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

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## The Architects' JOURNAL for August 1, 1946 THE ARCH IBTARI AUG 1 9 1946 TRO

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

AA ABT ACGB APRR	Architectural Association. 34/6, Bedford Square, W.C.1. Association of Building Technicians. 5, Ashley Place, S.W.1. Arts Council of Great Britain. 9, Belgrave Square, S.W.1. Association for Planning and Regional Reconstruction. 34, Gordor	
ARCUK	Square, W.C.1. Architects' Registration Council. 68, Portland Place, W.1. Architectural Science Board of the Royal Institute of British Archite	Euston 2158-9 Welbeck 9738 cts.
BC BCIRA BDA BIA	66, Portland Place, W.1. British Cast Iron Research Association. Alvechurch, Birmingham. British Door Association. 25, Victoria Street, S.W.1. British Ironfounders' Association. 145, Vincent Street, Glasgow, C.	Mayfair 2128 Redditch 716 Abbey 5422-3 2.
BIAE BINC BOT BRS BSA	British Institute of Adult Education. 29, Tavistock Square, W.C.I. Building Industries National Council. 11, Weymouth Street, W.I. Board of Trade. Millbank, S.W.I. Building Research Station. Bucknalls Lane, Watford. British Steelwork Association. Egginton House, Buckingham Ga	Euston 5385 Langham 2785 Whitehall 5140 Garston 2246 te, S.W.1.
BSI CCA CID CPRE CSI DIA DOT EJMA	British Standards Institution. 28, Victoria Street, S.W.1. Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1. Council of Industrial Design. Tilbury House, Petty France, S.W.1. Council for the Preservation of Rural England. 4, Hobart Place, S. Chartered Surveyors' Institution. 12, Great George Street, S.W.1. Design and Industries Association. 9, Conduit Street, W.1. Department of Overseas Trade. 35, Old Queen Street, S.W.1. English Joinery Manufacturers Association (Incorporated). Sackvil 40, Piccadilly, W.	<ul> <li>W. Sloane 4280</li> <li>Whitehall 5322</li> <li>Mayfair 0477</li> <li>Victoria 9040</li> <li>le House,</li> <li>Regent 4448</li> </ul>
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns.,	Sloane 2837
FMB	Federation of Master Builders. 23, Compton Terrace, Upper Street Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.	Canonbury 2041
GG HC IAAS	Georgian Group. 4, Hobart Place, S.W.1, Housing Centre. 13 Suffolk Street, Pall Mall, S.W.1. Incorporated Association of Architects and Surveyors. 75, Eaton P	Sloane 2837 Sloane 2844 Whitehall 2881
ICE IEE IOB IRA ISE LIDC	Institution of Civil Engineers. Great George Street, S.W.1.	Sloane 3158 Whitehall 4577 Temple Bar 7676 Museum 7197 Abbey 6172 Sloane 7128-29 S.W.1.
LMBA MARS MOA MOE MOH MOLNS MOS MOT MOTCP	London Master Builders' Association. 47, Bedford Square, W.C.1. MARS Group (English Branch of CIAM). 46, Sheffield Terrace, W. Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1. Ministry of Education. Belgrave Square, S.W.1. Ministry of Health. Whitehall, S.W.1. Ministry of Labour and National Service. St. James's Square, S.W.1 Ministry of Supply. Shell Mex House, Victoria Embankment, W.C Ministry of Transport. Berkeley Square House, Berkeley Square, W. Ministry of Town and Country Planning. 32-33, St. James's Square	Whitehall 3400 Sloane 4522 Whitehall 4300 Whitehall 6200 Gerrard 6933 V.1. Abbey 7711 e, S.W.1.
MOW NAMMC	Ministry of Works. Lambeth Bridge House, S.E.1. Natural Asphalte Mine-Owners and Manufacturers Council. 94, Petty France, S.W.	Whitehall 8411 Reliance 7611
NBR NFBTE	National Buildings Record. 37, Onslow Gardens, S.W.7. National Federation of Building Trades Employers. 82, New Caver	Kensington 7070 ndish Street,
NFBTO	National Federation of Building Trades Operatives, 9, Rugby Cham	Langham 4041 abers, Rugby Holborn 2770
NFHS NT	National Federation of Housing Societies. 13, Suffolk St., S.W.1. WI National Trust for Places of Historic Interest or Natural Beauty.	hitehall 2881/2/3
PEP PWB	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Post War Building, Directorate of. Ministry of Works, Lambeth B	Whitehall 0211/2 Whitehall 7245 ridge House,
RCA RIBA RS RSA SFMA	School Furniture Manufacturers' Association. 13, New Square, Lin	Whitehall 9936 Welbeck 5721 Regent 3335 Temple Bar 8274
SIA SPAB	Society of Industrial Artists. 20, Wellfield Avenue, N.10. Society for the Protection of Ancient Buildings. 55, Great Ormond	Tudor 7027 Street, W.C.1.
ТСРА	Town and Country Planning Association. 28, King Street, Covent	
TDA TPI	Timber Development Association. 75, Cannon Street, E.C.4. Town Planning Institute. 18, Ashley Place, S.W.1.	City 6147 Victoria 8815







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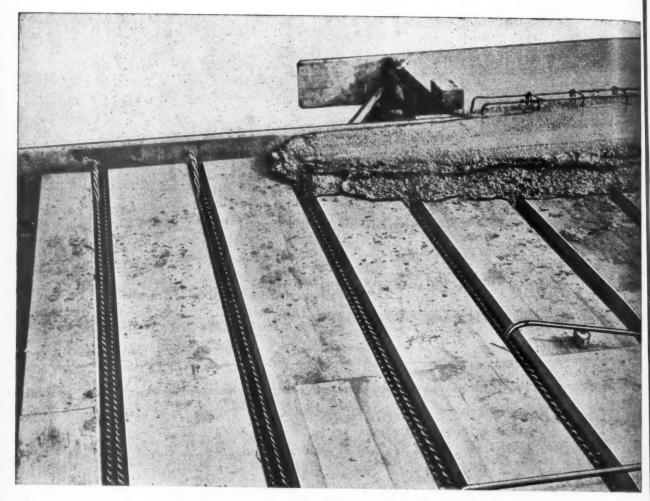
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It comes as a bit of a shock to read in a newspaper column headed "Secret Service News" that one of our allies has developed a process for making bricks from clinker and cement and that this idea may

assist our own reconstruction programmes. Sutcliffe Speakman make no secret of the fact that their Emperor Presses have been making similar bricks for a long time now. In fact, people who want to know more about making bricks from waste materials should put their secret service agents on our track.



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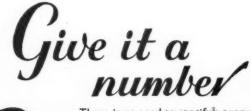




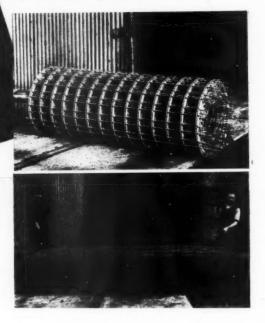
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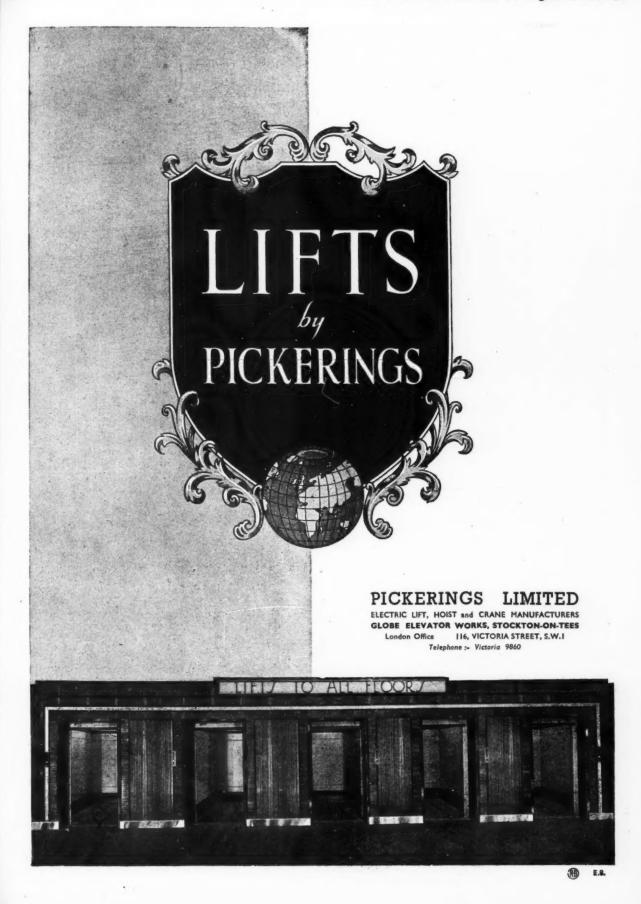




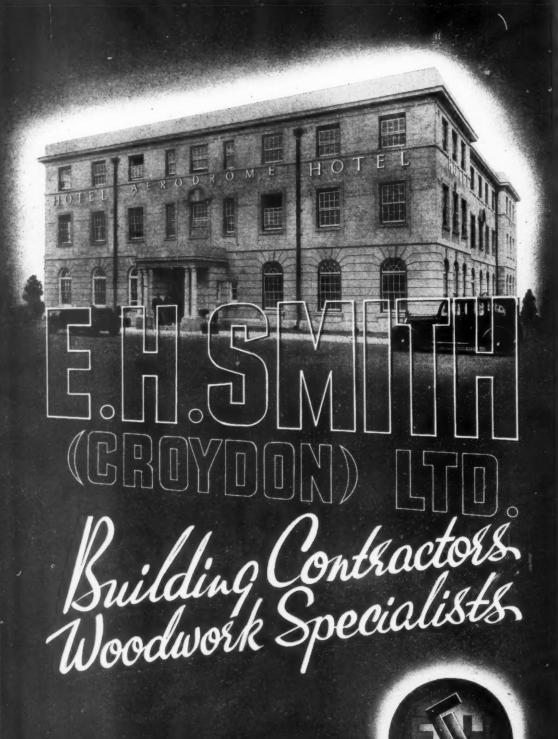
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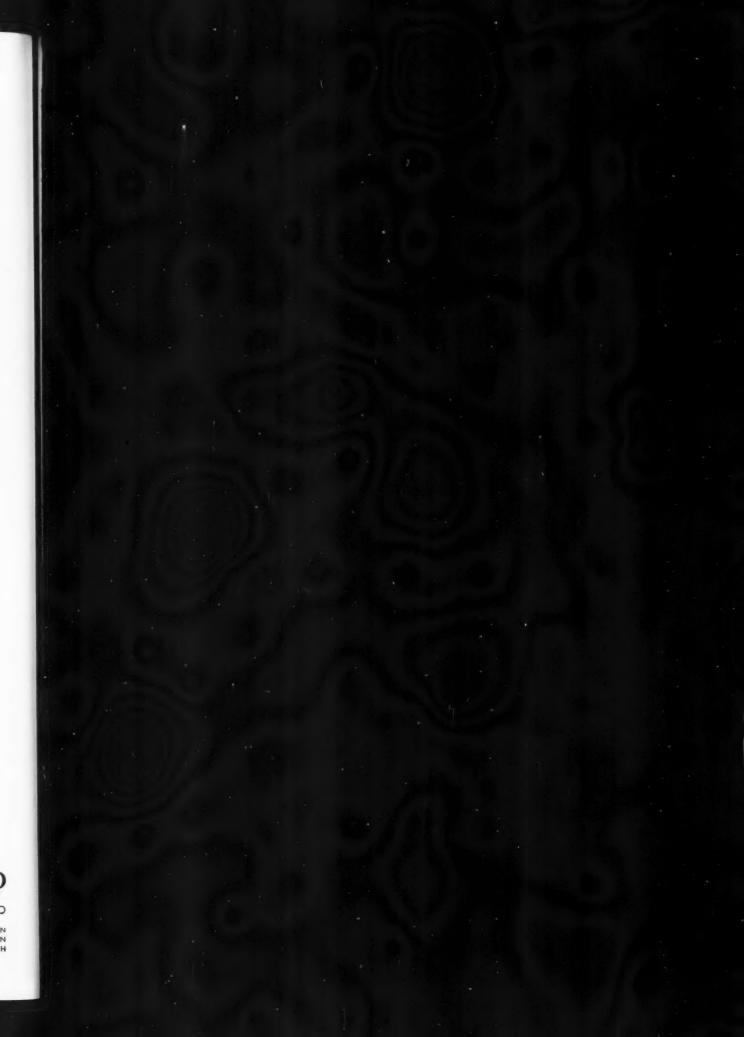
## This Present Age . . 5

In the forefront of our plans for the future we place the training and education of every youth who enters our organisation. Schemes are in operation and there is already an equal opportunity for all who desire to avail themselves of the facilities provided. Science, technology and commercial knowledge are the three great requirements of industry. It will be our privilege to ensure that these aims are rightly and efficiently fostered within the framework of the national educational policy. By the pooling of knowledge for the common good, industry is fulfilling one aspect of its rightful service to the nation. For a boy of intelligence and imagination apprenticeship to the iron and steel industries provides training for a life's work requiring initiative, technical knowledge of a high order and the ability to understand one's fellow men. The successful organisation of many thousands of workers presents problems of understanding in human affairs equal to the technical problems of economic production. Industry is a major part of our social life as well as the means of national wealth, therefore the discipline of education provides the means for developing those talents with which each one is endowed, and ultimately enriching the inheritance of the country whose citizens we are.



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SOUND

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Normal Quality 6'0"x 2'0"x 1", 1 $\frac{1}{2}$ ", 2", 2 $\frac{1}{2}$ " and 3" thick. Special Quality 6'0"x 2'0"x 1 $\frac{1}{2}$ " and 2" thick. Reinforced Quality 6'0"x 2'0"x 1 $\frac{1}{2}$ " thick.

Average for all thicknesses (normal quality) 25 lbs. per cubic foot.

19 TONS per square foot required to compress normal quality slabs to 50% of their thickness.

1" thickness of Gypklith has equivalent thermal insulation value of 1.75" of wood, 7" of hollow clay block, 13" of concrete, 14" of brickwork or 21" of stone.

Thermal conductivity of normal quality Gypklith is 0.57 B.Th.U.'s per sq. ft., per hour, per 1" thickness, per 1°F. difference in temperature between the two faces.

3" Gypklith partition plastered both sides weighing 22 lbs. per square foot will provide a noise transmission reduction of approx. 48 decibels average over frequency range 200-4000 cycles per second. Hollow centred partition (22 lbs. per sq. ft.) built of 1" Gypklith nailed to both sides of staggered studdings (3"x 2" timber at 12" centres) and plastered on both sides, will provide a noise transmission reduction of approx. 55 decibels average over frequency range 200-4000 cycles per second.

Gypklith acoustic tiles are left unplastered and are made of finer fibres than Gypklith Structural Slabs.

SOLID PARTITIONS -2" Wood Wool Building slabs, 1" Gypsum Plaster both sides -Grade D, 1 HOUR. 3" ditto Grade C, 2 HOURS.

FRAMED PARTITIONS  $-1\frac{1}{2}$  Wood Wool slabs,  $\frac{1}{2}$  Gypsum Plaster both sides of steel stud partitions -Grade D, I HOUR. I' ditto Grade E,  $\frac{1}{2}$  HOUR.

Average sound absorption coefficient over the frequency range from 500 to 4000 c.p.s., is 67% for 1" acoustic tiles applied on 2"x1" timber battens.



RESISTANCE TO MOISTURE Gypklith is unaffected by damp. Slabs saturated with water are, when dried out, as strong as before. Since there is no shrinkage or expansion on the slabs, plaster facings are not liable to crack.



Gypklith does not attract vermin and shows high resistance to dry rot and fungi. More detailed information as to the methods of applying Gypklith can be obtained from the manufacturers.

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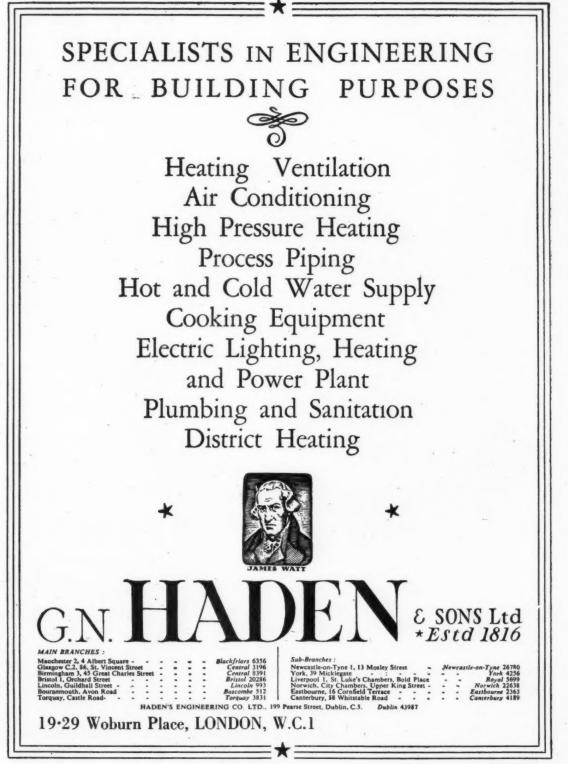
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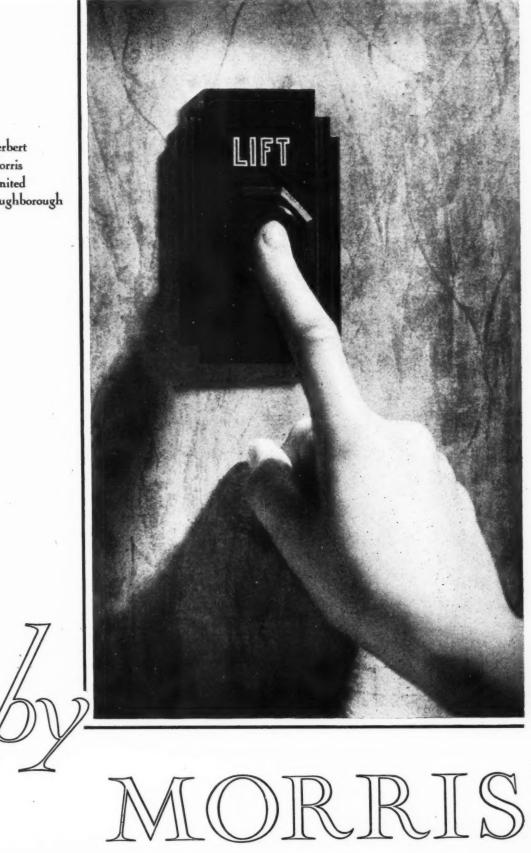


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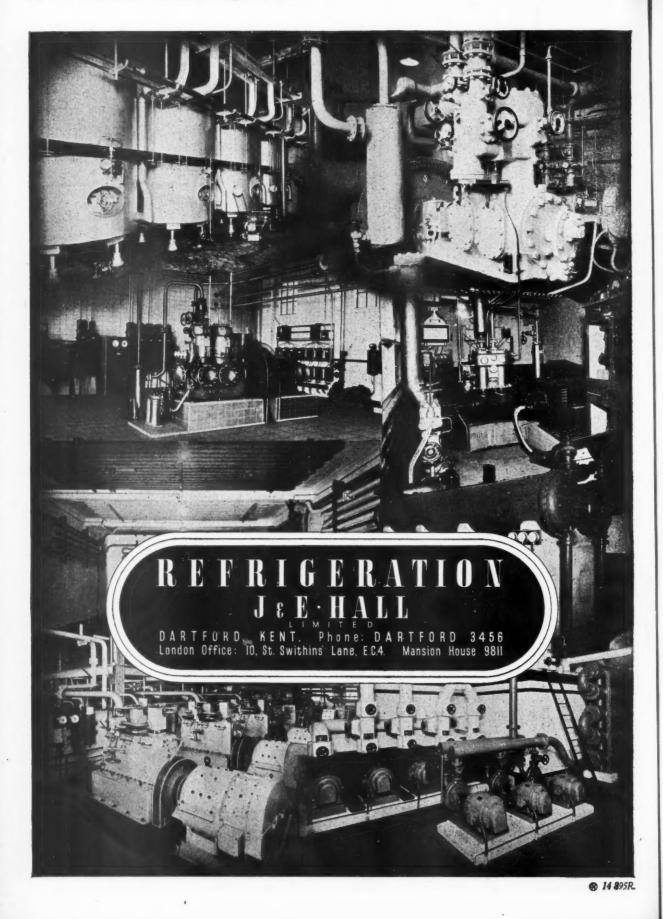
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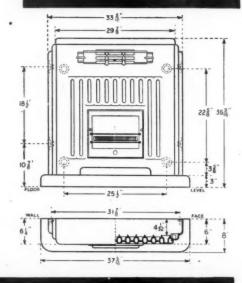
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A hot water radiator fitted with an electric fire or specially designed flueless gas fire to give extra heat for topping-up when required.

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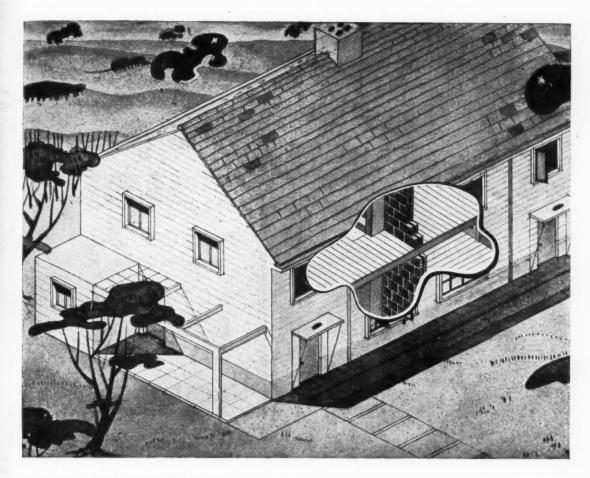
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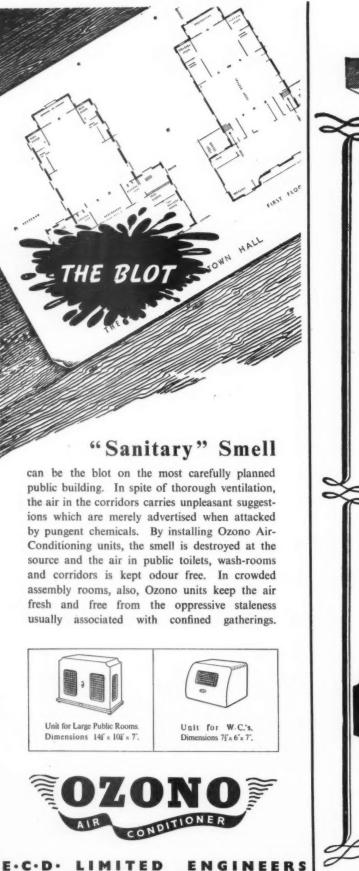
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## GOOD BUILDING PRACTICE MEANS

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Enables you to insulate as you build. Reduces cost of heating equipment; Reduces running fuel costs;

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- For dry finish, *i.e.* distemper or paint decoration, eliminates drying-out time.
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Even with traditional building, there is a tendency to pre-fabricate as much as possible : large sized boards form a useful adjunct for such construction.

