THE ARCHITECTS' JOURNAL

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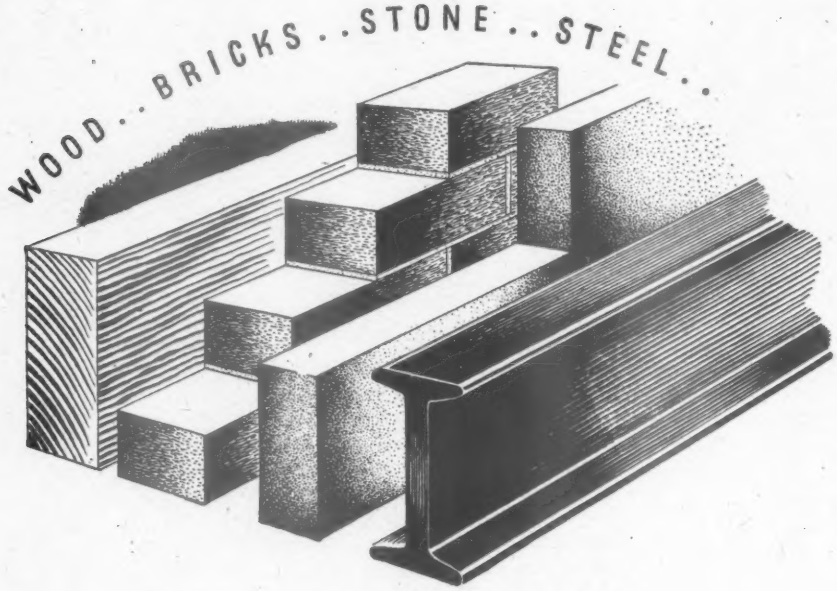
★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers, is given below. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association. 34/6, Bedford Square, W.C.1. Museum 0974
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1. Victoria 0447-8
ACGB	Arts Council of Great Britain. 9, Belgrave Square, S.W.1. Sloane 0421
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1. Euston 2158-9
ARCUK	Architects' Registration Council. 68, Portland Place, W.1. Welbeck 9738
ASB	Architectural Science Board of the Royal Institute of British Architects. 66, Portland Place, W.1. Welbeck 5721
BC	Building Centre. 23, Maddox Street, W.1. Mayfair 2128
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham. Redditch 716
BDA	British Door Association. Shobnall Road, Burton-on-Trent. Burton-on-Trent 3350
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2. Glasgow Central 2891
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1. Euston 5385
BINC	Building Industries National Council. 11, Weymouth Street, W.1. Langham 2785
BOT	Board of Trade. Millbank, S.W.1. Whitehall 5140
BRS	Building Research Station. Bucknalls Lane, Watford. Garston 2246
BSA	British Steelwork Association. 11, Tothill Street, S.W.1. Whitehall 5073
BSI	British Standards Institution. 28, Victoria Street, S.W.1. Abbey 3333
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1. Sloane 5255
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W. Sloane 4280
CSI	Chartered Surveyors' Institution. 12, Great George Street, S.W.1. Whitehall 5322
DIA	Design and Industries Association. Central Institute of Art and Design, National Gallery, W.C.2. Whitehall 2415
DOT	Department of Overseas Trade. Dolphin Square, S.W.1. Victoria 4477
EJMA	English Joinery Manufacturers Association (Incorporated). Sackville House, 40, Piccadilly, W.1. Regent 4448
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1. Sloane 2837
FMB	Federation of Master Builders. 23, Compton Terrace, Upper Street, N.1. Canonbury 2041
FS (Eng.)	Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.W.1. Sloane 2837
GG	Georgian Group. 4, Hobart Place, S.W.1. Sloane 2844
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
ICE	Institution of Civil Engineers. Great George Street, S.W.1. Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2. Temple Bar 7676
IOB	Institute of Builders. 48, Bedford Square, W.C.1. Museum 7197
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1. Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Sloane 7128-29
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1. Whitehall 7264
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3767
MARS	Modern Architectural Research. 46, Sheffield Terrace, W.8. Park 7678
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1. Whitehall 3400
MOE	Ministry of Education. Belgrave Square, S.W.1. Sloane 4522
MOH	Ministry of Health. Whitehall, S.W.1. Whitehall 4300
MOI	Ministry of Information. Malet Street, W.C.1. Euston 4321
MOLNS	Ministry of Labour and National Service, St. James's Square, S.W.1. Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C. Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1. Abbey 7711
MOTCP	Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1. Whitehall 8411
MOW	Ministry of Works. Lambeth Bridge House, S.E.1. Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94, Petty France, S.W.1. Abbey 1010
NBR	National Buildings Record. 13, Lincoln's Inn Fields, W.C.2. Holborn 2107 All Souls' College, Oxford. Oxford 48809
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham 4041
NFBTO	National Federation of Building Trades Operatives. 9, Rugby Chambers, Rugby Street, W.C.1. Holborn 2770
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1. Whitehall 2881/2/3
NT	National Trust for Places of Historic Interest or Natural Beauty. 7, Buckingham Palace Gardens, S.W.1. Sloane 5808
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245
PWB	Post War Building, Directorate of. Ministry of Works, Lambeth Bridge House, S.E.1. Reliance 7611
RCA	Reinforced Concrete Association. 91, Petty France, S.W.1. Whitehall 9936
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1. Welbeck 5721
RS	Royal Society. Burlington House, Piccadilly, W.1. Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2. Temple Bar 8274
SFMA	School Furniture Manufacturers' Association. 13, New Square, Lincoln's Inn, W.C. Chancery 5313
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1. Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2. Temple Bar 5006
TDA	Timber Development Association. 75, Cannon Street, E.C.4. City 6147
TPI	Town Planning Institute. 18, Ashley Place, S.W.1. Victoria 8815



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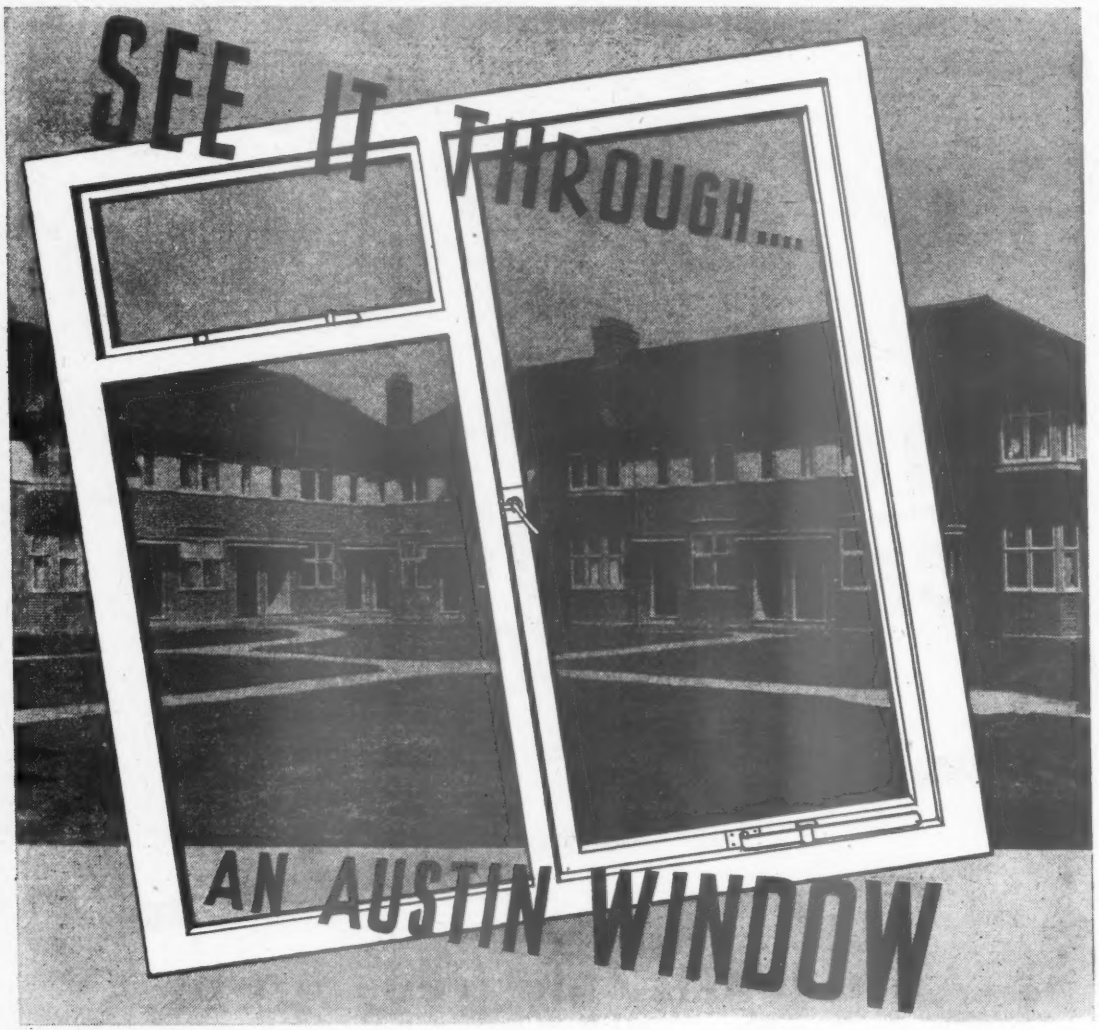

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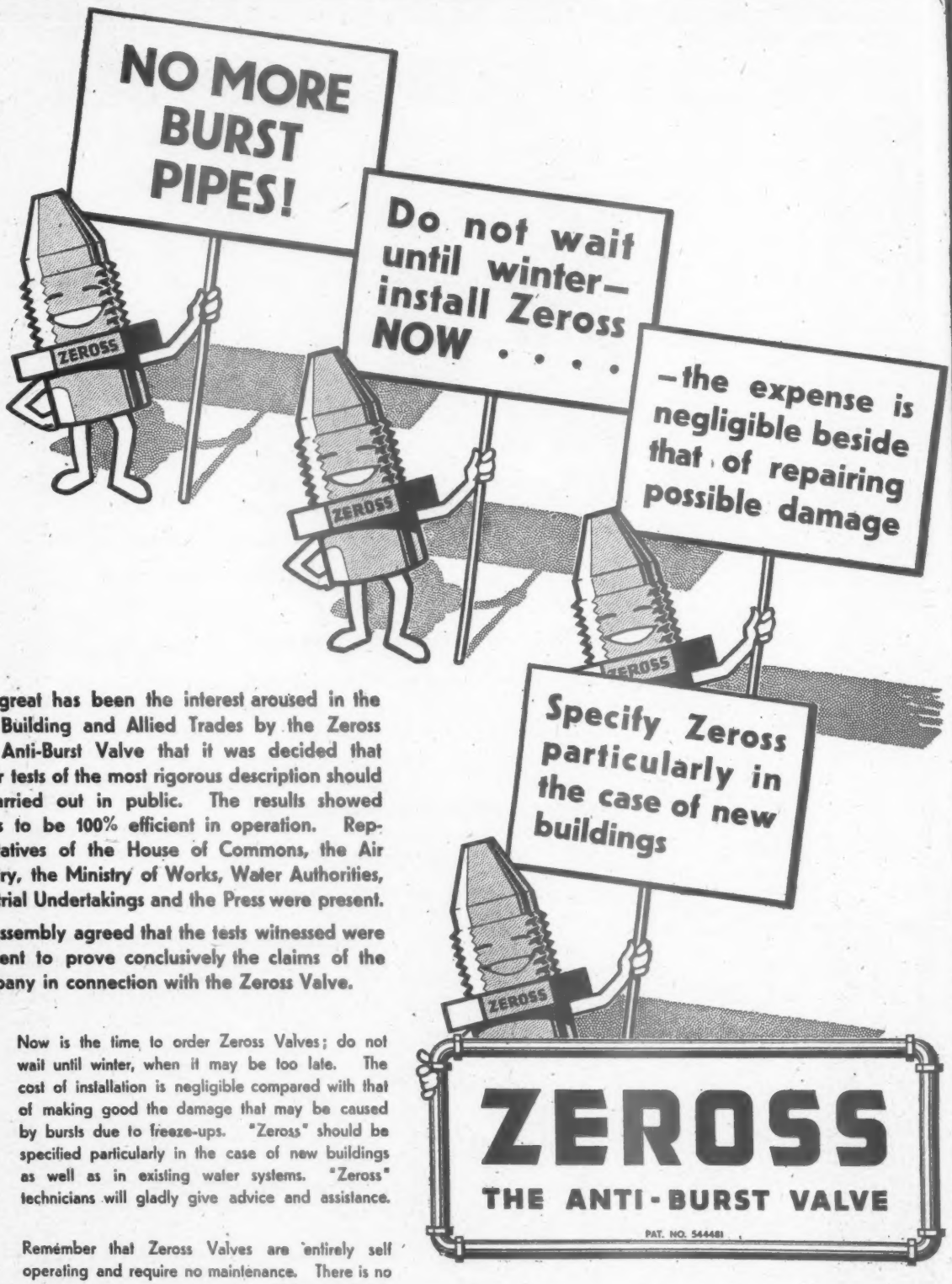

So great has been the interest aroused in the Building and Allied Trades by the Zeross Anti-Burst Valve that it was decided that further tests of the most rigorous description should be carried out in public. The results showed Zeross to be 100% efficient in operation. Representatives of the House of Commons, the Air Ministry, the Ministry of Works, Water Authorities, Industrial Undertakings and the Press were present.

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Storage capacity of approximately 4½ cubic feet, which will hold all the perishable foodstuffs for a family of four.

Larder space rendered unnecessary. Dry goods and non-perishable foodstuffs would be kept in kitchen cupboards.

Waist-high door, allowing access to interior without stooping. Height adaptable by varying position of supporting frames.

It can be built into kitchen fitments with cupboard space above and below it.

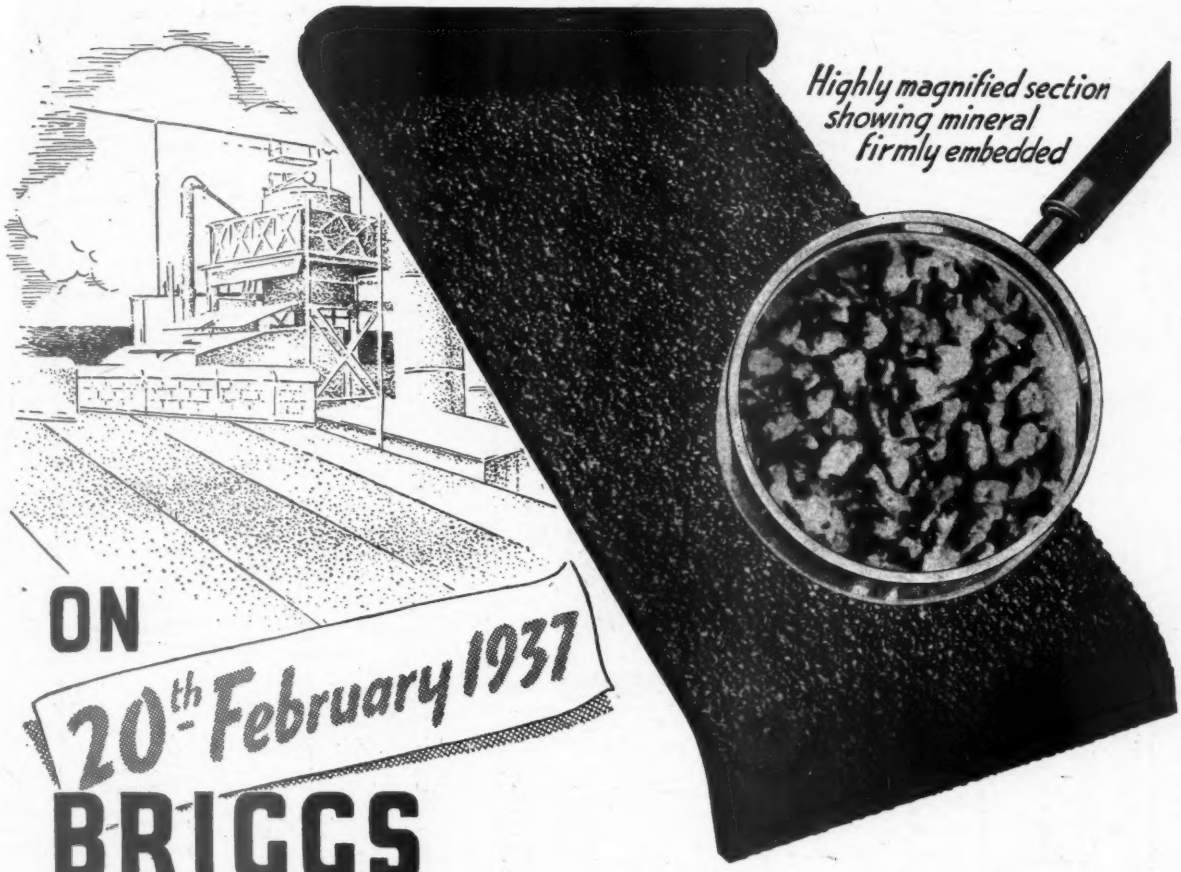
Design provides for adequate ventilation of mechanism without the necessity for special air-bricks or ducting.

Ice making and 'cold cooking' facilities.

Most important too, is the fact that this Prestcold refrigerator provides the food storage temperatures necessary for the proper safeguarding of perishable foods — for instance 35°F for fresh fish and poultry; 40°F for milk — and even the lower temperatures needed to store the frozen foods which will be available later on. In addition, it will be most economical in current consumption, using only one unit a day.

PRESTCOLD *Refrigeration*

A PRODUCT OF THE PRESSED STEEL COMPANY LIMITED · COWLEY · OXFORD



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was laid on one of the testing roofs at our Roofing Research Station, Arbroath, Angus.

Recently it was examined and the mineral surface was found still firmly embedded and the Roofing unaffected after eight years exposure.

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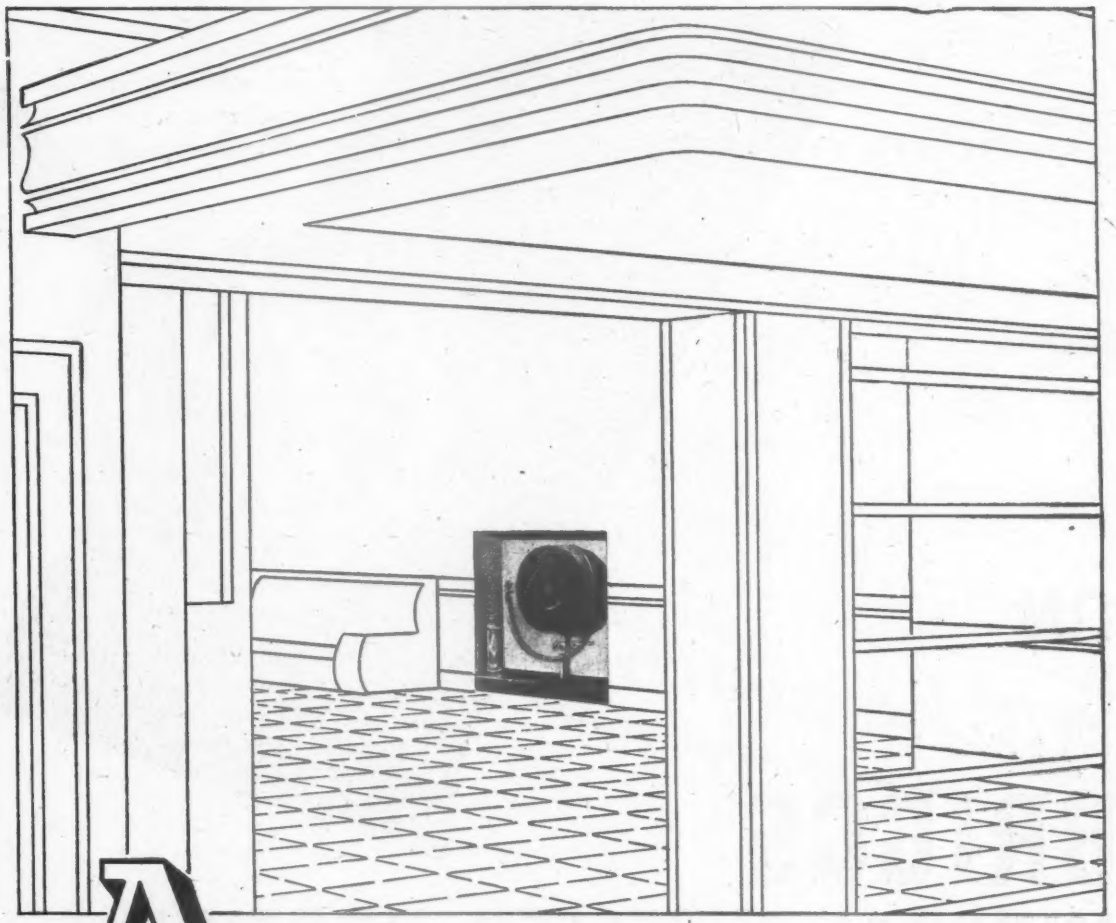
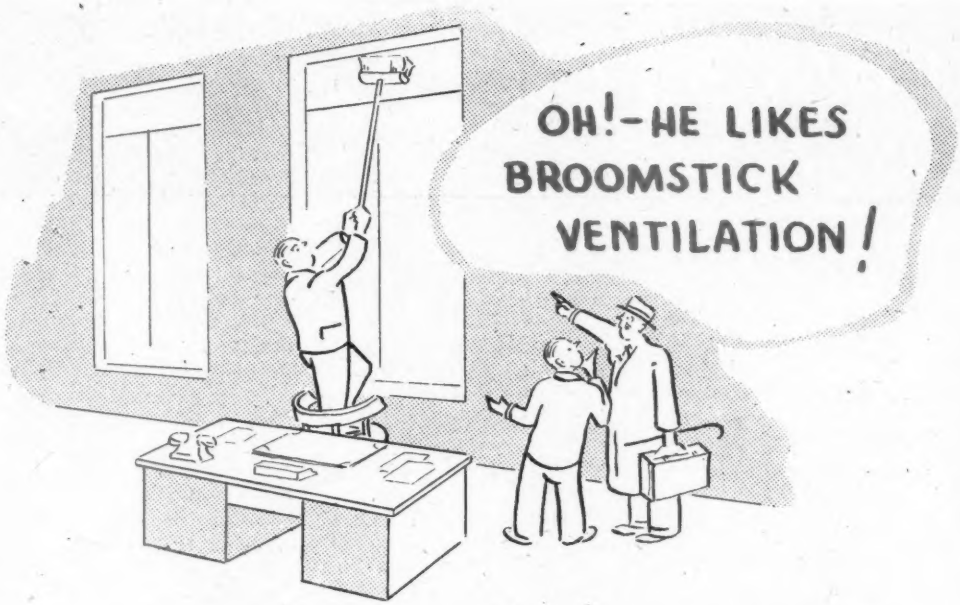


Architects blackprint [*Information Sheet No* 951] **on application**

The Pyrene "Everyway" Hose Reel and the Conquest Soda Acid Fire Extinguisher—each is pre-eminent in its class—can be accommodated in a recess 14in. deep. Full dimensional details are given in Information Sheet 951 (105 Revised). New building calls for modern equipment and copies of the revised Information Sheet will therefore gladly be sent on request.

