfair, so unreliable as to cry out for final suppression?

Architectural education will indeed be vitally important in the post-war world; as important for example as medical education; surely it deserves an equally scientific approach and the very highest standards.

PETER SHEPHEARD

Wrexham.

Old-Fashioned Youth

SIR,—I should like to congratulate you on the article on Edward Banks' house at Coulsdon, Surrey. I always knew conditions were bad for an architect wishing to build a house at all progressive, but I never knew they were so bad as this example shows. You say this was the general run of things before the war, but have we anything better to hope for after the war?

I attended a discussion on Architectural Design the other evening, at an Army training camp, and though all the men taking part were young, they were very stagnant in their views on design, and I consequently had an argument with them. I had no idea that architects of more or less my own age—19—still think that stone is the *only* material for civic buildings, and that stone should be used in the manner of the Romans, merely for decorating the structure with columns, cornices, etc., for useless pediments, and for all the classical trimmings one sees on civic buildings. These men were actually convinced that this type of building was the only type for civic work.

With regard to domestic work, the instigator of the discussion, a sapper in the R.E's, and, I believe, a qualified architect, cited Connell Ward & Lucas' R.C. house in Frognal as a typical good example of bad modern architecture.

He said the house could not possibly be efficient (I don't know how he knew that), and when I told him that the owner had worked in very close collaboration with the architects and was very pleased with the result, he said that anyway the house did not fit in with the surrounding work. When I asked him if we were to take as a basis for comparison the usually low standard of suburban domestic design, and even design bad houses as long as they harmonized with the neighbouring bad work, he was still not convinced.

I am school-trained and naturally have not come up against these young Old-Fashioned Architects before, but it strikes me that before we start educating the public to a more enlightened form of architecture, we must turn to the architects and educate them.

I only hope that I have struck a bad spot and that this is not the general case, even among office-trained architects. By the way, the subject for discussion next week was decided, and is *The Influence of the Historical Styles on Modern Architecture*. Need I say more?

I am one of those unfortunates, a pioneer student, of whom there are a good many here, who joined the R.E's with eventually the hopes of a commission, etc. Unfortunately this camp is a dead end as far as promotion goes, and I am destined to spend my army life as a glorified navvy.

GORDON F. TAYLOR

Farmers collectively will reap benefits of small consequence from the erection of the three thousand workers' cottages sanctioned by MOH. As well as having to find accommodation for their workers, many farmers are also faced with the need for reconstructing existing farm buildings, and others with the building of new. Here are views on the planning of new ones by a prominent Winchester farmer, who is associated with eight other farms in Hampshire.*

Planning of New FARM Buildings

[*BY DOUGLAS SELIGMAN*]

I consider the siting of the buildings to be an integral part of the farming problem. In the vast majority of cases in the past, it seems always to have been assumed that all farm buildings must be grouped together with the result that cowsheds in particular have been built in quite the wrong places. On at least three of the farms which I rent the cowsheds have been built at one end of the farm and the cows in order to reach those fields furthest removed from the cowshed have had to walk through up to six fields to gain access to the most distant fields. This, of course, has wasted a large amount of grass and/or land which could have been put to much better use. I have overcome this difficulty on these farms by re-fencing them and by providing wide trackways along which the cows could travel to the distant fields, thus eliminating the wasteful and unnecessary treading of the intermediate fields, but this is by no means an ideal solution.

On other of my farms, where I have been able to make a completely fresh start, I have sited the cowsheds and/or milking sheds away from the remainder of the farm buildings and they have been placed in strategic positions so that the cows can gain easy access to their pastures without having to cross and re-cross any intermediate fields.

What I have said concerning cowsheds applies with almost equal force to implement sheds. These, too, in the past, have always been built in the farmyard close to the stables. This no doubt served its purpose so long as horses provided the main motive power, but in these days of tractors I maintain that implement sheds should be placed in the centre of the farm, which point would not necessarily coincide with the ideal site for the farmhouse and cottages.

Cowsheds.—The only conditions with which I am familiar are in the South of England, so I will confine myself to dealing with that part of the country. Moreover, I have no knowledge of anything but commercial milk production where the milk yields average around 600/700 gallons per cow per annum and I shall not, therefore, legislate for the 1,000 gallons average yields, which may or may not be commercial, but which, I suspect, are usually financed by wealthy owners at the expense of the Inland Revenue.

Where a yield of 600/700 gallons is concerned, I do not consider it necessary to keep cows inside all the time during the winter unless an exception is made for the Channel Island breeds. These, however, are so much in the minority that here again I do not propose to give them special consideration. If cows are not to be kept inside during the winter, there is, *prima facie*, no good reason for having a cowshed at all.

On the other hand, my experience of the New Zealand type milking shed, of which the Hosier Bail is one example, makes me feel quite certain that the best results are not obtainable from any form of bail milking, if only for the reason that it is impossible for the cowmen to give the cows individual attention when milking them under this system. So much is this the case that milking sheds create the most deplorable psychological effect amongst cowmen and a man who has been on a bail for several years ceases, in my opinion, to be a cowman at all and merely becomes a milker whose sole object is to get home as quickly as possible.

I am, therefore, greatly in favour of cowsheds as opposed to milking sheds and this for the sole reason that every cow can and should receive individual attention.

I consider that a herd of 80 cows in milk is the largest herd over which a Head Cowman can exercise efficient supervision and if I were asked to lay out a farm, I would make my plans based upon 80 cows in milk as the king-pin of the system.

As regards the type of building, this, to my mind, depends a great deal on the future of corn production in this country. Assuming that for many years to come the U.K. will be unable to import large quantities of cattle feeding stuffs and that it will therefore have to grow them at home, it would seem likely that large quantities of straw will continue to be available, as at present, and will therefore continue to require to be used in some way or another. On this assumption I am greatly in favour of a combined covered cattle yard and cowshed, so that the cows instead of being exposed to wintry blasts in the fields can lead a sheltered life in the covered or semi-covered yard treading straw and making dung for eventual carting out on to the root fields. If it would not contravene the Milk and Dairies Order, I would like to see the four walls of the covered yard made into a cowshed of a simple and inexpensive nature. I would regard this as the ideal system of milk production embodying, as it does, a great many advantages and very few, if any, disadvantages.

Calf Rearing.—I have no strong views on any other of the buildings connected with dairying with the exception of the Cattle Feed Mixing Room, with which I will deal later, and buildings for calf rearing with which I will deal now.

I have had fairly extensive experience with calf rearing which, in my opinion, will assume greater and greater importance as it comes to be realized amongst English Dairy Farmers that the Irish down-calving heifer of pre-war years is an absolute menace. I think it is certain that as time goes on more and more emphasis will be laid upon the home-rearing of high-class dairy stores.

In my opinion an individual box for each calf raised off the ground about 2 ft. to 2 ft. 6 in. is essential for really first-class results and I have got a large number of such boxes in use with the very best results. The floors are slatted and each box is equipped with an individual hay rack, water bowl and tin box for the concentrate rations. The floor under

*The cottages are to be built by local authorities before the next harvest. More than 3,000 cannot be erected at present on account of the shortage of available man power and materials. Plans and elevations of the cottages appeared in the JOURNAL last week, pages 206 to 208.

the boxes should be of concrete and sloped towards a drain, so that when it is washed down the water can get away. Another great advantage of having the boxes raised off the ground is that it makes the job of washing down the floor that much easier. Great attention should be paid to the siting of the building holding the calf boxes, so that the interior receives as much sun as possible and has as few draughts as possible. The building containing the calf boxes should also contain a room where the calf gruel, etc., can be mixed and heated. After several weeks in the calf boxes the older calves would have to go out into small covered yards which however do not require, in my opinion, any very special consideration.

Grain Storage and Cattle Food Mixing.—I have no doubt but that the use of combined harvesters will increase very fast as time goes on, since even if there is no very material economy in using combines as compared with self-binders (and this is a moot point), the fact remains that as there is no winter threshing to be done there is much more time available for a given staff of men to put in on winter ploughing. Up to a point the amount of winter ploughing which can be done is the chief limiting factor to the amount of arable land which any given staff of men can cultivate. Therefore, if the entire staff is released throughout the greater part of the winter for winter ploughing, a considerably larger acreage of plough land can be tackled than would normally be the case. This is a truism which does not bear contradiction. Therefore, provided only a farmer has sufficient capital to equip himself with wide implements, he can get his increased acreage of plough land cultivated, drilled and covered in very good time. Apart from these considerations, combine harvesters when coupled with grain driers do, in fact, make the whole difference in a wet harvest season and this in itself makes such a difference to farming in this country, that I believe that the last two wet seasons have made thousands of converts. The chief disadvantage of the combine is that it is impossible to get good oat straw from it, and this is quite a serious matter where oat straw is relied upon for cattle feeding. Another disadvantage is the fact that the capital required to purchase combines and a drier is at the moment rather considerable but I anticipate that as time goes on these disadvantages will largely disappear.

At the moment combine users, being in the minority, have a virtual monopoly of the grain market at harvest time and they have therefore not had to worry overmuch about storing their wheat and barley, which they have been able to sell literally from the field. They have, in fact, merely had to find ways and means of storing their oats. If, however, the number of combine users is to increase very largely, it will be necessary not only to make provision for the storage of oats but also for the storage of wheat and barley, as it will be obvious that in a few years the grain market at harvest time will become overloaded.

Agricultural Architects will therefore have to consider an entirely new problem, namely the proper storage of corn on the farm, since up to now all the storage necessary has been provided either in the rick or in a small granary. I use the words Storage on the Farm because I am convinced that no system of co-operative corn silos (as used in Canada) will ever be successful over here. Climatic conditions vary so much that I do not think that grain samples will ever be sufficiently even to admit of very large bulk storage, nor do I think that the individualistic English farmer would readily combine so as to make a co-operative drying and grain storage centre a success. I think that each farmer will want to cut and store his grain as and when he thinks best, so in my view plans have got to be made on the assumption that each farm must be provided with its own drying and storage facilities.

