

STAGE

THE ARCHITECTS' JOURNAL



★ 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.

standard contents every issue does not necessarily contain all these contents, but they are the regular features which continually recur.

DIARY NEWS

from AN ARCHITECT'S Commonplace Book

ASTRAGAL LETTERS

PHYSICAL PLANNING CURRENT BUILDINGS INFORMATION CENTRE

Physical Planning Structure Materials Acoustics & Sound Insulation Lighting Heating & Ventilation Questions & Answers

INFORMATION SHEET SOCIETIES & INSTITUTIONS PRICES

Architectural Appointments Wanted and Vacant

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. 25, Victoria Street, S.W.1.	
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. Egginton House, Buckingham Gate, S.W.1.	Victoria 7301-2-3
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
CID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Whitehall 6222
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. 2, Stratford Place, W.1.	Mayfair 5432
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
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. 37, Onslow Gardens, S.W.7.	Kensington 7070
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. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211/2
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
SIA	Society of Industrial Artists. 20, Wellfield Avenue, N.10.	Tudor 7027
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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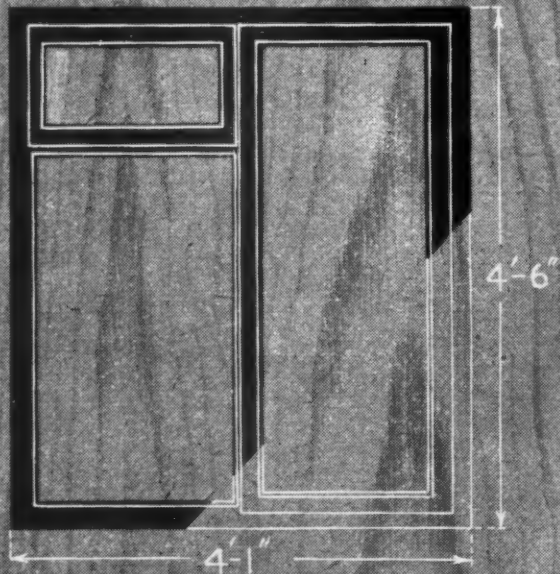
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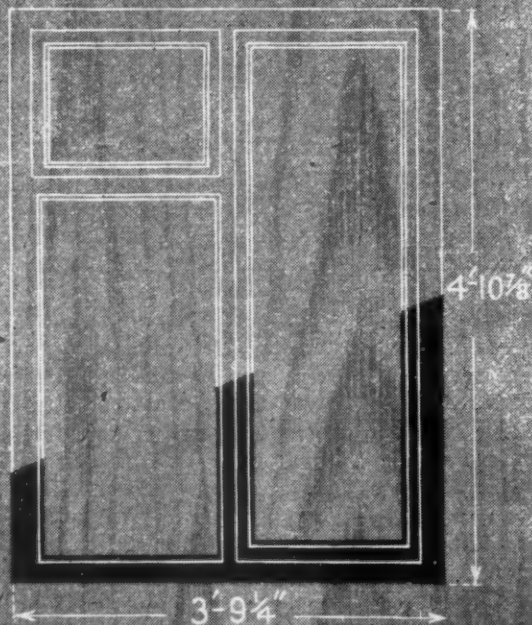
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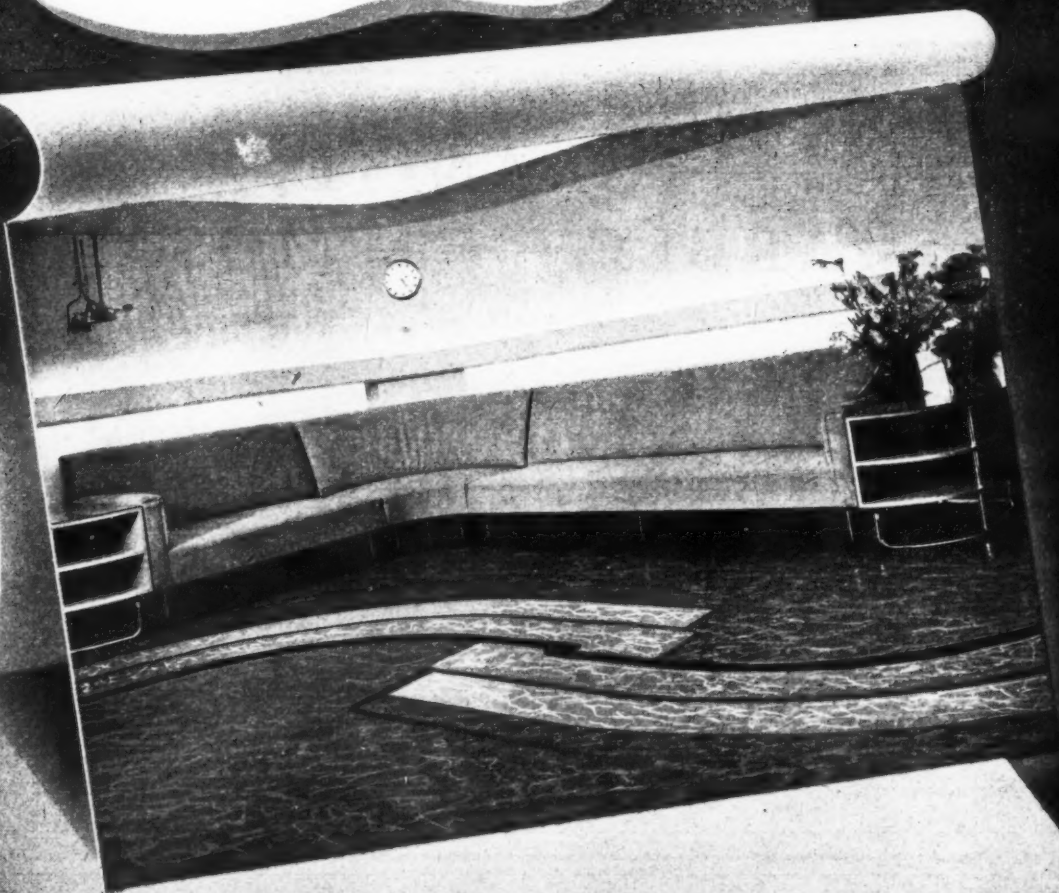
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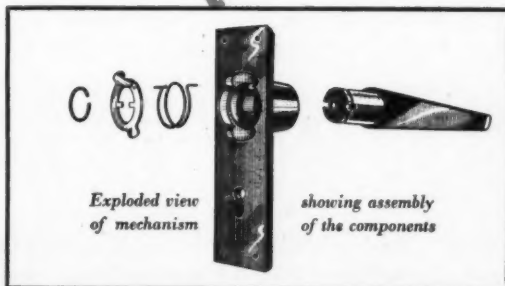
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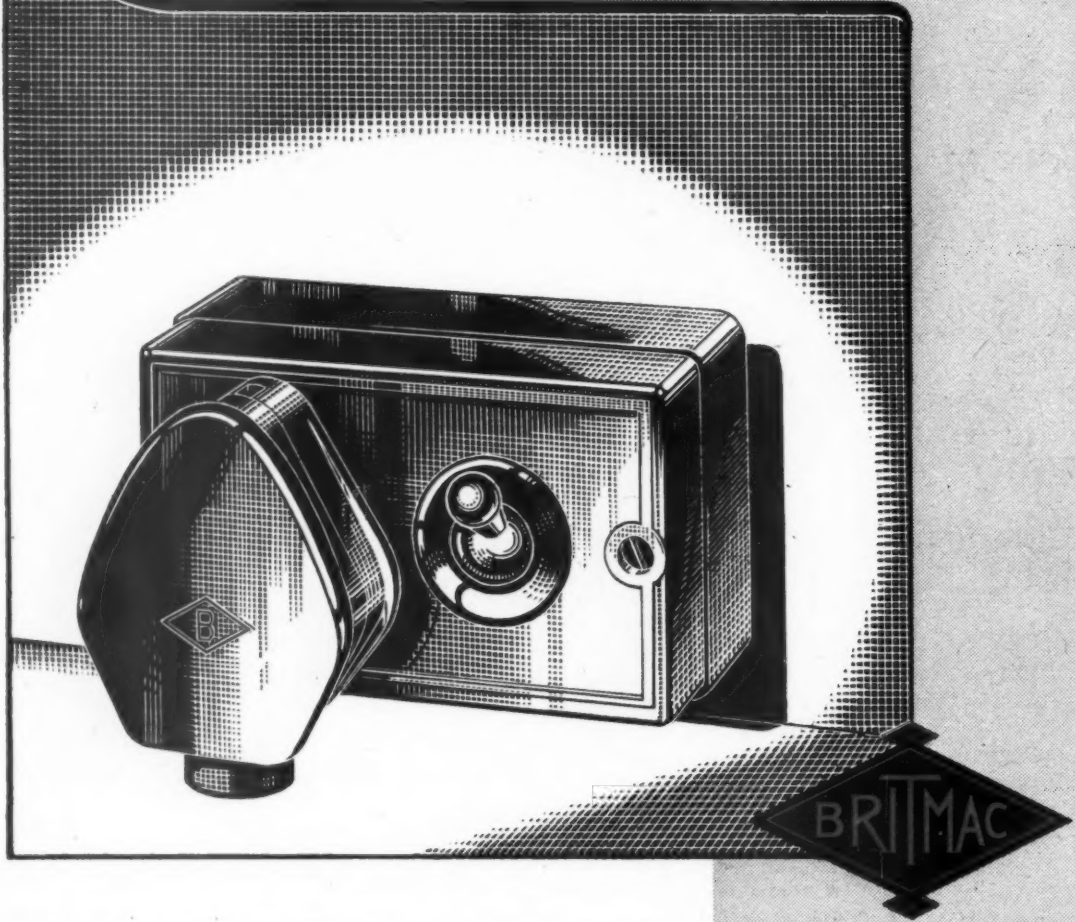
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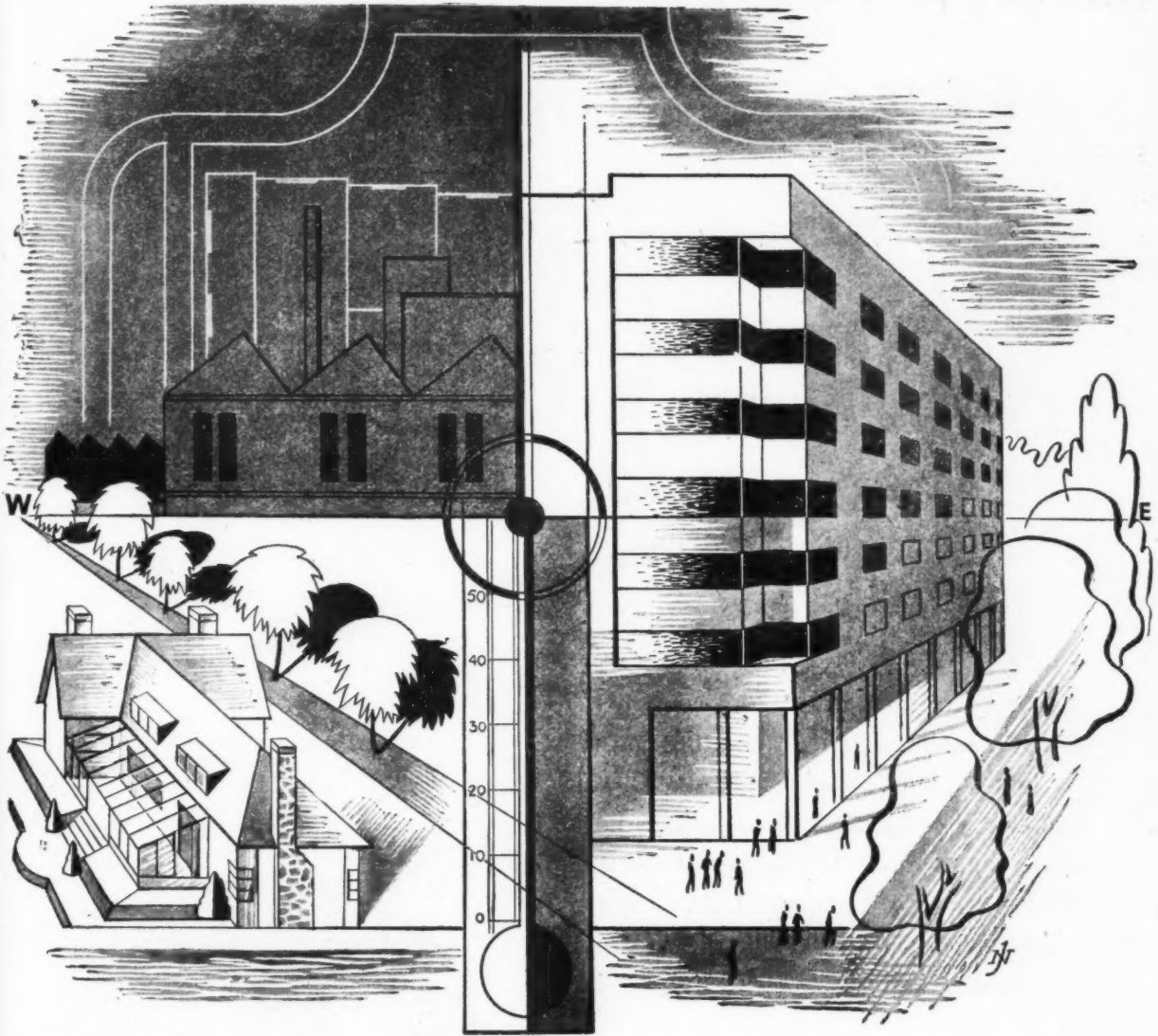
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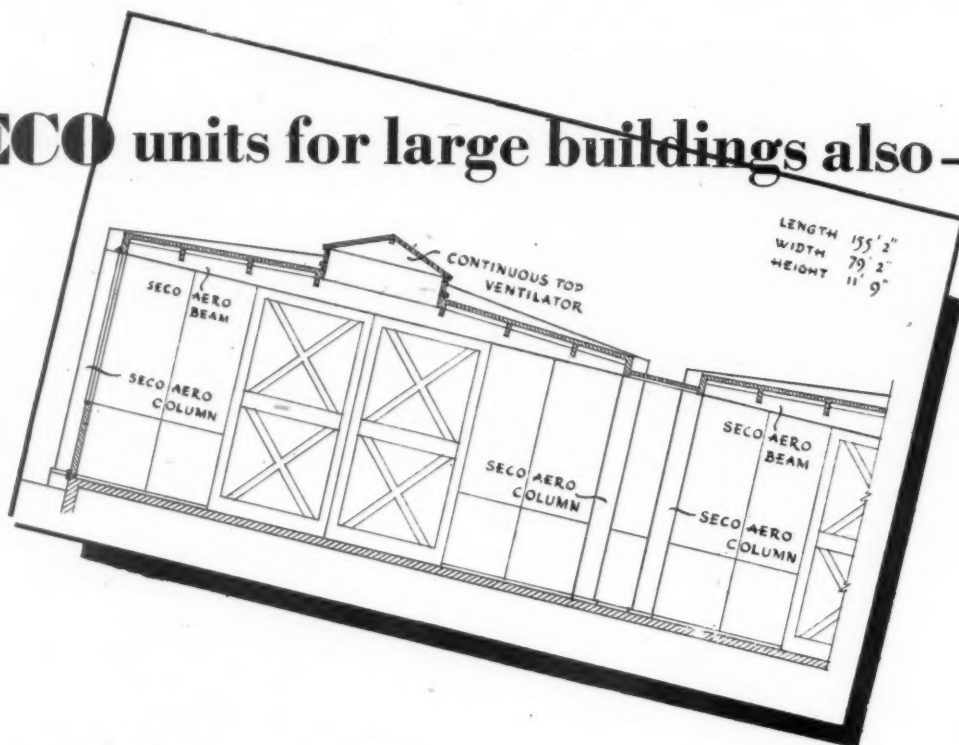
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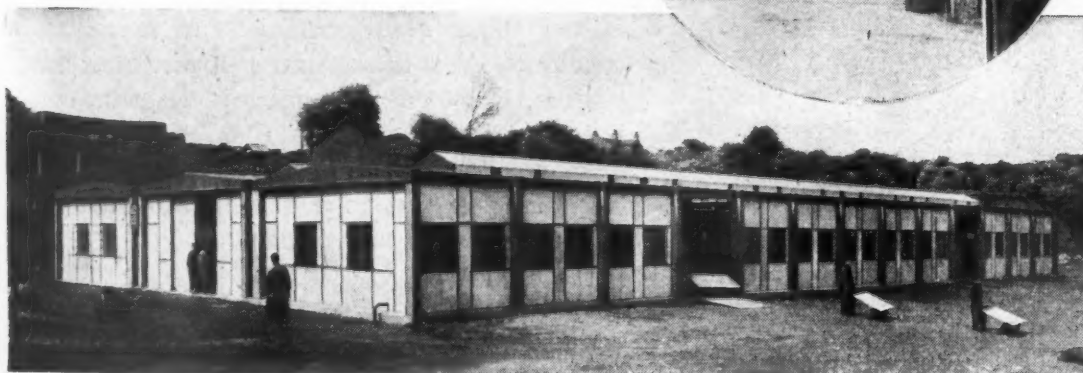


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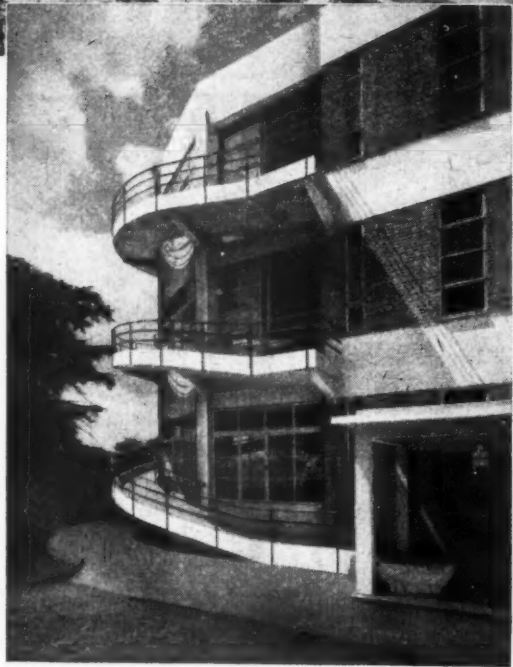