THE PYRENE COMPANY LIMITED
GREAT WEST ROAD, BRENTFORD, MIDDLESEX
Telephone: EALing 3444.

Pyrene



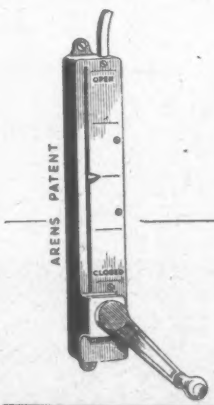
IT is positively staggering what some folks will put up with—the inconvenience and discomfort they will patiently bear—rather than bestir themselves to look round the corner or to observe how the factory down the street has solved the window problem. We do not for a moment suggest that you are in the same predicament as the gentleman in our funny drawing. But it is just possible you may not have heard of ARENS.

ARENS are the Window Control specialists. Their job is the planning and perfecting of neat, silent, unobtrusive mechanical devices that make window opening and closing the smooth, easy thing it should be, and *is* in many a modern factory and municipal building.

You may depend upon it that Arens can show you a way to put your unruly windows under a nice uniform discipline, that answers to your wishes—instantly!

ARENS

REMOTE CONTROLS



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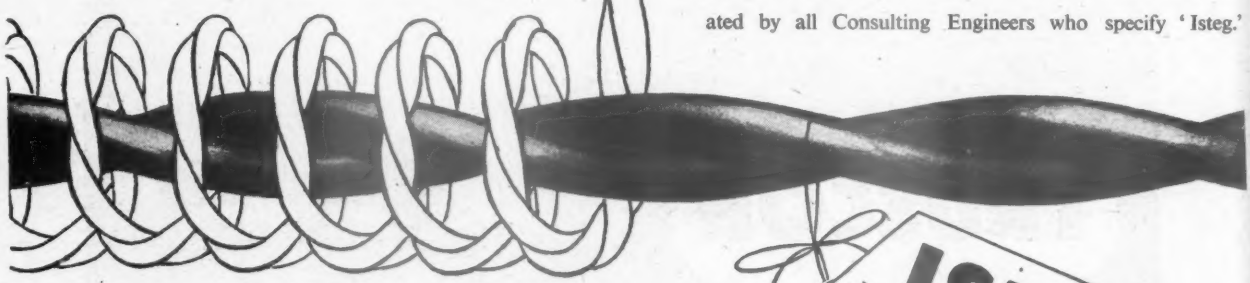

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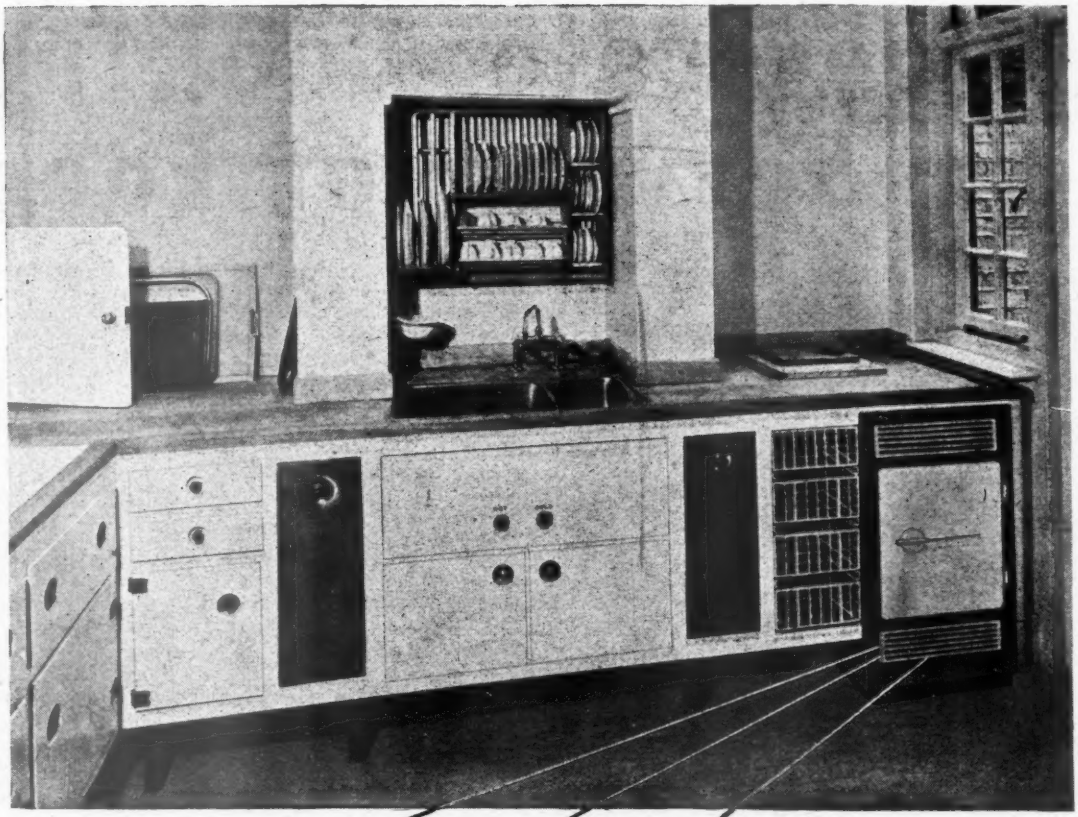

Bucks' Rural Demonstration Economy Post War Kitchen in conjunction with "Good Housekeeping."

M.151. 1½ cu. ft.

Kitchen equipment must satisfy the housewife's needs and, by its adaptability, meet the requirements of the kitchen planners. That is why Electrolux 'built-in' refrigerators are so popular. The M.151 shown fulfils the needs of the average small family, and like all Electrolux 'built-in' cabinets, fits in to any kitchen design. Moreover, it is noiseless, has no moving parts, and does not interfere with wireless reception.

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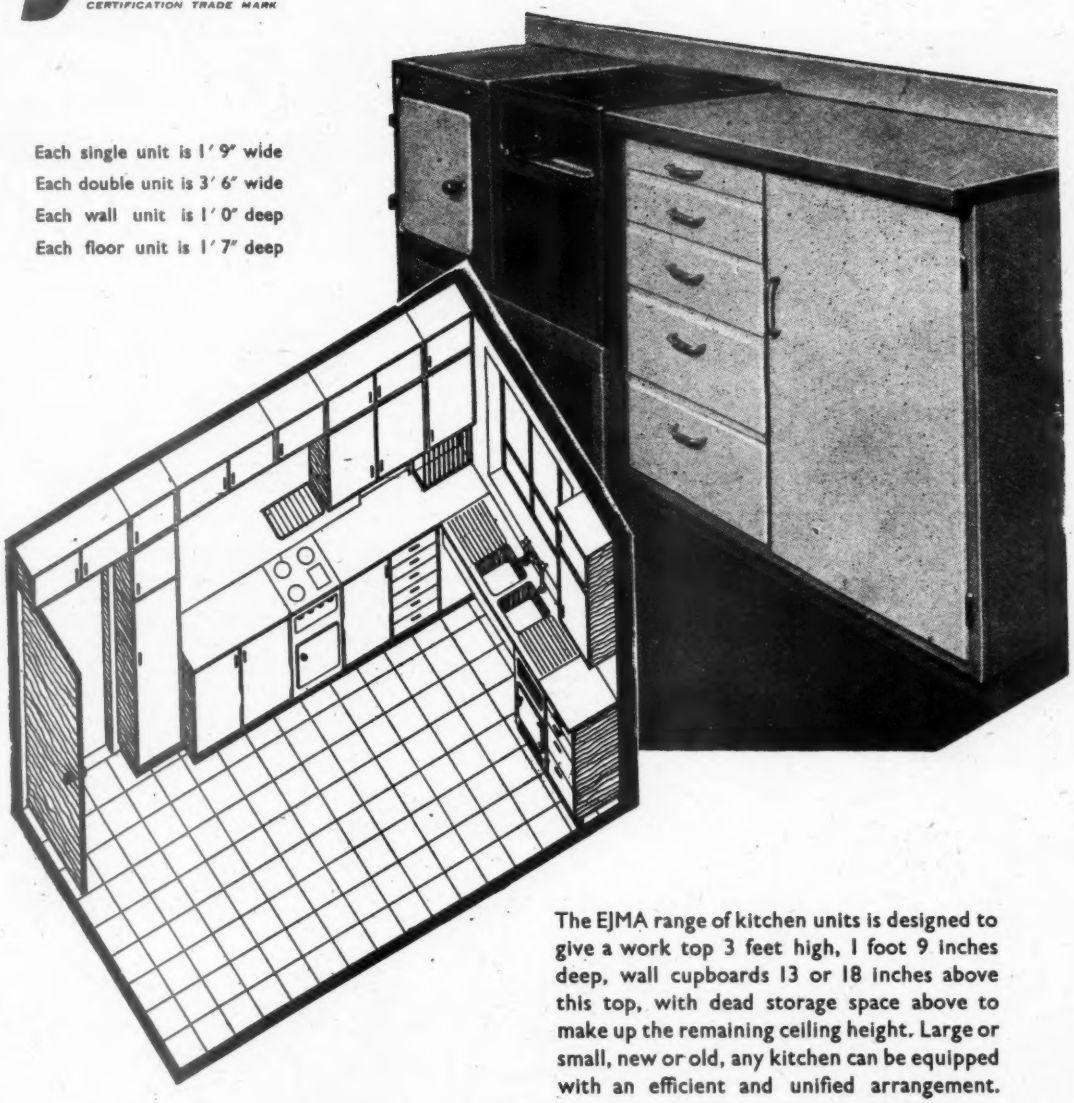
SUCTION CLEANER AND REFRIGERATOR MAKERS TO H.M. QUEEN MARY

STANDARD KITCHEN UNITS

EJMA

CERTIFICATION TRADE MARK

Each single unit is 1′ 9″ wide
Each double unit is 3′ 6″ wide
Each wall unit is 1′ 0″ deep
Each floor unit is 1′ 7″ deep



The EJMA range of kitchen units is designed to give a work top 3 feet high, 1 foot 9 inches deep, wall cupboards 13 or 18 inches above this top, with dead storage space above to make up the remaining ceiling height. Large or small, new or old, any kitchen can be equipped with an efficient and unified arrangement.

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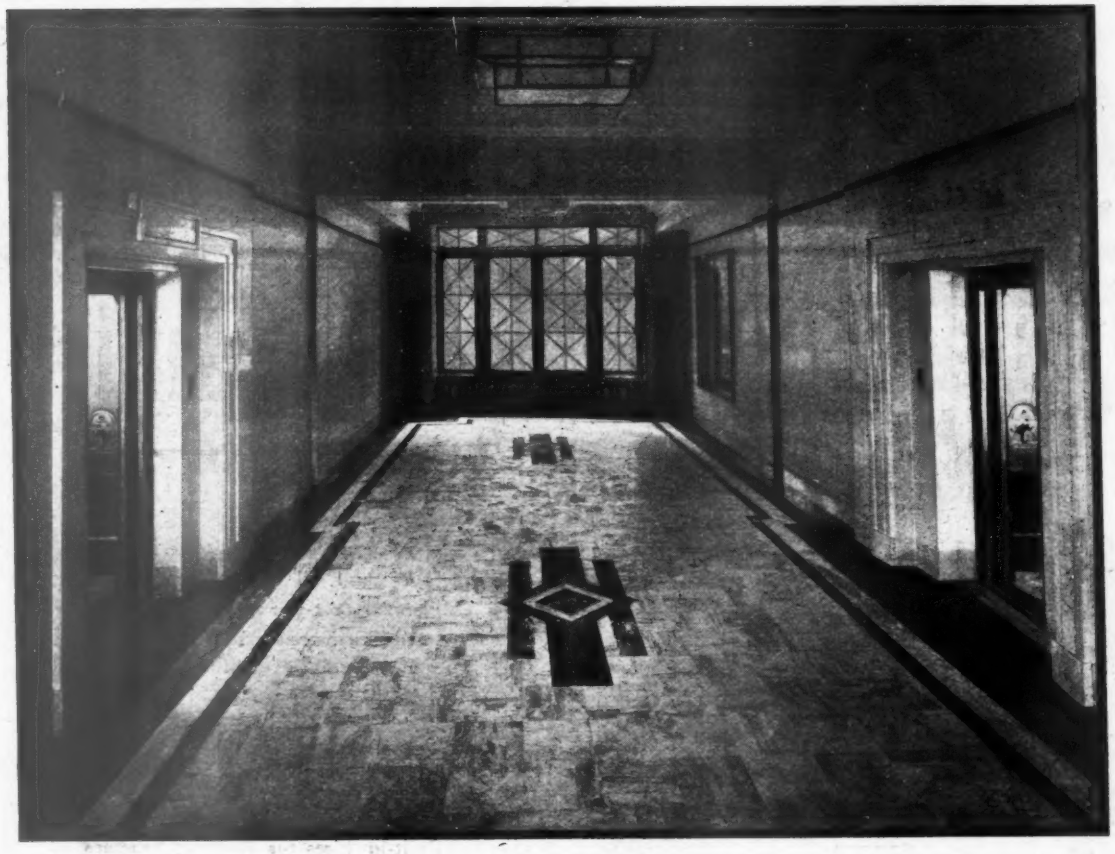

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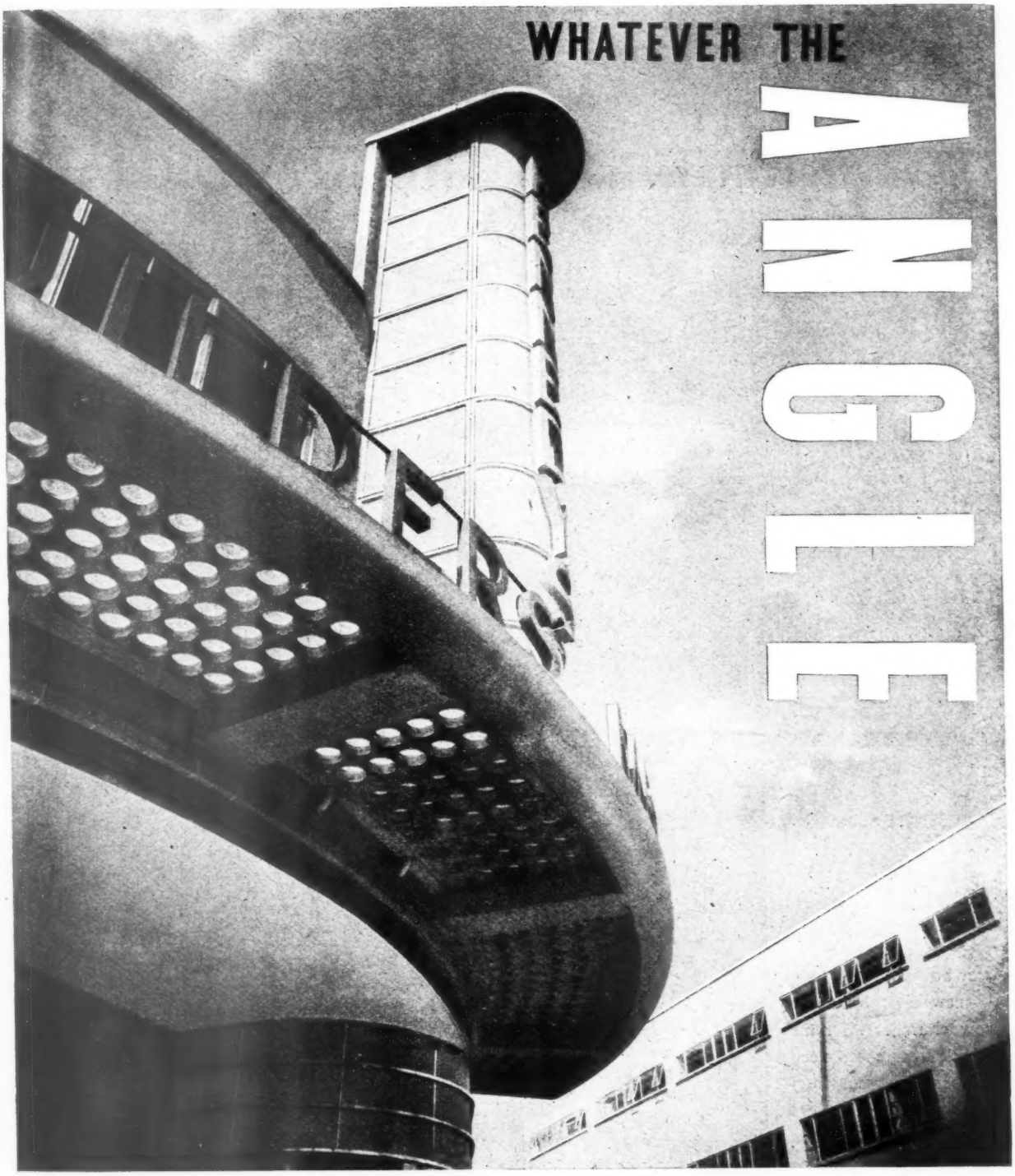

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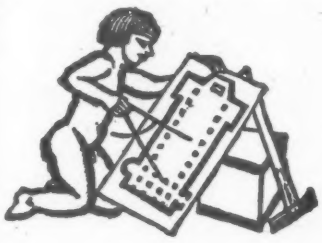
In common with every other periodical this JOURNAL *is rationed to a small part of its peacetime needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the* JOURNAL. *Newsagents now cannot supply the* JOURNAL *except to a "firm order." Subscription rates: by post in the U.K. or abroad, £1 15s. 0d. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage 1s. extra. Goods advertised in the* JOURNAL *and made of raw materials now in short supply, are not necessarily available for export.*



DIARY FOR OCTOBER NOVEMBER AND DECEMBER

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

BIRMINGHAM. *Modern Building Tools Exhibition.* At Big Top Site, New Street, (Sponsor, MOW.) OCT. 9-13

BRISTOL. *Modern Building Tools Exhibition.* At Black Boy's Hill. (Sponsor, MOW.) OCT. 23-27

HOMERTON. *NALGO Exhibition.* At Homerton College. (Sponsor, BIAE.) OCT. 4-8

ILKLEY. *NALGO Exhibition.* At the Grammar School. (Sponsor, BIAE.) OCT. 4-8

IPSWICH. F. Clark. *Design and Welding Techniques.* (Sponsor, Institute of Welding, East Counties Branch.) OCT. 10

LIVERPOOL. *News of the World Housing Exhibition.* Architect for the Exhibition, Frederick W. Hagyard. OCT. 4-19

LONDON. *NALGO Exhibition.* At the YWCA. (Sponsor, BIAE.) OCT. 6-13

P. Dunsheath, President of the Institution of Electrical Engineers. *Inaugural Address as President.* At the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2. (Sponsor, IEE.) 5 p.m. OCT. 4

Dr. F. Klingender. *Socialist Realism: The Æsthetics of Soviet Architecture.* Second of a series of introductory lectures to the study of Soviet architecture. At the RIBA, 66, Portland Place, W.1. Chairman, E. J. Carter. Tickets from SCR Architecture Group, 98, Gower Street, W.C.1. Admission free to members of the Group, non-members 1s. 6d. 6.30 p.m. OCT. 22

Dr. E. G. West. *Aluminium.* Second of three lectures on *Materials.* At the Royal Society, Burlington House, W.1. Chairman, Hon. Geoffrey Cunliffe. Buffet lunch 12.45 p.m. Lecture 1 p.m. (Sponsor, DIA.) OCT. 4