From the Capital point of view there is no question whatsoever but that bulk storage of grain in cylindrical silos is far and away cheaper than the storage of grain in sacks in rectangular buildings. It is, in fact, possible to combine under one roof a grain drier with adjacent cylindrical storage together with mechanical emptying and filling devices. The Dutch Barn can be taken as the basis of such a building and the capital cost is not very high.

Incorporated in this building should be a Mixing Floor for Cattle Foods, which floor, I suggest, should be above the grain bins. Purchased feeding stuffs could be elevated to this floor by electrical hoist from lorries delivering the feeding stuffs and the emptying devices from the bins should incorporate an elevator feeding oats to the mixing floor. A mechanical mixer is almost a necessity on any large dairy farm and this could be power driven from the shafting which drives the rest of the machinery. Bagged up cattle food could then be shot down a slide into an adjacent rat-proof building for transport to the cowshed.

Implement Sheds.—It is obvious that the bays in the old type of implement sheds are far too narrow. In my opinion they should nowadays be not less than 16 ft. wide. Moreover, I consider that they should be at least 16 ft. deep from back to front, so that implements can be driven in at the end of the shed and left ganged up one behind the other along the length of the shed as an alternative to their being backed in by tractors from the front to the back. At times this is quite an advantage.

I also consider that two sorts of implement sheds are necessary. A low type, say only 5 ft. to the eaves and of lean-to construction, to house small implements such as ploughs, cultivators, hoes, rollers and so forth ; and a much higher type 9/10ft. to the eaves to house the bigger tackle such as elevators, combines, pick-up balers and so forth. There should, in addition, be a separate shed for tractors as there is no doubt that the risk of fire is quite considerable. Most tractors are covered over at night with tarpaulins which very often come into contact with red-hot exhaust pipes and I have heard of innumerable cases of fire from this cause.

Whilst dealing with the smaller types of shed, I would like to suggest that a separate Fuel House be provided with proper storage for 400/500 gallons of paraffin and equally proper storage for lubricating oil. Alongside this could very usefully be incorporated a spare parts store for tractor and implement spares.

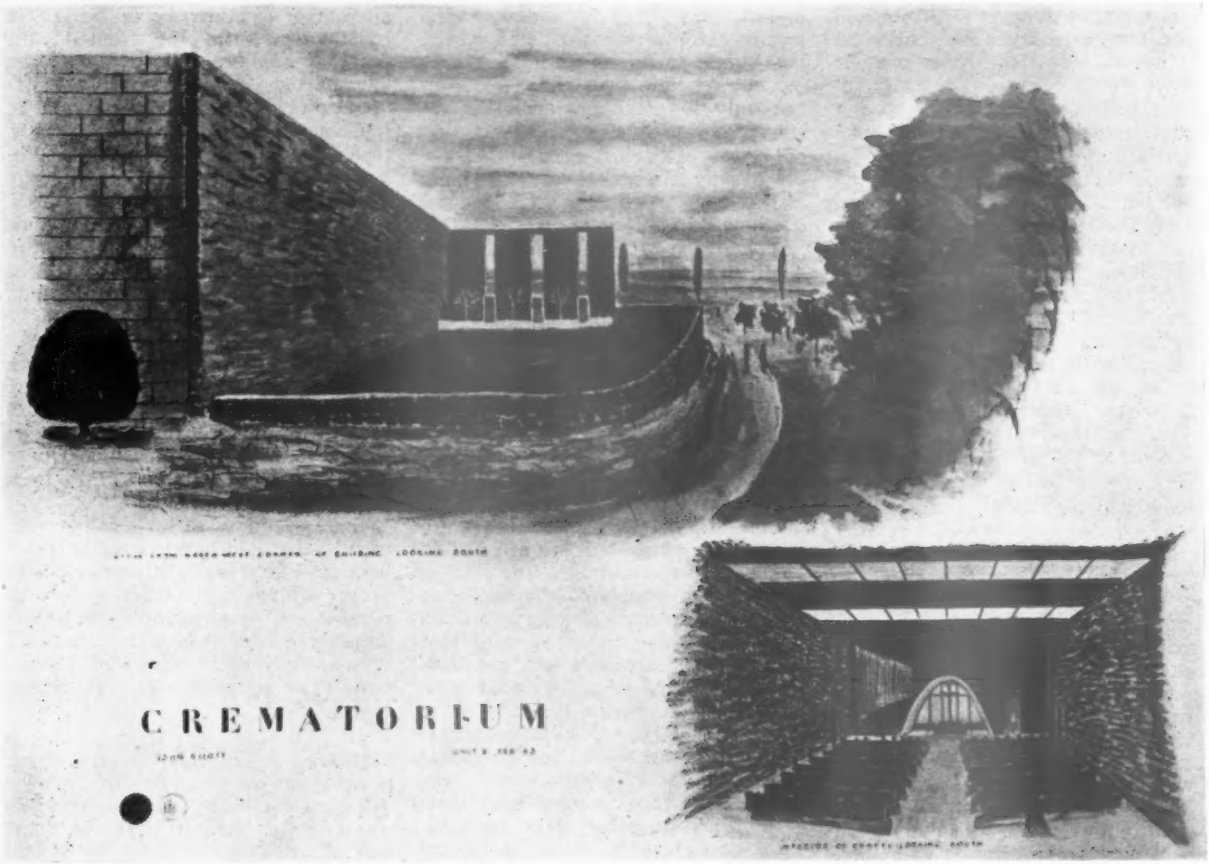
Workshop.—I would also suggest that a workshop properly equipped with a drill, lathe, grinder, forge and welding apparatus be provided, since when the war is over the number of skilled fitters out of the Army who will be available as tractor drivers or farm mechanics will be legion. There is nothing to promote greater efficiency on a mechanised farm than a properly equipped workshop.

Adjoining the workshop there should be a covered shed with a pit and shear legs large enough to accommodate the larger overhauls. A garage for the farm lorry is another item which has not hitherto been provided.

A very useful refinement would be central heating for the workshop, fuel shed, tractor shed and lorry garage.

Further, as regards small sheds, I consider that a number of rat-proof sheds measuring about 30 ft. by 15 ft. would be of very great use for the storage of such things as seed corn and grass seed, etc. A number of sheds would be of more use than one large one, as it is so often convenient to make separate and distinct lots of each of the abovementioned items. I have six such sheds in use at my Headquarters and I could not do without them.

Farm Office.—Finally, I suggest that a good psychological impression would be made by furnishing the model farm with a small farm office. The possession of this might encourage a farmer to give more attention to his accounts and records which I maintain he must find very difficult to concentrate on within the four walls of his own home.



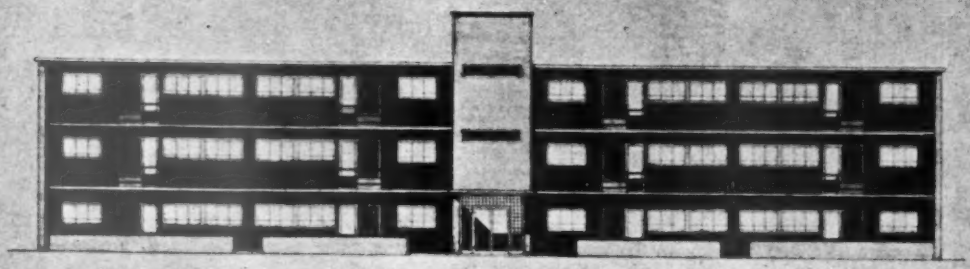
Sketch design for a crematorium by John Beloff, third year. The interior has top lighting and uncovered stone walls.

AA STUDENTS' WORK

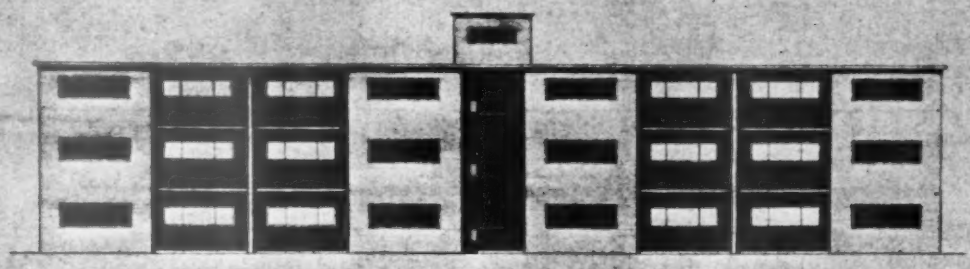
An austerity exhibition, designed by Mr. Brian Peake, a member of the teaching staff, of work done at the Architectural Association School of Architecture during 1942, was opened on March 18 by Mr. W. H. Ansell, P.R.I.B.A., at Bedford Square. It shows the work of the school during its first year under its new Principal, Mr. Frederick Gibberd. The exhibition expresses the tendency to an ever more practical and realistic approach to architectural education and to the realization that the architect is not a mere decorator but a constructor. It shows the development of the student as a planner, trained to solve a social problem rather than to erect a monument to himself. He is taught to think in terms of building materials, not paper representations of them. All his designs are prepared for actual building sites and from time to time the studio in which he works is organized on the lines of modern office procedure. He studies also colour, texture and natural form, such as the analysis of trees. The AA students' work reflects the changes in architectural design which have resulted from new social conditions, new materials and new building methods. Nevertheless, the study of, and research on, the history of architecture forms an important part of the school curriculum. A survey is now being made by students for the National Buildings Record of the many fine Georgian houses in Hadley.

In the summer term, 1939, there were 258 students at the AA, but in the Autumn Term only 126 students turned up at the Mount House, Hadley Common, Barnet, where the school still carries on. It is interesting to note, however, that while the upper years have been decimated by the war, the first year is up to pre-war strength. The work of the earlier years shows particular promise.