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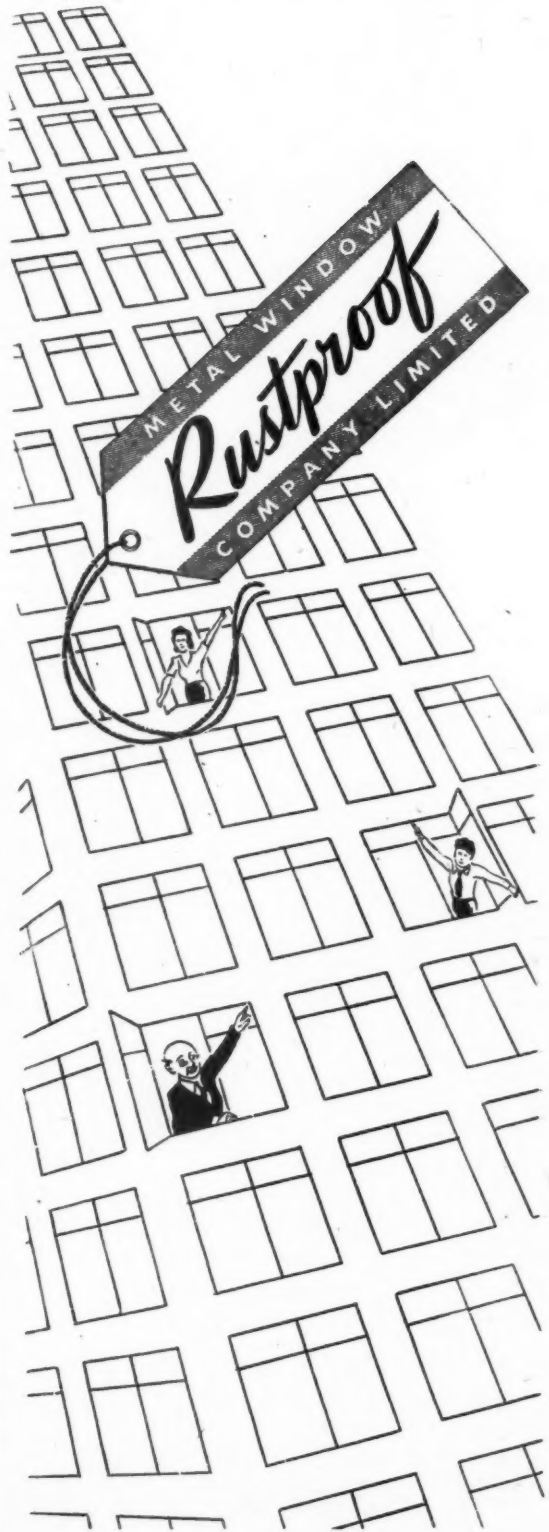
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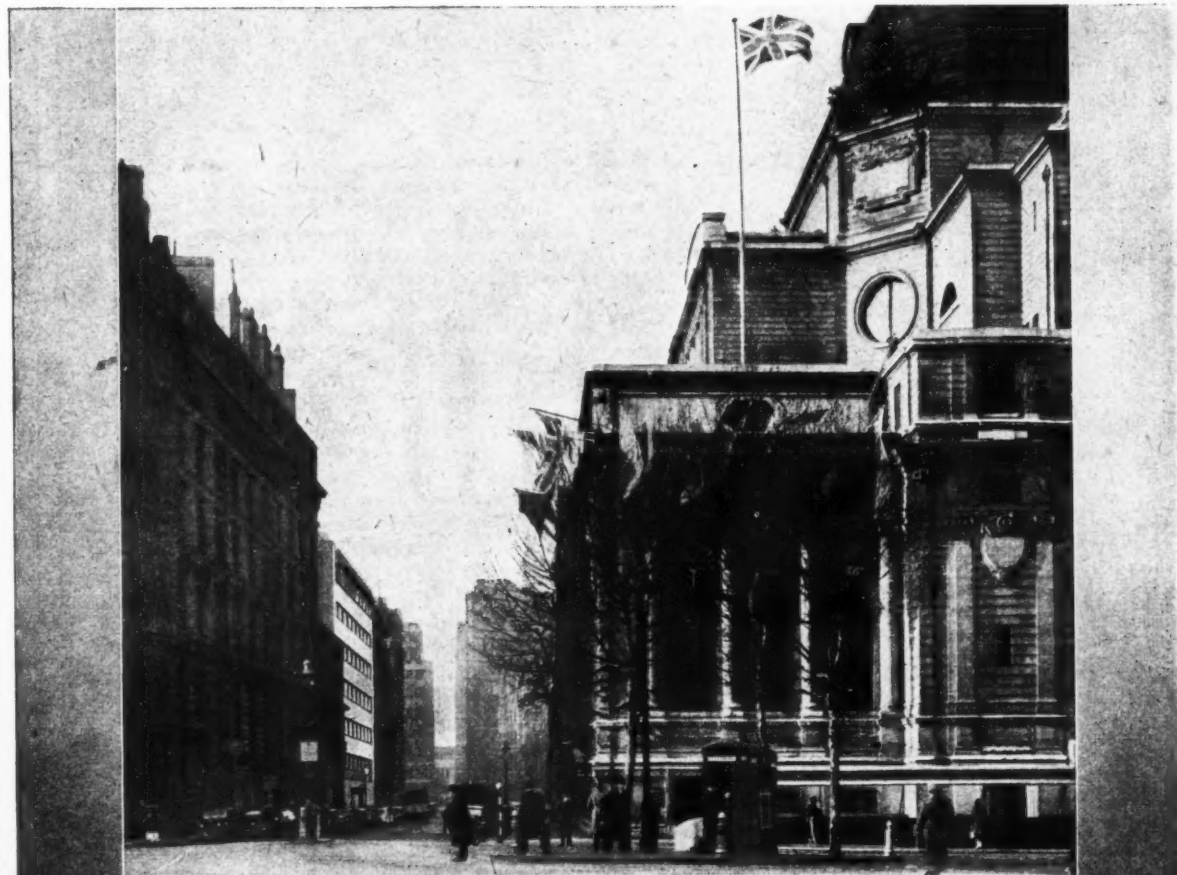
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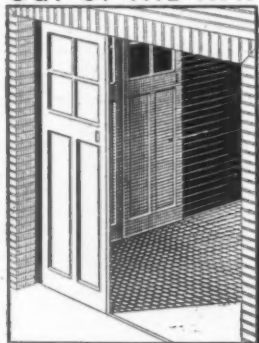
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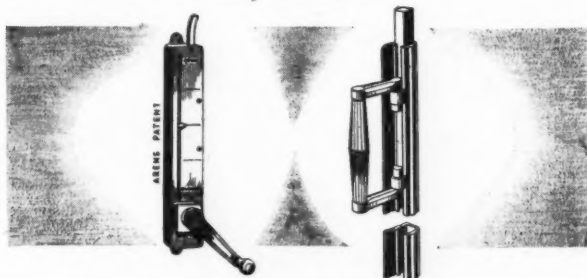
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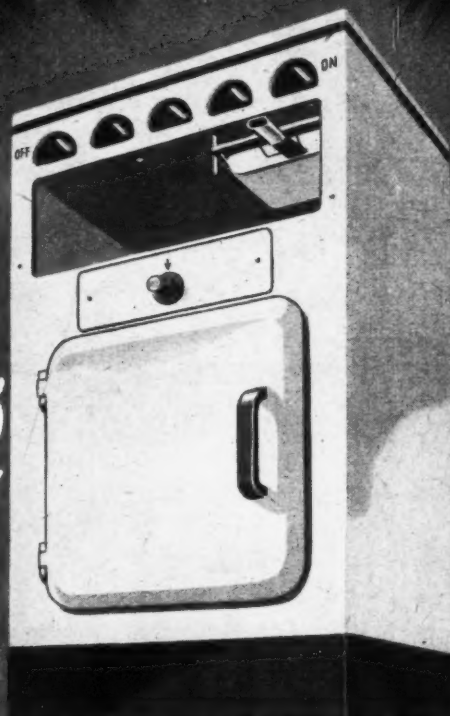
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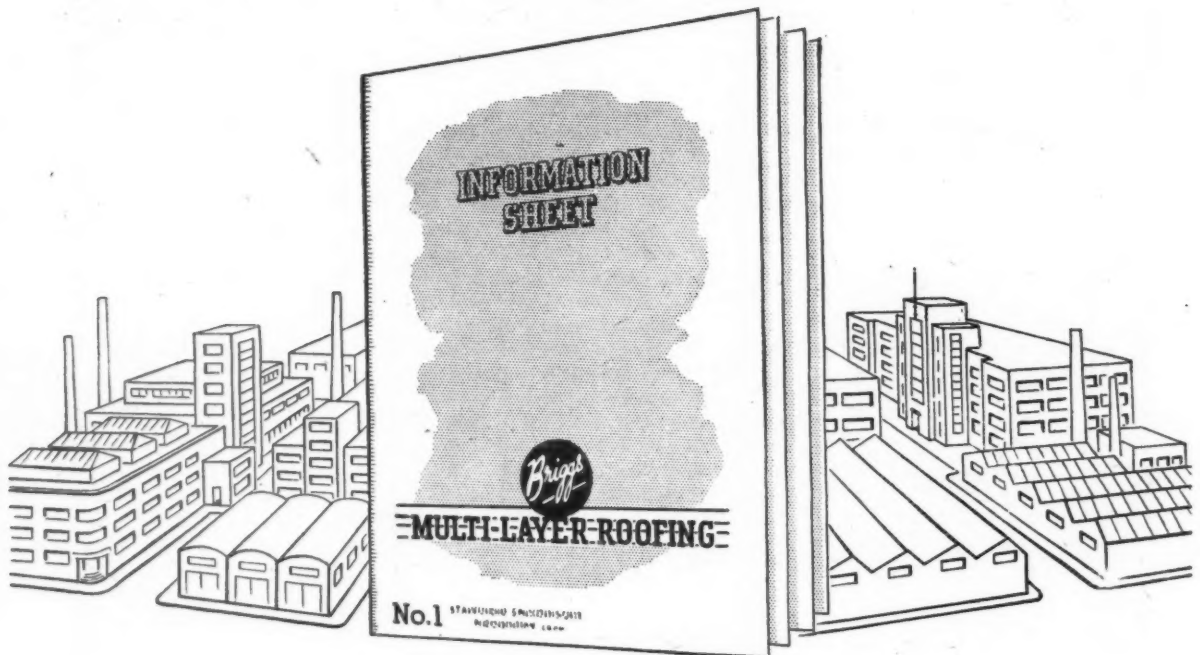


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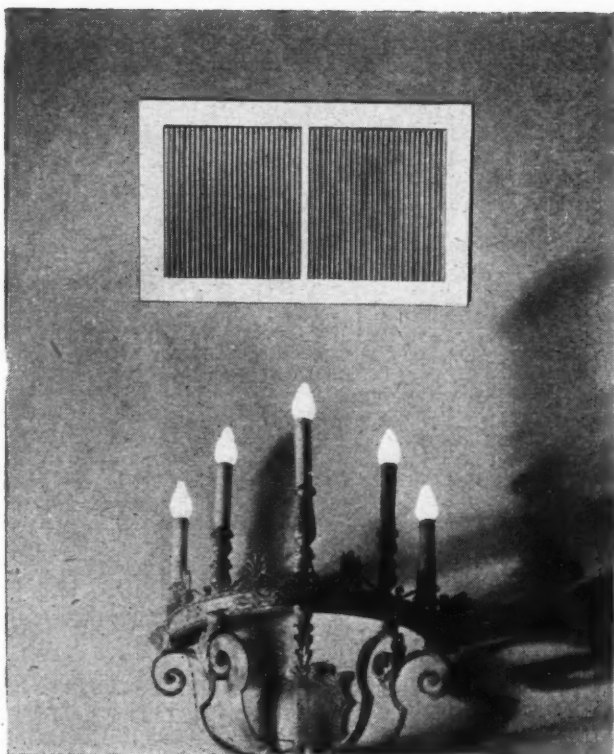
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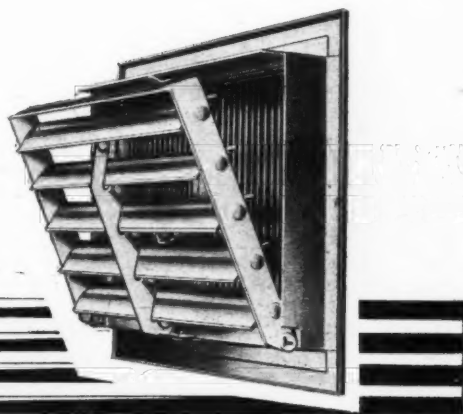
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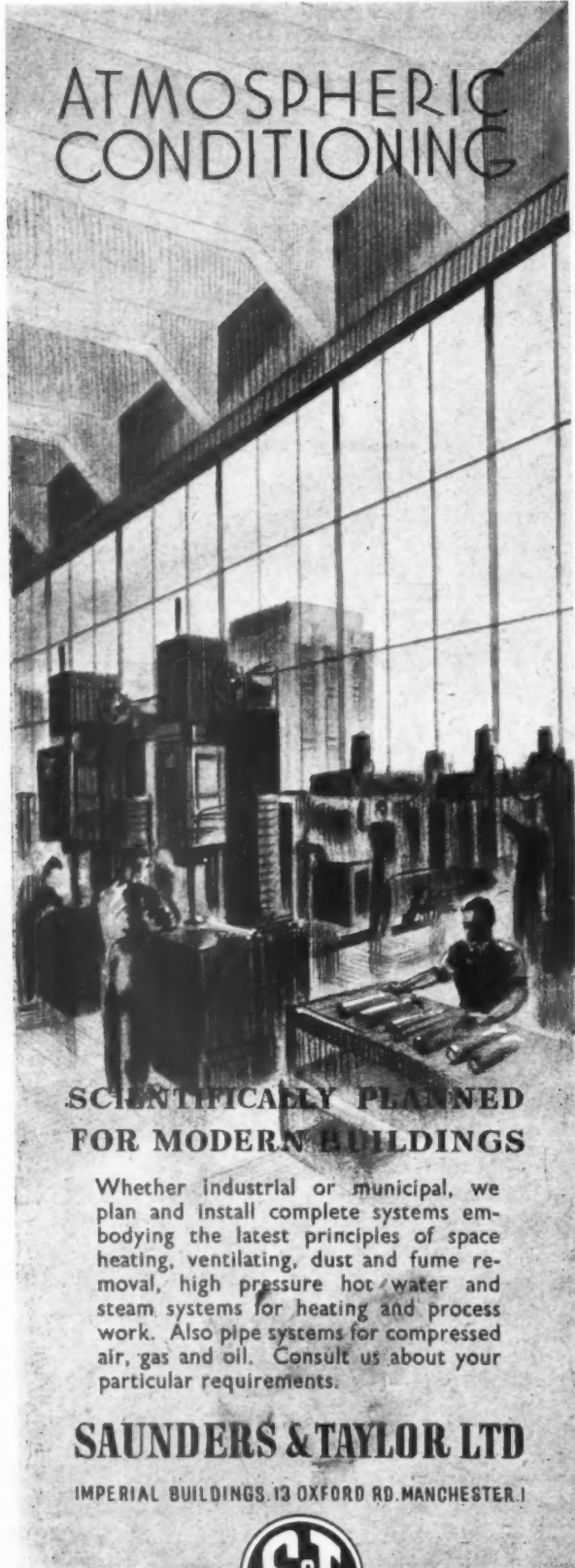
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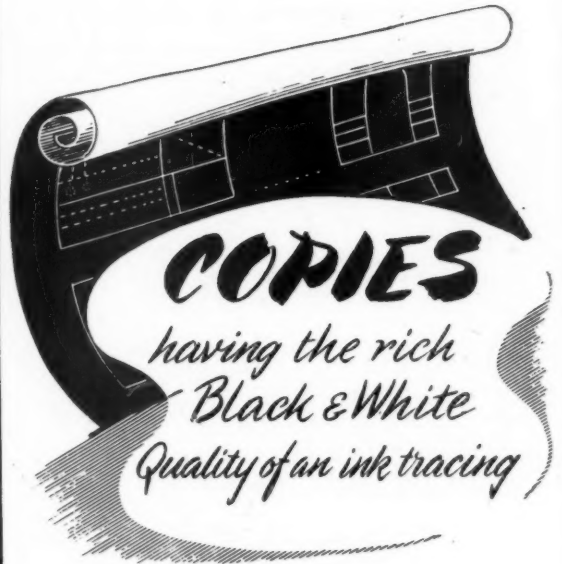
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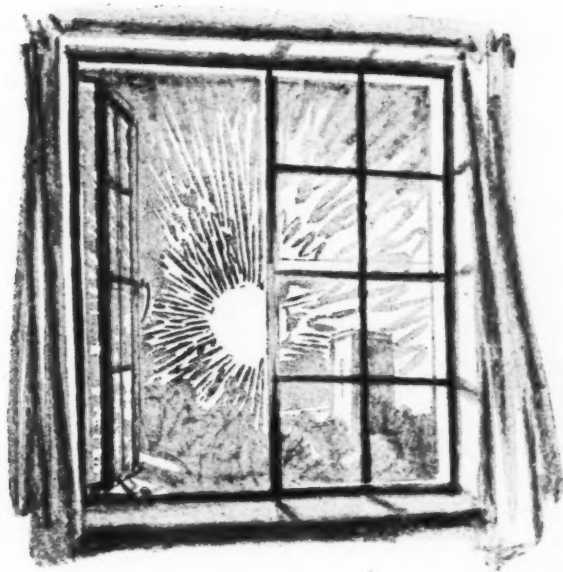
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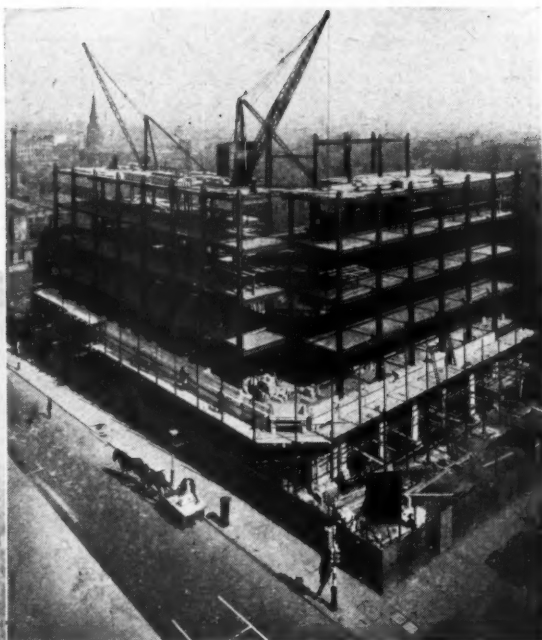
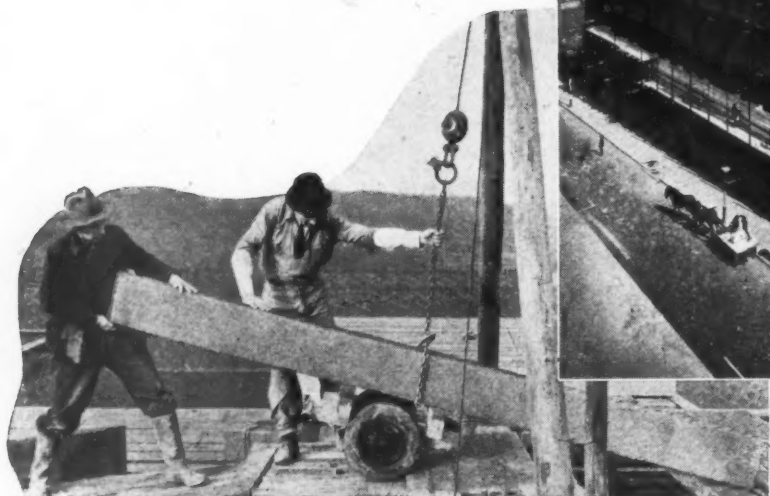
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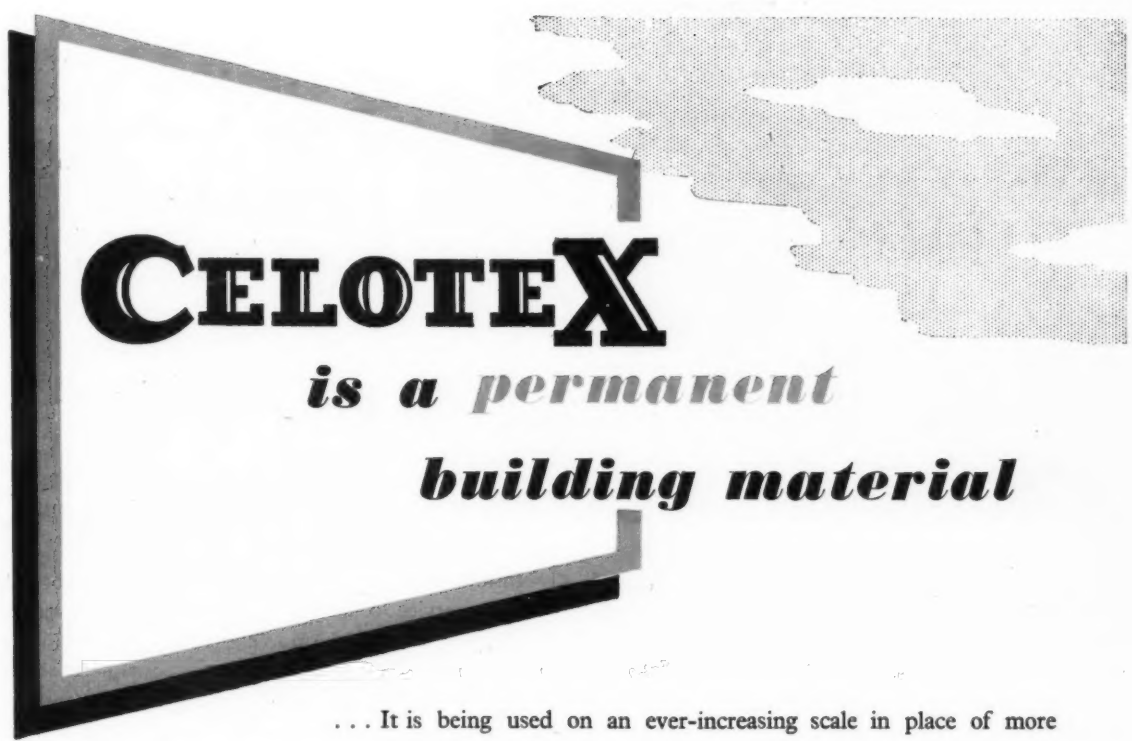
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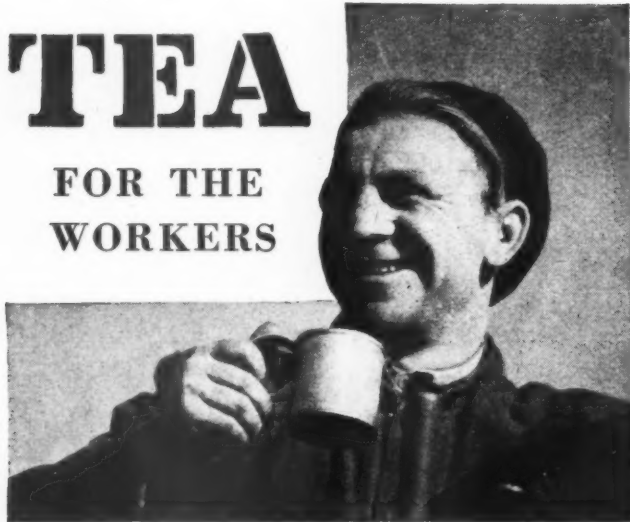
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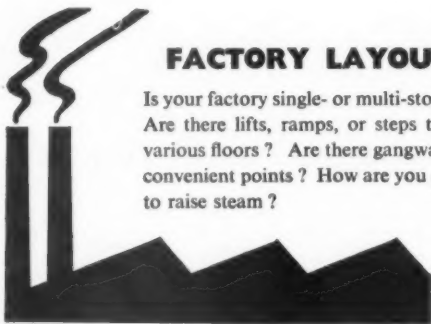


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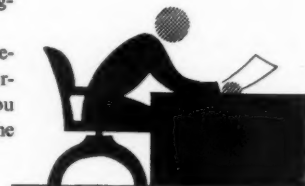


TIMES AND LENGTH OF BREAK

Do your employees work in shifts? Have they set rest-pauses or meal-times? Are there any "customs of the trade"? How do the Factory Regulations affect the service?

FINANCE Is it better to let your employees pay the full cost of the tea, or are you going to help by setting aside a charge against the tea service? Have you considered this from "the psychological angle"?

What is the welfare-value of the enterprise, and do you propose to make the most of this?



