

THE ARCHITECTS' JOURNAL



standard contents

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

DIARY

NEWS

from AN ARCHITECT'S
Commonplace Book

ASTRAGAL

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LETTERS

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Wanted and Vacant

No. 2522] [Vol. 97
THE ARCHITECTURAL PRESS,
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★ The war has both multiplied the number of Official Departments and encouraged Societies and Committees of all kinds to become more vocal. The result is a growing output of official and group propaganda. A glossary of abbreviations is now provided below, together with the full address and telephone number of the organizations concerned. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association. 34/6, Bedford Square, W.C.1.	Museum 0974.
ABCA	Army Bureau of Current Affairs. Curzon House, Curzon Street, W.1.	
ABT	Association of Building Technicians. 113, High Holborn, W.C.1.	Mayfair 9400 (Extension 461).
APRR	Association for Planning and Regional Reconstruction. 32, Gordon Square, W.C.1.	Holborn 1024-5.
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Euston 2158-9.
ASB	Architectural Science Board of the Royal Institute of British Architects, 66, Portland Place, W.1.	Welbeck 9738.
BC	Building Centre. 23, Maddox Street, W.1.	Welbeck 6927.
BCGA	British Commercial Gas Assn. 1, Grosvenor Place, S.W.1.	Mayfair 2128.
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Sloane 4554.
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Temple Bar 9434.
BINC	Building Industries National Council. 110, Bickenhall Mansions, W.1.	Euston 5385.
BOE	Board of Education. Alexandra House, Kingsway, W.C.2.	Temple Bar 8020.
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140.
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246.
BSA	British Steelwork Association. 11, Tothill Street, S.W.1.	Whitehall 5073.
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333.
CEMA	Council for the Encouragement of Music and the Arts. 9, Belgrave Square, S.W. 1.	Sloane 0421.
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.1.	Sloane 4280.
CSI	Chartered Surveyors' Institution. 12, Great George Street, S.W.1.	Whitehall 5322.
DIA	Design and Industries Association. Central Institute of Art and Design, National Gallery, W.C.2.	Whitehall 7618.
DOT	Department of Overseas Trade. Dolphin Square, S.W.1.	Victoria 4477.
EJMA	English Joinery Manufacturers Association (Incorporated), Goring Hotel, Grosvenor Gardens, S.W.1.	Victoria 9787-88.
FMB	Federation of Master Builders. 23, Compton Terrace, Upper Street, N.1.	Canonbury 2041.
GG	Georgian Group. 55, Great Ormond Street, W.C.1.	Holborn 2664.
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881.
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 3158.
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577.
IEE	Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2.	Temple Bar 7676.
IHVE	Institution of Heating and Ventilating Engineers. 21, Tothill Street, S.W. 1.	Whitehall 9609.
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172.
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128-29.
ISPH	Committee for the Industrial and Scientific Provision of Housing. 3, Albemarle Street, W.1.	Regent 4782-3.
LIDC	Lead Industries Development Council. Rex House, King William Street, E.C.4.	Mansion House 2855.
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3767.
MARS	Modern Architectural Research. 8, Clarges Street, W.1.	Grosvenor 2652.
MOH	Ministry of Health. Whitehall, S.W.1.	Whitehall 4300.
MOI	Ministry of Information. Malet Street, W.C.1.	Euston 4321.
MOLNS	Ministry of Labour and National Service. St. James' Square, S.W.1.	Whitehall 6200.
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.2.	Gerrard 6933.
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Abbey 7711.
MOTCP	Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.	
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611.
NBR	National Buildings Record. 66, Portland Place, W.1.	Welbeck 1881.
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Oxford 48809.
NFBTO	National Federation of Building Trades Operatives. 9, Rugby Chambers, Rugby Street, W.C.1.	Langham 4041.
NT	National Trust for Places of Historic Interest or Natural Beauty. 7, Buckingham Palace Gardens, S.W.1.	Holborn 2770.
PWB	Post War Building, Directorate of. Ministry of Works, Lambeth Bridge House, S.E.1.	Sloane 5808.
RC	Reconstruction Committee RIBA. 66, Portland Place, W.1.	Reliance 7611.
RCA	Reinforced Concrete Association. 91, Petty France, S.W.1.	Welbeck 6927.
RS	Royal Society. Burlington House, Piccadilly, W.1.	Whitehall 9936.
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Regent 3335.
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Temple Bar 8274.
TCPA	Town and Country Planning Association. 13, Suffolk Street, S.W.1.	Holborn 2646.
TDA	Timber Development Association. 75, Cannon Street, E.C.4.	Whitehall 2881.
TPI	Town Planning Institute. 11, Arundel Street, Strand, W.C.2.	City 6147.

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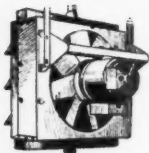
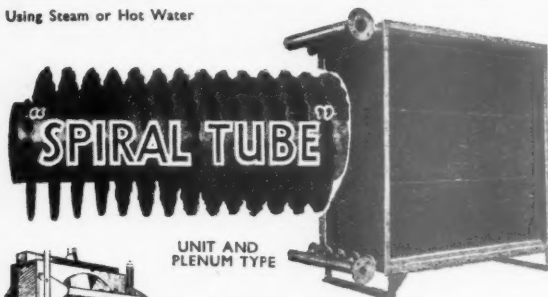
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Sunrise



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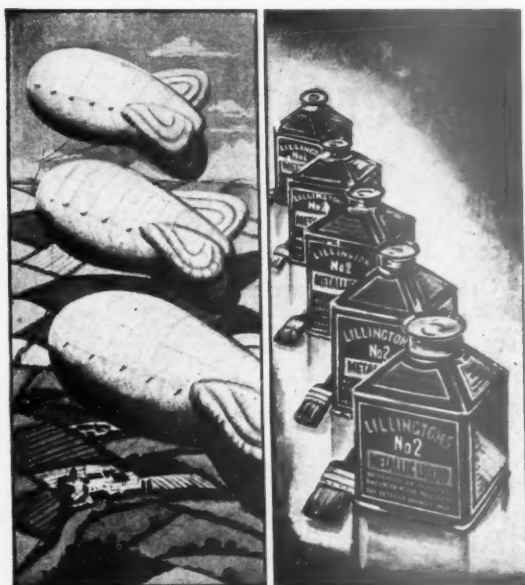
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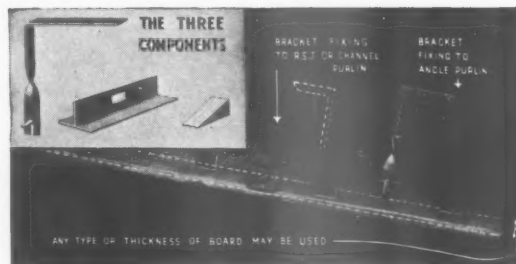
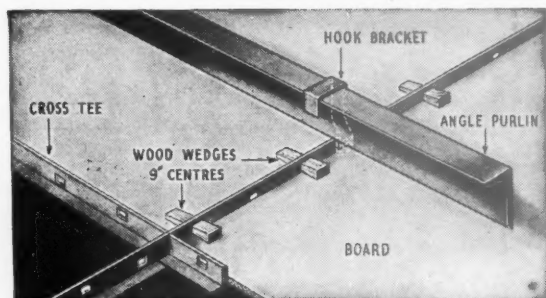
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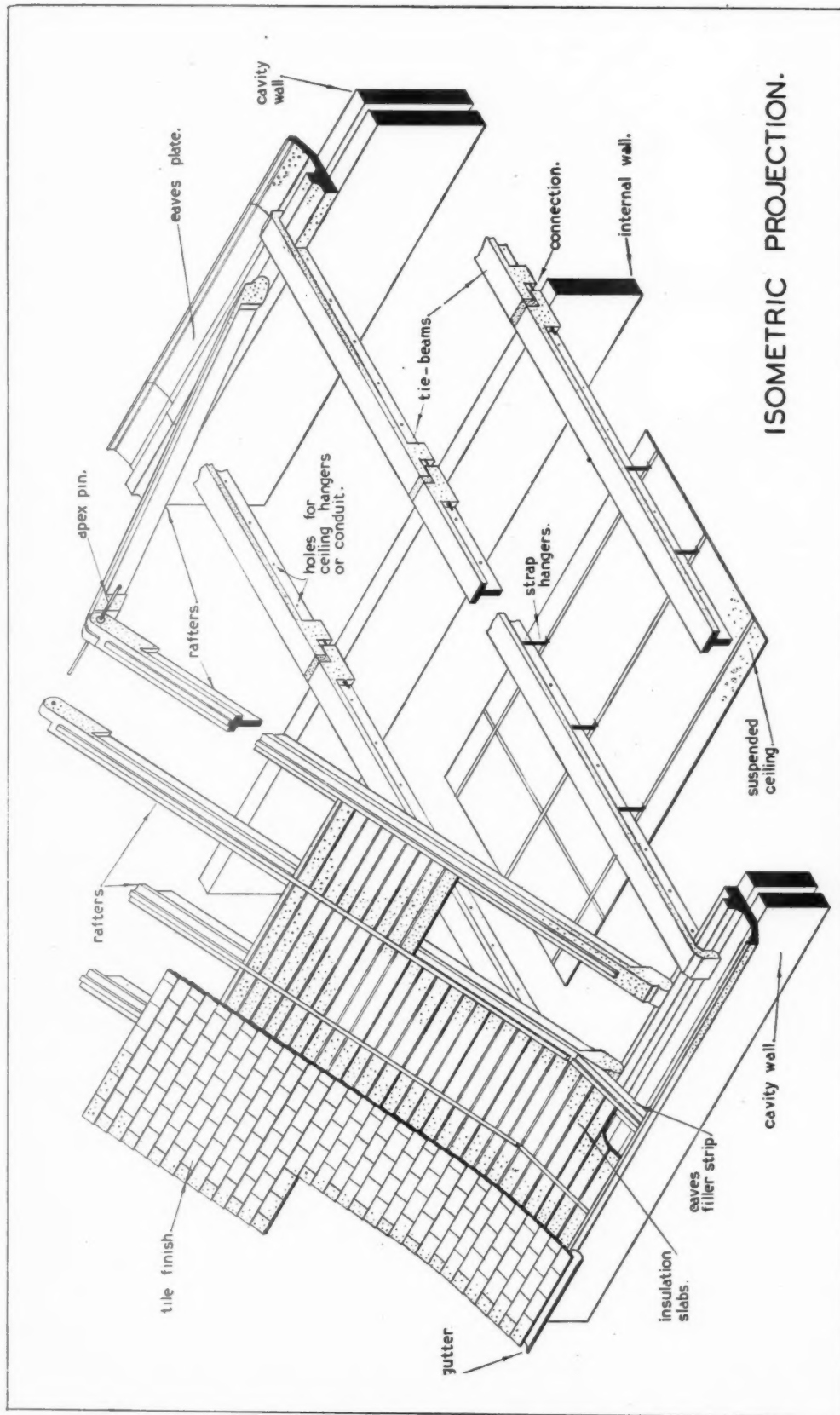
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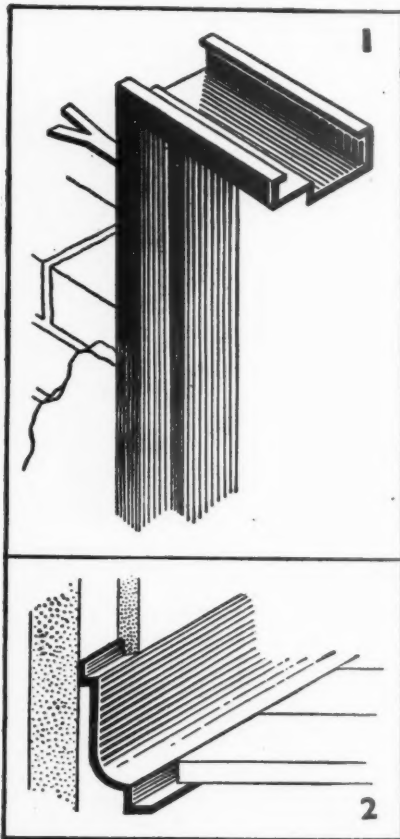
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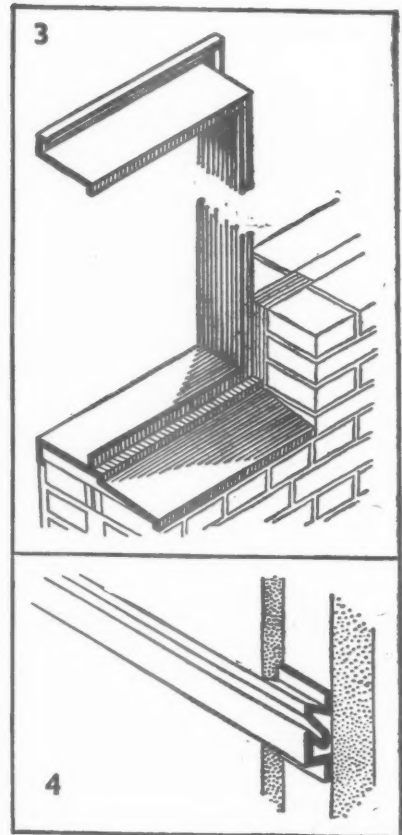
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DIARY FOR MAY-JUNE

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

ABERYSTWYTH. *Town and Country Planning Association Conference.* 11 a.m. to 5 p.m. JUNE 19

BRISTOL. Colin Penn at *Inauguration of Bristol Area Branch, ABT.* At Crown & Dove Hotel, Horsefair. 6.30 p.m. (Sponsor, South Western District Committee.) JUNE 3

CARDIFF. Ernest E. Morgan, Borough Architect, Swansea, President of the South Wales Institute of Architects. *Hillside Housing Development.* In the Reardon Smith Lecture Theatre, National Museum of Wales, Park Place, Cardiff. (Sponsor, Royal Sanitary Institute.) 10.30 a.m. JUNE 5

CRUMLIN, MON. T. Alwyn Lloyd. *Architectural Traditions and Modern Needs in relation to Town and Country Planning.* Lecture for Teachers. At Crumlin Technical College. (Sponsor, Monmouthshire Education Committee.) MAY 29

LONDON. *Royal Academy's Summer Exhibition.* In Burlington House, Piccadilly. 9.30 a.m. until 7 p.m. Weekdays; 2 p.m. until 6 p.m. Sundays. Admission one shilling. MAY 27 to AUGUST 7

Britain To-morrow Exhibition. At 22 Lower Regent Street, S.W.1. Exhibition includes ideas for ideal homes, replanned town and countryside, solution of traffic problem, ideal conditions for every child, the workers' homes and factories of the future, around St. Paul's Cathedral. (Sponsor, Ian G. Walker.) 10 a.m. to 8 p.m. MAY 27-31

Exhibition of the work of the London Regional Reconstruction Committee. At the National Gallery. The LRRC is a Committee appointed by the Council of the RIBA, with 12 members from the Institute and the AA respectively. It has been at work for nearly two years on the problems of reconstruction and post-war planning for the London Region. The latter for the purposes of the Committee's work has been defined as C.D. Region No. 5, the area of which is about 850 sq. miles, with a population of about 8,500,000. The exhibition will consist of proposals for a Regional Plan illustrated by plans and a plan-model to a scale of 6 in. to 1 mile. Many other drawings and diagrams will be exhibited to illustrate particular problems of the Region, such as transport, and to demonstrate the principles upon which the Committee have based their proposals, a Historical Section will be included in the exhibition. The Second Interim Report of the Committee, to be published at the time of the exhibition, will contain illustrations and form a comprehensive survey of the work of the Committee and of the exhibition. MAY 31

Professor Geoffrey Webb. *Sir Christopher Wren and his Successors.* At 20, Portman Square, W.1. (Sponsor, Courtauld Institute of Art.) 1.15 p.m. JUNE 3

Rebuilding Britain Exhibition. At Royal Exchange. Open at 1.45 p.m. Monday to Friday; 10 a.m. to 12 noon Saturdays.