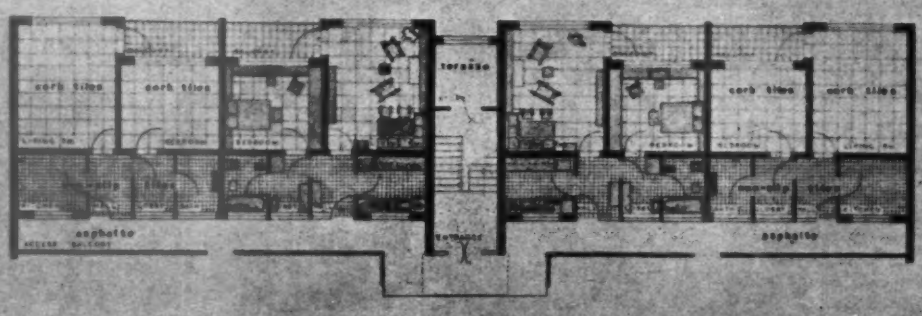
A refreshment hut in timber by D. S. Roberts, a Leverhulme Scholar and a first year student.



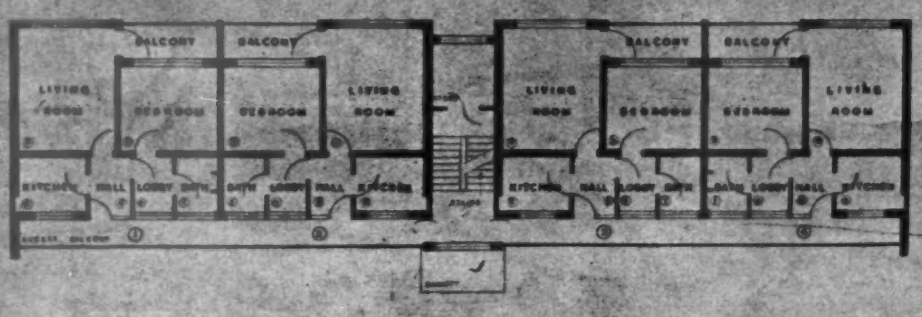
NORTH ELEVATION



SOUTH ELEVATION

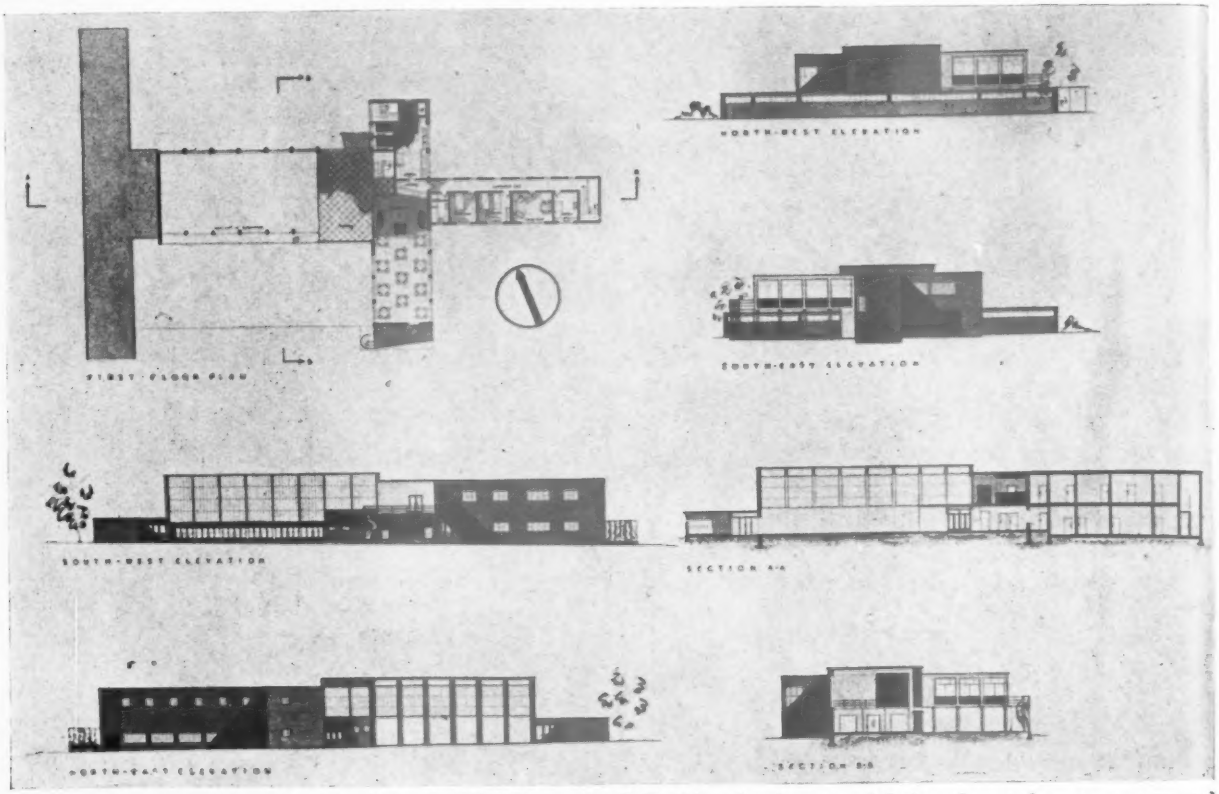


GROUND FLOOR PLAN

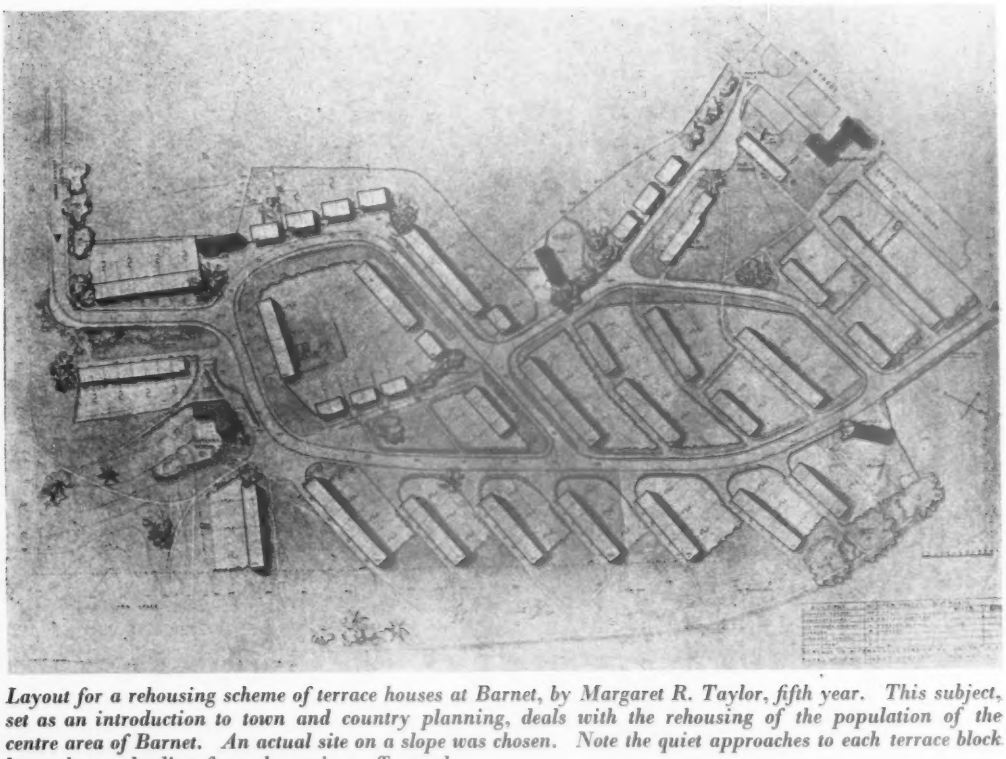


FIRST & SECOND FLOOR PLAN

Plans and elevations of a block of flats by E. Clunies-Ross, third year. Construction is of brick and reinforced concrete, parts of the elevation being cement rendered in colour..



The gymnasium block of a Recreation Centre for High Barnet, by E. Boultbee, fourth year. A design of great character, constructed of brick and reinforced concrete.



Layout for a rehousing scheme of terrace houses at Barnet, by Margaret R. Taylor, fifth year. This subject, set as an introduction to town and country planning, deals with the rehousing of the population of the centre area of Barnet. An actual site on a slope was chosen. Note the quiet approaches to each terrace block by pathways leading from the main traffic roads.

A A S T U D E N T S' W O R K

The function of this feature is to record all developments in building technics throughout the world as reflected in technical publications, papers read before learned societies, official statements, reports of research institutions and building experiments. Lack of scientific data is a handicap both to the technician and to the planner. The ***Information Centre*** *attempts to remedy this deficiency and to keep all busy men, whether fighting or working, abreast of current developments in building technique. Items are written by specialists of the highest authority who are not on the permanent staff of the Journal. The views expressed are disinterested and objective. The Editors of the Information Centre would be very glad to receive information on all technical developments from any source, including contractors and manufacturers.*

Physical

PLANNING

1106 **Satellite Town**

W. Fisher Cassie : LOCATION OF A SATELLITE TOWN. *Journal of Town Planning Institute, January to February*, 1943. Investigation into fluctuations of populations. Satellite development in relation to population movement. Development should take place along natural lines of movement of people, not where population is decreasing.

As an example of the type of investigation needed, the fluctuations of population 1901-31 were studied, parish by parish, in Durham, Northumberland and Gloucestershire. The following points were observed in all three counties :—

1. The larger towns generally show either a decrease of population over the 30 years, or an increase which is well below the average for the county.

2. Very large areas of the rural countryside have decreased in population, despite an increase in the population of the county over the 30 years.

3. The areas which have increased rapidly in population are generally those lying on the outskirts of towns.

4. The areas of increased population take the form of Streamers radiating along the lines of roads or railways, or lying between two main roads. From maps based on these population studies sites can be selected where the rapid increase of population shows that communities already exist whose members have moved in from elsewhere. Alternatively it would be possible to select sites where there is a declining population, in the hope that the establishment of a satellite would counteract the tendency. Of the two methods the first would seem preferable, for it is difficult to check completely the natural population movement. The idea of establishing new towns on blank areas of the map without regard to population drift, both present and probable, is one which is likely to lead to the failure of the proposed towns as settled communities.

