THE ARCHITECTS' JOURNAL

THE ARCHITECTURAL PRESS, *WAR ADDRESS:* 45 THE AVENUE, CHEAM

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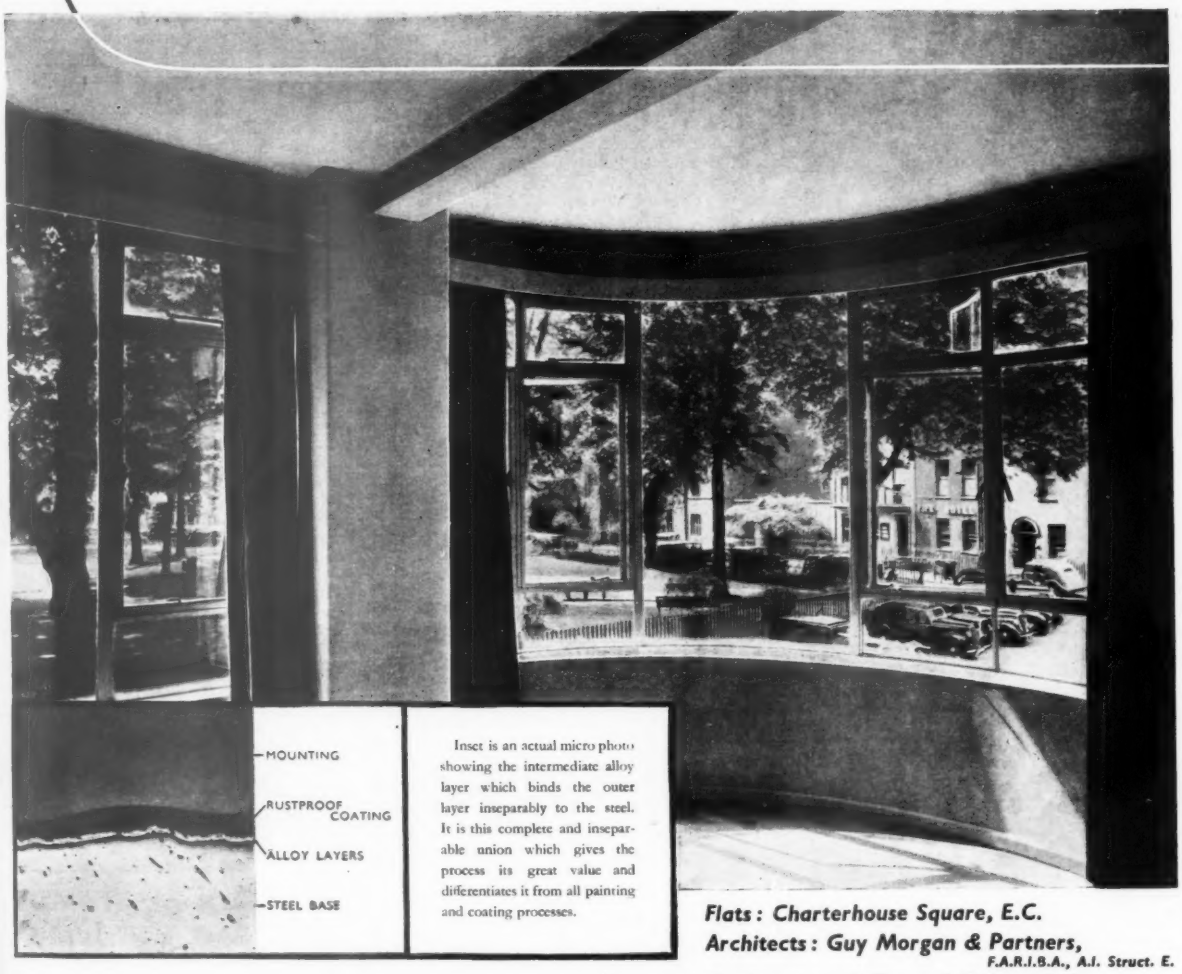
REGISTERED AS A NEWSPAPER

Beauty here is more than zinc deep



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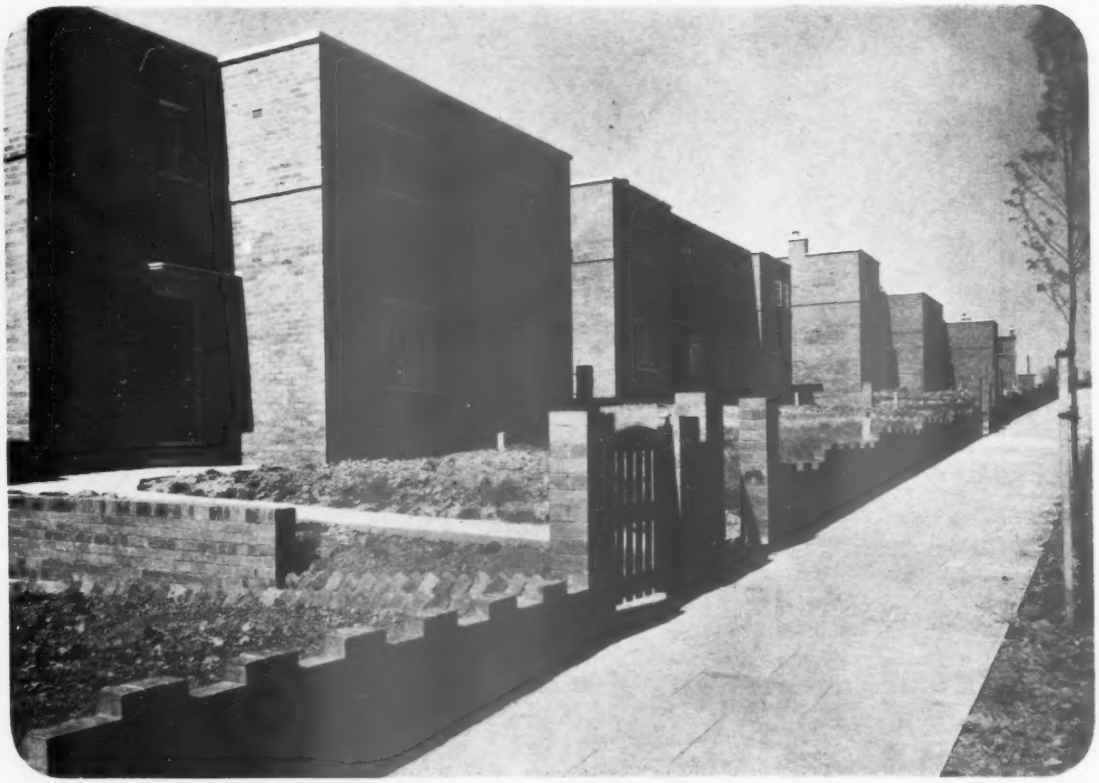

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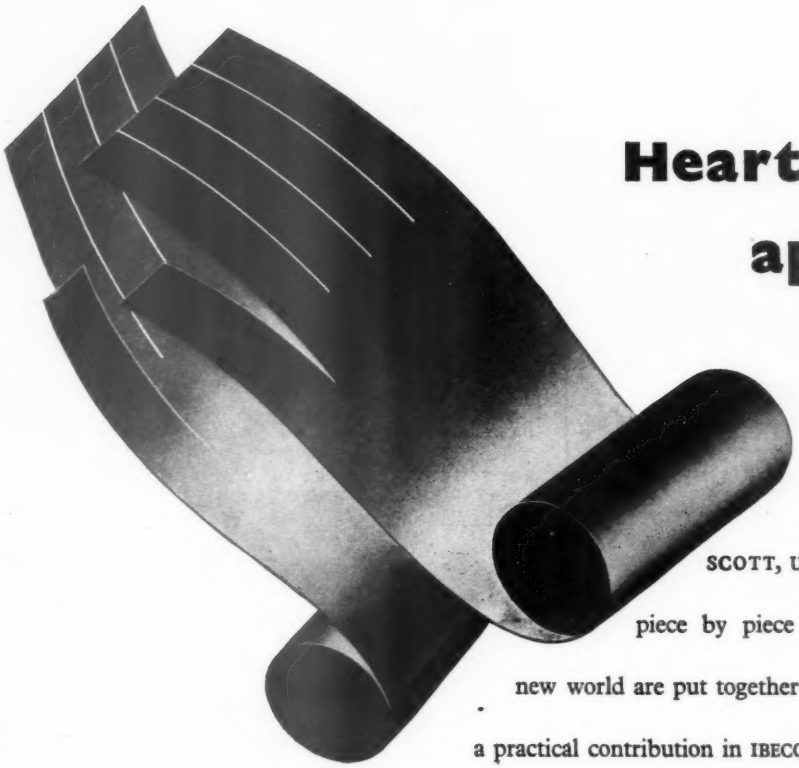

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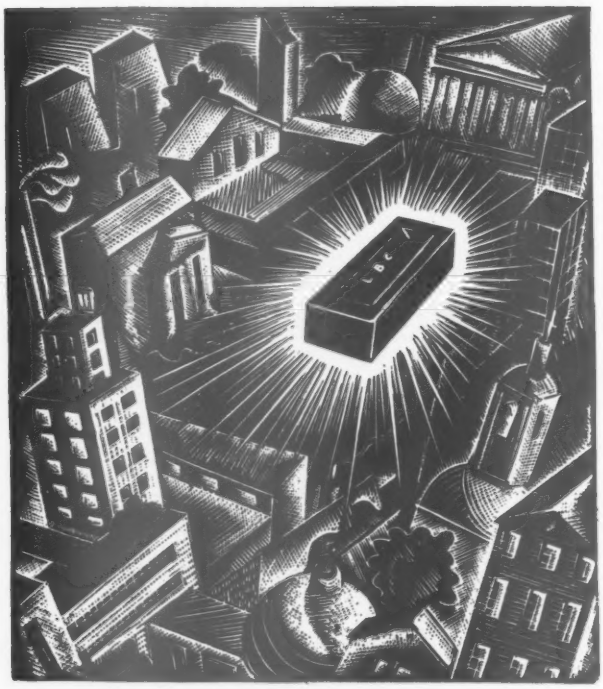
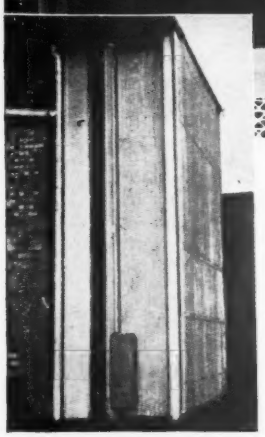
The sea, even in its ugliest mood, has never quenched the insatiable spirit of conquest. To primitive man, in his first crude boat—as to the builder of each ocean-going ship—the Storm is the expected, the inevitable time of test, above which his challenging spirit soars. This is, indeed, the temper which nature urges upon us as she swings her eternal cycle into what may seem an abysmal trough.

This is that sublime balance of intangibles of which we of this age should be especially conscious. For the Storm which has broken upon our national life has already swept away so many leaders of thought and action. We, who are left, are finding in their lives an inspiration that is so uplifting and so ennobling, that already we glimpse the heights they dreamed of while they lived.

Photo: "Abandon" F. J. Mortimer, F.R.P.S.



THE ATOM OF ARCHITECTURE
Woodcut by R. Cotterell Butler



This Pent house (also visible in the larger photograph) illustrates the neat compact housing of the ESAVIAN FOLDING DOOR.

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ESAVIAN

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ADJECTIVE, the name of an attribute, added to the name of a thing to describe the thing more fully. — *Oxford Dictionary.*

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Superfine	Paramount	Enduring	Beneficial
Excellent	Pre-eminent	Hard-wearing	Valuable
Inimitable	Foremost	Lasting	Profitable

Our mother tongue has a rich heritage of adjectives ; but were all employed which would suitably define the merits of Sisalkraft, there would be still more to say. To choose an " omnibus " adjective comprehensively to describe Sisalkraft is a task that would have taxed a Gibbon or a Macaulay—because Sisalkraft has a variety of uses, and it is unique in character and construction. There is no other building paper on the market which adequately can compare with it.

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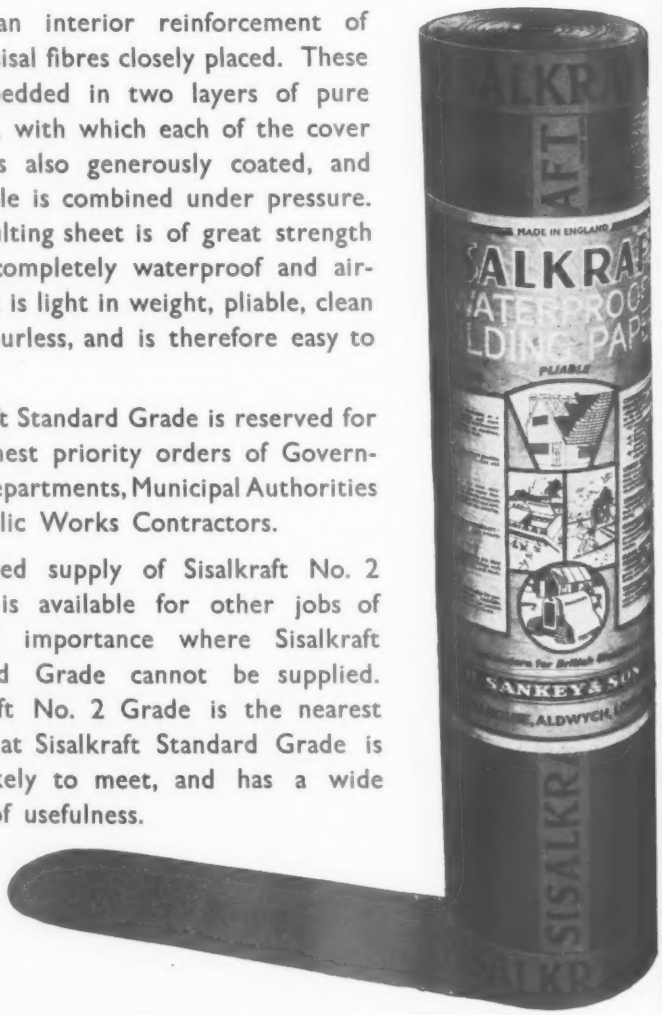

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PATENT WELDED TUBULAR CONSTRUCTION

Data Sheet No. 11

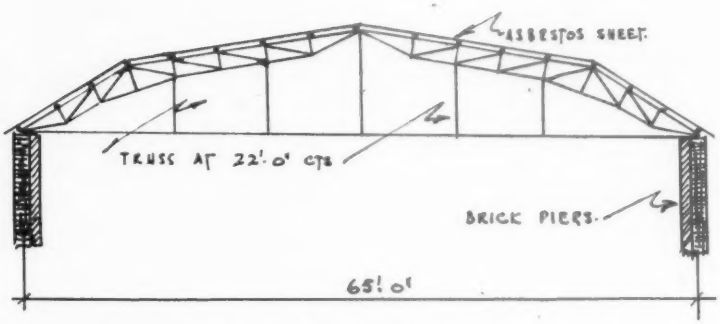


Fig. 22. Composite tubular roof truss used in conjunction with brick construction.

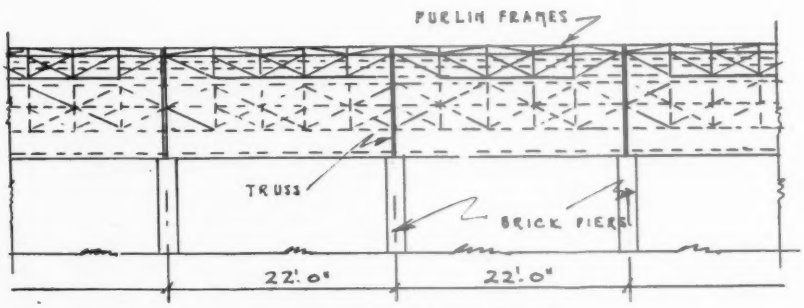
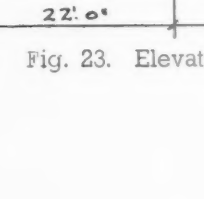


Fig. 23. Elevational detail.

Fig. 24.



Triangular girder detail, a form of directional jointing only possible with the tubular section.

IN CONJUNCTION WITH BRICK CONSTRUCTION

This sheet demonstrates a satisfactory method of employing standard tubular roof principles in conjunction with brick construction, the tubular principles being placed at 22 ft. centres.

