THE ARCHITECTS' JOURNAL

THE ARCHITECTS' JOURNAL
WITH WHICH IS INCORPORATED THE BUILDERS' JOURNAL AND THE ARCHITECTURAL ENGINEER IS PUBLISHED EVERY THURSDAY BY THE ARCHITECTURAL PRESS (PUBLISHERS OF THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, SPECIFICATION, AND WHO'S WHO IN ARCHITECTURE) FROM 45 THE AVENUE, CHEAM, SURREY.

*

THE ANNUAL SUBSCRIPTION RATES ARE AS FOLLOWS:
BY POST IN THE UNITED KINGDOM £1 3 10
BY POST TO CANADA £1 3 10
BY POST ELSEWHERE ABROAD £1 8 6
SPECIAL COMBINED RATE FOR SUBSCRIBERS TAKING BOTH THE ARCHITECTURAL REVIEW AND THE ARCHITECTS' JOURNAL: INLAND £2 6s.; ABROAD £2 10s.
SUBSCRIPTIONS MAY BE BOOKED AT ALL NEWSAGENTS

*

SINGLE COPIES, SIXPENCE; POST FREE, EIGHTPENCE. SPECIAL NUMBERS ARE INCLUDED IN SUBSCRIPTION; SINGLE COPIES, ONE SHILLING; POST FREE, 1s. 3d. BACK NUMBERS MORE THAN TWELVE MONTHS OLD (WHEN AVAILABLE), DOUBLE PRICE.

*

SUBSCRIBERS CAN HAVE THEIR VOLUMES BOUND COMPLETE WITH INDEX, IN CLOTH CASES, AT A COST OF 10s. EACH. CARRIAGE 1s. EXTRA

*

45 *The Avenue, Cheam, Surrey*
TELEPHONE: VIGILANT 0087-9 (3 LINES)

The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

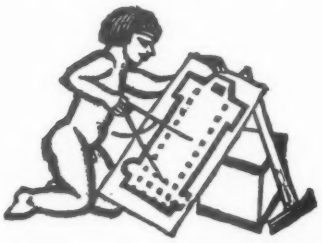
THURSDAY, JUNE 4, 1942. NUMBER 2471: VOLUME 95

PRINCIPAL CONTENTS

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this JOURNAL *should not be taken as an indication that they are necessarily available for export.*

Owing to the paper shortage the JOURNAL, *in common with all other papers, is now only supplied to newsagents on a "firm order" basis. This means that newsagents are now unable to supply the* JOURNAL *except to a client's definite order.*

In common with every other periodical and newspaper in the country, this JOURNAL *is rationed to a small proportion of its peace-time requirements of paper. This means that it is no longer a free agent printing as many pages as it thinks fit and selling to as many readers as wish to buy it. Instead a balance has to be struck between circulation and number of pages. A batch of new readers may mean that a page has to be struck off, and conversely a page added may mean that a number of readers have to go short of their copy. Thus in everyone's interest, including the reader's, it is important that the utmost economy of paper should be practised, and unless a reader is a subscriber he cannot be sure of getting a copy of the* JOURNAL. *We are sorry for this but it is a necessity imposed by the war on all newspapers. The subscription is £1 3s. 10d. per annum.*



from AN ARCHITECT'S *Commonplace Book*

"It was about 1350 that Edward began the erection of the great castellated works which were to form the vast regal castle, 'Windsor.' In 1356 Edward made one of his chaplains, William of Wykeham, chief architect, on a salary of a shilling a day."

"*History of England.*"

NEWS

★ *It has been plain for months that MOWP is not doing the five things it set out to do when it was formed in* 1940" *page* 387

★ *A builder-mason describes his job* *page* 396

APPOINTMENT

The Finance Committee of the Fife County Council has appointed Mr. F. C. Mears, F.R.I.B.A., as Consultant under the Town and Country Planning Scheme at a salary of £700.