STRUCTURE

1107 **Soil Mechanics**

W. L. Lowe-Brown : AN INTRODUCTION TO SOIL MECHANICS. *The Engineer, February* 5, 12, 19, 1943, *pp.* 104 *to* 106, 124 *to* 126, 144 *to* 146. Deficiencies of classical theory proved by failures in cohesive soils. Not always safe to neglect cohesion. Slip surface, previously assumed to be plane, is in fact curved. Resultant of earth pressure nearer to mid-height than to third. Settlement in cohesive soil can be estimated.

During the last 30 years or so a whole army of enthusiastic research workers in all parts of the world has been working on Soil Mechanics. Although the subject requires a high degree of mathematical knowledge it should be pointed out that soil mechanics is not based upon abstract properties attributed to the soil from mathematical considerations, but that its principles are now based upon a more detailed and systematic study of the behaviour of soils. Research has revealed that soil possesses certain characteristic properties which, though different and somewhat more complex than those of steel or concrete, are just as real and readily measurable as shearing strength through and modulus of elasticity in those better understood constructional materials. The properties of soil are much more complicated than those of concrete, yet quite inexperienced engineers have in the past ventured to assess the bearing power of soil with a degree of accuracy quite out of proportion to their knowledge of its nature. Numerous failures have shown that in the case of any important work the only safe course is to make a thorough exploration of the site.

It has long been recognized that soils should be roughly divided into two main classes, clayey and sandy, or in more technical language, cohesive and non-cohesive. The early theories and formulæ, such as those developed by Coulomb and Rankine, served a useful purpose, but because of over-simplification have at times been the source of grave errors. They are only applicable to granular, i.e. non-cehesive soils. Experiments have shown that for retaining walls supporting granular materials the pressures given by these formulæ were very close approximations, if the friction at the back of the wall was taken into account. The position of the resultant, previously assumed at one-third of the height of the wall above the base, has been found to lie nearer to mid-height.

Conditions in clayey or cohesive soils are quite different. Because the effect of the cohesion is to reduce the pressure exerted by the soil, it was considered to be safe to neglect it. This assumption was due to the misconception that the terms Angle of Repose and Angle of Internal Friction were synonymous. It would, of course, be very conservative to neglect cohesion in calculating the soil pressures if the angle of friction were correctly estimated, but by neglecting cohesion in interpreting the evidence afforded by the angle of repose when estimating the angle of internal friction, a much greater error in the opposite direction is made.

Whereas the resistance to shear of granular materials is proportional to the pressure and is zero if the pressure is zero, clay has a substantial resistance to shear at zero pressure, but the increase of the resistance to shear with increasing pressure is very small and in certain cases zero. A bank formed of sandy material with a slope of $1\frac{1}{2}$ to 1 will safely stand to a height of, say,

30 ft. A clay bank, 10 ft. high, may be safe even with a slope of 1:1, but if it is to be 30 ft. high, it has to be built with a slope not steeper than 3 to 1.

In calculations for the stability of slopes it is generally assumed that a tendency to slide, due to the lack of lateral support, is induced along a "slip surface," and that this tendency is opposed by the shearing resistance of the ground which is made up of a combination of internal friction and cohesion. Previously this surface was assumed to be an inclined plane, but Fellenius has shown that the shearing resistance required for equilibrium is appreciably greater on a circular cylindrical slope. His method may be safely used in calculations.

The results of Terzaghi's fundamental investigations enable us to assess the settlement of foundations in cohesive material. This depends on moisture content, pressure and time. Damage to a structure is not caused by uniform settlement of the whole structure, but by differential settlement of its various parts. It is therefore essential to estimate the probable settlement at several points at various time intervals.

In case of piles in clay which do not penetrate to a more resistant stratum below, attention should be drawn to the danger of using results, obtained from individual test piles, in assessing the value of group piles.

A great number of references to books and articles on soil mechanics are given in the paper.

QUESTIONS
and answers

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

1108 Dilapidation Licences

Q *Some two years ago a house belonging to my client was requisitioned by the Military who occupied the premises for two years. The bill for dilapidations has been agreed between the representative of the War Department Land Agent and Valuer and my client at approximately £250. Are licences for labour and materials granted in such a case? Does the £100 rule operate in a case like this? Has my client to give any notices to any Ministries? Please give any addresses necessary.*

A No notices have to be given to Ministries with regard to the carrying out of work for a client in connection with private buildings, but it is not permissible to spend more than £100 on any one building without a Building Licence, and whether or not the Building Licence is granted, separate licences must be obtained for materials, the supply of which is controlled.

It is unlikely that any licences will be granted unless the house is definitely uninhabitable, or unless repairs are urgently required to prevent further damage from the weather and other causes. However, for a General Building Licence you should apply to the Regional Licensing Officer, Civil Building Control Division, Ministry of Works and Buildings, 51-54, Gracechurch Street, London, E.C.3.

Without having full particulars it is impossible to say exactly what applications you should make for licences for materials, but we give below the addresses to which you should write in connection with iron and steel, non-ferrous metals and timber. It is probable that your contractor will advise you about any other materials which he is unable to supply without a licence, but if in doubt your best course would be to contact the Ministry of Supply, Shell Mex House, Victoria Embankment, London, W.C.2.

Iron and Steel.—Ministry of Supply, Iron and Steel Control, Ashorne Hill, Nr. Leamington Spa, Warwickshire.

Non-ferrous Metals.—Ministry of Supply, Non-ferrous Metals Control, Grand Hotel, Rugby.

Timber.—Ministry of Supply, Timber Control, 1-6, Tavistock Square, London, W.1.

1109 Cattle Track

Q *Could you give approximate cost of and the manufacturers of what I understand is called a Cattle Track? This is used where a drive passes through grazing land to prevent cattle straying while leaving the driveway open for traffic.*

A Messrs. Crossley Bros., of Openshaw, Manchester, manufactured cattle tracks before the war, and the cost was then about £10 10s. 0d. This would presumably be the cost of the manufactured article to which would have to be added site work and fixing. The latter would depend very much upon site conditions.

An ordinary contractor would no doubt give you an estimate for the site work and probably for some form of track also, if the proper article is no longer specially made.

SOCIETIES AND INSTITUTIONS

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

RIBA

Sir Charles Bressey

March 17, at 66, Portland Place, W.1. Lecture on COMMUNICATIONS, illustrated with slides, by Sir Charles Bressey, C.B., C.B.E., D.SC., D.L. Third in series of six lectures on *Town and Country Planning*, organized by the RIBA Committee on the Training of Architects as Town Planners. Chairman: Edward Maufe, F.R.I.B.A.

Sir C. Bressey: The most important of our communications is the Thames. I suppose there is no finer display position anywhere in this country than is provided by the Thames, and the whole of London, its prosperity and beauty, are based on the Thames. The value which we attach to the Thames in practice, however, may be judged from the view that one gets when, from the south bank, one tries to catch a glimpse of St. Paul's Cathedral; obviously we do not consider that our communications are really worth cultivating. How long will it be before we carry out the schemes, now eighty years old, for extending the Thames Embankments? Sir Joseph Bazalgette was responsible for putting forward schemes for a southern embankment and for extending the present Victoria Embankment, but nothing has yet been done. Napoleon I declared that when he captured London he would provide it with proper embankments but, fortunately or unfortunately, he did not have the opportunity of carrying out his scheme. Do let us think of the effect produced on a visitor by our communications; contrast, for example, one of our London railway stations with the Waverley Station at Edinburgh, from which the traveller can step straight out into Princes Street Gardens, and from which he will get an impression of Edinburgh which he will carry with him all through life, because first impressions are always the most lasting.

By way of contrast, again, let us compare King's Street, Hammersmith, a thoroughly commonplace road, with no sign whatever of

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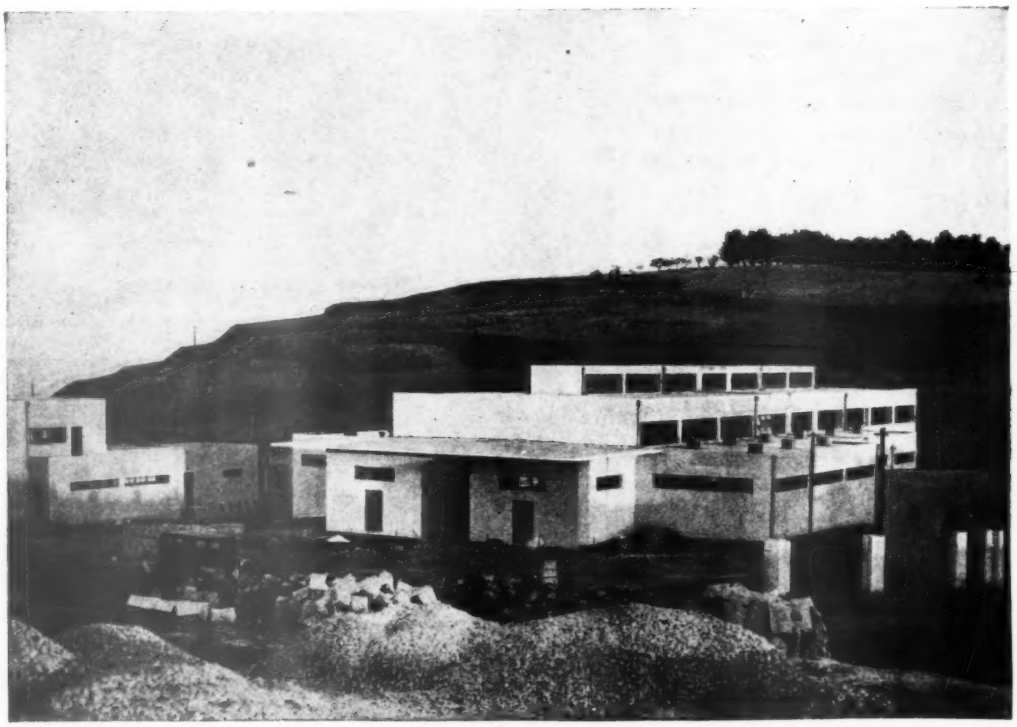

OPINION is sharply divided upon the merits of 'functional' design as applied to the houses in which we live, but there can be no doubt that such a building as this, is better for the omission of artificial trappings that would disguise its purpose, and add unnecessarily to its cost. • Fitness for purpose was also the dominating factor in the choice of materials, and it followed, as a natural course, that wherever impermeability of the cement work was necessary this object was achieved by the use of 'PUDLO' Brand Cement waterproofer. As can be seen in the photograph, the addition of 'PUDLO' Brand waterproofer to the external stucco done with ordinary Portland Cement adds markedly to its whiteness, and also provides a very strong safeguard against the staining which otherwise results from the absorption of rain and dirt.