Housing Conference. At the Beaver Hall, Garlick Hill, E.C. Chairman: J. W. Stephenson, President NFBTO and Chairman of the Central Council for Works and Buildings, MOW. Speakers: Richard Coppock, General Secretary, NFBTO; W. H. Thompson, Solicitor; D. E. E. Gibson, A.R.I.B.A., City Architect of Coventry; Miss J. Blanco-White, A.R.I.B.A., and A.B.T. Subjects: The housing shortage—the problem and the main lines of solution (repairs, billeting, conversions, new building). Labour and materials problems. The rent question. Panel of Experts: A panel of experts will be present to answer questions. Discussion will be held. Delegates credentials are available from the Secretary of the ABT, 2/- each. Visitors' tickets, 1/- each. 2.30 p.m. to 6.30 p.m. (Sponsor, ABT.) JUNE 5

Presentation of Howard Memorial Medal to Professor Abercrombie. At Connaught Rooms, W.C. 12.30 p.m. JUNE 8

Raymond Evershed. *The Uthwatt Report.* At 1, Grosvenor Place, S.W.1. 1.15 p.m. (Sponsor TCPA.) JUNE 10

Anthony Blunt. *Louis XIV and Versailles* At 20, Portman Square, W.1. (Sponsor, Courtauld Institute of Art.) 1.15 p.m. JUNE 10

Herbert Read. *The Future of Industrial Design.* In the Chair: Charles Tennyson, C.M.G. At RSO, Burlington House, Piccadilly. Buffet Lunch (2/6) from 12.45 to 1.30 p.m. (Sponsor, DIA.) JUNE 10

Members of the Birmingham and District Branch of IHVE. Submission of technical data on *Vertical Temperature Gradients in Factory Buildings Heated by Unit Heaters.* At 21, Tothill Street, S.W.1. (Sponsor IHVE.) 6 p.m. JUNE 22

Professor Ernest Barker. *Social Background of Town Planning.* At 1, Grosvenor Place, S.W.1. 1.15 p.m. (Sponsor, TCPA.) JUNE 24

STAFFORD. *Living in Cities Exhibition.* At Frobisher Hall, May 27 to 30; Nelson Hall, June 2 to 9. (Sponsor BIAE.)

STOKE-ON-TRENT. *Town and Country Planning Association Conference.* 11 a.m. to 5 p.m. JUNE 5

NEWS

THURSDAY, MAY 27, 1943
No. 2522. Vol. 97

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

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

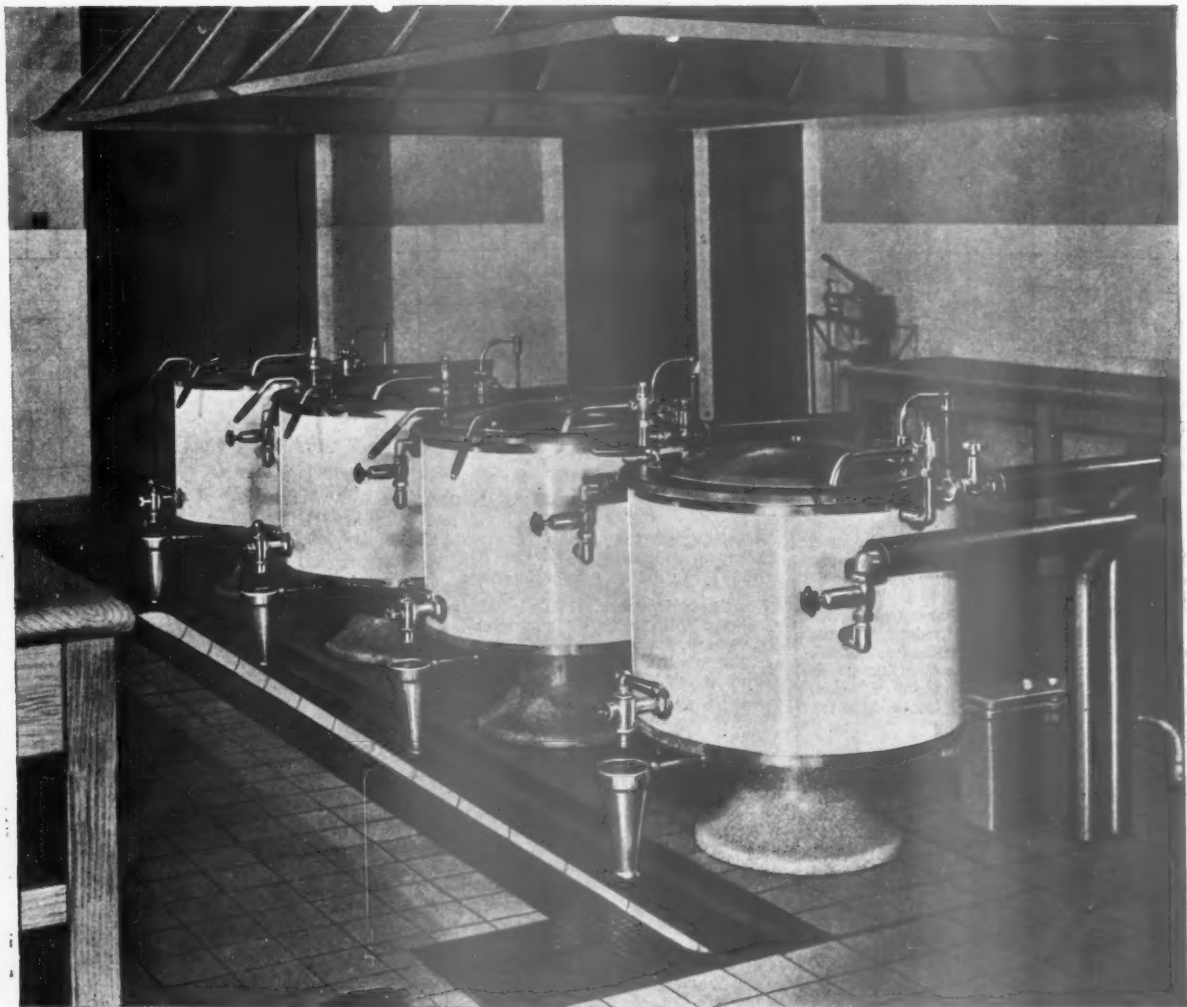
★★ means important news, for reasons which may or may not be obvious.

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

MOT, with the concurrence of MOTCP and the Secretary of State for Scotland, has appointed a committee TO GIVE ADVICE ON REPLANNING THE ROADS of towns and cities.

The Committee is to consider the design and layout most appropriate to various types of roads in built-up areas, with due regard to safety, the free flow of road traffic, economy, and the requirements of town planning, and to make recommendations. The members of the committee are: Sir Frederick Cook (chairman); Major H. E. Aldington, MOT, Deputy Chief Engineer; Mr. S. L. G. Beaufoy, MOTCP; Colonel W. S. Cameron, City Engineer of Leeds; Mr. W. R. Davidge; Major C. V. Godfrey, Chief Constable of Salford; Mr. R. A. Kidd, County Surveyor of Nottinghamshire; Mr. W. A. Macartney, City Engineer of Edinburgh; Mr. A. J. McIntosh, Chief Constable of Dumbarton; Mr. H. J. B. Manzoni, City Engineer of Birmingham; Mr. R. H. Matthew, Scottish Office; Mr. T. G. Newcomen, MOT Engineer; Mr. R. S. F. Edwards, Barrister-at-Law, (secretary to the committee). The main object in setting up the committee is to give expert advice on replanning the road system of towns and cities, more particularly those which have been widely damaged by air raids. Some local authorities have already begun making plans for redevelopment, and the work of the committee will therefore be pressed forward as rapidly as possible. It is felt that the dominant features of road planning and design should be traffic requirements, with special regard to road safety, and the recommendations of the committee will be framed with this end in view.

LARGE-SCALE APPARATUS FOR THE COOKING AND SERVING OF FOOD



View of part of the Principal Kitchen
in a large Canteen, featuring an
Installation of Boiling Pans

The complete Kitchen planned and equipped by

R. & A. MAIN LIMITED



LONDON AND FALKIRK

from AN ARCHITECT'S Commonplace Book

TWO COMELY MAIDS. [Sir P. Hurd in a debate on Housing in the House of Commons, May 4, 1943]. I would relate a little incident to illustrate the demand that exists for a superior kind of house. A farm labourer had two daughters, who were comely maids and were educated in the village school. They went on to the county secondary school. When they came home, one, wishing to advance herself, went to a big town and took an engagement in a millinery shop. Shortly after she fell in love with the driver of a motor-bus in the town. They married and settled in a council house with very good modern accommodation. Her sister, when she was 21 years of age, fell in love with a tractor driver on a farm, and when they came to discuss marriage she said, "Yes, but what sort of a house are we going to live in?" He said, "Mother is going away, and we will live in her house." She said, "That is not good enough for me. I want a modern cottage. I want a sink. I want a copper. I do not want to share a copper with the woman next door. I do not like her and she does not like me. I want a bathroom. I do not want to have to throw my slops out on to the garden. And I want a spare room where my sister can come and spend a week-end when she wishes. Also the time may come when we want room to put a perambulator." All these things imply the village spirit of to-day. The future mothers of the race demand something more than has been given to them in the past.

After thirty-one years' service, Mr. J. Williamson, F.R.I.B.A., COUNTY ARCHITECT OF GLAMORGAN IS RETIRING, having reached the age limit. Mr. Williamson is succeeded by Mr. Lawford R. Gower, F.R.I.B.A., deputy county architect.

The first job of the post-war reconstruction committee appointed by Richmond Council will be to DEFINE THE PHRASE POST-WAR RECONSTRUCTION in a little more detail.

Speaking at Erith, Mr. George Hicks, Parliamentary Secretary to MOW, said that RAILINGS HAVE BEEN TAKEN DOWN FROM THREE MILLION HOUSES. He imagined, there has been the same number of complaints from householders. We have not, he said, had to endure a scorched-earth policy in Britain and if we get out of the war at the cost of a lot of railings we shall have something to cheer about.

"I am always rather afraid when planning is talked about that an attempt is to be made to have our BUILDING AND DEVELOPMENT RESTRICTED BY OFFICIALS SITTING IN WHITEHALL: officials who have no knowledge whatever of what the countryside in this area is or ought to be."

This statement was made by Lord Harewood in opening an exhibition at Ilkley of the winning scheme, and all the other 77 sets of drawings, submitted by competitors for the Ilkley Replanning Competition. Lord Harewood said the exhibition gave evidence of planning on the right lines. We are not faced

with a plan which will be more suitable for the Sussex Downs, Devonshire or Aberdeenshire, but with schemes prepared with the object of developing a definite site. The assessors also have a knowledge of what development in Wharfedale should be, and he hoped all development schemes in the country would be conducted on the same lines as the one at Ilkley. In a reference to modern architecture, Lord Harewood said he finds that in a large number of lectures and articles great emphasis is laid on the importance of proportion. Very often the articles went so far as to say a certain building depended for its charm on proportion. He thought proportion is the ground work and the foundation of good architecture, but good architecture does not end there. An architect who limits himself to proportion is going to produce packing case architecture. Lord Harewood complimented Mr. Percy Dalton, of Ilkley, the promoter of the competition, on his enterprise, and also congratulated the winners of the first three prizes in the competition, Capt. Hubert Bennett, Mr. H. E. Burton and Lieut. Frank Booth. The winning design was illustrated in the JOURNAL for December 24, 1942.

Immediate plans for the scientific DEVELOPMENT OF THE COUNTRY'S COAL RESOURCES are outlined in a report by the Parliamentary and Scientific Committee of the House of Commons on Coal Utilization Research and the National Economy.

The Committee consists of 75 M.P.'s, a number of peers, as well as professors and technicians in every branch of science. The report is signed by Lord Samuel (president), Mr. E. W. Salt, M.P. (chairman), Professor J. A. Crowther, and Mr. M. P. Price, M.P. Among the recommendations of the committee are the following: Experiments must be made in combustion, coal for farm machinery, and potentialities for gas grids. A complete power station should be devoted exclusively to electrical generation research, and the possibilities of district heating should be inquired into. Gas and electric cookers can be greatly improved, and hot water must be supplied in all houses and flats. For every 1,000 scientists employed an annual income of £1,000,000 will be wanted. The committee envisages the employment of several thousands and an expenditure of several millions. The

Government should give liberal grants to universities and others expected to discover new coal techniques. We cannot afford to wait until after the war to prepare the necessary organization. It is highly important that a sufficient proportion of chemists, physicists, and engineers now in service departments should be guided after the war into coal research. The coal, gas, and electrical industries should be called upon forthwith to submit proposals for the rapid expansion of all research organizations, and such schemes should be subsidized by the Government.

Mr. Richard Coppock, chairman of the LCC and general secretary of NFBTO, addressing the confederation of Management Associations in London, said that his experience had been with what might be termed the ROUGH NECKS OF INDUSTRY.

The building industry had been one in which men were hired and fired in an hour. The technicians in the industry are, to put it mildly, he said, rather a poor lot. In production, the machine is the first consideration and not the human being. In the post-war period there will be more jobs than men and unless we have organization, scientific control, and a greater understanding of manpower and the human element, you will get a can-carry process again. Labour control is being carried out not by you but by the powers that be in secret memoranda that are transmitted to Labour Exchanges and called Private and Confidential.

In June, the Board of Management of the Edinburgh College of Art may award three scholarships of £120 for one year for A FULL-TIME COURSE IN TOWN AND COUNTRY PLANNING at the School of Architecture beginning on Oct. 1. Candidates must be British subjects, under the age of 30 on October 1, 1943, and should have completed a degree or diploma course in architecture, engineering or surveying. The last date for receipt of applications is June 1. Further particulars from the Registrar, College of Art, Lauriston Place, Edinburgh, 3.



C o t t a g e i n t h e A i r

These four Ministers who have been publicly entangled in the 3,000 agricultural workers' houses for the last four months are the main four out of six who have so far failed to produce one house, although they were aiming to start in April. As Lord Beaverbrook explained in the House of Lords: "There is Agriculture, which decides that the cottages are wanted; there is Health, which provides the plans; Works, which provides design and supply; Town Planning, which looks after the sites; the Scottish Office, the same; the Production, which is responsible for allocation. That makes six Ministries altogether for a three-roomed cottage, or two Ministers for each room." The poem by Sagittarius printed below from the *New Statesman and Nation* explains why, in spite of such activity, the agricultural worker's cottage is still in the air.

THREE thousand token cottage homes
On sites of rustic charm
Were planned to house, come harvest time,
Our agricultural arm;
First fruits of building policy
To meet an urgent need,
Sign of official energy
And Departmental speed.

The M O A's State cottages
Appeared upon the plan,
The M O W rounded off
What the M O H began;
But the M O S and M O L
Refused priority,
And the cottage homes were pigeon-holed
For the M O T C P

The Rural District Councils soon
Reported with alarm
The dearth of suntrap cottages
For workers on the farm—
No cottages come Lady Day,
None by Midsummer's date;
Come harvest-home, come Michaelmas,
Come Christmas, they were late.

Nor, yet come Doomsday will they build
Three thousand shadow cotts;
(With all mod; con; and comf. accomm;
For agricultural tots)
Till the M O W, M O A,
And M O H agree
With the M O S, and M O L
And M O T C P. SAGITTARIUS

The Co-operative Permanent Building Society is to combine with the National Federation of Housing Societies in PROMOTING THE FORMATION OF BUILDING SOCIETIES in all parts of the country.

In this connection, state the Presidents of both organizations in a joint letter in *The Times*, they will assist societies with the object of providing fuller finance for development than has hitherto been available. The letter states: both organizations, while working in close co-operation to this end, will, of course, remain separate entities. The way is open for other building societies to co-operate in this very important post-war housing work. The final point to be made known is the opportunity which exists to form a housing society. Industrial firms and large undertakings can in this way provide houses for their employees; several such bodies, realizing the effect on work and output, have already, in recent years, registered one or more societies. Likewise any constitutional organization, or any independent group of interested persons, can form a society and in this way assist in the building of houses and the provision of the homes which will be so badly needed after the war in every city, town and village. Here, then, is a simple scheme, which only needs to be placed before a thinking public to enable them to realize what a great opportunity is theirs to help with this vast problem of re-housing after the war, for which it is essential that preparations should be going forward now. The letter is signed by Mr. Albert Mansbridge, President of the Co-operative Permanent Building Society, Limited, and Sir Reginald Rowe, President, National Federation of Housing Societies.

Ten thousand pounds has been sent to the Bishop of Guildford by an anonymous donor for the PURCHASE OF THE GREEN SLOPES ROUND GUILDFORD CATHEDRAL.

Lord Onslow gave the original site of six acres and further land was bought after construction started. The latest gift increases the total land in the possession of the Cathedral to more than 50 acres. Exterior and interior views of the Cathedral appeared in the *JOURNAL* for October 30 and November 6, 1941. Mr. Edward Maufe is the architect. Building work has been stopped for the present owing to the war.

A circular has been issued by the War Damage Commission to highway authorities to explain HOW TO MAKE CLAIMS FOR WAR DAMAGED ROADS and highways.

The scheme does not apply to highways and roads within the London Civil Defence Region, for which arrangements are already in force. Broadly speaking, the scheme provides for payments by the Commission in respect of highways maintained by public expense either (1) by the reinstatement of the highway in the form in which it was immediately before the occurrence of the damage or with alterations, additions or omissions; or (2) for the taking of measures to provide facilities which the highway had afforded and which ceased to be available in consequence of the damage.