Arthur Ling. *Town Planning in Action: The Moscow Plan.* Fourth and last of a series of introductory lectures to the study of Soviet architecture. At the RIBA, 66, Portland Place, W.1. Tickets from SCR Architecture Group, 98, Gower Street, W.C.1. Admission free to members of the Group, non-members 1s. 6d. 6.30 p.m. DEC. 11

Middlesbrough Survey and Plan. Exhibition. At the RIBA, 66, Portland Place, W.1. OCT. 4 ONWARDS

Religious Sculpture. Exhibition. At the Church Artists' Agency, 25, Ebury Street, S.W.1. The exhibitors are: George E. Campbell, Frank Dobson, A.R.A., Alan Durst, Bogomir Dalma, Ben Enwonwu, Olga Essex, Irene Ford Kelcey, Matty Mammershlag, Joan Morris, S.P., Dunstan Pruden, Winefride Romaine-Walker, Joan Sexton, Phoebe Stabler, Barbara Tribe, A.R.B.S., Josephine De Vasconcellos and P. A. Williams. Weekdays 10 a.m. to 6 p.m. Closed Saturdays. (Sponsor, Church Artists' Agency.) OCT. 4-5

Building Congress. At the Central Hall, Westminster, S.W.1. (Sponsor, BINC.) OCT. 30-31

Nikolaus Pevsner. *Visual Planning and the City of London.* At the AA, 34-36, Bedford Square, W.C.1. (Sponsor, AA.) 6 p.m. NOV. 27

Current Town Planning in Canada and USA. 3. Middle West and the TVA. At the Association for Planning and Regional Reconstruction, 34, Gordon Square, W.C.1. Speaker, Miss J. Tyrwhitt. Chairman, Major Reed. (Sponsor, APRR). 1 p.m. OCT. 4

MIDDLESBROUGH. *Film show of Films relating to Welding in General.* At the Cleveland Scientific and Technical Institute, Corporation Road, Middlesbrough. (Sponsor, Institute of Welding, N.E. Tees-side Branch.) 7.15 p.m. OCT. 4

RUGBY. *NALGO Exhibition.* (Sponsor, BIAE.) OCT. 20-NOV. 3

SALISBURY. *Homes to Live In Exhibition.* (Sponsor, BIAE.) OCT. 4-20

TAUNTON. *Housing, Town and Country Planning Exhibition.* At the Electricity Showrooms (sponsored by the Taunton and District's Savings Committee). OCT. 6-13

Exhibition of Permanent House Plans. At the Town Hall (sponsored by The Building Industries' Standing Committee). OCT. 6-13

VENTNOR. *The Future of British Resorts. Planning Our Holiday Areas.* Town and Country Planning Association Conference at the Winter Gardens Pavilion, Ventnor, Isle of Wight. The conference will be opened on October 6 by the Rt. Hon. Ernest Bevin and end on October 9. Among those taking part in the discussions will be Sir Patrick Abercrombie, representatives of all the main resort towns, of the travel and holiday organizations, of the hotel, catering and resort industries, and by interested members of the public. The conference will be preceded by a holiday week, from September 29 to October 6, at the Wellington Hotel, Ventnor. The Holiday Week has been designed primarily as a holiday meeting of town and country planners, members of the Association and their friends. Excursions and a limited number of lectures on subjects related to town and country planning are being arranged. (Sponsor, TCPA.) OCT. 4-9

YORK. *NALGO Exhibition.* At Holgate Hill Settlement. (Sponsor, BIAE.) FEB. 10-23

NEWS

THURSDAY, OCTOBER 4, 1945
No. 2645. VOL. 102

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

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

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

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

The Ministry of Fuel & Power has made the following announcement on Display and DECORATIVE LIGHTING.

During the Victory celebrations, when Government buildings were floodlit, the Ministry of Fuel and Power raised no objection to the floodlighting of other premises, or to various other forms of outdoor illumination. This special concession for Victory Days ceased on August 17, and the Ministry of Fuel and Power reminds local authorities and the public of the restrictions on all outdoor display and decorative lighting announced on May 26. Such lighting included the following:—Floodlighting of buildings, structures and gardens; illumination of hoardings or facias of shops; other lighting of or on the exterior of buildings when not reasonably necessary for public safety; decorative lights on piers, parks, gardens, promenades, fair grounds. bandstands, and the like; searchlights or beacons other than those operated for military purposes by the Armed Forces of the Crown or for the benefit of shipping or aircraft. The fuel situation may well make the coming winter more difficult than any of the war winters, and the need for economy in the use of coal, gas, and electricity is therefore more urgent than ever. The Minister is confident that local authorities and the public will, in the national interest, comply with these restrictions, so that the necessity for the further exercise of his powers under the Control of Fuel (No. 3) Order, 1942, can be avoided. This announcement does not apply to street lighting, but the public is reminded that waste of fuel and the consumption of fuel for advertisement purposes (including the display of goods in the course of any business) are already specifically prohibited under the Control of Fuel (No. 3) Order. 1942.

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From AN ARCHITECT'S *Commonplace Book*

RIVERS HUNG IN AIR. [*From* Narrow Boat, *by L. T. C. Rolt* (*Eyre and Spottiswoode*).] On the afternoon of the following day, which was fresh and clear after the great storm, we reached Horninglow Wharf, in the home of beer, Burton-on-Trent. As usual, the proximity of the town had been marked by suburban villages and impoverished country, the only point of interest being the aqueduct of twenty-three arches by which we crossed the River Dove. Although dwarfed by the modern concrete road bridge beside it, this is a monumental work, considering the age in which it was built and taking into account the enormous weight of the canal in its puddled clay bed. No other work of the day compared in magnitude with these aqueducts of Brindley's making. Crowds flocked to see them, while they were described by contemporary writers as " the greatest artificial curiosities of the world " or " rivers hung in the air." They are a distinguishing feature of Brindley's canals, for Rennie and Telford, who followed after him, dispensed with the great weight of the puddled bed by carrying the water in a trough of cast-iron sections bolted together and enclosed in masonry.

At the LCC Brixton School of Building, six lectures on BUILDING LABOUR MANAGEMENT are to be given by Mr. A. G. Raven.

The course will consist of six lectures held on Wednesday evenings, October 17 to November 21, 7.30 p.m. until 9.30 p.m. on each evening. The subject matter of the lectures will be as follows:—*Lecture 1*: The general foreman; functions, part in organisation, approach to his job. Administrative thought, mind training. *Lecture 2*: Breaking down a job, planning in sequence. Importance of simplicity, flexibility, balance, working standards. Handling of materials. *Lecture 3*: Organisation; objectives, team-work, responsibility and authority, operation, supervision. *Lecture 4*: Programme; preparation, schedule charts, progress charts, machine output graphs, cost comparison. *Lecture 5*: Personnel management; leadership, instructions, praise and reproof, avoiding resentment. Factory Form 1892, works committees. *Lecture 6*: Correspondence; reports, orders, filing systems and records. Application for admission to the course should be made to the Secretary of the School, Ferndale Road, S.W.4, and should reach him not later than October 5.

★★

Housing authorities should inform the Ministry of Health at once of those OFFICERS WHOSE RETURN IS URGENTLY NECESSARY for housing schemes

In a circular (163/45) to housing authorities the Ministry of Health states that further consideration has been given to the need for the return to local authorities of those of their officers now with the Services who are urgently required in connection with their housing schemes. This applies not only to technical staff, but also to administrative, legal and clerical personnel. In order that the Department's record may be complete, it is first requested that each local authority will inform the Department—(*a*) the names of the officers engaged on housing work for whose release they have already asked the Department during the past 12 months; (*b*) the names of the officers who have resumed duty with the local authority. Local authorities should notify the Department in future immediately released men report back for duty. In this way a watch can be kept on any cases where there is undue delay. It is also requested that, in order that full advantage may be taken of the scheme of releases under Class B, information be given at once of those officers whose return is *urgently necessary* if the council's housing schemes are to develop. It will be appreciated that the operation of the Class B arrangements is possible only if applications are limited to those people whose services are essential at this stage to ensure progress. Where the release required is not that of one of the local authority's own staff, but of their firm of consultants, the application should be made by the firm to the Minister of Works supported, where appropriate, by a statement from the local authority.

★★

The Ministry of Town and Country Planning proposes to appoint a NEW TOWNS COMMITTEE under the chairmanship of Lord Reith.

The committee's terms of reference will be:—To consider the general questions of the establishment, development, organization, and administration that will arise in the promotion of new towns in furtherance of a policy of planned decentralization from congested urban areas; and in accordance therewith to suggest guiding principles on which such towns should be established and developed as self-contained and balanced communities for work and living. The forthcoming appointment of the committee was announced by Mr. Lewis Silkin, the Minister of Town and Country Planning, when he opened the Town and Country Planning School at Bristol. Referring to the fact that a Bill dealing with compensation and betterment will be introduced during the present Session of Parliament, Mr. Silkin said that a solution of the compensation and betterment problem necessitated the existence of an effective system of planning control. The local planning authorities must be ready to exercise far-reaching new powers with courage and constructive wisdom. In connection with the development of satellite towns and new towns, one of the most difficult problems was that of fitting the new urban growth into the existing structure of local government. He realized the anxieties of the local authorities on this score, and he proposed shortly to open conversations with representative local authority organizations upon it. There was an urgent need for a greater number of qualified members of the planning profession. Our present information shows, Mr. Silkin said, an immediate need of 1,600 planners, with an ultimate figure of a possible 2,500. It is estimated that to meet this need there are at present less than 1,000 persons with planning qualifications or experience, either in this country or in the forces. This was a situation which might, without undue exaggeration, be described as a crisis. They must stimulate an adequate new entry into the profession, but meanwhile something might be done to bridge the gap if architects, engineers, and surveyors of proved competence could be persuaded to enter the planning field now.

The British Legion is planning the erection of MORE HOMES FOR EX-SERVICE MEN.

Four homes for aged and physically incapacitated ex-Servicemen, and three convalescent homes, are planned by the British Legion. Negotiations are proceeding for the purchase of property in different parts of the country. Also planned is a dual-purpose home for permanent and convalescent cases in Northern Ireland. Each home will accommodate between 70 and 80 residents, split up into 40 hospital cases and 35 aged. The need for these homes has been apparent for some years, says Mr. J. T. Birrell, head of the Legion's Benevolent Department, but owing to the war it has not been possible to make much headway. The homes would cater for men of the Boer War, 1914-18 war, and 1939-45 War.

Plans are being made for the erection of a NEW THOUSAND BED HOSPITAL IN EAST AFRICA.

The new hospital and medical school will be built at Mulago, Kampala. A grant of £500,000 has been provided for the purpose under the Colonial Development and Welfare Act. The architect is Mr. Rees Phillips, F.R.I.B.A., who was responsible for the big hospital at Carshalton, Surrey, and the new wing of the Brompton Hospital for Consumption. Mr. Phillips spent some weeks in Uganda during which time he interviewed all officers now working in Mulago. The new hospital to be built will provide accommodation not only for Africans but for Asians and Europeans and provision will also be made for a large nurses' training centre to accommodate up to 700 nurses. The new medical school is planned to accommodate medical students up to an annual admission rate of 30, and there will also be accommodation for training pharmacists, laboratory assistants and sanitary inspectors. The wards of the hospital will be small, the largest one holding 16 beds, and there will be a large proportion of single bed wards. In the African section alone it is planned to provide at least six operating theatres equipped to deal with surgery of all descriptions.

Coughton Court, Warwickshire

Since 1409 the property of the Throckmortons, Coughton Court, two miles from Alcester, has been transferred to the National Trust. Sir R. Throckmorton is the present tenant for life. The Throckmortons, as Catholics, provided hiding places for priests and were adherents of the Stuart cause. They were not actually implicated in the Gunpowder Plot, but the house is rich in associations with many stirring events in English history and contains many pictures, documents and relics of great interest resulting from their adherence to the Roman Catholic cause. The central gateway of Henry VIII's time is flanked by wings remodelled in the late eighteenth century, when the moat was filled in. Additions were made in the seventeenth century, when the two projecting wings at the back were probably built. These are of very attractive half-timber work on a stone base. Many of the internal features are of considerable architectural interest. Coughton Court is the first transfer approved by a Court of a settled (or entailed) historic mansion under the National Trust Act of 1939. In accordance with the provisions of the Act, the scheme provides for a lease of the house to the tenant for life long enough to cover the lives of those who had expectations of succeeding under the settlement deed. The scheme also provides for the house to be shown to the public. The illustration is of the front, showing the Henry VIII gateway. On the right is Coughton Church, which contains many monuments to the family.

***Mr. Stanley Hearder: BUILDERS WELCOME THE GOVERNMENT'S DECISION** to make the Ministry of Health responsible for Housing policy and the inclusion of Mr. Aneurin Bevan, the new Minister of Health, in the Cabinet.*

Housing, continued Mr. Hearder, is essentially a collection of local jobs, which will have to be handled by local authorities and by local builders of all sizes, and under the new Government lay-out wider discretion will no doubt be given to the local authorities, who know local conditions and local builders far better than any central department. The Ministry of Works is still left with a very big task and Mr. George Tomlinson's statement that his departmental team would be organised on peace-time lines is highly gratifying. The National Federation, said Mr. Hearder, agreed with Mr. Arthur Greenwood that only the building industry can build, and it has assured both Ministers that they will co-operate whole-heartedly with their two Departments and with the local authorities. On the question of subsidised private enterprise building, Mr. Hearder said that he hoped the Government will bear in mind the fact that under a properly regulated scheme the subsidy will go to the occupier, that it will help a prospective owner-occupier to bridge the gap between present day prices and what everyone hoped will be the lower prices ruling in a few years time, and that it will therefore prevent the ex-Service man who bought a new house from losing his gratuity owing to the inevitable depreciation of his capital. Mr. Greenwood has rightly said there must be a list of priorities, but there are large numbers of prospective house purchasers who will be at the top of any list of priorities based on housing needs. Mr. Stanley Hearder, the new Director of the National Federation of Building Trade Employers, was speaking as the guest of the Council of the Yorkshire Federation in Leeds.

The Ministry of Works is receiving large numbers of applications for the PURCHASE OF SURPLUS ARMY HUTS.

In a statement just issued, the Ministry explains why only a small proportion of these applications can be successful. When a hutted camp is empty it may nevertheless be reserved for reoccupation by troops coming home for demobilisation, or being moved out of requisitioned houses, or by prisoners helping with the harvest or doing other vital work. Army huts are almost invariably erected on requisitioned land, and if they are no longer needed by the Government they are first offered to the owner of the land, since if they could be used where they stood it would obviously be a waste of manpower to dismantle them for re-erection elsewhere. The small numbers of huts not absorbed in these ways are generally disposed of locally by the District Officers of the Ministry of Works, by competitive tender, the purchaser being responsible for dismantling and removing the huts. The value of the huts varies according to their condition and no estimate of prices can be given. There is no regular list price. The huts available are mostly of the Nissen type, 36 ft. by 16 ft., but smaller quantities of other types of roughly the same size or somewhat larger are also available in certain cases. The use of labour for dismantling and re-erecting the huts is subject to the general regulations for control of civil building, and purchasers are responsible for ensuring that the huts, when re-erected, conform to local by-laws and planning regulations.

In the South Swedish province of Skania the first PREFABRICATED COW-HOUSE is being erected.

The cow-house planned by the Swedish State Research Committee for agricultural buildings is of modern labour-saving design. Works starting the manufacture of the cow-houses will be able, it is estimated, to produce 2,500 a year. If the experiment turns out successfully, other factories will probably start production. It is thought that it will be possible to lower the cost of cow-houses considerably by the adoption of buildings of prefabricated types. It is said that with the aid of four or five skilled hands the farmer will himself be able to erect a cow-house for 20 animals in about a month.

The need for a central planning authority and A NATIONAL MASTER PLAN IS URGENT: Colonel W. C. Devereux.

At a meeting in London of the Town and Country Planning Association, Colonel W. C. Devereux, who has been responsible for reconstruction plans in the development areas of South Wales and Cumberland, said: The need for a national master plan and a central planning authority is urgent. The great responsibility for planning the proper utilization of our resources cannot be left at the mercy of civic pride and local patriotism, however well intentioned. Sir Montague Barlow, who was chairman of the Royal Commission on the Location of Industry, urged the need for proper planning and proper investigation. It is necessary, he said, to suit an industry to the raw materials and resources to be found in the area.

BACK TO BUMBLEDOM ?

THE LCC is at it again. So are all the lesser local authorities, each operating within the limits of its parochial building by-laws, or the understanding of the technical officers. An exquisite little latticed portal frame that was evolved during the war to save steel, and has been used with success a hundred times for wartime factories, is disallowed in favour of the cruder and more wasteful cranked RSJ frame, partly because higher loading must be assumed, but largely in order to simplify calculation. Again, another authority reasserts its private fad that all metal must be at least ⅜ inch thick.

The Prime Minister tells us that Saving is just as important now as it was during the war. But licking half-crown stamps on saving cards is a matter of meaningless symbols compared with the economies in actual man-hours and valuable materials, that we architects and engineers are eager to effect, if we were not frustrated by the dead hand of building law. What, we wonder, will be the fate of the Government-sponsored prefabricated houses when Bumbledom wakes up to check the details against its by-laws ?

But some will remind us that two or three generations ago the profession was clamorous for building regulations to be formulated, in order to limit malpractices and to regularise a situation that was intolerably confused. Building regulations were certainly in their time an important reform, but what was not foreseen was that by-laws based upon the fixation of current *practice* were bound in a short time to become an obstacle to progress. And, as practice was the basis, it seemed reasonable to allow different localities to frame their own rules in accordance with the variations in local building methods. This does not seem so reasonable today : partly because building practice is now more nearly uniform, but chiefly because we try to base our designs upon analysis of required performance, more than upon the conventions of habitual practice. The laws of Nature do not change between Little Pudbury and Auchterthistlemar, and building laws based upon *performance* would serve them both equally well.

It will be objected that to specify a wall by so many tons the square foot, so much water-spray for so many hours, so many BTU's thermal transmittance, so many decibels reduction of sound intensity, etc., etc., when all we mean is 11 in. brick, is much too cumbersome and quite inoperable by Little Pudbury. But we do not merely mean to specify 11 in. brick. We mean that, and anything else known or not yet invented that satisfies the conditions. That is how we open the door to progress, whilst still safeguarding the public. For ease in interpretation the National Performance Standards would carry examples of common building practice that conformed, and Little Pudbury would add a schedule of local methods that were also in conformity.

But do not let us make the mistake of our grandfathers.

Our performance standards may well look silly two generations hence. Nothing is so dead as discredited Science. (We still festoon our elevations with vent pipes, because before microbes were discovered it was thought that stinks carried disease.) We must provide for continual change, not merely occasional and belated revision. A National Building Standards Commission must be in perpetual session to issue revisions of the standards at, say, quarterly intervals, and to adjudicate upon new inventions. Not all the standards would be compulsory : those concerned with public health and safety would, as at present, have to be : but many of our existing town-planning rules (like the number of houses in a row) have no business to be more than advisory.

There was a proposal by the Coalition Government of legislation to regularise war-time departures from building laws by giving discretionary powers to local authorities. This was a welcome hint that there is known to be a problem for solution. Now that the Ministry of Works has disburdened itself of a too-exclusive concentration upon housing, we hope that its exhaustive work upon the reform of building legislation may bear fruit.

The Architects' Journal

War Address: 45, The Avenue, Cheam, Surrey

Telephone: Vigilant 0087-9

NOTES & TOPICS

WAR DAMAGE

The War Damage Commission has now been able to give a reasonably close estimate of the total material damage we have suffered in this country to our structures and buildings and that total is impressive. The Commission has been notified of damage to 3,281,953 separate properties and anticipates that the final grand total be some 50,000 greater. Ninety-two per cent. of the properties are dwelling houses. On the financial side the Commission has already paid out £271,281,171 and it may be that the final figure will be nearly as much again. Certainly the total of contributions already received, some 200 millions, has been spent.

*

But of greater practical interest is the publication by the Commission of its Second Series of Practice Notes (price 2d., obtainable at the Stationery Office). These Practice Notes have, in the past, always been a valuable supplement to the rather bare bones of the War Damage Acts themselves and this second series is likely to be of even greater use as it is only now that the owner, and so the profession, can begin to think on the major problems of repair and replacement as contracts to be let and not as merely plans to be made.

*

Where there is a total loss the Commission makes a total value payment and how that money is spent is a matter then that concerns only those interested in the land. It need not be spent on building at all. But the Commission estimates that there are only some 200,000 of those cases. All the others are classified as Not Total Loss and therefore eligible for a Cost of Works payment, after the work has been done. This payment may be equal to the Proper Cost of the work done or, if the work done includes alterations or additions, may be limited to the Permissible Cost, which is an estimated figure of what it would cost to restore the original building.

*

As the Commission points out, the dividing line between an alteration or addition that is substantially only making good the original building and one that is in fact the construction of a new building is not an easy one to draw on paper. In every case the Commission, through its regional offices, is prepared to discuss plans when it seems likely that the work can soon be put in hand. Obviously it would be a very retrograde step if the Commission were to insist that every building, even one 30 years old, was to be restored, just as it was.