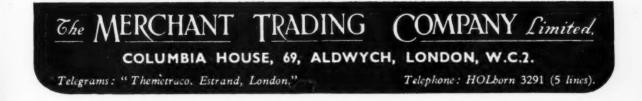
#### FOR CONCRETE SHUTTERING

- Applied in the form work and remains permanently bonded to the concrete.
- Gives immediate decoration; thermal insulation; and eliminates condensation.

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An insulating backing for such surfacings as Plywood, Metal, Asbetsos Cement, Laminated Plastic Sheets.

Our technical service is again functioning and is at your disposal.





Actually these fine buildings erected by Wimpeys before the war are the Officers' Quarters on a vast airfield.

Yet the problems of organization and execution were not one whit different from the huge problems confronting the building industry to-day. Only the fullest resources of scientific planning and scientific use of manpower can solve them. And this is where Wimpeys come in.

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The secret of Wimpey's success—of the soundness, speed and economy of Wimpey's building construction—is *scientific planning*. Wimpeys, so to speak, complete the job before they start it. They plot operations down to the last man-hour before the first man moves on site.

Local information is collected

by the Wimpey Regional Office nearest the site. Head Office departments—Building, Engineering, Estimating, Plant, Transport, Accountancy and the rest—assess needs, plot progresssheets and dove-tail schedules. Wimpey's Central Laboratory

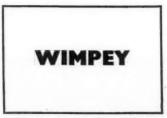


tests all materials (and does so until work on site is finished). So emerges the Master Plan in which every man and machine has an exact time and place.

Then only does work start on site. Operations can follow schedule exactly, and the Control Room keeps day-by-day check on progress. Pre-planning represents time and money saved; for since no effort is uncoordinated, none is wasted. It is not planning for planning's sake. The plan works; it is working daily.

#### **Regional Organization**

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#### BUILDING CONTRACTORS SINCE 1880

# THESE FLUSH GARAGE DOORS CAN NOW BE MADE FROM PLYWOOD

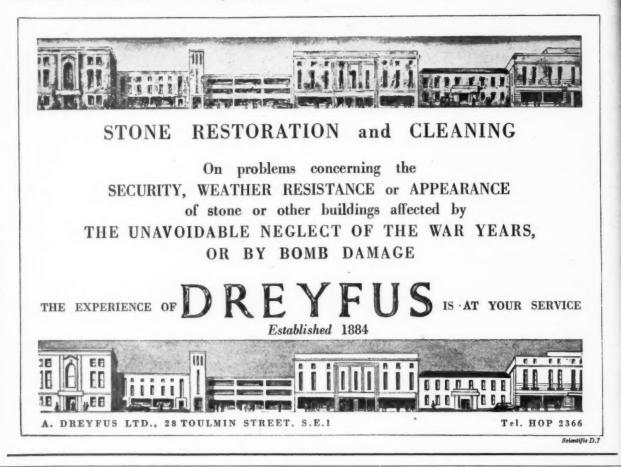
The new plywood developed by British manufacturers for war needs can now be used for many jobs out of doors. Bonded with plastic resins known as Beetle Cement or Tego Resinfilm it combines great strength with high resistance to moisture. Its special qualities, which made it suitable for use in the

"Mosquito " and other aircraft, for the hulls of M.T.B.'s, and for numerous other wartime purposes, offer many advantages to the Architect and Builder. This new plywood is made only by reputable British Manufacturers and is distinguished by one of these signs stamped on every sheet:

Enterprising manufacturers who would like to experiment with this new and better plywood should ask their suppliers about it.



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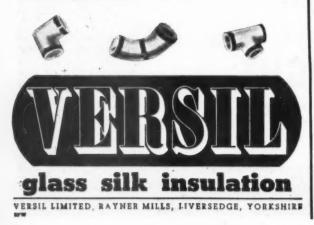
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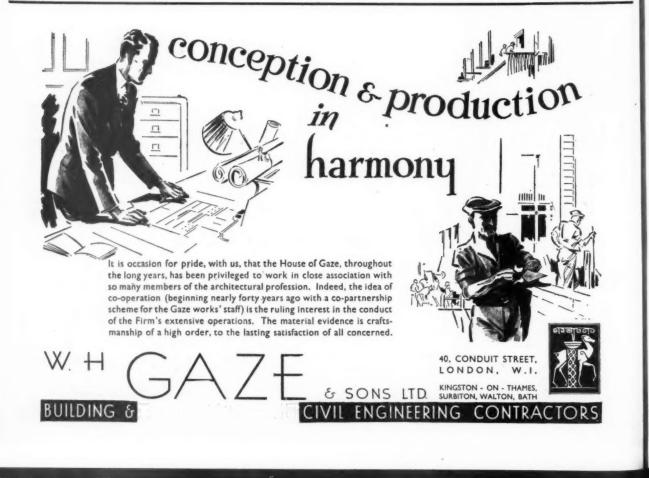
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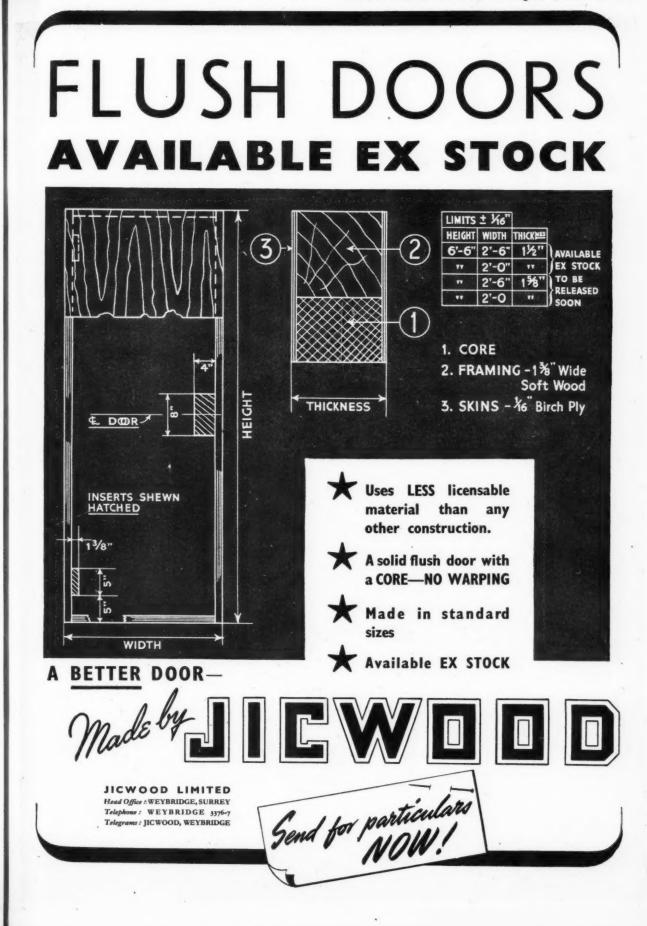


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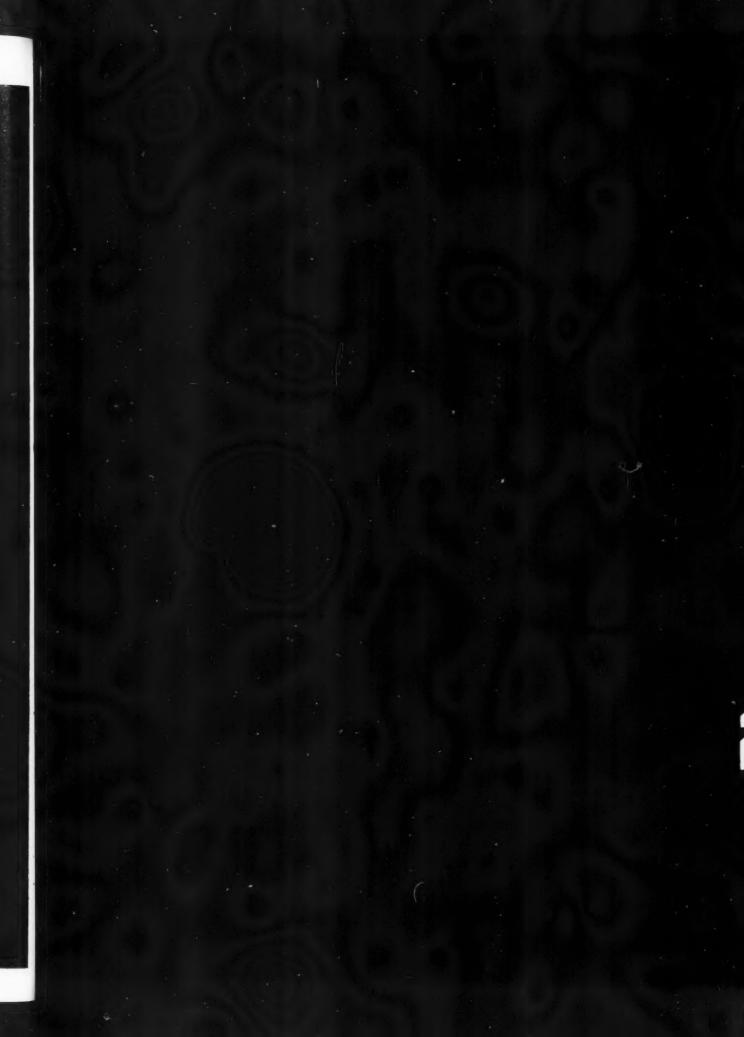


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#### THE ARCHITECTS' JOURNAL for August 1, 1946 [xxxix

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



U.K. or abroad, £1 155. od. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 15. 6d.; post free, 15. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage 1s. extra. Goods advertised in the JOURNAL and made of raw materials now in short supply, are not necessarily available for export.

### DIARY FOR AUGUST SEPTEMBER AND OCTOBER

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.

BOURNVILLE. " News Chronicle " BOURNVILLE. News Chronicle Knutsford Exhibition. At the Schools, Linden Road, Birmingham, 30. (Sponsor, Bournville Village Trust.) 10.30 a.m. till 7 p.m. AUG. 10-SEPT. 4 BOOTLE. BOOTLE. Recording Britain. North and Midlands. At the Art Gallery. (Spon-sor, the Arts Council.) AUG. 1-31 **B**RIGHTON. Regency Exhibition. At the Royal Pavilion. The exhibits in-clude period furniture from Buckingham Palace, graciously lent by H.M. The King. (Sponsor, The Regency Festival.) AUG. 1-10 EXETER. EXETER. Summer Course on USSR. At Hope Hall, Exeter University. To be opened by Mme. Gousev. Mme. Gama-zina, Principal of the Soviet School in Lon-

don, and other Soviet visitors will attend. Cost £5-10-0 for week. (Sponsor, SCR.) AUG. 17-24. FORFAR. Ari Centre.

RFAR. Plans for an Art Centre. Exhibition. At Meffan Institute. (Spon-AUG. 1-23 sor, the Arts Council.)

HASTINGS. XVIII International Con-HASTINGS. XVIII International Con-gress for Housing and Town Plan-ning. At the White Rock Pavilion. The Congress and exhibition will be opened by the Rt. Hon. Lewis Silkin, M.P., Minister of Town and Country Planning. Subjects to be discussed include Replanning the Centres of New Cities-Source Formulae of New of New Cities—Some Examples of New Plans; Housing Technique; Replanning the Centres of Cities—Decentralization; Hous-ing Economics; and Replanning the Centres of Cities—Implementing the Plans. During the Conference local tours and visits will be arranged and after the Conference tours to the North of England, the West and the Midlands. (Sponsor, International Federa-tion for Housing and Town Planning, 13, Suffolk Street, Haymarket, London, SW1.) Ост. 7-12

LONDON. Summer Show of Sacred Art Subjects. At the Church Artists' Agency, 25, Ebury Street, S.W.1. (Sponsor, CAA.) 9.30 a.m. to 5.30 p.m. Saturdays, 9.30 a.m. to 12.30 p.m. AUG.

Summer Exhibition of French and English Paintings, Drawings, Prints. At Redfern Gallery, 20, Cork Street, Burlington Gardens, W.1. AUG. 1-SEPT. 28

Annual Exhibition of Work of the AA School of Architecture. At 36, Bedford Square, W.C.1. (Sponsor, AA.) 10 a.m. to 6 p.m. AUG. 1 and AUG. 7-10

AA Excursion to Sweden. The party will spend one day in Copenhagen and approxi-

mately nine days in Sweden. (Sponsor. AUG. 9 AA.)

Deana Levin. Soviet Schools. At the Masaryk Hall, University of London, Malet Street, W.C.1. (Sponsor, SCR). 8 p.m. At the AUG. 20.

New Homes for Old Exhibition. At 22, Lower Regent Street, S.W.1. (Sponsor, HC.) SEPT. 11-Nov. 9 Swiss Planning and Building Exhibition. At the RIBA, 66, Portland Place, W.1. Organized with the co-operation of the fore-most architects and associations in Switzerland. Building for work, building for recreation, housing, town and country plan-ning, schools and hospitals are among the subjects to be covered. Other features will be the preservation of old and historic buildings and the countryside, and the re-plan-ning of winter sports resorts, for which an extensive programme has already been started. How Switzerland makes the most of her landscape will be shown in a series of photographs. SEPT. 19-Ост. 26 protographs. SEPT. 19-OCT. 26 Fuel and the Future. Three-day Conference organised by the Ministry of Fuel and Power. At the Central Hall, Westminster, on October 8, at 10.30 a.m.; at the RIBA, 66, Portland Place, W.1, on October 8, at 2 p.m.; and at the Central Hall, Westminster, or October 10 at 10 are and 21 for The State 10 are and 20 for the state 10 are and 21 for the state 10 are and 20 for the state 10 are and 2 on October 10, at 10 a.m. and 2.15 p.m. Two sections of the conference, Modern Heating and the Architect, and The Home and Its Fuel Services, will concern housing. Mr. Emanuel Shinwell, M.P., Minister of Fuel and Power, will open the conference, and Mr. Aneurin Bevan, M.P., Minister of Health, will speak on the *Fuel Requirements* of the Housing Programme. OCT. 8, 9 and 10

MORLEY. Furnished Exhibition House. At Winterbourne Estate, Victoria Road. (Sponsor, the Arts Council.) Victoria Aug. 1-21

PARIS. International Technical Con-gress. Among the delegates from Great Britain will be Sir Patrick Aber-crombie, President, International Reunion of Architects, and Sir Percy Thomas. PARIS. SEPT. 16-21

**SOUTHAMPTON.** Design at Home. Exhibition. At the Art Gallery, Civic Centre. (Sponsor, the Arts Council.) AUG. 1-3

Exhibition WAKEFIELD. Furnished Exhibition House. At Cyprus Mount, Newton House. Bar. (Sponsor, the Arts Council.)

AUG. 1-26

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F. W

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.

Mr. George Buchanan, M.P., Joint Parliamentary Under-Secretary of State, and a deputation from Edinburgh Corporation in St. Andrew's House, Edinburgh, discussed EDIN-BURGH'S TEMPORARY HOUSING PROGRAMME. HOUSING PROGRAMME. Explaining the delivery system of the various types of temporary houses to be allocated to Scotland, Mr. Buchanan repu-diated any suggestion of political bias in the allocation of temporary houses to Edin-burgh. Dealing with aluminium houses, Mr. Buchanan said that only a little over 500 had been delivered in all. Of these Edinburgh alone of the four cities had received delivery of a hundred. With such a small number available, special care had to be taken to ensure as fair a distribution to be taken to ensure as fair a distribution as possible. When the aluminium house production got into full swing in the latter part of the year Edinburgh could look for substantially increased deliveries of this type of house. On Mr. Buchanan's sug-gestion it was agreed that Edinburgh Corporation officials and the Government departments concerned should consider how far it would be possible by substitution of other types of houses for the aluminium house to speed up deliveries in the imme-diate future. This substitution, if agreed, would not affect Edinburgh's total aluminium house allocation.

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### From AN ARCHITECT'S Commonplace Book

PLAN FOR LOVERS. [From City Development, by Lewis Mumford (Secker and Warburg).] We should not forget that in the Western world the planning of parks and the introduction of courtship as an erotic ritual came in together in the royal courts, as the very word courtship indicates ; and it is high time that a little public wisdom was applied to this area of life. If wiping out sexual disease is an imperative hygienic matter, building up a rich and many-sided culture of sex is no less an important contribution to family well-being. I have been in public parks on the mainland where motor-cycle police with searchlights obscenely blazed upon park benches in order to interrupt the tender moments of lovers : a perversion far worse than the loosest sexual abandon that the searchlight might discover. Just the opposite of this is needed : public gardens and promenades that lovers will take to naturally, in preference to the sordid quarters that dishonour their every emotion. Without any ostentatious declaration of purpose, the placing and the planting of neighbourhood promenades may well make a positive contribution to the biological well-being of the community, through their direct effect upon the moods and feelings of the young.

At Chester and Perth thirty-nine EUROPEAN VISITORS ARE STUDYING MUNICIPAL SERVICES. Three Mayors and a Town Clerk from Holland, a Belgian Senator, a Copenhagen City Councillor, one of the staff of the Premier of Czechoslovakia, and a French police official, are among thirty-nine administrators from the Continent attending courses on Local Government Services arranged by the British Council in co-operation with the local authorities at Chester and Perth. At Chester assistance is also being given by Liverpool University School of Social Sciences and Administration. The Chester programme includes lectures on Town Planning and Civic Design, by Mr. W. Dobson Chapman, M.T.P.L., F.I.L.A., LR.I.B.A., Past-President Town Planning Institute, and Housing under Local Government, by Mr. C. Greenwood, M.INST.C.E., M.INST.M. AND CY.E., Barrister at Law, and a visit to housing estates.

#### \*\*

The London County Council has approved the recommendation of its Town Planning Committee, that evidence to be given by the Council before the Gorell Committee on the future of THE TERRA-CES ADJOINING REGENT'S P A R K s h o u l d b e i n favour of their preservation. The Council have been invited to give evidence before the Gorell Committee set up by the Prime Minister, and the Planning Committee suggests the lines on which evidence should be given. The report states:—It is considered that the Regent's Park terraces individually and collectively are of such architectural importance that the buildings in the undermentioned streets should be recommended to the Commissioners of Crown Lands for inclusion in the list in course of preparation with a view to their being preserved: Park Crescent, Park Square West, York Terrace, York Gate, Cornwall Terrace, Clarence Terrace, Sussex Place, Hanover Terrace, Kent Terrace, Ulster Place and Terrace, Upper Harley Street, Park Square East, Cambridge Terrace, Chester Gate, Chester Cerumberland Ererace, Cumberland Place, Cumberland Ererace, Cumberland Place, Cumberland the various houses, gates, lodges, etc., within the park forming part of the group of Regency buildings. It is further considered that the terraces mostly justify preservation rather than as in dividual blocks. Any proposal to remove

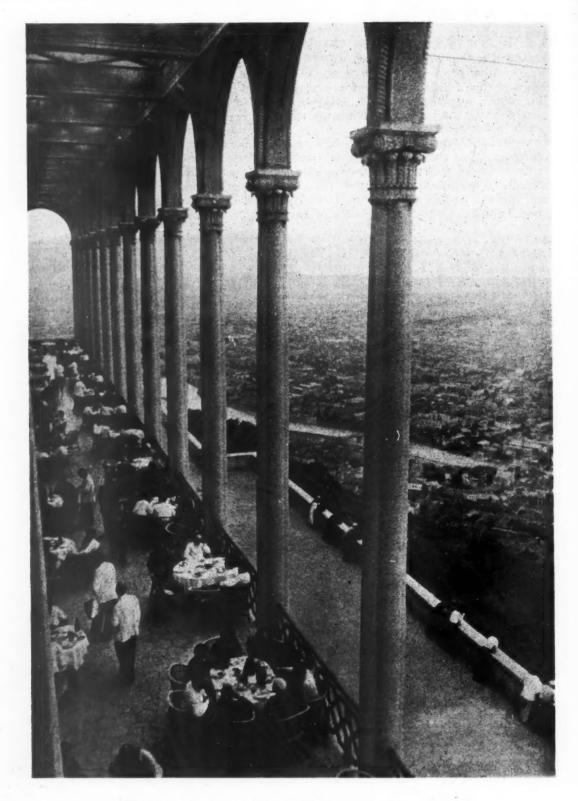
certain blocks for replacement by other forms of buildings, while retaining some of the original blocks as museum pieces, is not favoured. It is considered that on architectural grounds nothing less than the restoration of the buildings to their former state can be contemplated. The situation of the terraces overlooking Regent's Park is best suited to residential accommodation and the buildings should revert to that use. We are satisfied, the report adds, that the planning of the buildings is such that their conversion into flats or maisonettes could be satisfactorily effected without destroying their architectural character.

\*

Over 70 experts have been commissioned to present the latest developments of British industry at the Government-financed BRI-TAIN CAN MAKE IT EXHI-BITION in London in September. Exhibits are being submitted by more than 50 British industries. Many of the exhibits will be shown in their normal surroundings, for there will be a series of rooms -kitchens, bathrooms, nurseries, dining rooms, bedrooms, and offices. These rooms will be completely furnished without any utility restrictions. Following is a list of the architects who have been commissioned: Restaurant and Garden: R. Y. Goodden, A.R.I.B.A., AA.DIP.; Sports Feature, M. Weightman, A.C.R.C., M.S.I.A.; Radio, F. R. S. Yorke, F.R.I.B.A. Schools: Nursery, R. Tubbs, A.R.I.B.A.; Secondary, D. Clarke-Hall, A.R.I.B.A.; Secondary, D. Clarke-Hall, A.R.I.B.A.; Bathrooms: Middle-class, H. Tayler, A.R.I.B.A., A.DIP. (Hons.); Luxury, C. Entwistle, M.INST.R.A., MR.SAN.I; Dining Room: D. Booth, A.R.I.B.A., L.S.I.A. Bed-Sitting Rooms: Men's, T. A. L. Belton, B.A., A.R.I.B.A.; Women's, Miss U. Mercer, A.R.I.B.A.; Scottish Living Room: M. Noad, A.R.I.B.A.; Wolls and Floors, I. Henderson, M.S.I.A.; Domestic and Cleaning, J. Bainbridge, M.S.I.A. Fundamentals of Design: Misha Black, O.B.E., F.S.I.A. Furnishing Fabrics: Jacques Groag. Offices: Manager's, B. O'Rorke, M.A., F.R.I.B.A., M.S.I.A.; General Admin, R. Sheppard, F.R.I.B.A.; Drawing and Technical, C. Nicholson, M.A., F.R.I.B.A.; Kitchen: Working-Class Utility, Miss E. Mosely, A.R.I.B.A.; Middle-Class (flat kitchenette), F. Gibberd, F.R.I.B.A., M.M.T.I.I. M.S.I.S.; Luxury, Miss Jane Drew, F.R.I.B.A.; Bolfrooms: Working-Class, D. Medd, A.R.I.B.A.; Working-Class, With double bed), Mrs. Holford; Middle-Class, (Mith double bed), Mrs. Holford; Middle-Class, M. Ward, B.ARCH, A.R.I.B.A.; Luxury, John Hill. Living Rooms: Working-Class, Miss E. Denby; Working-Class (kitchen recess), Mrs. Darcy Braddell, HONAR.I.B.A.; Middle-Class, F. R. S. Yorke, F.R.I.B.A.; Luxury, R. D. Russell, R.D.I., M.S.I.A. Nursery: P. Bicknell, A.R.I.B.A.