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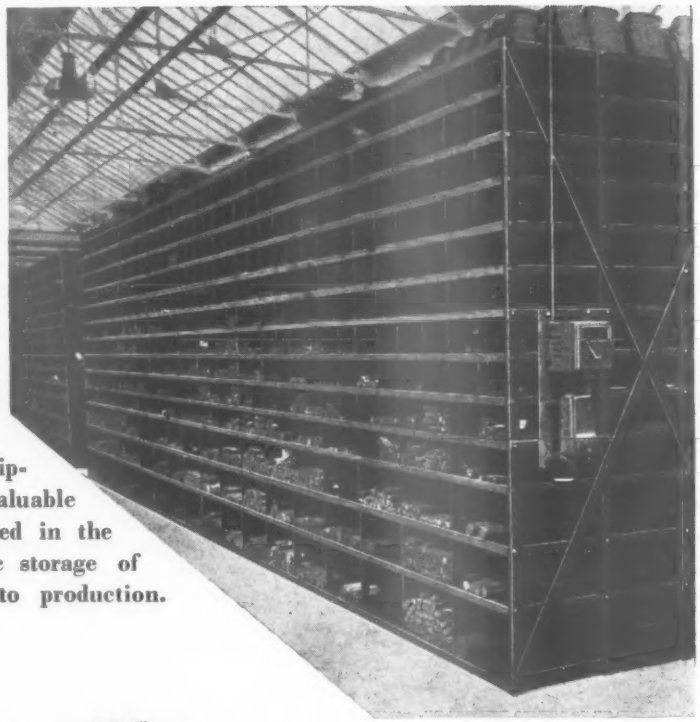

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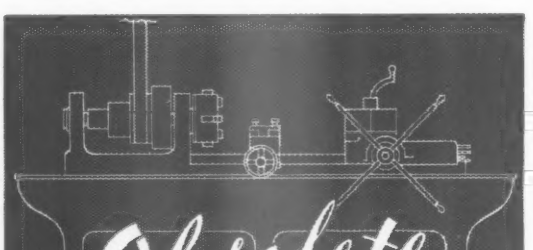

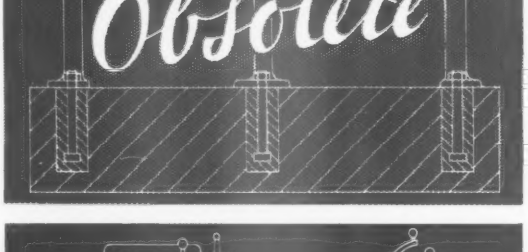

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any architectural care having been bestowed on it, no sign of any grouping of buildings with the road through Chipping Sodbury, which is lined with suitable buildings, all much of the same period. At one end, where the wide road runs out into the open country, one building on each side of the road projects over the footpath, imposing limits on the view. It is wearying to look at an unbroken perspective, and the effect of breaking the endless perspective is produced in this case by the projection of these two houses.

You may have what I would call a Bye-law Neighbourhood, laid out with 40-ft. streets and houses with 15-ft. or 20-ft. yards, all in accordance with the best local government traditions, with nothing to offend any bye-law, but the result is disheartening. I hope that in future communications, however useful, will be treated under architectural and artistic guidance to produce something less monotonous and less depressing than this kind of development usually is.

To show that we can do very much better, we have only to think of Lord Street, Southport. It is as fine an example of a good street as is to be found anywhere in this country. The Avenue des Champs Elysées is considerably longer but, having regard to the enormously greater size of Paris, I am not sure that Southport has not beaten it. The Avenue des Champs Elysées is a very fine example of a nobly laid-out thoroughfare, and for a great part of its length it is also a parkway ; and it has the great advantage of having the magnificent Place de la Concorde at one end and the Arc de Triomphe at the other. To look along the Avenue to the Arc de Triomphe at sunset is to get one of the most beautiful prospects in Paris.

Paris is obviously a city with distinctive characteristics. Some may think that central London has not the number of distinctive features which one might expect to find in the greatest metropolis of the world ; and, when using the term " greatest metropolis in the world," I wish we would temper our admiration of greatness by the admission that it is not only money and population which count, and that architectural nobility and grandeur are an indispensable part of a great metropolis.

We have not only had to forgo any planning in the past, but we have failed to create a plan and stick to it. I would rather have a bad plan and stick to it than have no plan at all. Our American cousins asked Major L'Enfant to prepare a plan for Washington almost exactly a hundred and fifty years ago, and it is invariably admired as being a noble piece of work. Instead of having rectangles everywhere there are some very fine diagonal roads and some magnificent spaces in the middle. But, best of all, the plan has been allowed to remain, and the town has been developed, and is even now being developed, always on the basis of the original scheme.

The actual pace of development of a town is almost entirely regulated by communications and their improvement. The development of Ealing, for example, proceeded very slowly from 1871 to 1901 and then, with the electrification of the District Railway, shot up in the next ten years. Anyone concerned with the development of towns or with town planning must therefore keep a very close eye on the development of communications, having regard to its effect on the growth of population.

With regard to highways generally, they should emphasise the characteristics of the landscape. The characteristic of British landscape is endless variety in a very small compass. It would be a great mistake to ignore that diversity, and we should take care that our highways share that variety. We want to differentiate rather than to standardize.

An example of a street with characteristics of its own is St. Peter's Road, St. Albans, with a good carriageway in the centre, two lines of trees, and then little lateral carriageways or service roads down the sides, an excellent idea which ought, I think, to be much more widely adopted that it is at the present time.

Then let us think of country lanes winding through a string of villages and for some part of the way, perhaps, bordering a trout stream. Most of us can recall lanes of that kind in the Cotswolds and elsewhere. It is a great mistake to suppose that such lanes must be widened to provide for an ever-growing volume of traffic which will pass straight through these villages. Too many villages have already been spoilt by a transformation of that kind. If such a development is unavoidable, all that you can do is to set the footpaths behind the hedges and leave the trees in the hedgerows. If there are bridges, do not replace them at once by reinforced concrete structures but try to modify them and build a simple addition at one side. I have seen very pleasant work done with oak piles and oak decking. It is better to by-pass the villages ; and, as six or eight little by-passes in succession become very wearisome and are baffling to traffic, the best course is to construct a parallel avoiding road and leave the lanes untouched, to serve the type of traffic for which they are best adapted.

Whenever a by-pass is constructed, every road engineer would like to see the greatest emphasis laid on the difference between the High Street and the new by-pass. Everything should go by contraries. The old road, the old High Street, should have the shops ; the by-pass should have no shops at all. Down the High Street there will be a continuous row of house-fronts, right up to the back of the pavement ; along the by-pass, if you cannot reserve the frontages for playing fields and so on, let houses be built on the plots but with their back gardens running down to the by-pass ; do not attempt to have the fronts facing the by-pass. I know the objection is occasionally raised that, if you do that, people going along the by-pass will be able to see the washing hanging out in the back gardens, but I do not know that that is any disadvantage at all. It may perhaps be screened with trees.

To return to this differentiation, the High Street will take stopping traffic, traffic stopping at the post office, the shops and so on, while the by-pass will be for through traffic, and stopping traffic should be discouraged. Where there is room for them, cycle tracks should be provided ; if there are factories in the neighbourhood, such cycle tracks are a great boon to the operatives. There is no better way of using the land adjoining a by-pass than for playing fields, and I am glad to say that along some of our by-passes that has been done. The East Ham by-pass in Essex is lined for a considerable distance with playing fields, which are a great joy to the local inhabitants and an equal joy, I am sure, to the people who pass through. Needless to say, the by-pass should have no intersecting roads at all ; there should be a clear run. For that reason, it is sometimes very convenient if the by-pass is at a different level than the village street. Sometimes the configuration of the ground makes it possible to place the by-pass on ground which is much higher or much lower than the other streets, and then it is possible by bridging or by subways underneath the by-pass to save it from becoming an impediment to the residents in the old town. If the by-pass is of any great size and in a very busy area it may be necessary to allow for some frontage development, but in that case service roads should be provided so as to keep stopping traffic away from the through traffic.

Coming now to the smaller roads, before you begin to widen a second-class road by the usual process of uprooting the hedges, and so on, you should consider whether it is not wiser and better to provide a second carriageway entirely distinct from the first. That makes a very pleasant feature, and it enables the new road to be made, incidentally, without interfering with the traffic on the old one.

On Class 1 roads there must be a complete segregation of up and down traffic. The 30-ft. single carriageway that we find on so many of our highways is a very anxious kind of thoroughfare for motorists ; the middle 10-ft. lane is a no man's land. Its use is ambiguous, and in misty weather in particular when you want to pass the vehicle in front of you, you are always anxious lest, in the course of doing so, you may meet a vehicle travelling in the opposite direction which is trying to do the same thing.