*

In general it says that if the use to which the new building will be put and the general structure of the final result are the same as for the old building the case will be treated as one ranking for a full Cost of Works payment. If both are different it will not. In between those two extreme cases it looks as though more attention is paid to the use of the structure than to its detailed layout. But clearly all interested in any such problem should read these practice notes before even putting pencil to paper if they are to achieve the best financial result.

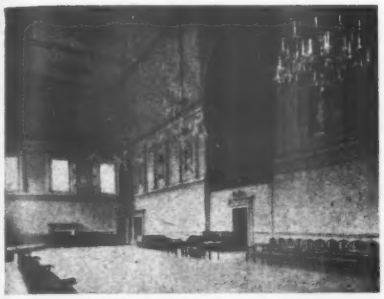
THE NATIONAL TRUST

The publishers' presentation slip which fell from the review copy of the new Batsford book on the National Trust announced the publication date as August 15. Are there prophets in North Audley Street? Or was it mere coincidence that it should have been timed to appear on what turned out to be the first day of peace? Anyhow, things could hardly have been better arranged. For the National Trust was founded to counteract some of the horrors of peace, and this volume, which marks its jubilee, should be an effective weapon of propaganda for its aims in the peace ahead.

*

The National Trust, a Record of Fifty Years' Achievement,* is a collection of essays by various hands on various subjects—Ancient Sites, The Manor House, and so on—as exemplified by the lands and buildings owned or protected by the Trust. It is edited by

* *Batsford, 12s 6d.*



James Lees-Milne; his team (literally an eleven) includes Ivor Brown, G. M. Young, Basil Oliver, and John Summerson. The Introduction is by Dr. G. M. Trevelyan, and the Trust's secretary, D. M. Matheson, is brief and businesslike in an Appendix, from which I extract the remarkable fact that the Trust's holdings increased from 46,500 acres in 1938 to 110,000 in 1944.

*

But the value of the Trust's work is not to be measured in acres. Of course it is splendid that great estates like Sir Richard Acland's should be made safe for the enjoyment of posterity. What might have happened to large tracts of English countryside, but for the National Trust, does not bear contemplation. Yet the more spectacular properties should not blind one to the real importance of the Trust's possessions at the other end of the scale—here a clergy-house, there a dovecote or a group of cottages.

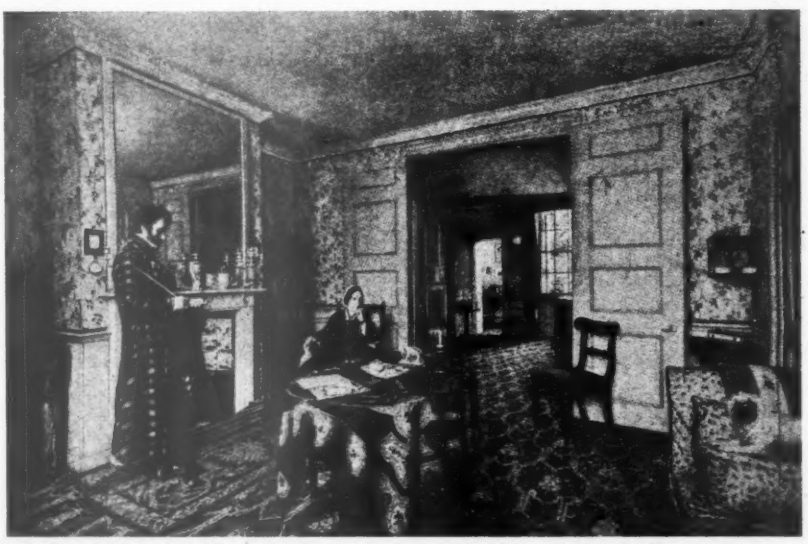
*

After all, if there are to be adequate planning measures for the country as a whole, or even if there are to be National Parks, the need for the Trust to protect great areas of countryside is likely to become less pressing. But individual buildings of merit may be as perilously placed as ever; in fact, they will be menaced by an additional danger—that of being planned away.

*

Especially will this be the case in the larger towns, and Mr. Summerson's plea in his chapter on town buildings, that the Trust should extend its already considerable activities as conservator of the best in our towns, is to be heartily endorsed. Unfortunately the public attitude can still be summed up in the adage which insists that God made the country and Man the town, and feeling is not easily roused by the threat of destruction in the latter sphere.

ASTRAGAL



The illustrations on this page are from The National Trust, *a book reviewed by Astragal this week.* Top, the Ballroom and the Concert Room in the Bath Assembly Rooms. Below, Mr. and Mrs. Carlyle at home in Cheyne Row, from the painting by Robert Tait. Carlyle's house is one of the historic shrines acquired by the Trust.*

LETTERS

T. L. Littlewood

Michael E. Askwith

G. J. Hancock
Secretary to the Natural Asphalte Mine-Owners & Manufacturers Council

Precision or Average?

SIR,—My attention has been drawn to your leading article, in which you suggest, not entirely without justice, that in our Report on Accommodation we might have appropriately suggested the type of building which would most satisfactorily meet our needs.

While your criticism might, at first sight, be accepted as having some substance, I think it only fair to point out that without the professional background of an architect it is not possible for the client to offer the kind of practical suggestion to which you refer. You will appreciate that it is not possible to be expert at everything, and in my view there is an onus on the Profession to spread a knowledge of modern developments in architecture, and where a specific problem such as our own is raised to be prepared to offer the solution. This may, of course, have been done in one or other of the documents which you no doubt issue from time to time, and if so I should be very much obliged if you could refer me to it.

T. L. LITTLEWOOD,
for Editor,
Post Office Engineering Union
Report on Accommodation

London

Exhibition Layout

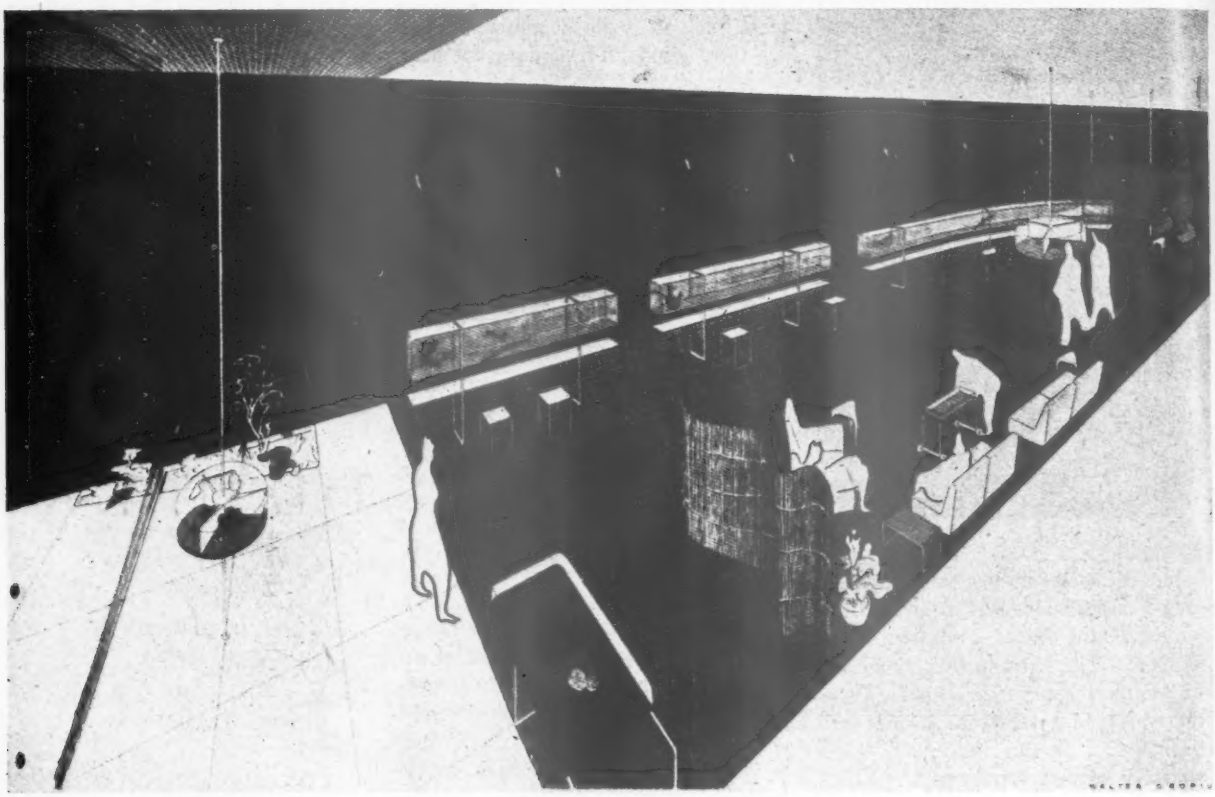
SIR,—With reference to Astragal's note on the Greater London Plan Exhibition at the ICE, may I be allowed to ask when the accepted standards of contemporary design—in this case as regards exhibition layout—became, in the eyes of those who ought to know, "clichés" (presumably used in a derogatory sense)? Could it be—I hesitate to suggest this, naturally—when engineers use them instead of architects?

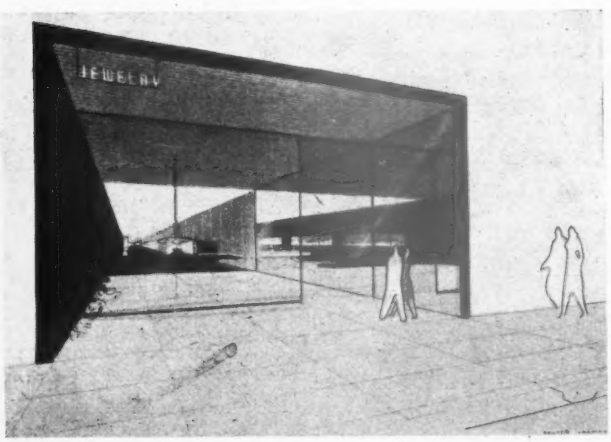
I am not criticizing; I'm merely a poor bewildered student seeking some guidance on a question, to which nobody, as yet, seems to have found an answer.

MICHAEL E. ASKWITH

Hendon

PROFESSOR GROPIUS DESIGNS IN GLASS





The Pittsburgh Plate Glass Company recently approached a number of well-known architects in the USA and asked them for designs for shops which would help them to sell their shop front materials. A number of these designs were published in a recent issue of "Pencil Points," including the one shown here by Walter Gropius, who describes his design as follows: The recessed front glass wall avoids glare and provides shelter for spectators. In the area immediately behind this plate glass panel is a circular showcase which rotates slowly. Jewelry displayed in the case receives controlled light-sparkle from a fixed spotlight above it. The entrance door section is of flesh-coloured plate glass, while the side wall to the right is of plate glass mirror, giving the illusion of a double-width entrance lobby. The left-hand interior wall is of suede-finish black structural glass, which provides an effective background for jewelry display. The opposite wall is of polished grey structural glass. At the far end of the shop, a lent glass screen of metal-framed polished orange structural glass is supported by chromium-plated metal pipes. All jewelry displays are invisibly spotlighted from the upper edges of the showcases.

Floor Finishes and Joints

SIR,—The attention of my Council has been called to your leading article relating to Floor Finishes and Joints, and in particular to a reference to asphalt and pitch mastic floorings.

We appreciate that any article of this kind must to some extent reflect the personal opinions and preferences of the writer, and we do not doubt that he intended to be strictly fair and impartial in his observations. At the same time, we feel that a wider acquaintance with work carried out with these products during the last few years would inevitably lead him to conclude that his somewhat disparaging comments were not fully justified.

In common with most floor finishes, asphalt and pitch mastic floorings need periodical attention to preserve their appearance, and if a floor has lost its freshness, it is probably attributable more to absence of cleansing and polishing than to any inherent deficiency in the material itself.

The Committee which drew up Post War Building Study No. 1, *House Construction*, makes the following observations on page 98, paragraph 602:—

"Mastic asphalt floors require regular maintenance to preserve good appearance. They can be washed with warm water and soap . . .; they take polish easily, but special polishes suitable for asphalt floors must be used."

And in paragraph 605:—

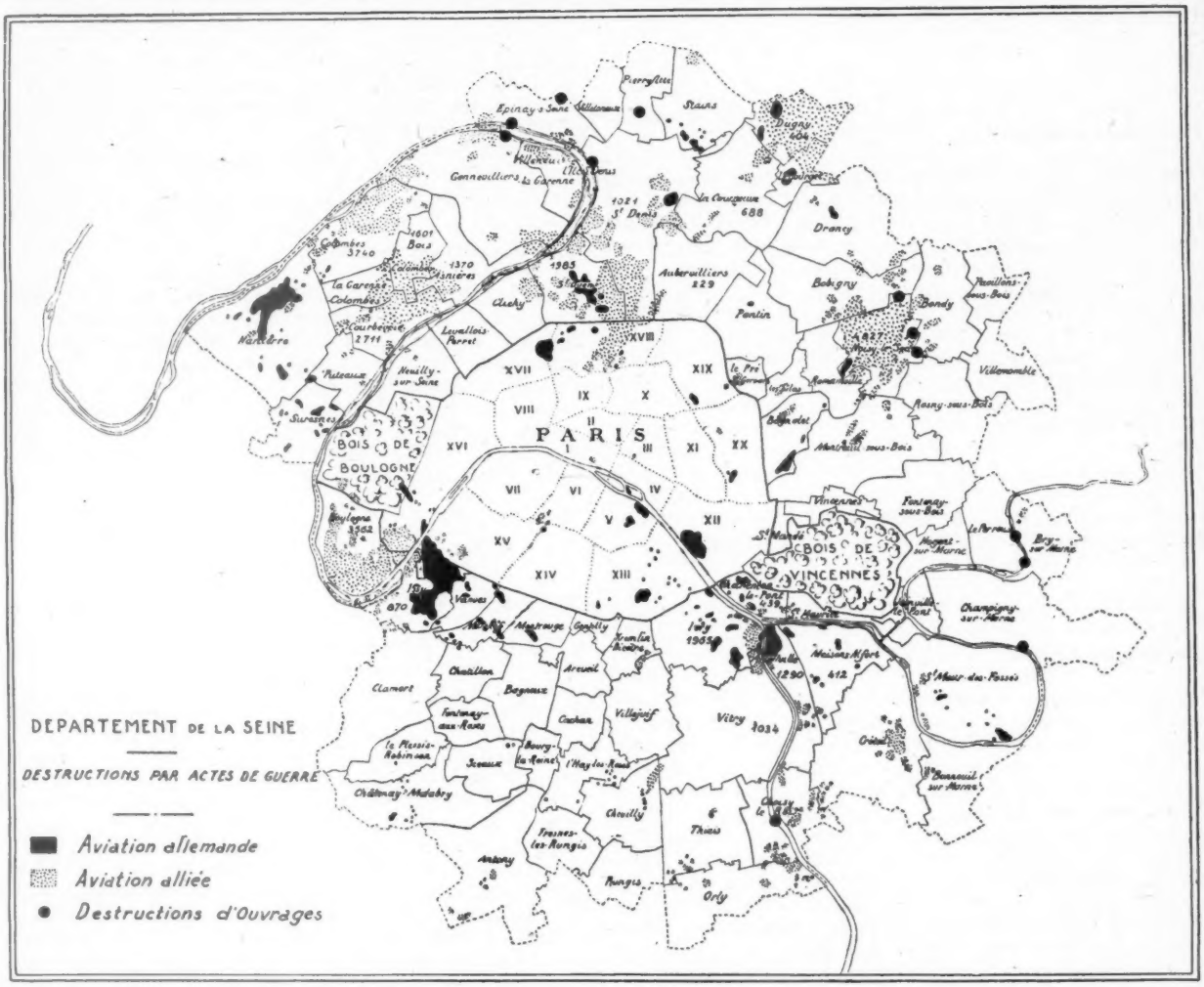
"In general the properties (of pitch mastic flooring) are similar to those given for mastic asphalt, although there are, however, some exceptions. It is less affected by mineral and vegetable oils, fats and greases, and therefore is not so liable to be damaged by contact with these materials. It takes polish easily, and any type of wax polish can be employed, although it is preferable to use special polishes as for asphalt. Although the material has only comparatively recently been used to any extent as a floor finish, observations so far made show that good wearing qualities are to be expected from well-laid pitch mastic floors."

We think that these observations present the position in a fairer light than those made by your leader writer in this particular connection.

London G. J. HANCOCK,
Secretary, The Natural Asphalte Mine-Owners and Manufacturers Council.

[Our Leader writer writes: I hardly think this contradicts what I said; nor does it add anything very material.]

PHYSICAL PLANNING SUPPLEMEN



This Plan of the Paris Region, showing some 30 square miles of war devastation, over 10 per cent. of the Regional area of some 225 square miles, is symptomatic of the general need for Replanning in France, in which for all towns of over 10,000 people it is now compulsory to employ, or obtain the guidance of,

QUALIFIED PLANNERS

France points the way

B. S. TOWNROE, Hon.A.R.I.B.A., former Mayor of Hampstead and *Times* Correspondent on Slum Clearance, now prominent on the MOH Central Housing Advisory Committee, here gives his digest of current events and trends in French Reconstruction. The 1943 Vichy Planning Act for France, which was signed by that many sided character Pierre Laval, sets up comprehensive legislation embodying a Grand Planning Council, Definition of Regions and Districts, Decentralization, and a supervisory Departmental Planning Commission with NATIONAL POWERS. Of pressing interest to British readers is the instruction to consult Town Planners who are qualified, meaning also suitable Architects. Hurry up, British House of Commons. Even now, it is not too late to take this important hint from France.

profound confidence

In the Ministry of Reconstruction, 67 rue de Lille, Paris, are plans prepared during the war for the France of the future. Owing to the courtesy of M. Dautry, Minister of Reconstruction, I recently had the privilege, not only of a talk with him about the rebuilding of his country, but interviews with architects and town-planners on his staff. These were all comparatively young men, under 40 years of age, enthusiasts in their work, keenly intelligent and experienced, and, above all, men with a profound belief and confidence in the future.

The Director-General of Town Planning in France to-day is M. André Prothin. He was appointed after the military defeat of France to administer the powers for the physical restoration of France under the Town Planning Act passed on April 6, 1941, and expanded by further legislation on June 15, 1943.

four-fifths planless

There had been a number of Town Planning laws passed between the two wars—in 1919, 1924, 1932 and in 1935—but the legislation did not offer any unity or means of definite action to bring about the preparation of well thought out planning schemes. By 1939 out of 2,000 towns in France, with more than 10,000 inhabitants, less than 300, after 20 years of so-called town planning, had prepared any kind of town plan. The others had allowed straggling development. But curiously enough, although in Metropolitan France itself town planning was more honoured in the breach than in its observance, French town planning had become an article of export to the French Colonies and to various parts of the world. For example, it was a French architect, M. Henry Proust, who was responsible for the magnificent replanning of the suburb of Taksin at Istanbul, where great open places have been laid out with gardens, boulevards, and flanked by admirably designed flats.

blessing by bombs

Defeat in war gave French town planners the opportunity for which they had been waiting for 20 years. The setting up in 1941 of the General Delegation of National Planning provided one central organisation. It aimed not only at protecting cathedrals, chateaux, and the other architectural treasures of France, many of which were already under the guardianship of the Committee for Historical Monuments, but at opening out their surroundings so that they could be seen and appreciated. When, for example, in the years to come the British are able to revisit France they will obtain fresh vistas of some of the beauties of such towns as Rouen and Blois. These suffered severely during the fighting in the Battle of France in 1940, and even more severely from Allied bombing in the later years of the war. Destruction by bombs and shells cleared away areas of dwellings that were deteriorating, or were already worthy to be classified as slums. These were blighted areas in the past, and under English public health legislation would probably have been demolished. Now explosives have swept them from the face of France. This has been a disaster from the immediate economic point of view, and is imposing hard suffering upon the overcrowded and badly housed French population of to-day. But in the long run French town planners consider that it has been a blessing in disguise. It has been a compulsory clearance of some of the worst slums of French towns. If existing plans are carried out, these towns in the future will be far healthier places in which to live, and far more beautiful and attractive to foreign visitors.

French adopt zoning

Another section of the work of the Delegation has been, what is known in technical language, as zoning. This means, in fact, that instead of factories being built in the midst of houses, in the future there will be an industrial zone where alone factories will be allowed, and residential zones far enough away to escape the fumes and smoke of industrial firms.

The latest town planning legislation in France is very comprehensive, containing 114 different sections. It was signed at Vichy on June 15, 1943, by Pierre Laval, and countersigned by the Minister of Justice, at that time Maurice Gabolde; the Minister of Agriculture, then Max Bonnafous; the Minister of Production, Jean Bichelonne; the Minister of Marine and Colonies, Admiral Blehaut; the Minister of National Reconstruction, Pierre Cathala, who is also Minister of Finance; the Minister of Education, Abel Bonnard; the Secretary for Defence, General Bridoux; and the Minister of Health, Raymond Grasset.

grand planning council

The first part of the Measure deals with setting up the administration for reconstruction and town planning, their relation to other Government departments, and their functions. There was formed what was, in fact, the Grand Council of Town Planning. This has to examine and direct all French towns with a population of over 100,000 inhabitants and in all other towns brought to their attention by the Secretary of State. The Council was given power to appoint technical advisers, not only in Paris but in the Provinces.

sinking the differences

This defines the town planning regions and the district organizations, each of which is guided by an Inspector-General and technical assistants attached to the regional and departmental Prefectures. There have been set up advisory committees called Departmental Commissions of Town Planning, which are summoned by the various Prefects, and have to be consulted by all towns and Commissions preparing their schemes.