The Londoner's England Exhibition of drawings of London and the Home Counties, now open at Charing Cross Underground Station, sponsored by four brewers. The panels of the screen are either painted in bright colours or filled with photostats of old prints of England. The right-hand side of the screen is composed of a photo of the City mounted on expanded metal painted crimson. The designers were Eric Brown and Stefan Buzas. The exhibition, on view from 10 till 7, closes on August 15.



### Russian Holiday Centre

This café in a holiday centre in Georgia may give a stimulus to Mr. Bevin's recent proposals for Government holiday centres in this country, in spite of its bourgeois tone and imperialistic architecture. How building, architecture and planning are organized in the USSR, in general,

for work as well as play, is the subject of a special article in the JOURNAL this week, which is based on answers to questions submitted to VOKS, the Soviet Society for Cultural Relations with Foreign Countries, by the Society for Cultural Relations with the USSR in London. The PO M CO T Mit Trocho infth unall but we new prine can mit the work of the trocho infth unall but we new prine can mit the trocho infth unall but we new prine can mit the trocho infth unall but we new prine can mit the trocho infth unall but we new prine can be trocho infth unall

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The Government estimates that by the end of the year 100,000 TEM-PORARY AND 100,000 PER-MANENT HOUSES WILL BE COMPLETED-Mr. George Tomlinson, Minister of Works. Mr. Tomlinson, who was speaking at a Trades and Labour Council rally at Eccles, continued: Already 44,000 temporary houses were occupied and they were appear-ing at a rate of more than 2,000 each week. Ing at a rate of more than 2,000 each week. There were 120,000 permanent houses now under contract. "We are told we do not allow private enterprise a fair chance to build houses for sale," said Mr. Tomlinson. "That would mean the people with money would have first pick at houses. Private enterprise is concerned only with profit. We in the Government are concerned in We in the Government are concerned in providing houses speedily for those whose meed for them is greatest." The need for careful use of building materials was emphasized in a circular issued by the Ministry of Health to housing authorities. It said that stocks of clay roofing tiles were reduced to a dangerously low level, and that production of plaster board for at least the next few months would meet only a small proportion of the demand. Reluct-antly, it had been decided for the time antly, it had been decided for the time being that plaster board must be largely denied to new permanent traditional hous-ing. Production of slates was still less than half what it was before the war, and restrictions on their use must continue. A difficult labour situation was handicapping the industry, the circular explained, and a beek on expanding the output of clay roof. the industry, the circular explained, and a check on expanding the output of clay roof-ing tiles had been applied because some firms had been told to concentrate on bricks. Each week approximately 1,000,000 more tiles were sold than were produced. As a result, stocks were rapidly being reduced to a dangerously low level. They were trying to employ more men and increase production, and an improvement was hoped for in the autumn, but concrete tiles where need the used where prosible. tiles should be used where possible. A shortage of baths was expected to continue for some months, but it was hoped to have for some months, but it was hoped to have enough for all housing purposes by the end of the year. The Government's atti-tude to private builders was criticized by Sir Harry Selley, national president of the Federation of Master Builders, in a state-ment issued last week. He said that the Government were nationalizing the industry in secret. Private anterim was builders, in Private enterprise was being in secret. in secret. Private enterprise was being squeezed out by restrictions that made trading impossible. Sir Harry Selley stated that, although in May 15,000 more men were engaged in housing construction than in April, 340 fewer houses were put up in May.

On July 18, the Minister of Works, Mr. George Tomlinson, laid the foundation stone of a BUILD-ING TRADES' TRAINING CENTRE AT BILTON Industrial Estate Brimsdown, Enfield. A number of emergency training centres are already training demobilized men who wish to enter the building trades and certain other trades. The Bilton Centre is one of the permanent training centres which are being constructed or adapted to provide long-term training facilities. These training centres are, for the most part, situated in or near main centres of population, where the needs of housing and of making good war damage are most acute. As these centres are of permanent construction, their completion is obviously a matter of some months, but partial occupation is being given as building proceeds.

## CHALLENGE TO THE BUILDING INDUSTRY

HOUSE building on a large scale by any means, and at almost any cost, is the problem of the moment. It is generally recognised that the established building industry will not be able to provide the necessary buildings unaided within a short time and the necessity to develop prefabricated systems of construction is admitted. Several systems have been developed and extensively used, and the public has slowly learned to accept prefabrication with less misgiving than when it first became news. Yet, even to-day, the man in the street will probably think of prefabrication as a method which, whilst offering great advantages in speed of erection and in the use of unskilled labour, is not capable of producing permanent houses of the same " sterling qualities " as traditional building. Traditional methods of construction are based on centuries of experience and produce houses of great solidity and endurance. Prefabrication, it is thought, is an "upstart" in the field of building, and the houses less enduring, less solid, indeed a kind of substitute.

Is this discrimination justified, and on what ground can a fair comparison be established? A measure of the physical efficiency of a building has been made possible by the standards laid down in Report No. 1 of the Burt Committee.\* It may have come as a surprise to many that, measured by these standards, the traditional brick and timber house falls short in almost every respect, except for the fire resistance of the 9 in. party wall.

In Report No. 2,<sup>†</sup> recently published, the Burt Committee analyses eight new systems of prefabrication, using its own standards as a yardstick. None of the systems gets full marks for its performance, and the Report contains suggestions for improvements for almost every system. But each system is considered suitable for a 60-year loan, if certain technical details are modified, and the heat and sound insulation of all these systems is far superior to that of traditional houses. Houses built by these unorthodox methods will consequently offer more comfort to tenants than houses built by traditional methods (e.g., saving in fuel, less noise, etc.). Indeed, these prefabricated houses are a challenge to the building industry to improve the brick-timber house. Contrary to the expectation of those who were afraid that standards will be lowered, prefabrication will thus be a means of improving housebuilding standards of construction, and comfort.

Prefabricated houses, on the other hand, must prove that they can be pleasant and homely in appearance, and avoid that uniformity and monotony so justly abhorred by the lay-man. This will involve careful layout as well as the development of a new visual character in the design of the houses themselves. Only two of the systems analysed in

\*

rticle rs to Culciety

See A.J. April 6, 1944 and Inf. Centre No. 1516: 20.6 44.
 † See Inf. Centre No. 2643 on page 87 of this issue.

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Report No. 2 try to imitate the appearance of buildings erected in traditional methods, all others admit more or less frankly that they depart from the conventional fashion, and some have succeeded in finding a characteristic form of their own. It will, however, take time and a great deal of imaginative work to arrive at a new and natural style which, whilst frankly displaying the character of industrial production, will satisfy the mind and eye of the critical onlooker.

The ultimate fate of prefabrication will depend on the cost factor—on whether by a careful application of mass production methods the cost can be kept low enough to be competitive when the shortage of bricks and skilled labour has passed. But whatever its outcome, the present competition between old and new methods will benefit the ordinary man and will stimulate the creation of new ideas by architects, technicians and builders.



The Architects' Journal

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#### PR AT MOTCP

The New Towns Bill has moved smoothly through the Commons and has now gone aloft to the Lords. It is very much a non-controversial measure but it does not look as if we shall see it on the Statute Book this Session. But if the Minister of Town and Country Planning expects the public to know, or care, anything about it, he had better take his Public Relations Section by the ears and shake it violently.

A friend of mine, thinking that the moment was coming for disseminating a little information about the Bill, went to see what the Public Relations Section in the Ministry could provide. The answer was a virtual negative. The only hand-out they had was that prepared for the Minister's ill-fated trip to Stevenage some time ago. The only plan available was the rough sketch of the Stevenage proposals, put out at the same time. The only photographs available were a collection of rough prints, themselves useless for reproduction and in most cases without a record from where they had come so that their origins could not be traced.

The Section's own photographic branch had retired behind closed doors for a fortnight, to produce a pamphlet of their own. The general attitude was one, so I gather, of "Come again in six months' time and we might have something then." My friend said he dared not utter the word Crawley, in case they asked him where it was.

Possibly that account is exaggerated, although I do not think so myself. In any case it is deplorable that such an impression should have been left on anyone who was, in fact, anxious to speed the work that a Public Relations Section is designed to do. I suggest to the Minister that he pays an informal visit to the corresponding units in some of the other Ministries. It should open his eyes. Frankly, my view is that at the moment his own Ministry is one of the most effective instruments for killing public interest there is in planning on a national scale.

#### AA STUDENTS' WORK

The familiar ingredients are to be seen at the exhibition of students' work at the AA; hard work-more of it than ever; some brilliant designs-notably William's Dickinson's gym and children's theatre; occasional evidence of constructive thought; a definite consistency. But there is lacking a policy in the selection and hanging of the drawings that would make clearer to visitors how the curriculum, as described in the prospectus of the school, works out in practice.

The practical training scheme is now in full swing on a bombed site behind the school. No doubt this scheme is an excellent complement to the paper work of the studio, but-to nag again -it would surely be better to emulate the students of the Polytechnic who organized their own practical training schemes and reconditioned two very useful youth hostels. Construction of actual buildings for use is both more stimulating and instructive than the erection of those cumbersome sheds to be alternately demolished and rebuilt which now fortunately lie hidden behind hoardings on the AA site in Tottenham Court Road.

#### **RIGHT OF WAY**

There has recently been before the Chancery Court a case involving the Rights of Way Act of 1932 that is of considerable encouragement to those who like to see, from time to time, the country they live in. It was brought by the Newton Abbot Rural District Council and it established a right of way on foot over a lane to the beach near Teignmouth, which the owner of the land had closed with a gate. The details of the case are complicated, as only an action involving our laws of settled property can be, but the point is that it showed that the 1932 Act does, in fact, create rights of way that could not be proved under the common law.

I had an uneasy feeling that in practice the Rights of Way Act might prove to be as ineffective as the Access to Mountains Act, which discourages far more access to mountains than ever it permits. The 1932 been a rig not but tion

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1932 Act says that if a footpath has been used by the public for forty years, a right of way comes into existence (a not unreasonable provision, surely), but even that straightforward proposition did not escape challenge.

In the Newton Abbot case it was suggested that the Act had no retrospective effect-there the lane had been used by the public since about 1843, but the right to use it had been challenged in 1924, well after the end of 40 years of continuous use, but before the Act, of course, was passed. This, so Mr. Justice Evershed held, was no bar to a claim in 1946 based on a 40-year period that started well back in the last century.

Another point of interest to the man in the street-or rather, on the footpath -is that a Rural District Council has been active-with success. Councils are the proper guardians of our rights but not all of them are alive to their responsibilities. Anyone who finds his Council non-co-operative should breathe the words Newton Abbot into the ears of his local councillors at frequent intervals.

#### FINSBURY DOES IT AGAIN

It is quite a problem, what to provide in place of the conventional golden trowel when an eminent personage performs whatever ceremony is equivalent to laying the foundation for a modern The trowel is no longer a building. very apt symbol-ceremonial trowels are seldom objects of beauty, and one has always wondered just what the eminent personage does with them afterwards.

Finsbury cleverly solved this problem last Friday, when Mr. Aneurin Bevan laid the foundation stone of their Rosebery Avenue housing scheme, by presenting him with a charmingly made miniature model of one of the scheme's eight-story blocks of flats, in polished silver and copper. When he sees it on his desk in Whitehall, the Minister will no doubt appreciate it as a symbol that nowadays the architect's plan determines standards of quality as much as the builder's craftsmanship, which the old-fashioned trowel presumably stood What additional symbolism he for. will read into the fact that it is intended as a paper-weight, one can only guess.

The Finsbury Borough Council, which continues to show the same architectural enterprise it showed before the war, under the leadership of Mr. C. J. Simmons and Dr. C. L. Katial (chairman of the Housing Committee), can take it that their efforts are appreciated in high places, for Mr. Bevan said that this was the first of hundreds of similar invitations he had accepted. Tecton, the architects, can take it as a compliment too.

In a brief and admirable speech Mr. Bevan said that though quantity in housing was what everyone is concerned with now, in ten years' time the results will be judged on their quality. May the Ministry practise what the Minister preaches.

#### ASTRAGAL

Model of Finsbury's Rosebery Avenue Housing Scheme designed by Tecton, the foundation stone of which was laid by Mr. Bevan last Friday. Another model in silver and copper was presented to Mr. Bevan at the ceremony. See Astragal's note.



## LETTERS

W. F. Granger, F.R.I.B.A.

Lionel Brett,

M.A., A.R.I.B.A.

Crusader

### Crystal Palace Competition

SIR,—The type of back chat that is going on in your columns over the result of the Crystal Palace Competition does an infinite amount of harm to our profession in the eyes of the general public.

eyes of the general public. Whenever a new building is completed, or the result of a competition is published, cer-tain architects immediately rush to the Press informing the world how bad the building or the result of the competition is, and I am quite sure if all this effort were put into constructive work it would serve a much constructive work it would serve a much better purpose and not give the public the opportunity of telling us we cannot agree among ourselves what is good or bad. Architects should at all times guard our competition system and never bring it into

disrepute, as no other professions have this wonderful opportunity of bringing the young men to the front. Bromley.

W. F. GRANGER

#### National Amenities Council

SIR,—Reluctant though one must be to differ from so eminent and enlightened a protagonist of modern architecture as Sir Charles Reilly, I cannot help thinking that Charles Reilly, I cannot help thinking that a great many architects must have read his recent letter to you with dismay. He gives (if I may briefly recapitulate) these objects for his proposed Amenities Council: 1. In general "to make life physically, in every sense, as good a thing for the people as a whole as it can possibly be made." 2. "To investigate practical and scientific problems."

problems.

"To promote health and efficiency in

 To promote nearth and emclency in connection with building development."
 In detail "consideration should be given to sound functional planning, methods of construction, facilities for healthy recreation, the enjoyment of adequate daylight and sun-light, ventilation, heating, acoustics, good atmospheric conditions, protection from fire and noise. . .

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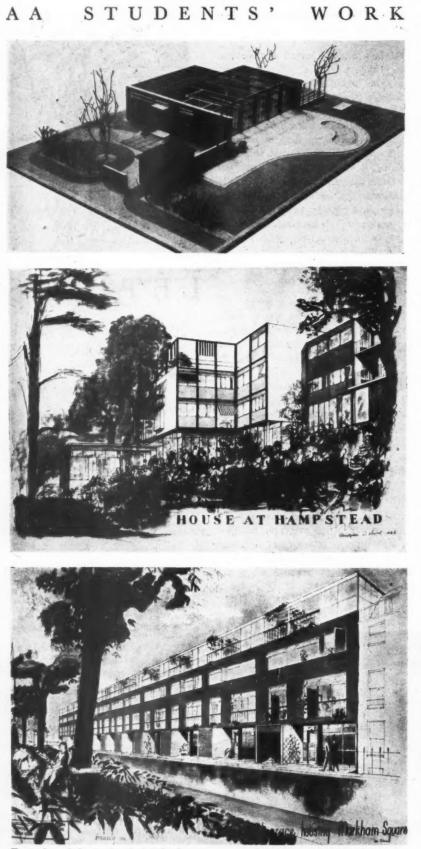
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Examples of the work of AA Students now on exhibition at 36 Bedford Square. Top, model of a nursery school by W. J. Gilbert-Godwin, 1st year. Centre, a house at Hampstead by C. S. Knight, 3rd year. Bottom, terrace housing in Markham Square, Chelsea, by F. Atkinson, 5th year.

Now, sir, formidable though this pro-gramme is, it is in fact a summary of the normal practice of the modern architect. Apart from object No. 2, which is the special province of the Building Research Station and the various technical trade associations, most architects are ready and trained to accept full responsibility for objects 1, 3 and 4 in relation to projects entrusted to them. Few, I imagine, would welcome the volun-tary assistance of a spare-time organisation such as the Amenities Council, however dis-tinguished its members would presumably tinguished its members would presumably be; and those who needed advice the most would probably welcome it the least. As regards the specialist aspects of "the Amenities," we already have the benefit of the activities of such admirable organisations as the CPRF the Society for the Protection

the activities of such admirable organisations as the CPRE, the Society for the Protection of Ancient Buildings, the Central Council of Civic Societies, the Playing Fields Asso-ciation, SCAPA, the Roads Beautifying Association, the Men of the Trees, the Smoke Abatement Society, the Noise Abatement Society, the Commons and Footpaths Pre-servation Society, the Pedestrians' Associa-tion, Flora's League, the Ramblers' Associa-tions, the Society for the Protection of Wild Flowers, and the Council for the Disposition of the Dead (to name a few) some of which of the Dead (to name a few), some of which societies can give technical assistance of de-finite value to architects.

It may be that some central co-ordination of the work of these groups, even some amalgamation, is desirable. But I do not feel, unless I have misunderstood his proposal, that Sir Charles has made a prima facie case for adding to their numbers and thereby possibly subtracting from their goodwill. London

LIONEL BRETT

Official Architects

SIR,—Now that we have an official archi-tect as President of the RIBA it is to be hoped that the fight to better the present position of many official architects will be taken up vigorously. I refer to those architects who do not have separate depart-ments in their local government organiza-tion. The situation in which so many architects find themselves, that of working as part of the department of the borough engineer, or his equivalent, is obviously both unsatisfactory and unjust. It is unsatisfactory in that the architect under these circumstances rarely attends committee and council meetings, and this

It is unsatisfactory in that the architect under these circumstances rarely attends committee and council meetings, and this necessitates the engineer being briefed by the architect before attending the meet-ings. Unless this briefing is almost in-humanly thorough the engineer is placed in the position of not being in full com-mand of the true situation when facing the questions of the committee or council. In practice this often leads to the giving of snap answers which may cause untold waste of labour in the architect's office after the meeting in order to make the scheme conform to that which the com-mittee or council were under the impres-sion was intended in the first place. It is unfair that in having created a design himself, the architect must print the name of the borough engineer at the foot of the plans thereby giving that official credit for the work. Also it entails a fully qualified architect having to submit his work to a civil engineer for criticism or approval. This seems to be a slur on a noble pro-fession.

fession.

Logically the work of the civil engineer should be subordinate to that of the archi-tect and the town planner, but in practice this position is usually reversed.

This anomaly is as much the concern of the private architect as of the official archi-tect as it affects the advancement of the profession as a whole, and we should unite in having it remund in having it removed.

CRUSADER

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the con archite of the 1934. poses 1 archite of its the ad constru fied ar The and 50 among tural h the pro 6 scie planni (4) A nique; Archit special stitute examp of bui The Architecture and Planning Groups of the Society for Cultural Relations with the USSR in London, which was formed in 1945, recently sent a series of questions to the Architects' Section of VOKS-the Soviet Society for Cultural Relations with Foreign Countries in Moscow. These questions dealt with the organization of architectural practice, the building industry, housing, town-planning and architectural education. Detailed answers have been received and are published here for the first time. They should be of some interest in showing how building is organized in a country which no longer has any competitor among nations in the field of state planning. Further answers on the vexed question of architectural style are expected.

## HOW BUILDING AND PLANNING ARE ORGANIZED IN THE USSR

#### I. HOW IS ARCHITECTURAL PRACTICE ORGANIZED?

#### STATE ORGANIZATION

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The State direction of architectural activities in the USSR is vested in the Committee for Architectural Affairs under the Council of Ministers of the USSR. This Committee exercises direction and public control over the activities of all the planning and con-structional organizations working in the province of architecture, and similarly over the planning and production of artistic manufacture.

Of artistic manufacture. The Committee acts in consultation with the local architectural authorities in each re-public and province, and with the chief architects of the principal cities and towns. The Committee supervises the general plans of lowns and villages, approves these plans and directs their fulfilment and in particuand directs their fulfilment, and in particular sets out the requirements of new archi-tectural projects, approving them and mak-ing decisions on their execution. In consultation with the relevant authori-ties, the Committee supervises the working out of typical projects and decides on stan-

dards for mass production in building work.

#### ACADEMY OF ARCHITECTURE

The most important scientific authority in the country in relation to the practice of architecture is the Academy of Architecture of the USSR, which was established in 1934. The Academy has for its main purposes the improvement of the standards of architecture in the Union, the further study of its theoretical and historical foundations, the advancement of the art of planning and construction, and the training of fully quali-fied architects and scientific workers. The Academy of Architecture in the USSR is composed of 20 active members and 50 active members from

and 50 corresponding members, chosen from among the outstanding architecis, architec-tural historians, and structural engineers. At tural historians, and structural engineers. At the present moment the Academy consists of 6 scientific-research Institutes: (1) Town-planning; (2) Housing; (3) Public Buildings; (4) Art Manufactures; (5) Building Tech-nique; and (6) The Theory and History of Architecture. The Institutes are divided into secial sections and are provided with ex-perimental and planning studios. The In-titute for Building Construction, for example, has sections devoted to the study of building physics and constructional tech-

nique, with the necessary laboratories and apparatus. The Academy also has a similar Institute

The Academy also has a similar Institute of Students which holds an annual competi-tion for the most talented young architects; so that over a period of three years they are enabled by improving the mastery and knowledge of their art to obtain higher qualifications and present a thesis for the title of candidate in architecture. The Academy has its own publishing house, scientific library, museum of architecture, and sculptor's studios. The membership of the Academy is about 450.

450.

The development of the scientific research work of the Institutes and the preparation of enormous quantities of new building and reconstruction work has necessitated the further growth of the Academy and the broadening of its establishment. As a result, the Ukrainian Affiliated Academy was organised in 1943, and in 1945 this was de-veloped into the Ukrainian Academy of Architecture. In 1943, under the ægis of the Academy, the active members of the Academy were organised into planning groups, and are now engaged on the recon-struction of the larger towns which were damaged in the war, such as Stalingrad, Voronejh, Rostov, Novorossisk, Kalinin, and others. The development of the scientific research and others.