Another great advantage of the dual carriageway is that it lends itself to flexibility and variety. There is no reason why the two carriageways should be at exactly the same level. If there is a cross-fall on the road it is better that they should not be on the same level. There is no reason why the central reserved grass strip or whatever you may have down the middle should always be of the same width ; it can be judiciously varied in width. You can preserve a large number of old trees in your central reserve, trees which were formerly in the hedgerow. I notice that that has been done in widening one of the roads near Chelmsford, where hundreds of old trees have been saved. That adds immensely to the attractions of the road.

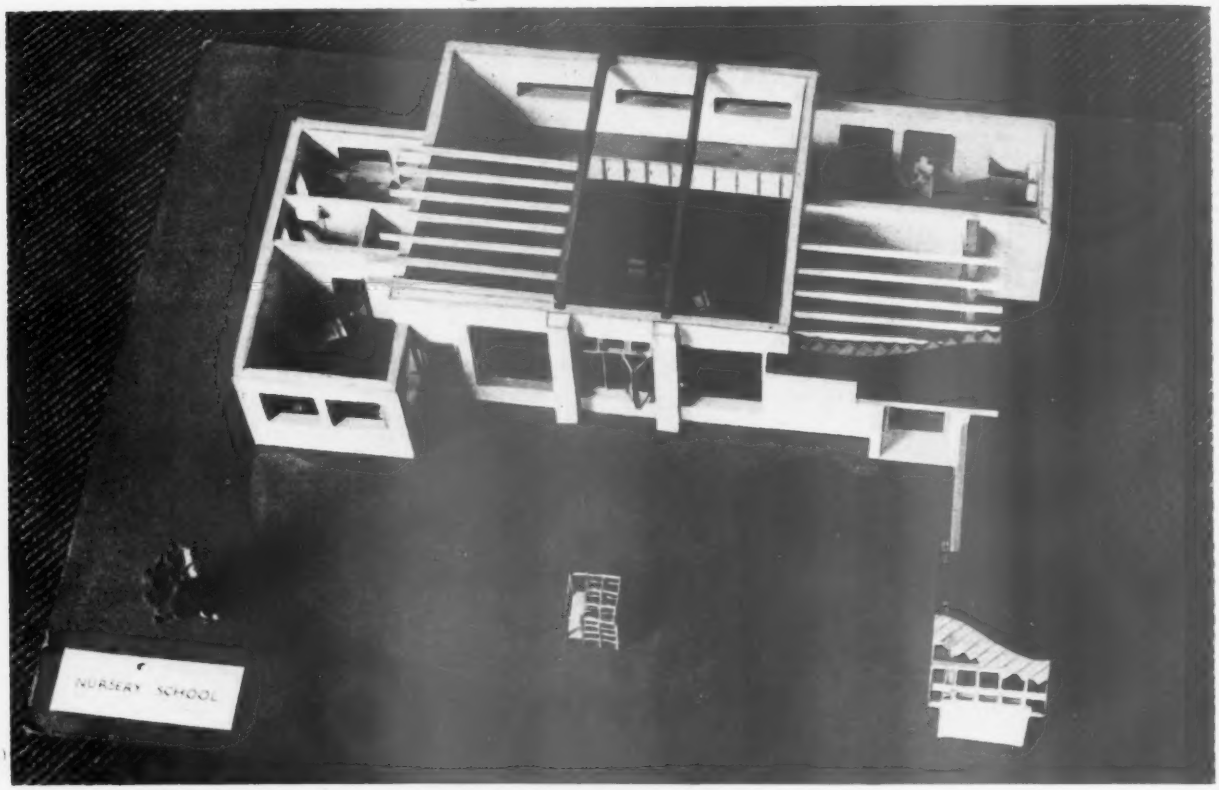
On these great new roads and new by-passes of any size, the mistake has sometimes been made of assuming that it is necessary to buy the land for widening in such a way as will make it possible to keep a precisely identical width between the fences for the whole length of the road. I think that that is a mistake, and I know that Mr. Patrick Abercrombie agrees with me. A pleasant effect can be produced by seizing any excuse to vary the boundaries of the highway. There is no reason to pull down a hedge which happens to follow a more or less adjacent line and put a straight fence in its place ; if you buy the land up to the varying line of the hedge you will have a verge to the road of varying width, enabling picnic parties to take advantage of the wider stretches and troops to rest there. There is an advantage when cattle are driven along the road to be able to let them rest under the shade of the hedge.

With regard to the relationship of roads to housing estates, everyone knows how disastrous it would be to allow a great arterial road to pass through a housing estate.

In future we may hope to see the idea of the *close* adopted to a much greater extent—that is, blocks and groups of houses disposed round a small lawn, entirely free from any direct contact with a main road. There is no doubt that mothers of families find an immense advantage in being able to let their children play not merely in the back garden, and certainly not on the footway and carriageway of the main road, but on a lawn which is common to six or ten cottages.

Parkways are becoming more common in England than they used to be. We have not so many in the south ; we have the equivalent, but we do not use the term Parkway very much. There is a good example in the Manchester estate of Wythenshawe of a very fine piece of development of that kind. There are good examples in Surrey of what can be done to render these widened or new roads attractive. The Dorking-Reigate road, for instance, no doubt looked a little raw when it was first laid out, but after ten years the vegetation has stretched down, partly under skilled guidance, to produce the effect of a particularly striking and handsome parkway.

It is to be hoped that some conspicuous example of a parkway will be set up before long for the credit of London. We hear a great deal of parkways in the United States, for instance, which are very well publicised. There are a few roads round London which would lend themselves admirably to parkway treatment ; in particular, there is the North Orbital Road, parts of which are already in being and other parts of which will no doubt be carried out from time to time. It passes under the Thames between Dartford and Purfleet, where the pilot tunnel has already been driven, and passes round to the north of London, by Hatfield, leading ultimately to the new bridge over the Thames at Egham. It will link up with the South Orbital Road through Kent and Surrey. When it is finished it will have a length of some 125 miles, and it can be made without much difficulty one of



Model of a Nursery School designed and made by Basil L. Capes, a first year student at the Architectural Association School. A representative exhibition of the students' work during 1942 *was opened by Mr. W. H. Ansell, P.R.I.B.A., on March* 18 *at* 36, *Bedford Square. W.C.*

the most striking pieces of road engineering and landscape gardening that the world can display. The scenery along the road is very varied. By traversing the whole road the visitor would be shown the enormous variety of English scenery in the course of a short journey of 125 miles round London. There are no long straight lines along the road. Straight lines are very disheartening and tiring.

Now, if the English have one quality more than another strongly developed, it is their dislike of what I may call the heroic and the grand. We like the domestic rather than the heroic. That has something to do with our distrust and dislike of the somewhat heroic measures of motorways, cloverleaf traffic intersections and so on, which play such a large part in the USA and which are undoubtedly of great assistance to motorists. The Brooklyn entrance to the Interborough Parkway, for instance, enables traffic to proceed in any direction without interfering with or checking the movement of other traffic.

The Grade Separation of roads, as it is called, with roads crossing at different levels and spur roads enabling traffic to pass from one road to the other without inconvenience, is another example of the same kind. The Triborough road bridge development in New York enables traffic to pass out of New York without let or hindrance at a speed of 30 to 50 miles an hour, and will enable that speed to be kept up to within a mile and a half of the centre of New York. The most elaborate arrangements are made to enable traffic to pursue its course without interfering with other traffic. An immense amount of space, as in the case of the approaches to the new George Washington bridge, is devoted to projects to assist the easy movement of traffic. If ever we adopt projects of this kind, we may have to scale them down a little to suit our more modest landscape.

The *cloverleaf* is a device for facilitating the movement of traffic in this way which may be thought to be ugly, but if it were on the scale of an Elizabethan garden it would be called a charming piece of work, and the plan is much the same. In Hatfield House and elsewhere where there are Elizabethan gardens, the layout of the beds very much resembles the cloverleaf; we must not be alarmed at it, therefore, simply because the scale is a little unfamiliar.

Some work of this kind has been done in this country, and the Silvertown Viaduct is a great credit to the engineering and architectural professions. It enables traffic to pass over different roads, railways and so on without interference, and incidentally it gives those who use it a view of the docks which has never been available before.

One scheme which I should like to see executed some day is an underground road connecting the Paddington district with the Thames. Kensington Gardens and the Parks are one of the finest features of London, but they do provide a considerable barrier to traffic going north and south. The last thing we want to do is to ravage the parks by carrying roads through them, but it would be possible to have a tunnel under Kensington Gardens connecting Paddington south-westwards under the parks down towards the Thames without in any way injuring the amenities of the parks or interfering with the pleasure of those who use them.

I have referred to several American viaducts, and I should like to mention one English one which has many admirable features, the viaduct recently opened, though not yet completed for its full width, on Western Avenue leading across the Colne Valley and so connecting Middlesex with Buckinghamshire. Mr. Davidge was the architect. The scheme is one of great boldness. It does nothing to injure the landscape, while motorists and pedestrians who use the viaduct will gain a view of the Colne Valley which to them will justify the construction of the viaduct, even if it was not necessary for traffic purposes.