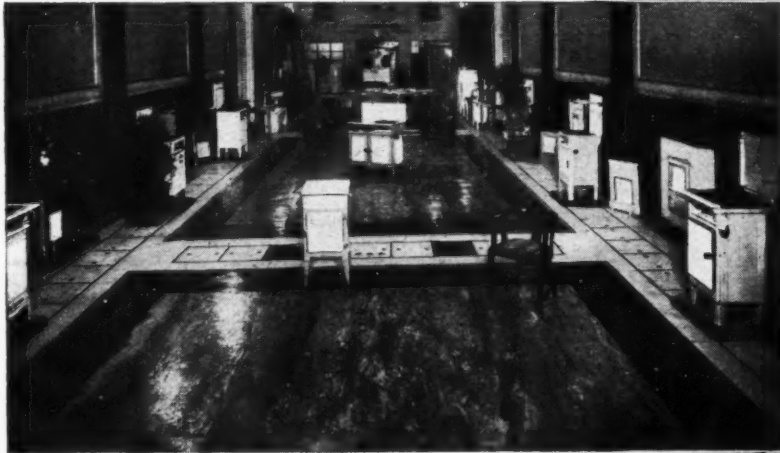
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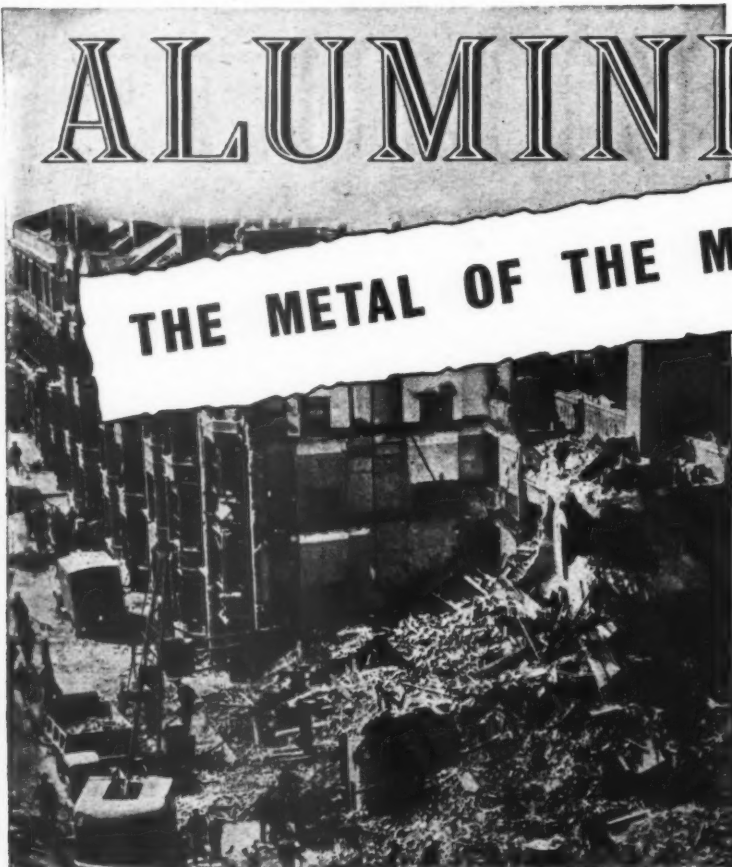
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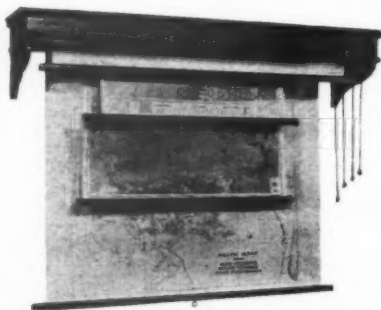
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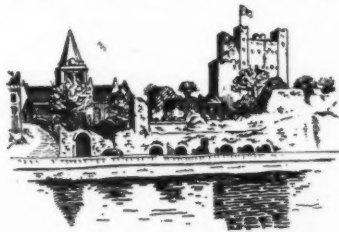
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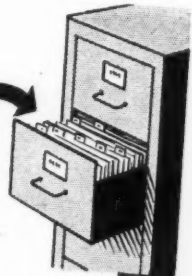
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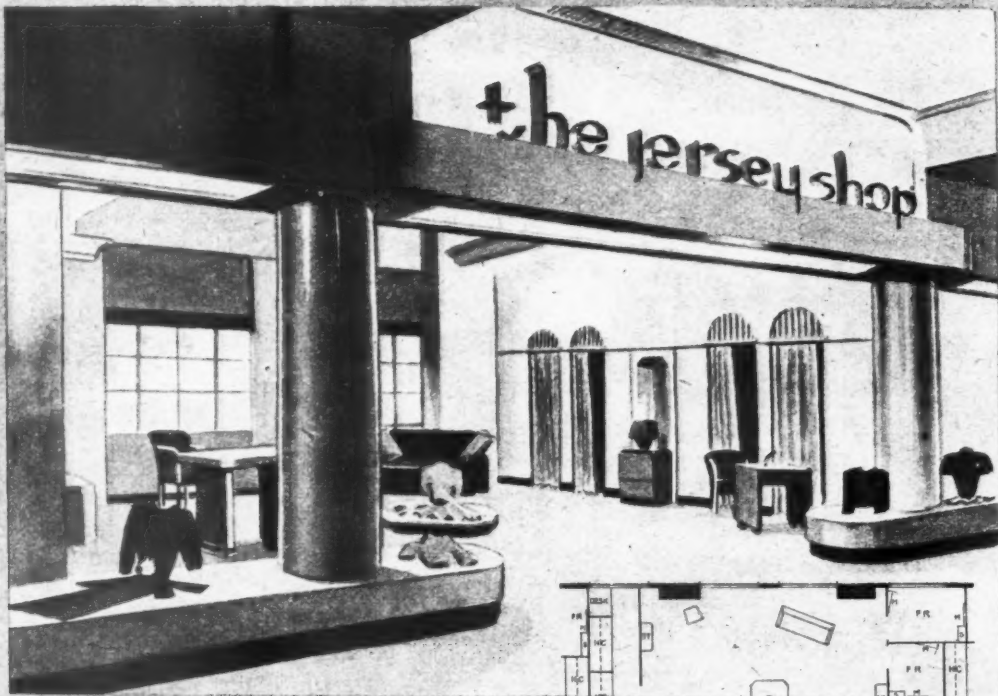
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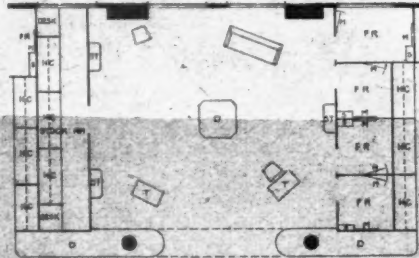
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NEWS

THURSDAY, April 18, 1946
No. 2673 Vol. 103

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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.

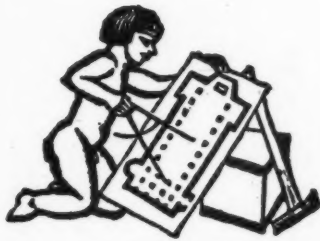
★ means spare a second for this, it will probably be worth it.

★★ 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.

Building developments which impede the use or future extension of AIRFIELDS are to be banned by the Ministry of Town and Country Planning.

The Minister of Town and Country Planning, in consultation with the Air Council, the Lords Commissioners of the Admiralty, the Minister of Aircraft Production and the Minister of Civil Aviation, has had under consideration the desirability of exercising powers under the Town and Country Planning Acts so that development does not take place in the neighbourhood of an airfield which would impede the future use or possible extension of the airfield or create dangers to flying and expose the occupants of buildings to avoidable risk and nuisance. As a permanent measure, it will only be necessary to protect the sites, flightways and other defined areas round airfields, and plans will be issued as soon as possible showing the delimitation of these areas in each individual case. In the meantime, the only way of securing the necessary protection of the airfields is for Interim Development Authorities to consult the appropriate Department in connection with applications for permission for any development likely to involve obstructions to aircraft, and the Minister has given a general Direction under Section 6 (2) of the Town and Country Planning (Interim Development) Act, 1943, and Section 31 (2) of the Town and Country Planning Act, 1944, requiring Authorities to notify him of any application made to them for permission to carry out such development. Interim Development Authorities will be furnished as soon as possible with the names of those airfields with which they will be concerned.



DIARY FOR APRIL MAY AND JUNE

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 the initials as given in the glossary of abbreviations on the front cover.

BLACKPOOL. *Health Congress.* To be opened by Lord Woolton. Sections of the Congress include *Engineering and Architecture*, presided over by Sir Reginald Stradling, and *Housing and Town Planning*, presided over by Norman H. Walls. (Sponsor, RSL) JUNE 3-7

LONDON. *An exhibition of Paintings by the West Herts Group,* at Foyles Gallery, 121, Charing Cross Road, London, W.C.2. Open daily 9-6, including Saturdays. APRIL 18-MAY 6

Building Now Exhibition. At the RIBA, 66, Portland Place, London, W.1. Open each week day from 10-6. Closed from Good Friday to Easter Monday inclusive. (Sponsor, RIBA.) APRIL 18-MAY 11

Exhibition of Paintings and Water Colours. By Paul Delvaux. At the Redfern Gallery, 20, Cork Street, Burlington Gardens, W.1. 10 a.m. to 6 p.m. APRIL 18-MAY 11

J. H. Forshaw. *County of London Plan: Reconstruction Programmes.* At the Livingstone Hall, Broadway, Westminster, S.W.1. (Sponsor, TPL.) 6 p.m. APRIL 25

H. P. T. Lind in collaboration with P. R. Alderman and J. J. Wilmers. *The Demolition of Waterloo Temporary Bridge.* Institution of Structural Engineers Joint Meeting with the RIBA. At 11, Upper Belgrave Street, London, S.W.1. (Sponsors, ISE and RIBA.) 6 p.m. APRIL 25

AA Film Evening; Nomination of Officers and Council for Session 1946-47. At the AA, 34-36, Bedford Square, W.C.1. (Sponsor, AA.) 5 p.m. APRIL 30

Office Organisation. First of a series of lectures at the RIBA, 66, Portland Place, W.1. Chairman, J. Murray Easton. (Sponsor, RIBA.) 6.30 p.m. APRIL 30

Frank Scarlett. *The Relationship of Air Photographs to Architecture and Town Planning.* At the RIBA, 66, Portland Place, W.1. (Sponsor, RIBA.) 5.45 p.m. MAY 1

H. Berry, M.P. *Town Planning and Water Supply.* At the Town and Country Planning Association, 28, King Street, Covent Garden, W.C.2. Chairman, Major T. F. Thomson. (Sponsor, TCPA.) 1.15 p.m. MAY 2

London Master Builders' Association Luncheon. At Derry & Toms Restaurant, High Street, Kensington, W.8. Guest of honour, W. H. Forsdike, President of the National Federation of Building Trades Employers. (Sponsor LMBA.) 12.45 p.m. for 1 p.m. MAY 8

Illuminating Engineering Society Convention. At the Institution of Electrical Engi-

neers, Victoria Embankment, London, W.C. An Exhibition will be held in the adjacent ELMA Lighting Service Bureau. Provisional Programme:—May 14, 6 p.m.: Reception by the President. Lectures, illustrated by experiments and demonstrations, on such topics as lighting in captivity, camouflage and decoy tactics, some light on invasion, the wonders of black light, etc. The Exhibition at the Lighting Service Bureau will be open for inspection and will continue open during the Convention. May 15, 10.45 a.m.: Annual General Meeting, followed by addresses on *Lighting during the War and After and Light and Health.* 12.30 p.m.: The President will entertain leading representatives of IES Centres and Groups to luncheon. 2.30 p.m.: A paper on *New Lamps for Old* (Mr. L. J. Davies). 5.30 p.m.: Dinner-dance at Connaught Rooms, Kingsway, London, W.C.2 (tickets 25s. each). May 16, 10 a.m.: A paper on *Laboratory Technique during the War* (Mr. W. R. Stevens and Mr. G. T. Winch); 11.30 a.m., a paper on *Aerodrome Light* (Dr. S. English); 2 p.m., a paper on *Daylight and Town Planning* (Mr. W. A. Allen); 3.30 p.m., a paper on *Fluorescent Lighting* (Mr. W. J. Jones) (alternatively: a trip down the River Thames or a conducted tour of Hampton Court); 5.30 p.m., informal social evening (burlesque pageant, *Lighting Through the Ages*) at Magnet House, Kingsway, London, W.C.). May 17, 10 a.m.: Visit to the National Physical Laboratory. (Sponsor, IES.) MAY 14-16

MANCHESTER. *Exhibition of Plans. Photographs, and Models of Permanent Houses.* At the Exhibition Hall, Central Library. The plans represent the results of a national competition organized by the House-Building Industries' Standing Committee with the co-operation of the Ministries of Health and Works, and the RIBA, to evolve the best of the smaller type of permanent brick-built house. (Sponsor, HBISC.) APRIL 18-MAY 4

RICKMANSWORTH. *Building and Allied Trades Golfing Association First Post-War Spring Meeting.* At Moor Park. Singles (medal play) and four ball Foursomes (½ handicap) against Bogey will be played. Prizes for each event including a scratch prize for the singles. Members returning the best 20 net scores will qualify for the second half of the Dyke Cup Competition in the autumn meeting. Cheque for £1, which includes green fee, lunch and annual subscription to Hubert H. Hill, W. G. Hill and Son, Monument Station Buildings, King William Street, London, E.C.4, before April 23. MAY 8

STEEL

WORK

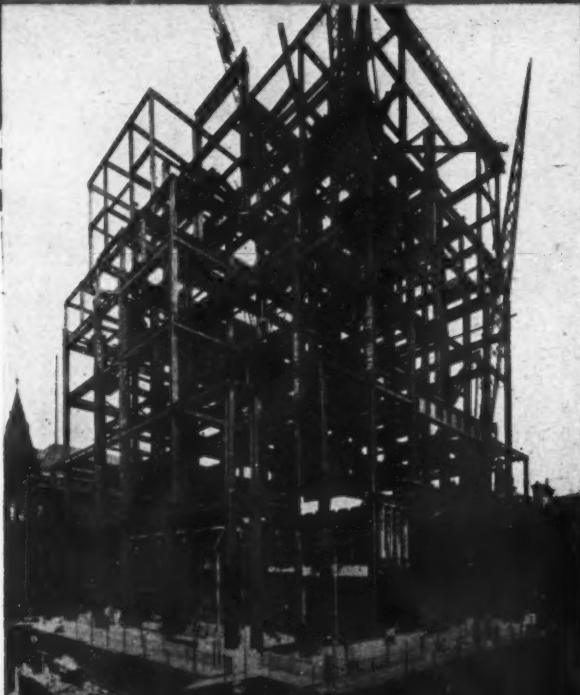


For All Constructional Needs

RUBERY-OWEN

DARLSTON

5-STAFFS



LONDON IMPERIAL BUILDINGS, 56, KINGSWAY, W.C.2. BIRMINGHAM 3, LOMBARD HOUSE, 61, CHARLES ST.

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From AN ARCHITECT'S *Commonplace Book*

STATUS OF THE 18TH CENTURY ARCHITECT. [From *Georgian London*, by John Summerson (*Pleiades Books*).] It cannot be too strongly emphasized that until about half-way through the 18th century there was no such thing as an "architectural profession" in the modern sense. The high-sounding title, "architect," was adopted by anyone who could get away with it. Architects were recruited from tradesmen, from surveyors and from the gentry. Good posts in the Civil Service were open to them, though the word "architect" was never attached to these offices, which were mostly surveyorships and clerkships of works, or offices nominally assigned to masons or carpenters. Architecture was open to all. A Vanbrugh or an Archer might come to it as gentlemen with a passion for building and under an obligation to find themselves a "place" . . . On the other hand, many of the most distinguished architects were trained as craftsmen. Flitcraft was a joiner by training, Ripley a carpenter, Kent a coach-painter. A writer of 1747, speaking of architects, says: "I scarce know of any in *England* who have had an Education regularly designed for the Profession. Bricklayers, carpenters, etc., all commence (*i.e.*, set up) as Architects, especially in and about London, where there go but Few Rules to the building of a City-House." One often finds a man described as Mr. So-and-so, carpenter, becoming in a very short time So-and-so, Esq., architect. "A pox on these builders—architects they call themselves," says one of Wycherley's characters, and it is, in fact, often impossible to tell whether the plan and proportions of a house were designed by an architect or a superior craftsman. Speculative building and the architectural profession were the two goals of success for men entering the London building trade. The *roles* might be, and often were, combined. But the man who was temperamentally fitted for the more academic and literary parts of the business usually contrived to find himself a patron, with whose help he advanced along the road of pure professionalism as far as a country estate of his own, a carriage, a coat-of-arms and a fortune of £10,000 or £20,000.

The Secretary of State for Scotland has nominated Mr. James Dalziel of Oxford, for appointment as Chairman of the SCOT-TISH SPECIAL HOUSING ASSOCIATION Limited.

The appointment of a full-time Chairman is one of the steps proposed by Mr. Westwood in the re-organization of the Association to which has been given the task of building 100,000 houses in the next 10 or 12 years. An Edinburgh man, Mr. Dalziel has recently been demobilized from the Army where, as a Major in the Royal Engineers, he was responsible for a great variety of building and construction work in the Middle East. He is 45 years of age, was trained in the City Engineer's Department, Edinburgh, and held Local Government appointments in Birmingham and Leicester, where he was engaged on the development of housing estates. Later he held managerial appointments with contracting firms, and from 1934 until he left for military service was head of his own civil engineering organization in Oxford. He is a Fellow of the Faculty of Architects and Surveyors, a Member of the Institution of Highway Engineers, and Member of the Institution of British Engineers.

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The Government is making arrangements to hold the BIGGEST EVER INTERNATIONAL EXHIBITION in London in 1951.

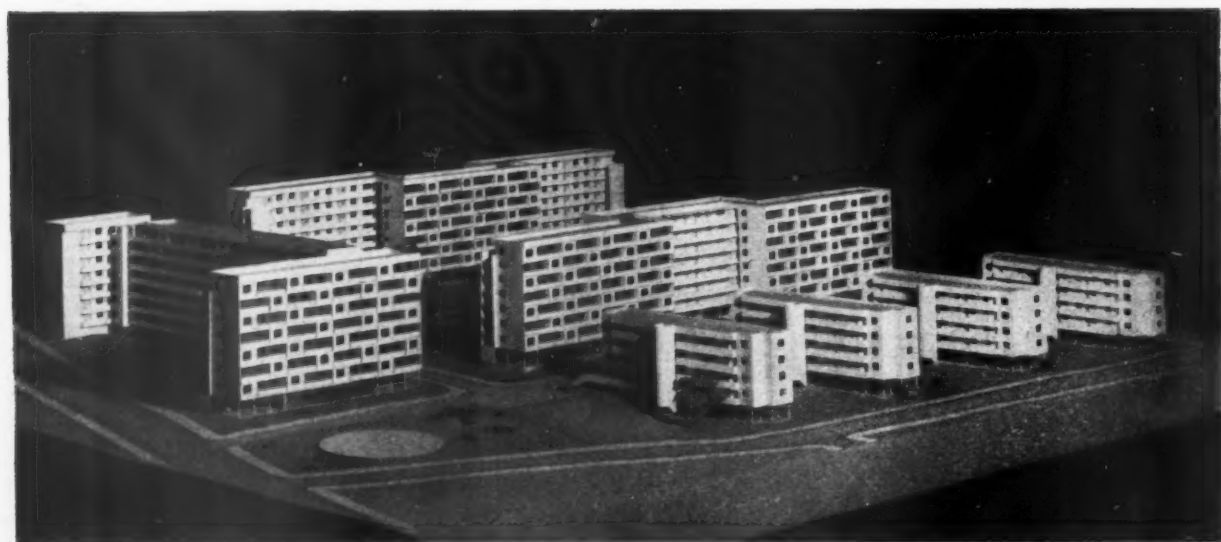
The Government Committee, which, under Lord Ramsden has been considering the part to be played in our export trade by exhibitions and fairs, recommends that a British Industries Fair should continue to be held annually, and for 1947 should be given the highest possible priorities, and that a Universal International Exhibition should be held in London, preferably in 1951. The Committee states that the Government should be responsible for the acquisition of a suitable site and the erection of permanent buildings. These would also be available for other exhibitions. Negotiations should be started at once for securing

the site. While it is not possible to specify a particular site, parts of the blitzed areas in central London and the neighbourhood of Waterloo Station, including the south bank of the Thames, are possible alternatives. The cost of the land and buildings might be between £6,000,000 and £8,000,000, but this is looked upon as well justified by the results that would be achieved. The Committee say of the Universal International Exhibition that if such an exhibition is organized it must be a dynamic success. No money or effort should be spared to guarantee that it will surpass any previous international event of the same

character. It should surpass the New York World's Fair of 1939 in scale and technical achievement and the Paris Exhibition of 1937 in aesthetic and personal appeal. Mr. Marquand, Secretary, Overseas Trade Department, announced in the House of Commons that the Government has decided to accept the recommendation of the Ramsden Committee for an international exhibition in London. He is arranging for the necessary preparatory work to be put in hand. This will include the choice of a suitable site in London. The Government is not prepared to see Hyde Park used for this purpose.



The Ministry of Works has appointed Mr. C. J. Mole, M.V.O., O.B.E., F.R.I.B.A. (left), Director General of Works and Mr. W. A. Rutter, O.B.E., A.R.I.B.A. (right), Chief Architect. The Directorate General has been divided into four main branches under a Chief Architect, a Chief Surveyor (Quantity and Costs), a Chief Mechanical and Electrical Engineer, and a Chief Production Officer. Under this reorganisation all construction work will be under a single head to whom are directly responsible the heads of the various professions indicated in the titles of the posts. The Directorate of Temporary Housing is not affected by these changes and will continue in being until the Temporary Housing Programme is completed. (See Architects' Journal, April 11, page 281).



Telling the Public

The first RIBA exhibition since the war was opened last week at 66, Portland Place, by Mr. Lewis Silkin, Minister of Town and Country Planning. Called *Building Now*, its purpose is to tell the public what the profession has to offer in the post-war world—not only in housing, but in the other kinds of buildings that go with housing, such as schools, hospitals, recreation centres, as well as in local planning. Most of the plans, photographs and models

shown are of work that has recently been, or will soon be, carried out. Top, a general view of the exhibition; below, one of the models—Busaco Street flats at Finsbury, by Tecton, the building of which will be started soon; 358 flats will have lifts, central heating and the Garchey system of refuse disposal. The exhibition has been designed by Kenneth Bayes, A.R.I.B.A., in association with Austin Frazer. After May 11 it will tour the provinces.

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Rural Housing Sub-Committee of the Ministry of Health Central Housing Advisory Committee: RECONDITIONING IS BOTH NECESSARY AND URGENT to assist in the raising of standards of rural housing.

Mr. Aneurin Bevan, the Minister of Health, has issued the interim report of the Rural Housing Sub-Committee of his Central Housing Advisory Committee, which is considering certain aspects of rural housing. The Sub-Committee's terms of reference were: "To advise generally on the reconditioning of rural cottages, with special reference to the supply of labour available without diversion from new building, and to consider what improvements could be made in the Housing (Rural Workers) Acts." The Sub-Committee obtained evidence from the Joint County Committees on Rural Housing and from the following bodies:—Central Landowners' Association; Council for the Preservation of Rural England; County Council's Association; Land Agents' Society; National Farmers' Union; National Federation of Women's Institutes; National Union of Agricultural Workers; Rural District Council's Association, and Sanitary Inspector's Association. The interim conclusions of the Committee are: On the general desirability of reconditioning, we are agreed that, apart from other considerations, reconditioning is both necessary and urgent to assist in the raising of standards of rural housing for the post-war agricultural population. As to the availability of labour without diversion from new building, the main consensus of opinion from the bodies who gave evidence is that reconditioning in rural districts can be carried out by many small builders in the country, who are not large enough to tackle new building effectively, or on a competitive basis. Much of their labour is immobile, and is normally employed on repairs and reconditioning. We have also considered whether reconditioning in rural areas can increase accommodation, and find that accommodation is increased or maintained by the addition or enlargement of rooms, and by maintaining in use houses which would otherwise cease to be habitable. The Sub-Committee are continuing their investigation as to possible improvements in the Housing (Rural Workers) Acts with a view to making a further Report at an early date.

Local authorities are being asked by the Ministry of Health to arrange for the interim USE OF HOUSING SITES FOR FOOD PRODUCTION.

The Ministry suggests that action might be taken in the following ways: (1) When possession of land is obtained for long-term housing, agricultural tenants should not be disturbed until the latest practicable date and as clear an indication as possible should be given to the persons farming the land of the time when it is likely to be needed for housing use. (2) Where a site has been acquired and use of the land for agriculture has ceased but where building work is not likely to start this season, local authorities should endeavour to arrange for the previous occupiers or other persons to keep the land in agricultural use pending building development. (3) Where a site has been prepared with roads and sewers but will not be wholly used for the erection of houses during the current growing season every effort should be made to bring suitable parts of the site into short-term cultivation.