The tubular design and assembly only differs in minor details from the examples shewn in previous data sheets. The purlins are of the same fabricated beam construction but, instead of being used as single members, they are framed into triangular girders, the upper chord being three members at 4 ft. 6 in. centres (Fig. 24).

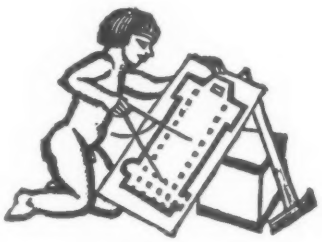
At first glance Fig. 24 would appear to indicate intricacy of design and fabrication, but the inset detail shews its real simplicity — this simple form of directional jointing can only be used with tubular steel members, the circular section allowing braces and diagonals to be used in any direction.

A structure of this type 80 ft. in length and with a roof span of 65 ft., has a total steel tonnage of 7.0, and cost details of roof construction and assembly (inclusive of delivery, erection and asbestos-cement covering) are available.

• • •

NOTE—These data sheets are appearing weekly in THE ARCHITECTS' JOURNAL—*they are now available in complete Folder form and application for these Folders should be addressed to Scaffolding [Great Britain] Limited, 77, Easton Street, High Wycombe, Buckinghamshire.*

In common with every other periodical this JOURNAL *is rationed to a small part of its peace-time needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the* JOURNAL. *Newsagents now cannot supply the* JOURNAL *except to a "firm order." Subscription rates: by post in the U.K. and Canada, £1. 3s. 10d. per annum; abroad, £1. 8s. 6d. Special combined rate for* ARCHITECTS' JOURNAL *and* ARCHITECTURAL REVIEW *in the U.K. and Canada, £2. 6s.; abroad, £2. 10s. Single copies, 6d.; post free, 8d. Special numbers are included in subscription; single copies, 1s.; post free, 1s. 3d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 12s. 6d. each; carriage 1s. extra. Goods advertised in the* JOURNAL *and made of raw materials now in short supply, are not necessarily available for export.*



Journal Abbreviations

AA	Architectural Association, 34/6, Bedford Square, W.C.1. Museum 0974.
ABT	Association of Building Technicians. 113, High Holborn, W.C.1. Holborn 1024-5.
ARCUK	Architects' Registration Council of the United Kingdom. 68, Portland Place, W.C.1 Welbeck 7938.
BC	Building Centre. 23, Maddox Street, W.1. Mayfair 2128.
BINC	Building Industries National Council. 110, Bickenhall Mansions, W.1. Welbeck 3335.
BCG	British Commercial Gas. 1, Grosvenor Place, S.W.1. Sloane 4554.
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2. Temple Bar 9434.
BIS	British Industries Services Ltd. 90, Ebury Street, S.W.1. Sloane 9801.
BOT	Board of Trade. Millbank, S.W.1. Whitehall 5140.
BPVM	British Paint and Varnish Manufacturers. Waldegrave Road, Teddington. Molesey 1063.
BRS	Building Research Station. Bucknalls Lane, Watford. Garston 2246.
BSA	British Steelwork Association. Steel House, 11, Tothill Street, S.W.1. Whitehall 5073.
BSI	British Standards Institution. 28, Victoria Street, S.W.1. Abbey 3333.
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1. Sloane 5255.
CDA	Copper Development Association. Grand Buildings, Trafalgar Square, W.C.2. Abbey 2677.
CMC	Cement Marketing Company. Coombe Hill, Kingston, Surrey. Kingston 2140.
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.1. Sloane 4280.
CSI	Chartered Surveyors' Institution. 12, Great George Street, S.W.1. Whitehall 5322.
DOT	Department of Overseas Trade. Dolphin Square, S.W.1. Victoria 4477.
DIA	Design and Industries Association. Central Institute of Art and Design, National Gallery, W.C.2. Whitehall 7618.
GG	Georgian Group. 55, Great Ormond Street, W.C.1. Holborn 2646.
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1. Sloane 3158.
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1. Abbey 5215.
IRA	Institute of Registered Architects. 59, Montagu Gardens, Wallington, Surrey. Wallington 3278.
ISPH	Industrial & Scientific Provision of Housing. 3, Albemarle Street, W.1. Regent 4782.
LIDC	Lead Industries Development Council. Rex House, King William Street, E.C.4. Mansion House 2855.
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3767.
MARS	Modern Architectural Research Society. 8, Clarges Street, W.1. Grosvenor 2652.
MICE	Member of the Institution of Civil Engineers. Great George Street, S.W.1. Whitehall 4577.
MOH	Ministry of Health. Whitehall, S.W.1. Whitehall 4300.
MOI	Ministry of Information. Malet Street, W.C.1. Euston 4321.
MOLNS	Ministry of Labour and National Service. St. James' Square, S.W.1. Whitehall 6200.
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.2. Gerrard 6933.
MOWP	Ministry of Works and Planning. Lambeth Bridge House, S.E.1. Reliance 7611.
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham 4041.
NFBTO	National Federation of Building Trades Operatives. 9, Rugby Chambers, Rugby Street, W.C.1. Holborn 2770.
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245.
PWB	Post War Building, Directorate of. Ministry of Works and Planning, Lambeth Bridge House, S.E.1. Reliance 7611.
RCA	Reinforced Concrete Association. 91, Petty France, S.W.1. Whitehall 9936.
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1. Welbeck 6927.
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2. Temple Bar 8274.
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1 Holborn 2646.
TCPA	Town and Country Planning Association. 13, Suffolk Street, S.W.1. Whitehall 2881.
WLA	Wrought Light Alloys Development Association. Union Chambers, 63, Temple Row, Birmingham, 2. Midland 0721.
ZDA	Zinc Development Association. Lincoln Building, 15, Turl Street, Oxford. Oxford 47988.

NEWS

THURSDAY, JANUARY 28, 1943
No. 2505. VOL. 97

Though every news item is news to someone, it doesn't follow that all news has the same value for everyone. The stars are used to draw attention to the paragraphs which ought to interest every reader of the Journal.

★ *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 paragraph marked with more than two stars is very hot news indeed.

We regret to record the DEATH OF LORD HIRST, *Chairman and Managing Director of the General Electric Co. Ltd. He was one of the founders of the G.E.C. over 50 years ago, became Managing Director in 1900 and Chairman in 1910. He died at his home, Fox Hill, Earley, near Reading, at the age of 79.*

At the instance of the President, Mr. W. E. Rice, O.B.E., a fund has been raised by the LMBA TO PROVIDE SUNDAY AFTERNOON CONCERTS *for the troops on leave in London over the week-ends. The concerts will be organized by the Welfare Branch of London District, of which Col. Lord Nathan is Command Welfare Officer, and will take place in the Piccadilly Theatre.* The National Sunday League, which in peace-time ran popular Sunday afternoon concerts in the Palladium, is assisting in the scheme. In a letter of thanks to Mr. Rice, Lord Nathan says: "It was with the greatest gratification that I heard of the generous intention of London master builders to make it possible, financially, for Sunday afternoon concerts to be given for the troops. This is a real public service, and I write to express most cordial thanks on behalf of the G.O.C. London District, as well as my own." The G.O.C. London District is Lieut.-Gen. Sir Arthur Smith, K.B.E.

from AN ARCHITECT'S *Commonplace Book*

LORD CURZON AT KEDLESTON [*from Recording Ruin, by A. S. G. Butler*]. So I spent the first of about fifty weekends practically alone with Lord Curzon. We dined about nine o'clock, and at half-past ten he started showing me the whole house. I knew about it from books, but had not expected quite such a wealth of exquisite detail and such really grand planning. Lord Curzon clearly had a passion for the place ; and, as I became infected with his zeal and increasingly excited by his schemes for making it more splendid still, he became most friendly and I felt, towards three o'clock in the morning, that I was probably established there. For I suppose even an unknown architect and an eminent statesman can hardly spend so much time as we did—confined together as it were in a remote country monastery—without either having an early and disastrous row or establishing a basis at least of trust and, I might add, of affection : and Lord Curzon, when he was not in one of his well-known irritable and sometimes uproariously abusive states—brought on, I gathered, to a great extent by physical suffering and bodily discomforts—was a delightful companion and could be, at times, that difficult thing, a real partner in the work to be done. I mean he made himself into an architect—which he was as much as Lord Burlington at least—and we toiled at the designs and details in the closest union, except that I held the pencil which drew our joint conceptions. Sometimes he joined in almost too much, especially when, after hours of trial by models made of sheets and standing about discussing at perhaps unnecessary length, I settled down to envisage on paper what we really wanted made. Then he would sit beside me in an armchair with his leg on its wooden rest, and watch with a glittering but quite kindly eye every line I drew and each movement of my compasses. This occurred in a small boudoir he had prepared for me near his study and, such were my exertions in the heat of the room from a roaring fire, I would remove both collar and tie and even let my shoes fall off under the table without provoking any comment from the Foreign Minister.

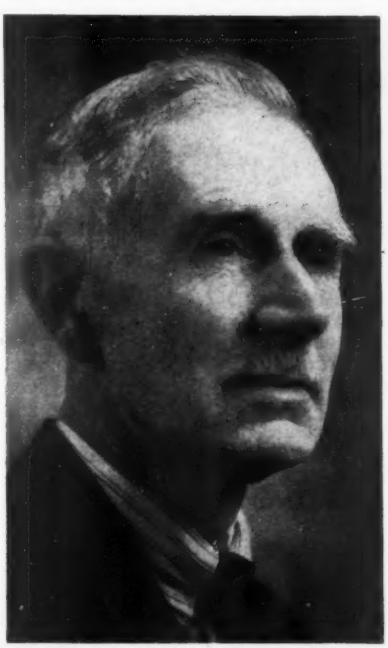
In the House of Commons Sir Irving Albery asked the Minister without Portfolio whether any POST-WAR SHORT-TERM POLICY *is being planned to deal with demobilisation, employment, housing and finance ; and what Ministers, commissions or committees are charged with these urgent tasks ?*

Sir W. Jowitt : All these matters are engaging the close attention of the Ministers directly responsible under the general co-ordination of the Ministerial Committee on Reconstruction Problems, of which I am Chairman. In the statement I made to the House on December 1, I described the machinery for the study of reconstruction problems, and I do not think I can usefully add anything to that statement at present.

Sir I. Albery : Is it being borne in mind that the interim problems, despite the difficulties of the permanent problems, are even more urgent ? Sir W. Jowitt : Yes.

A director of John Laing and Son, Ltd., Mr. H. C. HARLAND IS THE NEW PRESIDENT OF THE LMBA, *in succession to Mr. W. E. Rice. Mr. Harland has been a member of the Council of the LMBA since 1929, and has represented the Association on the Council of the National Federation since 1937.*

Since the outbreak of war Mr. Harland has assisted on many committees dealing with matters connected with the industry, and was senior vice-president of the Association last year. He is 62 and comes from Stockton-on-Tees. Trained as a surveyor on the estates of the Duke of Montrose at Drymen, in Scotland, he became, at the age of 22, building surveyor to Viscount Furness, for whom he undertook many extensive building and development schemes. After serving in the last war in the R.E.'s in France and elsewhere overseas, he became co-ordinating manager in the building of a town for the housing of shipyard workers for the Furness Shipbuilding Co., Ltd. In 1920 he went to Canada to take up an appointment on the designing staff of the Welland Ship Canal in the department of Railways and Canals. The building of the canal, capable of taking ships of the *Queen Elizabeth* class, was carried out by the Canadian Government with direct labour. When completed, it will enable ocean-going vessels to reach the head of the great lakes in the heart of Canada and the United States. The construction of the particular section with which Mr. Harland was associated was an undertaking of greater size than the Panama Canal. At the end of 1921, he became London manager of John Laing & Son, Ltd., and some years later was elected to the board.



The New President of the LMBA.

For the duration of the war LINCOLN CATHEDRAL'S WINDOWS HAVE BEEN BURIED *sixty feet below ground in a chamber hewn out of solid rock. The windows date from the thirteenth, fourteenth and fifteenth centuries.*

Now, carefully packed away out of reach of enemy bombs, says *The Times*, are the "Dean's Eye," most perfect in its detail of all the windows in Lincoln Cathedral ; the "Bishop's Eye," constructed of fragments of windows collected after the ravages of the Parliamentary Wars ; and some beautiful lancet windows from the transepts and Angel Choir. The chamber in which the windows are stored was constructed by Mr. Robert S. Godfrey, the Cathedral Surveyor and Clerk of Works.

The scheme for the COMPULSORY CONCENTRATION OF THE PAINT AND VARNISH INDUSTRY *is to be abandoned by the Government. This will mean a reprieve for a number of small firms. The central compensation fund for firms closed down will not now be necessary.*

A modified project will be operated. Details are being worked out by the BOT and the MOS and MOLNS in consultation with the industry.

Royal Gold Medallist

The best architecture in this country is being designed by Professor Reilly's old students. Among the stars of his Liverpool School are Professor W. G. Holford, the new member of the Fine Arts Commission ; J. H. Forshaw, superintending architect of the L.C.C., who as architect to the Miners' Welfare Commission created a sensation with his pithead baths ; and John Hughes, director of Housing, Manchester. There are heads of schools of architecture, like Stephen Walsh, of Sheffield University, and J. S. Allen, of Leeds ; there are architects in private practice, like Max Fry, F. X. Velarde, Minoprio and Spencely, D. L. Bridgwater (of Mitchell and Bridgwater), George Checkley, Bernard Miller, W. Crabtree who designed Peter Jones, and a newcomer to fame, Niam Aslan, of the super-R.A. plan. There are the present MOWP men, like Christian Barman and Gordon Stephenson. Abroad there are F. Williamson, of South Africa, and Eric Ross Arthur, head of the Toronto School of Architecture. And so the names go on. Undoubtedly Professor Reilly is the greatest master English architectural education ever had. If he didn't invent the architectural schools, he certainly made them. Liverpool won the Rome Scholarship (when the Rome Scholarship meant something) just about twice as many times as any other school, the first winner being H. Chalton Bradshaw, now Secretary of the Royal Fine Arts Commission. This year, with the approval of the King, architecture's highest award, the Royal Gold Medal, will be bestowed on Professor Reilly. The choice is one that does honour to the medal as well as the medallist.

On the recommendation of MOWP PROFESSOR PATRICK ABERCROMBIE IS TO RE-PLAN PLYMOUTH *for The City Council. Associated in the work will be Mr. J. Paton Watson, the City engineer. A report on land utilization has already been prepared by Dr. Dudley Stamp, Chief Adviser on Rural Land Utilization to the Ministry of Agriculture.*

In the House of Commons Mr. Sorensen asked the Minister of Health whether he is aware of the many ‡ NEGOTIATIONS IN REAL ESTATE *now taking place in which land is being sold for three or more times its pre-war value; and, in view of the disquiet this is causing and its effect on post-war housing and rents, he proposes to take any action in the matter?*

Miss Horsbrugh: The whole question is being considered by the Government in the light of the Uthwatt Report.

★★

The MINISTRY OF TOWN AND COUNTRY PLANNING BILL *was presented to the House of Commons on January 21 by Sir William Jowitt, Paymaster-General.*

The text of the Bill provides for the appointment of a Minister of Town and Country Planning at a salary of £5,000 a year. Mr. W. S. Morrison, at present Postmaster-General, has been already designated for this new office. The function of the Minister is defined in the Bill as being "the duty of securing consistency and continuity in the framing and execution of a national policy with respect to the use and development of land throughout England and Wales." From a date to be appointed by Order in Council there will be transferred to the new Minister all functions exercisable by the Minister of Works and Planning under the Town and Country Planning Act, 1932. If it appears expedient that any other functions relating to the use and development of land in England and Wales which are at present exercisable by any other Minister should be exercised by the Minister of Town and Country Planning those functions may also be transferred to the new Minister by Order in Council. From the appointed date the Minister of Works and Planning (the office held by Lord Portal) will be known as the Minister of Works; and the Minister of Works and Planning Act, 1942, is to be amended accordingly. Provision is also made in the Bill for the establishment of statutory commissions for the purpose of exercising, under the Minister, "functions in relation to the use and development of land in England and Wales, or in any area therein. . . ." On December 1 Sir William Jowitt explained that the Government recognized the value of a permanent commission as part of the machinery of the new Ministry. Such a commission, he said, would be the most appropriate body in connection with the acquisition of development rights, if some such scheme were to be adopted; and numerous other matters, such as the management of property, could be usefully delegated to a commission.