The second part of the legislation provides for various centres to be grouped together, whether they are in the same Department or not, provided they have links of common interest. This is in order that the various schemes shall be properly linked together, and so as to avoid overlapping of effort on such questions as the provision of new roads, the widening of existing roads, the development or creation of open spaces, the protection of woodlands and drainage and sewage works. Penalties in the form of fines can be imposed upon persons who offend against the regulations. It is an offence, for example, to clear land on which trees were growing, without permission. If convicted, the offender has not only to pay a fine, but carry out re-afforestation at his own cost.

planners must be qualified

The third section covers all plans for arrangements for replanning made by the various Communes. Each town with more than 10,000 inhabitants has to be advised by a qualified town planner nominated by the Mayor and provided by the central organisation. The local plan has to include proposals for the provision of communications, the protection of historical buildings and natural beauties and schemes for future development. The local plan, when prepared and approved, has to be sent by the Regional Prefect to the Town Planning department in Paris and to the Minister for the Interior. On paper the operations seem to be very involved. But I was assured that during the war years a very large number of schemes had been carried through all stages and, having received final sanction, were now waiting to be carried out. In certain urgent cases limited reconstruction, particularly of factories, which had suffered from war damage, has already been completed.

For Communes, that are considered to be either totally or partially destroyed by acts of war, fire, or flooding, special powers are given under the law. It was impressive to see the final plans, signed, sealed and delivered, for the re-planning of a large number of the smaller towns and villages which had suffered badly during the passage of the German armies crossing Northern France in the summer of 1940.

au guillotine les speculateurs!

Special attention is given to the planning of new housing estates and the safeguarding of open spaces against speculative building. In a note on this subject made officially by the Department it is pointed out that after the 1914-18 war the movement of the population from the country to the great towns, and particularly to the suburbs of Paris, brought about a particularly grave housing crisis. Market gardens around the towns were bought at low prices and then sold with inflated profits as building sites, often without any provision made for roads, water, gas or electricity. Careful provision is made to prevent such undesirable building ever taking place again. Heavy fines up to 55,000 francs can be imposed. There is also control over the type of buildings to be put up, the method of construction and the materials.

Laval: planner

Many of the provisions in this French Measure have been embodied in British legislation during the past 50 years. The system of municipal by-laws, for example, in the British Isles has grown up for over a century. But French individualism has been allowed to run wild, and this war legislation should do much to bring the future building of France nearer to our British standards. Although politically the name of Pierre Laval inspires nothing but disgust and contempt, the document which he signed at Vichy in 1943 is, in fact, a historic charter for France.

German savagery

From 1940 until the present day, some of the best brains of France have been quietly at work. To the outside world there were the heroic struggles of the men and women of the Resistance movement, the growing breach between the Vichy Government and the Free French Movement, the savagery of the German occupation applied to those French citizens who were not prepared to collaborate, or at any rate to carry on without giving any trouble, and then after liberation the trials of those accused of collaboration.

but the Planners carried on

But in that secluded building on the south bank of the Seine and in the provincial planning offices, the task of thinking out the France of the future in its physical sense has been actively progressing. Every effort has been made to consult local opinion. Possibly this was easier during the enforced inactivity of local authorities, whose power of freedom had been removed and who had to act under the orders of the local Gauletiers. As a result to-day there are hundreds of excellently prepared plans, in some cases illustrated by deftly built models, to show that, when labour and materials are again available, we may hope to see a better built and better planned France in the years to come.

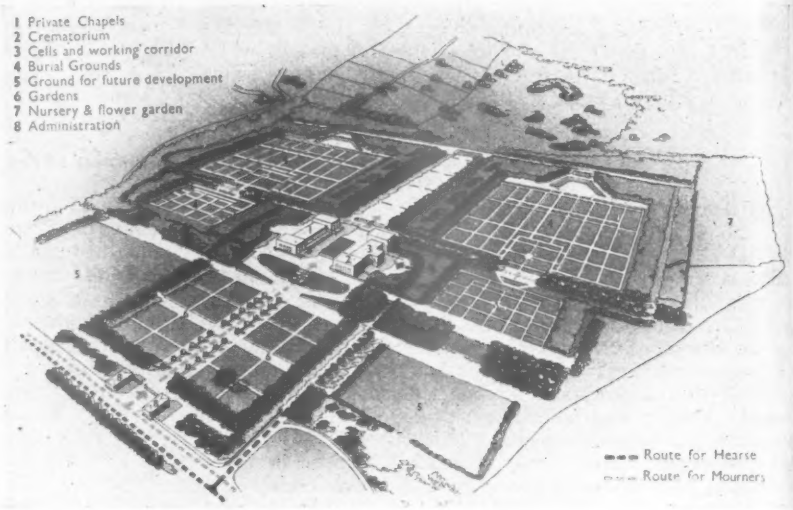
The hatched areas in this map of France show well over half a million acres, nearly 900 square miles, about one per cent. of the French agricultural total, put out of cultivation by war damage.

The figures in the above caption are not alarming, and probably compare favourably with the amount of farming and horticultural land which during the war has been taken for permanent new aerodromes in Britain.

CREMATION CEMETERIES

SAVE LAND

About 4 square miles, roughly one per cent. of the Greater London area, is now developed for the dead, in the form of complete body burial. How much further is this grisly colonisation to go? When will it be replaced by a method less wasteful of land? Not only in the overcrowded Metropolis is the demand increasing that every yard of open space that can be spared from rebuilding or new building should be instantly devoted to new parks and playgrounds for the living. Right, a Swiss solution of this Town Planning problem, Hornli Gottesacker's 125-acre Cremation Cemetery at Basle, in which will be reverently disposed not the bodies but the ashes of this town's entire dead for the next hundred years, without purchase of an inch of extra land.



Historical problem

In every human society the disposal of the dead has been a matter first of family and later of public concern; the family problem becomes a public problem as soon as the village, town, or city replaces more scattered modes of living.

The traditional modes of disposal of the corpse are:—

1. Exposure to the elements and to wild animals.
2. Reposal in caves or crypts, with or without preservation.
3. Burial at sea.
4. Burial in the ground.
5. Cremation.
6. Chemical disposal.
7. Cannibalism.

First reforms

In England public opinion lagged behind, until 1839, when Mr. Walker, a surgeon, published *Gatherings from Graveyards, particularly those in London*, a volume which aroused so much interest that Parliament three years later appointed a Select Committee, with instructions.

The Committee's conclusions were:

1. That the practice of interment within the limits of large towns was injurious to public health, and frequently offensive to public decency.
2. That burials in urban areas should be prohibited.
3. That future cemeteries should be placed at a minimum distance from inhabited houses.

A new public utility

In some European communities funeral management is regarded as a public utility, with varying degrees of control by State or Municipality. In Switzerland, free communal burial service, uniform for all classes, has been established since 1890. There are no private undertakers in Munich, Milan, or Genoa, the municipality in each case providing full funeral service at fixed scales of charges. In Rome the Public Authority enters into contract every five years with professional undertakers, to supply all funeral services for a fixed annual sum. Leipzig and Stockholm supervise and regulate the business of the undertaker, but do not engage directly in funeral enterprise.

However, all over the western world, and in particular in Great Britain and the U.S.A., respect for the dead has become a pretext for the commercial exploitation of the living, and the position of the so-called *funeral trades* is one of great strength and stability.

Town Planning problem

The dignity of the English country church and churchyard, God's Acre, has survived in many places, but the separately consecrated cemeteries of the large towns, established to ensure hygienic disposal, have rapidly become an affront to the dead and a major social and town-planning problem for the living.

The twenty-eight Municipal Burial Authorities of Greater London have between them appropriated 2,500 acres for cemeteries. The Borough of Finchley, with a population of 68,000 and a total acreage of 3,477, has 160 acres of land, with its boundaries occupied by the dead of three other boroughs (St. Pancras, Islington and St. Marylebone). The City of Birmingham buries between 9,000 and 10,000 corpses yearly, and has already sterilised over 400 acres of land for the purpose.

Let memorials live

The undertaker, having sold the last rites to the bereaved, returns when the last sod has been relaid to sell the memorial; even when time has tempered the first pangs of grief, the argument that *nothing but the best is good enough* still carries weight, as witness in every graveyard countless horrors of Italian white marble glittering hideously outside their native element.

At the other end of the scale is the pauper's grave. A common interment is a grave 10, 15 or 20 ft. deep, and the bodies are put in one after another.

So often a tree, a wood, a garden, a park, or a building needed for the use of those who remain would have been a more lasting and a more living memorial to the dead than many of the lifeless blocks of stone and metal.

Cost of dying

The inflated cost of dying has been said to belong to the class of luxuries that are wasteful.

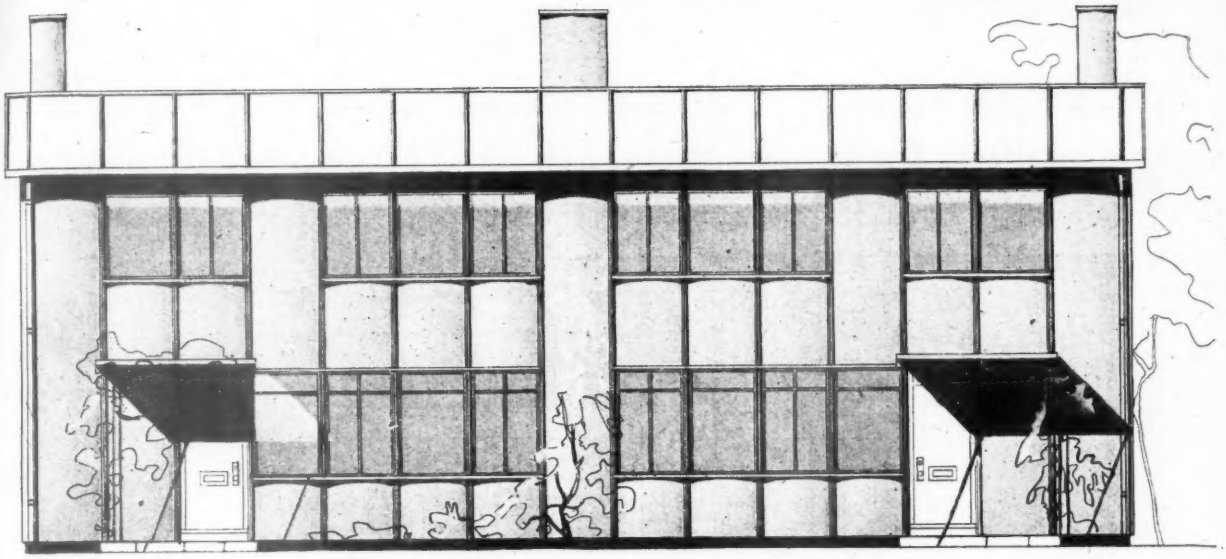
In 1939, the Corporation of the City of Hull reported that earth burials were costing the Corporation £5,000 per year, or 35s. per interment. It was therefore decided that, as the cost for cremation was only 21s., this should be encouraged by making no charge for residents.

Liverpool Corporation reported that during 1938 there had taken place 8,458 burials, and the deficiency on Cemetery accounts amounted to £14,909, an average loss of £1 16s. 3d. per interment, equivalent to a 1s. 2d. rate. The cost of maintenance of cemetery memorials alone was calculated by the Treasurer of the County Borough of Hastings to amount to £1 13s. 11d. per interment per annum.

Cremation the cure

It is now widely accepted that Cremation is the most sanitary method of disposal, and a proper cure for overcrowded cemeteries and a necessary consequence of urbanisation. At the same time, whilst the practice of Cremation is still the exception rather than the rule, the costs necessarily involved are low compared with those for burial, £5 or £6 being the usual inclusive price, and it is an established economic fact that a crematorium will, after the initial period of a year or two, become self-supporting.

The Garden of Remembrance and the Chapel of Repose should be within easy walking distance of the home they serve: many existing graveyards might be reopened for this purpose. The central Crematorium, and the garden or park that surrounds it, must be easily accessible to mechanical transport from all parts and within walking distance of public transport services. A quiet approach road is essential.



SYSTEM OF CONSTRUCTION FOR A HOUSE OF STEEL

ARCHITECTS: MAX LOCK & M. J. BLANCO WHITE

GENERAL—This system of house construction, which is also suitable for schools and other types of building, has been developed for an engineering company. The main objectives of the system are to provide permanent houses with all amenities and to standards recommended by the Reports of the Burt and Dudley Committees, and to draw upon the large available resources of simple mass-produced steel building members and of labour trained in speedy steel erection.

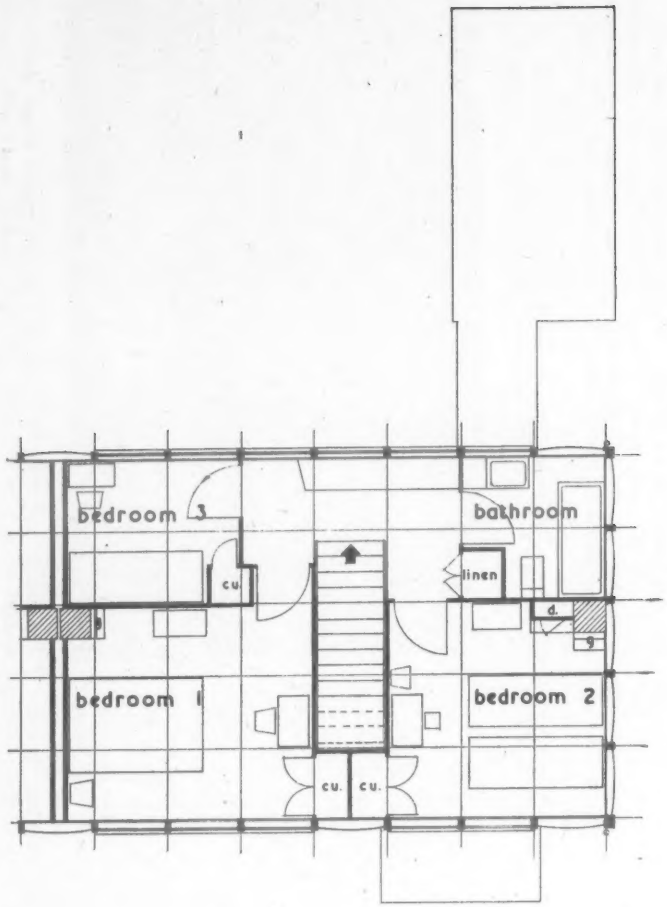
Dry construction is used for all work on the houses above the foundation level. The roof is erected immediately after the framework, so that all other work is done under cover.

CONSTRUCTION—This is of light rolled-steel frame with two-storey high verticals at 3 ft. 6 in. centres. This spacing has been found convenient both for the use of standard metal windows and for the width of sheets available for wall panels. The wall panels consist of 14 g. steel sheets which may be either curved as on the model, or ribbed, to provide rigidity and allow for expansion. They are backed by an insulating layer and a plaster board or other lining.

The first floor spans the full depth of the house for simplicity and quick erection, and consists of steel joists built up from standard rolled sections and a sectional wood or gypsum decking, or other suitable material. The joists give a good fixing for a suspended plaster board ceiling or, if the plan is based on the 3 ft. 6 in. structural grid so that the joists run regularly in the rooms, a raised ceiling between exposed joists may be used.

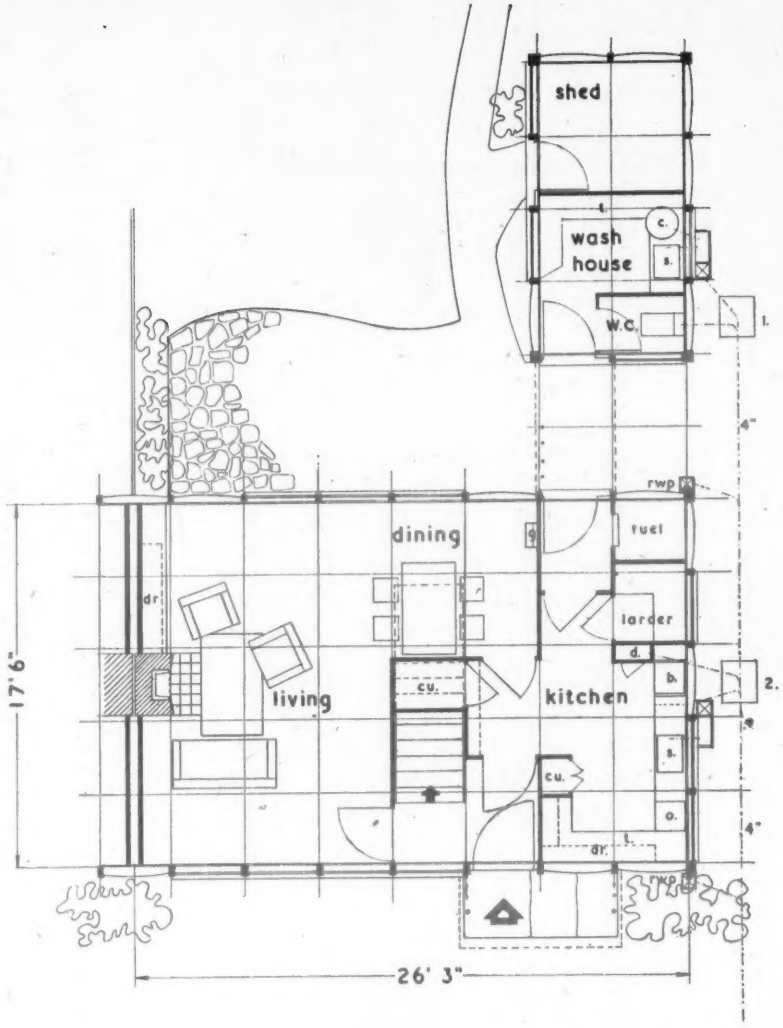
The roof is strutted off cross beams similar to those at first floor level, and consists of 14 g. sheet steel trays 3 ft. 6 in. wide with a pressed steel cover mould, all steelwork being suitably protected against

Top, elevation of a three bedroom house in the system whose plan, section and other elevations are shown overleaf. Below, model of an alternative design in the system.



first floor plan

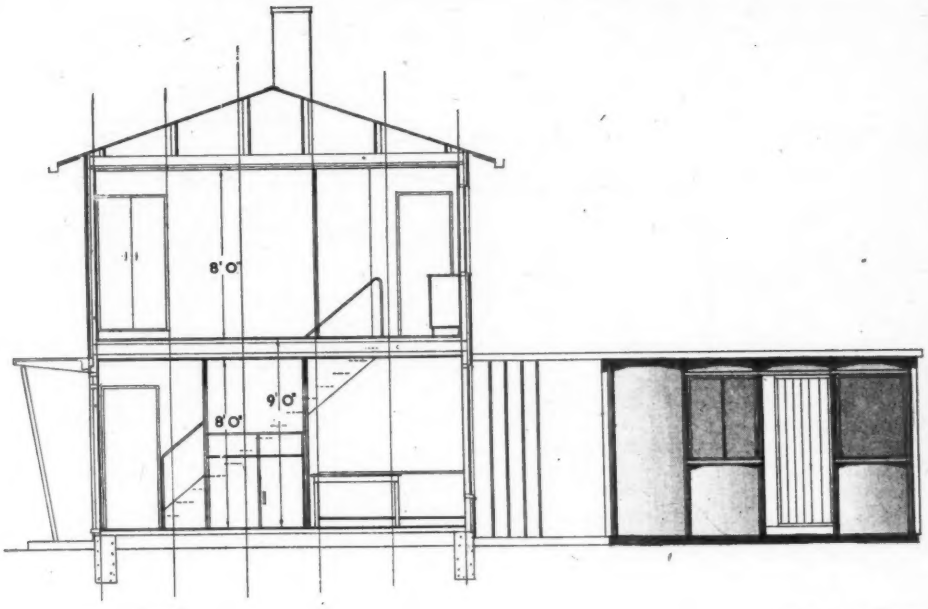
s. sink
c. copper
b. boiler
t. table
o. oven
dr. dresser
cu. cupboard
d. duct. plumbing.
m. meters
g. gas fire



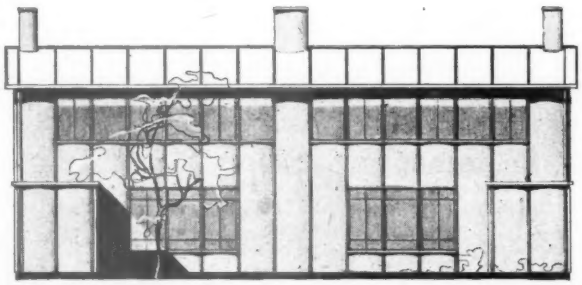
ground floor plan

PLANS OF THE THREE BEDROOM TYPE

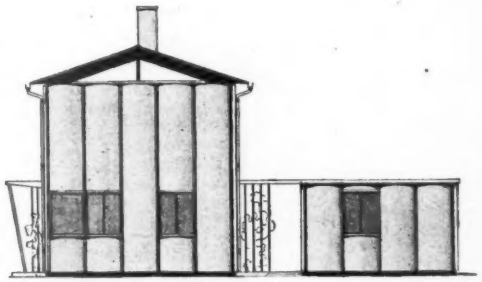
[Scale : 1/8" — 1'0"]



SECTION [Scale: ¼" = 1'0"]



GARDEN ELEVATION [Scale: 1/16" = 1'0"]



SIDE ELEVATION

corrosion. These are backed by an insulating layer, and the insulation of the roof is completed by the suspended ceiling. Alternatively, light rafters to carry orthodox roofing may be substituted for the steel trays in localities where a normal roof covering is preferred. The roof may be either pitched or flat and either hipped or gabled.