SPRINGTIME IN BUILDING

MR. ANEURIN BEVAN intimated recently to an audience of Local Authority representatives that the recent rise of 4d. per hour in building operatives' wages would not increase prices. In making the award of the 4d. per hour increase in wages one of the main recommendations of the Wages Board was that the Operatives' Representatives were to impress upon their members the need for greater output and that the output of the 1938 period was in mind as a standard of attainment. If this standard of output is attained by virtue of the 4d. per hour increase, then Mr. Bevan would be fully justified in his contention. But what has happened? There is a new feeling among the men. Both the operatives themselves and their Trade Union organizers are doing their level best to give the increased output demanded as a condition of award of this recent wage increase. Moreover, the men's leaders and the men themselves are accepting the wages increase as a compensation for the loss of pseudo-subsistence, travelling time, daily fares and other extras often demanded and granted to labour on recruitment. On the whole, therefore, the contractors, so far as labour is concerned, are coming back rapidly to the labour conditions of pre-war years and labour is much more willing, more co-operative and more productive than it has been for years. So far the picture is rosy. But the best efforts of labour will be abortive if the work as a whole cannot be properly organized. Labour output can only be maintained if the necessary supplies are delivered on the site and at the required time. No building work is properly organized if supplies are delivered on the site too far in advance of incorporation in the structure. Nor can labour be used effectively if supplies of materials and equipment are not available. Both conditions appear to labour as bad job organization, and with bad organization there is decreased efficiency from labour—even from labour in a mind to co-operate wholeheartedly. That is the trend today on building contracts. The supply of building labour is far in advance of the availability of building supplies. Consequently job organization is still difficult and the industry is still unbalanced. The recent influx of building labour has not coincided with increased supplies of materials and equipment, and the supply position is still cluttered up with Authorizations and Permits to Purchase, so that even when this paper work is finally in order there remains a major difficulty of locating supplies. It is very nice for the Architect or Local Authority to be granted permission to build—but building licences these days appear to be granted without adequate reference to availability of supplies. It is a pleasant thought that labour is using every endeavour to increase production, but even with the best will in the world, on a job experiencing difficulties of material supply, labour will sub-consciously drift back to the inertia of the cost-plus period. Mr. Bevan's contention that the wage increase would not increase building costs could be correct in a balanced industry

where labour and supplies are equally available. The men are doing their part. The contractor is prepared to co-operate. We've got the men, we've got the tools. Where are the materials?

At last something may be done about the situation. At the moment of going to press, a notice from the Ministry of Works has been received which states: "Vigorous steps are being taken by Government and industry to increase the production of bricks and other building materials and components in short supply. It is clear, however, that during the immediate future, before these steps achieve their full result, economy must be exercised in the use of all short supply materials and components. Alternative materials and methods of construction must be used wherever possible." Technical notes on how to achieve economy in the brick, plasterboard, slate, lead and timber bottlenecks are being issued, stress being laid on the virtues of no-fines concrete.

Austerity perhaps must still be accepted, muddle and lack of foresight cannot be excused. Let us hope that those "vigorous steps" will move towards more effective co-ordination than we have so far seen.



The Architects' Journal

War Address: 45, The Avenue, Chess, Surrey

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LAUNCHING LUNCH

By now most of you will probably have seen *The First Spring of Peace*—the first issue of that mammoth symposium of Thought, Action, and Relations produced by Contact Books. Within its glossy, yellow-belted covers, upon which gleams [double life-size] the elephant-eye of Ernest Bevin, is packed a truly fabulous array of talent ranging from Croce to Crossman, from Bowen to Bernal, from Ted Kavanagh to Arturo Barea, while the articles, presented plain and fancy, early English and late French, cover an equally wide range of topics from cookery to archi-

itecture, and from Mr. Rank to Giovanni de Paolo.

To celebrate the birth of this enterprise, a luncheon was held last week at Grosvenor House. Even the "Lord Calvert" copywriter, I thought, would have admitted that the gathering of men and women crouched over their pousins (rôtis à l'Anglaise) was a distinguished one. They came from what are often described as all walks of life, ambassadors and poets, economists and painters, editors and scientists, peers, politicians, publicists, and Mr. John Betjeman—all those, in fact, whom Harold Nicholson once described as Public Faces.

Mr. Nicholson himself presided as a member of Contact's editorial board. Pink, practised, benign, he told us of the aims of Contact. "This is the age," he said, "not of the common man, but of the expert. And experts"—he fixed us with eye as glittering as the Ancient Mariner's—"are inclined to live in ivory towers. It is the first object of Contact to break down these walls which divide the experts from each other and from their colleagues in other countries, and to re-establish general values and a respect for humanism."

After a couple more speeches on editorial policy—Contact, it is hoped, will be published in several languages—we dispersed. Through the echoing Palm

Lounge, past the "afternoon men," watchful and pouchy-eyed upon the sofas, past the chattering, bright-plumaged, enamel-clawed women, past the potted palms and cigar smoke and Chanel No. 5, past finally those insolent intimate stares so characteristic of a hotel foyer. "Admirable aims," said somebody as we reached the spring sunshine of Park Lane with relief—"but can they be achieved?" The answer, surely, is yes. Ivory towers, like the ivory castles in the toothpaste ads, are not invulnerable. Good luck to Contact in its first assault.

THE RIBA EXHIBITION

It's a nicely designed little exhibition at the RIBA—not over-ambitious but the kind of thing the Institute should domore and more. The fact is the public does not even now understand what the architect's real job is nor how vitally necessary it is at the present time for the country as a whole that the status of the architect in the community should be improved and his services appreciated and applied.

The first need is that the contact between laity and profession should be strengthened. One way of doing this is to tell the public what the architect can do, and also to provide it with standards of good design, whether of a kitchen or a town plan. What better method than through exhibitions, which, like this one, should include plenty of models?

Does the RIBA's *Building Now* exhibition fulfil these purposes? To some extent yes, and it is up to every individual architect to do his best to get people along to the show and to other similar ones that one hopes will be coming along. But has the story been put over sufficiently strongly? Does it not to some extent suffer from the same fault as that of the RIBA's wartime effort at the National Gallery—of being rather disjointed and too esoteric, however pleasant to the eye?

Modern publicity and propaganda has reached a high technical perfection, and the fundamentals of that technique are very simple—dramatic appeal to the senses—mainly sight, one story at a time, a few slogans often repeated (and easily repeatable), continuity of a few, and preferably one, visual symbol.

It is no good for architects to turn up their noses at this sort of thing. It doesn't bite and it doesn't necessarily imply vulgarity. If it worked for Lenin, for Hitler, for Digging for Victory, if it works for the Church of Rome and for Beer and Porridge Oats, it will work for architects and planners, and, what is more important, for architecture and planning. Propaganda is merely a tool, a method, a technique that can be used for any purpose, good or bad—in fact, it's just rhetoric in its widest sense.

It costs money, of course, though a lot can be done by enthusiastic volunteers. It also needs very careful handling, not only by architects and designers but also by publicity experts. Architects by themselves, I fear, will not realize that what is obvious to them may be terrifyingly abstruse to the layman ("I will show you fear in a handful of dust," says the poet—he might have added "and in a blue-print"). So publicity experts should be co-opted. By themselves, good taste and goodwill are not enough.

STANDARDS REVIEW NO. 5

We have received No. 5 of that admirable booklet *Standards Review* issued by the BSI. Is it characteristic that only at the fifth issue has a "standard method of nomenclature for numbering issues," to use the correct jargon, been arrived at? Hence the present volume is called No. 5, and subsequent volumes will be called Nos. 6, 7 and 8, and so on, in that order. It is simple enough when you see it that way but up till now nobody seemed to know quite how many issues had been published.

This book always contains something of interest to architects, even though the present is only a one-star volume. Chief item is the affirmation by BSI's chairman that future standards are not to be Government controlled, thus "no British Standard will be issued or promulgated without the general approval of those concerned." This can only mean the demise of the Ministry of Works Standards Dept., unless it is prepared to continue in a purely advisory capacity. Already the Standards section of the Ministry has been shifted into BSI's premises.

Whilst one does not wish to appear to be lavishing undue praise on the Standards Dept., it would be a pity to revert to the pre-war set-up, which only functioned when it was put in motion from outside. In practice, this meant that the majority of standards were the result of pressure by interested parties, and mainly the well organised producer interests, since objective, disinterested standards could rarely find sponsors. Our building standards were inadequate and overbalanced. Introduction of the Standard Dept. altered this fundamentally and an effort was made for the first time to bring objectivity to bear in the making of standards—although, to be sure, there is little success to record as yet as a result of the new approach. Too many post-war standards were still dominated by the pressure of producer interests—need we instance windows?—because of weak officials and a universal desire to create the minimum disturbance to the *status quo ante*.

Mention is made of a new addendum to the fire grading standard (No. 476—1932) to classify the characteristics of flame-spread on wallboards, a matter that is causing some anxiety in official quarters due to the increasing use of these materials as exposed wall linings. In future, four grades of board are to be recognised, very low, low, medium and rapid flame-spread, and one presumes that the higher categories will not be acceptable for wall linings in domestic buildings.

Ceiling linings constitute somewhat less of a hazard, but we shall want to know what gradings will be permissible in various positions and, of course, we shall have to ascertain the grading of any particular wallboard we desire to use. How, for instance, will surface treatment or impregnation affect its grading? Our well tried empirical methods of testing, by putting a match to our sample pieces or casting bits into the fire will, of course, hardly do. Did not F. L. Brady describe how architects were wont in like manner to pour water into their sample pieces of stone to test for absorption, unaware that the wily manufacturers had given the samples a special treatment of impregnated wax against just such a contingency?

ASTRAGAL



LETTERS

- R. R. Davis
(Hon. National Secretary, Arch.S.A.)
D. R. Owen
(Editor of "Plan")
R. C. Gussman (Col. R.A.O.C.)

Plan

SIR.—Once again we are obliged to express our pain and dismay brought about by comments in the ARCHITECTS' JOURNAL. Last week monstrous aspersions were cast upon the whole body of British Architectural students, and now we find our Journal *Plan* damned with praise so faint that we almost flatter ourselves you may be trying to provoke us. If this is so, we are of course duly grateful.

While appreciating ASTRAGAL'S bouquet, we deprecate his suggestion that Polish influence affects the policy of *Plan*, which is entirely the responsibility of those students of the Liverpool School who compose the Journal Committee of Arch.SA.

Also, the "Liverpool spy" has passed back erroneous information. The "all night" session was devoted to discussion of MARS and the aesthetics of machinery, no ancient buildings cropping up at all until the next day. Further, we should be grateful if we could be referred to by the right abbreviation of our title, since the initials ASA signify "Arts Students' Association," which you will agree is not at all the same thing. In this connection, do you think we could be granted the honour of appearing on the cover of the JOURNAL, together with the rest of the alphabet? We should, I am certain, greatly appreciate such a friendly gesture on your part.

In the meantime we can do no more than hope that you will some day grant us the credit of our own small achievements, and no longer feel it necessary to look incredulously about you for outside explanations of anything you approve.

B. R. DAVIS,
Hon. National Secretary, Arch.SA

D. R. OWEN,
Editor of *Plan*.
Liverpool
In reply to this letter and to the one

POLISH ARTIST'S IMPRESSIONS OF ROME



Three examples of the drawings of Katerina Wilczynski, a Polish artist who now lives in England and whose work can be seen at Roland, Browse and Delbanco's gallery in Cork Street, London. Italy was her home for ten years before the

war when she concentrated mainly with pen and pencil on architectural subjects in Rome and Southern Italy. Top left, fountain in Palazzo Carpegna, Rome. Below left, staircase in Piazza di Spagna, Rome. Right, Borromini Fantasy.

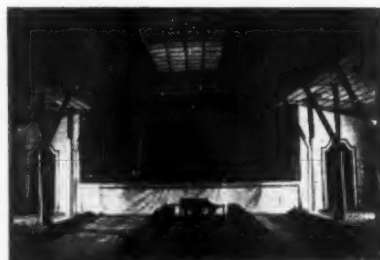
published from the same source on April 4.
ASTRAGAL writes:—

[My statement that Polish architectural students are better, on the evidence of their work, than their British colleagues, is called "a monstrous aspersion." Come, gentlemen, this is the language of the Security Council, the aggressive epithet which conceals the weak position and the wounded pride. The reply to this statement is not to say that the Poles are "hand-picked"—so are all the Liverpool students, or used to be—nor that the book "contains only their best work"—of course it does—but to sit down and produce something as good or better—taking in the pre-war years as well if you like.

As for *Plan*, I note that the present editorial policy has not been in any way influenced by the Poles or Mr. Summerson—must remember to sack that spy—and can only say that, in that case, my admiration is re-doubled. Concerning the request about Arch.SA appearing on the cover, the Editor informs me that lack of space makes it impossible to include any more societies. To overcome this difficulty he hopes shortly to remove the abbreviations to another part of the A. J. When this is done S.Arch will certainly be included.]

An Army Theatre in Burma

SIR.—I was very interested in Capt. Hunter's Army theatre in Egypt and felt you might be interested in efforts made in other sectors of the war. I enclose a photograph of a theatre built in the jungles of Burma, on the Arakan near Maungdan. It was designed and built under the direction of myself and Major Sole, I.E.M.E., with the assistance of Indian craftsmen. We were greatly restricted in availability of materials, and the theatre was built entirely with a few stout poles and an over-abundance of bamboo which is used in every form of construction in that part of the world. All other material used was obtained from salvage, and electric light was supplied from a workshop lorry. No one had any architectural qualifications, but everyone was extremely keen. The theatre was named *The Gaiety*, which words were cut out of an old tarpaulin, covered with old muslin and illuminated at night. Unfortunately, owing to enemy activity, illuminations had to be stopped, but at least it functioned for the opening night when 6/800 all ranks attended. Two canteens were built in the rear where refreshment was served in the interval. Hidden stage lights and spot lamps were made from old oil (Ghee) tins;



An Army theatre in Burma. See letter from Colonel R. C. Gussman.

curtain material obtained from waste material found surplus in salvage depots, i.e. inner flies of Army tents, usually old Desootie. During the week the theatre was used for whist drives and impromptu sketches, hence tables in position when the photograph was taken. The theatre was a great success and added greatly to the high standard of efficiency and morale of all troops in the area.

Weybridge

R. C. GUSSMAN,
Col., RAOC



Left, fixing a roof panel in position; the cladding material for both walls and roof is of panelling incorporating a patent compound. Below, sketch of the single storey prototype.

UNITROY SYSTEM OF HOUSE CONSTRUCTION

GENERAL—Messrs. Unitroy have evolved designs and materials for a single-storey and a two-storey house, in which the special interest is the use of a panel incorporating a patented compound of reed and cork which is applied wet to flat building sheets to which it adheres during the process of manufacture, giving the panels structural strength and high insulation value. This filler with the facing sheets forms a complete wall unit having an insulation value equal to that of a 20-in. cavity brick wall (unventilated) with internal face plastered. The standard size of unit is 8 ft. by 2 in. weighing between 120 and 130 lb. and can carry four men in the centre when simply supported at the ends. The unit has been used for wall cladding, roofing and

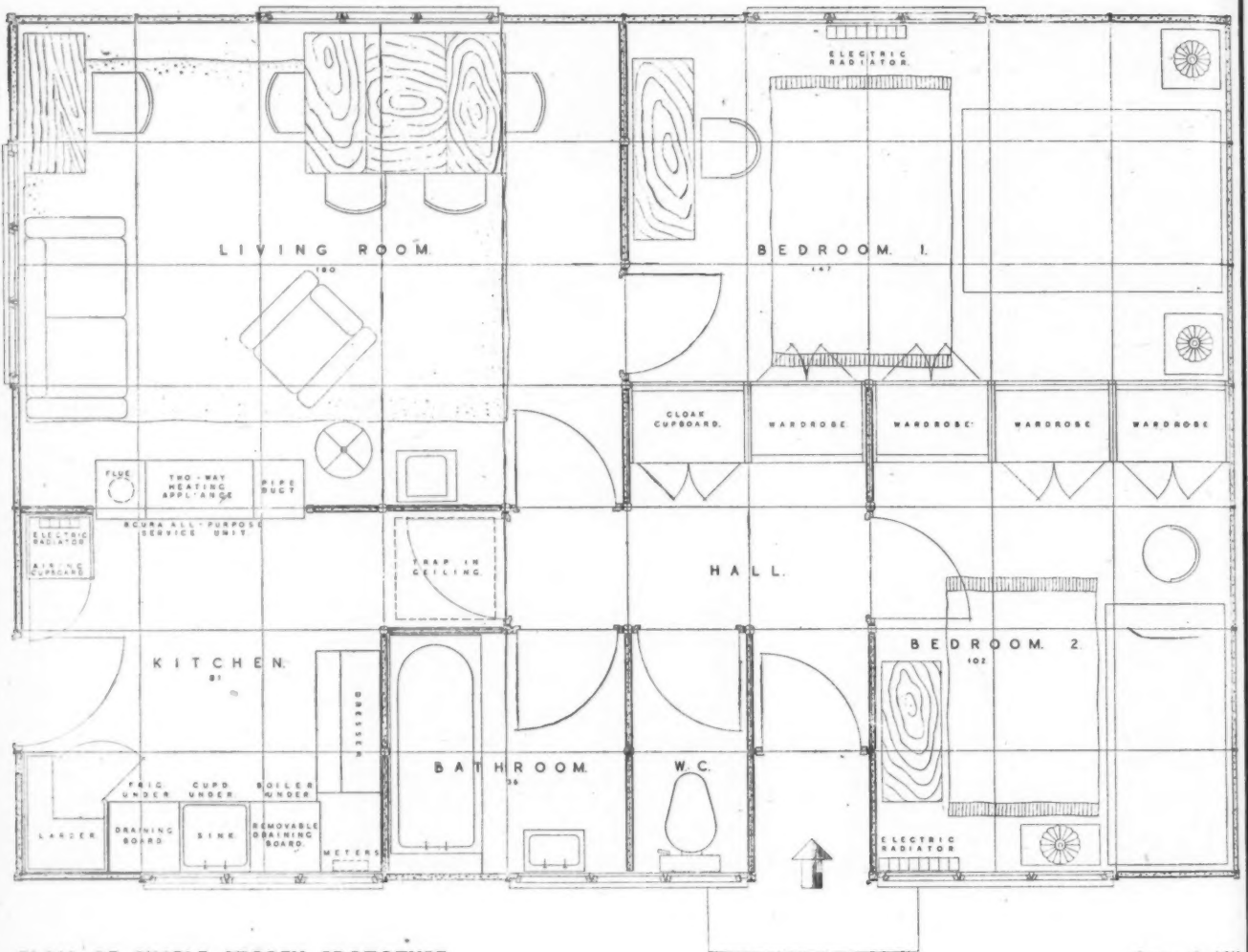
DESIGNER: MICHAEL FLATMAN
ENGINEER: JOHN MASON

partitioning in the one-storey house and for partitioning only in the two-storey house. As an outside cladding the unit is faced externally with $\frac{3}{8}$ in. asbestos sheeting finished with Tyrolean Cullamix and internally with wallboard, plaster or insulating board. Partitioning is faced both sides with wallboard.

THE SINGLE STOREY HOUSE
—A prototype, planned for rural areas, has been erected in the grounds of Messrs. Minimax at Feltham and has been licensed as an experiment by the Examination Panel of the Burt Committee.

The house is intended as a permanent dwelling having over 60 years' life. The whole construction is dry, and the system is flexible, being based on a 3-ft. module.





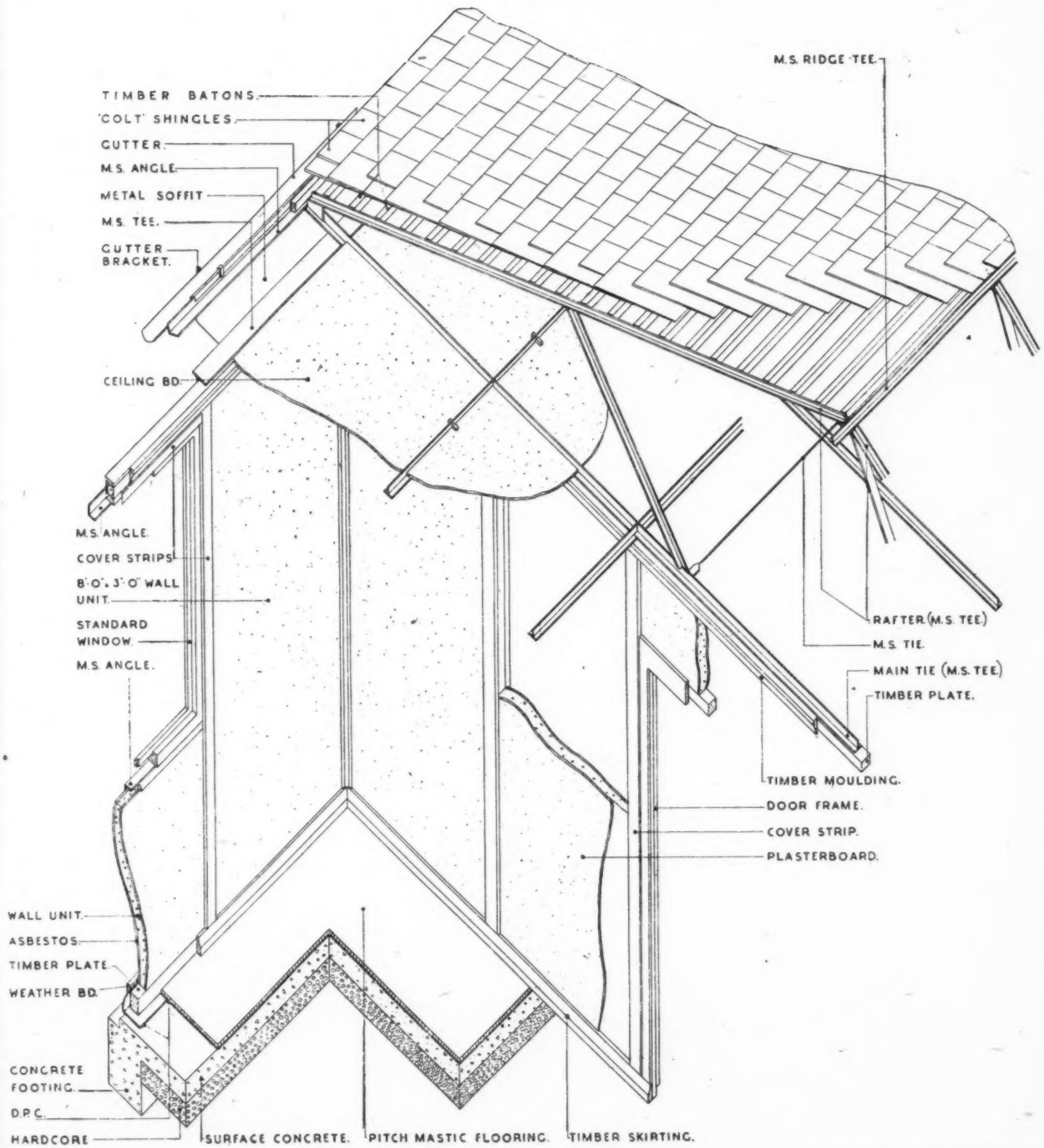
PLAN OF SINGLE STOREY PROTOTYPE

(Scale : 1/4" = 1'0")



Left, placing a prefabricated roof truss in position. Centre, bolting the framework. Right, the interior cover strips of which a detail is shown on the following page.