THE JOURNAL'S BRAINS TRUST

IGNORANCE, said Seneca, is a feeble remedy for our ills. But then so is knowledge unapplied. To-day scientific research has so far outstripped the organization built up for its distribution that a situation has come about in which building practice, stalemated by obsolete bye-laws and evil communications, has taken the habit of lagging behind building theory—by anything from ten to fifty years. In the meantime tucked away behind the bleak windows of research departments in various parts of the world there lies steadily accumulating the information which it should be somebody's business to broadcast to the building industry. If the accumulating matter were rubbish strong men in special uniforms would tear into it in the name of municipal hygiene, and take it where it could be sorted out. Because on the contrary it is material of high potential value hardly anything is done to bring it where it could be made use of. Yet, without some sorting out, without some cataloging, of technical research, it becomes more difficult every day to follow up contemporary developments in building theory, and more and more hopeless to try to bring them into the kind of perspective required by the practising exponent of building. Hence if progress is to be made at anything like the rate the present crisis, and the present opportunity, demands, it is desirable that some means should be found of making it possible for those actively concerned to provide themselves with an up-to-the-minute index to building *form*. In these next few years building history is going to be made. Let no one make any mistake about that.

There is another reason why a technical intelligence service is needed. There are many thousands of technicians serving in the forces who are almost entirely cut off from the routine of normal life and the facilities it provides for keeping them on top of their jobs. There are prisoners of war behind barbed wire. There are specialists seconded for the Duration to war industries. These men should be fed the stuff they need, in a way they can absorb it quick while coping with the business of the day which for them is winning the war. In the issue for January 7 the need for doing something for technicians serving in the forces was referred to. This JOURNAL has felt for a long time that an effort ought to be made to cater for them. The JOURNAL thus announces an entirely new feature, which is nothing less than an attempt—limited of course by the circumstances of the war, and growing out of the earlier INFORMATION CENTRE—to provide a *technical intelligence service* whose function is to record the movement of science over the whole field of building technics, not merely in England but throughout the world, or as much of it as is available right now; as reflected in technical publications, papers read before learned societies, official statements, reports of research institutions and building experiments. There are difficulties in the way of this ambitious enterprise it need hardly be said, but it seems important to make a start.

The JOURNAL has been fortunate in securing editors who, though they must remain anonymous, hold positions in the building industry of such responsibility that the expert nature of their information goes without saying. In fact, no comparable team of specialists has ever before been brought together for the purpose of broadcasting technical news—the which is mentioned in no idle or boastful spirit, but as an example of the changed temper of the time, for it is not long since in England the expert was one who passed by on the other side, lest he be contaminated by those who had been not lucky enough or not clever enough. That has all changed. To-day the best kind of expert is deeply aware of his responsibilities, well knowing that unless it can be made available to the non-specialist practitioner his inside knowledge will be wasted because it will not be utilized. Hence the JOURNAL'S Brains Trust.

War conditions, paper restrictions and closed frontiers have dictated a modest start. None the less the JOURNAL believes that even as it stands now this section is very much worth while.

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

NOTES & TOPICS

MOTCP

The Minister of Town and Country Planning Act, 1943, was presented to the House of Commons last week by Sir William Jowitt. By the time you read this it may have passed on to the House of Lords.

*

The Bill provides (i) for the appointment of a Minister of Town and Country Planning and his staff, charged with framing and executing a national policy for the use and development of land throughout England and Wales; (ii) for the transfer to that Minister of all functions exercisable by the Minister of Works and Planning under the Town and Country Planning Act, 1932; (iii) that from the date of this transfer the Minister of Works and Planning shall become the Minister of Works; (iv) that the functions exercised by any other Ministry in relation to the use and development of land in England and Wales may be transferred to the Minister, if it is thought expedient to do so; (v) for the establishment of any Commission considered necessary to exercise, under the direction of the Minister, functions in relation to the use and development of land in England and Wales; (vi) that an Order establishing any such Commission may enable the Commission, if incorporated by the Order, to hold land without licence in mortmain (*mortmain*: held in perpetuity, and incapable of alienation or transfer) notwithstanding that the land may not be held on behalf of the Crown.

*

The Minister of Town and Country Planning Act does nothing to remove the anomalies now clouding physical reconstruction, though provision is made for regularising the position. "If," says the Bill, "His Majesty finds it expedient," the planning functions at present exercised by other Ministers may be transferred to the new Minister.

*

In official circles it seems to be accepted that the provision for the appointment of "any Commission" provides for the setting up of a Central Planning Authority. But, politicians will argue, the Commission will be bound to work to the direction of MOTCP. It will therefore be considered by other Ministers to have no more power over them than the Central Council for Works and Buildings has over Lord Portal.

*

It is evident that the Government has decided not to appoint a Minister with overriding powers. This decision will lead to indecision when priorities come to be considered and the battle of physical reconstruction will be won by the Department with the strongest Minister. Under our present governmental system, this means that the battle will be won by the Department with the most decisive and clear thinking Civil Servants . . . . for it is they who brief their Ministers with answers to parliamentary questions, speeches and what not. The prospect is not therefore hopeful.

*

The most satisfactory proviso of the Bill is that which will enable any Commission appointed to hold land in mortmain—for this is an indication that the Government intends to control development rights and redevelopment rights—but unless legislation is introduced soon to give effect to the Uthwatt and Scott proposals the Government will again have missed the bus and there will be no peace in our time.

N.S. 259 *or*
THE GREAT CALL-UP MYSTERY.

The Ministry of Labour and National Service have produced an excellent leaflet dealing with the call-up of building operatives during 1943. The leaflet, N.S. 259, is reproduced on page 82. Why was it not published earlier? Because it was not received. MLNS evidently did not think it essential to send copies to the trade and technical press. When by accident a copy came into a correspondent's hands he took the precaution of telephoning the Ministry of Works and Planning to ask whether there was any objection to the leaflet being published—though, bearing the date December, 1942, it can scarcely be considered as red-hot news. MOWP

replied that MLNS have no objection to publication.

★

At the end of 1941, the Director-General of MOWP announced that the industry was about to be reduced considerably. It was understood that a further 28,000 operatives would be called to the colours. Then came the Great American Mystery, and there was an abundance of Government work for the larger and medium sized contractors. That programme is nearing completion, and Lord Portal, at the Centenary Luncheon of the *Builder*, foreshadowed concentration with a phrase something like this : " Half my industry has been taken from me. When a tyre is deflated too much it is no easy task to blow it up again." The Minister of Labour has said that the famous 28,000 men who were to have been called up early last year are now to be called up, but apart from this no hard facts have been issued about the call-up.

★

Though this is a question that has been in every builder's mind for some months, and though MLNS produced the excellent leaflet N.S. 259 which contains all the answers, the facts were not given to the trade and technical press. Yet one phrase in the leaflet required applications for deferment for certain classes of operatives to be returned by December 21, and for other classes by January 7, 1943 !

★

This Journal, I understand, has, in the past, received one or two press announcements from MLNS, but has had to rely mainly on MOWP for all matters concerned with the administration of the industries.

★

Why was this leaflet not issued earlier ? Either the MLNS is shy, or MOWP did not know of the leaflet. Whichever is the case, the lack of co-operation between the departments is deplorable.

ARCHITECTURAL SCIENCE BOARD LECTURES

The Architectural Science Board is to be warmly congratulated on the first two of the new series of RIBA science lectures (held last Saturday). The lecturers were both masters of their subjects and Mr. Ackerley's tricks to illustrate the fundamentals of artificial lighting were in the great tradition of Maskelyne. His eggs became billiard balls and his billiard balls became eggs by a mere change of lighting. The chairmen, G. Grey Wornum and Henry Strauss, were both in form : the same can hardly be said of the audience.

★

In number it was considerable, but scarcely anyone had anything to contribute with the exception of Mr. P. J. Waldram, who, in a very long speech, left me with the impression that he disliked Mr. Allen's lecture, the BRS and the Department of Scientific and Industrial Research (most of whose reports it seems are either incorrect or cribbed). He also appeared to dislike all Government Departments and their reports, all scientists and all Americans (I believe he said Americans). Quite a pretty collection of dislikes to hand out to a platform consisting of a Parliamentary Secretary and a lecturer who is a member of the BRS.

UNIT CONSTRUCTION AND/OR PREFABRICATION

The word " prefabrication " has no clear definition, though it is generally interpreted as applying to the production of complete buildings under cover, delivered to the site in very large sections and assembled dry in position with no in situ work. Mr. Sam Bunton, the designer of the two houses described in this issue, which were formally taken over by the Town Council of Kilmarnock on January 16, considers that prefabrication proper in the American manner should not be confused with the unit construction he has used in his houses. In this type of mass-produced construction, while the basic panel units—sufficiently light to be easily handled and transported—are prefabricated, a certain amount of in situ work is involved. It is likely that in the vast building programmes of the future, unit construction, together with a complete standardisation of building sizes, will predominate over prefabrication in its wider sense.

★

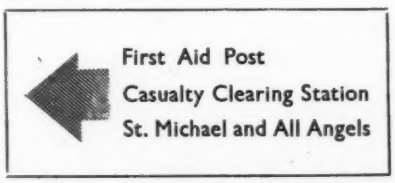
These Kilmarnock houses, though admittedly at an early experimental stage, are of interest as a pointer. The chief difficulty to be overcome in standardised dimensional planning and unit construction seems to be to obtain the necessary co-ordination and agreement between the various manufacturers, industries and authorities, who would be involved in the mass construction of unit building. This can be overcome only through the agency of an official building authority having executive powers. Another important argument for the setting up of a Central Planning Commission.

★

Mr. Bunton, a Scot of considerable energy, has been responsible for much housing in the north. He is the town-planning consultant for the Borough of Clydebank, and has prepared a rebuilding scheme for the whole town. He is now developing the principle of the Kilmarnock houses in relation to asbestos and plastic boarding. I am glad to see that in a written description of the Kilmarnock experiment, he stresses the point that standardisation of building parts does not necessarily restrict design. This can never be over-emphasised, for there is a great fear among the public and even among many architects that standardisation, prefabrication and rationalisation in building must inevitably bring a dull and negative uniformity. It must be repeated again and again that if standardised building units are well designed, the number of possible combinations and adaptations of parts can be extremely varied. Moreover, standardisation would impart an æsthetic homogeneity and unity of " scale " to our towns which have been entirely lacking for over a hundred years.

EXCELSIOR

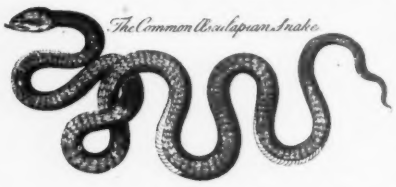
Observed near Leicester in neat green Gill Sans lettering on a white ground :



ASTRAGAL

LETTERS

R. A. Cordingley, F.R.I.B.A.
(Professor of Architecture, Manchester University)
T. H. Oakey
"Umbo"
Mowbray A. Green, F.R.I.B.A.
(Panel Architect, Bath)



AFTER the War

SIR,—From the "After the War" discussion and related articles in your columns there emerges a notable degree of unanimity on some important points of principle. Most of your contributors appear to agree that the professional unit should be larger, considerably larger, than the average office of the privately practising architect of the past, and should, in fact, be of a scale and type most conveniently described by the term "Group." Some are inclined to consider the Group as embracing representatives of all the principal professions concerned with building; others are, for the time being, less ambitious.

Superficially, there does not appear to be a corresponding agreement as to whether private or salaried practice is the better for the new conditions, but if one assumes the Group system to be acceptable, then the more substantial of the differences between the two forms of practice would disappear. All the advantages which Mrs. Tatton-Brown enumerates as peculiar to "Architects Departments" (December 10 issue), except No. IV, would apply also to private practice, and Mr. Gibson has shown (December 31 issue) that the listed advantages of private practice can also be secured in public departmental work.

Similarly, Group organization would automatically cancel the disadvantages of private practice such as given by Mrs. Tatton-Brown, whilst the defects noted in relation to public departmental work are, as she agrees, neither universal nor, where present, ineradicable. The distinction which would remain between the two types of practice nevertheless is important; some, perhaps many, architects would never willingly surrender the relative freedom and scope for initiative which private practice allows. However, it is perhaps unnecessary to make a choice; it may well prove that there may be room equally for group, departmental and small-scale, private practice, but before conclusions can be safely drawn, suggestions for a re-organization of the mode of professional practice must be closely considered in relation to the objects, aims and estimated conditions of post-war physical reconstruction.

Architects cannot afford to be wholly altruistic, but the general desire to raise the level of architectural attainment is quite clear, though I would suggest that too narrow a view usually is taken of the physical scale at which architects properly should work. I agree entirely with Mr. Handisyde (December 24 issue) in believing Town Planning to be a job for a specialist, but there is a considerable distance between the minimum unit employed by the planners and the maximum element up to the present entrusted to architects. The planner, unless also he has architectural abilities, works almost wholly in two dimensions. Hence normally it has been no one's specific charge to consider the physical relationship of buildings even in moderately small groupings. Whether to be regarded as cause or effect, the kind of specialization which has developed in architecture is that of building-type, just that system, unfortunately, which has had such a disastrous effect upon the amenity and unity of towns, villages and countryside over the last hundred years.

Present-day departmental architectural practice is organized preponderatingly for building-type specialization and many among ostensibly privately-practising architects are sustained by more or less substantial commissions for multiple or chain commercial and industrial undertakings. Hence to build anew for a moderately self-sufficing community immediately before the war would have called for the services of almost as many firms or units of architects as there were principal buildings. Every architect perhaps has in his time gibed at the æsthetic results of the system, although almost all have subscribed to it. Has it anything to commend it æsthetically, socially, or in first or ultimate economy? It is surely indefensible upon all grounds but those of expediency. In short, why not aim at localising architectural services in small territorial sectors? It need not mean the exclusive attachment of firms to prescribed areas, but merely the rationalisation of distribution of professional commissions. To adopt such an objective would mean that many difficult and intricate problems would have to be faced, but no one expects post-war reconstruction to be a simple and easy affair and we have, at least, the experience of regional war-time working to give a rough, if far from perfect, guide.

There is the additional and perhaps more immediately forceful consideration that professional practice is likely to be impelled increasingly in the direction of rationalization by the force of post-war circumstances. Reiterated authoritative, if cautious, statements have prepared us for a control of building far more comprehensive than anything experienced after the last war. Is it conceivable that official control will tolerate a piecemeal approach to its vast building project? However substantial the programme of repair and reinstatement may be, the *real* programme, that undertaken to meet deficiencies and arrears of building, will surely be for given cleared or new sites, comprehensive of all works and buildings upon such sites. "Consumer" demand will almost certainly be resolved in advance, by some means, to allow of efficient and economical manufacture, transport and use of materials and of labour, on and off the site. Commercial, industrial and trade elements are already showing themselves aware of the desirability, if not necessity, of pooling their demands and formulating collective requirements in anticipation of the post-war policy.

If this procedure, now shaping, should crystallize, what would be the situation of the profession? One strong probability is that official architectural departments would develop at the expense of private practice and probably also of the Architectural Departments of private undertakings, unless both the latter were prepared and organized to participate in broad schemes initiated by local or other authorities acting on behalf of the Central Authority. Alternatively, in the lack of willingness or capacity to collaborate on the part of these elements of the profession, whilst the official architectural departments would still be liable to expand, organizations supplanting other types of practice would tend to arise under the direction of non-architects or a new type of profession. The latter situation does, in some measure, already exist. There will be as much, if not greater, urgency in building after the war, and it is not improbable that the amount of controlled building will exceed, by far, that permitted outside an organized programme.

My own view is that a scheme for Group operation upon a basis of the type I have indicated should be explored, this to allow for the operation of official, "retained" and private units. The scheme need not, in the first instance, take account of building work other than that anticipated in connection with a definite post-war policy; requirements in piecemeal reinstatement and repair might be presumed to be met by private practice of the pre-war scale. Any proposals formulated should allow for the participation of members of the profession returned from the Forces.

R. A. CORDINGLEY.

Manchester.