#### UNION OF SOVIET ARCHITECTS

The general activities of Soviet architects are organised and directed by the Union of Soviet Architects.

of Soviet Architects. This voluntary public organisation has for its object the collaboration of architects in active participation in public construction, the all-round development of the architec-ture of the Republic, the advancement of professional culture, the study of various problems of Soviet architecture and build-ing work the presented negative of the ing work, the practical co-operation of the members in their daily work, the improve-ment of their qualifications, and the better-ment of the conditions of their life and work.

work. The work of the Union is directed by an Executive, elected at an All-Union confer-ence of architects. In the republics and large towns the work of the branches is directed by republican and city executive committees, elected at conferences and pro-vincial meetings.

50 branches with nearly 5,000 members, in-cluding full members and associated mem-

bers (candidates). The membership also includes many outstanding craftsmen of other allied professions. The members of the Union participate in the work of various sections devoted to the study of many sides of architectural work, both in theory and practice. Besides this routine work, the Union plays its part in the solution of more complex problems and refers them to the decision of conferences, which are held periodically. The results of these conferences constitute a programme of action for members of the Union, and are published or sent as recommendations to the appropriate State departments. appropriate State departments.

appropriate State departments. The Union co-operates in furthering the professional welfare and social intercourse of its members, publishes a monthly journal, arranges exhibitions, debales, reports on the work of leading individual architects, and organizes competitions, tours and visits. The funds of the Union are derived from the subscriptions of the members, contributions by public authorities, and various sums arising from rent of property and the activities of the Union. The Union has an Architectural



Architects in the Petrozavodsk architectural bureau working on the project for the reconstruction of the Karelo-Finnish capital.



Top, Some pre-war flat buildings. at Sverdlovsk built in 1935. Centre, another Sverdlovsk block built in 1939. Bottom, a third pre-war block.

Fund which is devoted to the welfare of the members in various wave. This Archithe members in various ways. This Archi-tectural Fund disposes of considerable sums from its annual income, which is derived from the legal allotment of about 10 per cent, of the salary which is paid to the architects by the various planning organiza-tions which employ them. These sums are paid to the Architectural Fund over and above the salaries paid to the architects. The Architectural Fund has enabled the

The Architectural Fund has enabled the Union to provide and maintain holiday homes and hostels for architects near Mos-cow and Leningrad, on the shores of the Baltic and the Black Sea, and in other parts of the country; organise various types of assistance towards the completion and improvement of qualifications in the form of courses, seminars, individual and group in-struction in preparation of theses; provide the various branches with books and periodical literature; and promote the general wel-fare and material necessities of the Union members.

#### ARCHITECTURAL AND PLANNING PRACTICE

Architectural practice in planning and con-struction is concentrated in State planning and constructional organisations.

The most important planning organization for industrial purposes comes under the Ministry of Building, while town-planning and reconstruction is dealt with by the Committee for Architectural Affairs. The Central Institute for Industrial Plan-ning — Promstroi-Proyekt — consisting of

about 1,500 workers, of whom about 200 are

architects, is found in Moscow. This Institute prepares the plans for the largest and most important industrial and engineering most important industrial and engineering enterprises in the country, and designs, in consultation with the Central Scientific Research Institute for Industrial Construc-tion, the layout of typical structures, stan-dardizes components, and systematizes the plans and designs for future work. Branches of the Promstroi-Provekt are

Branches of the Promstroi-Provekt are found in all the main industrial centres and hundreds of architects are employed in them.

Industrial housing and the design of cultural buildings has a similar Central Plan-ning Institute in Moscow known as the Gosstroi-Proyekt, the branches in the pro-vinces. The Gosstroi-Proyekt works out the plans for the general layout and erection of new and reconstructed industrial towns and village communities, and in general lays down the standards for industrial housing.

Under the direct control of the Committee for Architectural Affairs some of the most eminent architects of the Soviet Union have been working in their studios in Moscow on the general design, building, and reconstruc-tion of many towns which have been badly damaged in the war, such as Novgorod, Pskov, Bryansk, and others.

In these studios and by a system of com-petitions the plans are prepared for mass construction, for the approval of the Government.

The Republican Governments have their own Architectural Institutes—Giprogori—for the planning and layout of towns, which lay down the general lines of reconstruction.

The regional and urban departments of architecture, and the chief architects of the various towns have their own planning organizations, which take the general plans and work them out in detail, undertaking all the necessary allotment of land and deciding on the various problems con-nected with the actual construction.

Many other important organizations and authorities have their own planning Insti-tutes and offices, which deal with all the building work undertaken by that authority. These studios and planning groups and the architects whom they employ have special qualifications according to the type of build-ing work demanded by their authority. For instance, the architects employed by the Narkomzdrav—the Ministry of Health—in hospital buildings and sanatoria; the Nar-komtorg—the Ministry of Trade—in busi-ness premises and warehouses; and the Com-mittee for Art Affairs has its own seecolistic mittee for Art Affairs has its own specialists in theatre and cinema design.

The planning departments of these authorities have their central offices, and republican. urban, and provincial branch offices, and there are also separate planning depart-ments in many of the large industrial enterprises.

The larger planning organizations arranged in separate studios and drawing offices under the direction of fully qualified architects, and in separate brigades which devote themselves to the planning of par-ticular projects under the direction of a chief architect or chief engineer. These brigades include all the necessary specialists both for the planning itself and the super-vision of the given project when under construction.

This method of arrangement in separate drawing offices and studios in groups and brigades gives considerable flexibility to the work of design and planning. At the same time each architectural department has its own administration, its own board of management, its own finance, plant, and records, and this simplifies and facilitates the work of design. In addition to this many architects take

part individually or in groups in open competitions, or are invited to take part in restricted competitions, according to their qualifications. These competitions are usually set by government or other public organizations.

Architects have no need to concern them-selves about the preparation of a register, or the distribution of the work, since a far as architectural work is concerned the demand far exceeds the supply, and this matter is dealt with by the proper authorties according to general public policy. The Committee for Architectural Affairs, how-ever, keeps a check on all the available architectural man-power, and uses its influence to ensure the most useful distribu-tion of qualified men over the country and continuous employment. their Naturally their continuous employment. Naturally most of the central planning organizations are found in the large towns, which they serve together with the provinces. There are, for instance, 110 planning offices in Moscow, with 1,900 architects, in Leningrad 56 offices with 570 architects, in Kiev 28 with a staff of 270, and in Tbilisi 12 with 150. 150.

#### WORKING CONDITIONS

Working conditions in the architectural profession are regulated by the general labour laws, dealing with the length of the working day, a guaranteed minimum salary, an annual month's holiday with pay according to the average monthly salary, etc. addition architects, as members of In addition architects, as members professional association, enjoy a professional association, enjoy all the benefits of the State social service, which covers them during illness and incapacity.

Pensions on retirement or incapacity are allotted according to the average salary received immediately previous to retirement, and depend on actual personal service and merit.

The remuneration of architects in the planning organizations is based on the Government scale for each particular type of job. The overall cost of preparing a project varies from 1.5 per cent. to 10 per cent. of the estimated cost of construction. The lower limit applies to large and architecturally simple buildings, higher percentages being allowed for more complicated jobs, for those with higher artistic requirements and for small jobs. In all circumstances the archi-tect himself receives a guaranteed minimum remuneration in the form of salary, paid according to the existing scale, depending on experience and qualifications.

#### II. HOW IS THE BUILDING INDUSTRY ORGANIZED?

Government and co-operative building, and similarly the building work of public organizations is carried out almost exclusively by building contracting specially organized enterprises.

In addition to the Ministry of Building of the USSR, the majority of the Ministries for industry and other branches of national production, such as transport, communications, collective farms, etc., have their own contracting organizations for building work. The construction of housing schemes, public and other types of civic building is carried out mainly by the contracting trusts or the republican commissariats of housing and public building, and the trusts of district and urban councils.

The production of building materials is carried out in enterprises of a national im-portance belonging to the Ministry of the Building Materials Industry of the USSR and in the corresponding factories of the commissariats of the building materials in-dustry of the Union Republics, the republican commissariats of local industry, and the Soviet Republics co-operatives, district, provincial and urban councils. Other enterprises belonging to the Ministries of various branches of national economy also produce a good deal of building material, which is

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ict and rials is al imof the USSR of the epublind the district. entervarious roduce hich is utilised by their own contracting organiza-tions. These various sources of supply, from which proceed an enormous quantity of building materials and components, show the tremendous scale of new building and reconstruction in the USSR, and the de-site to utilise to the greatest possible extent the resources of the country, by decentralis-ing as far as possible the direction of the order to achieve maximum flexibility. The planning of capital eonstruction and rearried out by the Planning Commission of Gosplan—and by similar planning commis-sions in the republics, districts, and pro-vinces, depending on the importance of the

vinces, depending on the importance of the structure concerned.

#### PROVINCIAL ORGANIZATION

Decentralisation, together with specialisa-tion, is one of the leading principles of national economy in the Soviet Union. As a result the special Ministries, such as the Ministry of Building in the USSR, the republican Ministries for housing and pub-te works and similar central organisations republican Ministries for housing and pub-lic works, and similar central organisations, have provincial building trusts in all parts of the wide territory of the Soviet Union. The management of the building trusts con-trolled by these various Ministries is also decentralised as far as possible; and they usually have chief offices for the South, the Centre, the East, and so on. Other authorities which engage in building work, such as industrial co-operatives, dis-trict councils, and the councils of the larger towns, also have district building trusts and offices.

offices.

#### BUILDING CONTROL

Control over the site of the building specicontrol over the site of the building speci-fied in the approved project is exercised by the Committee for Agricultural Affairs under the Council of Ministers of the USSR through their Chief Authority for Building Inspection and through the separate inspecto-rates of the local offices of the Committees for Architectural Affairs.

Direct control from day to day is exercised by the City and District Architects, whose business it is to see that the general plans

business it is to see that the general plans of the building are strictly carried out. On the site of the building the sanitary precautions as laid down by law are en-forced by the relevant authority represented by the State Sanitary Inspector; similarly fire precautions are enforced by the local fire-prevention officers. The carrying out of the work in the time specified in the plans is controlled by the above-mentioned organizations and the in-spectorates of the Ministries on whose behalf the work is being done. In addition to this.

spectorates of the Ministries on whose behalt the work is being done. In addition to this, the right of control over building work has been given by the Soviet Government to the special banks where finance capital construction, and which regulate the financing of the project according to the time taken, and the quantity and quality of the completed work.

#### BUILDING PLANT

There is no central pool of building plant, because the tremendous scale and variety of building in the USSR would make such a pool unwieldy and impracticable. The commissariats engaged in building work have separate departments for plant and im-plements, and administer their own stocks and reserves. These stocks of plant and machinery are kept complete and up to date by the allocation by the Gosplan of new equipment from the factories specialising in machine tools, and also by the production of a good deal of equipment from their own workshops. There are, in addition, special shops for the repair and renewal of building plant and machinery. There is no central pool of building plant, plant and machinery.

SITE ORGANIZATION The responsibility for the proper organiza-tion of building work with reference to the accepted technical conditions and rules, and the regulations dealing with risks and acci-dents, etc., is borne by the Building Mana-ger, the chief engineer, and the authorities for technical control of the job. The workmen are provided with tools by the authorities by whom they are employed. If a tradesman uses his own tools, he draws a special payment to cover their use. When the tools are provided, the workmen are obliged to take the utmost care of them, and in the event of loss they must be re-placed. On transferring to another job the workmen must return their tools to the management. management.

#### WORKING CONDITIONS

The workmen are provided with living quarters, either in hostels or furnished apartments, with bedding and various kinds of communal service. They are also pro-vided with dining-rooms and various cultural services. Each worker enjoys an annual holiday. They are also provided with an encile diching for use on the build annual holiday. They are also provided with special clothing for use on the building by the authority.

#### THE USE OF LOCAL MATERIALS

The production of local building material is planned by the local authorities (town-planning commissions). Particular attention is paid to the development of a local in-dustry of building materials.

In the case of the Soviet Union, with its enormous area and the wide variety of its local resources, the production of building material from local sources of supply is of material from local sources of supply is of great economic importance. The building materials industry includes a large number of local enterprises for this purpose. Among these, besides the usual materials, such as bricks, sand, rubble, timber, and so on, there are many quarries where various types of natural stone suitable for walls are ob-tained: for instance the fossiliferous of natural stone suitable for walls are ob-tained; for instance, the fossiliferous limestone in the Crimea, near Kerch, in the N. Caucasus, near Odessa and other places; the use of volcanic tufa in the S. Caucasus; the factories for the pro-duction of building blocks from compressed grasses and reeds; gypsum works and the manufacture of building components from gypsum; and artificial stone on a basis of local asphalts. There are many widely distributed fac-

There are many widely distributed fac-tories which produce building blocks from

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blast-furnace by-products. The Government of the Soviet Union has encouraged the development of local build-ing materials. At the end of the war it ing materials. At the end of the war it issued special directives referring to this de-

velopment, which have had the effect of stimulating the local organizations. The material produced by these local en-terprises is allocated exclusively to the building demands of the localities in which these forcing work and comer suitide the

building demands of the localities in which these factories work, and comes outside the jurisdiction of the central authorities. The utilization of the local building material produced by these enterprises is managed by the Republican Ministries for Building Materials, and the various organizations of industrial co-operatives, district, town, and provincial Soviets. In addition to these, the National Ministries, which include building organizations, also produce local building material for their own needs. needs.

#### NEW MATERIALS

In the USSR there is a large network of scientific-research organizations working on the problems of new natural and arti-ficial building materials. Among these may be mentioned the Institute of Mineral Resources of the Soviet Academy of Science, the Institute of Building Technique and its laboratories under the control of the Soviet Academy of Architecture, the Insti-tute of Building of the Ministry of Building, and also the corresponding Institutes and laboratories of the republican and regional organizations. Research of this kind is carried out not only in the large central organizations In the USSR there is a large network out not only in the large central organiza-tions of the Union, but also in some of the autonomous republics, for example, that of the Bashkir autonomous republic, which has an Institute for building material, etc.

an Institute for building material, etc. The development of new types of build-ing materials is also carried on by various Institutes which are principally engaged on the study of the traditional materials. For example, the Cement Institute is trying out new cements based on raw material other than the usual marel (for example, dolomite, clay, koalin, etc.) The Institute of Bricks is working on the production of new ingredients, new types of clay, etc. The Glass Institute is similarly working on new kinds of foam glass. The study of new sources of raw material for the use of building authorities is also carried on by various departments of the Geological Committee under the Council of Ministers of the USSR.



Flats in Spartak Street in Chelyabinsk built in 1940.

A good deal of attention is being paid to the utilization of local industrial waste materials, such as ashes from the electricity power stations, from which already a wide variety of building blocks have been manufactured.

As a result of the German occupation many of these research stations engaged on this work were destroyed (Kiev, Kharkov, Voronezh, Dniepropetrovsk, and others), but they are gradually being reconstructed.

#### PRICES OF BUILDING MATERIALS

The prices of the basic building materials are determined by the Councils of Ministers of the USSR and of the Republics on the basis of calculations made by the Building Materials Ministries and the planning com-missions in consultation. The local authorities base their district prices on the decision of the Council of Ministers.

The calculation of the cost of materials is worked out on the basis of labour costs, cost of the raw material, power, transport, cost of the raw material, power, transport, sinking fund charges on buildings and plant; the stipulated percentage of profit allotted to the enterprise, and a simi-larly defined allowance for administra-tive charges. Some branches of the build-ing materials industry, particularly those dealing with new types of material, are in receipt of government subsidies in order to bring the new materials into practical use. bring the new materials into practical use.

#### ADMINISTRATION OF FAC AND SUPPLY OF MATERIALS FACTORIES

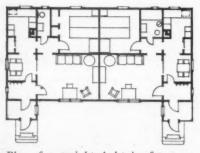
Enterprises of a national importance are administered by the central organizations; for example, the large cement works at Novorossisk comes under the Ministry for Building Materials of the USSR. Similarly, enterprises of republican importance are managed by the corresponding republican Ministries, while enterprises of a local nature are managed by the relevant local by authorities.

The supply of material for the national economy of the Soviet Union is dealt with by a special Chief Administration under the Council of Ministers. The particular indus-tries are only concerned with the production side, *e.g.*, the timber industry's job is to pro-duce timber and its supply to other indus-tries is dealt with by the Chief Administration.

#### **STANDARDIZATION**

STANDARDIZATION In the USSR a large number of basic constructional details, such as windows, doors, the proportions of stairs, partitions, details of flooring and roof coverings for public and industrial buildings of mass construction have definite All-Union com-pulsory standards. The same may also be said of baths, w.c.'s, washbasins, and similar internal fittings, including skirtings, dados and mouldings generally. The degree of standardization depends on certain principles which may be summarized as follows. The number of types and sizes of various fittings are kept down as much

of various fittings are kept down as much as possible in order to facilitate their mass



Plan of a semi-detached pair of post-war prefabricated houses.

production and reduce costs. This simpli-fication, however, is carried out with due regard to the possibility and the necessity of satisfying varying architectural demands and the specific peculiarities, climatic and so on, of building in the USSR. In laying down these standards we aim at combining the demands of mass production and erection and the demands of the consumer, not only with regard to the efficiency of the product. but with a serious attempt to study the arckitectural qualities of each detail of a build-ing and each separate fitting. As an ele-mentary example of this we may mention that the standards of concrete and reinforced concrete staircases in dwellings, public, and industrial buildings give a narrow range of dimensions for treads, risers, and the width of the stairway, but the profile of the steps themselves is left to the designer's discretion, and this makes it possible to vary his mouldings according to the style of the

The standards relating to doors and win-dows also give a limited range of basic dimensions, giving the designer a choice of possible arrangements to suit the rest of his design.

Standard iron baths have two basic sizes of length, width, and depth, while a special type of bath is designed for children, and in addi-

of bath is designed for children, and in addi-tion various geometrical features of the de-sign of the bath (round or straight edges, etc.) have been taken into account. Since the end of the war the Government of the USSR has raised the question of a significant improvement of the architectural and practical qualities of building. As a result, acquisite soft building. achievements of the Soviet building industry in the matter of standardization (with regard in the matter of standardization (with regard to which we recommend the study of the article of our colleague in the Soviet Academy of Architecture, P. S. Belitz-Geiman, in the journal *Building* for March, 1945, entitled *Building Standards in the USSR*), at the present time the work of increasing the number of standard types of building details is going on at full speed.

#### III. WHAT IS THE

#### NEW TOWNS

The character of pre-war housing construc-tion in the USSR (speaking mainly of the last 10 or 15 years) was determined in a large measure by the development of the light and heavy industry of the country, and the growth of such industrial giants as the Magnitogorsk and Stalinski metal-uerical plants. the Chalushinski Karatov lurgical plants, the Chelyabinsk, Kharkov, and Stalingrad tractor factories, the Moscow and Gorki automobile works, and a large number of other big enterprises. The establishment of these industrial plants

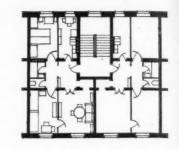
naturally brought into existence a number of large new towns (Magnitogorsk, Kuznets, and Stalinogorsk) and contributed to the quick growth of the existing ones. It is of interest to note that the urban population of the USSR doubled itself in

one decade (from 1927 to 1937).

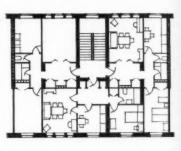
The period of pre-war housing construc-tion in the USSR may be described, there-fore, as the period of urban building—the construction of houses concentrated in the large industrial towns with populations of hundreds of thousands and even millions.

PRE-WAR 4-5 STOREY FLATS A special directive of the Council of People's Commissars of the USSR on the guestion of housing, issued as far back as 1934, stipulated that all the organizations engaged on housing construction should con-fine themselves to housing of a capital type, with a long period of amortisation, with apartments fitted with all necessary central purplice functions of the state of th supplies (such as water, drains, central heat-

Under these conditions the most useful type of housing for large towns appeared to







Flat plans. Top, a pre-war lay-out. Centre, a post-war emergency lay-out. Below, a post-war permanent lay-out.

#### HOUSING **POSITION ?**

be the 4-5 storey apartment house, giving the necessary compactness of construction, and as a consequence, economy in the use of metal in the provision of services to the building, which was one of the most important features of pre-war building. Blocks and whole areas of these 4-5 storey apart-ments were erected in Magnitogorsk, Kuz-nets, Chelyabinsk, Novosibinsk, Gorki, Kharkov, Sverdlovsk, Minsk, Baku, Moscow, Lanizersch and a large number of other Kharkov, Sverdiovsk, Minsk, Baku, Moscow, Leningrad, and a large number of other towns in the Union. As a rule these were houses with brick external walls, usually plastered, with tile or slate roofs (some-times flat roofs were used), while the internal construction was of brick or reinforced concrete stanchions, reinforced concrete or steel

beams and lintels and wooden floors. In blocks of land with an area of 15 to 25 acres, it was usual to place, in addition to dwelling houses, nurseries and crêches, shops (on the ground floor of the buildings, contiguous with the street), laundries, central boiler houses, repair shops and even schools. The garden plots within the block belonged in part to the separate houses and in part to the block as a whole.

### PRE-WAR HOUSES AND 6-10 STOREY BLOCKS

This type of building in 4-5 storey blocks, although it was the most usual, was not by any means the only type of housing erected

in the pre-war years. For instance, in the mining districts, and in some other forms of industry (the Donetz coal basin and so on) many settlements were built in which the standard type of house was the one- or two-storey building with

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were extensi 6-8-10 floors offices. for en recons on Go vards. We n ings o koye USSR

#### PRE-V The I of the

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finish Was (weig Were out w its own plot of ground measuring from 600 to 1,500 sq. metres. Similar settlements were erected along the new railroads and at junctions, which housed the railway and other workers.

Finally, the small (one- or two-storey) dwelling was always the traditional type of building in the Crimea, the Caucasus, and in all the republics of Central Asia.

On the other hand, in the capital cities of the Union-Moscow, Leningrad and Kievwhen the main new highways and boulevards were constructed, room was found on an extensive scale for apartment houses in 6-8-10 storey blocks, in which the lower floors were used as shops, cafés, restaurants, offices, and so on. Buildings such as these, for example, were erected on the newly reconstructed central boulevards of Moscow on Gorki Street, and on other main boulevards.

We may remark in passing that the buildings on the Gorki Street and the Kaluzhskoye Shosse were the first attempt in the USSR at the speedy erection of manystoried flats on a large scale.

#### PRE-WAR TYPES OF FLATS

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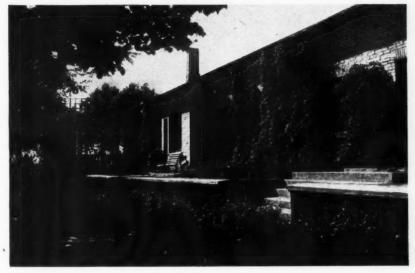
f other

The basic type of flat in the new structures of the pre-war years was the 2, 3, or 4-room flat (consisting of a living room with 1, 2, or 3 bedrooms). The area of the habitable rooms in the two-roomed flat varied from 300-400 sq. ft., in the 3-roomed flats from 300-500 sq. ft., and in the four-room flats from 650-700 sq. ft. In addition to the living rooms each flat was provided with a kitchen (measuring from 65-100 sq. ft.), bathroom, lavatory and hall from 65 to 80 or 100 sq. ft.