3,000 HOUSES

THERE is reason to hope that one or two of the very large number of rural families without proper housing may soon enjoy the result of intense efforts on their behalf by four large ministries. It is regrettable that so many should wait so long for so few, but in view of the pre-war neglect of agriculture, and the conflicting war-time demands on men and materials it is understandable.

A number of committees and not a few ministries have been exposed, almost naked, to the gaze of an unusually large and anxious public, who see in this apparently unimportant number of houses a possible guide to the official attitude in tackling future housing problems. Instincts of modesty and convention demand that they should be covered up again, but this is a time for wisdom before modesty and convention. Post-war problems give indication of being in most ways as complex as war-time ones, and there will be conflicting demands no less difficult to resolve. It is therefore in a spirit of firm and constructive criticism that this unusually large and anxious public should be encouraged to approach the problem. A fear that the stairs to the starry future may all be constructed of pre-cast concrete should not outweigh more important considerations.

When MOA announced last February the war-time emergency programme of 3,000 houses for agricultural workers, it was to meet a very urgent situation. The fact that this number fell so far short of the actual requirements was not seriously criticised, because it is impossible in war-time for anyone but the experts concerned to have accurate knowledge of competing demands on material and labour. Lord Beaverbrook, in a lively debate in the House of Lords on May 4, defended his motion urging the Government to provide forthwith 30,000 houses for agricultural workers. The debate touched on many important questions, but this motion was finally withdrawn because the Government answer that labour could not be spared, left little more to be discussed.

The main concern of architects has been the design and the organization for the production of these 3,000 houses. That the designs show so little recognition of recent technical progress is disturbing, but the organization for their production is far more so. It is difficult to see that any advantage can be gained by the separate participation of four ministries in the production of some small houses, and results seem to bear this out. The whole matter staggers all sense of proportion. One ministry should surely be capable of co-ordinating expert advice in recommendations for the planning, construction and appearance of a house; single men have been known to do it quite successfully. The excellent hostels which were recently completed for workers in other industries

show that technical and organizational ability is not lacking. It is therefore necessary to find where the ability has been dissipated or ignored. A review of the relevant procedure may reveal it.

In the past MOH has been responsible for all municipal housing; it produced housing manuals, latterly with the advice of the Central Housing Advisory Committee, as a guide to local authorities, and considered proposals by local authorities for housing schemes, being empowered to grant or refuse subsidies. In the present instance the Minister of Agriculture submitted his programme as an urgent appeal on account of the MOA scheme for ploughing-up and reclamation, and has been responsible for allocation. MOH produced the plans with the advice of the Central Housing Advisory Committee who had received exhaustive evidence. MOW, in view of restrictions on building materials, produced structural recommendations and perspectives. Sites which have been chosen by local authorities have finally to be approved by MOTCP.

At first sight the lack of co-ordination in the design of these houses might be put down entirely to multiplication and division of ministries, and although this fact is partly responsible, that is not reason enough to condemn it, as so many have been doing. The recognition of the necessity and the complexity of planning on a national scale makes the formation and expansion of ministries inevitable. The muddle has occurred because there is lack of training in combined operations and no national planning policy within which they can operate. Recommendations from ministries should combine all that is best in technical and organizational ability, but in this piecemeal multiplication of ministries the problem of the design of houses which should be considered as one, has been divided in an entirely disproportionate manner, with the most unfortunate results. It can only be hoped that this has proved a lesson and that the specialists necessary to deal with such problems in future will be accommodated under one roof.

Meanwhile, until we have a national planning policy within which the powers and functions of the ministries are regulated according to the needs of the community they are to serve, these problems will continually recur. Much valuable work has already been done to outline proposals for the future needs of the community, but it so far awaits official recognition in the necessary measures by which the proposals may be implemented. The Town and Country Planning (Interim Development) Bill provides a necessary framework, but it is built on mud which will provide fresh opportunity for the age-old game of slinging it about, unless we see that it soon dries to provide a firmer base. The 3,000 houses should have made it quite clear that to be able to tackle the 4,000,000 at the end of the war, along with other problems of equal importance, we must work out a National Planning Policy now.



The Architects' Journal

War Address : 45, The Avenue, Cheam, Surrey

Telephone: Vigilant 0087-9

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

TELLING THE PEOPLE

I had an hour to spare in Piccadilly and paid a second visit to Burlington House, and there in the Replanning room a poster caught my eye. It read :

BUILDINGS LIKE THESE CONTAIN 100,000
SQUARE FEET MORE OF LETTABLE FLOOR
SPACE AT 5/- PER SQUARE FOOT—OR £25,000
PER ANNUM—THAN BUILDINGS LIKE THESE.

★

The two THESE's had arrows running from them to two representations of the same area near St. Paul's—an area of about 650 ft. by 500 ft. The first representation, a bird's-eye perspective, showed the whole of that very large area occupied by a single neo-classic hollow-square business block. 90 per cent of the site was built over at basement level, 60-70 per cent at ground-floor level and about 50 per cent above.

★

The second representation was just a pre-war aerial photograph of the area, which contained railway tracks, half a dozen streets, 10-20 separate blocks of buildings, and 20-50 buildings. The arrow aimed at this conglomeration might have been taken as pointing at the whole of it or at a single L-shaped veteran within it.

★

But, this apart, it is admirable that the Royal Academy should not allow any old-fashioned stuffiness to prevent its telling people that comprehensive large-scale redevelopment of city areas will be commercially more profitable than replacement of

a jumble item by item. And I for one welcome their doing it in a way calculated to catch and hold the attention of City landlords.

★

This is getting down to brass tacks, and the wording of the R.A.'s poster contains nothing *infra dig*. There was nothing about *orders taken at the door* nor anything objectionable of that kind.

POET'S CORNER

I have selected for *Poet's Corner* this week an extract from Herbert Farjeon's prologue delivered by Dame Sybil Thorndike at the re-opening of the Theatre Royal, Bristol, on May 11. It is, I think, rather better than the prologue David Garrick wrote and delivered at the first opening in 1766.

★

Treasures like this—if we should slight or
Can we condemn the foe who'd bomb and
burn 'em?

So, when Sir Kingsley told us that for staving
Defeat there was no saving grace like saving,
We took him at his word, and, strictly loyal,
For England's honour, sav'd—the Theatre
Royal.

Nay, we did more: with one eye on production,
We boldly led the way to reconstruction,
Till, of our oldest theatre, 'twould be truest
To say, it's both our oldest and our newest.
Here, then, it stands: unique and unpretentious;
Lawfully licensed, and yet not licentious;
Coy but inviting; chaste but full of feeling;
Unscath'd from floor to star-encrusted ceiling.

REILLY WEEK IN LIVERPOOL

Professor C. H. Reilly emerged, a few days ago, from his Georgian retreat at Twickenham and paid a visit to Liverpool, where he was given a tumultuous welcome from the students, and a more sober but equally warm one from the town at large. It was, I believe, entirely accidental that his visit last Friday corresponded with Wings for Victory Week in Liverpool, and also with the appearance of an old lady from the music halls with a somewhat similar name to his.

★

What is really remarkable is the fact that a generation of students from the Liverpool School, who were almost unknown to him, had established a magical contact within a few minutes of his arrival at Lime Street Station. Drawn in a landau from the station, presented with flowers, surrounded by students in



Mr. Wilfrid Leighton, the Chairman of the Preservation Appeal Fund Committee for the Theatre Royal, Bristol, which re-opened a fortnight ago as the first State theatre in the Kingdom. Astragal described the theatre last week and this week publishes an extract from the prologue delivered at the opening ceremony. Mr. Leighton is also Chairman of the Council for the Preservation of Ancient Bristol which sponsored the appeal. Good work, Mr. Leighton.

costume and by a crowd large enough to stop all the traffic, and greeted by a fleet of girls on bicycles who sped down Mount Pleasant to make a guard of honour, the Professor must have felt that he had really come home. Nothing like it has enlivened the drab war-damaged streets for quite a time.

★

In Abercromby Square carpets were spread and every window had its cheering figure. The Prof., protesting loudly that he was not allowed by his doctor to speak, spoke—to an enthusiastic audience in the school, partly composed of members of the Polish Faculty of Architecture, who were heard to murmur that they had not conceived the English capable of such *élan*. Hordes of children gathered; the knowledge that there were cups of tea and buns inside the building, broke down the last barriers of restraint, and a public invasion followed. Acknowledging this welcome with regal gestures of the hand, the famous black hat and ivory-headed cane was then escorted to Bedford Street and the Students' Architectural Society.

★

On Monday at the Liverpool Luncheon Club, and again at a packed public meeting at Radiant House under the auspices of the

Civic Society, Professor Reilly was enthusiastically received and eventually confessed—what all had suspected—that his visit, far from taxing his strength, had done him good. On Friday the annual dance of the School of Architecture no doubt found him in cloak and turban, as the guest of honour. The Poles were responsible for the decorations, at which they are thoroughly expert. It is safe to predict that Reilly week in Liverpool will be remembered by its citizens for many a year.

IT'S THAT ARCHITECT AGAIN

How many architects, I wonder, were startled the other night from that state of bemused happiness which affects all listeners to ITMA to hear a member of their profession exchanging cracks with Tommy Handley?

★

An architect in the ITMA programme! Truly a significant occasion, for he could hardly be in more celebrated company. Mrs. Mop and Mr. Bookem, the Colonel, the Postcard Seller and their colleagues are perhaps the most famous and best-loved personalities in this country to-day—more lifelike even to many people than such reputedly real figures as, say, the Dean of Canterbury or Sir Kingsley Wood.

★

True the appearance was for a moment only, the architect made no astoundingly witty remark, and his part was played (of course) by a foreigner. But if Tommy Handley employs an architect to design his new hydro when ten years ago the script-writer would surely have sent for a builder, who knows how many will be encouraged to follow his example?

★

Thus one by one are opening those gateways of films, radio and journalism which lead straight into the Great Big Heart of the British Public. Less faint in our ears to-day is the thick and fateful thunder of its beating.

★

Let us cling then to the bandwagon while we have a foothold. "After you Maufe . . ."
"No. After you, Ansell."

ASTRAGAL



LETTERS

Frederick W. Hagyard, L.R.I.B.A.

Leslie Mansfield

Arthur G. Edwards, L.R.I.B.A.

Gilbert Gardner, F.R.I.B.A.

Farm Workers' Cottages.

SIR,—The type plans for agricultural workers' cottages published in your JOURNAL for March 25 show nothing fresh in design either in planning or from a technical point of view, and there appears to have been no real scientific approach to the subject.

Consider, for instance, the non-parlour type.* Here, there are too many wasted corners and spaces to make it economical in materials. The greatest waste, of course, is the covered way between the cottage and the outbuilding.

Likewise the spaces allocated for the entrance hall and for the first floor landing are badly arranged and they take up more space than is necessary. The w.c., the only one provided, is combined with the bathroom, which in itself is too narrow. The kitchen is also too small and no thought appears to have been given to its arrangement.

The fireplaces on the first floor are unhappily placed, not only in relation to the rooms, but uneconomically situated in the centre of the house, when a considerable part of the brickwork could have been absorbed into the party wall.

The outbuilding is not suitable for the needs of the country worker. Apparently the utility space mentioned by the RIBA Report and so necessary to the life of the countryman has not found favour with the MOH, who consider that the old-fashioned washhouse with equally out-of-date copper is all that is necessary to dry wet clothes and do the multifarious jobs required of it.

It is also doubtful whether, with such thin walls and no heat, the storage space would be of any use for the storage of fruit and vegetables necessary in the country owing to the likelihood of frost. A pram would presumably be kept in the store, but it would be a work of art to manoeuvre it there through the door

provided. And there are many other smaller but perhaps none the less important points, which should have been considered.

A glance at the accompanying plan will show not only a greatly improved arrangement in planning but a considerable saving in material over the Ministry's plan. The rooms also are all larger than provided by the Ministry's plans and the space is much more workable.

FREDERICK W. HAGYARD

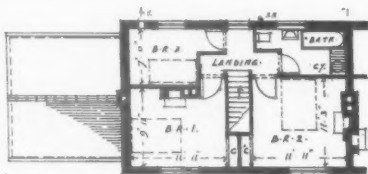
SIR,—Is it not possible for you, through the medium of your JOURNAL, to take offensive action against those who are responsible for putting before the public lamentable contributions to the problem of housing farm workers?

I do not wish to claim any superior knowledge of planning, but I do submit that in the post-war period there were produced many plans for workers' cottages which were far in advance of what is now being issued for the guidance of architects and others concerned with the erection of 3,000 houses for farm workers. This business of cottage design is one problem for the application of a formula to which requirements and costing are most closely related, rather than an opportunity for aesthetic expression. I am convinced that proof of this contention would emerge out of a dispassionate study of the work done, last time.

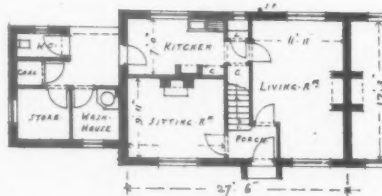
A place to live in must first of all contain that number of compartments compatible with the social status of the occupant and secondly those compartments must be of an area adequate for the purpose. It is not necessary to argue about the area of a w.c., a bathroom, or even the economic space required for a stairway. These things are known and to those with the skill to use the knowledge, form the basis of a formula with which to solve what after all is purely a geometrical problem.

General conditions must vary, but the basis remains the same whether the enclosures be formed in brick or stone, whether the roof be flat or pitched. In short it is from efficient packing of cells that success will come.

Why is a front door necessary? Why not one main entrance? Why is an L-shaped living-room allowed, or a bedroom provided in which furniture cannot be properly arranged. Or again a larder permitted to have a view down the garden and face probably east or west or perhaps south? Is not the essence of cheap building construction found in walls over walls and cost kept down by saving feet if not inches when the saving is to be multiplied by three thousand or more? Perhaps I am

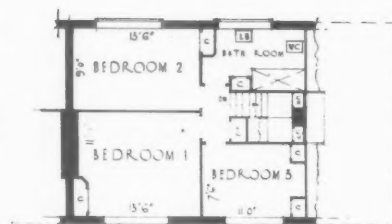


FIRST FLOOR PLAN.

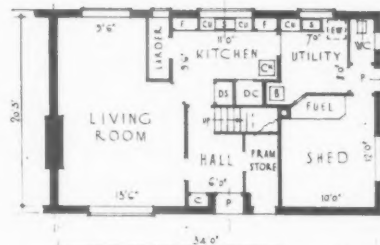


GROUND FLOOR PLAN

Plans for Farm Workers' Cottages by Arthur G. Edwards.



First Floor Plan



Ground Floor Plan

Plans for Farm Workers' Cottages by Frederick W. Hagyard. Reference: C—Cupboard, Cu—Cupboard Under, DC—Drying Cupboard, LC—Linen Cupboard, DS—Dry Store, B—Boiler, Ck—Cooker, S—Sink, F—Fitting, P—Porch, LB—Lavatory Basin, EW—Electric Washer.

confusing the issue. My point is that the occasion demands co-operative effort and study of what has been done in the light of what is needed to-day. It is not an opportunity for the exercise of misplaced ingenuity directed to the benefit of the individual whether he be occupier or designer. The problem is national and the benefit should be universal.

LESLIE MANSFIELD

SIR,—With reference to the plans of the parlour type cottages illustrated in your issue for March 25, it has occurred to me that some modifications might be suggested.

These are indicated by the accompanying ground and first floor plans and are as follows:—

Ground Floor:—Position of front door altered slightly as the space behind it seems useless. A small fireplace (open) appears to be required in the kitchen, with consequent new position for the sitting room fireplace and in bedroom over. If such a fireplace is deemed to be unnecessary the position of the other fire-places would remain unaltered. Alter the position of the wash-up in the kitchen to shorten the service piping from cylinder, etc. (see first floor plan). Provide a separate coal-house, although by doing this the store is made smaller.

First Floor:—Replanned so that the bathroom is over the kitchen where the water is heated. This gives a much improved grouping of the plumbing which seems to be necessary in the circumstances brought about by solid floor construction. The re-planning means a very slight loss in floor space in the bedrooms, which I think is more than offset by the better arrangement of the bathroom and cylinder cupboard.

ARTHUR G. EDWARDS

Bridgend.

Telegram

Correspondent Notley suffering one pipe mind. Treat as for Bee in Bonnet. Oxford.