The Building Control

SIR,—I was very interested in the letter written by "Country Builder." I have to state that up to the last few months the administration of the control was in the hands of architects, and in fairness to them I must say that any applications that were submitted were dealt with very expeditiously and by competent technicians. This, however, has been changed in recent months and applications are now handled by non-professional people, but there is no doubt that the same service is not in evidence as in the past.

Although we have not been successful in obtaining licences for all work for which applications were made, our experiences show that much time and trouble were saved when applications were handled by the professional men.

T. H. OAKEY,
Hon. Secretary, The Bristol & District General Builders & Contractors Association.
Managing Director, Frank Wilkins (Building Contractors) Ltd.

SIR,—The letter of "Country Builder," published in your JOURNAL for January 7, indicates a complete misconception of the machinery for the control of civil building.

While there may have been a time when architects were administering control, that does not appear to be the case to-day. According to the usual Civil Service custom with the growth of the new machinery, non-technical heads of departments have been appointed and the technical architectural staff have been relegated to a subordinate position. The "Country Builder's" applications are therefore dealt with in the first instance by non-technical personnel, and the application only reaches the technical officers when the grant of a licence is more or less agreed. None of the initial "time-wasting" correspondence is therefore the responsibility of the architectural staff.

In my dealings with the Ministries, I have always found the qualified architectural staff both competent and fair. But I can assure "Country Builder" that city architects suffer under Building Control quite as much as he does himself.

Although it is regrettable that "Country Builder" should inflict unmerited obloquy upon the architectural profession, it is at least gratifying that he should suppose that the Government would ever give to architects such a position of authority over matters concerned with architecture and building.

"UMBO."

Bath's Eighteenth Century Ironwork

SIR,—A simple reference to the Bath authorities would have prevented your falling into such a grave error as that mentioned in the first page of your Journal for January 7.

The statement that the authorities have decided to remove Bath's finest 18th century ironwork for salvage is entirely untrue.

Bath is in the happy position of being able to retain almost the whole of the best ironwork, because in nearly all cases it is used as railings to protect areas, and cannot be removed without danger to the public. Moreover the overthrows are in all cases protected.

MOWBRAY A. GREEN,
Bath. Panel Architect.

DETAILS OF RUBEROID CONTRACTION & EXPANSION JOINTING FOR CONCRETE & WOOD BLOCK ROADS

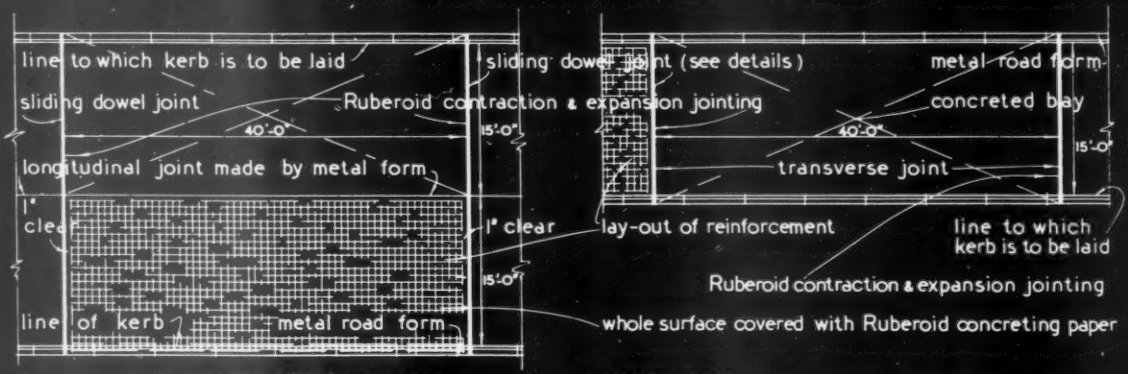
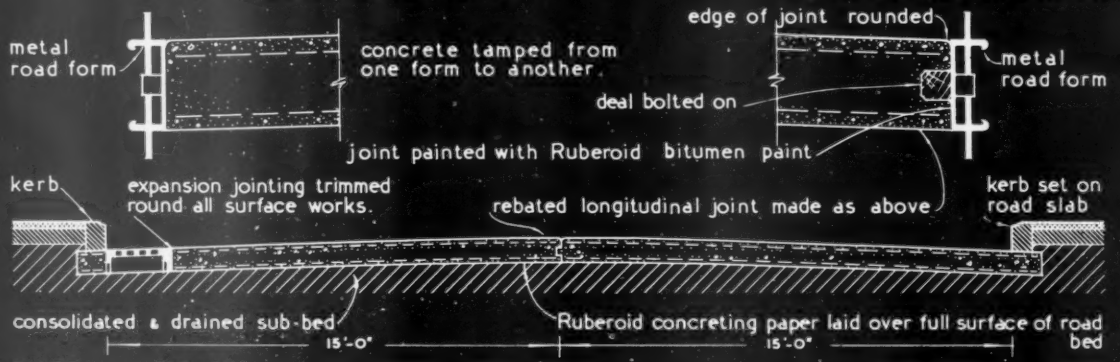
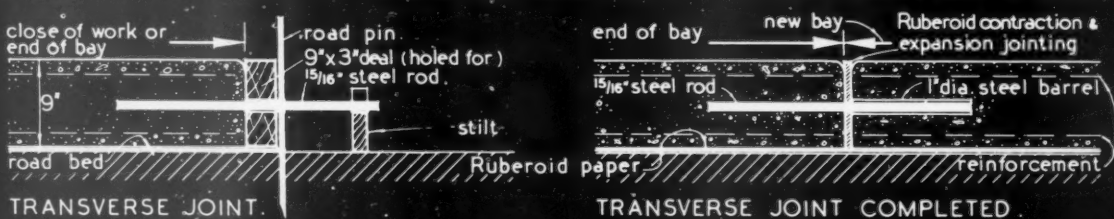


DIAGRAM 1. LAY-OUT OF 30ft. CARRIAGEWAY IN TWO HALVES

DIAGRAM 2. NARROW ROAD LAID FULL WIDTH IN ONE OPERATION

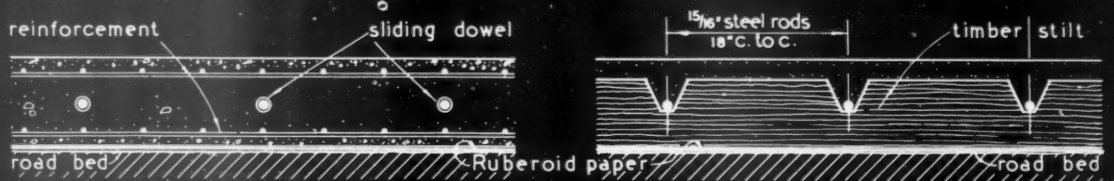


DIAGRAMMATIC SECTION OF TYPICAL WIDE ROAD (poured in two halves) LONGITUDINAL JOINT.



TRANSVERSE JOINT.

TRANSVERSE JOINT COMPLETED.



CROSS SECTION AT TRANSVERSE JOINT.

STILT SUPPORTING DOWEL RODS

WOOD BLOCK PAVING ON CONCRETE.

DETAILS OF COMPLETED JOINTING & EFFECTS OF EXPOSURE TO TRAFFIC.

Issued by The Ruberoid Company Limited.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 889 •

ROAD CONSTRUCTION

Subject : Ruberoid 7 : Contraction and Expansion Jointing for self faced concrete roads and wood block finished roads on concrete foundations.

Description :

This sheet illustrates the application of Ruberoid Contraction and Expansion Jointing to concrete roads. The illustrations show the sliding dowel bar principle at transverse joints to overcome tendency of curling or lipping at ends of slabs, and to spread the loads from one slab to another—1 in. dia. steel barrel with $\frac{15}{16}$ in. round steel rods to slide therein laid usually at 18 in. C/C.

The Ruberoid Jointing is composed of durable and weather resisting materials, with the highest quality bitumen binder, so treated as to remain elastic in the coldest weather, whilst remaining free from any tendency to melt or run in hot weather. It possesses a high degree of resilience resulting in a minimum of distortion, so that the temperature movement of the concrete slab can be absorbed without extrusion of the jointing.

Standards :

The material is provided in standard lengths of 3 ft. and thicknesses of $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{3}{4}$ in. and 1 in. and depth as required to suit slab thickness. It is recommended that the $\frac{3}{8}$ in. jointing be used for 10 ft. slabs, $\frac{1}{2}$ in. for 20 to 40 ft. slabs and $\frac{3}{4}$ in. or 1 in. for slabs of 40 to 60 ft. span.

Although there are no specific maximum or minimum widths of roads where this jointing can usefully be employed, its permanence can be taken as equal to the useful life of the road slabs—which in its turn is governed by proper design and construction.

Application :

The concrete roads should be laid on a properly drained and compacted road bed—which before the laying of the concrete should be covered with Ruberoid Concreting Paper, laid with lapped joints.

When the road is 16 feet or over in width, concreting should be carried out in two halves, with a central longitudinal joint. The procedure is as follows :—

After the road-bed has been compacted to the correct levels, adjustable metal concrete road forms should be laid to line and levels of drawings and sections for a length of road of about 180 feet. If to be concreted full width in one operation these forms would be at back edge of the kerb line both sides—if in two halves, one at back edge of kerb line and the other at the central longitudinal joint. A 9 in. by 3 in. deal is cut to length and wedged between forms for the commencing point and the whole surface to be concreted is covered with Ruberoid Concreting Paper, laid with lapped joints, and on this is spread and tamped the concrete in the usual way—the reinforcement laid in position and concreting proceeded with. When arriving at the end of a predetermined bay, or at the close of day's work, a 9 in. by 3 in. deal is placed at right angles to road forms and held in position by road pins, and the sliding dowel joint is made in the following manner. Lengths of $\frac{15}{16}$ in. round steel bar, 36 in. long, are placed in the green concrete at 18 in. centres, the 9 in. by 3 in. deal having been drilled for these to slide through. The bars are set embedded in the finished slab for 18 in. of their length and are supported in position whilst the concrete is setting by the 9 in. by 3 in. deal, assisted by a shaped timber stilt as shown in the illustration. The concrete is tamped right up to the deal, the adjacent edge being rounded off with a $\frac{3}{8}$ in. radius by use of a special rounded edge float.

The joint is completed on resuming work next day by the removal of the 9 in. by 3 in. deal, taking the expansion jointing and punching holes through it with the sharp cut edge of 1 in. dia. steel barrel in correct positions marked off the projecting ends of the steel rods. The jointing is slipped over these steel rods to stand upright against the finished edge of the concrete and the 18 in. lengths of barrel are greased inside and slid over the steel rods tight to the face of the jointing material. Concreting of the second bay then continues in the ordinary way, the new edge of the second bay being rounded off as in the first bay. Thus a reliable watertight joint is obtained—the Ruberoid Jointing taking up all movement of the slab, which by the introduction of the sliding dowel joint is able to move on the road-bed, thus avoiding contraction cracks, whilst the edges of the slabs are prevented from lipping or curling, as the allowable movement is horizontal only, whilst the loads are, by the introduction of the dowels, transferred from one slab to another.

Central longitudinal joints may, if desired, be treated in the same way, or may be formed as an ordinary rebated joint, by the bolting of a shaped piece of timber on the central road form. The edges of these central joints should be painted with Ruberoid Bitumastic Paint. The kerb should be laid on top of the outer edge of the reinforced concrete slabs.

When a road is to be finished with wood blocks, Ruberoid Contraction and Expansion Jointing should be placed adjacent to all kerbs and round all edges of manhole covers, gully grates, stop cock boxes and all other surface works. This will overcome the lifting of blocks from the road-bed, when they expand under strong sunlight.

Previous Sheets :

Previous Sheets dealing with Ruberoid roofing and waterproofing materials are Nos. 267, 304, 402, 404, 407, 873, 876, 878, 881, 885 and 888.

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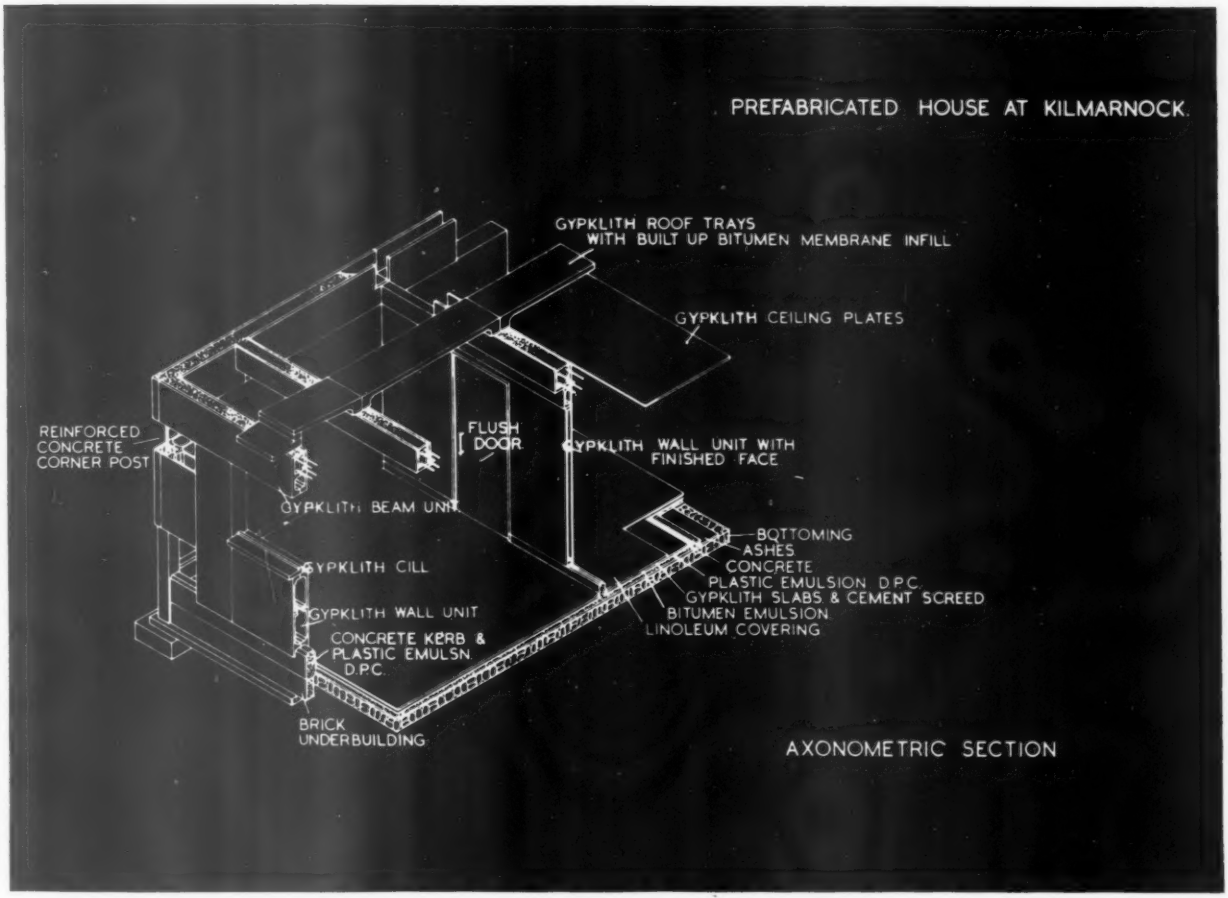
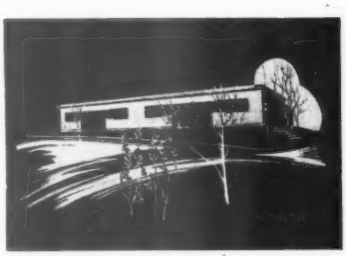


UNIT CONSTRUCTION HOUSES IN KILMARNOCK

DESIGNED BY SAM BUNTON



The system used can more precisely be termed "unit-construction" rather than "prefabrication," although the units are substantial in size. The objects of the demonstration houses were :—(1) To erect a completely waterproof building. (2) To establish a sound method of expansion jointing. (3) To provide great rigidity and stand firm against the most abnormal gales, while retaining lightness in handling of units. (4) To achieve better sound and heat insulation than normal. (5) To be completely practical in construction, planning and equipment.