The living rooms were designed for preference with separate entrances from the staircase landings or corridors, and the rooms were also usually connected by internal doors. The kitchens were arranged primarily as a working room (the kitchendining-room was not common in the USSR until the last few years before the war). Bathrooms and lavatories were arranged in separate compartments; the practice of putting the lavatory in the same compartment as the bath was rarely adopted, and up to the present has not been felt particularly acceptable.

teularly acceptable. Through ventilation is not stressed in all multi-apartment houses—the building regulations require through ventilation only in the southern provinces of the Union. In these districts it is usual to have not more than two apartments on each staircase landing. In the central regions of the USSR the construction of multi-apartment houses was confined to types—particularly immediately before the war—with 3 or 4 flats on each landing. This system has a considerable effect on the expenditure on fuel, and naturally this makes a good deal of difference in the central and especially the northern districts of the Union. The arrangement of more apartments than this on one landing, as far as our experience goes, results in little further advantage.

Multi-apartment houses designed on the corridor system only came into use in the years immediately preceding the war, and their adoption has not been general. This design is usually used in the case of many-storied blocks of 6-8-10 floors. The lower floors are occupied by the public services of the block (stores, barbers' shops, post offices, and children's rooms), while the remaining floors are split up into flats with 2-3 habitable rooms, with all the usual auxiliary rooms of the average flat. Occasionally even a one-room flat is included, for the occupation of small families (childles couples, etc.). A block of this type was finished in Moscow just before the war. It was built of large concrete-breeze blocks (weighing from 1 to 1½ tons). The blocks were processed in a special plant, and sent out with the external faces already prepared, THE ARCHITECTS' JOURNAL for August 1, 1946 [83



Small house with a garden lot built of brick.

and were hoisted into place with the help of huge cranes. Such were the general features of pre-war

housing construction in the USSR.

#### WARTIME AND POST-WAR HOUSING

The war interrupted the steady development of housing in the Union, but already during the early days of the struggle the preparation for a revival had been put in hand. For instance, in 1942, while the enemy were still at the gates of Stalingrad, the Academy of Architecture of the USSR turned its attention to the study of the problems of post-war housing, embracing the whole enormous range of questions connected with the building industry, from standards of construction and types of apartment to the reconstruction of the entire building industry of the country. At the end of 1943 the Council of Peoples' Commissars established the Committee for

At the end of 1943 the Council of Peoples' Commissars established the Committee for Architectural Affairs, with the express purpose of regulating and supervising townplanning, housing, and public buildings. At the present time it is possible to observe two stages in the revival of housing since the war.

The first stage may be described as the preliminary stage, as it embraces the immediate post-war period and sets up as its main goal the urgent production of a housing pool which will fill, if only temporarily, the enormous gaps torn in the housing economy of the land by the destruction of the war years.

the war years. This stage, which is being covered at the present time, has encountered enormous difficulties, especially when we bear in mind that the erection of houses is going on when the building industry itself is still suffering from the effects of the war, and under conditions of a shortage of many kinds and sufficient quantities of building material and a lack of properly qualified workers.

#### POST-WAR SMALL HOUSE

Under these conditions the most useful type of house-building, both in the smaller communities and in the larger industrial centres, is the small (one- or two-storey) house.

This type of structure, in fact, makes it possible to utilize to the fullest extent the local building materials for wall-construction, the preparation of which makes little or no demand on complicated and expensive industrial plants (walls of local stone, concrete-breeze blocks and coke-breeze blocks, timber and log walls, etc.), and allows the builder to dispense with the services of highly skilled labour (owing to the comparatively simple construction), and further ensures the speedy occupation of the finished dwelling.

The finished dwelling. The truth of this has been shown in the present reconstruction of Moscow, Leningrad, Kiev, Stalingrad, Magnitogorsk, Chelyabinsk, Lower Tagila, and many other large towns.

#### TYPE DESIGNS

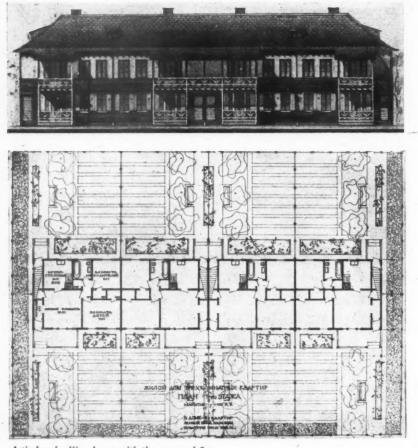
After much prolonged study and frequent competitions, a number of new designs have been approved recently dealing with types of apparatus and domestic fittings.

types of apparatus and domestic fittings. These plans have been widely used in the whole country, and have served as a basis for the working out of unified methods of building and to assist in the prefabrication of different components and house details such as roof trusses, rafters, windows, doors, staircases, handrails, larder cupboards, kitchen fittings, baths, lavatories, etc. It must be noted that the necessity of

It must be noted that the necessity of re-housing a large proportion of the population in the shortest possible time while the blitzed towns are being rebuilt, has made it necessary, as a temporary measure. to bring into use during the earlier stages a type of apartment with a smaller area of living space and more modest appointments than were usual in the pre-war dwellings. We believe that it is much more suitable to accommodate each family separately in their own flat, even if this means a lower standard of comfort, than to put two families together in a larger and more commodious apartment. However, in addition to the "small"

However, in addition to the "small" flats, as they might be termed, we are starting to build a more normal type of dwelling with a living area approximating more to that of the pre-war years. They differ from the pre-war type in their more rational planning and higher standard of internal comfort, due largely to the adoption of more fixed appointments such as builtin cupboards for clothes, bedding, and domestic utensils, and a better and more completely fitted kitchen and toilet facilities.

This type of apartment is still, unfortunately, less widely adopted as yet than the "small" apartments, but they represent the trend of the future and have their importance in the gradual supersession of the "small" flats as the economic position of the country further improves.



A timber dwelling house with three-roomed flats.

One-storey dwellings may be divided into wo types, the single house and the semitwo types, the single house and the semi-detached with apartments consisting of 2, 3, or more living rooms and a private plot of ground from 720 sq. yards to 1,800 sq. yards in area.

#### PRIVATE HOUSE PURCHASE

The single separate house is built largely

The single separate house is built largely for the private purchaser. An individual wishing to build a house for his own use, receives financial assistance from the government in the form of a lump sum subsidy repayable in 7 years, and a plot of land free. In addition, the govern-ment obliges the enterprise for whom the person works to supply him with building meterial and assist in the transport of this material to the building site.

material to the building site. If we add that in those provinces which have been freed from the German occupa-tion a private builder is relieved of all con-tributions to house-tax and ground rent— it will be realized that private building plays a considerable part in the overall total of house-building in the country (in 1944 it was as much as 25 per cent.)

#### 1 AND 2-STOREY TYPES

A one-storey two-apartment house has only slight disadvantages in comparison with the separate dwelling (the houses are slightly less private, but has on the other hand several important advantages. It is 20 per cent. cheaper in initial outlay and 30 per cent. cheaper in expenditure on fuel. These important economic advantages have brought the two-apartment house into great prominence in government and municipal settlement housing. Even in private building,

where the single separate house is usually preferred, we have considered it necessary to recommend the co-operation of private persons in building two-apartment houses. Two-storey dwellings, which are now being mass-produced, are usually multi-apartment houses with one, two, or three staircases. Each staircase landing serves 2 a or 4 apartments according to their apartment houses with one, two, or three staircases. Each staircase landing serves 2, 3, or 4 apartments, according to their size and arrangement. The character of the fittings and the size of the apartments are similar to those of the single-storey houses. These houses are grouped in blocks, with common plots of land for each house and the block as a whole. These groups of flats gain compactness of construcgroups of flats gain compactness of construction, thus achieving an appreciable economy in outside services. To this must be added, that in themselves these two-storey multi-apartment houses, according to sufficiently reliable data, are considerably more economical both in initial expenditure and in cost of upkeep than the one-storey dwell-ing. All these facts taken together have resulted in the widespread adoption of this type by government and municipal building withouting for when housing authorities for urban housing.

#### FIRE RESISTANCE

We must also draw attention to the widespread tendency at the present time not only in the towns but also in the collective farms to build dwelling houses of fire-resisting wall material (bricks, coke-breeze blocks, etc.) and also fire-resisting roof materials (tiles and slates). This does not rule out the use of timber also the barries house

altogether. But in regard to timber houses the tendency is to replace log or beam con-struction by the more commercial and economical form of carcase or shell construc-

tion. Plans of these houses have already tion. Plans of these houses have already been approved and some of the woodwork-ing shops of the Ministry of Building Materials have started their production. The number of houses of this type produced so far has been small, but after they have been carefully tested in actual occupation, this number should gradually increase.

#### ZONING

New housing construction today is of a highly concentrated character; the dwellings are built in groups, blocks, and in some are built in groups, blocks, and in some cases whole suburbs are treated as a unit, while the siting of the various types in while the siting of the various types in carried out in accordance with the general plans of the reconstructed towns and vil-lages. The principle which is followed in most cases is that of zoning according to the number of storeys: a zone of small, usually one-storey bungalows with gardens; one of 2- or 3-storey multi-apartment houses without individual plots of land; one of 4-5 storey apartments, and a zone of 6-10 4-5 storey apartments, and a zone of 6-10 storey buildings. The number of storeys and the density of siting increases as the zones approach the centre of the inhabited place from the periphery, while the size and character of the zones themselves depends on the size of the town and the peculiarities of the terrain.

We consider that this method of zoning the town according to the number of storeys is the most suitable and economic system under the present conditions.

#### WAR DAMAGE REPAIR

A few words about the reconstruction of blitzed towns. Naturally the first step in post-war housing was taken in the direction of repairing war damage. At first the at-tempt was made to rebuild on the old site, even if only the foundations of the former dwelling remained. It was soon realised, however, that the piece-meal character of the work and the degree of destruction encountered in many cases made this method very expensive both in labour and in material.

At the present time the rule followed is to rebuild only those structures of which at least 25 per cent. or 30 per cent. is left. In other cases it is more economical to demolish the house and use the material for an entirely new one. It goes without saying that no house is repaired or rebuilt if its siting is not in accordance with the general plan of reconstruction.

#### HOUSING RESEARCH

Besides the attempt to solve the problems of every-day building work, at the present time intensive research and preparative work is being done for the next stage in the process of rehousing the people.

A special commission to consider technical problems, with a staff of 70 of the leading problems, with a staff of 70 of the leading building specialists, has been set up by the Soviet Academy of Architecture, and has just completed its labours, making a series of constructive proposals for the general im-provement of the building industry in the Union.

These proposals cover the suggested de-velopment of each branch of the building trade, the necessary quantities of production, the optimum types of productive enterprises and their equipment, the most advantageous grouping of these enterprises in the various republics and provinces with regard to sources of raw material, and the varieties

of product which they will manufacture. A careful review has been made not only of all types of building material-natural stone, bricks, pottery, wood, metal, cement, glass, plastics, faience, and so on—but also of all the various fittings which are made from them, such as window and door types, ironmongery, bathroom fittings, and lava-tories, kitchen fittings and heating appli-ances, and so on.

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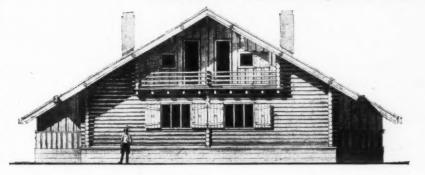
At the present time these proposals are in the hands of the appropriate Government departments.

#### STANDARDS

Among other preparatory steps mention must be made of the work being done to regulate and co-ordinate the sizes of build-ing materials and component fittings, which ing internals and component integs, which are being made for the mass construction of our industrial buildings. Differences in the existing standards, and the absence of any definite system in the dimensions of stan-dardised building components and their in-terchangeability makes a good deal of extra work in erection—fitting, cutting, and ad-justing, etc.—and wastes a good deal of time and labour.

The building commission of the Ministry for Building and the Committee for Architectural Affairs is working at the present time on the regulation of the present time on the regulation of the dimensions of building components sent out from our factories and the creation of a har-monious system of interchangeable building standards. The co-ordination of dimensions of building standards is based on a unified system of moduli (the basic modulus being approximately 10 cm.) which will, in the near future, be adopted on all building work and particularly housing. These preliminary researches deal with the whole question of house-building on a large scale, starting with the establishment of regulations and standards, and ending with the mass-production of furniture, lighting fittings and domestic utensils, which find their expression in the fourth 5-year plan which is being carried through at the present

which is being carried through at the present time.



#### IV. HOW IS ARCHITECTURAL EDUCATION ORGANIZED?

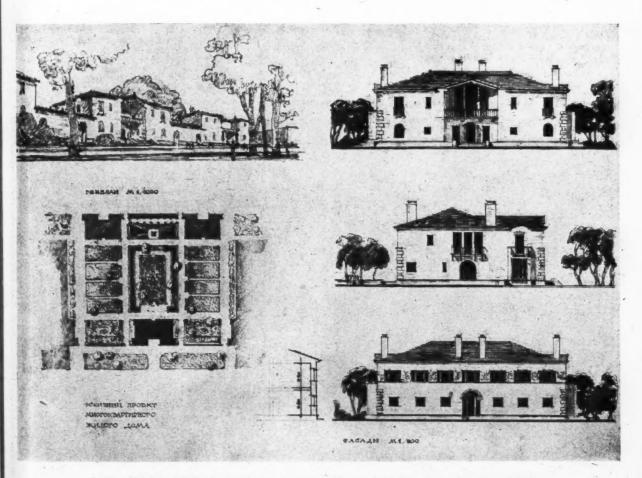
In the USSR there are two main types of teaching organizations for training recruits to the architectural profession. The first type consists of the architectural-art school itself, and the second is the architectural-department of a building institute. As examples of this first type, which pro-duces architects particularly trained in planning and design, we may mention the Architectural Faculty of the Leningrad Academy of Art, the oldest and most famous school in the land (founded in 1763), and the Moscow Architectural Insti-tute. This latter, because of the number tute. This latter, because of the number of specialists which it produces (150 per year) must be counted the leading school

of its type at the present time. Further examples are the recently estab-lished Architectural Faculty of the Kiev

Academy of Art, and the Academy of Art at Tbilisi. In addition to this, similarly qualified men will soon be coming from the

qualified men will soon be coming from the architectural faculties in the Universities at Kaunas, Riga, Talinn, and Vilna. The second category of training establish-ment, which produces architects with a technical (constructional) bias, in order to provide the builders with technically-trained workers, applies to the architectural faculties of the building departments of the various authorities.

These departments are found in Moscow, These departments are found in Moscow, Leningrad, Gorki, Saratov, Rostov-on-Don, Erevan, Baku, Novosibirsk, and other large towns. At the present time these depart-ments are being reorganized with a view to improving the artistic and architectural value of the training they give. The total



Top, a village dwelling in the Moscow province. Below, a design for a house of one-roomed flats.



Above, workers from the Kazan machine building works in the common room of a night Below, architects at a special meeting of the VOKS Architectural Section sanatorium. studying English architectural magazines.

number of schools of both types mentioned above is about 20.

In the secondary schools the pupils receive a general education. Those who intend to offer themselves for the institutes of architecture for further training are usually given special courses of instruction in drawusually ing in the schools.

Students in the schools of architecture, as all other students in the USSR, receive the usual government stipend (bursary) of from 200 to 300 roubles a month. The fees for the course in the Moscow Architectural In-stitute are 400 roubles per annum. A con-siderable proportion of the students pay no fees at all.

The schools of architecture come under the general authority of various bodies; for instance, the Moscow Architectural Insti-tute comes under the Committee for Architecture, while the architectural department of the Academy of Art is supervised by the Committee for Art Affairs. The curricula of these two schools are identical.

The course lasts for 6 years at 48 hours per week (8-hour day), which gives a total period of 7,255 hours, which are allocated as follows:

General education Technical subjects Architecture and Art	•••	•••	Per cent. 24.5 18.5 57.0	Hours 1,250 1,450 4,555
Total				7,255

The main part of the curriculum is de-voted to the study of architecture and art subjects, which define the future architect. In this part of the programme the follow-ing subjects are included:

Hours Drawing Watercolour Sculpture History of Architecture and Art Architectural analysis and study of his-torical buildings Introduction to architecture Architectural planning (commencing in the 3rd Course) 720 235 85 410 340 680 3rd Course) Typology of domestic, public, and indus-trial buildings 1.625 Interiors Elements of town-planning Park and garden design 100 170 50 Total 4.555

period of 1,200 hours is set aside for A preparation of the student's design for the diploma the

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As part of their training the students also do a good deal of practical work; survey-ing, measurement of ancient buldings, and take part in actual building itself. This latter is done in the capacity of workmen,

latter is done in the capacity of workmen, foremen, tradesmen, assistant in designing and in designing itself, and practical work in the State planning studios in the prepar-tion of working drawings and details. Typical subjects for the diploma in the last few years in the Moscow Architectural Institute have been the following designs: a museum in the capital, an Embasy building, a military school, a large hospial, a subjects for a capital city and a a suburban park for a capital city, and a design for the centre of a large town.

Schemes for the diploma must be offered with full specifications and sections to a large scale, and drawn in perspective.

On completing their course at the institute, the young architects are given immediate employment by the State planning and constructional organizations.

There are special courses at the Moscow Architectural Institute and the Leningrad Academy of Art for training teachers in architecture and scientific research workers for the building trade.

Post-graduate courses for architects and also provided at the All-Union Academy of Architecture at Moscow, and there is another post-graduate course at the Mos-cow Architectural Institute.



#### 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

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#### 2643 House Construction Report

HOUSE CONSTRUCTION, SECOND RE-POST-WAR BUILDING STUDIES PORT. No. 23. By an Interdepartmental Committee appointed by the Minister of Health, the Secretary of State for Scotland and the Minister of Works. (HMSO, 1946, 1s. 6d.) Description of and comments upon prototypes of eight methods of construction. Recommendations on methods of protection against corrosion for light gauge steel and wrought iron used in permanent building construction. Notes and recommendations on condensation within roofs and walls of composite construction and on fire hazard.

The Burt Committee completed its First Re-The Burt Committee completed its First Re-port on housing in October, 1943 (see A.J., April 6, 1944 and Inf. Centre No. 1516:29.6.44) and was reconstituted for the purpose of advising the authorities "on materials and methods of construction for the building of houses and flats; in particu-lar to advise on the experimental work in connection with house huiding baing carried connection with house building being carried out by the Ministry of Works."

In the First Report an attempt was made to establish a proper standard of habitability which, in several respects, is much nigher than the standards recommended in the Housing Manual, 1944 (see No. 1748:28.12.44). The present report deals with eight unorthodox methods of construetion on the basis of the standards set out in the first report. Prototypes of each of the the first report. systems included in the report were erected and in some instances elaborate tests were carried out by the Building Research Station and the National Physical Laboratory regard-ing structural stability, sound and heat insu-As all these systems aim at the ereclation. tion of permanent houses one of the tasks of the committee was to find out whether houses built to any particular system were suitable for a 60-year loan. Among the systems covered in the report,

five are in framed steel construction, two in framed reinforced concrete and one consists of load bearing foamed slag concrete panels. The systems using structural steel as framework are:

work are:—
1. Braithwaite Unit Fremed House. (A.J., Oct. 5. 1944 and Inf. Centre No. 1636: 19.10.44.) Site: Thirley Road, Burnt Oak, Edgware, Middlesex.
2. Keyhouse Unibuilt House. (A.J., June 22, 1944 and Inf. Centre No. 1596: 14.9.44.) Site: Mitchell Avenue, Coventry.
4. Birmingham Corporation Steel-Framed House. (A.J., Oct. 19, 1944 and Inf. Centre No. 1596: 14.9.44.) Site: Jephcott Road, Fernbank Estate, Birmingham.
6. Howard Steel-Framed House (A.J., June 20, 1944 and Inf. Centre No. 1596: 14.9.44.)

Birmingham.
 Howard Steel-Framed House. (A.J., April 26, 1945 and Inf. Centre No. 2165:25.10.45.) Site: Datchet, Bucks.
 British Iron and Steel Federation Steel

Framed Houses, Types A and B. (A.J., Oct. 12, 1944 and Inf. Centre No. 1755:28.12.44.) Site: MOW Demonstration Ground, Northolt, Middlesex The systems using a reinforced concrete

framework are :framework are:--3. Glasgow Corporation Foamed Slag Flats. (A.J., Aug. 17, 1944 and Inf. Centre No. 1635:19.10.44.) Site: Penilee, Glasgow. 5. Airey New Duo-Slab House. (Inf. Centre No. 2434:14.3.46.) Site: Leeds. 7. Boot "Beaucrete" Concrete House. Cite: Bheavy Fetter Biemingham

Site: Pheasy Estate, Birmingham. From the point of view of strength, all systems are satisfactory, although for a few types using structural steel slight modifications are considered necessary to increase the stiffness of certain members. It is in-tended to carry out further tests on several systems to determine the degree of stiffness imparted to the framework by the wall and roof sheeting, the floors and partitions. No improvements are suggested for the systems improvements are suggested for the systems in which the load bearing elements are in concrete or light-weight concrete, except for the floors of the Airey house. These are in timber, which should be either of better quality than that in the prototype, or, if this is not available, it is suggested that the sizes of the timber floor joists should be increased. In comparison with traditional houses the In comparison with traditional houses, the Braithwaite house has undergone an inter-esting, though unintentional, test. A flying bomb exploded about 60 ft. from the corner of the framework of the pair of houses at Burnt Oak. The effects of the bomb were burn Oak. The effects of the bornb were noted by the officers of the BRS; "although the load bearing structure was badly bent and the non-load bearing members were much damaged, there was no collapse of the structure; in contrast to nearby brick houses, which were completely demolished." One of the main problems of prefabrica-

tion is the prevention of *moisture penetra-tion*. In this respect the report is also en-couraging. Of course, the efficiency of the jointing cannot be judged until the results of jointing cannot be judged until the results of several years' weathering have been investi-gated, but no trouble is expected with most of the systems. A slight increase of the width of the copper flashing provided above the window heads is suggested for the Airey house, and it is considered possible to modify certain details of the British Iron and Steel Federation houses, should this be agreed to be desirable without affecting the agreed to be desirable, without affecting the

principles of construction. The degree of thermal insulation of the systems varies greatly. Apparently, some of them were designed for the standards sug-gested in Housing Manual 1944 and are, therefore, short of the standards of Report No. 1, although superior to traditional brick houses. The only exception to transmit once houses. The only exception is the roof and ceiling of the Beaucrete house, the thermal insulation of which falls short of both stan-dards and is not better than that of a tradi-tional roof (U.43) in spite of an excessive amount of timber used in the construction. The highest detread of thermal insulation is The highest degree of thermal insulation is achieved in the Airey house, which satisfies almost completely the standards suggested in the First Report.