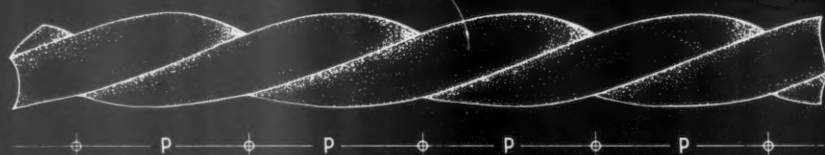
GILBERT GARDNER

*See type NP11, page 348.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

HIGH TENSILE STEEL REINFORCEMENT FOR REINFORCED CONCRETE CONSTRUCTION

square section high tensile steel bar
work-hardened by controlled twisting



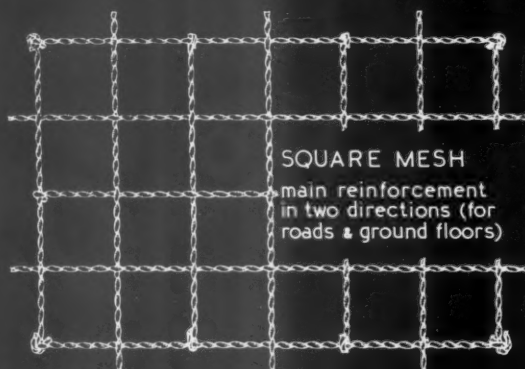
specified
size



section

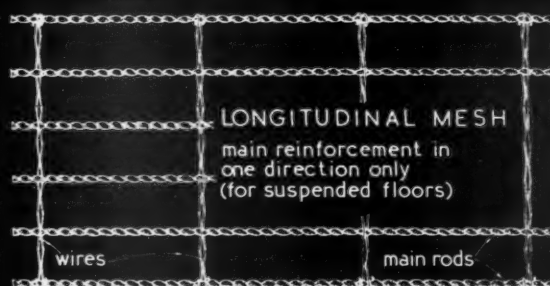
DETAIL OF TYPICAL SQUARE GRIP BAR

pitch of twists varies with size of section



SQUARE MESH

main reinforcement
in two directions (for
roads & ground floors)

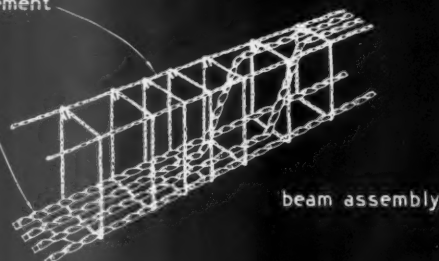


LONGITUDINAL MESH

main reinforcement in
one direction only
(for suspended floors)

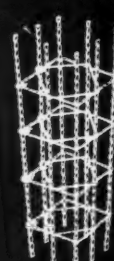
STANDARD SQUARE AND LONGITUDINAL MESHES

main
reinforcement



beam assembly

main
reinforcement



column assembly

TYPICAL ASSEMBLED UNITS

SIZE OF SQUARE BAR	6g	5g	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	
CROSS SECTIONAL AREA	0.037	0.045	0.063	0.098	0.140	0.250	0.391	0.563	0.766	1.000	1.266	1.565	sq. ins.
TENSILE RESISTANCE (at 25,000 lbs. per sq. inch)	925	1,125	1,575	2,450	3,500	6,250	9,775	14,075	19,150	25,000	31,650	39,125	lbs.
TENSILE RESISTANCE (at 27,000 lbs. per sq. inch)	999	1,215	1,701	2,646	3,780	6,750	10,557	15,201	20,682	27,000	34,182	42,255	lbs.
TENSILE RESISTANCE (at 30,000 lbs. per sq. inch)	1,110	1,350	1,890	2,940	4,200	7,500	11,730	16,890	22,980	30,000	37,980	46,950	lbs.
WEIGHT PER LINEAL FOOT	0.126	0.153	0.213	0.332	0.478	0.85	1.33	1.91	2.60	3.40	4.304	5.32	lbs.

CHARACTERISTICS OF SQUARE GRIP WORK-HARDENED STEEL BARS

Information from The Square Grip Reinforcement Company Limited.

INFORMATION SHEET: REINFORCED CONCRETE CONSTRUCTION.
Sir John Burnet Tait and Lorne Architects One Montague Place Bedford Square London WC1

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INFORMATION SHEET

• 897 •

REINFORCED CONCRETE CONSTRUCTION

Product : Square Grip Reinforcement.

General :

This Sheet deals with the general characteristics of Square Grip reinforcement for use as tensile and compressive reinforcement both in situ and precast concrete construction.

Manufacture and Characteristics :

Square Grip reinforcement is made from twisted square section steel which has been work-hardened to increase the yield point and ultimate strength. The adhesion of this reinforcement to concrete, due to its special shape and surface characteristics, is greatly superior to that of round mild steel bars.

The work-hardening process is carried out by specially controlled machinery.

Mechanical characteristics for single bars are given in the table on the face of this Sheet.

The tabulated properties apply to bars as used for reinforcement in foundations, columns, beams, floors, walls, and roofs. The tensile resistances are calculated at 25,000, 27,000, and 30,000 lb. per square inch safe working stress. Tensile resistances at any other stress are proportional to the tabulated resistance.

Square Mesh :

Consists of main reinforcement in two directions. The bars are interwoven, and alternate bars are turned over at the edges. The rods are held rigidly in position by the locking action of the twists. No joints are welded. Used for ground floors and roads. Maximum size, 24 ft. by 8 ft. Delivered flat—not rolled.

Longitudinal Mesh :

Consists of main reinforcement in one direction only. The rods are held in position by twin crimped spacing wires interwoven. All spacing wires are knuckled at the edges. Used for suspended floors, walls and roofs. Delivered flat—in all sizes.

Assembled Units : Single Bars :

Square twisted bars in standard commercial sizes and lengths are available in complete units for beams and columns, also for special precast concrete work.

The mechanical properties of square and longitudinal mesh fabric, slab thicknesses for various loads and notes on the application of mesh reinforcement for suspended floors, ground floors and roads will be given in a later Sheet.

Issued by : The Square Grip Reinforcement Company Limited.

Addresses : Tensile Works, Windmill Road,
Sunbury-on-Thames.

Bath Road, Bristol, 4.

Trading Estate, Gateshead-on-Tyne.

Telephones : Sunbury-on-Thames 2772-3-4.
Bristol 77401-2.
Low Fell 76081-2.

Although there may be many reasons for the astounding delay over so few houses, the outstanding reasons are undoubtedly the administrative complications which have arisen within half a dozen departments all dealing with the same issue. In relation to the 3,000 houses this may not be important but if accepted as normal practice it might easily endanger the future programme for the 4,000,000. The complications—and the houses—are reviewed below under PROGRAMME, PLANNING and CONSTRUCTION, and the official attitude is given in the HOUSE OF LORDS DEBATE.

FARM WORKERS' HOUSES

A CRITICAL SURVEY

ON February 4 MOH issued a memorandum and type plans for the guidance of local authorities in the proposed erection of 3,000 agricultural workers' houses in England and Wales.

ON March 11 MOW issued a memorandum on materials and design supplemented with working details and perspectives which had been prepared in consultation with MOH, MOTCP and MOA.

IT was subsequently stated that it was the aim of MOH to start building the first batch in April.

BY May sites had been selected for 2,960 houses, but no tenders had been received by MOH.

Criticisms of the PROGRAMME

There have been several proposals put forward for the provision of many more than the 3,000 agricultural workers' houses proposed by MOA because of the desperate need of agricultural workers and the importance of agriculture as part of the war effort.

The Association of Building Technicians emphasized this need in a statement in which they suggested that enough houses should be made available to alleviate the worst shortage, pointing out that it is proposed to build these 3,000 houses "at a standard which is a third higher in its demands on labour and materials than that usual in peacetime, requiring a rent about four times the normal for rural workers. It is proposed to provide permanent houses which are roughly twice as large as those built in tens of thousands for urban war workers. In peacetime high standards would be praiseworthy, but they defeat their own end if they can only be applied to a ludicrously small number of families."

The statement follows with a suggestion of three other measures for alleviating the shortage. "Firstly, rural workers' cottages, which have been taken over by non-essential users—and those are mainly in excellent repair—should be restored to agricultural tenants. Rural District Councils, knowing the locality, could certainly carry this out more quickly than they could build new cottages. Secondly, the policy which has rightly been adopted for urban housing, an intensive programme of repairs and re-equipment, should be applied to rural cottages also. Thirdly,

new buildings if provided at all should be on a sufficient scale to make a real improvement in the situation and, therefore, of necessity, should be economical in design, using the available techniques of labour-saving construction and compact services which are ignored in the present plans. Such stringent war-time standards should not be countenanced a moment longer than the urgent situation demands, but it is not now possible to anticipate better peacetime living conditions."

The House of Lords debate has made it clear that these houses are being provided for a particular category of agricultural worker, the "cattle men" and men with special qualifications who receive a wage of £3 15s. to £4 a week and sometimes more. This present scheme cannot therefore be looked upon as an attempt to tackle the main problem of agricultural workers' housing; but there is need for every consideration to be given to this main problem in view of its extreme urgency.

A table is given below indicating the distribution of the 3,000 houses between the counties of England and Wales. We have received many alternative designs and we would suggest that all those whose constructive proposals have been sent to the ARCHITECTS' JOURNAL should approach their local authority in districts where the houses are being erected, in view of the fact that the MOH plans are only advisory. MOH have recommended that architects should be employed wherever possible, and since they alone are trained to do the job, we hope that this recommendation will find support.

BEDFORD	20	HEREFORDSHIRE	52	SHROPSHIRE	84	YORKSHIRE (W. RIDING)	80
BERKSHIRE	70	HERTFORDSHIRE	54	SOMERSET	80	WALES.	
BUCKINGHAMSHIRE	50	HUNTINGDONSHIRE	26	STAFFORDSHIRE	68	ANGLESEY	16
CAMBRIDGESHIRE	36	KENT	54	SUFFOLK (EAST)	46	BRECON	20
ISLE OF ELY	26	LANCASHIRE	60	SUFFOLK (WEST)	30	CAERNARVON	26
CESHIRE	50	LEICESTERSHIRE	60	SURREY	26	CARDIGAN	30
CORNWALL	66	LINCOLNSHIRE	242	SUSSEX (EAST)	22	CARMARTHEN	30
CUMBERLAND	56	NORFOLK	106	SUSSEX (WEST)	20	DENBIGH	30
DERBYSHIRE	48	NORTHAMPTONSHIRE	70	WARWICKSHIRE	80	FLINT	16
DEVONSHIRE	120	SOKE OF PETER- BOROUGH	4	WESTMORLAND	30	GLAMORGAN	34
DORSET	40	NORTHUMBERLAND	76	WILTSHIRE	100	MERIONETH	16
DURHAM	36	NOTTINGHAMSHIRE	64	WORCESTERSHIRE	64	MONMOUTH	30
ESSEX	76	OXFORDSHIRE	74	YORKSHIRE (E. RIDING)	66	MONTGOMERY	30
GLOUCESTERSHIRE	60	RUTLAND	12	YORKSHIRE (N. RIDING)	88	PEMBROKE	30
HAMPSHIRE	80					RADNOR	20

Criticisms of the PLANNING

FLOOR AREAS

The total floor areas of pre-war non-parlour type houses ran from 767 to 790 square feet plus 50 square feet for outbuildings, whereas the MOH type plans recommended for the 3,000 farm-workers' houses run from 985 square feet to 1,036 square feet overall. The Housing Centre plan illustrated below has a floor area of nearly 900 square feet without the wash-house.

GENERAL PLANNING

A short study of the MOH type plans presented here reveals many inconvenient points. The entrance to the stores in all three types is very awkward for manœuvring a pram. A front door and a back door should be provided in all cases. Little thought seems to have been given to the working arrangements in the kitchens, the lighting in NP I being particularly bad for a preparation table. It should not be necessary to place the larder in types NP I and NP II so far from the back door, nor across the hall from the kitchen. The placing of doors on both sides of the living-room fireplace in NP II is bad. The wash-house in NP I and NP II is very badly placed in relation to the kitchen; the relation of the working units in P IV is far better. The bathrooms in all cases are extremely narrow, especially if children are to be washed in them. There is a welcome absence of winders on the stairs, but the landing space in P IV is very wasteful. Adequate cupboards should be provided in all the bedrooms, particularly in view of the furniture shortage. The distance from back-boiler to the hot water tank, between which there would be an appreciable heat-loss, could well have been reduced. The fireplace in bedroom 1 in NP I and NP II and bedroom 2 in P IV is not well placed, and there seems little to justify facilities for coal fires in two bedrooms.

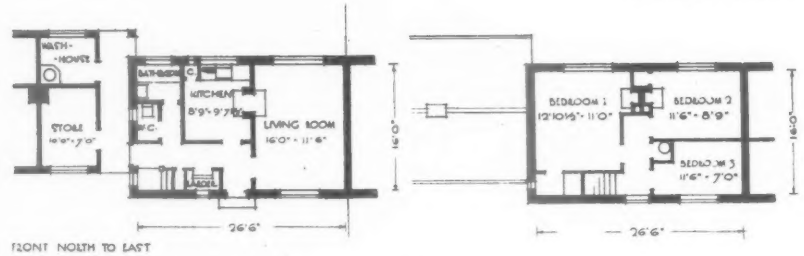
HOUSING CENTRE PLAN

The Housing Centre plan is a solution that does not, perhaps, satisfy the demands of the Federation of Women's Institutes so exactly as the MOH plans, but it appears to incorporate a better balance between war-time possibilities and the countrywoman's needs, and to achieve a very efficient solution to the circulation problem. The planning and relationship of the rooms would make it a happier house to live in than the seemingly inhibited MOH houses, which incorporate many ideas, none of which seem to want to live together.

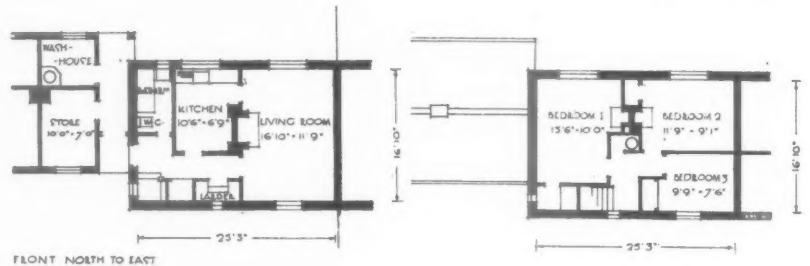
APPEARANCE

The time to start discussing appearance is when the correct planning and structural approach has been achieved, and this is so far from the case with the MOH houses that criticism would be of little value.

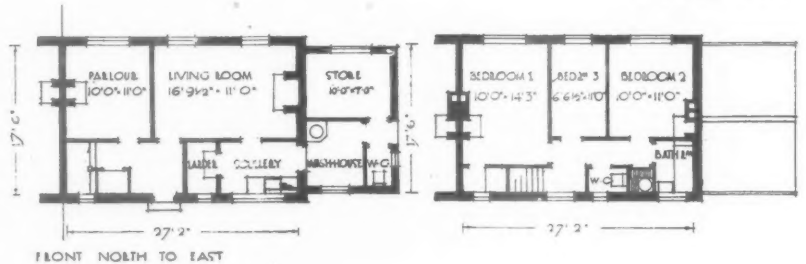
TYPE NPI



TYPE NP II



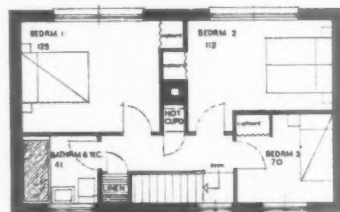
TYPE P IV



THE HOUSING CENTRE PLAN

(From the exhibition, *Living in the Country*).

A separate open fire in the Living room & a Cooker in the Kitchen may be preferred to the back-to-back range. If there is cheap power for an electric or gas cooker an ideal type boiler could heat water & radiators.



FIRST FLR

A central flue keeps the house warm - fireplaces can be built in either bedroom 1 or 2 but would cut down cupboard space. Electric fires or radiators require no extra space.

Dirty boots can be left in the Wash-house. The back porch provides a covered way to the Wash-house, W.C. & Shed.