R.I.B.A. MEMBERSHIP

The following members have been elected :—

As Fellows (3).—Mileson, Harold (Loughton, Essex) ; Wilson, John William Gilmour (Carshalton) ; Harrison, Reginald Jack (London).

As Associates (19).—Ash, Raymond John (Birmingham School of Architecture) (Nuneaton, Warwickshire) ; Bailey, Douglas Carr (London) ; Crookes, Rowland (Cambridge) ; Cruickshank, George (Robert Gordon's Technical College, Aberdeen) (Aberdeen) ; Devon, Stanley Alexander, B.Arch. (University of Liverpool) (Bangor, Co. Down) ; Gibbs, Mrs. Hazel Margaret, B.Arch. (University of Liverpool) (Ormskirk, Lancs.) ; Gray, Ronald Peter (Leyton, Essex) ; Griffiths, Jack (Coventry) ; Hill, Eric Davy (Arbroath, Angus) ; Hunt, Leslie Edward George (London) ; Joglekar, Shridhar Krishna (University of London) (Edinburgh) ; Poole, John Reginald Maurice (The Polytechnic, Regent Street, London) (Worthing) ; Quinn, Charles Joseph (Limerick, Ireland) ; Redhouse, Alexander (The Polytechnic, Regent Street, London) (Surbiton, Surrey) ; Shephard, Cameron Leslie (London) ; Walter, Mrs. Marianne (Sheffield) ; Warner, Mrs. Sylvia Elizabeth (Architectural Association) (Woodford Green, Essex) ; Whitehorn, John Edward (Nottingham) ; Whiting, Miss Muriel Wasbrough (Architectural Association) (London).

As Licentiates (9).—Barton, Leonard Desmond (London) ; Kinton, Ronald Kirtley (Leicester) ; Lenton, Frederick William (Poole, Dorset) ; McIntosh, Charles Wilkie (Shrewsbury) ; Manly, Geoffrey Charles (London) ; Miller, William Richard Thomas (Rickmansworth, Herts.) ; Scott, G. Gordon (London) ; Sharpe, Ronald John (London) ; Waldron, Capt. Horace George Alfred (Ramsgate).

WASTE PAPER

Some firms and individuals are unaware of the ability and willingness of the Waste Paper Recovery Association to assist and advise on all matters in connection with waste paper recovery and economies in its use. The Association maintains an up-to-date record of recognised waste paper merchants and will quickly answer telephonic or other enquiries, giving all information and the address of the nearest waste paper merchant. Address of the Association is : 154, Fleet Street, E.C.4. (Telephone : Central 1345).

C. R. ASHBEE

The death took place last week, after a long illness, of Mr. C. R. Ashbee, one of the most important exponents of the domestic revival of the nineties. He was 78 years of age.

LECTURES

Wednesday, June 10. Institute of Gas Engineers, annual general meeting, at 1 Grosvenor Place, S.W.1.

Thursday, June 11, 3.30 p.m. A.A.S.T.A., at the Trade Union Club, Minster Street, Reading. "Building Technique in Wartime," by Miss Justin Blanco-White.

Thursday, June 11, 6 *p.m.*—I.A.A.S., 75, Eaton Place, S.W.1. "Problems connected with post-war reconstruction." By Alfred C. Bossom, M.P.