In all those systems tested for sound insulation some deficiencies were found, and suggestions for improvement are given. Several of the systems have yet to be tested. With-out tests no safe conclusions are possible.

As a result of further discussion and ex-periment, the Committee has now modified its previous recommendations regarding the standards for *fire protection* (Appendix C). Personal hazard, namely the risk to the per-

sonal safety of the occupants, depends in the first instance on the wall linings, which should preferably be of incombustible material. The structure must be such that a fire once started does not spread rapidly from one room to another, or to staircase or passage, and the main structural elements should not readily collapse under the effects of fire. There must be adequate means of escape, especially from the upper floor. The resistance of a timber staircase constructed resistance of a timber staircase constructed of 7/8 in. min. thickness is accepted as a minimum requirement. Lining materials are now classified in B.S.476 from the point of view of surface spread of flame and the Committee's recommenda-tions are based on this classification. The main factor considered in Report No. 1

under the heading of structural hazard was the degree of fire resistance provided by party walls. The present Report takes into account facilities for fire fighting in urban and suburban areas and comes to the con-clusion that 1 hour's fire resistance should be considered adequate (instead of 2 hours as suggested previously).

To combat exposure hazard, minimum distances from boundaries and maximum num-bers of houses in a block are recommended, depending on the construction of the ex-ternal walls and roof covering. The only system considered to be satisfac-tern when the state and states and states are states and states are states and states are states and states and states are states are states and states are states are states are states and states are states are states and states are states a

tory without any qualification, is the Glas-gow Corporation's block of flats in foamed slag. Next most satisfactory is the Beau-crete house which requires only slight modifications. The Airey house is accepted as offering no unusual personal fire hazard. In its improved form it has a fire-retardant roof and it is estimated that the total resistance of the party wall built in two leaves will be at least 1 hour. The systems with steel frames are less satisfactory and in all of them improvements are necessary or desirable.

The question of vermin infestation appears to be considered of less importance since the introduction of such chemicals as DDT for disinfectation.

The chief problem encountered in the case of steel-framed systems is the protection of the structure against corrosion. With the the structure against corrosion. With the introduction of thin gauge material this is of greater importance than in traditional steel structures in which  $\frac{1}{16}$  in. is the minimum thickness.

Both in the Braithwaite house and in the Keyhouse Unibuilt house, damage was done to the factory-applied corrosion-prevention the factory applied correston prevention treatment during transport and erection, and subsequent touching-up was necessary. Simi-larly in Type B of the Steel and Iron Federa-tion houses the finishing coat of bitumastic paint had to be made good on the site after paint had to be made good on the site after erection. Improvements are suggested also for the Howard house and only the system of the Birmingham Corporation seems to be without criticism. Recommendations on methods of protection against corrosion are included in Appendix A, which is a reprint of a previous publication by the British of a previous publication by the British Standards Institution (see No. 2405:28.2.46). In systems with an impervious outer skin (e.g. metal sheets) an insulating layer (e.g. glass wool) and an inner lining of wall-board, trouble may arise by the deposition during cold weather of large quantities of moisture on the inner surface of the outer moisture on the inner surface of the outer skin. As a protection against this, the Report recommends the application of an impervious vapour barrier, consisting of metal foil, bitumen impregnated felt or shiny bitumen-coated paper on the warm side of the insulation immediately behind the wall or ceiling lining (Appendix B). In spite of the various deficiencies mentioned, all the eight systems are considered suitable for a 60-year loan, provided that certain alterations are made in the design. The only system where no such qualification is made is the Beaucrete system, which however is not expected to offer considerable adyantage regarding speed of erection or costs.

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#### Trusteel System

THE TRUSTEEL BUILDING SYSTEM. (Pamphlet issued by Trusteel Corporation (Universal) Ltd., Heath Road, Oxhey, Herts.) New method of steel framing for light structures.

The steel framing is fabricated of hot rolled and cold rolled sections of relatively light gauge. The main load-bearing members are trussed. Patent methods of jointing avoid bolts and nuts on the site. The framing is designed to receive panels of almost any material. It is claimed that a pair of houses can be completed in less than three weeks.

2645 Dimensions of R.C. Members

RECOMMENDED DIMENSIONS OF RE-INFORCED CONCRETE STRUCTURAL MEM-BERS. (The Reinforced Concrete Association, 6d.) Recommended standard sizes of structural members.

The Reinforced Concrete Association recommends that the dimensions set out in this pamphlet be adopted for the more important elements of structure. The immediate object is not to standardize formwork, but to create conditions wherein such standardization may eventually become possible.

Architects, engineers, contractors and others are invited to communicate the results of their experience to the Association. The pros and cons of such a proposition were clearly explained in a letter by Ove N. Arup (A.J., 7.6.1945, p. 420).

MISCELLANEOUS

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**Professional Conduct** 

CODE OF PROFESSIONAL CONDUCT. Architects Registration Council of the United Kingdom. (Sanctioned by the Council on December 14, 1945.) Intended only as guide. Ultimately Council and Discipline Committee decide whether offence has been committed.

**Bathing Establishments** 

DESIGN OF THE POST-WAR BATHING ESTABLISHMENT. William C. B. (Municipal Engineering, May Smith. 16, 1946, Vol. CXVII, p. 290.) Review of requirements for public bath-Suggestions for improvement of ing. The baths as a recreation facilities. centre. Lighting and acoustics prob-Rectangular lems in indoor pools. pool shape condemned. Wave machines. Layout of dressing rooms, Suggested requirements for a etc. 30,000 population.

The author points out that public swimming bath construction has ceased for nearly ten years, nor is it likely to be resumed for some time. He goes on to describe, on the basis of practical experience as a Baths Superintendent, the faults and disadvantages of most existing public baths, and to suggest minimum require



Diagram of the Trusteel system. The upper illustration shows a beam ready to slide into place in the stanchion on the mortice and tenon principle. The lower illustration shows the beam in position with the tubular steel pin being inserted. See No. 2644.

ments to meet post-war needs. The idea of the public baths as a recreation centre is one that should be studied by Local Authorities; it is suggested that such a centre for a town of 30,000 population should include large and small indoor pools, medicinal and sunray baths, a public hall with stage, open-air pool, children's pool, and sunbathing lawns, as weft as a café and roof terrace. This is indeed an ideal to set against the dismal facilities usually to be found in a town of the size named. The extreme importance of adequate acoustic treatment for indoor pools is emphasized—in the author's words, "baths are susceptible to conditions bordering on pandemonium." An increase in area for the shallow end of the pool, perhaps by abandoning the usual rectangular shape, is suggested. There are many other equally valuable suggestions in this short article

Trade Literature

SIZES AND CONTENTS ARRANGEMENTS FOR MANUFACTURERS' TRADE AND TECHNICAL LITERATURE (BUILDING INDUSTRY). British Standard 1311: 1946. (British Standards Institution, 1s. 0d.) Covers all trade catalogues, pamphlets and books. Limits these to three sizes. Gives general guidance both as to type of information required by architects and builders and suggests order of setting out this information.

### QUESTIONS

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#### 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, 13, Queen Anne's Gate, Westminster, S.W.I.

#### N. Ireland Housing

Q I have been commissioned by my client to design a house to be erected in Northern Ireland. Could you supply the following information:—

 Are there any restrictions on building in N. Ireland such as are in force in this country at the present time—such as licences and expenditure?

(2) The amount and particulars of grant given by N. Ireland Government to exservicemen who will be building a house in N. Ireland.

(3) The address where I may obtain copies of building bye-laws applicable to N. Ireland -should they differ from our own.

A We have received the following from the Secretary, Ministry of Health and Local Government, Stormont, Belfast, Northern Ireland, to whom any further communications should be addressed:—

munications should be addressed:— (1) Non-Subsidized Building.—A person who wishes to erect a house for his own occupation, without Government aid, is facilitated by the Ministry of Health and Local Government in obtaining the necessary licence to build; the house must comply with the Ministry's minimum standards of accommodation, but must not exceed 1,500 superficial feet. There is no limit placed by the Minister of Health upon expenditures. (2) Sudsidized Buildings.—(a) Workers'

#### THE ARCHITECTS' JOURNAL for August 1, 1946 [XII

Progress in Glass Making

# sheet glass Manufacture from the old hand-blown cylinders to the new mechanized flat-drawn process.

A century ago Pilkington's were using the hand-blown cylinder process for the manufacture of sheet glass. This method, like the crown process which it superseded, was entirely manual, and depended upon the skill of the glassblower. The molten glass was blown with remarkable dexterity until it had formed a large cylinder. It was then split down its length by a diamond or hot iron, reheated and flattened into sheets on a smooth "flattening stone."

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Although for many years this method remained unchanged, efforts were being made both in this country and abroad, to perfect an automatic drawn cylinder process which would speed-up production. Finally, the automatic process was developed. Pilkington's installed it in 1910.

The cylinders were drawn and blown mechanically. A drawing pipe was lowered into a pot contain-

the OLD ing molten glass, which solidified on the rim of the pipe. The pipe was then drawn up to a height of 40 ft. and at the same time air was blown in, filling the cylinder to the required dimensions. Each cylinder was then detached, split and flattened in required lengths.

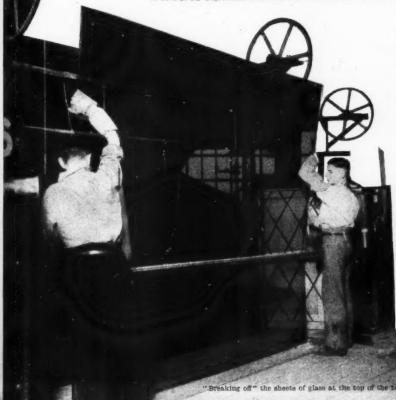
The technicians were still not satisfied. They planned for an automatic method which would provide *flat* sheet glass, thus eliminating the double process of blowing and flattening. Attempts were made as long ago as 1857 at St. Helens, but the tendency of a drawn film of glass to diminish in width could not be overcome at that time

could not be overcome at that time. The first process to overcome the technical difficulties was developed in Belgium by Fourcault, and by 1913 it was operating successfully. From that time rapid improvements were made both in Europe and America, and in 1931 Pilkington's installed the first automatic flat drawn continuous process in this country, which enabled sheet glass to be made for general commercial purposes on a scale never before attempted.



Cutting off the ' cap ' of a hand-blown cylinder.

and the NEW The Continuous Flat-Drawn Process in the process as operated at St. Helens today, molten glass flows from a gas-fired tank furnace to the drawing kiln, which is surmounted by a tower. An iron grille known as the "bait" is lowered between the asbestos-covered rollers

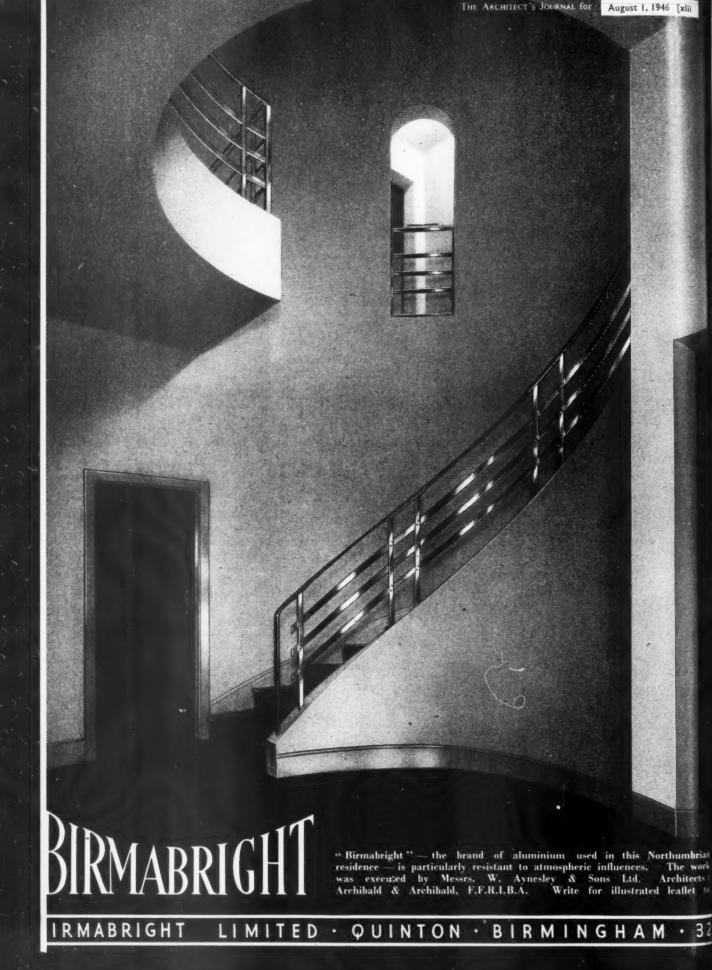


which are mounted in pairs in the tower. The bait sinks into the molten glass, which sticks to it in the same way as golden syrup sticks to the blade of a knife. The bait is slowly lifted, drawing behind it a ribbon of glass. When the leading edge has passed through the first few rollers, the bait is cracked off and thereafter the rollers draw the continuous sheet of glass upwards. Glass in its plastic state is liable to "waist" and shrink to a narrow band, but this is prevented by drawing the ribbon of glass through a pair of small knurled water-cooled rollers. These are pressed towards each other so as to grip the edges of the glass firmly. In doing so they cool the edge of the glass sheet and set it firm, thereby preventing subsequent "waisting." Once the ribbon of glass has been formed thus it can be drawn continuously for weeks on end.

After the glass has travelled up to the top of the tower, which is about 40 ft. above the drawing kiln, it is cool enough to be cut off in predetermined lengths by an automatic cutter. Operators then "break off" each sheet of glass by hand, and after the edges bearing the marks of the knurled rollers have been trimmed off, the sheet is ready for dispatch to the warehouse.

This is published by PILKINGTON BROTHERS LIMITED, of St. Helens, Lancashire, whose Technical Department is always available for consultation regarding the properties and uses of glass in architecture.

> LONDON OFFICE AND SHOWROOMS at 63 Piccadilly, W.I. Telephone: Repert 4281, where architectural students may get advice and information on all questions relating to the properties of glass and its use in building.







Houses Built for Letting: A person may erect a house not exceeding 1,050 super feet (to prescribed standards) for letting to a worker, who must be selected from the list of workers in need of housing accommodation kept by the Local Authority. Such house may not be sold for a period of ten years, and will on completion attract a sub-sidy of £500 in the case of the larger (5 apartment) type of house. This subsidy will be paid by the Local Authority, which will receive a contribution from the Government of £361—*i.e.*, the net amount of subsidy paid by the Local Authority will amount to £139. (b) Houses Built for Owner Occupation:

A Bill at present before the Northern Ireland Parliament provides for the payment of subsidies to persons building houses for their own occupation; such houses will have to conform to the Ministry's standards of accommodation and not exceed 1,050 super feet. A 5 apartment house will on satisfac-tory completion attract a subsidy of £250 from the local authority, £187 10s. of which will be refunded by the Government. The builder's selling price of a house built for owner-occupation will be controlled, and any subsequent sale of the house will also be controlled for a period of five years.

As regards ex-servicemen, there are no special subsidy arrangements in Northern Ireland; ex-servicemen can, of course, partici-pate in the subsidized owner-occupiers' scheme referred to at 2 (b) above.



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.

#### Arch.SA

Marshall

July 12, at the Nottingham School of Architecture. Special Council Meeting of the Architectural Students' Association. Lecture on ORGANIZATION AND THE ARCHITECT, by Major P. J. Marshall, R.E., DIP.ARCH., A.R.I.B.A., lately General Secretary of the Service Arts and Technical Organization in India and SEAC.

### P. J. Marshall:

discuss the type and degree of organisation required by architects to ensure that they are enabled to undertake all the work and responsibility for which they are trained. That they do not do so at present is a hard and obvious fact, and on our ability to think and act in an organized way in the present changing situation will depend our individual and collective future.

The purpose of

this paper is to

Although one is here not concerned directly with physical planning, design, technique, office and site organization, and other problems which are the vital concern of the architect, all of them must be taken into account as affecting and influencing the future collective structure of our technical group. In addition, political, economic and social changes in the world generally, and in Great Britain in particular, may alter or destroy any plans which we make, and the recent war has in this respect brought home sharply the need for breaking down our professional icalationic isolationism.

#### **BASIC ASSUMPTIONS**

We must first, necessarily, make certain basic assumptions, and three are here put forward:

1. The ideal of Service to the Community in

our expert capacity. 2. The achievement, with the other techni-cal experts concerned, of an *Environment* worthy of our civilization.

3. Æsthetic harmony between experts and the public, *i.e.*, *Public Relations*.

the public, *i.e.*, *Public Relations*. 1. Service to the Community.—This involves some knowledge of the dominant economic, social, and political trends which determine the particular community's type and struc-ture. It appears, for instance, that econo-mically we in Great Britain are moving to-micade a concern with the eventual wards a planned economy, with the eventual public ownership of the principal means of production. Socially, the directional impulse is towards a democratic classless society, towards a life in which the community enables the individual to attain more easily to the ethical codes propounded by all the great philosophic and religious leaders. Politically, it may lead to a more direct connection between the wishes of the people and their elected representatives in both central and local government.

How do these trends affect us as a technical group?

Economically, it means that planning and buildings can be treated more scientifically and efficiently, that research and experiment can be co-ordinated more closely with prac-tice, with the training of technical experts, craftsmen, and operatives, and with the pro-duction of materials. It may also mean that we can build to a more inter-related programme of needs and priorities, and without the intermittent slumps whose effect on all concerned with the building industry was so disastrous.

Socially, the effect may be to bring the expert far closer to the community, as he will be more and more concerned with solving problems of equal interest to all its members-witness town planning, the schools and public health programmes, the present housing drive, etc.

*Politically*, our clients are changing from individuals to community representatives (Ministries, Utilities, Councils, etc.): this is especially noticeable in town planning, where the private clients who commissioned the crescents of Bath and the squares of London have long since disapepared.

Our aims should be, not to fight against well defined trends which are apparent in our changing society, but to help mould and shape those trends, using our unique position as the bridge between Art and Science to gain the confidence of the public, and so become their cultural advisers, and also the co-ordinators in the team of creators of the physical environment.

The Environment .- The second basic

assumption, that we should endeavour to achieve an environment worthy of our civilization, is one which immediately brings to mind all the other people who are con-cerned, either as technical experts or opera-tives, with making this achievement possible. By no stretch of the imagination can we say that there is a united front of technical experts ready to attack the giant Squalor. Inperts ready to attack the giant Squalor. In-stead, we have intense rivalry between various groups, particularly between archi-tect and civil engineer, and a lack of any common agreement as to the type of experts and team of experts required for the complex programmes ahead. However, before we can justly criticize the civil engineers for "stealing" our jobs, such as housing and town-building (in which the architects would appear to have a prerogative), or begin to prepare an organizational plan defining the duties and responsibilities of each expert, we must first carry out an historical analysis of building, public-works, and planning over the last 200 years, to find out who was re-sponsible for the work, and whose was the dominant influence at various stages of our industrial development. Only by this means, and by careful study of the situation today, both here and abroad, can we decide on future staff and team organization.

Having done this essential research, which should cover expert craftsman and operative, we must then ensure that as a group we are competent to fulfil our technical responsibility, that our education really is fitting us for the job, and that there will be an oppor-tunity for each person to do work in which he or she can use their training and ability, with guarantees of freedom of technical direction, freedom from want, and adequate security.

security. 3. Public Relations. — The third basic assumption is that of achieving harmony between expert and the public. Here again these conditions do not exist today, and it is necessary to analyse the causes before evolving a programme of action. Perhaps the chief reasons for failure are the increase of the public on the one hand

the ignorance of the public on the one hand, and the narrow technical approach of the expert on the other. The former can only be overcome by education in sensibility, awareness, and the development of a critical awareness, and the development of a critical faculty, carried out not only in schools and colleges (especially teachers' training col-leges), but also by the use of every avail-able medium of adult education at our dis-posal. The failure on the part of the expert should diminish with the growth of social responsibility, but I look to the day when every qualified architect and town planner regards himself or herself as a missionary of good planning and design; and when they of good planning and design; and, when they take the lead in every town in developing civic consciousness and responsibility, the problem will be well on the way to solution.

#### REALIZATION

From such basic assumptions as have been put forward, certain conclusions can be drawn, policies decided on, and programmes of action prepared and implemented. But who is to decide on the policies and prepare the programmes? Here the influence of the 19th century artistic isolationism is still ap-parent: we have not yet developed the type of organisation necessary to cope with pre-sent day needs, although there have admittedly been significant pointers. One was the growth of the RIBA into the dominant professional Institute for architects during the last 30 years.

Another was the formation of the AASTA (now ABT) after the last war as the outcome of a demand for satisfactory working conditions, and its almost certain expansion now, after this war, for similar reasons and for others already outlined in our basic assumptions

Then there was the passing of the Archi-tects' Registration Act, which gave us im-portant economic rights (contested at the time by Civil Engineering Associations and private building interests), and also gave the RIBA much more power as an educational and qualifying body.

Other examples include the formation of the MARS group, with its international counterpart in CIAM, the early attempt at joint action with the civil engineers, surveyors and lawyers in the formation of the Town Planning Institute, the appearance of such bodies as the APRR with its School of Planning, the Town and Country Planning Association, and an attempt to unite all sections of the building industry in BINC.

In spite of these attempts, most of us experienced the bitter lesson of collective unpreparedness in the war, in which our failure to organize internally was shown up in contrast with other technical groups. It was in consequence of this lesson that the Service Arts and Technical Organisation was built up during the war years in India and SEAC, and in it the architect took the lead in a wide range of activities for the general good of our whole technical group, concentrating on education as the main theme.

It is through education that a decisive contribution may soonest be made. Ever since Professor Gropius pioneered the Bauhaus, it has become increasingly obvious that training should be carried on in something larger than a "school," something more closely related to the practical work of building on one side, and to the other related technical experts on the other. Certain European centres, and Harvard, are already approaching the new synthesis, and it may be of interest to mention the proposal for a Faculty of Planning, Design and Technics which we put up to both the Governments of India and Burma. The Faculty was to be centred round a Planning, and Building Research Centre: on one side was a School of Building, on the other a School of Architecture. For post-graduate students there was a School of Planning, and also a special school for refresher courses in planning, architecture, and building, intended to link up with the network of central and local authorities. The Faculty included an Art School, and all architectural students would have to go through a preliminary arts and science course with the students of Industrial Design, Painting, and Sculpture. There were also to be Departments of Structures, Heating, Lighting, and Ventilating, and Estimating, in all of which subjects refresher courses

If a Faculty of this type could be set up in England, with the ultimate intention of having one per region, we should at least have a base in which to experiment.