WALL
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AXONOMETRIC DIAGRAM

Frame: This is of $\frac{3}{8}$ -in. steel Tee section frame welded in the factory, the parts being bolted together on the site. The roof is hipped and the steel trusses are of the same light weight sections as the wall frame. The whole frame is zinc coated in accordance with

Recommendations on Methods of Protection against Corrosion (BS PD420).

Cladding: The wall panels are inserted into the steel frame from the inside and held in position by bolts, the external joints being sealed with a plastic caulking

material. The interior joint is finally covered with a metal fillet designed to carry an insulating layer of glass fibre.

Roof: The roof can be covered with a number of light-weight materials. In the prototype the covering is the 2-in. thick cladding

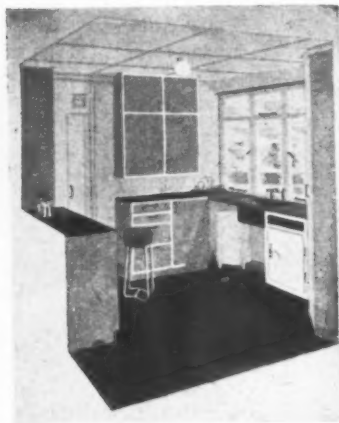
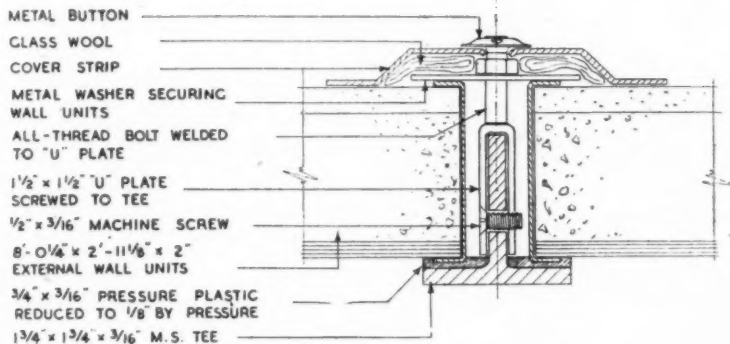
THE UNITROY SYSTEM OF CONSTRUCTION

unit described above and covered with a mineral surfaced Ruberoid roofing felt. Shingles could also be used.

Ceiling: This is of 3/4-in. plaster board laid in steel Tees at 3-ft. centres in each direction which incorporate the C. F. Anderson Patented wedge.

Floor: This is of 2-in. pitch mastic Colourphalt laid on 6 in. mass concrete.

Windows: Window frames and cupboards for kitchen and bedrooms are of timber.



Top right, detail section in plan of wall joint. Above, sketch of standard kitchen. Below, sketch of the two-storey design.

Equipment: A specially designed unit incorporates space heating, cooking and hot water services.

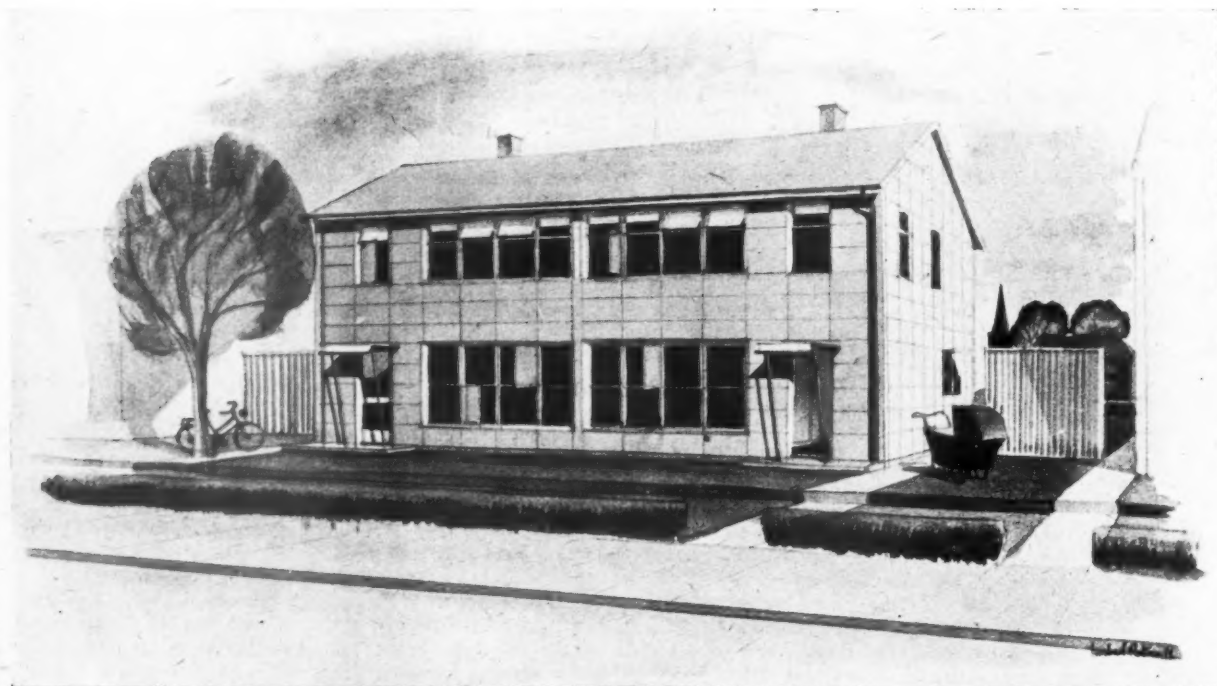
Planning: The total floor area is 630 sq. ft. and contains a living room of 180 sq. ft., two bedrooms, bathroom, separate W.C., entrance hall and fully equipped kitchen. All the rooms can be entered from the hall with the exception of the main bedroom which opens off the living room.

Cost and Erection: It is claimed that this single-storey building can be erected in less than 500 man hours, excluding site preparation and foundations, and can be built with very little use of traditional building labour. The approximate

estimated cost, including all fittings and the heating system, cupboards and electric fittings, but excluding erection costs and site preparation is to be £650.

TWO-STOREY HOUSE—No prototype of this design has yet been built. It is of tubular steel frame prefabricated construction, external cladding being of patent precast concrete blocks, which are load bearing and weigh 76 and 78 lb. per cu. ft. The composite cladding, as used in the single-storey prototype, is here used for partitions and inner lining.

The cost of this house is to be £1,100 per semi-detached unit.





A close-up of the kitchen side showing clothes boiler, sink and wringer in position.

KITCHEN AND BATHROOM SERVICE UNIT

DESIGNED BY ARCON, CHARTERED ARCHITECTS,
IN CONJUNCTION WITH FISHER AND LUDLOW

GENERAL—The Unit was originally designed as an integral part of a Temporary House (see plan on p. 310).

A number of the components, viz., bath, lavatory basin, W.C., cooker, and slow-combustion stove, have been selected from existing models and are not in all cases ideally suited for building-in.

The Unit designed for mass production is divided vertically by a hollow steel wall concealing all pipework. One short side is designed for exposure in a living

room, and contains a smokeless fuel grate; the other short side is designed for placing against an external wall and contains fresh air vents and inlets only.

THE KITCHEN SIDE—In addition to the equipment incorporated in the Unit, store cupboards for dry goods, china and cleaning and laundry accessories should be provided in the kitchen as well as a small table for snack meals or operations requiring a 30-in. high worktop.

The stainless-steel sink is of a size suited to both food preparation and laundry-work. Stainless-steel extension at a lower level forms the top of the wash boiler and the wash boiler is fitted with a fold-up wringer. When not in use this wringer is concealed under a reversible teak board which serves as either worktop or drainer. The cupboard below the sink provides space for buckets and the like. On the back of the cupboard door is hung a day-to-day refuse container. Inside this under-

sink cupboard is the valve whereby the contents of the wash boiler can be discharged straight into the sink waste.

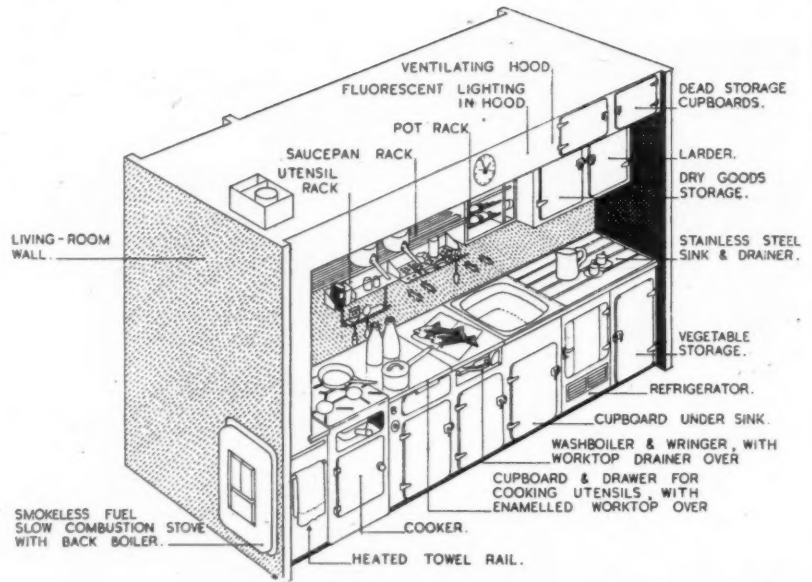
The cupboard below the wringer provides access to the gas heater for the wash boiler.

Above the sink and above the wash boiler are hot and cold water supply taps, with a swivel arm to feed either sink or wash boiler.

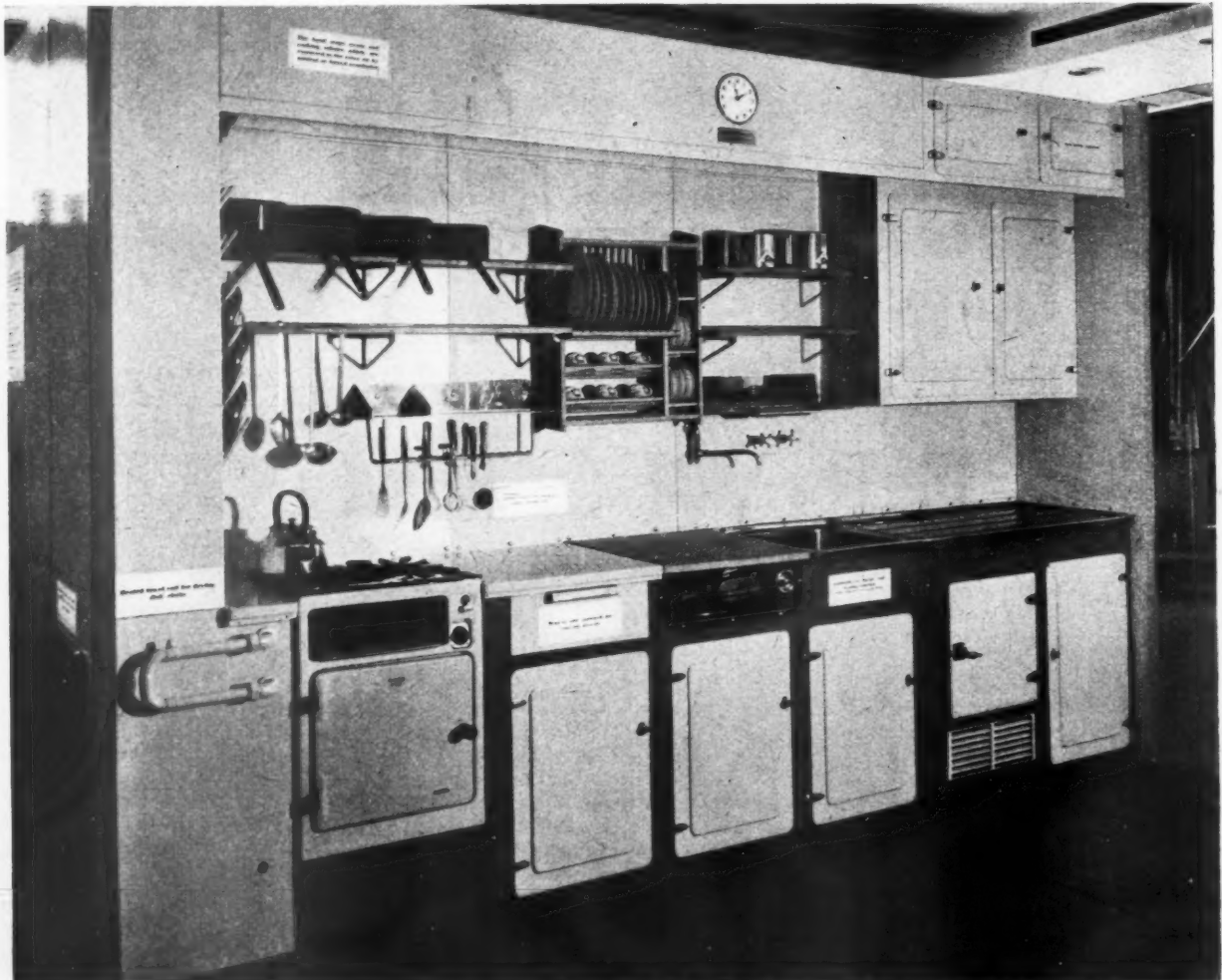
To the left of the cooker there is a small extension at worktop height to allow elbow room during cooking operations. To the left of the cooker also there is a heated towel rail for drying dishcloths.

A canopy—for trapping steam and cooking odours—extends over sink, wash boiler, worktop and cooker. The face of this canopy contains a built-in electrical clock and behind the canopy there is fluorescent tube lighting.

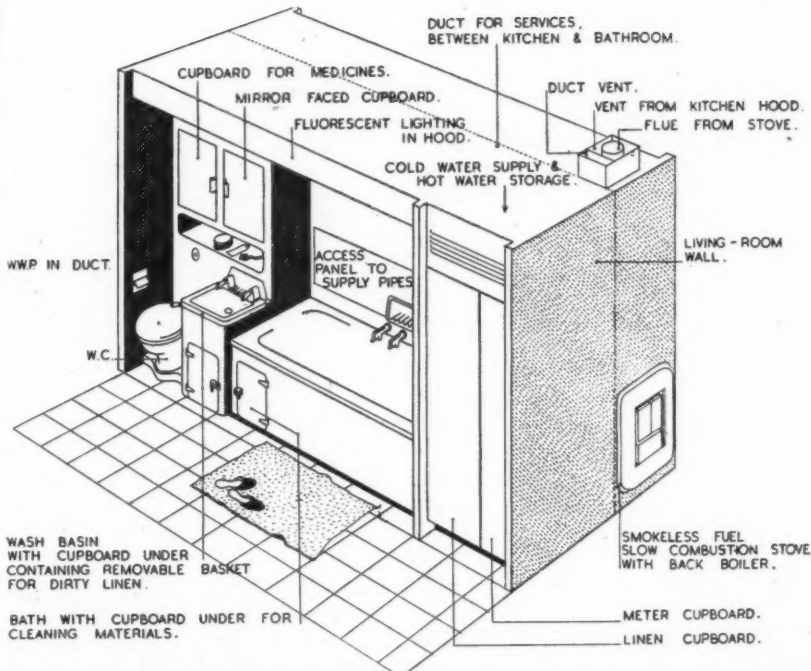
Steam and cooking odours are extracted from the canopy to the outer air by either natural or forced ventilation. The extract flue from the canopy is cased round the smoke stack of



Above, diagram of the kitchen side of the unit. Below, photograph of the kitchen side.



KITCHEN AND BATHROOM SERVICE UNIT



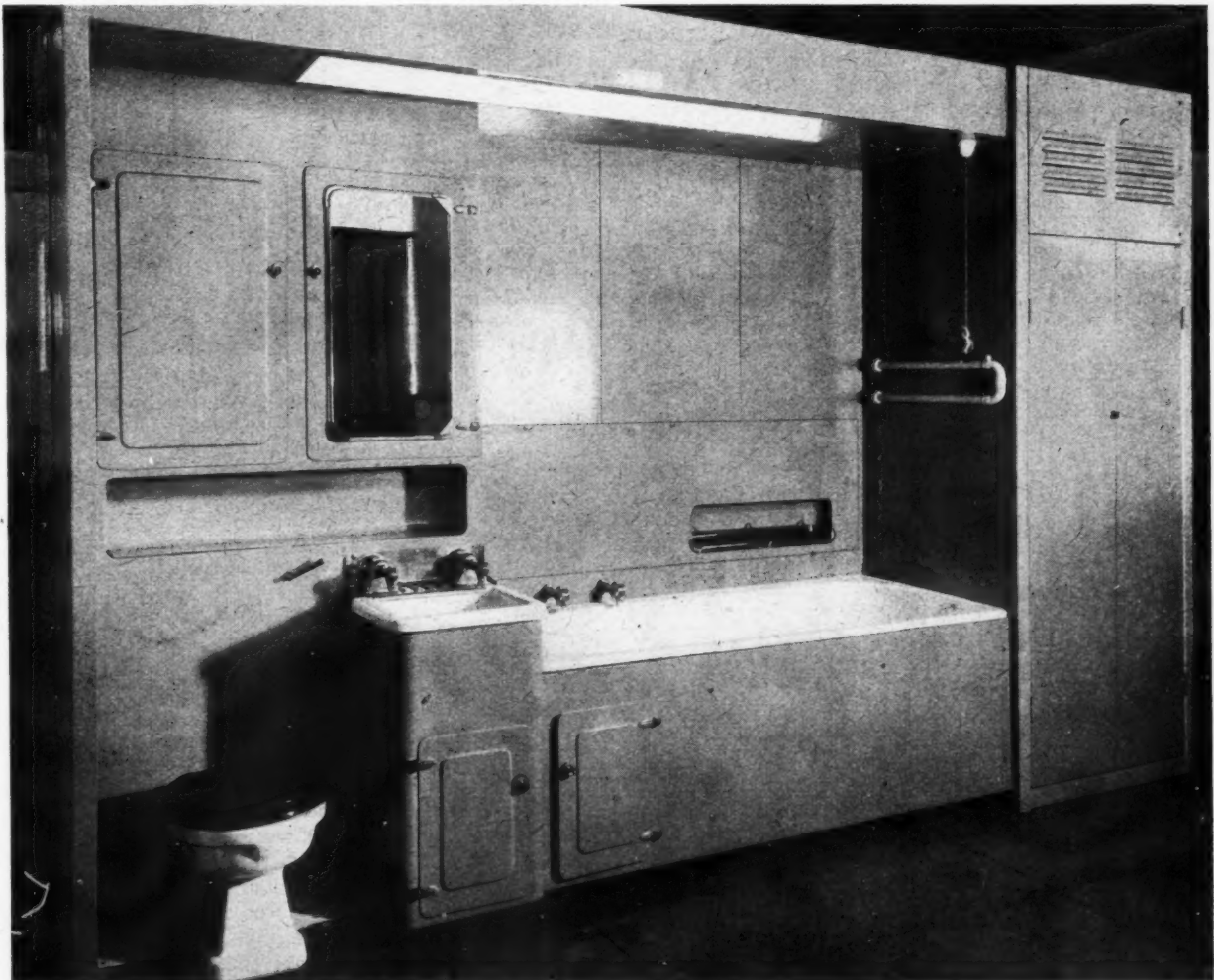
Above, diagram of the bathroom side. Below, photograph of the bathroom side.

the smokeless fuel fire, thus assisting natural ventilation. If desired, an electric fan can be installed to assist ventilation and when this fan is in use, the natural air outlets can be closed by a control situated on the wall to the left of the cooker. All gas appliances are vented. All food storage space is ventilated to the external air.

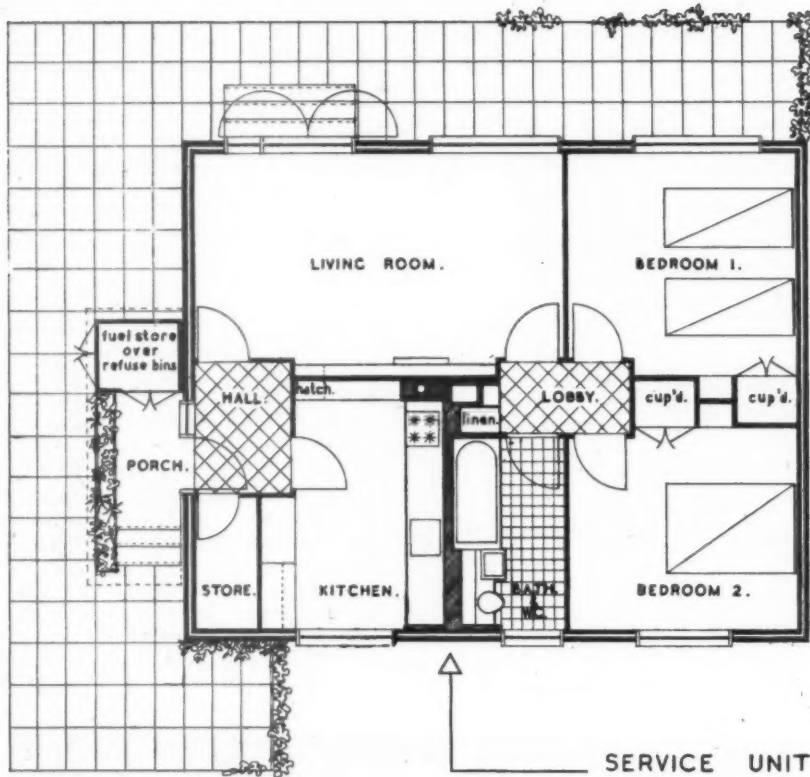
An electric point is provided in the rear wall above the enamel worktop so that electric labour-saving devices can be plugged in at will.

THE BATHROOM SIDE—The W.C. has a low level cistern concealed in the body work of the unit, only the flushing lever being exposed. The W.C. is of earthenware fitted with a plastic seat and cover.