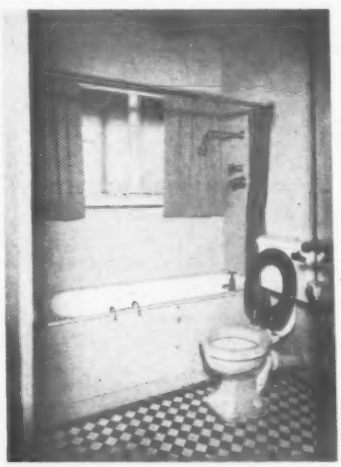
The chief material used is "Gypklith," a wood-wool (shredded timber) and cement composition, fire, heat, sound and vermin-proof, formed by hydraulic pressure into slabs. The basic size of panels is 80 in. by 40 in. They can be used horizonally or vertically, and give great flexibility in planning. Everything in the design depends on a 40 in. grid. Here is a summary of the opinions of Mr. S. Bunton, the architect, on the construction used.

The fabric of the structure consists of the following prefabricated units :—*External Wall Panels.*—80 in. by 40 in. by 8 in., the outer and inner faces are 1 in. thick, finished externally with a patent type of rendering and internally with one coat of a special type of hard plaster. These units are of hollow construction, the faces being 1 in. thick with a 6 in. hollow core. *Internal Cross-Wall Panels.*—80 in. by 40 in. by 8 in., exactly similar to above except both faces are finished with one coat of the special plaster. *External Wall Beam Units.*—80 in. by 20 in. by 9 in., internal and external faces are again 1 in. thick finished on the outside with rendering and internally with plaster. *Internal Cross-Wall Beam Units.*—As above, but with both faces finished with one coat of the special plaster. *Partition Wall Panels.*—80 in. by 40 in. by 4 in., finished with one coat of plaster. These units are of hollow construction, both faces being 1 in. thick with a 2 in. hollow core. *Roof Tray Units.*—80 in. by 20 in. by 6 in., manufactured in hollow tray form and processed in the factory with bitumen emulsion and cover membranes overlapped at ends and sides ; 95 per cent. of the roof work is therefore done under

cover). *Floor Units.* — 80 in. by 2 ft. 0 in. by 6 in.—manufactured in hollow-tray form, supported at 40 in. intervals By sleeper walls. *Plinth Course.*—80 in. by 20 in. by 4 in.—weathered and rendered with plaster and finished with the bitumen process previously described. *Parapet Course.*—4 in. by 3 in. *Sills.*—80 in. and 40 in. by 4 in.—weathered, rendered and impregnated with a waterproof rendering. *Longitudinal Tie Beams.* — Manufactured from Gypklith sheets with side and soffit pieces 1 in. thick. They are the permanent shuttering for concrete, and are finished with hard stippled plaster. The floor, where laid on solid, consists of 3 in. concrete on bottoming, bitumen Gypklith and wood-wool floor slabs on top, covered with linoleum coved to walls. Where suspended, the floor is of Gypklith slabs.

The external and cross-wall slabs are set on a cast in situ kerb. An impregnated bitumen emulsion strip is applied to each joint together with an application of cold-setting bitumen carefully keyed and recessed. These processes occur at all vertical, horizontal and roof joints, and thereafter are carefully pointed with the special plaster referred to. Consequently the structure is plentifully supplied with expansion joints. The internal partitions are set on subsidiary pre-cast concrete kerbs, suitably profiled to receive the checked soffits of the wall slabs and are jointed together with the special plaster in the ordinary manner. The roof trays, jointed as previously described, are finished with a bituminous sealing coat which takes very little time. The underside of the roof trays are lined with wall boardings to form ceilings.

Electric Installation.—Most of the tubing and wiring was installed in the factory. Under perfect conditions almost all of this work would be done before site delivery. *Plumbing.*—The



one-stack plumbing system forms a compact working unit.

Structure.—The entire structure is bound together with reinforced concrete columns, longitudinal and cross beams. All except the longitudinal beams are concealed within the panels. The wall and beam panels are cast with projecting nibs which, when meeting, provide the closures to receive the concrete. In this way the entire structure becomes homogeneous and of great strength. By simple adjustment of the cavity space to increase the size of columns, the system can—without the slightest difficulty—be applied to the construction of multiple-storey flats. There is consequently no limitation of building height. The unit will also relate excellently to all types of framed structures.

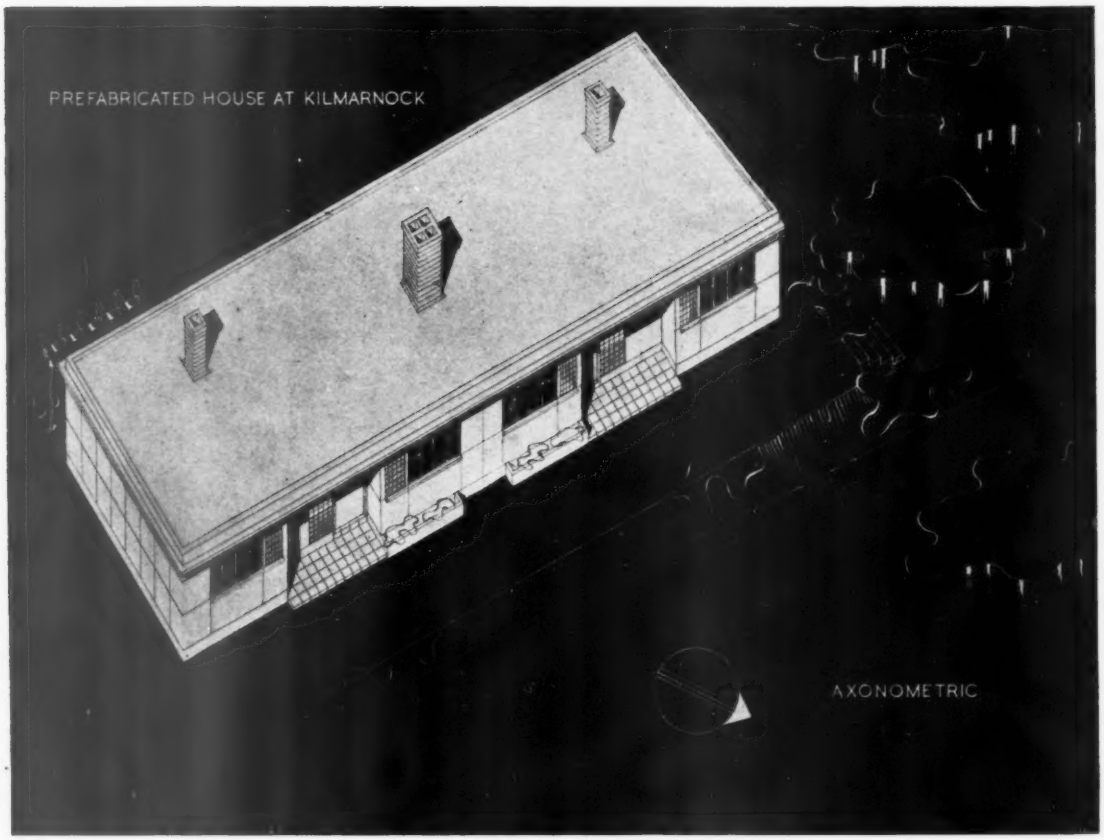
Ninety-five per cent. of the finishing was carried out in the factory. New and unique finishes are envisaged from the plastics and asbestos industries, and such will probably be incorporated in further projects. In this case the internal slabs were coated with the patent plaster and received a decorative finishing coat in the factory. The external wall faces were rendered with a patent rendering having a finish which is water repellent, hard, durable and free from crazing. The mixture was applied by hand machine, and after erection and jointing, all that was necessary to finish off was a quick cover coat. The site operations necessary were merely filling and flushing at joints. The patching due to breakage in transport was no more than that in a normal structure.

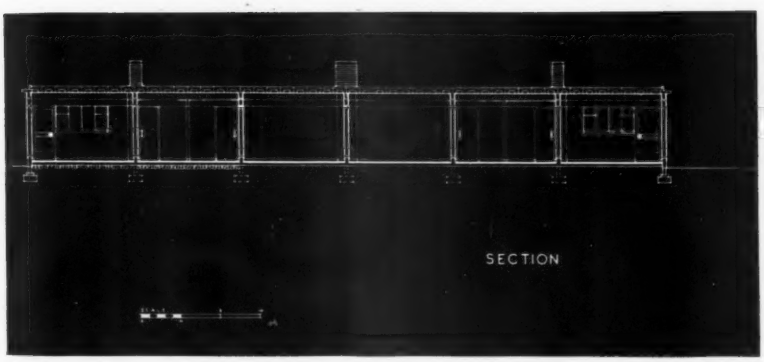
Fireplaces.—The living-room unit was prefabricated in one piece. To ensure a steady flow of air to the chimney, and to combat sluggish draughts and blow-down, the living-room fireplace has been fitted with an auxiliary (air supply unit). A rectangular air-heating chamber is introduced directly under the fire well and is divided by baffle plates. This chamber has an upward extension close to the outside edge of the well, covered by a perforated plate. The firebox is connected to the outside atmosphere by means of an air duct running through the floor. Consequently the fire can draw air independently of conditions internally.

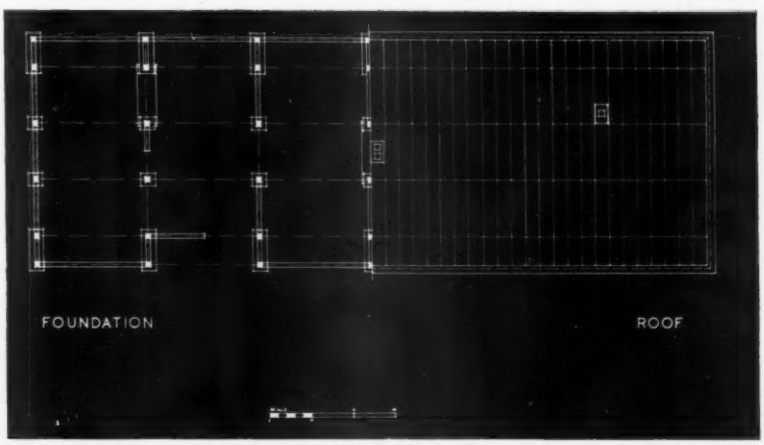
Erection.—Speed was regarded as relatively unimportant; what mattered was technical and practical efficiency. Glasgow contractors were employed and the men had to travel 20 miles to a

Top, entrance front; above, bathroom; below, kitchen.

UNIT CONSTRUCTION HOUSES, KILMARNOCK

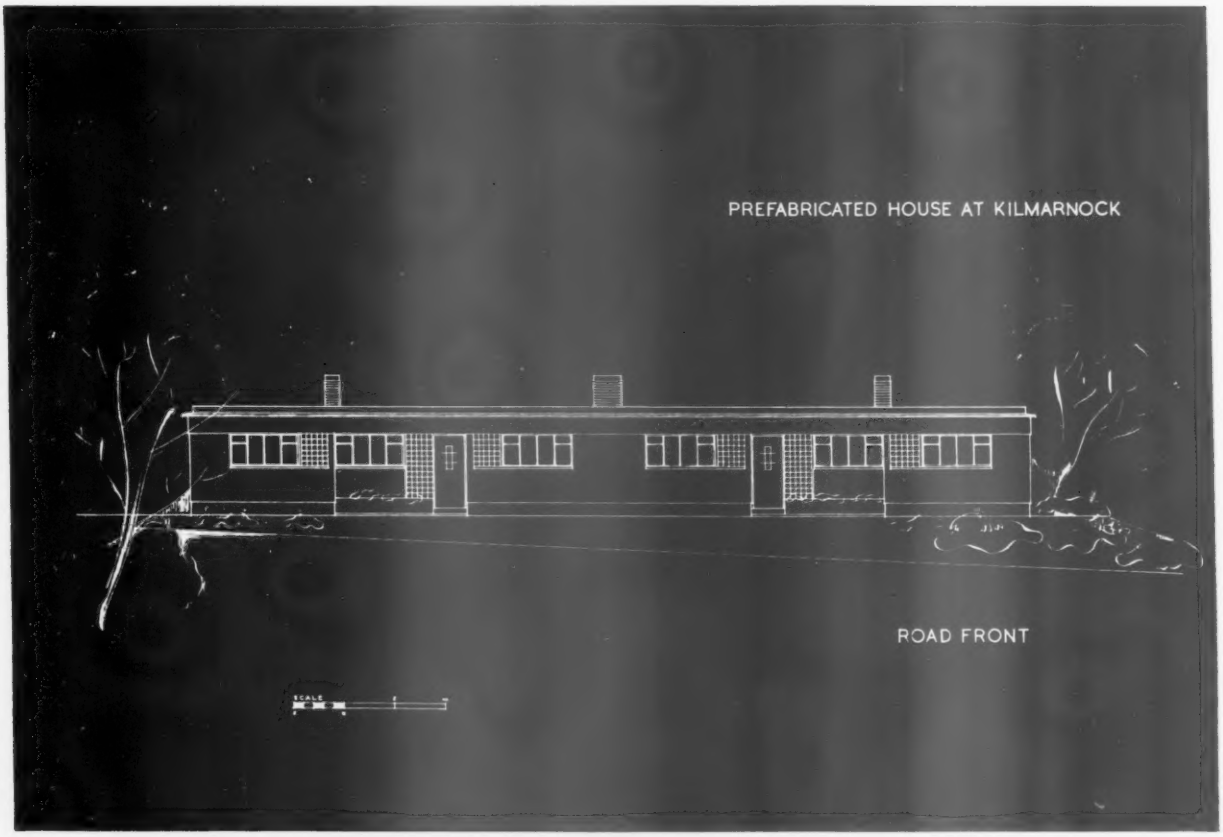


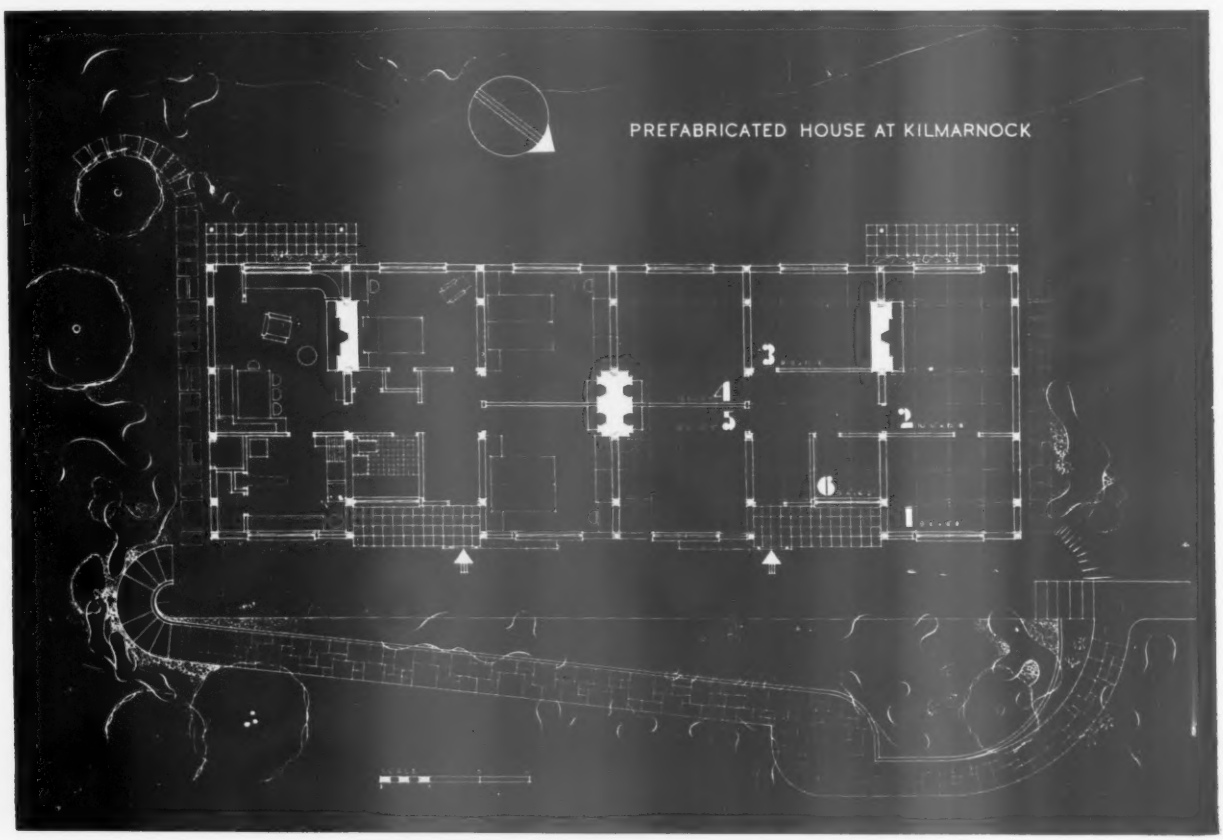




site in a very exposed part of the country. Unavoidable delays were experienced in securing even a minimum of controlled material. To complicate matters, two days after work had begun, the weather conditions became deplorable. Rain and gales were so severe that over three weeks' working time was lost. Tarpaulins had to be spread over the building, and the houses had to be baled out almost daily. Despite these conditions, the houses were completed in less than five weeks. This represents vastly improved erection speed. In view of this experience it is not unreasonable to suppose that a squad of 500 men—covering all trades—could erect 50 completed houses per week on prepared foundations, ready for occupation within two weeks of work beginning. A project of 2,500-3,000 houses could be completed, with this volume of labour, within twelve months, irrespective of weather, since variations of the system permit the erection of the roof at an early stage, thus allowing operatives to work under cover.