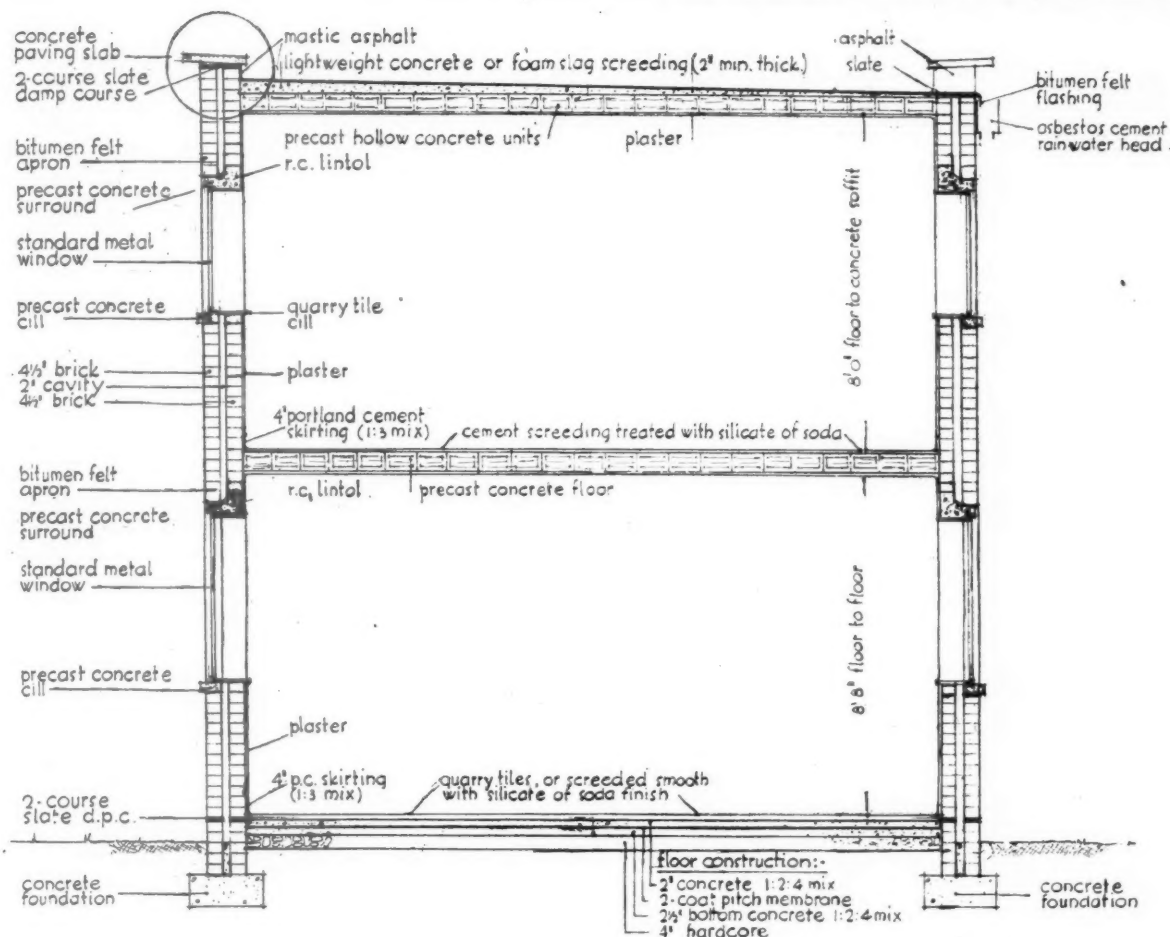


GROUND FLR

The Kitchen is large enough for normal meals. Formal meals could be served in the Living room.



Scale in feet 0 10 20 30 40 50



Section of flat roof type showing construction proposed by MOW.

MOW MEMORANDUM ON MATERIALS AND DESIGN

MOW emphasizes that timber is in short supply, and points out that as long as modern materials are used with the same skill that old craftsmen applied to theirs, there is no reason why our buildings should be inferior to theirs in quality and appearance.

It hopes that pitched roofs, where employed, will be mainly of timber construction, but that flat roofs should be used where surroundings make them admissible. No timber will be available for floors (except possibly for parlours) or for windows or window frames.

Various suggestions are made as to the use of concrete. Wherever concrete is used externally in place of timber those features should be developed in such a way as to harmonise with the village setting.

Timber, labour and transport must be carefully studied with a view to the greatest economy. Non-essential features cannot be approved. All material, as far as possible, should be obtained in the locality.

Criticism of CONSTRUCTION INSULATION

Insulation does not seem to have been very closely considered in these proposals, probably on account of costs, but this is not always the wisest economy. If the roofs were to be carried on the outer skin walls, gas concrete slabs could be used for the inner skin, providing better sound absorption. Sound insulation is particularly important in the case of parlours, which, it has been suggested, should be let to lodgers.

Thermal insulation in the roofs could be improved by using such materials as foam slag or light-weight pumice blocks, as it might also be in the ground floors, in view of the calculated heat loss through the average ground floor and the need for fuel saving.

REDUCTION OF COST

R. V. Boughton, A.I.S.T.R.U.C.T.E., of whose proposals the following are an outline, calculates that a saving can be made per house of not less than £35, and if similar revisions apply

to various types of planning for the 3,000 houses, a total saving of £105,000 may be effected.

Outer walls: as proposed these are four times too strong; lighter forms of floor and roof construction would make them five to six times too strong. If half-brick and concrete, hollow block or fairfaced inner skin were used, walls would be 8½ in. instead of 11 in. thick and would be from 2½ to 3 times too strong; this reduction would affect foundations, area of roof, coverings and copings and area of building overall.

Fireplaces: reduction would be possible in several cases by corbelling first floor fireplaces and reducing brickwork projection and hearth in living rooms.

Roofs: flat roofs could be set sufficiently out of level to provide a fall in the main structure of the roof, avoiding the extra cost of thick screeding or fine concrete to form falls.

Particular points have been emphasized in our criticism but the MOH structural proposals lack generally that ingenuity which wartime difficulties demand.

**Verbatim extracts are printed below from the House of Lords May 4 debate on agricultural workers' houses. It is encouraging to find a lively interest taken in housing particularly in regard to economic rents and the question of temporary buildings, both of which will so closely affect future large-scale housing programmes.*



HOUSE OF LORDS

Lord Addison rose to call attention to the necessity for making progress with the provision of houses for agricultural workers.

The noble Lord, Lord Beaverbrook, has a Motion on the Paper proposing 30,000 and nobody would rejoice more than I if that motion could be accepted.

I gather that the real reason for the small number proposed is the stringency of supply of labour and materials during the war period, and that being so we accept what we can get with pleasure. But it is of vital importance that this matter should be dealt with in the right way and that we should approach this matter in a manner that will not lead us into future difficulties.

On the basis of these problematical conditions—first as to shortage of labour, which is certain, second as to the unknown cost and the difficulty of the transport of materials, and third as to the unknown cost of fittings—they (the country builders) are asked to send in a price. What would any sensible person do in such circumstances? Of course he would send in a price that would cover him against risks, and no one would blame him for doing so. In other words, you may fully expect that the tenders will be pretty high.

I have taken some pains in trying to ascertain what one of the more popular types or rather one of the least criticised types of these non-parlour houses, is likely to cost. I will give your Lordships what I consider is an underestimate. I do not think that we shall get estimates of much less than £900 to £950. To that will have to be added the cost of fittings, the cost of land, if not already acquired, and the entirely problematical cost which will arise owing to labour difficulties. Those two items of cost—fittings, and the costs under the Essential Works Order—are likely to be not less than £80 to £100 each, and that will bring the cost of a house up to about £1,100.

Against that, there will be the subsidy of £12 a year for forty years, and the grant from the Ministry of Agriculture of £150. If you take those two contributions into account the rent of these cottages—which, I ask your

Lordships to bear in mind, are for agricultural labourers—works out in this way, that in a cheap district the rent and rates for a house costing £1,000 will be 13s. 4d. a week, for a house costing £1,050 they will be 14s. 2d., and for a house costing £1,100 they will be 15s. a week. That is where it is proposed to start. I wonder what the agricultural labourer will say, when he finds this out. Agricultural labourers, like everybody else, ought to have wages which will enable them to pay a proper rent for the houses in which they live. That is the only self-respecting basis on which to work. It will play havoc with agriculture if at the start—and I emphasize the words, "at the start"—the agricultural labourer is faced with a rent—if it is to be an economic rent—of 13s. to 15s. a week.

What I am pointing out is that when (after the last war) houses reached a price of £1,000 to £1,200 a piece, the fact that it obliterated me for the time being is a mere detail; the point is that housing was stopped. It stopped houses being built. Yet that is where you are proposing to begin!

I do implore the Government not to make the mistake which we made last time. I implore them not to repeat the errors of the past, because, if they do, there will be no houses for agricultural labourers.

At all events one thing I am sure of: the method adopted at present is completely wrong. I put this Motion on the Paper knowing as I do that the methods proposed may lead to these houses, required most urgently, costing a sum which will prejudice the whole effort. This prejudice we must not risk in the interests of the vital necessities with which we are called upon to deal. I beg to move.

Lord Beaverbrook: It is my object to get 30,000 farm labourers' cottages. Three thousand are conceded, but it must be said that 3,000 is a dim and fading hope for the harvest of 1943. But it is my desire to step up production, both for the 3,000 cottages which have been conceded and also for enlarged plans. I know very well, and others do, that the difficulty at the bottom is labour, and labour only. My noble friend Lord Portal must acknowledge that there is plenty and plenty of material, material of every type required for these cottages. I do not hear a denial from him, so I will conclude that it is admitted that the only bottleneck is labour.

Lord Portal: (The Minister of Works) Timber.

Lord Beaverbrook: Timber! My noble friend is building houses and not making very much use of timber, so timber would only be a method of dodging the issue, not really facing it. There seem to be huts for everybody but the agricultural labourer. But the cottages represent war work just as much as the huts for the ground staffs, and the agricultural labourers are just as much entitled to consideration as the ground staffs in the Army or in the Air Force.

So I say that the Government, and particularly the Ministry of Works and the Ministry of Health, have made a complete failure so far

as providing cottages for the agricultural industry is concerned. And why this failure? I got a message yesterday from a friend who sits in another place and the message he sent me was this: "You are speaking to-morrow on agricultural cottages. The failure is no fault of poor old Ernie, but the fault of the Building Priority Committee who will not let him have labour or material to go ahead." That is the message sent to me by one of his own friends.

When I was a very young man I was what was called a "drummer"—perhaps not the same thing as in the Army. That is the term in my native Province which is applied to those who have goods to sell and who travel up and down the countryside selling their wares. In my drummer experience we were divided into two classes—the substantial drummer and the intangible drummer. The substantial drummer sold flour, potatoes, shoes, matches, and so on, and the intangible drummer sold fire insurance, life assurance, bonds, and other like wares. Those of us who were selling intangible things were called "blue-sky drummers." I look upon the Minister of Health as the "blue-sky" Minister, but I am bound to say there are six Ministries involved in his bit of blue sky. There is Agriculture, which decides that the cottages are wanted; there is Health, which provides the plans; Works, which provides design and supply; Town Planning, which looks after the sites; the Scottish Office, the same; and Production, which is responsible for allocation. That makes six Ministries altogether for a three-roomed cottage, or two Ministers for each room.

I have produced a post-war programme. It is not mine, but it is one to which I subscribe, and I want to give this programme to the House in the hope that it will find a great deal of favour. Here it is: First, build 75,000 cottages now, not 30,000, and another 50,000 directly the war is over. Only by satisfying the demand for agricultural cottages can you secure the satisfactory future development of agriculture.

Your Lordships laugh at my wanting to adopt this programme. It is the 1918 blueprint which I have just read. It is the 1918 programme of the blue-sky Ministry of that day. Why bother about Committees now? Why not adopt the same findings as those Committees and put them into effect? Needless to say, I am looking forward anxiously to the answer from the Government to this plea of mine for 30,000 cottages. I do not want to censure the Government—far from it; I have no such object. I merely wish to show the Government how earnestly and anxiously the House desires a programme of 30,000 cottages in the hope that something will be done.

The Earl of Dudley: There is no doubt whatever in the minds of those who are authorities on housing matters that dwellings built in the inter-war years are proving to be inadequate both in space and equipment for the growing needs of the people and that a higher standard is essential if we are to keep pace with the modern outlook and ideals that now obtain. This is particularly true, I think, in the case of rural housing where the outlook of the agricultural worker has been widened to an even greater extent than is the case with the urban worker, by the accessibility of all those amenities of modern life which were previously denied to them.

It must be remembered also that the existing rural cottages have been built in the main for agricultural workers in receipt of an average wage of 30s. a week. Now the agricultural minimum wage for an ordinary farm worker is £3 a week and a cattle man and men with special qualifications—the type for which I understand these particular cottages are being built—receive a wage of £3 15s. to £4 a week and even more.

I have read lately in the Press articles by members of Parliament and others—I do

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not know whether the noble Lord, Lord Beaverbrook, is one of them—defending Nissen huts and pre-fabricated houses for agricultural workers in place of the cottages now proposed. It is surely very wrong to confuse the issue and compare cottages which have been incorporated for generations in the countryside with temporary erections set up to house war workers and members of the Fighting Services, which I trust will be swept away at the earliest possible moment after their war-time use has been completed. These cottages are meant to house not only the agricultural worker but his family also, and it surely cannot be seriously suggested that we should house children and old people in Nissen huts, or that pre-fabricated houses should become a permanent adornment of the English countryside.

Lord Brocket : The noble Lord, Lord Beaverbrook, said that he was interested in quantity, but that he would leave quality to the noble Lord, Lord Portal. It seems, however, that a number of Ministries is interested. There seems to be six Ministries concerned or, as the noble Lord said, two Ministries for each room. I am not sure, therefore, whether quality will have to be looked after by the noble Lord, Lord Portal, or by one of the other Ministers; but I do feel that quality is very important. It is no good putting up permanent cottages of bad quality all over the country. If it is preferred to put up a number of huts, then let the huts be put up, and let people live in them for the time being; but I agree with the noble Earl, Lord Dudley, in hoping that these huts will be removed when once we have won the war.

I should like to suggest, therefore, that the priority—if I may use that blessed word priority—for building labour for erecting these new cottages or for reconditioning old cottages be moved up. Small builders all over the country cannot compete either in building new cottages or in repairing or improving old ones with the larger firms, because they have no labour. In many cases, unfortunately, the little man who runs the firm has no labour left except himself.

Lord Barnby : In the course of his remarks he spoke with disparagement, which I regretted very much to hear, of the usefulness of pre-fabricated houses. It is notorious that in the early stages of the war, in the erection of buildings, there was an insufficient conservation of critical materials such as timber. If, instead of the vast numbers of wooden huts and buildings which have been put up for war purposes, there had been substituted buildings made of concrete and other domestic materials, there would have been a saving of those essential materials for cottages for agricultural workers of which it is represented there is now an insufficiency. That is why these reinforced concrete buildings, which are available now in forms that can be put up, taken down and removed quickly, should be used much more widely.

I make an appeal on behalf of these pre-fabricated buildings, which technically are known as of cellular construction. I am impressed to learn that, the construction being entirely dry, it is possible to occupy the buildings as soon as the decoration has been finished. As an example, I am told that six men could erect a three-roomed bungalow in a matter of two or three days. Lord Dudley disparagingly suggested that it would be a shame to desecrate the countryside by putting up these temporary buildings. I hope the leader of the House in his reply will deal with the question of temporary buildings.

Lord Latham : Finally, may I say that I hope your Lordships will not accept the noble Lord, Lord Barnby's view about pre-fabricated buildings? There is a good deal of nonsense being talked about pre-fabrication. It only needs an idea to be put forward in another country for it to be accepted here without examination. I should hesitate

myself before contemplating any wide use in normal circumstances of pre-fabricated buildings for houses and cottages. Some of us are not without experience of the experimental dwellings put up after the last war. Some of them have stood up very well, but others have manifested defects which must not be allowed to recur. Pre-fabricated buildings can suffer from the same defects as can sometimes pre-fabricated speeches.

Viscount Cranborne : It has been suggested—I do not think in this debate but certainly outside this House—that my right honourable friend (the Minister of Health) neglected the experience of those in touch with rural conditions. That certainly was not his intention. On the contrary, the plans sent to local authorities included a number recommended by the sub-committee of the Central Housing Advisory Committee presided over by my noble friend the Earl of Dudley. The noble Earl has himself intervened in this debate and given to your Lordships the benefit of his experience. Whether or not all noble Lords entirely agree with my noble friend, it is clear that he and those experts associated with him went into the matter with the utmost care and with the highest motives.

Clearly, as I think the noble Earl, Lord Dudley, said in his speech, it is not to be expected that houses which are built now will be a strictly economic proposition. This is essentially a wartime scheme, framed in abnormal conditions to meet abnormal needs. But what is important—and I think that I shall find myself at one with Lord Addison here—is that the type of house which is built now shall not set generally standards which cannot be maintained after the war. That, I think, is the main point.

My right honourable friend the Minister of Health hopes and believes that it will be possible with the present plan to avoid this; but he will be in a better position to judge when tenders come in from the local authorities to the Ministry of Health. It may be, as Lord Addison and others have said, that the costs will prove to be too high. In that case, of course, the position must be reconsidered, and, if necessary, the plans must be modified.