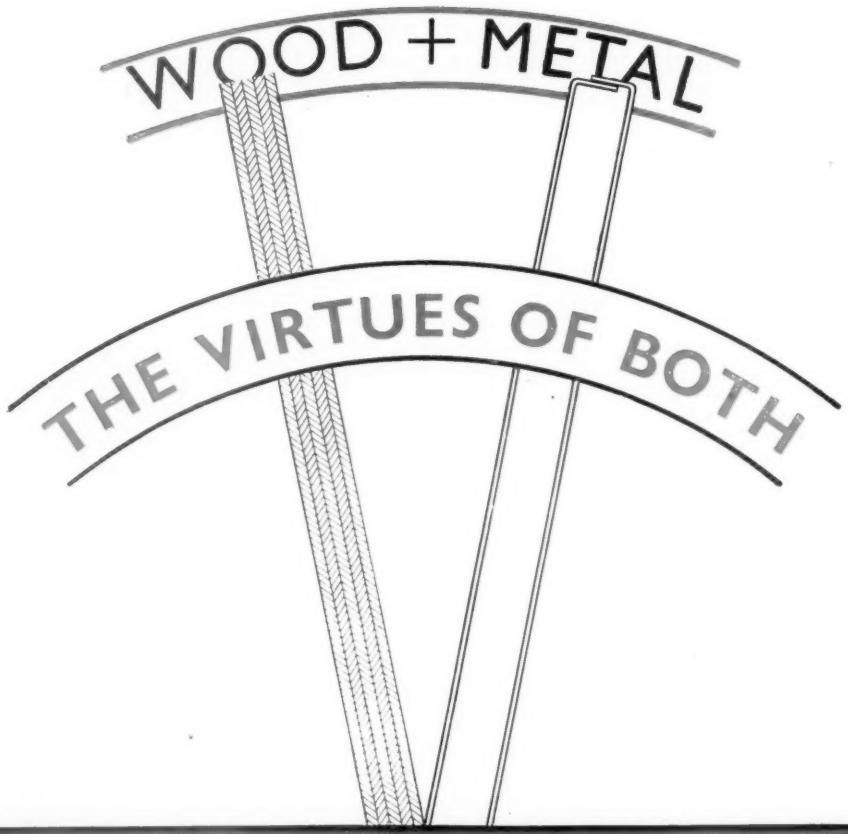
TCPA & NALGO

W. R. Davidge

March 20, at 178, Edgware Road, W.1 Joint conference of Town and Country Planning Association and the National Association of Local Government Officers. Principal speaker: W. R. Davidge, F.R.I.B.A., Past President of the Town Planning Institute, on LONDON'S PLACE IN THE NATIONAL PLAN.

W. R. Davidge: LCC London with its 4½ million inhabitants is one-tenth of the population of the country and Greater London, with its total of 9 million people, is actually a fifth of the whole country. If only it could speak with one voice it would be all powerful in the councils of the nation. London, in itself, is not only a city or a group of cities. It comprises within itself dozens on dozens of towns and villages, each with its separate interests and in most cases with its separate local government authority. There are something like 150 separate planning authorities within the Metropolitan Traffic area and at least half a dozen county councils. Each serves a very useful purpose, and we cannot well spare any of them, but for planning purposes it is necessary to consider the whole area and administrative boundaries must not be allowed to stand in the way. Local authorities have long felt the need for co-operation in planning and something like a dozen Regional Advisory Committees have done useful preliminary work in this direction.

Some years ago there was set up a Greater London Advisory Planning Committee, representative of the Counties, County Boroughs and other local authorities. We undoubtedly



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need a few more Richmond Parks and forests like Epping Forest. Something has been done—a good deal by some counties such as Hertfordshire—towards the provision or reservation of land for the green belt. But there is a lot to be done yet.

The Commissioner for Distressed Areas in his report dealt with the unprecedented growth of Greater London since the last Great War. *It had added to itself a population equal to two Manchesters and was attracting industries from the Midlands and industrial north*, which had serious repercussions. It will be remembered that he strongly recommended that the incursion of further industries or the extension of existing industries should be drastically curtailed.

The Barlow Commission emphasized the necessity for considering the decentralization of industry and industrial workers. It pressed strongly for a Central Planning Authority for the whole country. This point has been still more emphasized by the recent reports of the Scott and Uthwatt Committees. Lord Justice Scott's Committee assumed that a central planning authority would be set up and that a permanent policy for the continued prosperity of agriculture would be part of the national plan. It emphasized that if industries were to be decentralized it should be in the form, either of properly planned new towns or as planned additions to existing small towns and not in the open countryside or on land of high-class agricultural value.

The Government is already pledged to consider the needs of agriculture, industry and transport. Housing, they agree, must have at least 50 per cent. priority, but so far they have not made up their minds as to where it shall go, or what it shall be like. Three thousand houses for agricultural workers are something to go on with, but it can hardly be part of a national plan.

We now have a Ministry of Town and Country Planning, but before we can have a constructive national plan, it is essential that all departments of Government shall speak with one voice. There must be a Central Planning Authority, and as Lord Reith put it—some parts of the plan will be national, others regional and others local. There is a great deal of preliminary work yet to be done before anything like a comprehensive national policy can be laid down in any one of these fields. Meanwhile, local authorities, and especially the groups of authorities acting as Regional Advisory Committees, can do much useful work. The appointment by the Government of Professor Abercrombie to prepare an outline plan for the Metropolitan Traffic Area is an encouraging sign.

The public are prepared to support really constructive proposals—on a vastly different basis to the restrictive control of the ordinary town planning scheme. London must take the lead.

MOS

Raw Materials Guide

A Raw Materials Guide has been compiled by MOS in response to urgent requests from a great diversity of interested people, and an attempt has been made to introduce matters which will be of benefit to as many as possible. It gives an idea of the nature and land of origin of commodities, it outlines the procedure for obtaining supplies, the measure of control exercised over dealings and, by giving a summary of the Statutory Rules and Orders restricting the movements and uses of materials, in their chronological order, the reader is afforded a progressive survey of the commodity from the start of the control. For the information of those specially interested, the Raw Materials Branch concerned with each commodity is indicated and the address of the Control. Monthly addenda will be published to notify changes in Control and Procedure.

The List includes materials referred to in the text and many others, and indicates the Control and Branch of the Raw Materials Department dealing with it. The reader is invited to enhance the value of the guide by keeping it up to date with entries from the addenda, the pages of which are to be numbered in continuation of the main publication. The guide can be obtained from H.M. Stationery Office, price 1s. net.

DIARY

Thursday, April 1.—12.45 p.m. TCPA "Community Centres." By Henry Morris, Director of Education, Cambridgeshire.

Saturday, April 3.—11 a.m. TCPA. At Museum Lecture Theatre, University Road, Clifton, Bristol. "Preparation for Planning: Fact Finding and Research." By Paul S. Cadbury. "Plan for Living." By Clough Williams-Ellis. "Planning Problems of an Industrial Provincial City." By H. Marston Webb. Conference fee 3/-.

RIBA. At National Gallery, 2.30 p.m. "Community Planning." By Professor W. G. Holford.

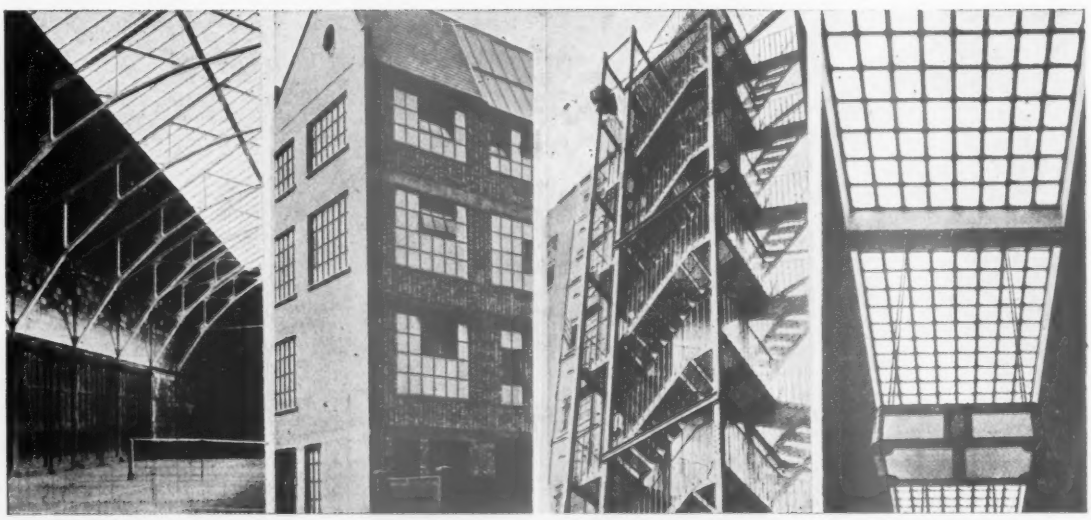
Tuesday, April 6.—2.30 p.m. Chadwick Public Lecture at Royal Sanitary Institute. "Town Planning and Public Health." By Thomas Sharp.

Thursday, April 8.—12.45 p.m. DIA. At Royal Society, Burlington House, Piccadilly. "National Styles in Printing." By Francis Meynell.

CORRECTION

Under the heading "From An Architect's Commonplace Book," we stated that the book on *Sir Edwin Lutyens* by his son, Robert Lutyens, is published by Constable. This is incorrect. The book is published by Country Life, Ltd., 2-10, Tavistock Street, Covent Garden, W.C.2., price 8/6 net.