AYRSHIRE: *DESIGNED BY SAM BUNTON*





UNIT CONSTRUCTION HOUSES, KILMARNOCK

[INTRODUCTION: *TABLOID TECHNICS*] Planning, it has been said, is merely the efficient utilization of existing resources. But " existing resources " are not constants ; an essential preliminary to planning is to know not merely what your resources are but how far scientific progress can be expected to expand them. It is now widely agreed that in England the lack of scientific data on almost all technical issues is a handicap both to the technician and to the planner, and even where there is no lack of information the organization for putting it over has remained so rudimentary and the rate of assimilation by the practical builder as a result so slow as to negative most of the advantages of the original research. As one of the principal agents of distribution of this kind of matter, THE JOURNAL, with its Information Centre, its Library of Planned Information, and its Information Supplements, has tried to do something to co-ordinate some of the results of contemporary research. But only in a small way. It now embarks (unpropitious though the time may seem) on a more ambitious programme, in the belief that there is a demand which ought to be met for a much more scientific treatment of technical intelligence. There is, for instance, the urgent need to provide a technical news-service for members of the building industry who are serving in the forces, who by the nature of the case are cut off from the usual sources and contacts. Lack of contact with the evolution of technics through three or four years of war is bound to make them feel at a disadvantage *vis à vis* the problems of post-war rebuilding, and (worse still) *vis à vis* their professional brethren, who by a mere accident of age or job have been out of the business end of the war and in on the civil end of building. It is unthinkable that service in the forces should be allowed to put a man at a disadvantage. THE JOURNAL feels strongly that the responsibility for keeping technicians in the forces in touch with current events in the field of civil building rests largely on those who have been carrying on their civilian life. The final answer may have to be given by the Government, but it is a case where the technical press, particularly the weekly press, can play a significant part. The new section is designed to be a permanent feature and is in a sense a natural development of the Information Centre which heretofore merely answered questions (and still answers them by the way), but its purpose *now* is to provide a guide to those in the fighting services who need to get their building news in a highly concentrated form. It is their scientific iron rations : Tabloid Technics.

So on this page, beginning this week, the revised ***Information Centre*** is presented, a service of technical intelligence designed and provided by specialists who though human and therefore liable to err, and though for good reasons anonymous, can be taken as speaking with the very highest authority, each on his particular subject. No member of the staff of this JOURNAL is a member of the team. The views expressed are disinterested. We are bold enough to commend this service not simply to builders, technicians and architects, but also to planners, as being the kind of organization planning stands very badly in need of, to emphasize which a section on physical planning has been included. The object being, we repeat, to keep all busy men, whether fighting or working, abreast of current developments in building technique

★ A. J. *system of starring important items applies in this section.*

★ *Source of information comes first with three-line digest in large type, followed by abstract in small type.*

★ *Numbers follow on from previous Information Centre.*

★ *In some cases abstracts refer back a year or more to pick up important items.*

Physical PLANNING

1028

Conference : SOCIOLOGY AND CIVICS. *Winter School of Sociology and Civics, Oxford, January 2-8, 1943.* Conference primarily intended for the staffs of Training Colleges for Teachers. The 18 lecturers included professors of Sociology, Anthropology and Education.

Professor Karl Mannheim, Associate Professor of Sociology, London School of Economics, instanced the marked difference in behaviour of people when acting in competition as individuals and when acting as members of a coherent group. People in a group of differing professions were conscious of their individual superiority with a parallel consciousness of their lack of knowledge of the other men's jobs, consequent inferiority and an unwillingness to let themselves—and their own professions—down. This must be realized at the start and met.

Dr. R. R. Marett, Rector of Exeter College, Oxford, talked of the great influence of small conscious groups of population. Big groups had little groups upon their backs—to wake them up.

Max Lock said that his dominant impression of the Conference had been that appropriate replanning could only be achieved through the study of social structure and the social organisms within it ; the importance of statistics in social survey, the little use made of them by Local Authority Planning Departments and the place of the film as a means of survey. The vast problem of the rehabilitation of urban blight had been ignored. This would be a useful topic to include in a future Conference on Sociology designed for architects and planners. Dr. Herbert Reed had said that dynamic architecture and planning could only be the product of a dynamic society. Anonymity presupposes group methods—the only way to solve contemporary planning problems. There was a growing importance in group methods of education amongst students of environment in all places, and room for this in local government administration, particularly in the collection and collation of statistical and sociological data.

Irwin Schueller said that the need for greater awareness by the architect of the social needs of the people had been apparent. For example the need of " senior single women " for a nearby sitting-room that could easily be hired for quiet entertainment of their friends.

STRUCTURE

1029

W.A.P : HOLLOW CLAY TILES IN TRANSPORTABLE BUILDINGS. *The British Clayworker, October* 1942, *pp.* 84-85. Latest single-story W.A.P. transportable hut. New features: roof, walls and floor of light hollow-tile reinforced concrete members of new type span between pre-cast reinforced concrete frames.

The hollow-tile members are two-hinged and of rectangular shape, giving a hut with flat roof. The habitability of the hut is enhanced by the suspended floor, with air-space beneath.

The frames stand in pre-cast bases. They are erected in 3 parts and bolted together. The heaviest component weighs 360 lbs., and filling members are a good deal lighter. Features of the filling components are dry interlocking joints to sides of roof and floor members, and overlapping weather-checked horizontal joints, also made dry, to the wall slabs. Dismantling is thereby facilitated.

This is the first hut to come to our notice (apart from timber and steel structures) which can be dismantled in all its elements and an interesting characteristic is the extensive use of clay products in the prefabricated parts. A detailed report on the design will be published in a subsequent number of this JOURNAL.

1030

U.S.A. War Production Board : SPECIFICATIONS. *U.S.A. Emergency Specifications for Steel.* Increase in Basic Stress. Guarantee of Economy in Design. Insistence on Continuity and Welding.

National emergency specifications for the design, fabrication and erection of structural steel for buildings were issued on September 10, 1942, by the War Production Board (U.S.A.). An outstanding feature of the new specifications is a 24,000 lb. sq. in. basic stress as compared with a previous maximum of 20,000. The specifications cover all types of steel fabrication—riveted, welded and bolted.

The person in responsible charge of the design of a steel building has to file a certificate to the effect that the specifications have been complied with and that "the building has been designed to secure the greatest saving of steel practical through continuity of design and welded fabrication."

In this country the use of structural steel in building is governed by B.S.S. No. 449, which is based on a permissible stress of 8 tons per sq. in. This stress was raised to 10 tons per sq. in. (22,400 lb. per sq. in.) as a war emergency revision. The difference in stress between the two countries is of no importance, but in this country we have no guarantee that buildings are designed in the most efficient manner and, in fact, continuity and welding, which contribute greatly to saving in steel, are very rarely used.

1031

H. V. Hill : WELDING. *Lecture, IAAS, "The Parthenon", November*, 1942, *pp.* 16-23. Influence of Welding on Design of Roof Truss. Advantages of Portal Frame. Welding of Awkward Connections. Multi-storey Buildings.

Surveys the main applications of welding in structural steelwork. The uses of welding have been developed further abroad than in this country. In the case of the ordinary common roof truss gusset plates are eliminated by welding and members, however small, can be used—which is not possible with riveted structures. The saving in weight resulting from the omission of gusset plates may be about 10 per cent. The roof truss is, however, not the ideal form of structural steel. The realisation that welding is a rigid method of joining members together led to the development of the portal frame. This is a far more satisfactory form both from the structural and the aesthetic point of view. Its advantages are: simplicity of outline and detail, ease of erection, increased lighting efficiency, ease of maintenance, hygiene, appearance.

The versatility of welding has resulted in its employment in the construction of large factory buildings. It has enabled designers to develop new types of structures which cannot so simply be constructed with riveting owing to the awkwardness of connections. The multi-storey building opens even greater scope for the use of welding.

1032

American Institute of Steel Construction : BRIDGES. *American Award for Best Bridges.* Advantages of Various Designs for Span and Beauty. Similar Prize in this Country?

The American Institute of Steel Construction established in 1938 an annual award to encourage the aesthetic design of steel bridges. The bridges are selected by a Jury of Award, composed of leading Consulting Engineers and Architects.

The booklet contains photos of all the bridges decorated during the period 1928 to 1941, and conveys an idea of American bridge architecture. Among the large span bridges the suspension type is predominant including the Golden Gate Bridge at San Francisco, of a total length of 9,200 ft. and a main span of 4,200 ft., the largest in the world. (First prize, 1937). This type is the most suitable solution for the bridges of gigantic size which are frequent in America, and gives an opportunity for a monumental, yet elegant beauty. Arches are also used for large spans (maximum span 1,675 ft. across the Kill van Kull, first prize, 1931). Perhaps the most beautiful example of this type is the bridge over the Niagara (960 ft., first prize, 1941). Its solid web gives an impression of restfulness in contrast to latticed arches. Welding encourages the solid web type both in arches and girders. Unfortunately, owing to the comparatively rare use made of welding in this country, this development is not yet marked over here. Among the movable bridges the lift type (up to 386 ft.) competes with the bascule type (up to 333 ft.).

No doubt the prize of the AISC is a stimulus for sound competition and a similar prize in this country, preferably both for steel and concrete bridges, would contribute to their architectural development.

HEATING and ventilation

1033

C. B. Branch and D. L. Gibb : PLASTIC TUBING. *Heating Piping and Air Conditioning, Vol.* 14, *No.* 6, *p.* 353. Describes uses, diameters, bursting pressures, bending and jointing of plastic tubing, which is now being produced by several manufacturers in the U.S.A.

Plastic tubing is being produced by a number of manufacturers in U.S.A. The basic polymer is tasteless, odourless, non-toxic and non-inflammable. At present available in diameters $\frac{1}{8}$ in. to $\frac{3}{4}$ in., it is suggested that larger diameters will be available in the near future. Bursting pressures range from 575 to 1,900 lb. per sq. in. at 77° F. depending upon wall thickness. Working pressures about one-fifth these values. Lower temperatures increase working pressures. Properties of the tubing are tabulated.

Flared, compression, welded and flanged joints may be used with the

tubing. Photographs show a pipe end being prepared for jointing, the method being similar to that employed for light gauge copper tubing.

Fittings of injection moulded plastic are available. The tubing is apparently readily bent, preferably after being dipped in hot water. The radius of the inside of the bends may be as small as half the tube diameter provided the tubing is loaded.

1034

Anon : FORWARD STEPS IN HEATING, VENTILATION AND AIR CONDITIONING. *Industrial and Heating Engineer, p.* 58, *No.* 15, *Vol.* 4. Odour as the basis for ventilation rates. Use of odour absorbers described. Electrostatic removal of dirt. Ion content of air. Danger of corrosion in refrigeration in air plants.

The article describes a number of useful innovations in American practice.

Odour Absorbers.—Of late, quantities of air needed for ventilation have been determined by the necessity for rendering the atmosphere of a room or building odour free. On this basis, quantities can be reduced only by removing the odour-making particles. Odour absorbers have been introduced which consist of annular canisters, the space between inner and outer shells being packed with activated carbon (the filtering medium used in gas masks). Each canister is 4 in. diameter and 10½ in. high, and is made to screw into a socket plate which should be fitted in the ventilating duct so that all air must pass through the absorbers. Such units can each deal with 35 c.f.m. of air and will need re-activation about once in three years, provided they are preceded by a dust filter.

Air Filters.—Most air filters are either of the throw-away or viscous type. (This is not true of this country since the widely used Vokes filter, for example, falls into neither of these classes.) A filter which can be cleaned in situ has certain advantages and is easier to maintain. A filter has been introduced which consists of a mat of glass fibres. Unlike the viscous type it needs no adhesive fluid on the fibres ; unlike the throw-away type it may be cleaned with air, water or steam, provided the pressure available is not less than 30 lb. per sq. in.

Electrostatic precipitation has been extensively used for removing dust from flue gas, particularly with large boiler plants. The same principle has been applied to air filters, modified a little in order to conserve space. The precipitator consists of an ioniser and an electrostatic screen. The ioniser consists of parallel wires and tubes in one plane at right angles to the direction of air flow. Tubes and wires alternate, the latter being at a high electrical potential, and have the effect of giving an electric charge to all particles in the air. Leaving the ioniser the air passes through the electrostatic screen. This is composed of parallel plates, quite closely spaced. Alternate plates have a high electric potential and these plates attract and hold the charged dust particles.

No real solution has been offered to the problem of the difference between fresh outdoor air, and air which has passed through a conditioning plant. One suggestion, not so far proved, is that this difference is due to reduction of ion content of the conditioned air. Ionising lamps are now available to increase the ion concentration to any desired amount.

Corrosion may cause considerable difficulty in air conditioning installations, especially where refrigeration is employed. Treatment is now possible not only to prevent corrosion due to the water itself but also that due to materials dissolved from the air. Corrosion may be so hindered that the air conditioning installation should last as long as the building itself.

Artificial LIGHTING

1035

A. G. Higgins : LIGHTING AND POST-WAR RECONSTRUCTION (*Education, Specification and Legislation*). *Lecture, Royal Society of Arts. December*, 1942. Discusses extension of lighting legislation to cover schools, public places, offices, in addition to existing legislation which only covers factory lighting. Light an essential service.

Lighting legislation was discussed in the paper and by a number of subsequent speakers. At present, the position is that legislation covers factory lighting only, providing for a minimum standard of illumination and freedom from glare and undesirable shadowing. Thus far it touches only a small section of the architect's work, but there was evident, at the meeting, support for the extension of legislation to cover a much greater field of design, and schools, public places and offices received direct mention in this connection. There was no attempt at definition of standards nor were any concrete proposals put up for discussion. It is clear, however, that the idea of light as an essential service, like water and sanitation, is gaining ground and architects may need to be prepared for another extension to the knowledge required of them after the war.

It raises the question whether or not students of architecture are receiving adequate training in this field and it might be useful to suggest that the Illuminating Engineering Society and the RIBA should get together to overhaul the courses in order to anticipate future requirements.

ACOUSTICS and Sound Insulation

1036★

S. Kawashima : SOUND PREVENTION MECHANISM OF NON-POROUS MATERIALS, Part II. *Journal, Acoustical Society of America, January*, 1941. Suggests that a wall has two different sets of frequency properties, and has two transmission peaks, one high, one low.

The Building Research Station in its publication " Sound Transmission in Buildings " laid emphasis on the fact that sound is transmitted both across and along a wall by flexual vibration. In other words the impact of sound waves sets the whole wall in motion so that it bends and moves in the manner of a plate or diaphragm, and the sound is then re-radiated on the other side of the wall. Some work done in Japan, reported in the above American Journal, has thrown more light on this matter.

Apparently, the flexual vibration of the wall accounts for most of the transmission and reaches a maximum where the noise falling on the wall is about the same pitch as the natural frequency of the wall itself, which is usually fairly low. But there is another mode of vibration where high frequencies are transmitted more readily due to the relative magnitude of the wave-length and the thickness of the wall ; in this case the vibration is not flexual, but the material of the wall carries the vibration in a manner perhaps best described as elastic. The result is that a wall has two different sets of frequency properties, and has two transmission peaks, one high and one low.