The basin is of vitreous enamelled cast iron with soap holder and splash-back of stainless steel. Below the basin is a cupboard with wire mesh container for dirty



DESIGNED BY ARCON, CHARTERED ARCHITECTS

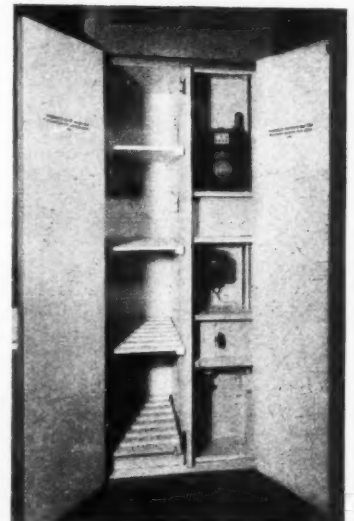
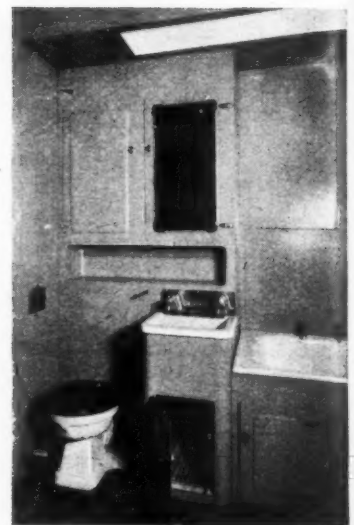


linen. A recessed shelf below the cupboard is removable for access to the ball valve of the cistern. The bath is of vitreous enamelled cast iron and has a panel fitted with a door giving access to the bath trap and cleaning eye, and to a space for bathroom cleaning materials. Above the bath at one end is a heated towel rail. In the false ceiling over the bath is a fluorescent tube. The unit contains a cupboard for linen, meters, and water storage tanks; in a house this cupboard would be in the lobby. The ventilator over the cupboard vents the lobby direct to the open air. The slatted shelves and back and side of the cupboard are removable for access to the water tanks.

THE LIVING-ROOM END—The inner, living-room end of the Unit contains a smokeless fuel slow-combustion stove, the smoke stack being concealed. Air circulating round the recess in which the stove is placed supplements by convection the radiant heat of the fire. The stove is fitted with a boiler for water-heating; the cylinder also has an electric immersion heater for summer use. There are two 15-amp. socket outlets on the left of the stove.

SERVICE UNIT

Above, plan of the Arcon Demountable House I, incorporating the Unit. Top right, the w.c. and basin. Right, the cupboard for linen, gas and electricity meters, fuse gear, etc., on the bathroom side. Below, the cupboard under the sink, with garbage bin, containing valve for emptying the wash boiler; a drawer and cupboard for cooking utensils can be seen on the left.



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INFORMATION CENTRE

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

STRUCTURE

2504 USA Concrete Block

SELECTION AND USE OF CONCRETE BLOCK. (Pencil Points, December, 1945, pp. 87-91.) Kinds, sizes, manufacture and uses of concrete blocks.

Concrete blocks are far more popular in USA than in this country. They are available in a wide variety of standard shapes and sizes to fill virtually every construction need. Sizes conform to modular dimensions, standard units are made 16 in. long, 4 in. to 12 in. thick, 8 in. high (including joint allowance). Blocks are classified, as load-bearing and non-load bearing. Texture of surfaces varies from coarse to fine. Blocks of light weight aggregate have better acoustical properties than those made of heavy aggregate, and greater thermal insulation value. A wide range of colour can be obtained.

Blocks may be used in partitions, in external walls, in floors (as filler tiles). Wood and metal door casings, window sills, etc., can be nailed directly to lightweight concrete blocks.

2505 Swiss RC Development

FESTIGKEIT UND VERFORMUNG VON AUF BIEGUNG BEANSPRUCHTEN EISENBETON-BALKEN. (STRENGTH AND DEFORMATION OF REINFORCED CONCRETE BEAMS TESTED IN BENDING.) Report No. 141 of the Eidgenössische Materialprüfungs- und Versuchsanstalt für Industrie, Bauwesen und Gewerbe (Federal Research Institute for Testing Materials for Industry, Building and Craft, Zürich, October, 1942.) Comparative tests on concrete beams reinforced with Tor-steel, high tensile steel St. 52, and mild steel St. N., for static and dynamic loading.

This well documented and illustrated report of 84 large size pages, published during the war, deserves the attention of all concerned with the future development of reinforced concrete. It comprises three groups of 16, 18, 18 beams each. In each group a different type of reinforcement was used. Half of the beams were tested for dynamic, i.e., pulsating loading, to determine the endurance strength of the beams. The cross section of the majority of the specimens was rectangular, but a few T-beams were also included. The development of cracks was carefully observed and strain measurements both on steel and concrete were recorded.

The mild steel St. N. had an average yield point of over 18 t/sq. in. in bars not exceeding 1 in. dia., although the average ultimate strength was only 25 t/sq. in. The high tensile steel St. 52 had a min. yield point of 26 t/sq. in. and a min. ultimate strength of 36 t/sq. in., as against 23 and 37 t/sq. in. respectively specified for high

tensile steel in B.S.785. Tor-steel is cold twisted round steel with two projecting ribs forming spirals. Its minimum yield point in the test was 24.4 t/sq. in., its maximum ultimate strength 30.3 t/sq. in. Judged by this last figure it would not qualify even for medium tensile steel according to B.S.785, and it falls short of the requirements of B.S.1144 for cold twisted bars. Yet its performance in concrete was superior to that of the high tensile steel St. 52, and was particularly favourable regarding endurance strength, bond and crack development. The following averages give an idea of the relative values of the three types of reinforcement. They are related to mild steel as unity.

	Mild steel N St.	High tensile steel st. 52	Cold twisted Tor-Steel
Quantity of steel in beams	1	0.667	0.667
Yield point	1	1.57	1.43
Ultimate strength	1	1.48	1.25
Max. M stat.	1	1.05	1.00
Max. M dyn.	1	0.82	0.95

Thus, if 1 sq. in. of mild steel is replaced by 2/3 sq. in. of one of the two other types, the load bearing capacity in static loading is increased by 5 and 9 per cent. respectively. On the other hand, the endurance strength is reduced by 18 per cent. with high tensile steel St. 52, but only by 5 per cent. with Tor-steel. The higher efficiency of Tor-steel as against high tensile steel St. 52, in spite of its lower yield point and substantially lower ultimate strength, may be explained by its higher bond value. Diagrams showing the relationship between stresses and widths of cracks indicate a superiority of Tor-steel which is emphasized in the conclusions of the report.

The test results agree closely with values obtained on the basis of the plastic theory. They have confirmed the soundness of the Swiss regulations for reinforced concrete with regard to the variation of the permissible steel stresses within wide limits, e.g., the permissible stress in two-way reinforced slabs is up to 28 per cent. higher than in T-beams.

2506 Menai Bridge Reconstruction

MENAI BRIDGE RECONSTRUCTION. G. A. Maunsell. (Journal of the Institution of Civil Engineers, January, 1946, pp. 165-206.) History of bridge. Form and extent of reconstruction. Details. Peculiarities of old structure.

The Menai bridge was designed by Telford. Work was commenced in 1818 and the bridge was opened for public use in 1826. Several repairs have been necessary during its long history. Originally the deck was in timber. It was completely wrecked in a gale in 1839. Then a stronger deck in timber was built which avoided the mistakes of the original construction. The second deck lasted for 54 years, when it

was replaced by a steel deck installed by Sir Benjamin Baker. This substantially increased the dead weight of the bridge as against Telford's design. Further repairs were made in 1912. Investigations carried out in the twenties necessitated severe restrictions regarding weight and speed of vehicles which had to maintain 50 ft. intervals. The Ministry of Transport decided to reconstruct the bridge. The conditions of reconstruction were:—

(1) A double carriage way of 23 ft. width instead of two single roadways of 7 ft. 6 in. each, and two footways each 5 ft. wide.

(2) Traffic had to be maintained throughout the whole period of reconstruction.

(3) The architectural features of the original bridge had to be retained as far as possible.

The article contains many structural details and describes the erection. The protection of the new chains against corrosion is particularly interesting. The text is well illustrated with photographs and drawings.

2507 Atomic Plants

CONSTRUCTION FOR ATOMIC BOMB PRODUCTION. (Engineering News-Record, December 13, 1945. See also The Architectural Forum, October, 1945, pp. 102-116.) Series of 13 articles with brief account of history of atomic plants.

Construction for production of the atomic bomb was probably the largest and most co-ordinated building job ever undertaken. In less than 3 years nearly \$2 billion (about £500,000,000) was spent. Despite its size and speed of construction, the project has been completely shielded from public knowledge. The articles describe the Clinton Engineer Works near Knoxville, Ten., its residential centre, the town of Oak Ridge, and Hanford Engineer Works, Wash.

Clinton Engineer Works, constructed at a cost of more than a billion dollars, is composed of several huge plants (electromagnetic, separation plant, gaseous diffusion plant, thermal diffusion plant) was built by the co-operative effort of some 47,000 persons. The town of Oak Ridge was built



Top, the main span of the old Menai Bridge. Below, the main span of the reconstructed bridge looking towards Anglesey Pier. The character of Telford's design has been retained as far as possible. See No. 2506.

in 2½ years to accommodate some 75,000 people. The Hanford Engineer Works is entirely devoted to the production of plutonium.

The articles are mainly concerned with questions of organization, accommodation and transport of labour, and purchase and supply of materials. The numerical data give an idea of the extraordinary size of the plants, e.g., the U-shaped gaseous diffusion plant is four storeys high, over half a mile long and nearly a quarter-mile across, covering an area of 60 acres. Located in the centre of the U is the largest air-drying installation ever built. Nearby, but outside the U, is one of the largest spray cooling tower installations ever made, part of a circulating cooling water system that handles enough water to supply a city of 5,000,000.

Living conditions for the workmen were difficult. Even greater effort was needed to hold personnel than to get it. The labour force for construction at Hanford reached a peak of 45,000, for most of which it was necessary to provide living quarters.

The safety record of Clinton Engineer Works is remarkable. The rate of accidents and days lost per thousand man-hours was much lower than the US Department of Labour's national construction industry averages.

2508

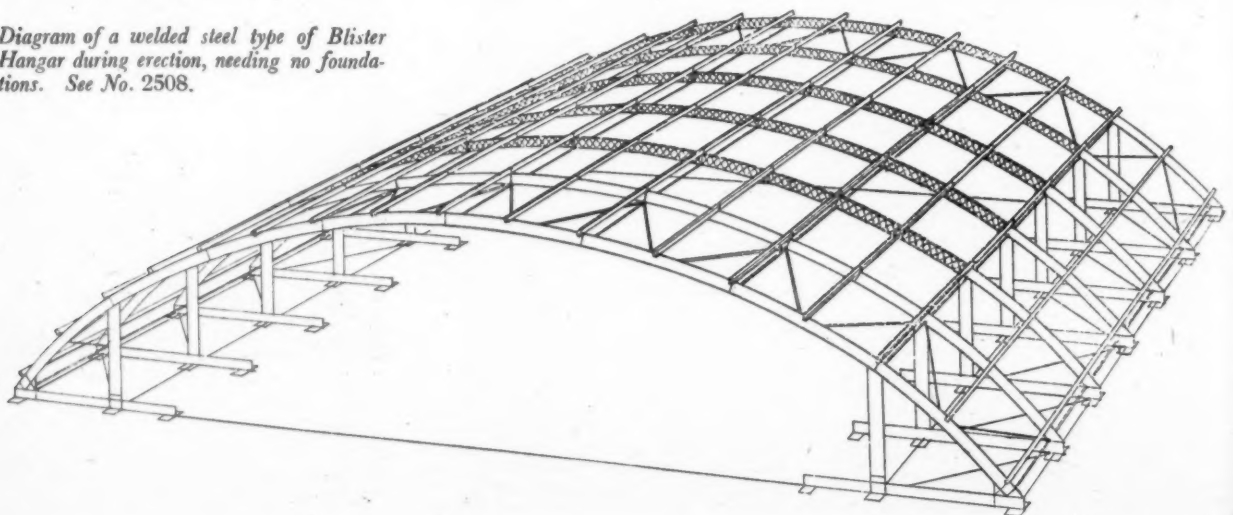
Blister Hangars

THE BLISTER HANGAR. Pamphlet and Specifications. (C. Miskin & Sons, St. Albans.) Arch structure in steel with canvas ends designed for easy transport and quick erection on roughly levelled sites.

All-purpose Blister buildings are developed from Blister Hangars, a number of which have been erected or are now under erection for the British Government. The structure consists of radial units bolted together to form ribs, and supported by bearers and uprights. The ribs carry purlins which support corrugated iron roof coverings. The material used is steel, welded into standardized units which are bolted together on the site. The weight of the complete structure without gables does not exceed 6 lb./sq. ft. of effective floor space. The heaviest piece weighs 1½ cwts. and the longest unit is 16 ft. 2 in. No foundations whatever are required. The pressure on the ground varies between ¼ and ½ t/sq. ft. The clear span between uprights may vary between 45 and 69 ft. For the smallest span timber may be used instead of steel.

Blister buildings can be used for different purposes, e.g., storage, repair and maintenance garage, drill and entertainment hall, workshop, canteen, etc.

Diagram of a welded steel type of Blister Hangar during erection, needing no foundations. See No. 2508.



The specifications contain data of cost, structural details and instructions for erection.

LIGHTING

2509 Lighting for Outdoor Sport

LIGHTING FOR RECREATION. E. P. Mowson. (Light and Lighting, October, 1945, p. 142.) Lamp sizes, spacing and fitting types for outdoor sport.

A paper by an architect, dealing with lighting, is rare. This deals with a great variety of open air sports, indicating appropriate number of fittings, lamp size, spacing, height and type of unit. A useful table summarizes the data.

2510 Ultra-Violet Disinfection

PRINCIPLES OF ULTRA-VIOLET DISINFECTIOIN. L. J. Buttope (Ohio, USA.) (Air Treatment Engineer, October, 1945.) Mechanism of respiratory infection.

Requirements in rate of air change to provide satisfactory condition. Impracticability of achieving standards by means of ventilation. The use of U.V. disinfection in rooms and limitations of its use in ventilation ducts. Limitation of use in rooms due to danger to eyesight. Detailed technical consideration. Valuable article on this new but increasingly important health aspect of buildings.

2511 Fluorescent Lamps

RELIABLE INSTANT-STARTING FLUORESCENT LAMPS. R. N. Thayer and D. D. Hinman. (Illuminating Engineering, September, 1945, p. 640.) Progress towards instant-starting mechanisms for hot-cathode lamps.

PLUMBING and Sanitation

2512 Housing Estate Drainage

HOUSING AND DRAINAGE. L. B. Escritt. Paper read at HC Conference on Public Services and Housing, January 18, 1946. (Municipal Engineering, January 31, 1946, p. 61.) Concise and useful statement of what estate planner should know about drainage. Review of drainage systems. Calculation of flows. Function of the drainage engineer as specialist. Minimum gradients and gradient fallacies. Site investigations for housing schemes. Importance of drainage to choice of site. Sewage treatment. Disadvantages of cesspools. Siting of treatment works.

This is a provocative and stimulating treatment of what has been for too long a conventionalised subject. The author speaks as a drainage engineer of experience, and points out how costs can be run up by failure to consider drainage problems at a sufficiently early stage in site planning. The need for the estate designer to have a knowledge of drainage theory in broad outline, without being concerned with details, is rightly stressed, and is followed by a concise statement of what these principles are. There is a useful table of minimum possible gradients for sewers serving numbers of houses from 420 to 15,000, giving the exact information the planner wants in a form that does not seem to have been attempted in any of the standard textbooks. This is sound sense, for the architect simply has not time to master the complicated empirical formulas found in such books. What he usually wants to know, and know quickly, is whether the land can be drained into existing sewers with or without pumping. The same commonsense approach is given to procedure in site investigation, and the important legal considerations are stated concisely. Finally, treatment of sewage from the point of view of the estate developer is dealt with, and the fact that cesspools are nearly always the most expensive solution is rightly stressed. The paper is short because there is no padding, and is worth reading alone for its novel and refreshing approach to a subject about which there has been too much professional mystery. There is only one questionable statement, and that is that the loss of animal and vegetable nutriment to land as a result of the water-borne system of sewage disposal is not at all a serious matter. The humus enthusiasts who demand a return to conservancy methods of sewage disposal may be wrong, but this does not justify such a statement.

2513 Water and Macerated Wastes

CONSUMPTION OF DOMESTIC FOOD-WASTE GRINDERS. (Sewage Engineering, USA, November, 1945.) Details of investigations of water used. Effect of

W H Y S T O R E

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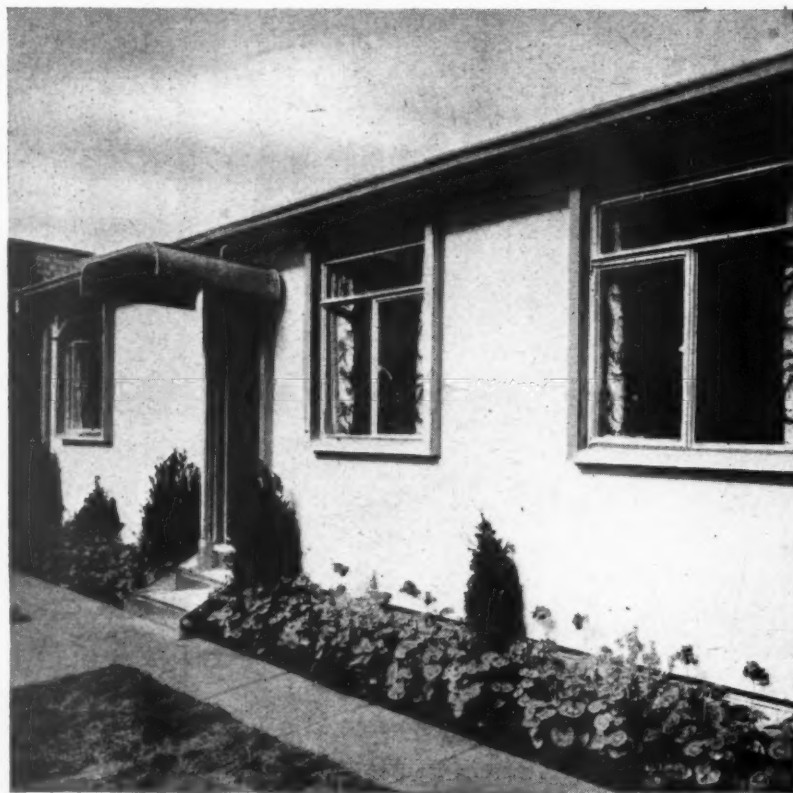
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discharge of macerated wastes into sewers.

The main argument against electric kitchen waste grinders, now widely used in the USA, has been the additional high water consumption. As a result of investigations into actual domestic usage it is claimed that extra usage is about one gallon of water per head per day, the grinder using 1½ galls. per minute in operation. Garbage production was found to be ½ lb. per head per day, diluted with ten times its volume of grinding water. Thus no deleterious effect on drains or sewers is anticipated.

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.

2514 Stabilising Sand Dunes

Q At the outbreak of war we were completing a large Holiday Camp for the Miners' Welfare Commission near Skegness, which, unfortunately, was immediately taken over by the Military before we had added the final touches.

One of these final touches was to have been the planting of the sand-dunes on which the Camp is built with some form of natural sand growing grass to anchor the sand in those undulations which it had assumed under natural conditions.

This Camp has now been de-requisitioned, and we have commenced reinstatement. Unfortunately, as can be expected, the sand in many places has changed its levels considerably due to the action of the wind exaggerated in certain places by sharp air currents set up by the buildings themselves.

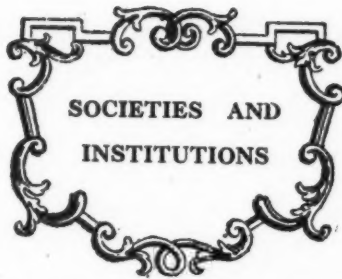
These buildings are wooden chalets on concrete piers, and in some cases the buildings are on the verge of collapse due to this movement of sand.

Can you tell us what sea grass to plant on this sand to anchor it once we have attained the new levels? Where can it be obtained, and what is the correct time of year for planting? Would grass planted this year obtain a sufficient hold to prevent the sand blowing during next winter, or must some intermediate stage be adopted of laying branches or other material on the sand?

A The most suitable type of grass to plant on the sand dunes would probably be sea lyme grass (*triticum pungens*), and this is about the best time of the year to plant it.

Unfortunately, it does not grow very fast, and we doubt if it will be able to hold the sand by next winter. Quite a common practice is to plant pine trees when the grass has had a chance to stabilize the sand.

We understand that the Scottish Forestry Commission has had a great deal of experience with the stabilization of sand dunes, particularly on Culbin Sand Hills, on the Moray Firth. We suggest that you should write to the Headquarters of the Forestry Commission at Camp House, Promenade, Bristol, 8, or direct to the Forestry Commissioner for Scotland at 25, Drumsheugh Gardens, Edinburgh. They will no doubt be able to give you all the information which you require.



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

R. H. Sheppard

March 28, at the County Hall, S.E.1. Lecture in a series of five on *Design in Daily Life*, sponsored by the Design and Industries Association, on RECONSTRUCTION OF OUR PLACES OF AMUSEMENT, by Richard H. Sheppard, F.R.I.B.A. Chairman: J. W. Waterer, F.R.S.A., M.S.I.A.

R. H. Sheppard: In the last twenty years an enormous apparatus of entertainment has grown up. That has been particularly marked in the last two decades. During those decades the time and the money which people have spent on entertainment must have increased enormously, and there can be very little doubt, I think, that the entertainment industry is likely to increase rather than to diminish and is likely to find new forms.

The sport forms which entertainment takes do not remain static. The sport of one century is boredom in the next. The amusement of the upper classes in one decade is the amusement of the lower classes in the next, and then it passes out of fashion. There are also enormous national differences in sports, so that one cannot generalize from one country to another. For example, football is regarded with almost religious seriousness in this country, but is not taken so seriously on the Continent. On the other hand, the French are very fond of watching cycle racing, which to many of us appears extremely monotonous. We have to take all these factors into account in trying to see what is going to happen in the future.

We hope, of course, that leisure will become increasingly available, and we must hope that a better use will be made of it. I believe that the average cinema-goer in this country goes to the cinema twice a week, and I should think that a diet of undiluted Metro-Goldwyn-Mayer twice a week must be very difficult to digest, but I imagine the rate could be increased to four

times a week if people had more leisure. I shudder to think what may happen to our society, because it seems to me that many of the activities of the entertainment industry are inimical to the creative impulses of human beings.

ENTERTAINMENT AND THE STATE

Obviously this question has to be considered nationally and obviously it is a political question, but it does not seem to me that any kind of control or direction from above can ever be imposed on large sections of the entertainment industry. I do not suppose that even the most rabid enthusiast for the national theatre has ever suggested that all theatres should be nationalized. Obviously the entertainment industry, which varies from time to time and from place to place, must be allowed to maintain its own relation to society at its own expense and at the expense of the individual member of society. I would go so far as to say that the less control imposed on places of public entertainment and their replanning in the future the better. I do not think that any control should be exercised over public entertainment so long as it is not inimical to the welfare of the community as a whole.

During the last twenty or thirty years an increasing amount of attention has been given to entertainment which is cultural in intention. I suppose this dates back to the mechanics' institutes and working men's colleges, and so forth, which were founded in the 1840's and the 1850's in an effort to ameliorate the conditions in the industrial areas of this country. Organizations such as the Workers' Educational Association have received definite official guidance, and to-day we have the movement towards community centres, which serve as centres for certain kinds of amusements.