Chimneys are built up in sections, a fire-resisting lining being precast into a concrete covering.

The stairs are in a single straight flight running in the direction of the first floor joists. They may thus be economically prefabricated in pressed steel with wood or composition treads.

Any type of partitions may be used, no partitions being structural.

Plumbing units are compactly arranged round a vertical duct. No pipes interfere with the structure, and the plumbing may be preassembled.

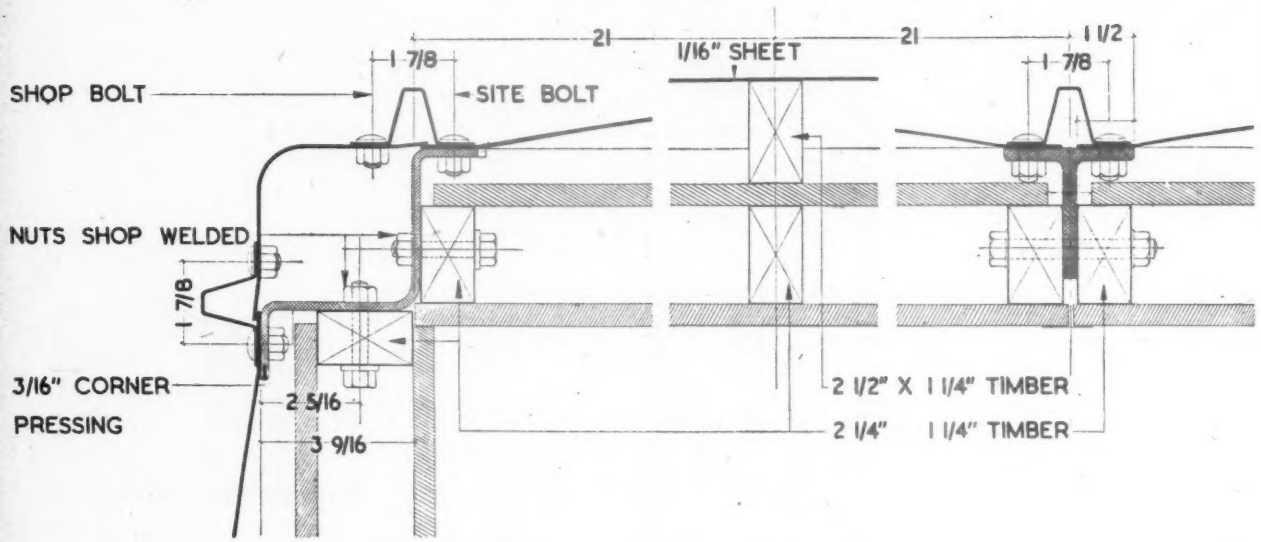
The total weight of construction is some 20-25 tons for a house of 900 sq. ft. floor area, compared with some 50-60 tons for a house of brick, timber and tiles. Thus the foundation load is light. The foundations consist of an *in situ* concrete footing into which rag bolts are cast. The ground floor is of *in situ* concrete with waterproof layer, and composition flooring of low thermal conductivity.

PLANNING—The system allows an almost unlimited variety of shapes and plans. The whole internal floor area is quite free from structural walls or supports, allowing the ground floor arrangement to be varied, for instance, from one house to another while the upper floor plan remains standard.

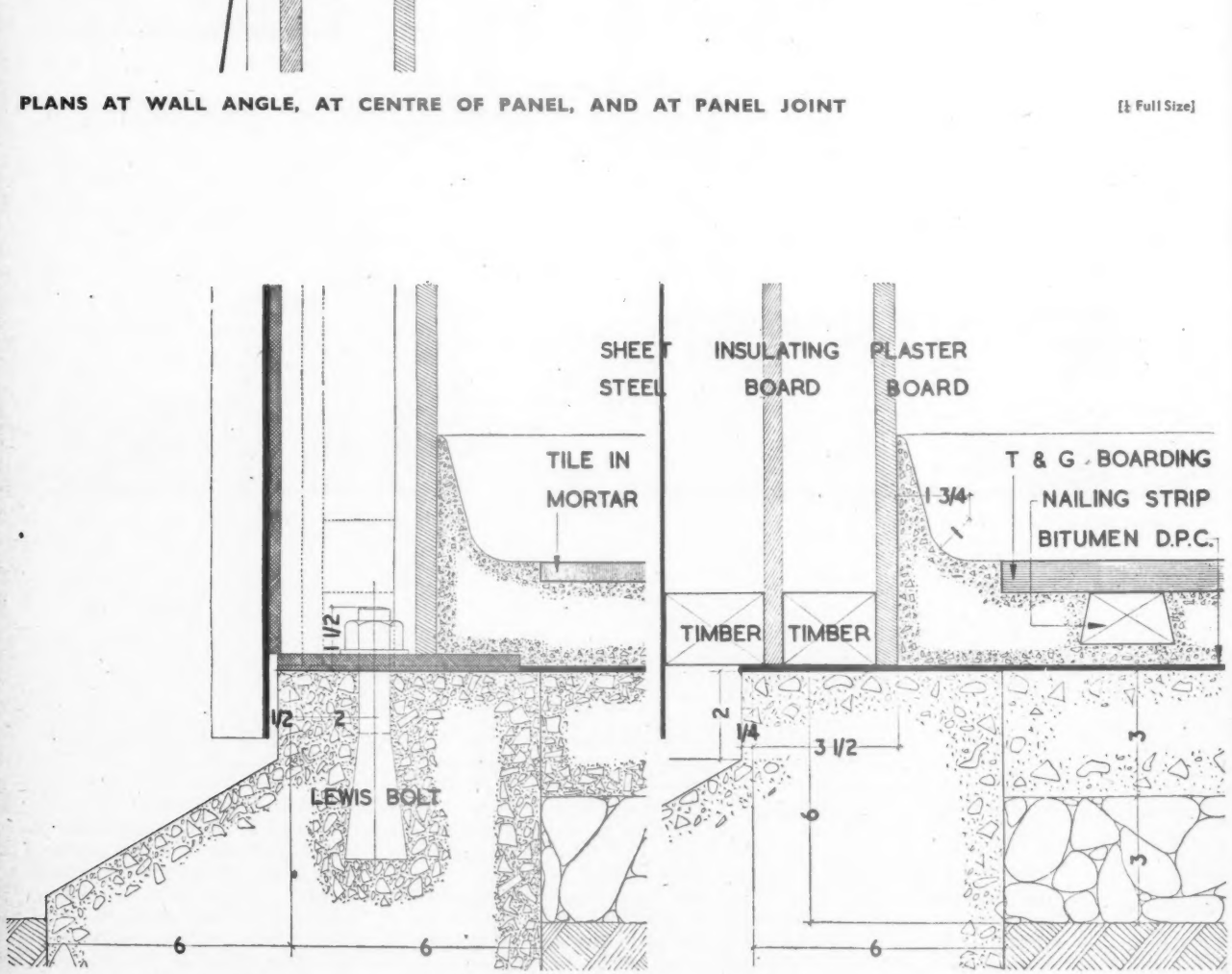
The weight of the floors and walling is directly carried by the steel verticals at 3 ft. 6 in. centres so that there is no need for lintels.

Alternative plans have been designed by the consultant architects one of which is illustrated here. Another plan, not illustrated, has living-dining-room, parlour, and four bedrooms.

SYSTEM OF CONSTRUCTION FOR A HOUSE OF STEEL



PLANS AT WALL ANGLE, AT CENTRE OF PANEL, AND AT PANEL JOINT [½ Full Size]



SECTIONS AT PANEL JOINT AND AT CENTRE OF PANEL AT GROUND FLOOR [½ Full Size]

SYSTEM OF CONSTRUCTION FOR A HOUSE OF STEEL

INFORMATION CENTRE

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

MATERIALS

2134 *Corrugated Glass*

LE VERRE ONDULE. *A. Mallet.* (*L'Architecture Française, Juin,* 1945.) Corrugated glass, new roof material.

The increased load bearing capacity of a corrugated sheet as compared with that of a plain sheet is well known. Both corrugated steel and asbestos are popular materials, often used as roofing. Corrugated glass, reinforced with a wire mesh, was used in France already a few months before the war. The standard sheets are 6 mm. thick (about $\frac{1}{4}$ in.), 3 ft. wide and manufactured in lengths of 4 ft., 5 ft. and 8 ft., respectively. Their weight is approximately 4 lb./sq. ft.

Tests on sheets of 7.2 mm. thickness and 3 ft. width on a span of 6 ft., gave the following results:—

Max. load, evenly distributed, 820 lb. (= 45 lb./sq. ft.).

Max. load, applied as knife-edge load in the centre of the span, 540 lb.

Owing to its reinforcement, corrugated glass offers much more resistance to shock than plain glass and, in case of failure, does not disintegrate. Light diffusion by corrugated glass is better than that by plain glass. (See also Astragal's note on corrugated Perspex, A.J., 13.9.45, p. 185.)

2135 *Rendered Finishes*

EXTERNAL RENDERED FINISHES. *F. L. Brady.* (*Architectural Design and Construction, August,* 1945, *pp.* 202, 205.) Report of ASB lecture at RIBA dealing with knowledge gained during pre-war visit to several Continental countries.

Rendered buildings in this country often look shabby after a period varying according to the site and aspect of the work, not as a result of rapid general discolouration, but because of differences in the degree of discolouration. Studies made by BRS have pointed to the desirability of modification in the materials and possibly also in the technique of application. In particular, the advantages of using a "weaker" rendering mix, as a means of minimising cracking, have been demonstrated. Experience with rendered finishes on the Continent was on the whole successful. In 1937 a survey was made of the methods used in Germany, Austria, Czechoslovakia and Switzerland. The observations were recorded by films. The characteristic features in respect of which continental practice differs from that customary in this country are:—

(1) Use of mixtures of lime and cement.
(2) Application by throwing-on, not laying-on by trowel.
(3) "Scraping" to produce a textured finish.
(4) Protection of projections and horizontal surfaces by flashings.

EQUIPMENT

2136 *Back-to-Back Range*

THE YORKDAL BACK-TO-BACK RANGE. (*Smokeless Air, Summer,* 1945, *p.* 17.) Description of new multi-purpose appliance.

The living room is heated by a continuous burning openable stove of modern design. On the kitchen side is an oven heated from the fire, and a gas cooker is also provided. A back boiler provides the hot water and it is stated that an adequate supply can be obtained even when the fire is "slumbering." A chimney breast is unnecessary, the flue being contained within a duct provided, and placed in the kitchen. The duct also serves to convey warmed fresh air to the bedroom. An illustration is given.

2137 *Gas Kitchens*

KITCHEN PLANNING. (*British Commercial Gas Association,* 1, *Grosvenor Place, S.W.*1, 5*s.*) Brochure of new plans and suggestions for labour-saving kitchens based on joint research by the Gas Industry and Jane B. Drew. Useful examination of kitchen planning and equipment not confined to heating and cooking appliances. (See A.J., 1.3.45, pp. 173-176.)

This is a well-produced 64-page brochure. Circulation and planning requirements are analysed first. There follows a section dealing with equipment with illustrations of many unit cupboards, etc. This section contains a number of useful suggestions on details which are often overlooked even in modern kitchens. A short and not too convincing section on plumbing deals with house plumbing generally. A section on planning the fuel service naturally advocates gas or coke appliances, and there is a table showing the estimated fuel consumptions for five combinations of appliances for house heating, cooking and hot-water supply.

The importance of good colour schemes is discussed and four suggested designs are illustrated in diagrammatic form.

Flues are recommended as the proper method of ensuring adequate ventilation to rooms, and it is pointed out that the provision of a flue will also enable a gas appliance to be fitted.

Lighting is included in the survey and, although it is not specifically stated, it seems to be assumed that this will be by electricity, and fluorescent lighting is mentioned. It is pointed out that for adequate lighting two light sources will be required.

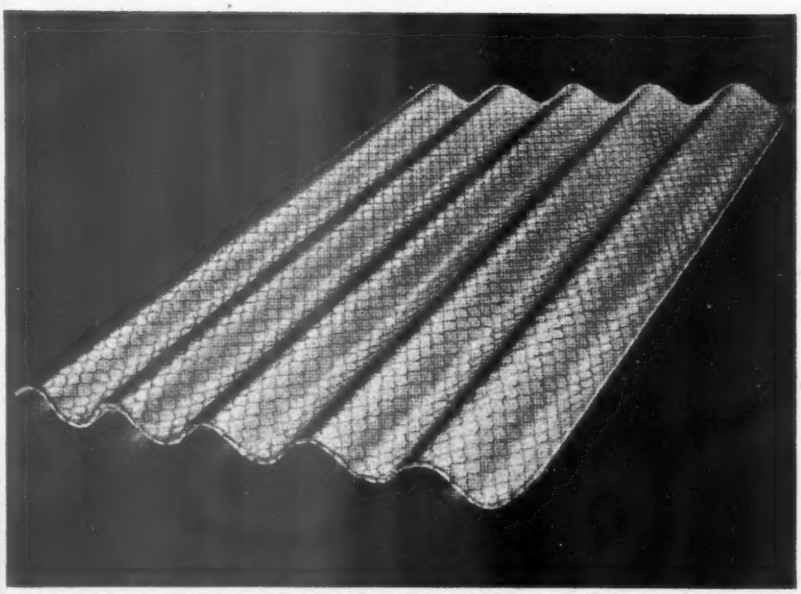
Common objects to be stored in kitchens are illustrated and their dimensions given. There is a section dealing with conversion of existing kitchens and a thought provoking section on accidents in which one is reminded that there are more fatal accidents in the home than on the road.

The brochure concludes with suggested designs for six kitchens of various sizes, including a Package Kitchen and a Kitchen-bathroom Unit.

2138 *Solid Fuel Appliances*

THE NEWER HEAT PLANS FOR HOUSING. (*Brochure by Coal Utilization Joint Council,* 54, *Victoria Street, London, S.W.*1. 2*s.*) Solid fuel appliances of new types described and illustrated. House plans using these appliances illustrated. Estimated running costs given.

This brochure, which is attractively produced, commences with a summary of improvements in space-heating and cooking appliances, together with an outline of the basic considerations governing their choice. Several recent designs are then illustrated, including the continuous burning type of open fire, which gives convection in addition to radiant heating. (See Astragal's note, A.J., 14.6.45, pp. 436-7.)



A sheet of wired corrugated glass, a new French material. See No. 2134.

A smokeless fuel open fire is also illustrated. A sectional diagram illustrates the principles of the open fire, including an under floor air duct and a capacious ash box to take a week's ashes. Unfortunately no dimensions are given. An alternative to the continuous burning fire is the open-close stove, which is claimed to have an efficiency of 65 per cent.

Multi-duty units illustrated are a combination grate and a back-to-back grate. Some of the new types of cookers use convection heating for the oven. This should reduce the need for oven flue cleaning. Insulated free standing cookers are also shown, and there is one illustration of an independent hot water boiler and one of a wash boiler fitted with a condenser to prevent steam escaping into the room.

The figures on fuel usages appear to be estimates, as no mention is made of tests or even of trial runs. Some more convincing evidence of these claims would be valuable, but it is clear that the solid fuel appliances of the future are going to be vastly better in efficiency than those of the past. Whether they will be more economical on a capital cost plus running cost basis remains to be seen. A table in Appendix I shows the justifiable increase in capital cost for various economies in running cost, but no indication is yet given as to the probable capital cost of the appliances described. Doubtless the intention of this brochure is to give preliminary publicity to the general type of improvements to be expected. Later no doubt will follow from individual manufacturers details of performance, size and cost.

LIGHTING

2139 **Restaurant**

LIGHTING A MODERN RESTAURANT. *F. H. Blumer.* (*Lighting and Lamps [America], January,* 1945, *p.* 16.) Ideas on restaurant lighting. Good sketches.

This short article shows that some of the American lighting designers are making rapid headway with ingenious lighting based on a sound knowledge of vision. In particular they recognize the value of incandescent lamps mixed with fluorescent and other large-area sources, the latter to give high general illumination and the former for the all-important high-lighting of diners and their tables. Sketches by Donald Deskey illustrate the principles cleverly.

2140 **Hotels**

LIGHTING FOR HOTELS. (*Lighting and Lamps [America], February,* 1945, *p.* 20.) Principles to be followed. Examples and sketches.

This article is based on a portfolio by an American lighting company. Reference is made to the various parts of the hotel, the lobby, coffee rooms, bars, guest rooms, and so on—and suggestions are made for good practice. For instance, in lobbies, a medium level is recommended for general lighting, with low brightness contrasts, and good direct light on the reception desk only, or upon any similar items in the room, so that visitors find their way quickly.

Several drawings are provided, which illustrate the points put forward.

The article is useful, but the principles are not so well stated as in other recent publications.

2141 **Streets**

STREET LIGHTING IN TOWNS AND VILLAGES. *H. E. Mahan.* (*Lighting and Lamps [America], February,* 1945, *p.* 24.) Purposes of street lighting. Review of IES recommendations.

This article on American practice is pleasantly direct. It draws attention to the usual reasons for street lighting—to ease traffic problems and to help policing, and also for safety; apparently in the USA 60 per cent. of accidents occur at night, though traffic is only 30 per cent. of the daylight volume. A characteristic additional point is the sales value of good lighting, to make a town popular in the district.

There is a brief review of the American IES Street Lighting Recommendations for spacing, height, size, and type of lamp.

2142 **Domestic Fluorescent Lamps**

THE POST-WAR HOME WILL BE FLUORESCENT LIGHTED. *F. Fernan.* (*Lighting and Lamps [America], February,* 1945, *p.* 26.) Fluorescent lamps for post-war use. Sketches.

The article is a chatty description of some new fluorescent fittings, with sketches mainly based on the use of the new circular tubes. The sketches are attractive and suggest ideas. It is worth noting that incandescent light is still retained as part of the lighting system.

2143 **Modernising Old Installations**

MODERNISING OLD LIGHTING INSTALLATIONS. *H. L. Miller.* (*Illuminating Engineering, November,* 1943, *p.* 504.) Adaptability of old circuits for modern light sources and intensity requirements.

HEATING and Ventilation

2144 **Heat Pump**

HEAT PUMP EXPERIMENTS AT NORWICH. "*Meteor.*" (*Electrical Times, June* 28, 1945.) Report of first large installation in this country of a heat pump. Other installations projected. Probable high efficiency and resultant saving in fuel.

2145 **Electric Cables**

JUTE-INSULATED CABLES FOR ELECTRICITY SUPPLY AT VOLTAGES NOT EXCEEDING 660 VOLTS. *BS* 1216, 1945. (*British Standards Institution,* 2*s.*) Previous specification was in BS 7:1926 for various cables, since re-issued to cover only rubber-insulated type. Covers standards for the copper, standard sizes and the insulation and metal sheath.

PLUMBING and Sanitation

2146 **Water and Drainage**

WATER, DRAINAGE AND THE COMMUNITY. *Rolt Hammond.* (*J. M. Dent & Sons,* 3*s.* 6*d.*) One of series of books sponsored by Co-operative Permanent Building Society. Deals in non-technical way with technical problems of water supply to the community, with one chapter on public health and sewage disposal.

It would be unfair to say that this book is of no interest to architects because, as a general picture of the problem of water supply as a national need, it is of interest to any thinking citizen, but it does not go into sufficient technical detail to be of professional value. A long chapter on famous water supply schemes includes interesting notes on the enormous schemes carried out by many of our large cities.

ACOUSTICS and Sound Insulation

2147 **Church Bells**

THE SOUND CONTROL AND HANGING OF CHURCH BELLS. *J. H. R. Freeborn.* (*RIBA Journal, September,* 1944, *p.* 283.) Design of towers for bells. Conditions for ringers.

The author first discusses the acoustic problem—*i.e.*, the position of the windows, their louvring, and the value of lanterns. Much valuable knowledge about these has been acquired by experience, but one is left wondering whether they could not benefit through experimental study.

The insulation of the room for the ringers, who are bound to be only a short distance below the bells, is obviously important. The author recommends a somewhat curious mixture of traditional and modern techniques, some of which are ingenious and again represent valuable experience, while others are questionable. Recent studies of insulation might be applied with advantage.

Extended reference is made to bell frames, with useful comparisons between timber and metal. Their influence on the stability and design of towers is noted, and many other interesting details of construction are examined briefly.

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.*

2148 **Film Production Centre**

Q *I am collecting data for a Film Production Centre and would be glad of sources of information on this subject, especially in the planning, construction and equipment of American and European film studios.*

A We suggest the following:—

Builder, 16 October, 1936.

Architectural Association Journal, June, 1937.

Building, April, 1937.

Architect and Building News, 4 and 18 September, 1936; 22 March, 1929; 8 March, 1940.

Architects' Journal, 27 August, 1936; 3 December, 1936; 5 August, 1943.

There is also an article on the acoustics of film studios by C. W. Glover in the *Kinematograph Weekly,* 20 February and 3 April, 1930.