This would seem to account for the kind of noise one gets in, for instance, a semi-detached house when the radio is going next door. You sometimes hear the low frequencies, and along with them you get a constant high frequency accompaniment. The middle frequencies do not seem to come through at all. It rather suggests that one should think of a partition as having not one average figure for transmission but good qualities of

resistance over certain ranges of frequency. If one examines published data on sound transmission, one finds decided differences of insulation at low frequencies, even with partitions having the same so-called average of insulation, and in practice this may account for some of the unsatisfactory results obtained.

Incidentally, the work done by Mr. Kawashima is reported as originating in the Department of Architecture of Waseda University at Tokio. This is a rather pointed reminder that Schools of Architecture in this country are not noted for competent research, even in the non-mathematical fields.

QUESTIONS
and answers

1037

ENQUIRER, SURREY.—*Is CELLULAR CONCRETE—40 to 50 lb. per cubic foot—a proprietary mixture? If so, what is the maker's name? If not, what is its composition?*

Cellular concrete is not a proprietary mixture. It is concrete, honeycombed by the use of substances which vary according to the source of manufacture. You should get in touch with the following firms :—

Messrs. Aerocrete Ltd., Victoria Works, Airdrie, near Glasgow.

Messrs. Christiani & Neilson Ltd., 54, Victoria Street, London, S.W.1.

Messrs. Holland & Hannen & Cubitts Ltd., 1, Queen Anne's Gate, London, S.W.1.

1038

ARCHITECT, LOWLANDS.—*In a scheme for the STORAGE OF GRAIN (oats) in bulk, it is proposed to use an existing building having brick walls. The walls are substantial and dry. Should the grain be allowed to touch the brick walls or is it necessary to provide an inner lining or rendering.*

There is a danger of oats losing their condition if subjected to cold, and it would be wise to insulate the brickwork and concrete floor. If the oats were stored in sacks it should be sufficient to fix slats to the floor and walls, as this would give an air space.

You should write to the Ministry of Agriculture or to the Ministry of Food for their official recommendations.

1039

ENGINEER, LONDON.—*Can you suggest a book on the MAKING OF BLUE PRINTS?*

Modern Blue Print Copying : Processes and Equipment for the Engineer, Architect, Draughtsman and Photo Printer (1935), by B. C. Hall and B. Fairfax Hall. Published by Isaac Pitman. Price 5s.

1040

ARCHITECT.—*Is the Military Land Agent the sole arbiter as to what fees should be paid to professional men acting for OWNERS OF REQUISITIONED PROPERTY; if not, what is the proper tribunal to which to appeal? The following has occurred. The major portion of a rectory with all outbuildings was requisitioned and a surveyor was instructed by the rector to prepare a full schedule of the condition of the portion requisitioned. A copy was sent to the military authority and to the Diocesan Dilapidation Board. Thirteen months after the date of requisition, and after the rector's surveyor's account had been sent in to the Military Land Agent, the latter wrote that a firm of auctioneers had prepared a schedule for the military authorities, and that the only fee which could be allowed was the minimum of £2 2s. for "checking." No allowance was made for typing or copies. This schedule prepared by the auctioneers has never been submitted for checking or approval, and it is felt that the rector should be allowed his surveyor's fees.*

The payment of professional fees incurred in the preparation or checking of schedules of condition in connection with requisitioned property is not provided for in the Compensation Defence Act. Your client must be satisfied with the £2 2s. which the Military Land Agent is prepared to allow. Matters in dispute may be put before the General Claims Tribunal, but in this case there are no grounds for dispute.

It is obviously your duty to obtain the official schedule of conditions prepared for the Military Land Agent as soon as possible. Should this differ substantially from your own schedule, your client will have good grounds for disputing it, which he would not have had otherwise. He should, therefore, have no objection to the payment of your fees unless you specifically informed him that he would obtain reimbursement for them.

1041

ARCHITECT, GLOS.—*It is desired to make watertight a large area of existing CORRUGATED ROOFING, quickly and cheaply, and without stripping the roof. It is recommended that the corrugated iron and gutters be treated with two coatwork of "Masticon" emulsion into which will be embedded cotton scrim fabric as a reinforcing membrane. Will this make a satisfactory job?*

The process you describe is a normal one and should be perfectly satisfactory.

There are a number of manufacturers of bituminous products suitable for this purpose. Processes vary slightly with different firms, and scrim is not always considered necessary. Different grades of mastic are manufactured for joints and for general surfaces. If the leaks are not numerous or confined to the joints it is not necessary to treat the whole roof.

SOCIETIES AND INSTITUTIONS

Under this heading appear all reports of speeches and lectures delivered before societies, as well as information about their activities. It includes trade associations, Government departments, even Parliament, the basic institution. To economise space the bodies concerned are represented by their initials, but the hazy or lazy reader can look up their meaning in the list of Journal abbreviations on the contents page. In cases where the abbreviations are not shown there the name of the association is given in brackets here. The Journal system of starring is applied to this section to emphasize important features.

MOLNS

C A L L U P

★★

Here is the call-up leaflet referred to by Astragal on p. 72.

It is essential for the successful prosecution of the war that additional men be withdrawn for the Services from the Building and Civil Engineering industries, and a further call-up of men will be made beginning this month.

The Government appreciates that this will cause considerable difficulty to employers and to firms and members of the public for whom the industries work, but is confident that whatever difficulties may be caused will be accepted willingly in the national interest.

To reduce the burden upon the industries as much as possible, the following arrangements, which are contained in leaflet N.S. 259, have been made :—

(1) *Occupations in which the Call-up is being Suspended Temporarily* (see List A) :—

In certain classes of occupation it has been arranged to postpone the call-up of men aged 25 and over at the time they registered until after the end of March, 1943. The occupations to which this decision applies are :—

List A.—(i) (Occupations in which men aged 25 and over at registration will be exempted from call-up) :—

Bricklayer's Labourer ; Builder's Labourer ; Mason's Labourer ; Slater's or Roof Tiler's Labourer ; Plasterer's Labourer, Mixer ; Foreman, Charge Hand (roofing felt fixer or layer) ; Red Leader (not ship painter's labourer) ; Plumber's Labourer, Plumber's Mate ; Lead Burner's Helper ; Gas Fitter's, Pipe Fitter's, Water Fitter's Mate.

Cable-making History in the making

This machine made and used by W. T. Henley over a hundred years ago will still cover fine wires with silk and cotton with unimpaired efficiency.

When William Thomas Henley commenced to manufacture insulated wires, over a hundred years ago, he probably was too engrossed with the task in hand to dream of the world-famous enterprise which he was founding. As he ingeniously designed and constructed his machines for covering wires with silk and cotton his aim was efficiency in production and reliability in the finished product. His endeavours and his ideals proved a firm foundation for future developments and in spite of set-backs and difficulties the name Henley now stands pre-eminent in the field of electric cable-making.

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Concreter, Leveller or Screeder, Ferro-concreter ; Rigger ; Scaffolder (tubular or patent) ; Scaffolder (wood), Staging Hand ; Steel Bender and Fixer, Iron Worker (ferro-concrete) ; all occupations in this paragraph include Foremen and Charge Hands.

General Foreman (Civil Engineering); Ganger, Stationary Ganger, Travelling Ganger (navvy) ; General Navvy ; Cement Gun Operator ; Pile Driver ; Service Layer, Pipe Layer and Jointer (gas and water mains) ; Sewer Pipe Layer and Jointer ; Timberman (public works, including sewer, bridge or dock) ; Tunnel Miner, Tunneller, Heading Driver ; Concrete Runner or Worker ; Timberman's Mate ; Tunnel Miner's Labourer ; Sheeter, Iron Roofer ; Constructional iron and steel work erector's labourer or mate ; General Labourer (heavy work) ; General Labourer (light work).

(ii) (Occupations in which men under 30 at registration will *not* be exempted from the call-up).

General Foreman (building trades) ; Foreman Charge-hand Plumber, gas and hot water fitter, etc. ; Plumber (general hand) ; Hot water, Heating and Domestic Engineer, Pipe Fitter ; Pneumatic or other mechanical tool operator.

(iii) (Occupations in which men below the age of 25 at registration will be exempted from the call-up).

Foreman, outside erector (constructional iron and steel fitter and erector) ; Constructional iron and steel fitter and erector (general hand).

For the present, therefore, there is no need to apply for deferment of men in the above occupations.

(2) *Other Occupations marked " SS " in the Schedule of Reserved Occupations* (Revision, December, 1941) (see List B) :—

The great bulk of the men (other than those in the occupations given in List A above) who are liable for military service will be recruited for the Forces, and it will, in general, be useless for employers to put in applications for deferment in these cases since such applications cannot be granted. There may, however, be certain cases in which individual deferment may be granted in the interests of public health or in respect of certain types of job which only young men can do. Applications may also be considered in exceptional cases in respect of working principals or foremen engaged on urgent Government or other priority contracts. Applications for deferment will therefore be considered for the men in these categories :—

List B.—Working principals or foremen (not included in List A) engaged on urgent Government or other priority contracts ; Slaters and Tilers ; House breakers, top men, mattock men ; Men working at heights ; Men engaged by contractors in maintenance work on railways and public utilities ; maintenance of farm buildings ; recovery of outcrop coal.

(Application for deferment will not be considered in other cases unless there are most exceptional reasons.)

Applications for such men should be made in the normal way on Form N.S. 300. Any deferments granted will be for short periods only.

The call-up will be made so far as possible in order of age beginning with the youngest age groups, but it will ultimately cover all men who were below the age of 41 at the date when their age group was required to register. Applications for deferment of any men in the categories in List B whom it is desired to retain temporarily should have reached or reach the Local Office of the Ministry of Labour and National Service shown in the man's National Service Registration Card (N.S. 2) before the dates given below :—

December 21, 1942. For men aged 32 or 33 on registration (i.e. born between July 28, 1906 and July 13, 1908).

January 7, 1943. For men aged 34, 35, 36 on registration (i.e. born between January 19, 1904 and July 27, 1906).

February 7, 1943. For men aged 37, 38, 39 on registration (i.e. born between June 1, 1901, and January 18, 1904).

March 7, 1943. For men aged 40 on registration (i.e. born between July 1, 1900 and May 31, 1901).

Men affected by the arrangements will be summoned for medical examination without delay and in some cases before the final date for submitting applications for deferment. Summons to medical examination, however, will not affect consideration of such applications. The arrangements mentioned in this article are not retrospective and enlistment notices already issued will not be withdrawn.

(3) *Other Occupations in the Building and Civil Engineering Industries* (see List C).

As regards men in the Building and Civil Engineering Industries *not* in occupations marked " SS " in the Schedule of Reserved Occupations (Revision, December, 1941), deferment may be granted in suitable cases until the end of March, 1943. In the occupations set out below deferment will be granted in all cases of men employed on Super-Preference and W.B.A. Contracts :—

List C.—(i) (Occupations in which men aged 25 or over at registration who are employed on Super-Preference and W.B.A. Contracts will be granted deferment) :—

Asphalter (spreader or raker) ; Burners and cutters ; Agents and sub-agents (building and civil engineering contracting) ; Travellers, Assistant Travellers (civil engineering contracting) ; Cost clerks ; bonus clerks ; Electrician's mates.

(ii) (Occupations in which application for deferment may be considered for men below the age of 25 at registration) :—

Fitters, mechanics, and maintenance engineers engaged on the repair and maintenance of contractors' plant ; Drivers of contractors' plant, e.g. mechanical navvy driver ; Electricians ; Wiremen ; Cable jointer, repairer (high tension cables) ; Cable jointer (excluding high tension, but including telephone and telegraph cables).

(iii) Progress clerks will not be granted deferment if below the age of 30 at registration.

In other cases applications will be considered on their individual merits. No applications for the deferment of such men need be made for the time being, if current deferments are in operation, but when a period of deferment is coming to an end a renewal application should be made in the usual way on Form N.S. 300 at least three weeks before the date on which the current period expires, to the Local Office of the Ministry of Labour and National Service shown on the man's National Service Registration Card (N.S.2).

(4) *Men directly employed by Local Authorities or Public Utility Undertakings.*

Men in building and civil engineering occupations directly employed by Local Authorities or Public Utility Undertakings, if engaged on work such as is generally undertaken by builders or public works contractors (e.g. on construction of new roads, or other works of construction, such as new sewers, large-scale repair (not being ordinary routine maintenance) or roads, building and maintenance of houses) are regarded as being employed in the Building and Civil Engineering Industries, and the arrangements set out here apply.

Men in building and civil engineering occupations otherwise employed by Local Authorities and Public Utility Undertakings (e.g. on ordinary maintenance of public utilities) are not regarded as being in the Building and Civil Engineering Industries, and these arrangements do not apply. The usual arrangements regarding deferment apply, however.

It is essential that all questions on the Form N.S. 300 should be answered irrespective of the number of men employed and any instructions to the contrary on the form should be ignored. The site on which the man is working and the contract number should be clearly specified in the space for answer to Question 15 on the form.

TCPA

S a r g a n t F L O R E N C E

Lunch-time meeting at 16, Great Russell Street, W.C.1, on Thursday, January 9, 1943. *Speaker :* Professor P. Sargant Florence. *In the Chair :* Captain G. Aldis. " PLANNING INDUSTRIAL LOCATION IN BRITAIN AND AMERICA."

When they do plan Anglo-Saxons agree in planning against specific evils they have suffered from rather than planning on some general philosophy. The evils suffered in the 1930's by both Britain and America were largely those of depressed areas, where a few declining industries were concentrated and unemployment on a low level of income prevailed. In America depressed areas included the Southern Appalachian Coal Plateaus, to some extent the New England Cotton Industry and agricultural areas, like the Old Cotton Belt specializing in one crop.

The disasters overtaking districts putting all their eggs in one basket has led in both countries to the cry for diversification in order to obtain economic security. Both in Britain and America this policy has been supported by a cry—eloquent in the case of President Roosevelt—for dispersion to avoid slums and too much congestion in large cities, and to get " wholesomeness " of life.

Dispersion of city industries into the country obviously means diversifying agriculture with something else. Exactly what industries should be and can be dispersed must be the subject of a scientific industrial location study based on statistical analysis of the characteristics of particular industries, such as we are developing at Birmingham University. There is a difference between the British and American attitude in that the English countryside is in practice inclined to block specific proposals for the introduction of manufacturing, while in America they are universally welcomed.

As well as the intertwined objectives of security and wholesomeness both countries also want to preserve opportunity for individual development. This comes out clearly in Congressional and Parliamentary worry over the future of the " Small Man."

To carry out these policies common to both countries the governments must set up centrally special planning machinery. Here Britain has much to learn from the enterprise and imagination of the New Deal authorities. The Tennessee Valley Authority and other schemes of reclamation and power generation, rural electrification and the continuous research of the National Resources Board in Washington, all point the way planning can be achieved under democratic auspices.

D u d l e y S T A M P

At the Housing Centre. Thursday, January 21. Dr. L. Dudley Stamp, Vice-Chairman of the Scott Committee, at the opening of " LIVING IN THE COUNTRY : an exhibition based on the Scott Report designed by the Housing Centre for convenient touring through the post."

Balance is the key-note to future planning, especially between town and country. There is no need for a conflict between the two interests. Balance is also needed between a central planning authority and local interests.

The central authority should not dictate but should guide local initiative. Dr. Stamp then gave a résumé of the Scott Report.

The first part traces the history of our towns and countryside right up to the beginning of the war. A proper understanding of the past is essential if we are to go forward. The second part of the report deals with recommendations, based on the objective that individuals should be able to choose the kind of life they want whether in town or country. Chapter 1 of Part 2 recommends that conditions of life in the country should be as good as those in the town, in order to stop the drift from country to town. Chapter 2 deals with the preservation of the countryside—the heritage of the nation which must be guarded. Access to the country must be made easy by proper byways and bridle paths, though it must be realised that the country is what it is owing to the farming industry. Chapter 3 recommends that while nothing must be allowed to shackle industry from development, factories should be built in towns and never in rural villages, since industry is tending to become ever larger in scale. Chapter 4 deals with the village, which must be considered as a whole community having a complete social life of its own, including in many cases a village college. Chapter 5 deals with many things, such as petrol pumps and wayside cafés, cemeteries and advertisement hoardings. All these are necessary but ugly. There is no reason why they should not be beautiful.