#### THE ROLE OF THE ARCH. SA

What can the Arch. S.A. do at the present time? First, it could prepare its long and short term policies, based on the sort of assumptions which I have already outlined, but only to be arrived at after the necessary analytical research has been made. An interim programme could, however, be worked out now, bearing in mind the Association's special position in relation to the RIBA and the schools, and the following suggestions are made:

1. Education.

a. Study of Architectural Education from the consumer approach.

b. Discussion and criticism of new proposals for education, *i.e.*:
(i) Report of RIBA Special Committee on

Architectural Education.

(ii) The Training of the Architect (Ministry of Education Pamphlet No. 118). (iii) Proposal for Faculties of Planning,

(iii) Proposal for Faculties of Planning, Design and Technique,

2. Representation, Post-Graduate Work. a. Building up 100 per cent. membership of all architectural and planning students in Arch. SA.

Arch. SA. b. Stimulation of interest in formation of Student Associations by other related technical groups.

c. Consideration of future employment,

conditions of work, setting up of appointments bureau, publication of Job Circular, etc.

d. Greater co-ordination between students and offices.

e. Possibility of continuation of school enthusiasm and ideals in actual work. f. Possible use and value of Service ex-

perience in civil work.

3. Research and Public Relations

a. Assistance in co-ordinated way on Plan-

ning and Building Research.

b. Assistance in developing public awareness and understanding of planning and design.

#### METHOD

Most of this programme could be implemented in collaboration with other Institutes and Associations, either collectively as a Student Body, or as individuals. Generally speaking, all students automatically become members of the RIBA, and will presumably endeavour to make it a live and responsive Institute by serving on the Council or Committees, and in giving its progressive activities the maximum support. With regard to education, it is obvious that the existing responsible bodies must be respected, but any new movement in this direction should be given full support, and a combination of Arch. SA, MARS Group, APRR and ABT could do invaluable work. In matters affecting jobs and conditions of post-graduate employment, the ABT is the union for architects and other related experts, and students are advised to stay in it on qualifying, and to make it fully representative.

Finally, for public relations and research, there are bodies such as the relevant committees and boards of the RIBA, the BRS, ABT, Arch. Press, MARS Group, and the APRR, all of whom are doing invaluable work and need practical support and assistance, not only in London, but in the regional centres as well.

It should be one of our principal aims to forge a unity of purpose and co-ordination of activity out of the present rather haphazard collection of public bodies and associations, and only by developing the spirit of co-operative service and action which you display so well in the Arch. SA can this be achieved.

## SPRRD

## Examinations

The second of the THREE MONTHS COMPLETION COURSES IN TOWN AND COUNTRY PLANNING at the School of Planning and Research for Regional Development, ended on June 29, 1946. The following candidates were successful in all studio work and examinations and are accordingly exempt from the Final Examination of the Town Planning Institute:

Distinctions were obtained by A. W. Jackson, A.R.I.B.A., Bournemouth; E. B. Redfern, A.R.I.B.A., Stoke-on-Trent; J. E. Lloyd, Guildford; R. W. Paterson, A.R.I.B.A., Cheltenham. Other successful candidates, in order of passing, were: A. W. Bowman, A.R.I.B.A., A.N.Z.I.A., New Zealand; S. W. J. Smith, A.R.I.B.A., Kent; W. E. Tatton-Brown, A.R.I.B.A., Kent; W. E. Tatton-Brown, A.R.I.B.A., Konton; A. P. Porri, A.R.I.B.A., London; A. Morris, P.A.S.I., London; A. G. Fairhead, P.A.S.I., London; R. Dobson, A.R.I.B.A., Coventry; M. H. Ingham, Louth; A. Nicholls, Sheffield; F. M. Fiddian, P.A.S.I., Birmingham; D. S. Mellor, Leeds; J. W. Lee, A.R.I.B.A., Southampton; R. le R. White, A.R.I.B.A., Beaconsfield.

## RIBA

## New Members

The following new Members have been elected to the Royal Institute of British Architects.

As Hon. Associate (1): Appleton, Sir Edward Victor, G.B.E., K.C.B., D.SC., LL.D., F.R.S.

As Fellows (15): Allen, Frederick Howard (Plymouth); Crickmay, Colin Rosser (Weymouth); Crickmay, Hugh Waydelin (Weymouth); Desai, Moreshwar Ganpatrao (Madras); Dick, Douglas Louis (London); Field, Sidney John (London); MacGregor, John Wishert (London); MacKeith, Charles Hewitson (Blackpool); Mellor, Richard Francis Mountford (Maidstone); Moore, Charles Edward (Melbourne); O'Neill, George Gordon (Chelmsford); Page, Terence Culmer (London); Robson, George (Newcastle-upon-Tyne); Tebbutt, Henry Jemson (Hong Kong); Wright, Arthur George Beaumont (Trowbridge).

castle-upon-Tyne); Tebbutt, Henry Jemson (Hong Kong); Wright, Arthur George Beaumont (Trowbridge). As Associates (19): Armstrong, Donald Forbes (Letchworth); Batley, Wilfred Peter John (London); Bulmer, Arthur Herbert (London); Cooper, Raymond (Altrincham); Farrow, William Richard Joseph (Bournemouth); Gupte, Charudatta Shankar (Bombay); Hatton, John Stanislaus (Preston); Jones, Frederick William (Northwood); Kerr, Frederick Henri (London); McDowell, Miss Bessie (Dumfries); Maher, Miss Maureen Hilary (Twickenham); Mitchell, Archibald Dale (Hoddesdon); Moorhead, Eric William (Melbourne); Sathe, Govind Gopal (Dist. Thana, India); Sawdray, John Trevor (Leicester); Shelton, Joseph Thorneycroft (Newport); Stoddard, Gilbert (London); Unsworth, Herbert (Croxley Green); Wylde, John Haslam (Cowes, IOW).

As Licentiates (18): Cole, Herbert Cramer (London); Grantham, George James (Birmingham); Hartington, Douglas William (London); Hattersley, Roy William (Stokeon-Trent); Hopkins, Ronald Austin (London); Hutchon, James (Kirkaldy); Jones, John Leslie (Cheltenham); Jones, Joseph Glynne (Carnarvon); Kieft, Frederick George Henry (London); Kneale, Andrew Wilson (Stockport); Knight, Henry Ronald Ewart (London); MacLeod, James Hastie (Glasgow); Nicolson, Malcolm (Folkestone); Prince, Edwin Francis Ewart (Liverpool); Smith, Francis Gilbert (Prestatyn); Staziker, Fred (Nelson, Lancs.); Such, Cyril James (Cheltenham); Tosh, George Samson (Dumfries).

### RIBA

## Examinations

The following are the dates of FORTH-COMING RIBA EXAMINATIONS.

Intermediate Examination: November 8th, 9th, 11th, 12th, and 14th, 1946. (Last day for receiving applications: September 23rd, 1946). May 16th, 17th, 19th, 20th, and 22nd, 1947. (Last day for receiving applications: March 20th, 1947). November 7th, 8th, 10th, 11th, and 13th, 1947. (Last day for receiving applications: September 19th, 1947).

(Last day for receiving applications: september 19th, 1947). Final and Special Final Examination: December 4th, 5th, 6th, 7th, 9th, 10th and 12th, 1946. (Last day for receiving applications: October 23rd, 1946). July 2nd, 3rd, 4th, 5th, 7th, 8th and 10th, 1947. (Last day for receiving applications: May 21st, 1947). December 3rd, 4th, 5th, 6th, 8th, 9th and 11th, 1947. Last day for receiving applications: October 15th, 1947). Examination of Licentiates to quality for condicting applications 4th, 5th

Examination of Licentiates to qualify for candidature as Fellows: December 4th, 5th, 6th, 7th and 9th, 1946. (Last day for receiving applications: October 10th, 1946).

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July 2nd, 3rd, 4th, 5th and 7th, 1947. (Last day for receiving applications: May 7th, 1947). December 3rd, 4th, 5th, 6th and 8th, 1947. (Last day for receiving applica-tions: October 1st, 1947). Examination for Building Surveyors: October 9th, 10th and 11th, 1946. (Last day for receiving applications: August 28th, 1946). May 7th, 8th and 9th, 1947. (Last day for receiving applications: March 19th, 1947). October 8th, 9th and 10th, 1947. (Last day for receiving applications: August 27th, 1947).

### Announcements

Mr. Morris de Metz, F.R.I.B.A., has entered into partnership with Mr. Theo. H. Birks, FR.LB.A., and they are practising under the style of de Metz & Birks, at 2, Ludgate Hill, London, E.C.4. (City 4086/7).

Mr. W. H. Page, L.R.I.B.A., and Mr. S. P. Timbrell, L.R.I.B.A., have joined in partner-ship, and will practise under the title of Page and Timbrell, chartered architects, from 55, Darlington Street, Wolverhampton. Copies of trade catalogues and technical in-formation would be appreciated. Mr. Page and Mr. Timbrell were formerly with the Wolverhampton Corporation architectural department.

Messrs. George Fairweather & R. Furneaux Jordan, FF.R.LB.A., have removed their offices to 28, Wigmore Street, W.1. Telephone: Welbeck 5489.

Technical Designs, Ltd., technical photo-graphers and artists, have moved to 94, New Bond Street, W.1. Telephone Mayfair 1713. Mr. R. S. Lawrie, A.R.I.B.A., A.M.T.P.I., County Housing Architect of Fife, would be glad to receive copies of all trade cata-logues, etc., at the County Buildings, Cupar, Fife.

Messrs. John B. Wilson, Son & Honeyman, chartered architects, 92, Bath Street, Glas-gow, C.2, announce that, with the return of Mr. Honeyman from the MOW and Mr. Jack from the navy, the practice will be resumed under the style of Wilson, Honey-man & Lock They would like to receive man & Jack. They would like to receive trade catalogues.

Dr. K. E. Latimer, M.I.E.E., of the Philips Group, has been awarded the M.B.E. He served in HMS Vernon for 9 months, 1940-41, and later served in Iceland for a 1940-41, and later served in Iceland for a time. Dr. Latimer joined the Philips Group late in 1941 where he worked mostly on HM Anti-Submarine Experimental Estab-lishment Contracts. He is now in charge of the newly-formed Line Development Laboratory. The award of the M.B.E. was made to Dr. Latimer in respect of his ser-vices to the courter dwine the war. These vices to the country during the war. These include the period during which he was in the Navy and for the work he did at the Philips Laboratories.

Mr. Martin Sheffield, F.S.I., Chartered Quantity Surveyor, has reopened a London office at 29, Sackville Street, Piccadilly, London, W.1 (REGent 0659), where he would be pleased to receive trade catalogues and price lists. Mr. F. Bowman, A.R.I.B.A., having been

Mr. F. Bowman, A.R.I.B.A., having been appointed Architect for Post War Housing to the Chester-le-Street Rural District Council, will be pleased to receive trade catalogues at the Estate Office, Great North Road, Birtley, Co. Durham.

Mr. E. B. Musman, B.A., F.R.I.B.A., has removed from 7, Queen Anne's Gate, S.W.1, to 12, Upper Berkeley Street, Portman Square, W.1. (Paddington 7114.)

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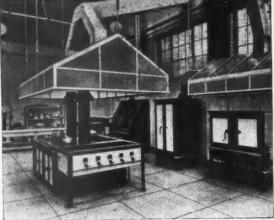
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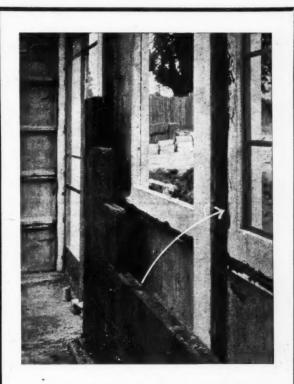
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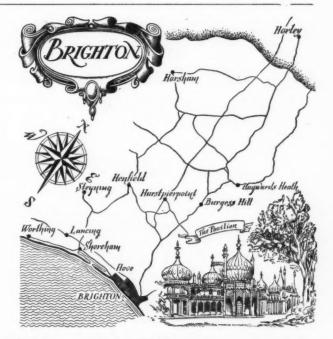


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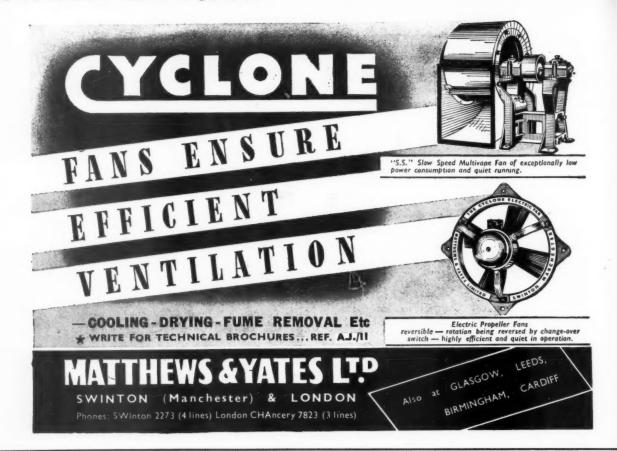


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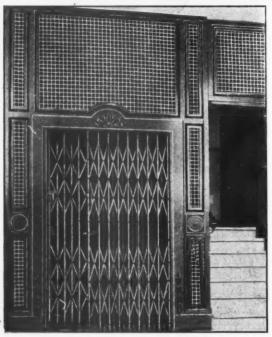
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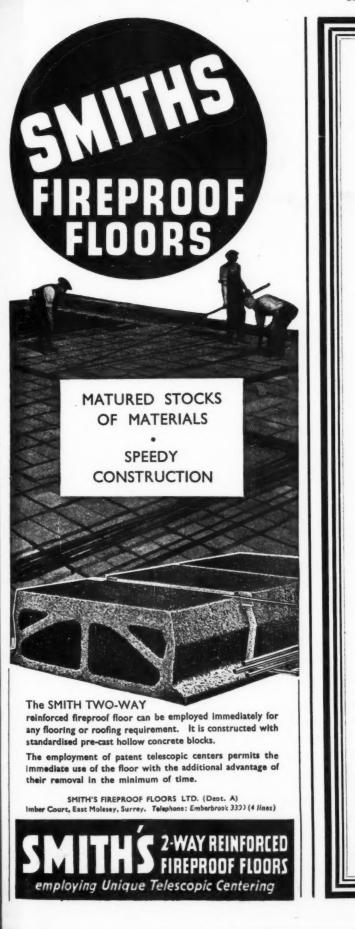


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Applications are invited for the following posi-111

(1) QUANTITY SURVEYORS AND ASSIS-TANTS (SENIOR AND JUNIOR). Required

TANTE (SEMIOR AND JUNIOR). Required for: (a) "Taking-off" quantities, measuring, and adjusting variations under building contracts and preparing estimates and minor works under schedule of prices (ex-perience of London County Council War Depart-ment or Office of Works Schedules). (c) Working up, etc., in connection with domestic buildings and general working up (innior). (d) Measurement of roads and sewers and buildings work on cottage estates, preparation of interim and final bills on Schedules. (e) ARCHITECTS, BUILDING SURVEYORS, TECHNICHTECTS, BUILDING SURVEYORS, TANTS, Required for: (a) Work in connection with the design and de-velopment of housing schemes for cottage estates and block dwellings (experience in domestic archi-tecture preferred). (b) Similar work in connection with schools and hospitals.

spit (c) itals. The preparation of estimates and specifica-

(c) The preparation of estimates and specifica-tions for works of cleaning and painting, repairs and minor alterations at schools and hespitals. (d) Assistants to district surveyors. A know-ledge of the London Building Acts and by-laws is necessary for these positions. (e) Junior drawing office assistants for general drawing office work. Should be able to finish plans from rough drawings, take dimensions and make sketches. Pay, according to age and ex-perience, up to 65s. a week, plus cost-of-living addition.

13. The setting of the setting of

UNIVERSITY COLLEGE OF NORTH WALES, BANGOR.

A MAINTENANCE OFFICER is required on or before 1st October, 1946, to supervise the College properties, which comprise some 30 buildings. Applicants must have a knowledge of the building trade, and be competent to direct craftsmen and control maintenance staff. Experience of heating services is essential. Salary £400 p.a., plus certain allowances.

allowances. Applications must be lodged with the under-signed from whom further particulars should be obtained, before 17th August, 1946.

GLYN ROBERTS, Secretary and Registrar.

#### CUMBERLAND COUNTY COUNCIL.

APPOINTMENT OF SUBJECT COUNTY COUNTY ASSISTANT. Applications are invited for the position of Senior Planning Assistant, at a salary of 2460 per annum, rising by annual increments of 215 and £20 to £510, plus cost-of-living bonus (at present £59 16s, per annum), and a car and sub-sistence allowance in accordance with the County Council Scale. The appointment is subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to undergo a medical examination, the appointment to be terminable by one month's notice in writing on either side.

terminable by one month's notice in writing on either side. Applicants should be Members, or Associate Members, of the Town Planning Institute, and a qualification in architecture will be an ad-vantage. The commencing salary on the grade will be determined according to the candidates'

will be determined according to the candidates' previous experience. Applicants must be fully conversant with the Town and Country Planning Acts, and Orders made thereunder, and be thoroughly competent to carry out field work, plotting, and the prepara-tion of plans. Applications, stating age, qualifications, experi-ence and previous appointments held, accom-panied by copies of three recent testimonials, and endorsed "Senior Planning Officer, Citadel Chambers, Carlisle, not later than Monday, 12th August, 1946. sent to the Chambers, Ca August, 1946.

G. N. C. SWIFT, Clerk to the County Council. The Courts, Carlisle.

## COUNTY BOROUGH OF BOURNEMOUTH.

## APPOINTMENT OF TOWN PLANNING ASSISTANTS.

(d) rating ing experience. (b) Planning Assistant, with architectural ex-

(c) Planning Assistant, with modelling experi-

Salaries for the above posts will be £400 to £450 (d) Planning Assistant, with general planning

(d) Planning Assistant, with general planning experience.
Salary £350 to £400 per annum.
(e) Junior Assistant, with general planning experience and good draughtsmasship.
Salary £250 to £300 per annum.
The salary will be fixed, in each case, between the limits shown, according to qualifications and experience.
Cost-of-living bonus, at present £59 16s. per annum, will be paid in addition.
The salary will be dired, indications of the Connell from time to time in force.
Applications, endorsed "Town Planning Assistant," (a), (b), (c), (d) or (e), staling age, qualifications and experience, together with copies of three testimonials, should reach me not later than 7th August, 1946.
Canvassing will disgualify a candidate.
A. LINDSAY CLEGG, \*

A. LINDSAY CLEGG, " Town Clerk. Town Hall, Bournemouth. July, 1946. 584

WREXHAM RURAL DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPART-MENT.

## APPOINTMENT OF ARCHITECTURAL ASSIS-TANT AND HOUSING MANAGER.

Applications are invited from members of the Royal Institute of British Architects, for the above appointment in the Engineer's Department, at a salary of £460 per annum, rising by annual increments to a maximum of £510, plus cost-of-living bonus, at present £59 16s, per annum. Applicants should have a wide experience in the design and construction of Houses, and will be responsible for all the Architectural work con-nected with the Council's existing and future Housing Estates, and for their management and repair.

Housing Estates, and for their management and repair. The appointment will be subject to one month's notice on either side. The appointment will be subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a motical examination.

successful canonicate will be required to pass a medical examination. Applications, stating age, qualifications and details of experience, together with copies of two recent testimonials, and endorsed "Architect and Housing Manager," should be sent to the under-signed not later than 7th August, 1946.

## GEO. VERNON PRICE, Clerk to the Council.

Imperial Buildings, Regent Street, Wrexham. 15th July, 1946. 583

#### CITY OF NOTTINGHAM.

#### HOUSING ARCHITECT'S DEPARTMENT.

Applications are invited for the following

SURVEYORS. Salary in accordance with General Division of National Scale, according to age. Applicants for (1) should have had considerable experience of Housing work with a Local Anthority, and should be Associates of the R.B.A., or hold equivalent qualifications. Applicants for (2) should have passed the Fin Professional Examination of the Chartered Sa-versions in a Quantity Europort office the appointments will be subject to the pro-visions of the Local Government Superannualis of the Local Government Superannualis to each of the successful candidates passing and in accordance with the Scheme of Conditions of Service, National Joint Council for conditions of Service, National Joint Council for to reside; to the successful candidates passing to reside within the City boundaries. Applications, stating age, experience, and with ease of (1) names of two persons of standing to the undersigned and endorsed. In the case of (1) Senior Architectural Assistant, Housing by partment, and in the case of (2) Junior Quantity Surveyor, Housing Department, not later than Marken Leth August, 1987. Town Cirk.

J. E. RICHARDS. Town Clerk. The Guildhall, Nottingham.

### BOROUGH OF SLOUGH BOROUGH ENGINEER'S DEPARTMENT.

### APPOINTMENT OF JUNIOR ARCHI-TECTURAL ASSISTANT.

TECTURAL ASSISTANT. Applications are invited for the above per-manent appointment, in the Borough Enginee's Department, within Grade A.P.T.III of the National Scales, at a commencing salary of 23M per annum, rising by annual increments of 21 to a maximum of £435 per annum, plus cost-of-living Louns (at present £59 166. per annum). Preference will be given to applicants who have passed the Intermediate Examination of the Royal Institute of British Architects. The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination, and the appoint ment is subject to one month's notice or either side. Applications, on forms to be obtained from the Borough Engineer. Mr. E. Gardner Thory, M.Inst.C.E., Town Hall, Slough, must be sent in a sealed envelope, endorsed " Junior Architectural Assistant," so as to reach the undersigned nel later than the 19th August, 1946.

NORMAN T. BERRY. Town Clerk.

Town Hall, Slough. 25th July, 1946. 586

#### BOROUGH OF COLNE.

#### ENGINEER AND SURVEYOR'S DEPARTMENT.

## APPOINTMENT OF ARCHITECTURAL ASSISTANT.

APPOINTMENT OF ARCHITECTURAL ASSISTANT. Applications are invited for the appointment of an Architectural Assistant, on the permanent stat of the Engineer and Surveyor's Department. The salary will be in accordance with Grade III di the National Joint Council Scale of Salaries (23) to \$435, plus cost-of-living bonus, at presen-tion of the preparation of specifications and estimates, with particular reference to housing the local authority. Preference will be estimates, with particular reference to housing in design and building construction, pre-ferably with a local authority. Preference will be given to a person holding a recognized archi-tectural qualification by examination. The appointment will be determinable by our month's notice in writing on either side, and for act, 1937. The successful candidate will be required to the council. Mathematical and building a recognized archi-tectural qualification by examination. The candidate appointed will be required to be pass satisfactorily a medical examina-tion. The candidate appointed will be required of the Council. Mathematical enders and a statistical of experience, and previous appointments, details of experience, an L. A. VENABLES, Town Clerk

Town Hall, Colne, Lancashire.