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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 economize space the bodies concerned are represented by their initials, but a glossary of abbreviations will be found on the front cover. Except where inverted commas are used, the reports are summaries, and not verbatim.

DIA

L. G. Couzens

At Burlington House, London, W.1. Meeting of the Design and Industries Association. Talk on PLASTICS by L. G. Couzens, A.R.C.S., B.SC., Research Manager, B.X. Plastics. Chairman: John Gloag, Hon. A.R.I.B.A.

John Gloag: The Association is fortunate in securing as the reader of this paper Mr. L. G. Couzens. Mr. Couzens fills me with an emotion which I can only describe as sick envy, having, with Dr. V. E. Yarsley, written a book on the subject, of which 150,000 copies have been sold, whereas a book of my own on the same subject, not nearly so comprehensive or so good, has sold exactly 3.3 per cent. of that number. The only thing that comforts me is that Mr. Couzens' book is in the ninepenny seats, whereas my own is more expensive.

I understand that another 50,000 copies of Mr. Couzens' book is now in the press, and I advise everyone to obtain and read it; it is the most illuminating, able and lucid work on the subject in the English language. Mr. Couzens is the Research Manager of B.X. Plastics, Ltd., and has been responsible for the last twenty-five years for the development of the original synthetic camphor plant and the acetate products known as Bexoid and the production of photographic film base, all at the B.X. plastics works.

L. G. Couzens: Plastics are an extraordinarily complicated subject about which there has been a good deal of propaganda, as you all know; and I have to confess that I have played a very unworthy part in this particular crime—for crime it is: of that I am convinced. In fact, I stand here in a white sheet to explain that the very glowing picture which we drew at the end of our little book, in which we talked a great deal about the Plastic Age, was a frightful lot of hooey. One has, of course, to *epater le bourgeois* from time to time. Mr. Alan Lane said "You must write something about the future of plastics," and so we wrote something about the future of plastics. If we were to look at this Plastic Age, as it was described there, especially if it had been created by some of the people who have been handling plastics lately, I think we should have seen a rather different picture. We should have found that we could not look out of our windows because they were scratched, that our floor surfaces became extremely dirty, that everything that could warp or shrink warped or shrunk, and that in one way or another it was a pretty dim affair.

It need not be as bad as all that, but I am quite sure that the picture which we painted was a very optimistic one, and perhaps one which will never be realised. Let us say rather that it was just an incentive to the people who are working on these things. It had a deleterious effect in some respects, but I think that the things that went wrong would have gone wrong in any case, because in America (which one would imagine would be immune from the influence of so trivial a performance of an English *Penguin*) much worse things have been done; the reason being that people go in wildly for these new compounds without finding out just what they will and will not do.

MISUSE OF PLASTICS

It all comes back to the effect of choice. A great deal of heart-searching has arisen from the fact that during the war there was an enormous demand for materials which were not available, and, as a consequence, what I might call the ersatz aspect of plastics was perhaps unduly developed. It is true that at the same time there have been most remarkable developments in other directions—very favourable developments—and things have been done which have never been done before, but there has been this aspect of substitution, from which we want now to get away. We want to get plastics on to a realistic basis and see that they are used for their proper jobs.

An example of the sort of thing that happened during the war is the use of cellulose acetate sheet instead of aluminium for many non-structural purposes. It was sometimes found unsatisfactory. I remember the tail feathering of a particular aeroplane which was made of cellulose acetate and was a complete failure; it was then made of alpha-cellulose, and was a complete success. The American journals are full of examples of failure through choice of the wrong material. For instance, they made shower heads of thermo-plastic material. I take it that you all know the difference between thermo-plastic and thermo-setting materials. Thermo-plastic materials can be softened and resoftened indefinitely without any alteration in their properties, whereas thermo-setting materials are soft and flowing in their original condition, but become set owing to chemical reaction during the moulding process, and thereafter remain set: hence the name. This shower head was all right for cold water and was all right for warm water, but for a really hot bath it was hopeless. My own spectacles are a deplorable example of the use of plastics. I can say that without implicating anybody else, because I designed the stuff of which they were made; but they have shrunk, and so opened out, and I am so disgusted with them that I have just bought a pair of real tortoiseshell.

Sink stoppers may be made of the wrong material, and the washing-up water will soften them. Safety-razor heads made of thermo-set plastics will be brittle, and if dropped will break, but if the handle is made of thermoset material the combination will probably be satisfactory. All sorts of parts are made in wood-filled bakelite material, which probably ought to be made of shock-resisting materials, and if you drop them on the floor they break.

In some cases the fault lies not with the choice of material but with the design. I have here a cup which has been damaged; a little boy broke a piece off with his teeth and ate it. It is very thin at the edge, where it ought to be thick. I have read in American journals of children buying toys made of rather heavily filled urea formaldehyde materials, which they eat in their entirety. That is bad practice, and it is very bad, incidentally, for the child, because these things are indigestible. There is no hope of plastics being used as ersatz food material.

An amusing example of the wrong use of plastics comes from America, where temperatures, both climatic and emotional, run at a higher level than in this country. A man sold a lot of coat-hangers to some GIs in Miami, where it is very warm, and when they came back from their exercise they found all their beautiful clothes on the floor, because the coat-hangers had collapsed. They were made of a highly plasticized material which looked very nice but was unsuitable for the job. It was no reflection on the material. That is the tragedy from our point of view, that one failure of plastics owing to bad design or the use of inappropriate material does an amount of harm which cannot be counterbalanced by large numbers of good performances; and so we manufacturers are even more interested in the choice of the right material than you are.

Another thing that we have to bear in mind is that many plastics contain what are known as plasticizers—softening materials which are added and which often have an objectionable odour, or which leak out when subjected to the action of hot foods. I do not think we can recommend tricresyl phosphate as an ingredient of rice pudding.

PLASTICS ARE AUXILIARY MATERIALS

What is the remedy for this sort of thing? I think we must get away, first of all, from the idea that plastics provide a universal constructional material. They do not. The nearest approach to constructional material, in the sense of a material out of which it is possible to make quite large and very varied articles, is, I think, in the laminated industry. I said earlier that I should be moving in uncharted waters, and I do not know a great deal about laminates and thermo-setting materials, my own field being the thermo-plastics; but it is very well known that the laminated method, in which the plastic material is used as a glue and not as a substantial constituent, can give very good results. The methods are very varied, and use may be made of paper, of wood or of fabric.

I suggest that that gives a clue to the proper way of looking at plastics. Plastics, to my mind, are auxiliary materials, and have enormous value if regarded in that light. They have, of course, a number of very good uses of their own. Many examples spring to the mind—toothbrushes, table tennis balls and combs, among others. I think you will find that the reason why plastics are so successful in those fields is that there is no substitute for them; they are often doing jobs which have never been done before. If you had to make table tennis balls by turning them out from an elephant's tusk, and by some magic making them hollow as well, you would not have much table tennis. Many of these industries are very large. You may wonder whether table tennis balls are important. Just before we stopped exporting materials to America, we were sending America 17,000,000 table tennis balls per annum. In a number of cases plastics have their

own job to do, and to do it well. In general, however, they are used for fittings of all kinds, and used in connection with other materials.

NEW TRAINS OF THOUGHT

Some years ago, the Toledo Scale Company in America thought they would like to make their scale lighter—it weighed 165 lb.—and so they set to work to find a plastic material which would do it. They started from scratch, but I think I am correct in saying that they worked on parallel lines to work which was being done to a considerable extent in this country, and they developed on their own a urea formaldehyde material known as Plaskon. I do not wish to advertise that; I merely mention it in passing. In their literature they claim a great deal for it, but it is no better, I am sure, than any other moulding powder of the same kind. They set to work to consider how to use this moulding powder for a housing for their Toledo scale, and they found they had to make a very large housing and it had to have a very heavy content. The heavier the content of what you are housing, the greater the danger of breaking the housing and the greater the difficulty of moulding the housing, if it had to be large. They therefore considered re-designing the Toledo scale, and they thought to themselves, "This scale weighs up to 30 lb., but how many people, even in America, buy 30 lb. of sugar or pork or whatever it may be at a time?" They discovered that the limit was 18 lb. for a Thanskgiving turkey, so they made their scale to weigh 18 lb. Then they found that if the scale had to weigh only up to 18 lb., they could do many other things as well; they could re-design the chart and make it of aluminium, and get a whole scale of prices on their special standard chart, and so on. The net result was a most beautiful job, with a plastic housing perfectly suited to the re-designed scale, and the whole thing weighed only 55 lb. That is typical of the sort of thing that can happen with many plastics, because a new train of thought is started by the use of a new material.

VARIETIES OF PLASTICS

The technical background of plastics is very complicated. There is no need for me to elaborate the enormous number of varieties, but having said that I shall mention some of them. In the thermo-plastic field there are all the cellulose plastics; there are the nitro-cellulose plastics, cellulose acetate, ethyl cellulose, and probably other mixed esters coming along; polystyrene, polyvinyl chloride, methyl methacrylate and so on and so on. Among the thermo-setting plastics are the formaldehydes—phenol formaldehyde, urea formaldehyde and others, and there are the alkyds, and so on almost *ad infinitum*. I think it is clear that no one can know the whole story about all these things. They are even more complicated, incidentally, than their chemical names would suggest, because the thermo-setting materials rely for their physical properties very largely upon the fillers which are put in them.

The thermo-plastics rely, as it were, upon their own properties. Perspex, for example, contains no filler, and relies upon its own properties for its use, so that there you are concerned solely with the property of the stuff itself, but when you come to the thermo-setting materials you are dealing, as I have said, with materials which rely for their physical properties mainly on the fillers which are put in them. I have referred to shock-proof and wood-filled materials. I have here a trolley wheel with roller bearings which is a beautiful job and has enormous shock-resistance. That is achieved by making it of pieces of fabric which have been impregnated with Bakelite resin, which by itself is quite a brittle material, and so producing a material which is very strong and will stand an enormous amount of shock.

I have here also a Bakelite material of a shock-resistant type, a vacuum cleaner motor housing. If that was made of unsuitable Bakelite material, it would be useless for its job, but the manufacturers can tell you of what kind of material it should be made. The shape of it can be almost anything you like, so long as you do not have too many re-entrant angles. I spoke disparagingly of a damaged cup, or rather mug, which I showed you earlier, and I was careful to point out that the defect lay principally in the design. At the other end of the scale, I have here a tray made with an improved version of the urea formaldehyde type of material which will stand enormous rough usage. It is paper-filled, designed specially for its job, and water-resistant. That is a case where the material has been most carefully chosen for the job, and, I imagine, designed in accordance with the manufacturer's specification.

DESIGN OF PLASTICS

It is essential to emphasize that there must be the most complete co-operation between the designer, the maker of the object, and the people who make the raw material. In laminates it is possible to go wrong over the choice of the laminated material—whether it should be paper, fabric or wood. It is possible, having decided to use paper, to use the wrong paper, or to use the wrong pressure, so that the final material does not have the property you expect; you may use a flat, strong paper to make a curved surface when you should use a crêpe paper which can take stretch in two directions. The whole situation, therefore, is very complex.

I feel the utmost unwillingness, in the circumstances, to enlarge on the question of design, but I have a few ideas on the subject. They are entirely my own, and perhaps not particularly important. I have the feeling—I do not know whether you will agree with me—that it is all too true today to say that plastics cost a great deal of money and look horribly cheap. Why? I think it is largely because they are nearly always made too thin. A very good example of a most successful massive design in plastics is the telephone, and you all know how extraordinarily resistant to shock that is; sometimes it will not work unless you hit it violently, but hitting it violently does not do it any harm.

You may say that plastics are expensive. They are; but they are not enormously expensive compared with metal, because the fact must be borne in mind that they are very light. Taking the price of copper as 1s. a lb.—copper weighs eight times as much as plastics—so that a copper object would cost, say, 8s. per unit, as against a cost in plastics to-day of 2s. or 3s., up to, say, a maximum of 5s. Plastics have an advantage in a case such as that. If aluminimum drops to 9d. a lb., as it is expected to do, this trouble will be acute; but you have to remember that plastics are extraordinarily easy to fabricate, particularly with mass production methods. If an appearance of solidity is put into plastics there will be a great gain in marketability, and solidity will improve their suitability for the rough work which they have often to do and the rough usage to which they are subjected in the home and in industry.

It is sometimes necessary to sacrifice colour in order to use shock-proof material. Personally that does not worry me at all, because in fact these "beautiful coloured, shining surfaces" which I let myself go about when we wrote our little book do not appeal to me. I have not very much appreciation of that kind of thing; I like wood and I like old-fashioned designs. That, however, is not relevant to this discussion. You have to face the fact that if you want to get certain properties you must be prepared to face certain colour limitations. None the less, objects made of these materials may be pleasant, and shape may compensate for the lack of colour range.

Another way in which I think that plastics can be made more attractive is in metal combinations. I believe that chromium finishes in particular, and possibly anodized aluminium finishes, can look very nice in conjunction with plastics, and can often be designed so as as to provide what is actually a stronger object. I mentioned a very simple example of that when I spoke of the safety razor and the choice of the parts which should be made of plastics.

When you use any of the beautifully transparent materials, do make sure that you make use of their special optical properties. Perspex is a most beautiful material, of marvellous transparency, and when worked up can be very attractive; but you should bear in mind when using it that the people who handle Perspex can tell you at what angles you should cut your bevels and what designs you should use to bring out to the full the special qualities of the high refractive index of Perspex. I have here a green eggcup made of Perspex. I think that this is a mistake, and rather a waste of the material, because the attraction of Perspex lies in its beautiful transparency, which in this instance has been deliberately destroyed.

MANUFACTURE OF PLASTICS

The position with regard to plastics and their manufacture requires a little elaboration. The plastics industry is divided into three phases. The first stage is the synthetic chemist, the chemical manufacturer who makes the long molecules, and from him the manufacturer in the second stage buys his raw materials. The next stage is the manufacturer of the sheet, the rod, the tube, the moulding powder and the film, which is to be turned into the object. The third stage is the fabricator who from the sheets, rods, tubes or powders makes the article. You may put it in another way and say that the first group of people make long molecules, the second group of people buy long molecules of the right length and shape and so forth and turn them into standard forms, equivalent to the standard forms of other materials—namely sheet, rod, tube, or powder—and the third group fabricate the articles which you handle or sell.

That is a complicated series, and your first step, if you are going to make or design anything, is to get back to the moulder and find out what he thinks about it. If you are not satisfied that he knows the whole story—and he may not always do so—you must go back to the technicians who actually make the materials themselves. How can you do that? It seems to me that what you ought to do, when you have any major job to do, is to consider all the possible uses to which the material will be subjected, including—and this is most important—all the wrong uses. You want to devise for yourself a sort of questionnaire which will cover every aspect of the possible use of the material.

In such a very simple industry as the toothbrush industry, for example, you will discover that some people have the curious habit of boiling their toothbrushes, presumably because they think that it will sterilise them. Toothbrushes, however, do not like being boiled. If the number of people who do it is small, perhaps you can write them off as being on the lunatic fringe; but if they are numerous you will have to devise a toothbrush which will stand being boiled. If you are going to use plastics for a toothbrush, you will have to ask yourself whether anyone will boil it. In the same way, if you are going to use plastics for a shower head, you must consider what will be the temperature of the water to which that head will be subjected.

If you make an industrial material, you

have to consider to what temperature it will be raised I have here a special plastic moulding which is mineral filled and which will stand a temperature of 150 deg. C. to 170 deg. C., and was designed for that purpose; but the average user of plastics will probably not know of the existence of that material unless he asks the manufacturer what to use. If, therefore, you draw up a questionnaire based on every possible aspect of the use of your material, and then pass that back to the technician, both sides will benefit. There is the further advantage that you will often find that the material which is precisely adapted to do a particular job does not exist, or does not exist here, and you will in that way create an informed demand for the material that you require.

PLASTICS AND THE FUTURE

Although I may have seemed to be somewhat pessimistic on the whole with regard to the possibilities of plastics, I want now to emphasise the fact that plastics are in their infancy, and that enormous strides are about to take place and are in process of taking place, and that it is very difficult to set a limit to what these materials will ultimately do. There are many materials which are available in America today which we very much want to make here, and the only way to get them made here will be to have a sufficiently informed demand for them which will enable us to put all the complicated machinery of today into force to get sufficient priority to be able to start making them. That is a most important point. We are largely in your hands with regard to many developments, because, after all, demand creates supply.

RIBA
Examinations

THE FINAL EXAMINATION, JULY, 1945

The Final Examination was held in London, Edinburgh and Belfast from July 4 to 12, 1945. Of the 77 candidates examined, 48 passed as follows:—

Whole Examination: Bay, P. L. Hansen (Distinction in Thesis); Bird, Charles L.; Brittlebank, Eric; Brock, Jack C. (subject to approval of Thesis); Crisp, Alan R.; Cutmore, William H.; Davison, T. J. Maurice (subject to approval of Thesis); Elliott, E. Graham; Ferguson, Brian; Hayhoe, Harold R. (subject to approval of Thesis); Jack, William; Jacob, Charles E.; Johnston, Cecil; Kelly, Gerard A.; Le Clerc, William P.; Luck, Leonard E. (subject to approval of Thesis); Melland, Guy S.; Mills, Wilfred E.; Moon, Arthur L.; Moon, Charles P.; Morrison, Samuel (subject to approval of Thesis); Phillips, Charles J.; Rosner, Rolf; Scott, Charles F. (subject to approval of Thesis); Scott, John; Stantiall, Harold J. G.; Statham, Stephen H.; Williams, Leonard P. (subject to approval of remaining Testimonies of Study); Wrigley, Derek F. (Distinction in Thesis).

Part I only: Bell, Donald W.; Campbell, Noel E.; Clark, Reginald W.; Downie, Margaret N. (Mrs.); Edwards, L. Carlton; Erber, Eric; Findlay, James R.; Hardstaff, Maurice; Hardy, Samuel D.; Husband, Raymond J.; Kitchen, Clifford A. (subject to approval of remaining Testimony of Study); Knapton, Alan D.; Needes, Percival J.; Patterson, Dennis (subject to approval of remaining Testimony of Study); Sakkides, N. O.; Smith, John; Tingey, Francis J.; Travis, Alan; Young, Frank W. (subject to approval of remaining Testimony of Study).

THE SPECIAL FINAL EXAMINATION, JULY, 1945.

The Special Final Examination was held in London, Edinburgh, and Belfast from July 4 to 11, 1945.

Of the 65 candidates examined, 31 (12 in Part I only) passed as follows:—

Whole Examination: Bell, Marshall; Bevan, John J.; Bone, John B.; Dawson, David W. K.; Gray, Joseph; Greed, John K.; Hazell, John L.; Hutchings, Stanley; Le Sueur, Albert; McGavin, J. Stewart; MacLynn, Cormac T.; Neill, Albert; Sanger, Harold; Skeats, George E.; Smith, Henry Percy; Vigour, I. John J.; White, W. Douglas; Wright, Alec Thomas; Yarwood, George.

Part I only: Bowden, Geoffrey L.; Boyle, G. Leonard; Claydon, John A.; Dawson, Henry D.; Frankel, Rudolf; Hall, Dudley R.; Hartley, Harold; Hermann, F. H. J.; Ingham, Arthur S.; Jenner, Herbert E.; Jones, Frederick W.; Page, Stanley G.

THE EXAMINATION IN PROFESSIONAL PRACTICE FOR STUDENTS OF SCHOOLS OF ARCHITECTURE RECOGNISED FOR EXEMPTION FROM THE RIBA FINAL EXAMINATION.

The Examination was held in London and Edinburgh on July 10 and 12, 1945. Three candidates were examined and passed as follows:—Jackson, David W.; Mitchell, Joseph E.; Rowbotham, Jeffrey.

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Replies to Box Numbers should be addressed care of "The Architects' Journal," War Address: 45 The Avenue, Cheam, Surrey.

Public and Official Announcements

Six lines or under, 8s.; each additional line, 1s.

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

CITY AND COUNTY OF THE CITY OF EXETER.

Applications are invited for the appointment of ASSISTANT ARCHITECTS on the permanent staff of the City Architect's Department.

The salary in the first instance will be £420 per annum, and will be subject to review. In addition there will be a cost of living bonus, which at present is £59 19s. 3d. per annum.

Candidates should preferably be A.R.I.B.A.'s, with experience in large scale Municipal Housing and/or Educational Buildings.

The appointments will be subject to one calendar month's notice on either side and to the provisions of the Local Government Superannuation Act, 1937. The persons appointed will be required to pass medical examinations.

Applications, stating age, qualifications, previous and present appointments with salaries and exact designations, full details of experience and date when available, together with copies of three recent testimonials, should be sent to F. R. Steele, F.R.I.B.A., F.S.I., A.M.T.P.I., City Architect, 2, Southernhay West, Exeter, not later than 12th October, 1945.

Members serving with H.M. Forces overseas may wire their applications in the first instance.

C. J. NEWMAN,
Town Clerk.

Town Clerk's Office, Exeter.
13th September, 1945. 700

NANTWICH URBAN DISTRICT COUNCIL.

ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment in the Engineer and Surveyor's Department at a salary of £400 per annum, plus bonus, at present £59 16s.

Applicants should be Associates of the Royal Institute of British Architects, or hold equivalent qualifications, and are registered Architects.

Candidates must have had experience in the design, preparation of working drawings, specifications, etc., for Housing and other architectural work normally carried out by a Local Authority, under the direction of the Engineer and Surveyor.