In spite of what the noble Lord, Lord Addison, has said, strong arguments may surely be advanced for giving the local authorities an opportunity of showing their mettle on this occasion. But I freely admit that it may well be, as Lord Addison has suggested, that in present circumstances the task may be too great a one for them. There will be difficulties about material and about labour, as the noble Lord, Lord Brocket, said, which it may be beyond their power to surmount. In that case, the Government may have to step in and take over.

In the course of his speech, the noble Viscount (Lord Cowdray) asked whether it would not be better to repair old cottages rather than to build new ones. I appreciate that strong arguments can be used in favour of the course which he recommended, but I think that the decisive point is that new cottages provide additional accommodation, and they provide additional accommodation in the areas where it is most needed. I think that that must decide us in favour of the new houses.

The materials for 30,000 cottages are as the noble Lord, Lord Beaverbrook, said, no doubt available. There are sufficient bricks; there is sufficient cement. There is, it is true, a shortage of timber, but I have no doubt that some other material could be devised. That is not beyond the wit of man. What is lacking is labour. I thought my noble friend dismissed this difficulty rather lightly. He said in effect: "Why not take it from the armed forces: why not take it from the war industries?" He mentioned the Air Force and the War Department. The problem is not so easy as the noble Lord would have us think. The resources of man-power in this country are at present stretched as they have never been stretched before.

Only a certain number of men in such circum-

stances can possibly be allocated to the building industry, and of these, as the House knows, a large number are already employed on military construction of an essential character and on such other work as the repair of blitzed buildings—which in itself may help to release accommodation in the countryside. To say, as the noble Lord has said this afternoon, that it ought to be possible, almost easy, to divert, in addition, men to build 30,000 agricultural houses is surely to ignore hard, unpleasant but unavoidable facts.

The noble Lord suggested that the blame should attach to the Building Priorities Committee. Committees are a King Charles's head with the noble Lord: whenever any subject is raised he refers to the question of Committees. But it is not the Building Priorities Committee which must take this responsibility; it is the War Cabinet—the War Cabinet, which is in itself a Committee, but a very high-class Committee indeed. If it is not found possible to build more than 3,000 agricultural houses at the present time, that is because there is greater need for the labour elsewhere.

Lord Addison : My Lords, I am sure your Lordships will agree that we have had a most interesting and very valuable debate, and in conclusion I would only like to say in reference to a remark which fell from the Leader of the House that I myself, not knowing the facts, not being a member of that high-class Committee to which he referred, do not feel that I am in a position to argue the wisdom or unwisdom of their deciding that they can only supply enough labour for 3,000 cottages. I wish it were 30,000 but, not knowing the facts, I cannot express any opinion. But as to the other gravamen of the case I do know the facts. They are known to us all, and it is because of these facts that I was very relieved to hear the noble Viscount say that the mind of His Majesty's Government was still open if the result of the tenders to be received convinced them that a revision of the method which had hitherto been adopted was necessary. That is very comforting to hear.

We want to make sure that when these houses are being built for agricultural workers, they will not be snapped up by week-enders. That is very important. I myself, for my sins, am the Chairman, on the first Monday in every month, of another Committee, and we have to hear applications for the possession of cottages under the Rent Restrictions Act. Yesterday I was listening to some cases of this kind, and in every case that came before us the house built for a farm worker was in the occupation of an urban tenant, going to and fro from London. Two cases were of people working in a town, and in two other cases the people one might fairly describe as week-enders—perhaps evacuees would be a better description. At all events the houses were not occupied by farm workers.

Lord Beaverbrook : Furthermore, I want to say one word about the War Cabinet. It is indeed a high Committee, but it has not got any spirit of understanding of agriculture; it really has not. That is a pity. This House is capable of dealing with agricultural issues. Of that there can be no doubt. My noble friend Lord Sherwood told me that 500 years ago there were only sixteen Peers. Now there are at least 600 Conservative Peers, and all those of ancient lineage have been lifted up to high place by the agricultural labourers—every one of them. The new element that has come in might be regarded as the labourers' revolt. I would have expected these 600 noble Lords to show a great deal more sympathy with the agricultural labourer than they have shown instead of coming to this House and talking of scenery and scenic effects. Some of these labourers have to cycle fifteen or twenty miles to their work, and you cannot expect them to pay much attention to the scenery. It is the duty and responsibility of this House to look after the interests of the class for which I speak to-day. Motion, by leave, withdrawn.

P R I C E S

MOW STANDARD SCHEDULE

EXPLANATORY NOTES

To meet a widely expressed demand and to assist contractors and others fully to understand the make-up of the *Standard Schedule of Prices*, the Ministry of Works has furnished the following analysis of certain rates, giving typical items in each trade.

The rates generally have been calculated to allow a margin of 10 per cent. to cover contractors' overheads (both head office and local), risk and profit. In connection with some items certain incidental work over and above the bonus site operations is required, which cannot be valued with precision. In such cases an additional 10 per cent. labour has been included in the calculations.

SPECIMEN ANALYSES OF RATES.

EXCAVATION

Item 5.—Excavate to form surface trenches not exceeding 5' deep and get out.

Per Yard Cube			
Gang—10 men, 1/5½ hour	...	...	s. d. 14 9½
1 ganger 2 hour	...	...	2 0
			16 9½
	10 per cent.		1 8½
Per Gang Hour	...	...	18 6
Excavation			
0' — 3' 6" = 0.5 yds. cube per man hour.			
3' 6" — 6' 0" = 0.4 " " " " "			
0' — 5' 0" say 0.44 " " " " "			
0.44 yds. cube per man hour = 4.4 yds. cube per gang hour.			
18s. 6d.			
$\frac{4.4}{18} = \frac{4}{3}$			
4/3			
	4/3 per yd. cube.		

Item 53.—Bed of broken brick or other approved hardcore, 4" thick (after consolidation), spread, levelled and well rammed and rolled and consolidated to receive concrete including blinding and levelling and ramming ground under.

Per Yard Super			
For Yard Cube.			s. d.
Hardcore	...	...	11 0
Consolidation 25%	...	...	2 9
			13 9
Spread and Level Labour 1 hour 1/5½	...	...	1 6
Per Yard Cube	...	...	15 3
			s. d.
Hardcore $\frac{4}{36} \times 15/3$	...	...	1 8½
Rolling (30 yds. super per hour) 6/3	...	...	2½
Blinding (9 yds. super per hour) 1/5½	...	...	2
			2 1
	10 per cent.		2½
			2 3½
Say 2¼ per yd. super.			

CONCRETE

Item 101.—Concrete 1:3:6 in areas such as factory and other large floors exceeding 400 but not exceeding 5,000 yards super.

Per Yard Cube			
Labour and Mixer, etc.			£ s. d.
Gang. 10 men, 1 ganger:			
10 men, 48 hrs. = 480 hrs. 1/5½	...	...	35 10 0
1 ganger, 48 hrs. = 48 hrs. 2/-	...	...	4 16 0
			40 6 0

CONCRETE—(continued)

10/7 Mixer per 48 hour week	...	...	£ s. d. 4 5 6
Fuel, 18 galls. 2/-	...	...	1 16 0
			6 1 6
Labour £40 6 0			s. d. 5 7
144 yds. cube			
Mixer and Fuel £6 1 6			10
144 yds. cube			
Per yd. cube	...	...	6 5
Cement			
Cement per ton	...	...	£ s. d. 3 2 0
Unload and store	...	...	1 0
			20) 3 3 0
Per cwt.	...	...	3 2
$\frac{90}{112} \times 3/2 = 2/6½$ ft. cube.			
Concrete 1:3:6			
24 ft. cube stone	12/6	...	s. d. 11 2
12 ft. cube sand	10/-	...	4 6
4 ft. cube cement	2/6½	...	10 2
Labour and mixer	...	...	6 5
			32 3
			10 per cent.
			3 3
			35 6
35/6 per yd. cube			
Item 118.—Formwork to soffites of concrete floors.			
Per Yard Super			
Timber—average 2½ ft. cube per yd. super of formwork.			s. d.
Timber 2½ ft. cube 6/6	...	...	14 8
Waste 10% on labour	...	...	1 6
			16 2
			s. d.
Timber $\frac{16/2}{4}$ uses	...	...	4 0½
Labour fixing (6 ft. super per hour) 1/10½	...	...	2 9½
Labour striking (18 ft. super per hour) 1/10½	...	...	11½
10 per cent. on labour	...	...	4½
Nails and screws	...	...	2
			8 4
			10 per cent.
			10
			9 2
Say 9/- per yard super.			

CONCRETE—(continued)

Item 127 (Supplement).—Mild steel rod reinforcement $\frac{3}{8}$ " diameter and up.

Per cwt				£	s.	d.
Rods per ton	...	...	...	16	19	6
Extra cartage to site	...	...	...	5	0	
				17	4	6
Waste 10 per cent.	...	...	...	1	14	6
				20	18	0
Say	...	...	per cwt.	19	0	
				s. d.		
Rods	...	...	...	19	0	
Unload and stack	...	...	...	2	½	
Cutting (4.5 cwts. per hour) $1/7\frac{1}{2}$	...	...	...	4	½	
Bending (1.32 cwts. per hour) $1/7\frac{1}{2}$	...	...	...	1	3	
Fixing (.66 cwts. per hour) $1/7\frac{1}{2}$	...	...	...	2	6	
10 per cent. on labour	...	...	...	5		
				23	9	
10 per cent.	...	...	...	2	5	
				26	2	

Say 26/3 per cwt.

BRICKWORK

Item 201.—Reduced brickwork in common bricks as described.

Per Rod Super

Cost of Gangs per Hour.							
Leading Bricklayers.		Bricklayers.		Labourers.			
9" work	1	7	4				
13½" work and over	1	8	6				
9" Brickwork		13½" Brickwork and over					
				s. d.			
1 L.B. @ 2/3	2	3	1 L.B. @ 2/3	2	3		
7 B. @ 1/10½	13	2	8 B. @ 1/10½	15	0		
4 L. @ 1/5½	5	11	6 L. @ 1/5½	8	11		
Per Gang Hour		21	4	Per Gang Hour		26	2

Cost of Labour per Rod

9" 8 × 50 = 400 bricks per hour.	13½" and over 9 × 60 = 540 bricks per hour.
21/4	26/2
400 × 4333 = 231 0 per rod.	540 × 4333 = 210 0 per rod.

Average cost per Rod (2½" bricks)

2 @ 9" = 2 × 231 0	...	...	...	462 0
1 @ 13½" = 1 × 210 0	...	...	...	210 0
				3) 672 0
				Per rod ... 224 0

Cement Mortar (1 : 4)

Per Yard Cube

0.29 tons cement 63/-	...	...	...	18	2
1.09 yards cube sand. 8/-	...	...	...	8	8
Labour mix	...	...	...	7	0
Yard cube				33	10

4333 Bricks 70/-	...	...	...	15	3	4
Waste 2½ per cent.	...	...	...	7	7	
Unload and stack 4333 bricks 5/-	...	...	...	1	1	8
2.9 yards cube mortar 33/10	...	...	...	4	18	2
Labour	...	...	...	11	4	0
Scaffolding	...	...	...	2	2	0
				34	16	9
10 per cent.	...	...	...	3	9	8
				£38	6	5

Say £37 19s. 4d. (2/9½ ft. super)
Say £37 19s. 4d. per rod super

BRICKWORK—(continued).

Item 267.—2" hollow block partitions with keyed joints set and jointed in cement mortar gauged with lime putty, including all cutting and waste, bonding at angles and intersections and to walls, and forming door opening and pinning up to soffits as required.

Per Yard Super

2" hollow blocks size 18" × 9"	...	...	...	s. d.
Waste 5 per cent.	...	...	...	3 0
Labour: Bricklayer ¼ hour $1/10\frac{1}{2}$	...	...	...	2
Labourer ¼ hour $1/5\frac{1}{2}$	...	...	...
say				1 9
10 per cent. on labour	...	...	...	2
Mortar	...	...	...	4
				5 5
10 per cent.	...	...	...	7
				6 0
6/- per yard super.				

DRAINS

Item 401.—Excavate trenches for drain pipes 3" to 9" diameter and 6' 0" deep, as described.

Per Yard Run

Average depth to formation	Excavation, etc. Rates per yard cube			Timbering. Rates per ft. sup.	Total for excavation and timbering. Rates per yard run of trench. Diameter of pipe 3"—9"
	Exc. and get out	R.F.&R. and cart surplus	Total		
	s. d.	s. d.	s. d.	d.	s. d.
1' 0"	4 3	1 9	6 0	included	1 4½
2' 0"	4 3	1 9	6 0	"	2 7½
3' 0"	4 3	1 9	6 0	1½	6 3
4' 0"	4 3	1 9	6 0	1½	8 3
5' 0"	4 3	2 0	6 3	1½	11 9
6' 0"	4 10	2 0	6 10	2	16 9

Detail

Excavation, etc.

3' 0"	...	...	...	s. d.
2' 4"	...	...	...	10 8
6' 0" 42' 0" @ 6/10 yard cube	...	...	...
Timbering	...	...	...
2' 3' 0"	...	...	...
6' 0"	...	...	...	6 0
36' 0" @ 2d. foot super	...	...	...	16 8

Say 16/9 per yard run

Item 433.—Stoneware drain pipes and laying and jointing in open trench.

Per Foot Run

Detail of Lay and Joint		d.
3"	10 ft. run per hour $1/6\frac{1}{2}$	= 1.88 per foot.
4"	7½ ft. run per hour $1/6\frac{1}{2}$	= 2.50 per foot.
6"	6 ft. run per hour $1/7\frac{1}{2}$	= 3.29 per foot.
9"	5 ft. run per hour $1/7\frac{1}{2}$	= 3.96 per foot.
12"	3½ ft. run per hour $1/7\frac{1}{2}$	= 5.25 per foot.

For 3 ft. run

	3"	4"	6"	9"	12"	15"
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Pipe (List price less 12½%)	1 10½	2 2½	3 3½	5 11	9 10½	16 5
Breakages 5%	1½	1½	2	3½	5½	10
Unload	1½	2	2	3	4	5
Lay and joint	5½	5½	7½	9½	11½	13
10% on labour	¾	¾	1	1½	1½	2
Joint materials	1	1	1½	3	4½	5
				2 8½	3 1½	4 5½
10 per cent.	3½	3½	5½	7 7½	12 1½	19 6
				3) 3 0	) 3 5	) 4 11
				8 4½	13 3½	21 5½
Per ft. run say	1 0	1 2	1 8	2 10	4 6	7 2

CARPENTRY AND JOINERY

Items 701 and 702.—Plates and joists including bedding.

Per Foot Cube

Timber basic rate £49 5s. per standard = 6/- foot cube.

	<i>Item 701</i>		<i>Item 702</i>	
	To 9" sectional area		Over 9" sectional area	
	s. d.	s. d.	s. d.	s. d.
Timber	6	0	6	0
Unload and stack ...	1		1	
Waste on job 10% ...	7		7	
Labour (1 ft. cube per hour) 1/10½ ...	1	10½	(1½ ft. cube per hr.) 1/10½	1 6
Nails	1		1	
	8	7½	8	3
10 per cent.	10½	say	9	
Per foot cube ...	9	6	9	0

Item 748.—1" wrot straight joint flooring in widths not exceeding 6" and nailing to joists or fillets including straight cutting and waste, cramping up and stopping nail holes and cleaning off.

Per Square

Timber basic rate ...	£51	10	0	per standard.
Conversion waste 5 per cent. ...	2	11	6	
	54	1	6	= 6 7 foot cube.
		s. d.		
Timber 8' 4" cube 6/7 ...	55	0		
Width and cutting waste on job 10% ...	5	6		
Labour (15ft. sup. per hr.) 1/10 $\frac{1}{2}$...	12	6		
Nails ...	1	6		
	74	6		
10 per cent. ...	82	0		
Say 81/6 per square				

PLASTERINGItem 1105.— $\frac{3}{4}$ " Portland cement and sand (1:3) floated bed to receive pavings or wood block flooring.*Per yard super*

<i>Material for 9 yds. super</i>						s. d.
1 bushel cement	...	...	...	...	...	3 3
3 bushels sand...	...	...	...	...	...	1 6
						<hr/>
						9)4 9
						<hr/>
Per yard super say 6½d.						
						s. d.
Material	...	...	...	...	...	6½
Add for waste, etc.	...	...	...	...	...	1
Labour (4 yds. super per hour)	1/10½	...	...	...	...	5¾
10 per cent. on Labour	...	...	...	...	...	1½
Screeds and access, etc.	...	...	...	...	...	1½
						<hr/>
						1 3½
						1½
10 per cent.						...
						<hr/>
						1 4¾
						<hr/>
Say 1/5 per yard super						

PLUMBING

Item 1299.—"Light" weight steel tubing and fixing with and including approved holderbats not more than 6' 0" apart to softwood.