These are the five dominant notes of the Scott Report which are brought out in the exhibition. Plans must be prepared now ready for the time of peace. The country has never had a Central Planning Authority, and we look to the new Ministry of Town and Country Planning for central guidance of local authorities. Whether there will be legislation or no, much useful work is being done which will help towards carrying out the recommendations of the Scott Report. Dr. Stamp then formally declared the exhibition open and wished it success. Miss Jocelyn Adburgham, L.R.I.B.A., A.M.T.P.I., proposed a vote of thanks. She hopes that Dr. Stamp's speech will be read at each opening of the exhibition wherever it tours. She believes that the ideal existence is possible and that the ideal existence lies in the ability to enjoy. She was glad to state that the first request for the exhibition had come from the Navy, followed by requests from the other services.

W. H. GAUNT

Second of a series of lunch-time meetings on Rebuilding Britain at the YWCA Central Building, Great Russell Street, W.C.2. Thursday, January 21, 1943. Mr. W. H. Gaunt, C.B.E., on "PLANNING AND THE MAN IN THE STREET." Chairman, Mr. G. L. Pepler. Mr. Gaunt said :

I have failed to find any great urge from the man in the street to stimulate Parliament in replanning, in spite of the Uthwatt, Scott and Beveridge Reports, though there is a vague general interest and hope that something really big will be accomplished. The first urge in the Man in the Street is to be in a position to earn a better living and that urge conditions most of his thinking. Six out of ten people who live in Welwyn or Letchworth are there not so much because they like the places but because their jobs call them there. Many find these towns dull and lacking in bustle and communal life. Owing to the action of certain zealots, there are no pubs in Letchworth. This has led to an unfortunate association in the public's mind between town planning and dullness which planners must eradicate. Moral issues such as teetotalism should be kept out of town planning. Public opinion on town planning is doughy and clogging, and this has been experienced particularly in the building of Letchworth and Welwyn. If we are to wait for a public urge we shall wait in vain. Public opinion by itself will not be strong enough to carry forward town planning. Planners must lead even at the risk of being called bureaucratic. To put over town planning and rouse the public a certain amount of window-dressing is necessary, similar to the excellent propaganda of the Ministry of Food.

Points arising during discussion : the public is more interested in houses and housing than in broad planning. There is a general lack of faith in the Government's ability to carry out fine plans and this is perhaps the real reason for the apathy of the Man in the Street to planning.

AA

Scholarships

This year the following Scholarships in Architecture are again tenable at the A.A. School of Architecture.

The Leverhulme Scholarship for students who could not otherwise afford it to obtain qualifying training over a period of five years for the profession of architecture. It is of the value of £1,000, and its provisions are as follows :—(1) Payment of tuition fees (£75 per annum) ; (2) An annual allowance of £10 to cover subscriptions, working materials, etc. ; (3) Maintenance allowance of £10 per month ; (4) An allowance of £20 for travel in the British Isles during the fourth year ; (5) An allowance of £40 for travel abroad during the fifth year. Candidates must be of British Nationality, must not be below the age of 17 years, and should have reached School Certificate standard. They may be required to sit for a written examination on general subjects, and to come before a selection committee for an interview.

The Minter and Sir Walter Lawrence Open Entrance Scholarships, value £75 12s., entitle the holder to free tuition for the first year course at the A.A. School, and they are open to candidates under the age of 19 years on July 1 of the year in which they compete. All entries must be accompanied by a portfolio of drawings, and must reach the Secretary of the A.A., 36, Bedford Square, London, W.C.1, on June 1 in each year in the case of the Leverhulme Scholarship, and on July 1 in each year for the Open Entrance Scholarships.

Application forms and further particulars may be obtained from the Secretary of the Association to whom all communications should be addressed.

RIBA

Examinations

The Final Examination was held in London and Edinburgh from December 9 to 17, 1942.

Of the 50 candidates examined, 28 passed as follows :—

Passed whole examination	15
Passed whole examination, subject to approval of Thesis	4
Passed whole examination, subject to approval of Thesis and remaining Testimonies of Study	1
Passed Part 1 only	7
Passed Part 2 only, subject to approval of remaining Testimonies of Study ..	1
Total number of candidates passed ..	28

The Special Final Examination was held in London and Edinburgh from December 9 to 16, 1942.

22 candidates were relegated.

The successful candidates are as follows :—Bransgrove, Charles A. ; Campbell, Rupert C. (subject to approval of Thesis) ; Carter, Gordon E. ; Dobson, Roger ; Douglas, James A. ; Draper, Eric W. ; Gauldie, W. Sinclair ; Hooper, David V. ; Jackson, Alec W. ; Johnston, James S. ; Leach, Alexander (subject to approval of Thesis and Testimonies of Study) ; Lightowlers, Cyril V. (subject of approval of Thesis) ; Lloyd, Sidney J. ; Marriott, G. H. Gordon ; Poel, Stanley B. (subject to approval of Thesis) ; Read, J. Winter ; Roberts, Frank H. ; Wagg, Donald (subject to approval of Thesis) ; Weinreich, Harald ; Wood, Allan H.

Part 1 only.

Farquhar, Alexander ; Forrest, Frank ; Nightingale, George W. ; Skelton, Norman T. ; Taylor, Gordon F. ; Trigg, Geoffrey H. ; Tucker, Ernest F.

Part 2 only.

Adams, John T. (Distinction in Thesis) (subject to approval of remaining Testimonies of Study).

Of the 28 candidates examined, 14 passed (4 of whom sat for and passed in Part 1 only) and 14 were relegated.

The successful candidates are as follows :—Brittain, T. Arnold ; Cooke, Leslie ; Davies, Thomas L. ; Easton, Frederic R. ; Empsall, Raymond ; Hogg, T. W. Dunkley ; Hughes, W. Norman ; Nunn, L. Watson ; Price, Philip J. ; White, Cyril G.

Part 1 only.

Booth, Raymond R. ; Hammond, Horace G. ; Pearce, A. Roger ; Rosenberg, Eugene.

The Examination in Professional Practice for Students of Schools of Architecture Recognized for Exemption from the RIBA Final Examination.

The Examination was held in London and Edinburgh on December 15 and 17, 1942. Two candidates were examined and passed.

The successful candidates are as follows :—Brierley, Edward W. ; Clifton, Philip E.

LWC

CITY PLAN

A very favourable reception greeted Mr. N. Aslan's New Improvement Plan for the City of London when he displayed and described it for the first time to some "Fathers of the City." The meeting was held at the Dionis Hall in Lime Street, E.C., by the LWC (Langbourne Ward Club). Chairman, Mr. H. J. E. Stinsom, Member of the Common Council City Corporation.

This new City plan—based on Mr. Aslan's plan for Central London designed in 1936 (A.J., October 8, 1942) has been revised.

The traffic in the City comes under three categories : (1) The main roads connecting the City with the outside—the central area and greater London ; (2) the main City roads which feed different units of the City ; and (3) local roads and service open spaces in the centre of each unit which feed various business zones.

These service spaces are utilized for the double purpose of parking places for all local cars and lorries ; and secondly for "street business," such as the fur trade, both during and after office hours. St. Paul's is shown towering over roofs and is not isolated as a monument.

CERA

NEW GROUP

The original Commercial Electric Refrigeration Association was formed in 1940 to represent the interests of the commercial refrigeration machinery manufacturers, its membership being as follows :

Frigidaire, Ltd., G. E. C./Coldair, Ltd., Hall, J. & E., Ltd., H.M.V. Household Appliances, International Refrigerator Co. Ltd. (International G.E.C. of New York, Ltd.), Kelvinator, Ltd., Lightfoot Refrigeration Co. Ltd., Marco Refrigerators, Ltd., Pressed Steel Co. Ltd., Sterne, L. & Co., Ltd., York Shipley, Ltd.

A short time ago the Association was approached by the Ministry of Food with a request that it should endeavour to rationalize servicing conditions, with a view to economy in petrol and tyres. During the discussions that followed it became evident that in the interests of the industry as a whole, the scope of the Association's activities should be broadened in order to cover the interests not only of the machinery manufacturers, but also those of the insulation contractors and those engaged in distribution and service.

After a full discussion, it was unanimously resolved that a new association be formed on the modified lines set out above.

Objects of the Association.—The objects of the new Association are defined by its constitution, as follows :

(*a*) To promote and protect the interests of manufacturers and others dealing in commercial refrigerating plant and equipment therefor, with due regard to the interests of the public.

(*b*) To establish and maintain fair and reasonable conditions of sale, distribution and/or service.

(*c*) To provide the Government and its departments, and public bodies and others, facilities of conferring with, and ascertaining the views of, persons engaged in the commercial refrigeration industry.

(*d*) To regulate relations between members of the Association, and between members of the Association and their customers, and to formulate and suggest such conditions on the conduct of the trade as in the opinion of the Association may be considered desirable and in accordance with these objects.

(*e*) To endeavour to maintain a high standard of quality, design and workmanship in the industry.

(*f*) To assist the promotion of standardization in the industry.

(*g*) To promote and encourage propaganda on behalf of the industry by advertisements, exhibitions and otherwise.

(*h*) To act jointly with other kindred bodies in furthering the Association's objects.

(*i*) To do all such other lawful things as the Association may deem to be necessary in the interests of the industry.

Membership.—Applications for membership will shortly be invited on an approved form of application now being prepared by the Council, and it is hoped that all who are properly engaged in the business of commercial refrigeration will join the Association, and so ensure that it shall be fully representative of the industry.

Chairman.—Mr. E. G. Batt (G.E.C./Coldair, Ltd.), who has been chairman of the original C.E.R.A. since its inception, was unanimously elected the first independent chairman of the new Association and of its Council.

DIARY

Saturday, January 30.—TCPA at St. Peter's Methodist Church, Canterbury, 10.45 p.m. to 4.45 p.m. "Planning for Living." Speakers : W. R. Davidge, Rev. Hewlett Johnson, the Archbishop of Canterbury, F. J. Osborn and H. M. Endberry. Admission 5s.

Wednesday, February 3.—PEP at 16 Queen Anne's Gate, S.W.1. 1 p.m. to 2.30 a.m. "Physical Planning." By Professor W. G. Holford. Chairman : G. L. Pepler.

TCPA at Y.M.C.A., Great Russell Street, W.C.1. 12.45 p.m. Buffet lunch, 1.15 p.m. to 2.10 p.m. Talk and Discussion on "London's Dilemma." By F. J. Osborn. Third talk in series Rebuilding Britain.

Thursday, February 4.—ICE, Great George Street, S.W.1. 2.30 p.m. "Civil Engineers and the Building Industry." Speakers : Lord Reith, Sir Ernest Simon and Sir Clement Hindley.

BUILDINGS ILLUSTRATED

Unit Construction Houses at Kilmarnock. Architect, Sam Bunton, L.R.I.B.A., A.R.I.A.S. The following firms co-operated :—British Bitumen Emulsions, Ltd., roof processing expansion joints ; Mortone (Scotland), Ltd., external renderings ; Cosmos Decorators, Ltd., interior decoration ; Walker, Crosweller & Co., Ltd., spray valves ; Alexander Dunn, fireplace specialist. The contractors were :—Robt. Loudon, Ltd., site drainage works and co-operation in erection ; J. & J. Chalmers, joiner work ; Duncan Black & Son, plumber work ; Robert Lang & Sons, electrical work ; Crittall Manufg. Co., Ltd., steel windows ; Yorkshire Copper Works, Ltd., copper piping ; Thomas Galt, glazing work ; Scaffolding (Gt. Britain), Ltd., scaffolding ; Michael Nairn & Co., Ltd., linoleum.

CLASSIFIED ADVERTISEMENTS

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

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

Public and Official Announcements

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

The Incorporated Association of Architects and Surveyors maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. Address: **75 Eaton Place, London, S.W.1. Tel.: Sloane 5615** 991

Architectural Appointments Wanted

YOUNG CHARTERED ARCHITECT offers part-time services. Experienced war damage surveys, working drawings, perspectives, etc. Please write Box 27.

CHARTERED ARCHITECT, A.R.I.B.A., Dipl. Arch. Lond., experienced in all branches of the profession, including architectural education, desires part-time teaching appointment (architectural subjects) in London or Home Counties. Box 34.

A.R.I.B.A., age 37, Exempt Military Services, requires work in London. Salary £450 per annum or by arrangement. Box 37.

PROBATIONER, R.I.B.A., age 22½ years. Exempt Military Service, seeks progressive position of Architectural Assistant in Birmingham area. Five years' office experience of all types of work. Box 36.

ARCHITECT, experienced carrying through works complete, requires post in London area as manager. Please state approximate salary and prospects. Box 38.

YOUTH just turned 17, seeks position in drawing office, preferably architect's, in London area. Had 6 months' varied training in Provincial Civil Engineering Drawing Office. Willing to submit testimonials. Box 40.

ARCHITECTURAL AND BUILDING DRAUGHTSMAN would like part-time work.—F. T. P. W., 53, Eaton Mews West, S.W.1. 42

ARCHITECT AND SURVEYOR, A.R.I.B.A., seeks position or work in own office which will allow him a day per week to attend to his own practice. Box 45.

ARCHITECT AND SURVEYOR with own office in Gloucester, offers assistance in all branches of the Profession. Box 46.

JUNIOR ASSISTANT requires a progressive position in an Architect's office. London area. Has knowledge of draughtsmanship and building construction. Studying second year at Regent Street Polytechnic. Excellent references. Pupilage is possible. Box 47.

ARCHITECT'S ASSISTANT, A.R.I.B.A., T.P.I. Final Exam.; 31 years (woman); all round experience; present salary £355 per annum; seeks position in Sheffield. Box No. 48.

SENIOR ASSISTANT (age 26), recent experience in hostels, factories, canteens, etc., expert draughtsman, requires responsible position in London architect's office. Exempt from military service. Box 49.

DRAUGHTSMAN, experienced all classes of architect's work, requires spare-time work, complete drawings carried out from rough sketches, moderate fees. Write Box 50.

DRAINAGE ENGINEER.—Specialist in purification works. Requires part-time jobs. Box 52.

YOUTH, just turned 17, seeks a progressive position in a surveyor's office in the London area. Has knowledge of draughtsmanship, building construction and making war damage survey specifications. Studying at the Northern Polytechnic. Box 53.

Other Appointments Vacant

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

BUILDERS' CLERK wanted for Lincolnshire builders office. Used to preparing jobbing accounts. State experience and salary required. Box 855.

WORKER UP wanted for Lincolnshire builders office. State qualifications, experience and wages required. Box 856.

QUANTITY SURVEYOR wanted for Lincolnshire builders office. State qualifications, experience and wages required. Box 857.

ASSISTANT EDITOR wanted for Architectural Paper. Write, with full particulars of qualifications, salary required, &c., to Box 51.

Miscellaneous

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

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

Classified Advertisements continued on page xxxvi.

SPECIFICATIONS AND BILLS OF QUANTITIES, etc., expeditiously and accurately typed or duplicated. Translations and Facsimile, Typewriting. All work treated confidentially. Miss G. Saunders, Typewriting Bureau, 17, Dacre Street, Westminster, S.W.1. Telephone: Whitehall 2605.

WANTED, Second-hand and new copies of Standard Text Books of reference given in Memorandum for R.I.B.A. Final Examination. Good condition only. Box 839

FURNISHED WORKING SPACE for One required in Architects or similar office, W.1 or W.C.1. Use of 'phone not necessary. Berner, 416m, Fulham Road, S.W.6. 852

WANTED TO PURCHASE. Copies of *Architectural Record* (N.Y.) for July and August, 1942. Box 853.

PRINCIPAL wishes to obtain substantial interest, control or purchase outright of a well-established building contractor's business (not jobbing builder). Would entertain partnership. Write Blundell Baker & Co., Solicitors, 9, New Square, Lincolns Inn, W.C.2. 859

Educational Announcements

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

R.I.B.A. QUALIFYING EXAMINATIONS
Mr. C. W. Box, F.R.I.B.A., M.R.San.I.
Short Term Wartime Tuition Arranged.
Courses by Correspondence and Personal in Studio.
115, Gower St., London, W.C.1. Telephone: Euston 3906

R.I.B.A. AND T.P. INST. EXAMS. Private Courses of tuition by correspondence arranged by Mr. L. Stuart Stanley, M.A., F.R.I.B.A., M.T.P.I. Tutor, St. Catherine's College, Cambridge. 231

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