I do not think we can adopt any standard of absolute values in connection with entertainments, and I do not think we should differentiate too strictly between the cultural entertainments which are sponsored or subsidized by the State or by education authorities or educational associations and the entertainments which are provided simply for profit. I think that as far as possible we should link the two together in certain places, as has been done recently, for example, in the cinema, by the introduction of educational films and short films of an instructional type.

The question of leisure and of the design and planning of our future public buildings and places of amusement is tied up very closely with the development of our industrial background, and I do not think we can ignore that when we are considering places of public entertainment from a planning point of view.

In the work of reconstruction we have to consider how far places of entertainment—I am speaking of anything from a cinema to a stadium and from a workers' centre in a factory to a community centre—are to be controlled, and what form they are likely to take. Analysing the tendencies during the last twenty or thirty years, one can see two distinct trends of development. One is the gradual concentration of amusements into definite centres in the towns and suburbs, and the other is the spread of small centres for public amusement and instruction throughout the community as a whole. For instance, on the one hand there is Radio City in New York, in which there is a colossal concentration of all the commercial entertainment which a large metropolitan centre such as New York requires, and, on the other hand, there are the local community centres in the mining villages of this country and the village colleges such as those that were built immediately before the war in Cambridgeshire. One serves the big urban community and the other serves the small rural community, and, of course, the rural community goes to the urban centres for its mass entertainment, so that the two are linked.

THE URBAN PROBLEM

With regard to urban entertainment, that is in some ways the more interesting architecturally, partly because it is the larger side of the subject at the present time. In London during the last thirty years there has been a steady grouping of places of public entertainment, the most obvious of which is the grouping in the West End. In Edwardian times the Strand was one of the great centres of restaurants, clubs and theatres, but during the last twenty years entertainment has been moving west and concentrating in the Piccadilly area. In New York and other big metropolitan areas the centres of public entertainment are tending to be grouped in definite districts, in the same way as in London, and this is a factor which must be taken into account by the planners in making their reconstruction plans for our big towns. We find it also in the provincial towns and even in the suburbs, especially the new suburbs.

In this development there are two phases to be discerned. In London, for example, there is a horizontal concentration of theatres, cinemas, dance halls, and so on; they are spread out at intervals and people go from one to another. They may go to a theatre and then walk or go by tube or taxi to another place for a meal, and much traffic confusion arises from that process. There is also a vertical concentration of places of entertainment, which is occurring only on a small scale at the present time. Radio City in New York is perhaps the largest instance of the vertical concentration of a number of amusements and entertainments in a single building, and the same thing is happening in very much smaller and more civilised communities in Switzerland and Sweden. Only a few weeks ago there were published in the *Architectural Review* the details of a building in Switzerland which had a concert hall to which have been added two smaller concert halls, a large restaurant, a much smaller and more luxurious restaurant, several small halls and an exhibition hall. In London we are greatly in need of an exhibition hall; since the Crystal Palace was burnt down we have only the Dorland Hall.

In the preparation of the County of London Plan considerable thought has been given to the question of amusements in the west end of London, and, although no proposals have been made for any greater concentration of theatres, cinemas, and so on, it is obviously anticipated by those who prepared the County of London Plan that this process of concentration in the West End will continue. That raises some very difficult problems for the town planner, one of which is transport. The West End of London is fairly well served, largely because of the tube railways and the north-south-east-west pattern of bus services which tend to concentrate in the west end, but as we get bigger centres of public entertainment the traffic problem at certain hours becomes more and more serious. Nearly all the theatres in London need to be rebuilt, and, if they are rebuilt in the half-mile or so between Shaftesbury Avenue and Piccadilly, at certain times of the day there will be an enormous concentration of people wanting transport home, with a resulting congestion in this neighbourhood. The same thing will occur in the case of the building which has a number of different halls serving different purposes. It is in this connection that entertainment may come to need some national control. If, for instance, a syndicate of people proposed to develop Leicester Square in one solid phalanx and to build it up to a great height, the resulting congestion might very easily disrupt the whole plan for traffic in that area. I do not think that this particular problem has been really considered in detail by those who prepared the County of London Plan.

THE RURAL PROBLEM

At the other end of the scale there is the small separate place of entertainment in the village. In the past the village has been so badly served in the matter of entertainment

that most of the inhabitants have long since migrated to the towns, but if our wages policy in farming is successful, we may keep a few farm workers in the villages. Therefore, in the villages and in the country towns we must provide apparatus, so to speak, for the use of leisure, similar in kind, if not in quantity, to that which exists in the big metropolitan and built-up areas. That is a very difficult problem for the planner.

In the case of the Cambridge village college, a large village serves as a focus for about six villages, and in the large village there is an adult centre, usually attached to the school, which has a wide variety of cultural and other uses. There is usually some kind of transport system to bring the people from the smaller villages to the large village. Public transport is also provided to bring people from the villages to the commercial types of entertainment in the county and other towns. Most of these places of entertainment are very badly sited, old, and unsuitable for their purpose. Anyone who has spent a wet Saturday afternoon in a small cinema in a market town knows how unattractive even a good film can be in those conditions, with people in wet macintoshes and gum boots filling all the aisles. It is obvious that this side of the entertainment industry must be planned and developed in the smaller towns, where the opportunities for profit are not so great, and it seems to me that the local authorities should take steps to subsidise some kind of development there, to ensure that it presents a satisfactory background for living and provides as much amenity to the individuals in the smaller towns in relation to their size as is provided for people in the larger centres. In the smaller centres there cannot be the same complexity of entertainment as there is in such places as Birmingham and Blackpool. If the people in the rural communities want to visit dog tracks and stadia, transport must be provided for them to the larger centres.

This problem of rural entertainment is a very vital one, and I think it is very much the most interesting problem which we have to solve architecturally, because in a village it is necessary to provide a small hall which can be used for almost every purpose, from roller skating to Shakespeare. The average village hall to-day might be described as neolithic. I went into one last night which had no sanitation; it was in a village in Hertfordshire, not thirty miles from London.

INDIVIDUAL PROBLEMS

I wish now to turn to the individual problems connected with buildings for entertainment purposes, and to say what I think is going to be the trend in designing buildings of this kind.

I think it is true to say that there is no theatre in London to-day which is worthy of so large a city. There are only three or four theatres in London which have been built during the last twenty years. Most of the theatres in London were constructed at one of the very worst periods of architecture and engineering design, and, in any case, we have reached a stage when most of our public buildings are due for reconstruction. Waves of building occur every forty or fifty years, and we were just reaching one of those when the war broke out. I do not know when our places of entertainment will be rebuilt, but it may not be for another twenty-five or thirty years. The concert halls in London, as well as the theatres, are obsolete and entirely unworthy of the city. Now that the Queen's Hall has been destroyed, we have not a concert hall in London which is even acoustically accurate. We have no lack of cinemas at the present time, but the majority of them are of the most shocking design. With the exception of some very small cinemas, such as the Curzon, which may be said to represent a reasonable standard of design, I do not think there is any cinema in London which can be compared with some of those which have been built on the Continent and in America.

I do not think that we are at a very happy

stage now for the wholesale rebuilding of our places of public entertainment, because we have no vocabulary or idiom in which to express ourselves in a contemporary manner. We have been reaching towards one for the last twenty or thirty years, and it has not come yet, but it may come when we have the opportunity of building and getting some practice in building such places. The only places which have built up a definite idiom and vocabulary are the cinemas, and there we are called upon to admire the particular decoration associated with the conflicting policies of Odeon and the Gaumont British.

The type of theatre and cinema which we are going to have in this country will be very much bound up with the question of size. In the years before the war the tendency was, on the whole, for theatres and cinemas to become larger and larger, but there was a specialized type of small cinema which was usually better designed than the larger ones. I think there is an economic size for a theatre or a cinema beyond which it is unprofitable and certainly unpleasant to go, and I hope there is an economic size for a school, because I do not like the idea of the multi-lateral school. I do not think we shall enter all at once a wonderful flowering, so to speak, of theatre building, such as occurred in the Baroque period in Italy. I think the first few theatres that are built will be very experimental. There are one or two good models on the Continent, but America seems to me to be in much the same position as we are in at the moment.

STADIA AND PARKS

With regard to stadia, football grounds, and so on, in this country they are usually very badly designed. The average football ground seems to me to be crying loudly for somebody to demonstrate that even a football ground can be a good-looking and efficient building. I hope that the Commission that is to inquire into the fatalities that occurred in the north will recommend that some attention should be paid to the design of football grounds and stadia generally. We have built in this country, particularly during the inter-war period, a very large number of stadia, including dog tracks and dirt tracks, and they are all amongst the worst designed buildings in this country, not only from the visual point of view, but also from the point of view of the traffic arrangements to deal with large crowds, which are almost as bad as the arrangements at our main line stations at the present time.

In this country we have no places for public exhibitions and mass entertainment such as exist in the parks in Copenhagen and Vienna. The nearest approach to such a place is the park at Blackpool, and I think we might have parks like that in the centre of some of our big towns. If the West End of London continues to be developed as a theatre and cinema centre, I hope we shall be able to have an amusement park close to or in Hyde Park, because I think it would be a great attraction and be very popular indeed.

With regard to the Crystal Palace, I think it should be recognized as one of the big public centres in London and one of national importance, and I do not think the decision as to the type of building to be constructed there and how it shall be used should be left entirely to the trustees.

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(The Houston Maintenance Scholarships are for the purpose of providing educational and maintenance allowances for the sons of architects and artists who may be, or at the time of their death were, in impecunious circumstances, whether such architects or artists are alive or dead.)

C. The Artists' General Benevolent Institution Maintenance Scholarship of a maximum of £125 per annum is available in the first instance for one year and renewable for two further periods of one year each.

(The Artists' General Benevolent Institution Maintenance Scholarship is open only to orphans or sons or daughters of an architect or artist.)

D. The "Builder" Maintenance Scholarship. This Scholarship is of the value of £60 per annum and is tenable as an ordinary Maintenance Scholarship or as a 4th and 5th year Maintenance Scholarship.

E. The Howe Green 4th and 5th year Maintenance Scholarship of £40 to enable students who have passed the Intermediate stage to complete an approved course at a School of Architecture recognised for exemption from the RIBA Final Examination.

The Scholarships, except where otherwise stated, will be tenable in the first instance for one year and renewable for two further periods of one year each. They are intended to enable promising students, whose parents or guardians have not the necessary means, to attend approved courses at the Schools of Architecture recognised for exemption from the RIBA examinations. Students already taking such a course are

also eligible to apply for a Scholarship. The Scholarships are available for students in Great Britain.

The value of the Scholarships, up to the limits stated, will depend on the financial circumstances of the parents or guardians of the candidate. The parents or guardians will be required to furnish particulars on the proper form, of their financial position.

Particulars and forms of application may be obtained, free, on application to the Secretary to the Board of Architectural Education, RIBA, 66, Portland Place, London, W.1. The closing date for the receipt of applications, duly completed, is June 1, 1946.

RIBA New Members

Hon. Fellow (1): Canterbury, Most Rev. and Rt. Hon. the Archbishop of, P.C., D.D.

Fellows (13): Ambrose, Eric Samuel (London); Briggs, Alan Arthur (London); Erith, Raymond Charles (Dedham, Colchester); Knight, Cyril Atlee (London); Morris, Ronald Stanley (London); Nightingale, Douglas Eric (London); Paul, Henry (Witley, Surrey); Playne, Edward (London); Sartain, Sidney Philip (Kingston Hill, Surrey) (Lt.-Col. R.E.); Smith, Thomas Edgar (Cardiff); Vey, George (Wooburn Green, nr. High Wycombe, Bucks.); Walmsley, William George (Preston); Wood, James Douglas (London).

Associates (4): Agascar, Raymond Anand (Mexborough, Yorks.); Dunkerley, Miss Mabel Joan (York); Keith, George McIntosh (Burgess Hill, Sussex); Mellon, Kenneth (Watford, Herts.).

Licentiate (22): Buckley, Reginald Francis (Blackpool); Carpenter, Ronald Dudley (East Molesey, Surrey); Clayton, Allan Seymour (Wallasey, Cheshire); Cookson,

Thomas Stanley (Welshpool); Elson, Lionel Bob (Mapperley, Nottingham); Gerrish, Herbert Victor (Exeter); Green, Norman (Westcliff-on-Sea); Halsey, Rex Martindale (Chesham Bois, Bucks.); Hancox, Ronald Ernest (West Bromwich); Hindley, Wilfred (Bridlington, E. Yorks.); Lovelock, Eric Leslie (Westcliff-on-Sea); Mercer, Walter Sidney (Godalming); Miller, Harold Carmichael (Perth, Scotland); Murray, Donald (Ralston, Renfrewshire); Owen, Richard (Liverpool); Parker, Charles Ernest (Sutton, Surrey); Piazza, Charles Achilles (North Wembley); Russell, Vernon Fletcher (Capt. R.E.) (London); Steane, Patrick Francis Maude (London); Tenison-Collins, Max Edward (Northwood, Middx.); Traviss, Frederick John Henry (Kingsbury, N.W.9); Weston, Claude Frederick (Kings Lynn).

Fellow (Overseas) (1): Batley, Claude (Bombay).

Associates (Overseas) (7): Hoets, John Orpen (Major) (Stellenbosch, C.P., South Africa); McLachlan, Archibald Ronald (Auckland, N.Z.); Maclurgan, Donald Charles Boulton (Sydney, N.S.W.); Palshikar, Vishnu Shankar (Hyderabad (Deccan), India); Parkin, John Cresswell (Winnipeg, Manitoba, Canada); Robertson, William Haydyn (Perth, Western Australia); Summerley, Horace Gordon (Johannesburg).

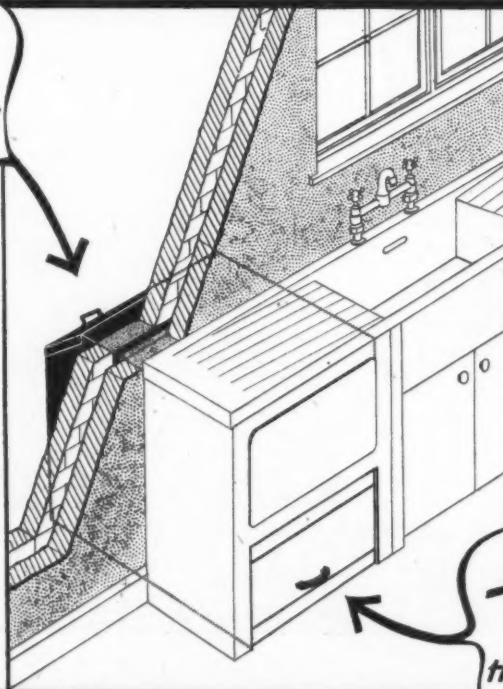
Buildings Illustrated

The following firms were associated with the construction of the Unitroy House illustrated on pp. 303-6: M. and E. Concrete, Ltd., general contractors; Austins, timber window-frames and cupboards; Esiclene Porcelain Enamel, Ltd., sink and draining board; Clark and Fenn, Ltd., plumbing installation; International Paint and Compositions, Ltd., paint; C. F. Anderson and Sons, Ltd., plaster board and steel tees for ceiling; Limmer and Trinidad Lake Asphalt Co., Colourphalt floor.

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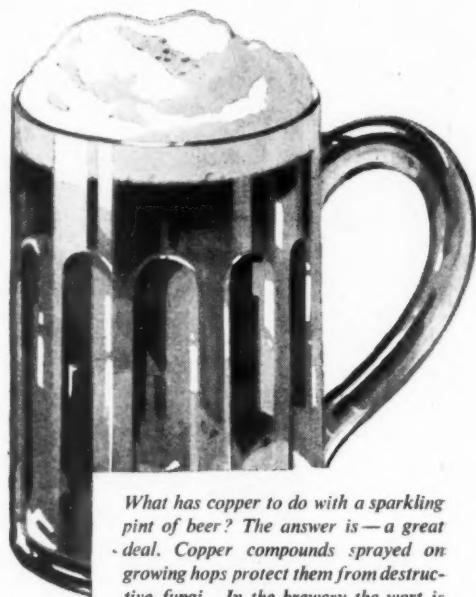
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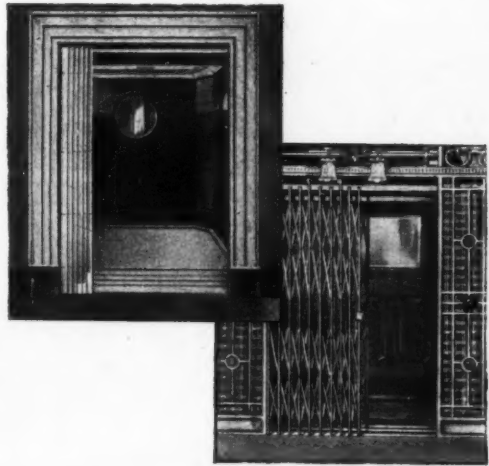
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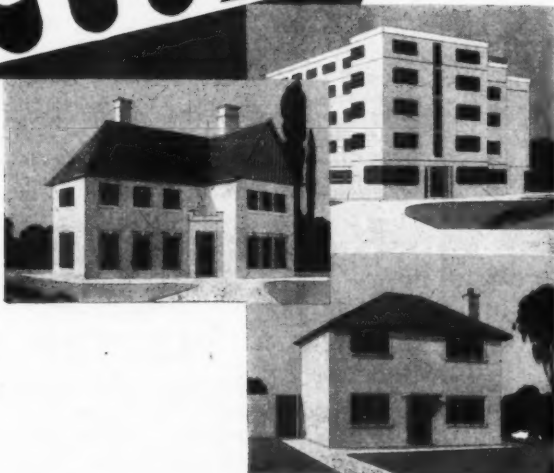
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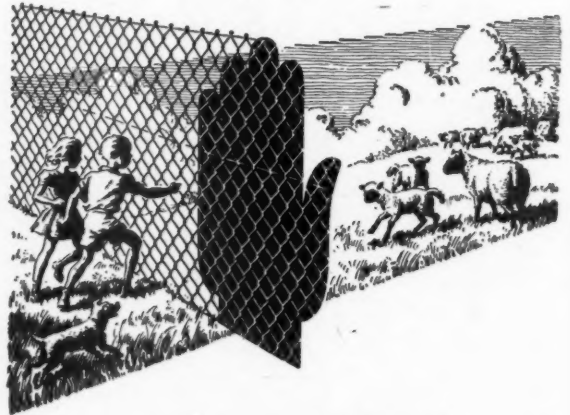


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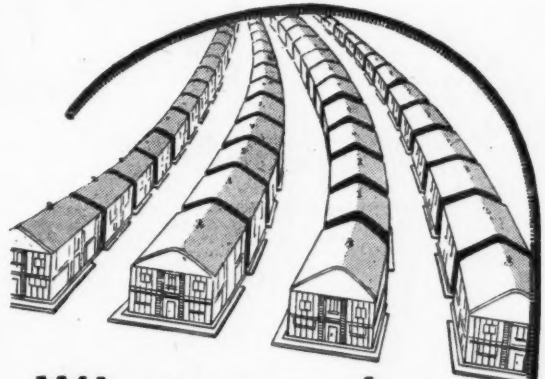


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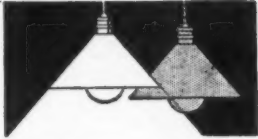
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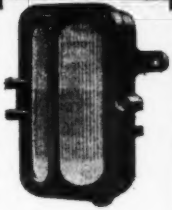
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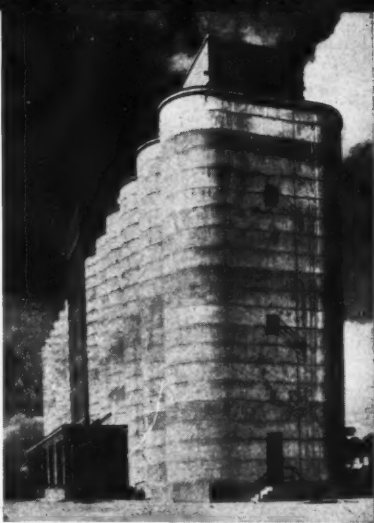
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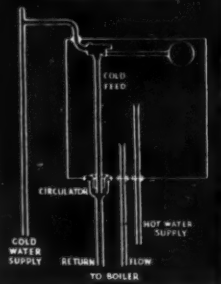
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CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," War Address: 45 The Avenue, Cheam, Surrey, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

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

Public and Official Announcements

Six lines or under, 10s.; each additional line, 1s. 6d.

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

NORTHAMPTONSHIRE COUNTY COUNCIL.

APPOINTMENT OF DEPUTY COUNTY ARCHITECT.

Applications are invited from Registered Architects for the appointment of Deputy County Architect.

The initial salary for the post is £660, rising by annual increments of £25 to £750 per annum, including cost-of-living bonus.

Candidates should have had experience in the Architect's Department of a local authority, and should be capable of dealing with the general administration thereof and of controlling technical and administrative staff.

The appointment will be terminable by three months' notice on either side, and will be subject to the provisions of the Local Government Superannuation Act, 1937, and also to a medical examination.

Forms of application, together with particulars of duties and terms and conditions of appointment, may be obtained from the County Architect, The County Hall, Northampton, to whom applications, endorsed "Deputy County Architect," and accompanied by a copy of one recent testimonial, must be delivered not later than 3rd June, 1946.

J. ALAN TURNER,

Clerk of the County Council.

County Hall, Northampton.

URBAN DISTRICT COUNCIL OF HORNCHURCH.

Applications are invited for the appointment of TWO ARCHITECTURAL ASSISTANTS, in the Architect's Section of the Surveyor's Department:—

(a) Senior Architectural Assistant (permanent), Grade "C." Salary £405 per annum, rising by annual increments of £15 to £450 per annum, plus cost-of-living bonus (at present amounting to £59 16s. per annum). Preference will be given to candidates who are Associates of the Royal Institute of British Architects or Registered Architects.

(b) Architectural Assistant (permanent), Grade "B." Salary £345 per annum, rising by annual increments of £15 to £390 per annum, plus cost-of-living bonus (at present amounting to £59 16s. per annum). Preference will be given to candidates who are Registered Architects or members of the Royal Institute of British Architects or holding other comparable qualification.

The appointments are subject to the Local Government Superannuation Act, 1937, to a medical examination, and to the termination of each appointment by one month's notice in writing on either side.

Applications, stating age, qualifications, and full particulars of training and experience, accompanied by copies of three recent testimonials, and endorsed "Architectural Assistant," must reach the undersigned not later than Friday, the 26th April, 1946.

P. L. COX,

Clerk of the Council.

Council Offices, Billet Lane, Hornchurch.

963

RURAL DISTRICT COUNCIL OF WINDSOR.

CLERK OF WORKS.

Applications are invited from persons with appropriate qualifications and experience, for the position of Clerk of Works, in connection with the erection of permanent brick houses on the Council's Housing Estates.