HAYWARDS Building SPECIALITIES



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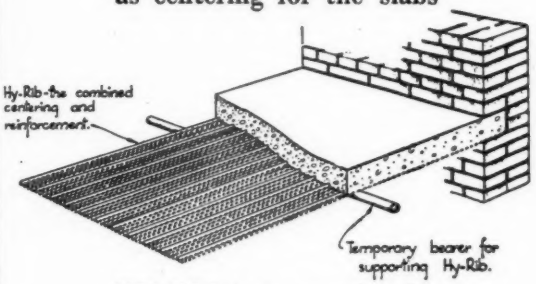

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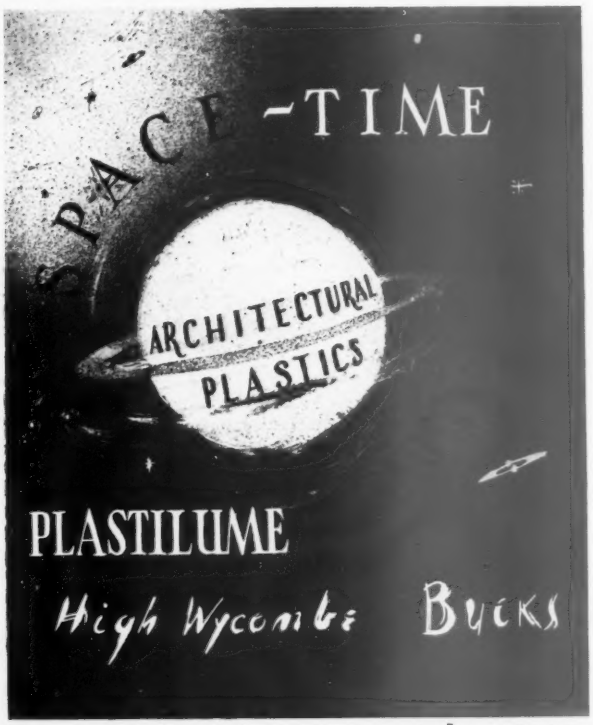

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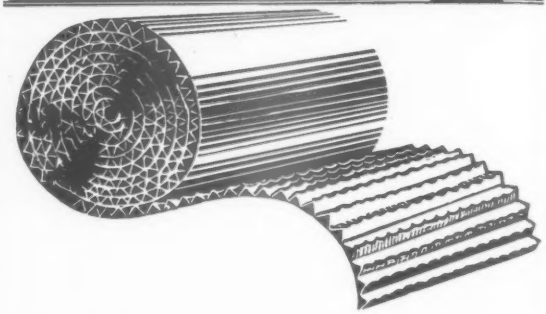

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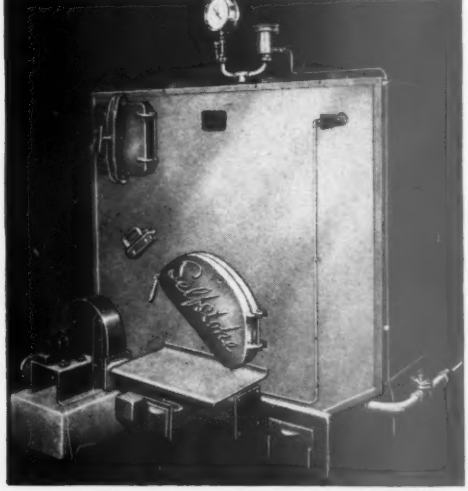

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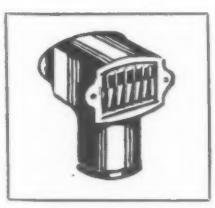
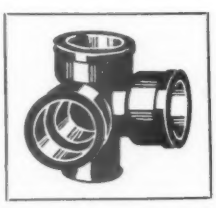
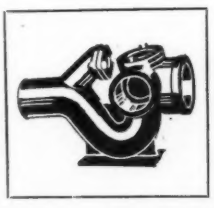
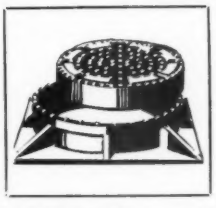
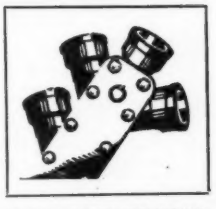

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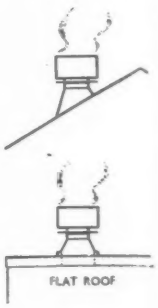

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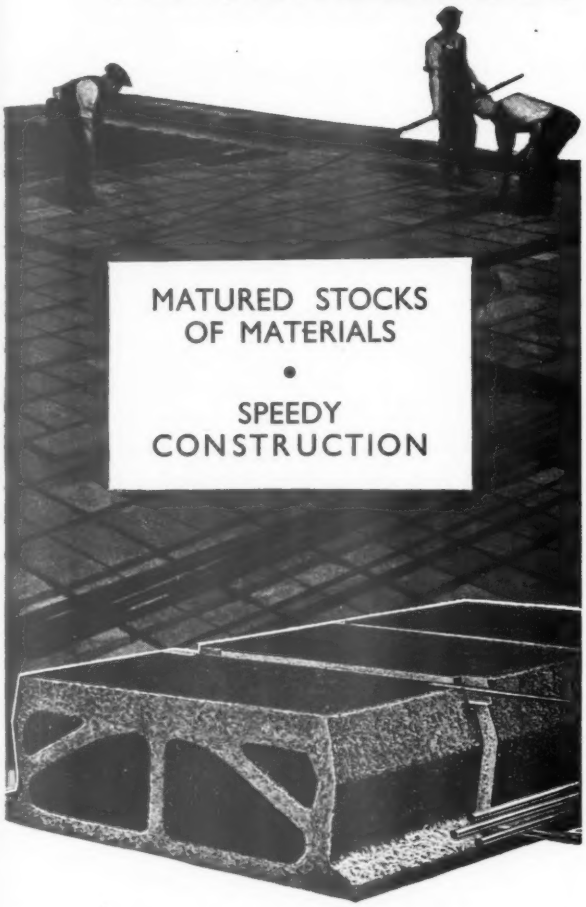

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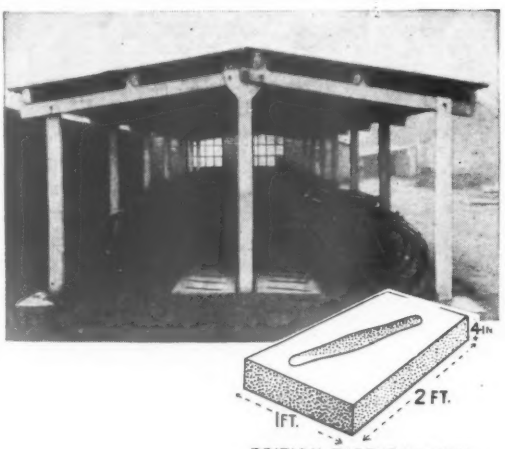

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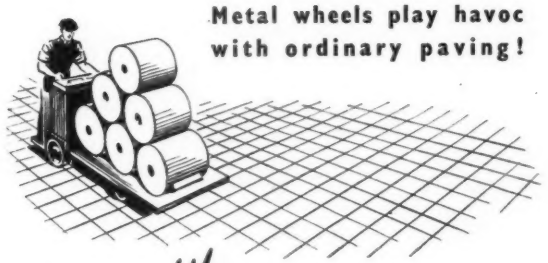

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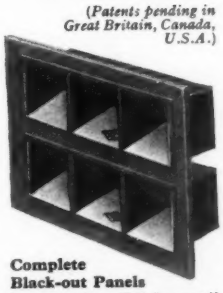

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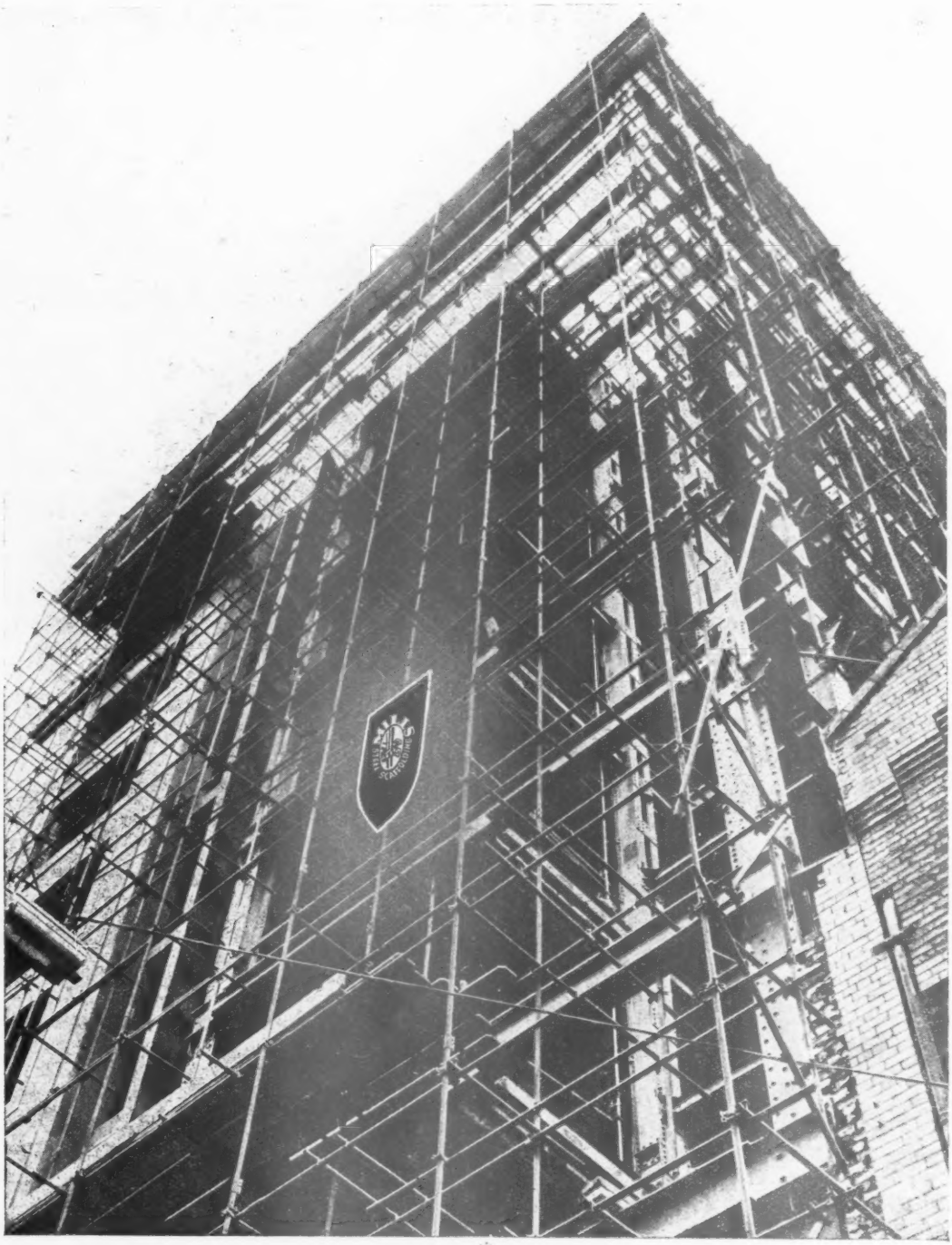

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