The appointment is an established post, and will be terminable by one month's notice on either side, and will be subject to the provisions of the Local Government Superannuation Act, 1937. The successful candidate will be required to pass a medical examination.

Applications, on forms obtained from the Engineer and Surveyor; Mr. E. H. Bailey, F.S.I., M.Inst.M. & Cy. E., Council Offices, Barker Street, Nantwich, stating age, qualifications and experience, accompanied by three recent testimonials, and endorsed "Architectural Assistant" must be received not later than 13th October, 1945.

D. TUDOR EVANS,
Clerk of the Council.

18th September, 1945. 704

URBAN DISTRICT COUNCIL OF MOUNTAIN ASH.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT (permanent) in the Architect's Department, at a salary of £250 per annum, rising, subject to satisfactory service, by annual increments of £10 to £300 per annum, plus cost-of-living bonus.

Candidates should have had good housing and general architectural experience. Preference will be given to candidates who have passed the Intermediate Examination of the R.I.B.A.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, is terminable by one month's notice on either side, and the successful candidate will be required to pass a medical examination.

Applications endorsed "Architectural Assistant," stating age, qualifications, and experience, and giving the names of two persons to whom reference can be made, must reach the undersigned not later than Monday, the 22nd October, 1945.

BERNARD M. MURPHY.
Clerk of the Council.

Town Hall, Mountain Ash
24th September, 1945. 728

CUMBERLAND COUNTY COUNCIL.

ARCHITECTURAL ASSISTANTS.

Applications are invited for the following appointments in the County Architect's Department:—

TEMPORARY ARCHITECTURAL ASSISTANT, Grade "D," of the Whitley Council scale, the salary being £360 per annum, rising, subject to satisfactory service, by annual increments of £15 to £405, plus Whitley Council cost-of-living bonus, at present £59 16s. per annum.

TEMPORARY ARCHITECTURAL ASSISTANT, Grade "C," of the Whitley Council scale, the salary being £320 per annum, rising subject to satisfactory service by annual increments of £15 to £350, plus Whitley Council cost-of-living bonus, at present £59 16s. per annum. An extra £10 per annum is awarded to Grade "C" assistants on passing the R.I.B.A. intermediate examination, and a further £10 per annum on passing the final examination

The appointments will be subject to the Local Government Superannuation Act, 1937, and will be terminable by one month's notice on either side.

Forms of application may be obtained from the County Architect, 4, Alfred Street North, Carlisle, and should be completed and returned to him not later than Monday, 22nd October, 1945.

G. ANDREW WHEATLEY,
Clerk of the County Council.

The Courts, Carlisle.
24th September, 1945. 732

COUNTY BOROUGH OF GREAT YARMOUTH.

BOROUGH ENGINEER'S DEPARTMENT.

APPOINTMENT OF GENERAL ARCHITECTURAL ASSISTANTS (PERMANENT).

Applications are invited for the appointment of two general Architectural Assistants in the Borough Engineer and Surveyor's Department, at a salary in accordance with Grade C, commencing at £365 per annum, rising by annual increments of £15 to a maximum of £410 per annum, plus cost-of-living bonus (at present £59 16s. per annum). Applicants must have had experience in design and construction, particularly in relation to housing, schools, and public buildings, and should be Associates of the Royal Institute of British Architects. The successful candidate will be required to pass a medical examination, and must contribute to the Corporation's Superannuation Fund. Applications, stating age, qualifications, and previous experience, together with copies of three testimonials, should be enclosed in an envelope endorsed "Architectural Assistant," and must reach the undersigned not later than 18th October, 1945.

Canvassing, directly or indirectly, will be deemed a disqualification, and candidates must disclose in writing whether to their knowledge they are related to any member of, or holder of any senior office under, the Council. A candidate who fails to do so will be disqualified, and, if appointed, will be liable to dismissal without notice.

FARRA CONWAY,
Town Clerk.

Town Hall, Great Yarmouth.
21st September, 1945. 727

COUNTY BOROUGH OF TYNEMOUTH.

BOROUGH SURVEYOR'S OFFICE.

TECHNICAL ASSISTANTS (PERMANENT).

Applications are invited for the following posts, all at a salary of £420 per annum, plus war bonus.

THREE SENIOR ARCHITECTURAL ASSISTANTS, who must be Associate Members of the Royal Institute of British Architects.

QUANTITY SURVEYING ASSISTANT, who must be a Professional Associate of the Surveyor's Institution (Quantities Section).

All applicants must be experienced in the preparation of drawings, specifications, and quantities, and the persons appointed will be required to contribute to the Council's Superannuation Act, 1937, and to pass the required medical examination.

Applications, stating age, experience and qualifications, and accompanied by copies of three recent testimonials, must be delivered to Mr. D. M. O'Horlihy, B.Sc.(Eng.), M.I.C.E., Borough Surveyor, Howard Street, North Shields, not later than the 17th day of October, 1945.

Canvassing, either directly or indirectly, will be deemed a disqualification.

Dated this 26th day of September, 1945.

(Sgd.) FRED. G. EGNER,
Town Clerk.

731

WOLVERHAMPTON AND DISTRICT JOINT PLANNING COMMITTEE.

Applications for the appointment of GENERAL PLANNING ASSISTANT to the Planning Officer of the above Committee are invited from persons who have had experience in Planning Schemes.

The salary offered is £300, rising to £360, plus war bonus, which at present amounts to £59 16s. per annum, but the commencing salary will be fixed in accordance with the successful applicant's experience. Experience in the preparation of detail maps and cartoons will be favoured.

The appointment is subject to the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination. The appointment will be subject to one calendar month's notice on either side.

Applications, stating age, qualifications and experience, and the position with regard to the National Service Act, accompanied by copies of three recent testimonials, marked in the top left-hand corner "General Planning Assistant," must be lodged with the undersigned not later than first post on 15th October, 1945.

J. BROCK ALLON,
Honorary Secretary.

Town Hall, Wolverhampton.
20th September, 1945. 718

COUNTY BOROUGH OF EAST HAM.

APPOINTMENT OF TEMPORARY TOWN PLANNING ASSISTANT.

Applications are invited for the position of Town Planning Assistant (temporary) from Associate Members of the Town Planning Institute or persons holding an equivalent town planning qualification, and competent to undertake work in all aspects of post-war redevelopment.

Commencing salary £485, rising annually (on approved service) by £20 to a maximum of £525 per annum, plus war bonus, at present £59 16s. per annum.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the Council's conditions of service and the successful candidate will be required to pass a medical examination.

Applications, on forms obtainable from the undersigned, and accompanied by copies of three recent testimonials, must reach me not later than Tuesday, 23rd October, 1945. Canvassing, either directly or indirectly, will be a disqualification.

C. V. THORNLEY,
Town Clerk.

Town Hall, East Ham, E.6. 722

COUNTY OF BERKS.

APPOINTMENT OF COUNTY ARCHITECT.

The Berkshire County Council invite applications for the post of County Architect from duly qualified Architects, who must be either Fellows or Associate Members of the Royal Institute of British Architects.

The commencing salary will be £1,100 per annum, rising by annual increments of £50 to a maximum of £1,400 per annum, together with the appropriate cost-of-living bonus. It is intended that the appointment should take effect if practicable on the 1st January, 1946.

Fuller particulars, terms of appointment and application forms can be obtained, on receipt of a stamped addressed envelope, from the undersigned, to whom applications should be delivered not later than Monday, 12th November, 1945.

H. J. C. NEOBARD,
Clerk of the Council.

Shire Hall, Reading. 723

BOROUGH OF SOUTHALL.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of an Architectural Assistant, on the permanent staff of the Council. Salary £365—£15—£425, plus cost-of-living bonus, at present £59 16s. per annum. Commencing salary according to qualifications and experience.

Candidates should be registered architects, and preference will be given to members of the Royal Institute of British Architects. Experience in the preparation of working drawings, specifications, surveying and setting-out in connection with housing work is desirable.

The candidate appointed will be required to pass a medical examination, and the appointment will be subject to the Local Government Superannuation Act, 1937.

Applications to be submitted to the Borough Engineer, Town Hall, Southall, Middlesex, together with copies of three recent testimonials.

Canvassing any member of the Council or any Committee thereof, directly or indirectly, will disqualify.

M. LINDSAY TAYLOR,
Town Clerk.

Town Clerk's Offices, South Road,
Southall, Middlesex.
27th September, 1945. 736

COUNTY BOROUGH OF BURY.

Applications are invited for positions as ARCHITECTURAL ASSISTANTS at salaries in accordance with the scale of the Lancashire and Cheshire Provincial Council: Grade "A," £230—£15—£275; Grade "B," £285—£15—£315; Grade "C," £320—£15—£350, plus cost-of-living bonus, at present £59 16s. per annum.

Applications, stating details of training, qualifications, and experience, together with two references, must be forwarded to the Borough Engineer, Bank Street, Bury, not later than Saturday, 27th October, 1945.

EDWARD S. SMITH,
Town Clerk.

Municipal Offices, Bank Street, Bury.
21st September, 1945. 733

CORPORATION OF THE CITY OF GLASGOW.

HOUSING DEPARTMENT.

Applications are invited for the position of CONTROLLER OF NEW WORKS. The person appointed will be responsible, under the Director of Housing, for the construction of houses and roads and sewers by direct labour.

Applicants, who should be under 45 years of age, should have had wide experience in organization and carrying out of large-scale building and civil engineering contracts, utilising the most up-to-date mechanical equipment, and should be familiar with modern methods of personnel management. The position is a permanent one, and the successful applicant will be required to pass a medical examination for admission to the Corporation's Superannuation Scheme.

The appointment will be made according to qualifications, within a salary scale at present fixed at £600—£10—£700, plus war increase (at present £60 per annum).

Applications, stating age, training, qualifications, experience, and giving the names of two referees, should be addressed to the undersigned in an envelope marked on the top left-hand corner, "Controller of New Works," and should be received not later than 15th October, 1945.

RONALD BRADBURY,
Director of Housing.

20, Trongate, Glasgow, C.1. 717

DURHAM COUNTY COUNCIL.

COUNTY ENGINEER, SURVEYOR AND ARCHITECT'S DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the following temporary appointment:—

ARCHITECTURAL ASSISTANT.—Grade "D." Salary £310 per annum, rising by £15 increments to £355, plus cost-of-living bonus, at present 24s. weekly.

Candidates should have approved qualifications and considerable experience in design, construction, preparation of working drawing details, specifications, etc., in connection with general building work.

The candidate appointed will be required to pass a medical examination, and the appointment will be subject to the Local Government Superannuation Act, 1937, and to the regulations for the time being of the County Council relative to the payment of wages or salary in the case of sickness.

Applications, giving particulars of age, experience, and qualifications, previous and present appointments, etc., and enclosing copies of not more than three recent testimonials, should be forwarded to the undersigned not later than 11th October, 1945.

WILLIAM J. MERRETT,
County Engineer, Surveyor and Architect.

County Surveyor's Office, 43, Old Elvet,
Durham. 726

BURY AND DISTRICT.

REGIONAL PLANNING COMMITTEE.

Applications are invited for positions as TECHNICAL ASSISTANTS, at salaries in accordance with the scale of the Lancashire and Cheshire Provincial Council.

"Grade "D":—Senior Technical Assistant; £360—£15—£405.

Grade "B":—Technical Assistant; £285—£15—£315.

In each case plus bonus, at present £59 16s. per annum.

Applications, stating details of training, qualifications and experience, together with two references, must be forwarded to the Honorary Surveyor, Bank Street, Bury, not later than Saturday, the 27th October, 1945.

EDWARD S. SMITH,
Hon. Secretary.

Municipal Offices, Bank Street, Bury.
22nd September, 1945. 734

RAWMARSH URBAN DISTRICT COUNCIL.

Applications are invited for the appointment of CLERK OF WORKS to supervise advance preparation of sites for permanent houses and temporary bungalows, and also the erection of permanent houses.

Applicants must have sound knowledge of building construction, roads and sewers, setting out and measuring up contracts.

Wages £7 7s. per week, plus bonus, at present £1 3s. Applications, stating age, experience, present occupation and when available, and accompanied by two recent testimonials, must reach the undersigned not later than 22nd October, 1945.

The Ministry of Labour and National Service has given permission under the Control of Engagements Order, 1945, for the advertisement of this vacancy.

J. R. S. CREIGHTON,
Engineer and Surveyor.

Rawmarsh Urban District Council, Council Offices, Parkgate, Yorks, W.R.
27th September, 1945. 738

Partnership

Six lines or under, 8s.; each additional line, 1s.

JUNIOR PARTNER, preferably with some experience in India, wanted by a firm of Chartered Architects, established 27 years. Apply C. G. & F. B. Blomfield, F.F.R.I.B.A., F.S.I., Prem House, Connaught Place, New Delhi, India. Further information may be obtained from D. A. G. Reid, L.C.C. Brixton School of Building, Ferndale Road, S.W.4. 735

Architectural Appointments Vacant

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

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

ARCHITECTURAL ASSISTANT, with housing and surveying experience, required. Telephone Central 6683 or write Box 621.

ARCHITECTURAL ASSISTANT required for Housing and Factory work, etc., in Yorkshire. Apply, stating age, experience and salary required, to Johnson & Crabtree, 20, Priory Place, Doncaster. 670

JUNIOR ASSISTANT with ability to prepare working drawings, mostly houses, or similar work; neat tracer; preferably with experience in surveying and levelling. Reply, giving details of experience, etc., to Box 673.

JUNIOR DRAUGHTSMAN required in the office of an Architect to an industrial Company in London; every opportunity to learn, but one with some experience preferred. Reply to Box 702.

ASSISTANT ARCHITECT required for planning layout of Estates in Hampshire and design of Houses; give age, experience, and salary required. Chilworth Estates Co., Ltd., 48, The Avenue, Southampton. 724

ARCHITECTURAL ASSISTANT required, between Intermediate and Final R.I.B.A. standards. Apply, stating experience and salary desired, to William & Segar Owen, Palmyra Square Chambers, Warrington. 725

ARCHITECTURAL ASSISTANTS required in London office to deal with detailing of prefabricated house; modern outlook, and general housing experience desired. Box 729.

JUNIOR ARCHITECTURAL ASSISTANT or Improver required for Architects' office. Apply, in writing, with full particulars, to J. M. Porter & Co., The Estate Office, Colwyn Bay. 730

ARCHITECT'S ASSISTANTS required; good prospects for suitable applicants, who must be well trained for important large scale work. Write fully, stating experience, qualifications, etc. Box 739.

ARCHITECTURAL ASSISTANT, able to make complete surveys, required for modern Architect's office in Suffolk: £400 per annum for suitable applicant. Box 740.

Architectural Appointments Wanted

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

WILL be requiring situation when he is discharged from Forces early October; registered designer; Grad. I.A.A.S.; 11 years' experience in architecture and draughting; specialist in shops. Write Box 125.

KEEN YOUTH (16), School Cert., has drawing ability, seeks post as Junior in (Building) Architect's or Surveyor's Office. King, 13, Harland Avenue, Sidcup, Kent. Tel.: Foots Cray 3794. 126

EXPERIENCED Danish Architect and Building Engineer, shortly being released from Army, desires employment by British firm; thorough knowledge of model making. Box 127.

YOUNG ARCHITECT seeks position as Assistant in modern Architect's Office, engaged on housing or schools; London district. Box 128.

A.R.I.B.A., Dip. Arch. (just released from the Forces), fully experienced and possessing completely equipped studio, offers to Architects anywhere in the British Isles assistance, in free lance capacity; in a position to undertake any quantity of work, including preparation of contract drawings, sketch schemes, specifications, perspectives, etc.; also able to pay personal visits for purpose of discussions and taking instructions. Box 129.

ASSISTANT (29) requires post in progressive office; experienced in preparation of working drawings, sketch plans, surveys, supervision of works, etc.; preparing for R.I.B.A. special final examination; S.E. England preferred. Box 130.

CHIEF ASSISTANT to well-known Architects desires change; University degree; 15 years' excellent experience in housing, flats, civic buildings, hospitals, factories, etc.; seeks responsible position; salary £800 p.a.; alternatively, arrangement with view to partnership where prospects are good. Box 131.

ARCHITECT'S ASSISTANT, recently qualified at Liverpool, desires post in Architect's Office; Central London or Liverpool. Box 132.

R.I.B.A. PROBATIONER (aged 19) desires position in Municipal or Private Architect's office; 3 years' architectural studies; about to take Intermediate Examination. Box 133.

REGISTERED ARCHITECT Major, just de-mobbed, desires position as Architect to Commercial Firm or similar post; would accept Senior Assistant position with view to partnership; anywhere in Britain; formerly Architect to Government of Alberta, Canada; considerable experience schools, housing, public buildings, railway and road construction, planning etc.; used to administration and responsibility. Box 134.

R.A.F. Officer (air crew), with pre-war experience as Architectural Representative, wishes to contact progressive firm with view to engagement on release from H.M. Forces. Box 81.

REGISTERED ARCHITECT (36) requires appointment in London; experienced in industrial, commercial, and domestic work; good designer and draughtsman; salary £550. Box 137.

A.R.I.B.A., A.M.T.P.I., requires part-time appointment in London (three consecutive days per week); salary 2½ guineas per day. Box 138.

PRIVATE WORK required by two qualified Assistants, having 15 and 10 years' experience; all types of architectural work undertaken; samples on request. Box 136.

A.R.I.B.A. (Architectural School Training); over 35 years' experience; open to undertake any work in spare time; good draughtsman. Box 135.

Other Appointments Wanted

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

HEATING.—H.W.S. and Ventilation Schemes prepared by experienced and qualified Heating Engineer; plans and specifications only. Box 697.

HIGHLY QUALIFIED ARCHITECT (35), continental, specialist in interior architure and decoration, furniture, joinery, artcraft, textiles, etc., with many years' independent practice and experience in European countries, seeks suitable position with cabinet makers' firm, or gentleman or lady architect in private practice in London. Box 711

ARCHITECT, M.Inst.R.A. (37), ex-R.E., own London pre-war practice, thoroughly versed in all matters of design, construction, etc., offers spare time assistance to professional man; domestic and commercial projects; W.D. claims; conversion schemes; own car; own studio. Box 720.

Planning

As originators of the Auto-Recorder System of Machine Milking, we have had extensive experience of planning layouts to accommodate the new technique. The Ministry of Agriculture's Clean Milk Bill, when passed, will mean a large increase in the number of new or modified farm buildings required. The position will be affected also by the findings of the English and Scottish Commissions on this important subject. The service of our Technical Department is available to any Architect who may be consulted in these matters. Write in confidence to: Gascoignes (Reading), Ltd., Berkeley Avenue, Reading.

For Sale

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

ELECTRICITY FOR COUNTRY HOUSE.—Complete equipment for Sale, including 30 h.p. Oil Engine, Electric Generator and Booster Set, Switchboard, Battery, and Motors, 200 volts supply; in good running order; inspection.—Apply Baily, Grundy & Barrett, Ltd., Electrical Engineers, Cambridge. 546

Miscellaneous

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

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

F. J. BAYNES, LTD., established over 100 years. Heating, Ventilating and Sanitary Engineers. 99/101, St. Paul's Road, N.1. Canonbury 2552. 584

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

WELL-KNOWN SPECIALIST on building materials re-opening consulting practice, closed during war, is now able to undertake a few non-competitive additional research and technical market investigations; well equipped chemical and physical laboratories. Inquiries to Box 410.

CONSIDERABLE Surplus Funds available, at low interest rates, for building finance, property mortages, ground rents, or any similar sound security in sums preferably of not less than £10,000. Chas. B. Buxton, Ltd., Local Authorities' Loans Brokers, 9, Clements Lane, Lombard Street, London, E.C.4. 581

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

FIRM of Quantity Surveyors with offices and staff available in Westminster and on South Coast, invite enquiries for preparation of Schedules of War Damage, re-requisitioning, approx. estimates, survey of land or estates, survey of houses, factories and other property. Box 160, c/o Pool's, Aldwych House, London. W.C.2. 653

CREOSOTE or Tar, 40 gallons, 55s. delivered; free barrels. Frank Coopers, Builders' Merchants, Canterbury. 686

ON and after the 29th September, the address of The Rapid Floor Co., Ltd., will be Room 630, Africa House, Kingsway, W.C.2. 719

WANTED, by Consulting Engineers, office accommodation, 500/600 ft. super. Particulars to Box 721.

CHARTERED ARCHITECT wishes to contact fellow Architect, Midlands area, who would welcome part-time assistance in the preparation of schemes, working drawings, etc. Box 737.

FENCING FOR ALL PURPOSES.—Supplied and erected; established 100 years. Parker, Winder & Achurch, Ltd., 80, Broad Street, Birmingham, 1. 979

Educational Announcements.

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

R.I.B.A. QUALIFYING EXAMINATIONS. Mr. C. W. Box, F.R.I.B.A., M.R.San.I. Courses of Correspondence and Personal in Studio, 115, Gower St., London, W.C.1 (Tel.: Euston 3906), and at 23, St. James's St., Derby (Tel.: 45648).

R.I.B.A. and T.P. INST. EXAMS. Private Courses of Tuition by correspondence arranged by Mr. L. Stuart Stanley, M.A., F.R.I.B.A., M.T.P.I. Tutor, 161, West Heath Road, N.W.3. Tel.: SPE 5319. 415

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