HOMES TO LIVE IN

The success of an experimental exhibition "Living in Cities," launched in 1941 and circulated by the British Institute of Adult Education, has created a great demand for similar exhibitions designed as a link between the art of the town planner, the architect, the interior decorator and immediate problems of social life. Hence the second exhibition, "Homes to Live In," arranged for the Institute and the D.I.A., by Miss Elizabeth Denby and Mr. Noel Carrington, now being held at the Exhibition Hall, St. Martin's School of Art, 109, Charing Cross Road, W.C.2. It was opened last Friday by Sir Stafford Cripps and will run until June 13. Sir Stafford Cripps said that the housing problem had been relegated to the experts—architects, town planners, etc. This was wrong. It should be realised that the experts were the servants and not the masters of the people who live in houses. The average man and woman do not trouble to think about housing matters ; this exhibition had therefore been designed not for the expert but for the average man and woman to see, and to enable them to demand a decent standard of housing and amenities in post-war reconstruction. Sir Stafford concluded : "Can we this time make 'homes fit for heroes' more than an empty and hollow slogan? We cannot expect people to have larger, or, indeed, any families if part of the price of so doing is extreme discomfort in housing. After the war there will be an immense amount of rehousing—we must not miss the opportunity of providing decent homes for the people."

In its origins the exhibition was planned as an independent unit but owes much to the

joint parliamentary secretary, mowp

Mr. Henry George Strauss, M.A., M.P., who was recently appointed Joint Parliamentary Secretary to Lord Portal, made his first appearance in that capacity when he introduced the Second Reading of the Ministry of Works and Planning Bill in the House of Commons. Born in London in 1892, he was educated at Rugby and Christ Church, Oxford, and became Junior Treasurer of the Oxford Union Society in 1914. In the same year he enlisted in the army. After being invalided out of the Forces, he served in various Government departments, and was called to the Bar (Inner Temple) in 1919. He has served on the Committees of various bodies, including: Chairman of the Scapa Society for the Prevention of Disfigurement in Town and Country; Member of Executive Committees of the National Trust, Town and Country Planning Association, Georgian Group, Design and Industries Association, Noise Abatement League, and the Central Council for School Broadcasting. Before his appointment to MOWP he was Parliamentary Private Secretary to the Attorney-General.

willing help of many existing societies and commercial and industrial undertakings in providing material for it. Wartime conditions have not made it possible to secure all the illustrations that would have been desirable but, to make it as practical as possible, the photographs are for the most part of houses and articles built or manufactured in this country.

In the exhibition will be found many objects at present regarded as luxuries. But it only needs the demand to be sufficiently universal for such ideas to be made available by mass production at low cost, and they are therefore included as a good principle. The main material of the exhibition is divided into six categories and deals with:—1. *Types of Housing*. The house and its relation to the street and various types of dwellings such as houses, flats and the use of space; 2. *Downstairs*. The staircase, the grouping of rooms, their furnishing and function; 3. *The Kitchen*. Its planning and functions in the business of the house, i.e., cooking, cleaning, heating, disposal of refuse and storage; 4. *Upstairs*. Planning, equipment, lighting of bedrooms and bathrooms; 5. *Light and Air*. Windows, balconies, roof gardens and gardens; 6. *Living*. Children and the community.

The object of "Homes to Live In" is to stimulate ordinary people into considering the many aspects involved in the building of their future homes. Some two million homes

at least will have to be built to replace those destroyed in the present war or required to make up the lack of those not built in war years. And unless we are permanently satisfied with a very low standard for the poorer section of the community, many million slum houses will need to be demolished and rebuilt. How should those homes be designed in siting, in use of space inside the house, in equipment and furniture? Those are the questions posed in this exhibition, and answered as far as can be done from illustrations now available.

PROSECUTION

H. R. Bull, of Messrs. Nicklin & Bull, Estate Building, 79, Edmund Street, Birmingham, 3, was prosecuted at the instance of the Architects Registration Council, at Birmingham Petty Sessions last month, for unlawfully carrying on business under the title of architect, not being a person registered under the Architects (Registration) Acts. The defendant was fined £5, with £2 2s. 0d. costs.

CEMENT

The British Standards Institution has just issued a British Standard Specification on Pigments for Colouring Cement Magnesium Oxychloride and Concrete (B.S. 1014—1942).

This group of British Standard Specifications deals with a range of pigments, artificial and natural, suitable for colouring cement mortars or concrete, and magnesium oxychloride compositions. The pigments covered by the Specifications provide almost all the colours which are required in these products, the chief exception being blue.