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WEST RIDING OF YORKSHIRE TERRI-TORIAL ARMY AND AIR FORCE ASSOCIA-TION.

An UNDER-STUDY is required to the Associa-tion's Architect, who will be shortly retiring, to undertake full-time architectural work, erection of huts, maintenance of drill halls, etc. Age approx. 35 years. Commencing salary £400 to £900. Apply to the Secretary. 9. St. Leonard's. York. 23rd July, 1946. 642

#### CORPORATION OF GLASGOW.

#### HOUSING DEPARTMENT.

Applications are invited for the undernoted

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RONALD BRADBURY. Director of Housing. Glasgow, C.1. 19th July, 1946.

#### DERBYSHIRE COUNTY COUNCIL. COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following per-

men. (d) ASSISTANT QUANTITY SURVEYORS. Salary £330 to £375 per annum, by annual increments of £15. Applicants should have had experience in assist-ing with taking off, measuring up, and preparing final accounts.

Applicants should have had experience in assist-ing with taking off, measuring up, and preparing final accounts. In addition to the salaries stated above a cost-of-living bonus. at present £59 16s, per annum, is pavable in each case. The appointments will be subject to one month's notice on either side, and to the pro-visions of the Local Government Superannuation Acts. The successful candidates will be required to pass a medical examination. Applications, stating age, present position and salary, oualifications and previous experience, accompanied by copies of three recent testimonials, should reach the undersigned not later than 9th August, 1946. Envelopes and applications must be endorsed, stating clearly the vacancy for which the applica-tion is made.

F. HAMER CROSSLEY, Dipl.Arch., A.R.I.B.A., County Architect.

County Offices, Derby. 26th July, 1946. 641

## Amended Advertisement. BOROUGH OF WHITEHAVEN.

#### ARCHITECTURAL ASSISTANT.

ARCHITECTURAL ASSISTANT. Applications are invited for the above appoint-ment, in the Borough Surveyor's Department. Applicants must be Members of the Royal Institute of British Architects, and should have had experience in housing and general building works as carried out by a local authority. Ex-perience in taking off and billing quantities will be an advantage. The salary will be at the rate of £420 per annum, rising by annual increments of £15 to £465 per annum, plus cost-of-living bonus, of £95 lós, per annum. Applications, stating age, qualifications and ex-perience, together with copies of two recent testi-monials, should be addressed to the undersigned not later than Monday, the 19th August, 1946. The Council will be prepared to off ar the tenancy of a house to the successful applicant. A. D. VICKERMAN. Town Clerk. Town Hall, Whitehaven.

625

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635

22nd July, 1946.

Shire Hall, Warwick.

Town Hall, Whitehaven. 19th July, 1946.

#### METROPOLITAN BOROUGH OF FULHAM.

## VACANCIES IN WAR DAMAGE DEPART-MENT.

Applications are invited for the under-mentioned temporary positions in the Council's War Damage Department -----

Compary positions in the Contents war Damage Department:— ARCHITECTURAL ASSISTANTS. Candidates should have housing experience, and should the Associates of the Royal Institution of British Architects, or hold equivalent qualifications. Salary scale, £330  $\times$  £15—£450 per annum. CLERKS OF WORKS. Salary scale, £330  $\times$  £15—£300 per annum. In addition a cost-of-living bonus amounting to £59 16s, per annum is payable. Commencing salary will be according to qualifications and experience.

to £59 108. pv. salary will be according to yum. Applications on the official form, which can be obtained from me, should be completed and re-turned to me not later than 17th August, 1946. CYRIL F. THATCHER. Town Clerk.

Town Hall, Fulham, S.W.6. 20th July, 1946.

COUNTY BOROUGH OF SWANSEA.

APPOINTMENT OF BOROUGH ARCHITECT.

Applications are invited for the post of Borough Architect. The salary is £1,200 per annum, rising by yearly increments of £100 to a maximum of £1,400. A cost-of-living bonus will be payable (the present rate is £59 16s. a year), and a car allowance will also be made. Applicants must be Registered Architects and Fellows or Associates of the Royal Institute of British Architects, and possess wide and thorough experience in the service of a Local Authority. The appointment will be subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

medical examination. The appointment may be terminated by three months' notice by either party. Terms and conditions of the appointment and forms of application may be obtained from the undersigned. Applications, accompanied by copies of three recent testimonials. must be delivered to the undersigned not later than Saturday, the 31st August, 1946. Canvassing, directly or indirectly, will disqualify. T B BROWN

T. B. BROWN, Town Clerk.

The Guildhall. Swansea. 18th July, 1946.

## COUNTY BOROUGH OF WEST HAM.

#### TOWN PLANNING ASSISTANT.

 TOWN PLANNING ASSISTANT.

 Applications are invited for the above post at a summercing salary of 2425 per annum. rising (subject to satisfactory service) by one £20 increated £25 per annum. plus war bonus, at a present £59 per annum. plus war bonus, at a manning, and will be required to assist in the scamination of Interim Development Applications, the preparation of the Town Planning cheme, and preparation of the town Planning scheme, and preparation of the town Planning beam about the town Planning and will be required to assist in the scamazed and obsolete areas from sketches.

 The appointment is a whole-time one, termination Acts. 1937.39. The successful candidate will be required to pass a medical examination. Acts. 1937.39. The successful candidate will be returned not later than 26th about the Local Government Superinde and should be returned not later than 26th about determined and the them the states.

 Target about the second the town Planning Officer. 100. West Ham Lane, E.15, and about be returned not later than 26th about determined in the samilation.

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 Target Alexandre Methems.

 E. R. IBA.

 Town Hall. West Ham, E.15

Town Hall. West Ham. E.15.

THE ARCHITECTS' JOURNAL for August 1, 1946 [lix

#### BOROUGH OF TAUNTON.

#### ARCHITECTURAL ASSISTANTS.

Applications are invited for the above appoint-ment. Candidates should possess an up-to-date knowledge of building construction and materials, and be competent and expeditious draughtsmen. Salary will be  $2330 \times 215 - 2375$  per annum, plus cost-of-living bonus, at present £59 198. 3d. The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination. Applications, stating age, experience, qualifica-tions, and whether married or single etc., with copies of testimonials, should be submitted to the undersigned by not later than 15th August, 1946.

MAJOR A. G. JURY, A.R.I.B.A., Architect to the Council.

Architect's Dept., 2, Baldwin Road, Taunton.

665

## ROYAL TECHNICAL COLLEGE. SALFORD. Principal: J. E. RICHARDSON, Ph.D., B.Eng., M.I.E.E., A.M.I.Mech.E.

## APPOINTMENT OF FULL-TIME LECTURER IN BUILDING.

IN BUILDING. Applications are invited for the above post. The duties include the teaching of Building Con-struction and allied subjects to students preparing for the Ordinary National Diploma and the Higher National Certificate in Building. Appli-cants should possess good qualifications in addi-tion to teaching and practical experience. Membership of the Royal Institute of British Architects or the Royal Institution of Surveyors will be a recommendation. Salary in accordance with the Burnham Technical Scale. The person appointed will be required to commence duty in September. 1946. Further details and application forms may be obtained from the Principal. Royal Technical College. Peel Park. Salford. 5. to whom applica-tions should be returned by 10th August. H. H. TOMSON.

H. H. TOMSON, Clerk to the Governors. 647

#### COUNTY OF WARWICK.

#### COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited from merebers of the Royal Institute of British Architects for the post of ARCHITECTURAL ASSISTANT. Salary at the rate of £365 per annum. plus cost-of-living bonus, which is at present £59 16s, per annum. Applications in applicant's own handwriting, stating age, experience, and giving copies of not more than three recent testmonials, should be sent to the County Architect. Shire Hall, Warwick, on or before the 8th August, 1946.

CITY OF WESTMINSTER.

HOUSING MAINTENANCE STAFF.

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Westminster City Hall, Charing Cross Road, W.C.2. 24th July, 1946.

PARKER MORRIS, Town Clerk.

652

fore the SUL AMERICAN STEPHENS. Clerk of the Council. 651

#### 1x] THE ARCHITECTS' JOURNAL for August 1, 1946

#### PONTYPOOL URBAN DISTRICT COUNCIL.

The Council invite applications for the follow-

Housing Schemes. Applicants must be Registered Architects, and should hold the A.R.I.B.A., and should have had experience in the design and erection of Council Houses and lay-out of Housing Estates. Salary 2700 per annum and war bonas. (2) ARCHITECTURAL AND SURVEYING ASSISTANT for certain of the Council's Housing Schemes. Housing Schemes.

Schemes. Applicants must be Registered Architects, and should hold the A.R.I.B.A. or equivalent, and must have had experience in the preparation of Housing Schemes and Specifications, etc. Salary #430 per annum, with annual increments of £15 to a maximum of £455 per annum, and war bonus. Applicants in both cases not to exceed 50 years of age.

Applicants in both cases not to catter or years of age. The appointments will be subject to the pro-visions of the Local Government Superannuation Act, 1937, and the appointed candidates will be required to undergo a medical examination. Applications, giving particulare of age, quali-fications, experience and previous appointments held, together with copies of three recent tenti-monials, endorsed " Architect" or " Architectural Assistant," respectively, to be sent to the under-signed on or before the 17th day of August, 1946. W H. V. BYTHWAY.

W. H. V. BYTHWAY, Clerk to the Council.

610

Pontypool. 17th July, 1946.

## SOUTH BEDS. JOINT PLANNING COMMITTEE.

#### APPOINTMENT OF PLANNING OFFICER.

APPOINTMENT OF PLANNING OFFICER. Applications are invited from qualified persons for the position of Planning Officer, at a salary of £850 per annum, rising to £1,000 per annum, plus cost-of-living bonus (at present £59 16s. per annum), and car allowance. Tandidates must be members of the Town Planning Institute by examination, and, in addi-tion, members of the Royal Institute of British Architects, Institution of Civil Engineers, Royal Institution of Chartered Surveyors, or the Institu-tion of Municipal and County Engineers. The position will be subject to the provisions of the Local Government and other Officers' Super-annuation Acts, and the successful candidate will be required to undergo a medical scarnination. Applications, giving full details as regards age, experience, previous and present positions, and accompanied by copies of recent testimonials, must be received by the undersigned not later than Saturday, 24th August, 1946.

W. H. ROBINSON Clerk to South Beds. Joint Planning Committee. Town Hall, Luton. 587

#### CITY OF MANCHESTER. HOUSING DEPARTMENT.

The Manchester Corporation invite applications for the 

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## PHILIP B. DINGLE, Town Clerk

Town Hall, Manchester, 2. July, 1946. 615

#### BOROUGH OF WORKINGTON.

## APPOINTMENT OF ARCHITECTURAL ASSISTANT.

ASSISTANT. Applications are invited for the appointment of Architectural Assistant, in the Borough Sur-veyor's Department, at a commencing salary of 2300 per annum, rising to 2435 by annual incre-ments of 215 in accordance with Grade III Administrative, Professional and Technical Division of the National Joint Council's Scale, plus cost-of-living bonus. Candidates must have had experience in the office of an Engineer and Surveyor to a Local Authority, and hold an appropriate qualification. The appointment will be subject to the pro-visions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination. The appointment will be determinable by one month's written notice on either side. Applications, accompanied by copies of three recent testimonials, must be delivered to the undersigned not later than the 12th August, 1946. IOUN B COCKPUELD

JOHN R. COCKFIELD, Town Clerk.

588

## Town Hall, Workington 8th July, 1946.

#### COUNTY BOROUGH OF SOUTHAMPTON.

#### BOROUGH ARCHITECT'S DEPARTMENT.

## APPOINTMENT OF SENIOR PLANNING OFFICER.

Applications are invited for the appointment of Senior Planning Officer, to take charge of the Town Planning Difficer, to take charge of the Town Planning Difficer, to take charge of the Town Planning Difficer, to take charge of the Town Planning Difficer will be responsible increments of £50 to £50 per annum. The post will be permanent and pensionable. The Senior Planning Officer will be responsible for the organization and supervision of the Planning Branch, and the work will include the administration of the various Acts and Orders relating to Town and County Planning, as well as the preparation of schemes for the reconstruc-tion and development of the Borough. Candidates should be Associate Memhers or Members of the Town Planning Institute, and preference will be given to those applicants who have in addition a recognized qualification in architecture. BRANCH ARCHITECT-EDUCATION. Applications are invited for the appointment of Architect's Department, at a salary of £625-£700, plus cost-of-living bonus, amounting to £59 16s, per annum. The post will be permanent and pensionable. The suces and candidate will be responsible for

per alnum. The post will be permanent and pensionable. The successful candidate will be responsible for the organization and control of all education work carried out in the Architect's Department, and he should have a special knowledge of the requirements of the different types of education buildings and actual experience in carrying out contracts of considerable size. Preference will be given to Fellows or Associates of the Royal Institute of British Architects. Applications, giving full particulars of age, qualifications and experience, and the names and addresses of three persons to whom reference may be made, should be sent to Denis Winston, M.A., BArch., A.R.I.B.A., M.T.P.I., Borough Architect, Civic Centre, Southampton, is o reach the above on or before Wednesday, 14th August, 1946.

#### R. RONALD H. MEGGESON.

Town Clerk Civic Centre, Southampton. 18th July, 1946. 627

#### LUNESDALE RURAL DISTRICT COUNCIL.

Applications are invited for the appointment of CLERK OF WORKS. Salary according to A.P.T. Scale, Grade III, *viz.*, £390 per annum. rising by annual increments of £15 to a maximum of £435 per annum, plus war bonus, which is at present £35 16e, per annum. The appointment is of a temporary nature, and the duration will be dependent upon the con-tinuance of the present housing constructional programme, which it is estimated, unforeseen con-tingencies excepted, will continue for a period of three years.

three years.

three years. Candidates must be qualified Clerks of Works, with considerable experience in housing construc-tional schemes. The Council will provide transport for official duties within the area. The appointment will be subject to the Local Government Superannuation Act, 1937, and to termination upon one month's notice on either side side

Applications, accompanied by copies of three testimonials, and endorsed "Clerk of Works." must be delivered to the undersigned not later than 10 a.m. on Thursday, the 8th August, 1946. Canvassing, either directly or otherwise, will discussifier. Canvassii disqualify.

A. R. HARLOW, Clerk to the Council. Council Offices, Hornby, Lancaster.

#### COUNTY BOROUGH OF BIRKENHEAD.

Town Hall, Birkenhead.

#### UNION OF SOUTH AFRICA.

Applications are invited on or before 23rd August, 1946, for the following posts, in the National Building Research Institute of the South African Council for Scientific and Industrial arch

Research :--RESEARCH OFFICERS (present salary £500× £30-£680.£700, plus cost-of-living allowance). (i) One Architect, possessing a recognized Uni-versity degree in architecture, who has had at least three years' practical training in this pro-

(iii) Two Engineers (civil, mechanical, electrical, recognized University degree resulting from a four-year professional course, and preferably with experience in a research organization or in inductor

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#### HALTEMPRICE URBAN DISTRICT COUNCIL.

## ENGINEER AND SURVEYOR'S DEPART-MENT.

Applications are invited from qualified persons for the under-mentioned posts, in the established staff of the above Council. ARCHITECTURAL ASSISTANT. £375-£25-

£450

2450. Applicants must have a good general knowledge of and experience in architectural work, of which housing experience is essential. JUNIOR ARCHITECTURAL ASSISTANT. 2300-£25-£375.

JUNIOR ARCHITECTURAL ASSISTANT. 2300-225-2375. Applicants must have a sound knowledge of and training in architectural work. Cost-of-living bonus (at present £59 16s. per anum, males) will be paid in addition to the above salaries. Forms of application from the Engineer, Anlaby House, Anlaby, E. Yorks, should be returned to the undersigned not later than Friday, oth August, 1946. Canvassing, directly or indirectly. will disqualify applicants. A. B. GLASSPOOL. Clerk of the Council. Anlaby House, Anlaby, E. Yorks. 578

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#### COUNTY BOROUGH OF SOUTHAMPTON.

#### BOROUGH ARCHITECT'S DEPARTMENT.

#### HOUSING BRANCH.

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Applications are invited for the following 

(£460-£510) (3) Two ASSISTANT ARCHITECTS. Grade IV

(4) Two ASSISTANT ARCHITECTS. Grade IV (£420-2465). The above posts will be permanent and pension-able, and subject to cost-of-living bonus, amount-ing to £59 16s, per annum. Candidates should be Associates of the Royal Institute of British Architects, who have a special knowledge and experience of housing work, and preference will be given to applicants who have also a qualification in Town Planning. (4) One ARCHITECTURAL ASSISTANT. Grade II (£360-£405). This post will be temporary in the first instance,

(4) One ARCHITECTURAL ASSISTANT. Grade II (£360-£405). This post will be temporary in the first instance, and subject to cost-of-living bonus, amounting to £59 16s. per annum. Preference will be given to candidates who have passed the Intermediate or Final examinations of the Royal Institute of British Architects. The work of the Housing Branch of the Borough Architect's Department comprises all matters in connection with housing, including estate layout on newly acquired land on the out-skites of the town, and also higher density de-velopment, including flats, in connection with the reconstructions, giving full particulars of age, qualifications, and experience, and the Borough. Applications, giving full particulars of age, qualifications, and experience, and the names and addresses of three persons to whom reference may be made, should be sent to Denis Winston, M.A., B.Arch., A.R.I.B.A., M.T.P.I., Borough Architect, Civic Centre, Southampton, to reach the above on or before Wednesday, 14th August, 1946. R. RONALD H. MEGGESON.

R. RONALD H. MEGGESON, Town Clerk.

Civic Centre, Southampton. 18th July, 1946. 626

CHICHESTER RURAL DISTRICT COUNCIL. ENGINEER AND SURVEYOR'S DEPARTMENT.

#### TECHNICAL ASSISTANTS.

Applications are invited for the appointment of two Technical Assistants, with salary of 2460. rising £15×£15×£20 to £510 per annum, plus war bonus, at present £59 16s. Applicants must have good experience in the design and constructions of one or more of the following works.—Housing, sewerage, sewage dis-posal, estate roads and layouts. Preference will be given to candidates who possess one of the following qualifications:— (a) Institution of Civil Engineers. (b) Institution of Municipal and County Engineers.

(b) Institution of Municipal and County Engineers.
(c) Royal Institution of Chartered Surveyors
(d) Royal Institute of British Architects.
(e) Institution of Structural Engineers.
(f) Town Planning Institute.
(g) A University Degree in Engineering or Estate Management.
The appointments will have a probable duration of four years, subject to satisfactory service, and to the Council's Scheme of Conditions of Service and the Local Government Superannuation Act.
(h) A University Candidates will be required to pass a medical examination.
Purther particulars may be obtained from the Council's Engineer and Surveyor, East Pallant House, Chichester.
Applications, endorsed "Technical Assistant," giving full particulars of age, qualifications and experience, together with copies of two recent testimonials, must be delivered to the undersigned not later than the 21st August, 1946.
LEONARD BALLEY.
Clerk to the Council.
20th July 1946.
631

Pallant House, Chichester. 20th July, 1946. 631

METROPOLITAN BOROUGH OF FULHAM.

TEMPORARY ARCHITECTURAL ASSISTANT.

A galications and experience of the postion and applications are invited for the position of temporary Architectural Assistant, in the Borough Surveyor's Department. Candidates should be Associates of the Royal Institute of British Architects or hold equivalent qualifications, and should be specially experienced in all stages of the design and construction of fats and other housing work, and should preferably have had general experience in the architectural work of a local authority. Salary scale £55×£15-£620 per annum. In addition a cost-of-living bonus, which at present is £59 los, per annum, is payable. The commencing salary will be fixed within the scale according to the qualifications and experience of the person. A form of application can be obtained from me.

A form of application can be obtained from me, A form of application can be obtained from me, and should be returned so as to arrive not later than 24th August, 1945.

CYRIL F. THATCHER, Town Clerk.

663

25th	Hall, July,	Fulham, 1946.	S.W.6.		

Six lines or under, 10s.; each additional line, 18. 6d.

BOROUGH OF SOUTHGATE.

TO BUILDERS AND CONTRACTORS.

REBUILDING OF COUNCIL HOUSES.

The Southgate Borough Council invite Tenders for the Rebuilding of eight Houses at Carpenter Gardens, N.2., in Two Blocks of Four Houses. Plans can be seen at the Town Hall, Palmers Green, N.13, by arrangement with the Borough Engineer and Surveyor, Mr. J. T. W. Peat, F.R.I.B.A. Contractors, wishing to tender should make

FR.I.B.A. Contractors wishing to tender should make written application in an unendorsed envelope by not later than Wednesday, 7th August, 1946, to the Boroug't Engineer and Surveyor, enclosing cheque for £2 2s. as a deposit for Form of Tender special envelope for tendering and Bills of Quanti-tizes. This deposit will be returned on receipt of a bona-fide Tender and/or the return of all docu-ments. In the case of the accepted Tender the deposit will be retained until a Contract and Bord have been entered into with the Council, and in the event of withdrawal such deposit will be forfeited. forfeited.

forfeited. No Tender will be considered unless submitted in the envelope specially provided by the Council, endorsed, "Tender for Houses, Carpenter Gardens," and addressed to the Town Clerk, Southgate Town Hall, Palmers Green, N.13. Such envelope must be scaled by the Contractor, and must not bear any name or mark indicating the sonder.

The Council do not bind themselves to accept the lowest or any Tender, and the acceptance of any Tender will be subject to the approval of the Ministry of Health. GORDON H. TAYLOR, Town Clerk.

Town Hall, Palmers Green, N.13. July, 1946.

Architectural Appointments Vacant Four lines or under, 58.; each additional line, 18. 6d.

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Worcester. 624 A RCHITECTURAL ASSISTANTS required im-mediately, up to Intermediate standard, in private Chartered Architect's office, Coventry; initiative encouraged; salary according to experi-ence. Give details, Hox 621.

Commercial contraged staty according to experience. Give details, Box 621.
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fxii] THE ARCHITECTS' JOURNAL for August 1, 1946

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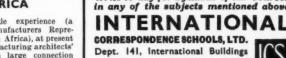
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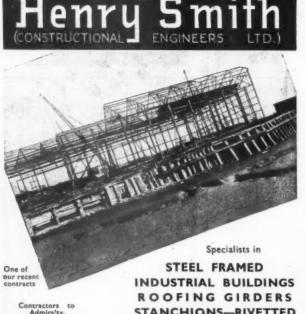
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