Salary between £3 and £10 per week, according to qualifications and experience.

Applications, giving particulars of age, qualifications and experience, together with not more than two testimonials, should be received by the undersigned not later than 27th April next.

GEO. W. ALLEN,

Clerk.

Council Offices, Bowden Road,

Sunninghill, Berks.

525

HERTFORDSHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the undermentioned appointments:—

(a) PRINCIPAL ASSISTANT ARCHITECT. Salary £850-£950 per annum, plus cost-of-living bonus, at present £59 16s. per annum. Candidates should possess the following qualifications:— (1) Membership of the R.I.B.A. by examination; (2) a contemporary outlook; (3) considerable experience; (4) competence in office management.

The successful candidate will be required to provide and maintain a motor car, for which an allowance will be paid in accordance with the County Council's scale.

(b) SENIOR QUANTITY SURVEYOR. Salary £535-£600 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

(c) ASSISTANT QUANTITY SURVEYORS (THREE). Salary £420-£465 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

Candidates for (b) and (c) must have had experience in the preparation of bills of quantities, specifications, estimates, and the settlement of final accounts on all kinds of building contracts. Preference will be given to members of the Chartered Surveyors' Institute.

The successful candidate for (b) will be required to provide and maintain a motor car, for which an allowance will be paid in accordance with the County Council's scale.

(d) BUILDING SURVEYORS (SIX). Salary £420-£465 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

Candidates should have had a practical training, and possess a sound knowledge of all building trades, and be competent to prepare reports, specifications, etc., for maintenance repairs to all County Buildings, and to supervise such works. In addition, they will be required to act as Clerk of Works for new buildings in their respective areas.

Candidates should own or be able to drive a motor car, and the standard allowance in accordance with the County Council's scale will be paid.

All appointments will be subject to the Local Government Superannuation Act, and the successful candidate will be required to pass a medical examination.

Applications, stating age, experience, and qualifications, together with three references, must be received by the undersigned not later than 10th May, 1946.

Previous Local Government experience is not an essential qualification for any of the above appointments.

Applications from ex-Service men, and those now in the Forces, will be welcomed, and in the latter category the position with regard to demobilisation should be stated.

Canvassing will be disqualification.

ELTON LONGMORE,

Clerk of the County Council.

County Hall, Hertford, Herts.

EDINBURGH CORPORATION.

CITY ARCHITECT.

Applications are invited for the appointment of City Architect. The salary scale is £1,320, rising to £1,870 per annum by annual increments of £50, plus war increase (at present £120). Placing may be given on scale according to experience. The appointment will be whole-time, and will be subject to the Corporation's superannuation scheme. Applicants must not be over the age of 55 years at 1st January, 1947, and must be registered architects and members of the Royal Institute of British Architects.

Further particulars and conditions of appointment may be obtained from the undersigned, with whom applications, stating age, qualifications, and experience, must be lodged not later than 1st June, 1946.

J. STORRAR,

Town Clerk.

City Chambers, Edinburgh.

PEMBROKESHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

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

(1) PRINCIPAL ASSISTANT ARCHITECT.—Salary £550, by annual increments of £25 to £650; cost-of-living bonus will be payable in addition.

(2) TWO ASSISTANT ARCHITECTS.—Salary £350, by annual increments of £25 to £400. Cost-of-living bonus will be payable in addition. Applicants should be Registered Architects and membership of the Royal Institute of British Architects will be an advantage, as well as experience in educational building work.

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

Applications, stating age, experience and qualifications, with particulars of past and present appointments, and accompanied by copies of two recent testimonials, must be received by me not later than 14th May, 1946.

Canvassing will disqualify.

W. E. BUPTON,

Clerk of the County Council.

County Offices, Haverfordwest.

9th April, 1946.

552

NOTTINGHAMSHIRE COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments, at the salaries mentioned, according to age, qualifications, and experience, plus cost-of-living bonus in each case, which at present amounts to £59 16s. per annum, namely:—

(a) ARCHITECTURAL ASSISTANTS. £350 to £450 per annum.

(b) QUANTITY SURVEYORS. £350 to £450 per annum.

The posts will be subject to the Local Government Superannuation Acts, 1937 and 1939, and will be terminable upon one month's notice on either side at any time. The successful candidates will be required to pass a medical examination.

In accordance with the general decision of the County Council, all appointments made during the present emergency are of a temporary character in the first instance.

Forms of application may be obtained from the County Architect, Shire Hall, Nottingham.

K. TWEEDALE MEABY,

Clerk of the County Council.

Shire Hall, Nottingham.

2nd April, 1946.

514

ALDERLEY EDGE URBAN DISTRICT COUNCIL.

ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment (temporary) at a salary of £300 per annum, plus war bonus (at present £59 16s.).

The person appointed will be required to devote the whole of his time to the duties of the office, and will act generally under the direction of the Council's Surveyor. The appointment will be terminable by one calendar month's notice on either side.

Candidates must be good draughtsmen, quick and accurate surveyors, possessing a sound knowledge of building construction.

Applications, endorsed "Architectural Assistant," stating age, qualifications, experience, and present employment, accompanied by copies of two recent testimonials, must reach the undersigned not later than first post on Thursday, 25th April, 1946.

Canvassing, directly or indirectly, will be a disqualification.

LESLIE DIXON,

Clerk of the Council.

Council Offices, Alderley Edge, Cheshire.

5th April, 1946.

520

CITY AND COUNTY OF CANTERBURY.

APPOINTMENT OF SENIOR TOWN PLANNING ASSISTANT.

Applications are invited for the position of Senior Town Planning Assistant in the office of the City Surveyor.

Applicants must have passed the final examination of the Town Planning Joint Examination Board, and be fully experienced in the preparation and administration of Town Planning Schemes.

The salary scale is £460, rising by two annual increments of £15 and a final increment of £20 to a maximum of £510 a year, plus cost-of-living bonus (at present £59 16s.).

The appointment is to the permanent staff, is subject to one month's notice on either side, and to a medical examination.

Applications, endorsed "Senior Town Planning Assistant," giving age, full particulars of experience and qualifications, and the names of three persons to whom reference may be made, should be received by Mr. H. M. Enderby, O.B.E., M.Inst.M. & Cy.E., City Surveyor and Planning Officer, not later than 11th May, 1946.

J. BOYLE,

Town Clerk.

Municipal Buildings, Canterbury.

5th April, 1946.

527

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of the following in the City Architect's Department:—

TWO ASSISTANT ARCHITECTS.

TWO ASSISTANT QUANTITY SURVEYORS. The salary for each of these posts will be in accordance with Grade E of the Council's present grading scheme for official staff, i.e., £375 per annum, rising by annual increments of £15 to a maximum of £420 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

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

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be addressed to the undersigned.

R. G. ROBERTS, F.R.I.B.A.,

City Architect.

18, Cloth Market, Newcastle-upon-Tyne, 1.

5th April, 1946.

529

YEOVIL AND DISTRICT JOINT TOWN PLANNING COMMITTEE.

SENIOR TOWN PLANNING ASSISTANT.

Applications are invited for the above appointment, at a salary of £360 p.a., rising, subject to satisfactory service, by annual increments of £15 to a maximum of £405 p.a., plus current war bonus (at present £59 16s. p.a.).

If and when the successful applicant is required to provide a car an allowance of £100 p.a. will be made.

Applicants must have had experience in the preparation of planning schemes and be fully conversant with the Town and Country Planning Acts and Orders thereunder. Preference will be given to candidates who have passed the Associate Membership Examination of the Town Planning Institute, and who have had architectural experience.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, the successful candidate being required to pass a medical examination.

Applications, stating age, whether married or single, qualifications, experience, etc., and endorsed "Senior T.P. Assistant," to be sent to the undersigned, accompanied by copies of three recent testimonials, not later than Saturday, 11th May, 1946.

H. C. C. BATTEN,

Clerk to the Committee.

Municipal Offices, Yeovil, Somerset.
5th April, 1946. 530

BOROUGH OF SLOUGH.

BOROUGH ENGINEER'S DEPARTMENT.

Applications are invited from Registered Architects, not liable for Military Service, for the following permanent appointments in the Borough Engineer's Department.

(a) SENIOR ASSISTANT ARCHITECT, at a commencing salary of £460 per annum, rising by annual increments of £15 to a maximum of £510 per annum, plus cost-of-living bonus (at present £59 16s. per annum). Preference will be given to applicants who are Associates of the Royal Institute of British Architects.

(b) GENERAL ASSISTANT ARCHITECT, at a commencing salary of £420 per annum, rising by annual increments of £15 to a maximum of £465 per annum, plus cost-of-living bonus (at present £59 16s. per annum). Preference will be given to applicants who are Associates of the Royal Institute of British Architects.

The Council will endeavour to assist the successful applicants in securing housing accommodation.

The appointments are subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination, and the appointments will be subject to one month's notice on either side.

Applications, on forms to be obtained from the Borough Engineer, Mr. E. Gardner Thorp, M.Inst.C.E., Town Hall, Slough, must be sent in a sealed envelope, endorsed "Senior Assistant Architect" or "General Assistant Architect," as the case may be, so as to reach the undersigned not later than the 9th May, 1946.

GEO. I. MOXHAM,

Deputy Town Clerk.

Town Hall, Slough.
18th April, 1946. 538

ENFIELD URBAN DISTRICT COUNCIL.

APPOINTMENT OF CLERK OF WORKS IN CONNECTION WITH THE COUNCIL'S HOUSING SCHEMES.

Applications are invited for the temporary appointment of Clerk of Works in connection with the Council's Housing Schemes.

Applicants must have had considerable experience as Clerk of Works on housing schemes.

Applications, stating age and experience, should be addressed to the Engineer and Surveyor, 7, Little Park Gardens, Enfield, not later than Tuesday, 30th April, 1946.

J. WARING SAINSBURY,

Clerk of the Council.

Public Offices, Enfield.
3rd April, 1946. 536

CITY OF PLYMOUTH.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANTS, in the City Architect's Department, at the following salaries:—

Grade IV.—£335, rising to £380 per annum.
Grade II.—£270, rising to £290 per annum.
Plus cost-of-living bonus in each grade, at present £59 16s. per annum.

The posts will be subject to the Local Government Superannuation Act, 1937, and will be terminable upon one month's notice on either side. The persons appointed will be required to pass a medical examination.

Applications, stating age, qualifications, previous experience, together with copies of three recent testimonials, should be sent to the City Architect, Compton Park House, Plymouth, not later than the 1st May, 1946. 549

CHICHESTER RURAL DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPARTMENT.

Appointments of:—

(1) ASSISTANT QUANTITY SURVEYOR.
(2) SURVEYING AND PLANNING ASSISTANT.

(3) JUNIOR SURVEYING ASSISTANT.

Applications are invited for the above temporary appointments, with probable duration, subject to satisfactory service, of four years.

The commencing salary for (1) and (2) will be £390 or £420 per annum, according to qualifications and experience, and for appointment (3) the commencing salary will be £330 per annum. In each case there will be three annual increments of £15, and a war bonus, which is at present £59 16s. per annum, will be paid in addition.

Applicants should hold one of the following qualifications:—

(a) Assistant Quantity Surveyor.—Membership of the Chartered Surveyor's Institution (Quantities Section) or similar qualification, and experience in the preparation of bills of quantities, contract documents, supervision of work, etc.

(b) Surveying and Planning Assistant.—Membership of the Chartered Surveyor's Institution, the Institution of Municipal and County Engineers, the Royal Institute of British Architects and/or the Town Planning Institute, with experience in the preparation of layouts and general planning administration.

(c) Junior Technical Assistant.—Membership of the Chartered Surveyor's Institution or the Institution of Municipal and County Engineers, with experience in the design and construction of estate roads, small sewerage schemes, and disposal plants for small housing estates.

The appointments will be subject to the Local Government Superannuation Act, 1937, and the Council's Sick Pay Scheme, and successful applicants will be required to pass a medical examination.

Applications, appropriately endorsed, stating age, qualifications, experience, and giving particulars of past and present appointments, must be delivered to the undersigned not later than 4th May, 1946, accompanied by copies of three recent testimonials.

Canvassing, in any form, will disqualify.

LEONARD BAILEY,

Clerk to the Council.

Pallant House, Chichester.
9th April, 1946. 545

COUNTY BOROUGH OF SOUTH SHIELDS.

APPOINTMENT OF CHIEF ASSISTANT QUANTITY SURVEYOR.

Applications are invited for the appointment of Chief Assistant Quantity Surveyor, in the office of the Borough Engineer. Salary £535, rising to £600 per annum, plus war bonus.

The appointment is superannuated, and the successful candidate will be required to pass a medical examination.

Candidates must have had experience in preparation of bills of quantities, estimates, and settlement of final accounts for general building contracts, and preference will be given to Professional Associates of the Chartered Surveyors' Institute.

Form of application can be obtained from the office of the Borough Engineer, Town Hall, South Shields, to whom the form should be returned not later than Saturday, the 18th May, 1946.

JOHN REID,

Borough Engineer.

Borough Engineer's Office, Town Hall,
South Shields.
6th April, 1946. 546

BOROUGH OF SWINDON.

APPOINTMENT OF BOROUGH ARCHITECT.

Applications are invited for the appointment of Borough Architect, to take charge of a new department dealing with all matters relating to the architectural work of the Corporation, the maintenance and care of buildings owned by the Corporation, and in particular the design, erection and maintenance of Corporation housing estates. The salary to be paid will be £1,000 per annum, plus such cost-of-living bonus as may from time to time be paid by the Corporation (at present £59 16s.).

The appointment, which may be terminable by three months' notice on either side, is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination.

The person appointed will be required to devote the whole of his time to the service of the Corporation, and not to engage in private practice.

Application forms are obtainable from the undersigned, to whom they must be returned duly completed not later than Saturday, the 4th May, 1946.

Canvassing in any form will be deemed a disqualification.

D. MURRAY JOHN,

Town Clerk.

Civic Offices, Swindon.
6th April, 1946. 513

BOROUGH OF WALLSEND.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT. Candidates must hold a recognised architectural qualification, and have had considerable experience in the design and layout of Council houses and public buildings. Commencing salary (at the present scale, which is under review) £375 per annum, rising by annual increments of £15 to £420 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

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

Applications, endorsed "Architectural Assistant," stating age, qualifications and experience, accompanied by copies of not more than three recent testimonials, to be delivered to the undersigned not later than Monday, the 29th April, 1946.

CHAS. E. BRADBURY,

Town Clerk.

Town Hall, Wallsend.

PEMBROKESHIRE COUNTY COUNCIL.

APPOINTMENT OF COUNTY ARCHITECT.

Applications are invited for the above appointment, at a salary of £850, rising by annual increments to £1,000 per annum. Candidates should be members of the Royal Institute of British Architects.

The person appointed will be entirely responsible for all the Council's architectural work, including police and educational building programmes. He will be required to advise the Council on all architectural matters under its control, and will be responsible for the upkeep and maintenance of the Council's buildings, and for the administration of the Architect's Department.

The appointment will be subject to the Local Government Superannuation Act, 1937, and to termination upon six months' notice on either side; the successful candidate will be required to pass a medical examination.

Forms of application, with further particulars, may be obtained from me.

Applications, accompanied by copies of three recent testimonials, and enclosed in an envelope endorsed "County Architect," must be delivered not later than 14th May, 1946.

Canvassing will disqualify.

W. E. BUFTON,

Clerk of the County Council.

County Offices, Haverfordwest.

9th April, 1946. 551

Amended Advertisement.

COUNTY BOROUGH OF NEWPORT, MON.

APPOINTMENT OF DEPUTY BOROUGH ARCHITECT.

Applications are invited from properly qualified Architects for this appointment, at a salary commencing at £700 per annum, and rising by annual increments of £50 per annum each to £900 per annum, plus cost-of-living bonus, £59 16s.

The appointment, which will be held during the pleasure of the Council, will be subject to the appropriate Local Government Superannuation Act, and the successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications, all previous appointments and experience, together with not more than three recent testimonials, and the names and addresses of two responsible persons of standing to whom reference may be made, must be delivered to the undersigned, endorsed "Deputy Borough Architect," on or before 1st May, 1946.

JOHNSON BLACKETT, F.R.I.B.A.,

Borough Architect.

Town Hall, Newport, Mon.

10th April, 1946. 550

Tenders

Sizes or under 10s.; each additional line, 1s. 6d.

METROPOLITAN WATER BOARD.

ERECTION OF PERMANENT HOUSE.

The Metropolitan Water Board invite Tenders for the erection of a house on land at Valley Road, Shortlands, Kent.

The drawings and contract documents may be inspected without charge on application to the Surveyor to the Board (Room 176), at the under-mentioned offices, from whom contractors desirous of tendering may obtain the drawings, specifications and conditions of contract, not later than Wednesday, 8th May, 1946.

Applications are to be accompanied by a deposit of two guineas, which will be refunded on receipt of a bona-fide tender. Such payments and applications must be made between 10 a.m. and 4 p.m. (Saturdays 10 a.m. and 11.30 a.m.). Cheques must be made payable to the Metropolitan Water Board and not to individuals.

Tenders are to be delivered in accordance with the conditions contained in the instructions to tenderers, and the latest date for submission of tenders will be stated therein.

The Board do not bind themselves to accept the lowest or any tender.

C. W. STOKER,

Clerk of the Board.

Offices of the Board, New River Head,
Rosebery Avenue, London, E.C.1.

536

Architectural Appointments Vacant
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EXPERIENCED ARCHITECTURAL ASSISTANTS required immediately for interesting work of the highest architectural character; must be first-class draughtsmen and well trained. Apply, stating age, experience, and salary required, to Herbert J. Rowse, F.R.I.B.A., Martins Bank Buildings, Liverpool, 2. 984

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ARCHITECTURAL ASSISTANTS and DRAUGHTSMEN will shortly be needed; several posts, Senior to Junior; industrial experience essential for senior posts; work will be in London. Box 539.

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COMPETENT Draughtsman required for Architect's Office at Winchester; please write, stating age, qualifications, and salary required. Box 543.

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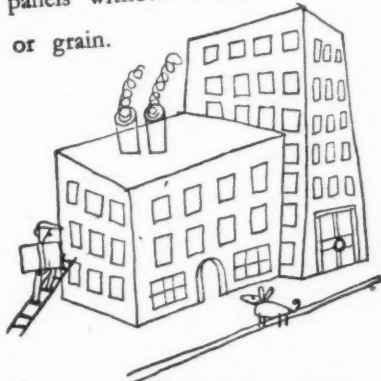
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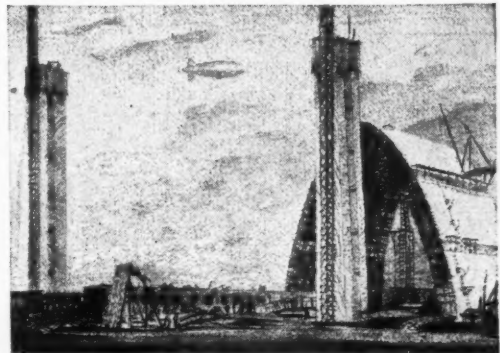
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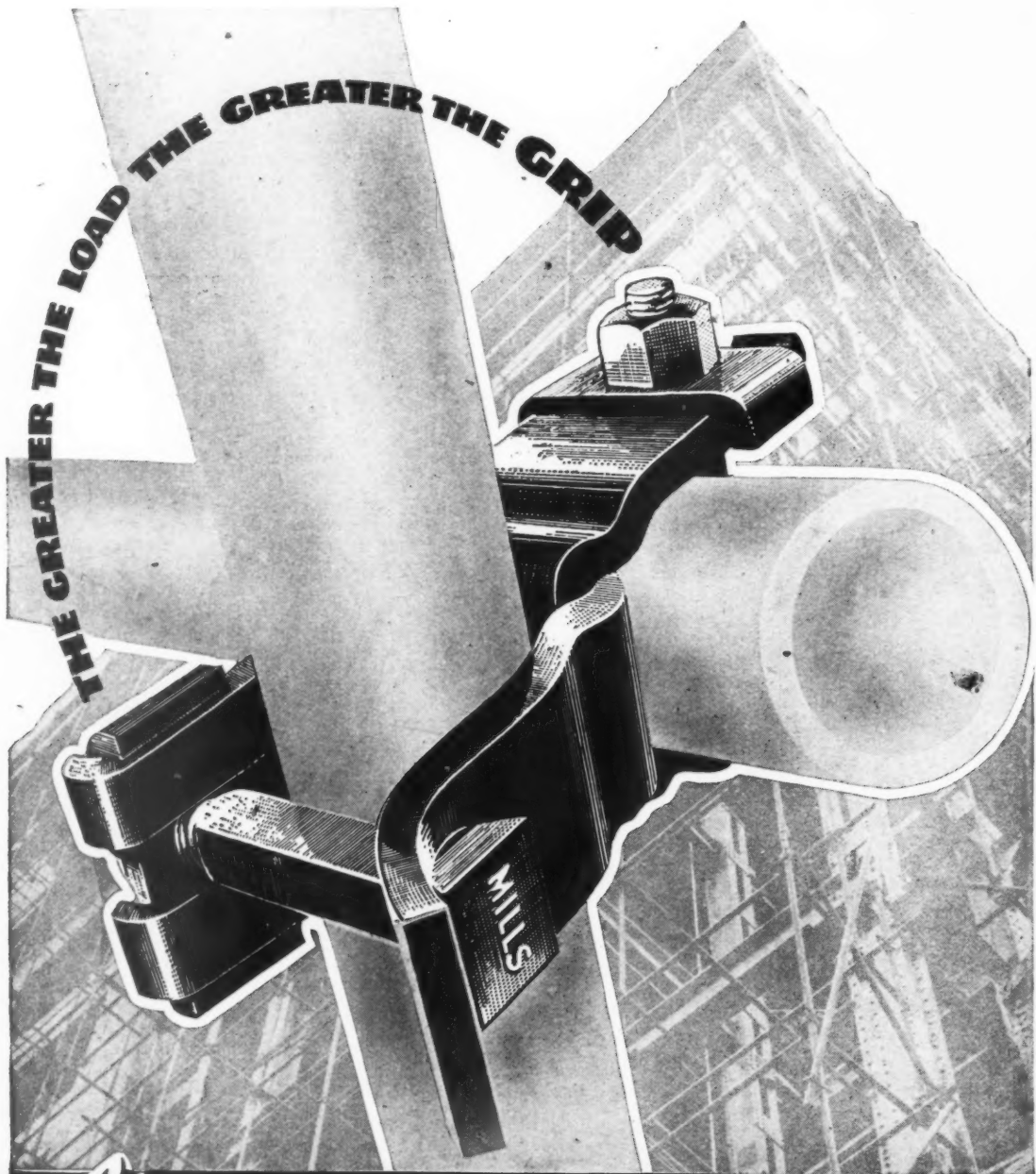
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