Per Foot Run

	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{2}$ "	$1\frac{1}{2}$ "	2"
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
List price ...	5 $\frac{1}{2}$	6 $\frac{3}{4}$	9 $\frac{1}{2}$	1 1	1 4 $\frac{1}{2}$	1 10
Less 57 $\frac{1}{2}$ per cent.	3 $\frac{1}{2}$	4	5 $\frac{1}{2}$	7 $\frac{1}{2}$	9 $\frac{1}{2}$	1 0 $\frac{3}{4}$
Net cost ...	2 $\frac{1}{2}$	2 $\frac{3}{4}$	4	5 $\frac{1}{2}$	7	9 $\frac{1}{4}$
Add for fittings as including in runs						
75 per cent. ...	1 $\frac{1}{2}$	2	3	4 $\frac{1}{2}$	5 $\frac{1}{2}$	fittings msd. on 2"

PLUMBING—(continued).

	d.	d.	s.	d.	s.	d.	s.	d.
Cutting and waste, short lengths and screwing, 10 per cent. on net cost	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	1
Fixing ...	4 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	8	
Holderbats ...	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	1	1	1	1 $\frac{1}{2}$	
10 per cent. ...	9	9 $\frac{3}{4}$	1	0 $\frac{3}{4}$	1	4 $\frac{3}{4}$	1	7 $\frac{3}{4}$
Per ft. run say ...	10	11	1	1 $\frac{1}{2}$	1	6 $\frac{1}{2}$	1	9

GLAZING

Item 1401.—24 oz. ordinary quality rough sheet glass and glazing in squares not exceeding 4' 0" super.

Per Foot Super

	Wood with putty d.	Wood with beads (M.S.) d.	Metal with goldsize putty d.
Glass not exceeding 4' 0" super ...	4 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$
Putty ...	$\frac{1}{4}$	$\frac{1}{4}$	1 $\frac{1}{4}$
Labour (10 ft. super per hour) 1/10 $\frac{1}{2}$...	2 $\frac{1}{2}$	2 $\frac{1}{2}$	2 $\frac{1}{2}$
10 per cent. on labour ...	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
Add for working in beads	—	$\frac{1}{4}$	—
10 per cent. ...	7 $\frac{1}{2}$	7 $\frac{3}{4}$	8
Per foot super ...	8 $\frac{1}{2}$	8 $\frac{1}{2}$	8 $\frac{3}{4}$

PAINTINGItem 1456 (*Supplement*).—Prepare, prime and paint oil colour on plastered walls, or soffites, and building board to walls, partitions or soffites.*Per Yard Super*

For 100 yards super	Prime and one coat s. d.	Each additional coat s. d.
Allow for stopping, etc.	2 0	—
1 2/3 gallon priming 15/-	25 0	—
Add extra suction 20 per cent.	5 0	—
1 2/3 gallon undercoat 12/-	20 0	—
1 3/7 gallon finishing 13/-	—	18 10
10 hours painter each coat (10 yds. super per hour) 1/10½	37 6	18 9
10 per cent. on labour	3 9	1 10½
Brushes, waste, etc.	1 10	11
	95 1	40 4½
10 per cent.	9 6	4 0½
	100 104 7	44 5
	1 0½	5½
Per yard super say	1 1	5½

ROADS, FOOTPATHS AND PAVED AREAS

Item 1518.—Waterbound macadam paving to roads, 2" thick as described.

Per Yard Super

	s. d.
1/15 yard cube stone 17/6 ...	1 2
1/40 yard cube topping 17/6 ...	5
Spreading bottom ...	1 $\frac{1}{2}$
Spreading topping ...	1
Rolling ...	2
	<hr/>
10 per cent. ...	1 11 $\frac{1}{2}$
	2
	<hr/>
2/2 per yard super.	2 2
	<hr/>

GEORGIAN ARCHITECTURE AT KING'S LYNN



A QUARTET OF ENTRANCE DOORS

Photos
L. E. Walker



IN King's Lynn, as elsewhere, the vigour derived from their Classic prototypes marked the earlier examples of Georgian architecture. As they became more facile, the architects elaborated these simple forms to the point of exuberance but, unfortunately, continued to alter when they could no longer improve, and so drifted into the sleek fatuity that comes from

over-refinement. It is a salutary thought, that rarely does good come from changes made just for the sake of novelty, and this may well be borne in mind should you be prompted to try something else in place of 'PUDLO' Brand waterproofer, which has adequately served the requirements of structural waterproofing for more than thirty years.

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BRANCHES AND DEPOTS THROUGHOUT THE COUNTRY

The function of this feature is to record 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. The **Information Centre** attempts to supply an index and a digest of scientific data, the lack of which has for too long been a handicap both to the technician and the planner. 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.

Physical PLANNING

1149 **Spacing of Towns**

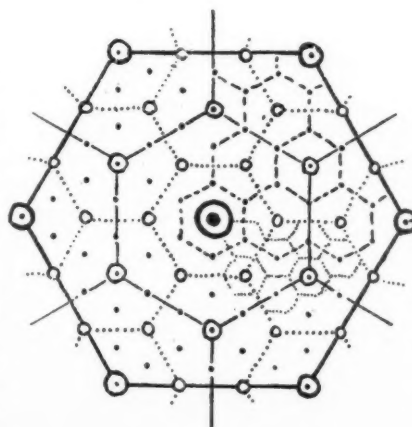
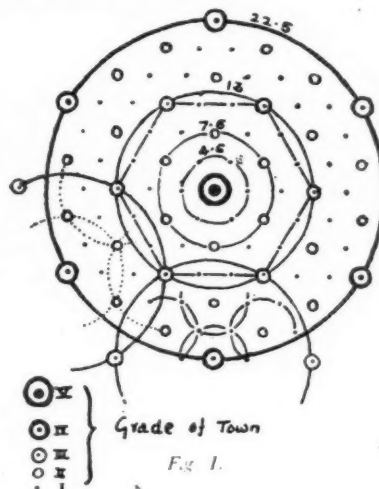
THE SOCIAL BASIS OF PHYSICAL PLANNING. Robert E. Dickinson. (*Sociological Review*; Spring 1943). Description of spacing of towns based on their functions as service centres.

Mr. Frank Pick said: "A Social unit must be devised not too large to destroy personal contact and not too small to fail to afford variety and diversity; the parish used to be, and in many cases still is, a fairly satisfactory social unit, and in the new pattern of administrative areas the town, the city, the metropolis itself, and finally the region, will be aggregates of social units."

The need for re-grouping the rural population, and the basis upon which it should be attempted, have been given singularly little serious attention. The rural community unit should be large enough to support a church, village clubs, and the everyday retail services. A minimum population figure may be arrived at by considering the requirements of these services, and we suggest, in common with proposals by others, a population of 1,000 to 1,500. Throughout eastern and southern England the parish has an area of between two and three square miles and a population of under 300 inhabitants. Thus a grouping of three to five parishes would give this minimum population with a compact area of some nine square miles, the farthest parts of which would be only some one and a half to two miles from the geometrical centre.

Before the Industrial Era, the distribution of the centralized services were the main determinants of the origin, distribution and sizes of towns. These services cater for the needs, daily and

occasional, of the population in all parts. They range in our modern society from the everyday services, such as those of the general retail dealers, to the services of occasional character (e.g. high-class furniture or a main branch of an insurance office or government department) which require fewer centres, placed in large cities, which are easily accessible to an extensive service area.



In Britain the smallest urban centres have about 1,000 inhabitants. Such places in East Anglia have a full quota of specialized retail services and one bank; and are sufficiently large to have one or more public utility services (gas, electricity, water). Study of other areas in Britain reveals that this minimum population limit of real urban character is true throughout the country.

A glance at a map will show that towns of different sizes are fairly equally spaced over the land, a fact which has often been observed, but not adequately explained.

There is a hierarchy of towns, graded according to the degree of concentration of centralized services which, in considerable measure, is reflected in the size of their population. A German scholar, Walther Christaller, has developed this theme. Working on a theoretical basis, with the market town with a service radius of 4 to 5 kms. (2½ to 3½ miles) as the unit area, he has drawn up a scheme of distribution of centralized services which, he shows, is closely borne out by the facts of the size and distribution of towns in South Germany and elsewhere. In respect of the centralized services, a town serves a theoretical circular market area (Fig. 1). But towns with the same service status will be equally spaced from it and from each other, and will compete with each other in their intersecting border zones, where centres of lower status can supply certain local services more efficiently than the centres of higher order. Thus, one of the latter will be surrounded on the periphery of its service area by six equally spaced service centres of a lower order, equally spaced from each other and from the town in the centre. On this theoretical basis, towns will be equally spaced, in different orders, with hexagonal-shaped market areas (Fig. 2).

STRUCTURE

1150 **Lightning Protection**

PROTECTION OF STRUCTURES AGAINST LIGHTNING. *British Standard Code of Practice, C.P. 1, 1943. (British Standards Institution; 3s. 6d. post free.)* Recommended practice for protection of buildings, fences and trees against lightning.

This is the first of a series of Codes of Practice to be issued under the aegis of the Codes of Practice Committee set up by the Ministry of Works. The last authoritative statement on this subject was made in 1905, so that the present document is most valuable in presenting in a clear form the most up-to-date information.

Contents include: Principles of pro-

tection, Details of Requirements, Materials to be Used and Methods of Testing. Normal buildings, tall structures, structures containing explosive or highly inflammable contents, fences and trees are dealt with and there are notes on wires attached to buildings. Some useful general explanatory notes are given in an Appendix.

This is a valuable document and should be of assistance in helping designers to deal with the problem of protection in a more scientific way than has been customary. Architects may note the following sentence from the Appendix: "There is also no reason why architects should not provide for a suitable lightning protective system which will form part of the design for the structure, and for a design in which the lightning protective system will be unobtrusive instead of allowing it to be added as an afterthought."

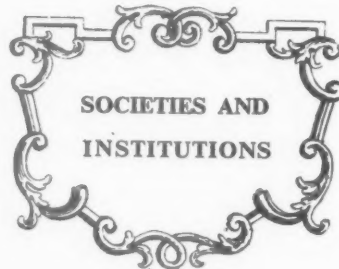
1151 Saving Steel in USA

WAR-TIME CONSTRUCTION IN THE UNITED STATES. *National Emergency Specifications for the Design of Reinforced Concrete Buildings to Conserve Steel.* (Journal of the American Concrete Institute, November, 1942, pp. 85 to 92. See also *Concrete and Constructional Engineering*, April, 1943, pp. 124 to 125). Increase of permissible steel stresses and reduction of concrete fibre stresses due to bending to save steel. Recommendation of plain concrete wherever possible. Comparison with practice in this country.

The USA War Production Board has issued Emergency Specifications with the object of saving steel in reinforced concrete by requiring the use of larger structural members and higher tensile stresses than previously. Permissible fibre stresses in concrete due to bending have been reduced in order to increase the depth of beams and slabs. The permissible tensile stress in mild steel has been increased from 18,000 to 20,000 lb. per sq. in. (as in this country), that for medium and high-grade steel from 20,000 to 24,000 lb. per sq. in. The minimum and maximum percentages of the longitudinal reinforcement of columns have been reduced from 1.0 and 4.0 to .5 and 2.0 per cent. respectively (as against .8 and 8.0 per cent. in this country). This means that designers are compelled to use larger cross-sections of concrete; in this country the timber shortage is even more acute than the steel shortage, so that the increase in shuttering which would be necessitated by the reduction of steel percentage would be undesirable.

Wherever pre-stressed reinforced concrete construction would achieve a saving in steel, its adoption is recommended.

The use of plain concrete is advised in footings, walls and piers, gravity retaining walls and buttresses. To this effect the permissible tensile stress in unreinforced concrete in bending (not specified in this country) has been raised from 3 per cent. to 4 per cent. of the cylinder strength at 28 days.



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

PWB

Study Committees

The following is the fourth extract from the booklet issued by the Directorate of Post-war Building of MOW containing reviews of ten of the First Draft Reports and Provisional Statements of its twenty-three Study Committees. See leading article for April 22 and these columns for April 22, 29 and May 6, 20.

5. BUSINESS BUILDINGS COMMITTEE. Report on Office Buildings. December, 1942.

28 pp. divided thus:

- Section 1. Qualities and Principles.
- Section 2. Site development.
- Section 3. Plan units.
- Section 4. Structure and materials.
- Section 5. Services and equipment.

For the purpose of Committee study, business buildings include: office buildings, shops and stores, factories and warehouses.

The Committee has taken office buildings as its first subject for study, and has completed its Report on this subject.

Section 1. Qualities and Principles.

Comparative values. Amenities of office buildings.

Restrictions and finance. Tenant population index is discussed as a basis for site development. The building owner's point of view is mentioned.

Section 2. Site Development.

The problem is fully considered in relation to the planning of a district or town as a whole, with its roads and traffic system.

Traffic and road disposition. Need for separating through traffic routes from buildings and pedestrian ways is stressed. Problem of car parking should be considered as part of town plan, not left to individual building owners.

Types of planning. Comments on building height, extent of open space, etc., in relation to various types of building plan: vertical planning, horizontal street and square planning, and free planning. Population index is discussed as possible basis for control.

Advantages and disadvantages of the several systems are outlined. No one type of building plan is advocated as solution to all problems. Controlled combination of types is most likely solution, and would allow adequate green open space.

Section 3. Plan Units.

1. *Tenants' space.* Requirements in rentable area.

RECOMMENDED that all occupied rooms have natural ventilation and lighting.

Light and air. Recommendations are made for depth and height of rooms in relation to windows and for design and position of windows.

Ground floors. Special uses for ground floor space, as for banks, brokers, travel agencies or insurance offices.

Grid. Need for flexibility in partitioning has bearing on stanchion spacing. Suitable spacing is discussed.

Storage. Suitable location for storage space is described.

2. Circulation and escape.

Considered that rules for length-of corridor between escapes should be elastic. Ideal is for alternative methods of escape to be available from any occupied part of building.

Entrances and entrance halls. Position of entrance is discussed. Suggestions are made for planning entrance hall in relation to stairs and lifts, and for its equipment.

Stairs, lifts and lift halls. Requirements are enumerated. Not considered essential for halls or staircases to receive natural light.

Corridors. Requirements vary according to type of occupancy. Guide as to width is given. Services should be planned with corridors.

3. Sanitary units and auxiliary accommodation.

Requirements for lighting, heating and ventilation, and for number of sanitary fittings in relation to population, are outlined. Locker rooms, rest rooms and feeding facilities are discussed.

4. Accommodation for services and staff.

Services are enumerated. Details are given for resident and daily population such as caretakers, porters, cleaners, etc., for whom accommodation must be provided outside letting space.

5. Traffic problems.

Questions of car and cycle parking and setting down space clear of traffic are discussed.

6. Analysis of existing buildings.

Forty-three selected office buildings erected between 1922 and 1940 have been analysed, with a view to determining average percentage of rentable to non-rentable space.

Section 4. Structure and Materials.

1. Structural requirements.

General requirements are outlined.

Loading. L.C.C. requirements for superimposed loads are summarised and discussed.

Stanchion spacing. No standard can be laid down but, as a guide, a grid based on 14/15 ft. x 20/24 ft. spacing is suggested.

Fire resistance. Existing requirements for encasing steelwork are considered, particularly

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Manchester.
From: H. Wootton and Son Ltd., Builder's Merchants, Station Street,
Bloxwich, Walsall. 8th August, 1942.

Dear Sirs,

Approximately two years ago your representative persuaded me to cover the Ceiling Joists (Bedroom) in the roof of my home with 1-in. Asbestos Wood as a protection against Fire-Bombs.

During the night of 30th/31st July last hundreds of Incendiaries were dropped by enemy aircraft in the vicinity of my home, in fact, the whole world appeared to be on fire. I made an investigation of my home and the next house, which constitute a pair, and could not trace either Fire-Bombs or damage. Having no damage to my own home, I concentrated on helping to extinguish other Incendiaries that were dangerous to other property. Twenty minutes later, I was told that a red glow had been seen in one of my bedrooms. Investigation found that an incendiary had fallen apparently behind the chimney, and with the use of the Stirrup Pump we extinguished the burning wood.

I made a thorough survey of damage in daylight and found that: The Fire-Bomb had struck the roof not behind the chimney, but up the roof about 6 ft. away, penetrated the tiles, fallen on the Asbestos Wood over the wardrobe in the best bedroom, this containing about £100 worth of dresses and coats, etc. The Fire-Bomb bounced across from the point of impact on the Asbestos Wood to behind the chimney in the roof, a distance of 6 ft. and there rested at the point where the Asbestos Wood joined the Chimney Breast. During the twenty minutes between the falling of the bomb and its discovery, it had been burning merrily. When it was discovered it had burnt through the Asbestos and set fire at the end to one ceiling joist, the trimmer joist, one rafter and four tiling laths.

You can imagine the mess I should have had had I not inserted the Asbestos protection, for I had taken my wife and two children, before the raid commenced, into the Shelter in the garden, my neighbour having done the same, and he was helping with me on a house that was on fire 50 yards away. So both the houses were empty.

I estimate that the Asbestos Wood saved at least a damage of £200, if not the whole of my home, furniture as well, and possibly next door as well.

You see that the next time I see your representative I shall have to express my personal thanks to him for his advice.

Now to you for having made experiments in this direction of providing something that does give every person who uses it a fair chance against that terrible master FIRE. I say, Thank you.

Yours sincerely,

(Signed) HAROLD WOOTTON.



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in relation to increase in dead-weight and hindrance to building progress. Suggestions are made for building classification, and alternative methods of casing.

Sound transmission. Must be considered at initial stage of design. Factors needing attention are enumerated.

Insulation against cold and heat and against damp. Particular mention is made of basement construction to ensure dry space for storage of records.

Expansion. Precautions against expansion are suggested for reinforced concrete, steel framed, and welded steel construction. Some movement in framed structure continues after all reasonable precautions have been taken; it is therefore

RECOMMENDED that *in situ* terrazzo be avoided as flooring, and that tops of partitions be given some freedom to move.

Standardisation. Standards cannot be applied to office buildings as a group, but for economy and speed of fabrication and erection, standards should be applied within any particular office building.

2. Structural skeleton.

Reinforced concrete and steel systems are discussed. Advantages and disadvantages of each are outlined. Suggestions are made regarding factor of safety, welding and the use of high tensile steel. Cantilever construction is discussed as a system permitting freedom in window placing, and having advantages when building against existing structures.

3. Remaining structure.

Systems of construction and systems of roofing are discussed and suggestions made concerning housing of lighting, power, bell and telephone services in floors. Requirements for walls and windows are outlined. Questioned whether it may not be pointless to restrict window area to given percentage of wall area.

Staircase requirements and alternative types of stair are enumerated.

4. Internal finishings.

Finishings are discussed under headings: partitions, doors and corridors, and coverings and finishes.

Section 5. Services and Equipment.

Committee emphasises importance of co-ordinating work of consultants and engineers at outset.

1. Ducts and shafts.

RECOMMENDED that external pipes be eliminated, surface work internally be reduced to minimum and easy access be provided to all joints and junctions in all services. Reference is made to location of ducts, vermin infestation and fire stops.

2. Fire protection.

Vital need is to prevent spread of fire from its source. Methods are enumerated.

3. Plumbing and sanitation.

Precautions necessary to avoid freezing are outlined. One-pipe system is suitable for office building.

Standards could be applied to pipe lengths, to positions of junctions, angles, valves, etc., and to sanitary fittings.

Water economy. Various devices for effecting water economy are listed.

Regulations. To ensure more unified control throughout country it is

RECOMMENDED that existing bye-laws and codes for plumbing be reconstituted.

4. Heating and ventilation.

Attention drawn to conditions peculiar to office buildings that may affect heating and ventilation. Suitable systems are discussed. Satisfactory temperatures are: offices, 65 deg. F., halls, etc., 60 deg. F., lavatories, 55 deg. F., stores, 50 deg. F.

5. Electrical services.

Recommendations are made under the

headings: lighting and power, lifts, telephones and clocks. Reference is made to requirements peculiar to office buildings.

Publications Received

Early Mediæval Church Architecture. Kenneth

J. Conant. (Oxford University Press, 12s.)

Parallel of the Orders of Architecture. R. A.

Cordingley. (John Tiranti, 10s. 6d.)

The Life of Forms in Art. Henri Foulon.

(Yale University Press, 15s. 6d.)

Craftsmen All. H. H. Peach. (Dryad, 15s.)


Building Science Abstracts, Vol. XVI (New Series), No. 3. (H.M. Stationery Office.)

Announcements

Capt. Victor Sheperd has resigned from the Board of the Triplex Safety Glass Company, Ltd. and companies associated with it, and been appointed a director of British Indestructo Glass, Ltd. Pioneer in the development of safety glass and its adaptation to special building purposes past and present, he worked in close association with the late Reginald Delpech, founder of the safety glass industry in this country. On the latter's death, eight years ago, Capt. Sheperd succeeded him as general manager of the Triplex Company, which he had joined in 1922. Shortly afterwards he was appointed to the Board of Triplex Northern and Triplex.

Mr. Naim Barzel, A.A.DIP., has opened an office in Kreimat, Baghdad, at which address he would be glad to receive catalogues.

Messrs. H. V. Ashley & Winton Newman, F.F.R.I.B.A., Chartered Architects, have moved to No. 27, Thurlow Road, Hampstead, N.W.3. Telephone Hampstead 2879.



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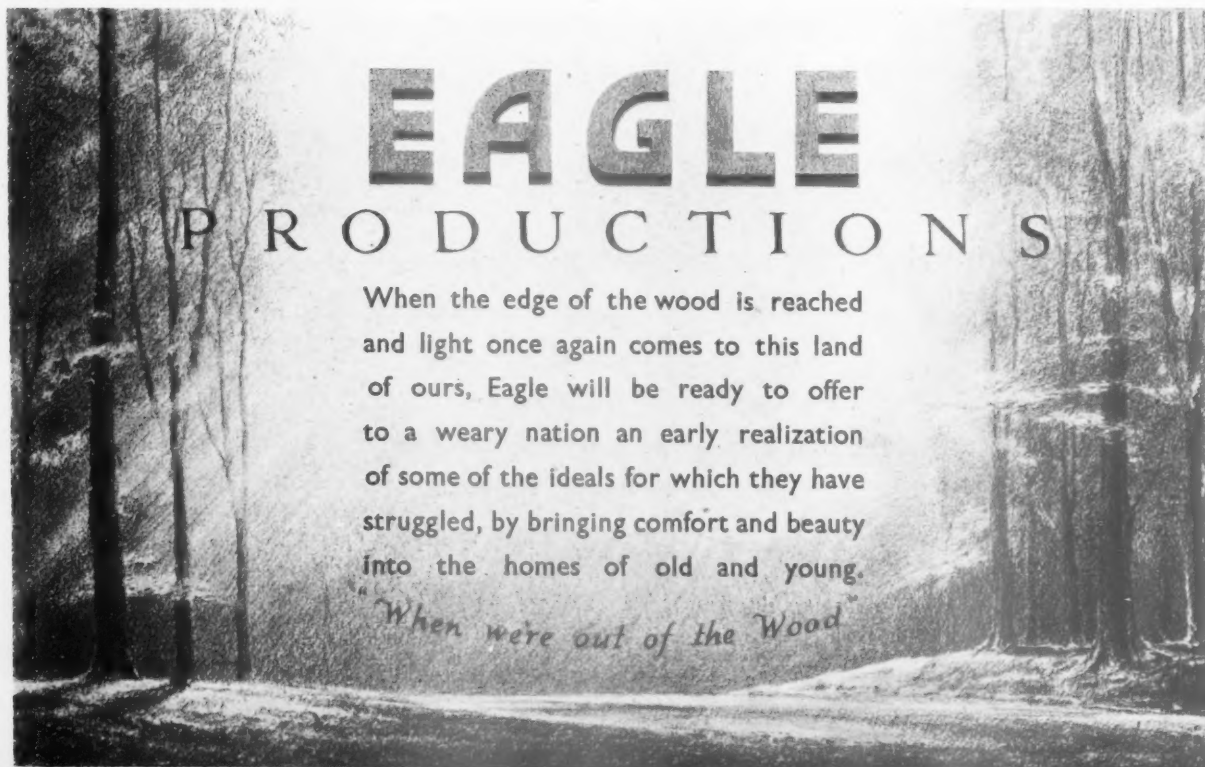
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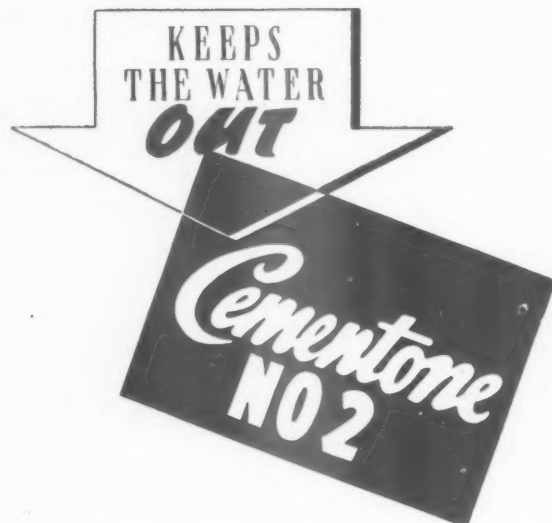
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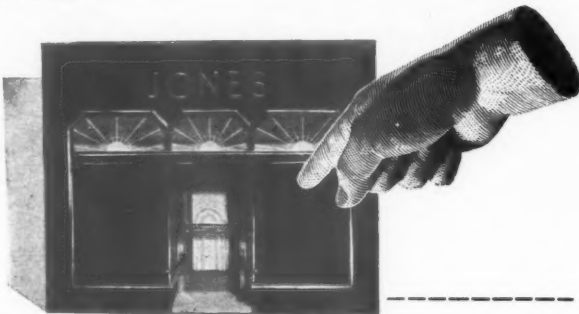
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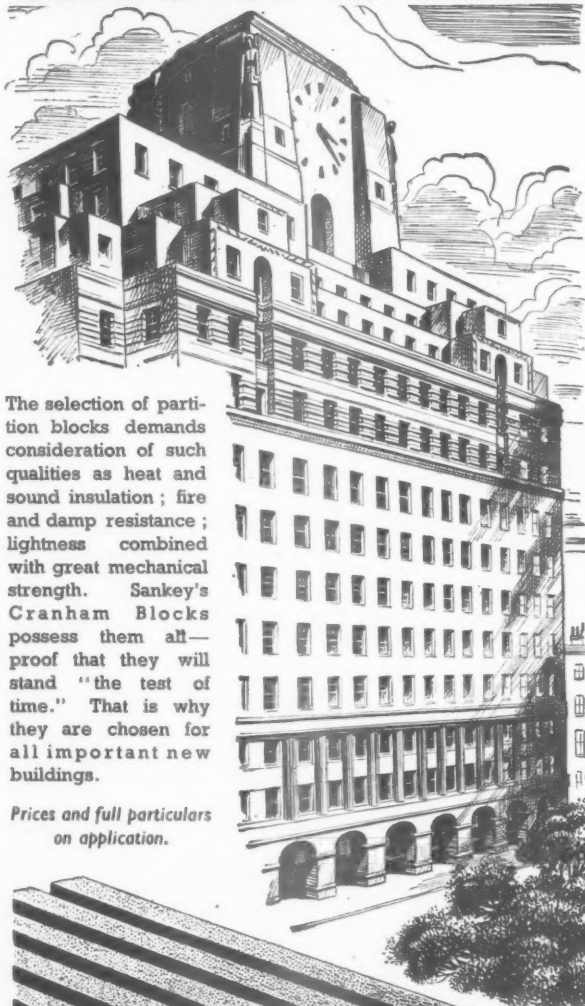
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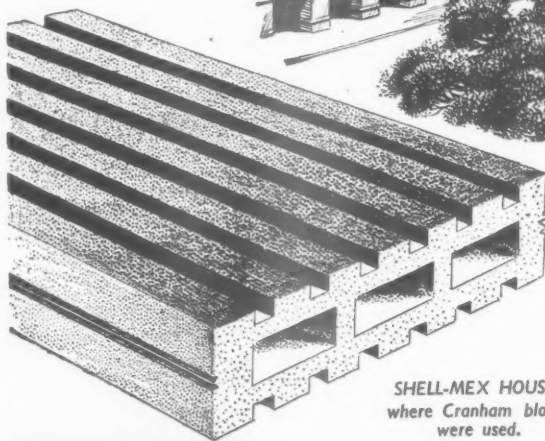
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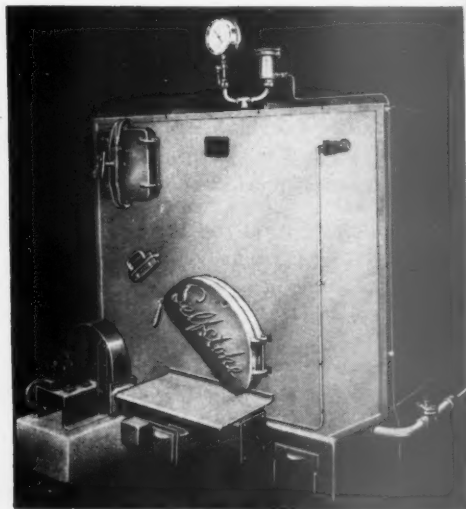
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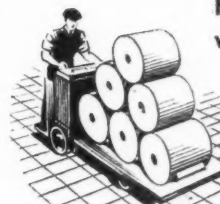
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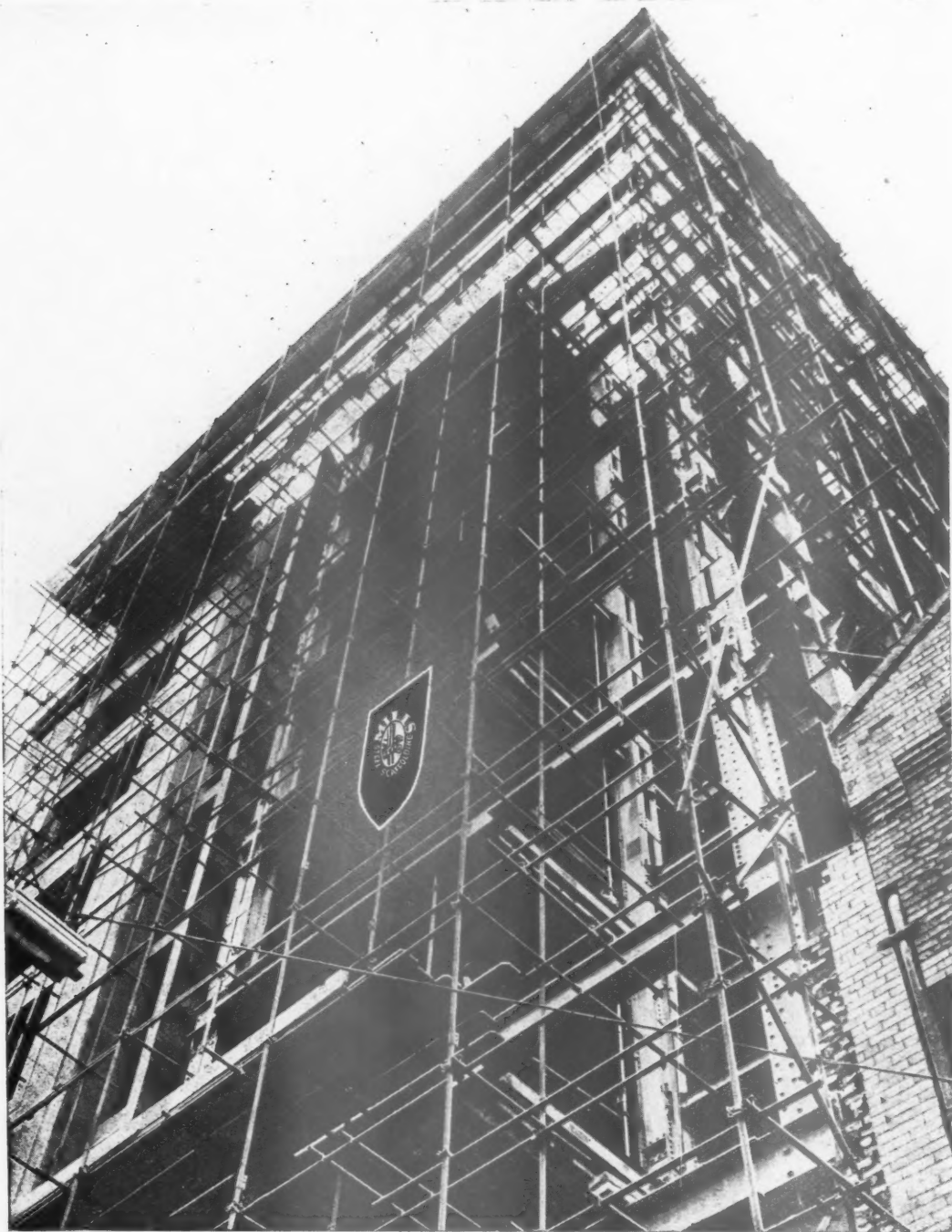
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