The Committee responsible for the preparation of the Specifications has used the previously published Specifications for pigments for paint, making such modifications to the requirements to suit the particular needs of the concrete and oxychloride flooring industries. For example, in pigments for paint the presence of any significant proportion of coarse particles is objectionable, but in the materials with which the present Specifications are concerned quite a large proportion of relatively coarse particles is tolerable. Again, no objection is raised to the existence of a slight degree of acidity or alkalinity, because both Portland cement and magnesium oxychloride are alkaline substances and slight departure from neutrality will have no harmful effects.

Users are cautioned against incorporating in concrete or oxychloride compositions large proportions of weak pigments. In cases where more than 10 per cent. of pigment (by weight of the cement) is required to produce the desired colour it is desirable to change to a stronger pigment which will give the desired result in a smaller proportion, since excessive proportions of pigments seriously reduce the strength of cements.

It is hoped that the present group of Specifications, as a result of the relaxing of certain requirements, will increase the range of pigments available for colouring oxychloride compositions and concrete products, to the advantage both of pigment manufacturers and users.

All pigments covered by this group of Specifications are believed to be stable in the presence of cement or oxychloride composition, but the Committee has been informed of cases in which fading of carbon black pigments has occurred. The Committee has not felt itself able to specify a test for performance of carbon black pigments at the present time. Users of pigments are recommended to obtain suitable assurance—additional to the safeguards provided by the Specification—before carrying out any large amount of work with types of carbonaceous black with which they are not familiar.

Copies of this new British Standard may be obtained from the British Standards Institution, 28, Victoria Street, Westminster, S.W.1, price 2/3, post free.

BIG DIVIDE

WE started this war with two political parties, Labour and Conservative, roughly representative of organized labour and the organized monied interest, each fighting to attract unattached voters, little men too independent to think of themselves as labourers, and too poor to side without reflection with the large industrialists. That was the set-up, but three years of war have killed the conservative and the labour party as surely as the muddle of the inter-war period killed liberalism. It has killed them but, thanks to the party truce, their dead bodies continue to prop each other up. There are signs, however, by which it is possible to know that really they are dead.

First there is the revolt of the constituencies. Several have recently returned independent candidates who seem to be distinguished by the fact that they are aggressively unorthodox. For instance, Mr. Brown of Rugby began his political career by being anything but conservative, and subsequently left the labour party on the grounds that they had neither the guts to govern nor the grace to get out.

The weakness of the Labour Party's policy, which has always tried to give its supporters more and more for doing less and less, has been obvious for some time and has prevented it from ever securing the overwhelming majority it might have been expected to have. The weakness of the Conservative Party's policy, which has consistently fostered the interests of a small section of the community by protecting their right to direct production into whatever channels brought most profit to themselves, has been exposed by the war. We started the war on the slogan "Business as Usual": it brought us Norway and Dunkirk. The situation was incomprehensible unless we either ceased to believe that we were one of the world's greatest industrial nations, or admitted that our productive capacity was being frittered away.

It has taken time to shake out of the Government the men who believe in business as usual. But there have been changes recently. The new men still wear the old labels, (except for Sir Stafford Cripps) but they talk as conservative and labour spokesmen have never been in the habit of talking before, and they carry others with them. They talk of black markets, all-out effort, austerity and common

purpose. Their motto might almost be the same as Mr. Brown's—total efficiency for total war. They assume without question that planned production is necessary. The only points at issue for the moment appear to be how shall we plan, what shall we plan for, and at what speed.

This might just be a war move but we are being deliberately encouraged to believe that it is not. Mr. Lyttelton, Sir Stafford Cripps and Mr. Eden are already looking forward to a post-war period when output will be increased. equal opportunities created for all, and peace pursued with the same unity of purpose, discipline and self-sacrifice that distinguishes our war effort.* So far this is nothing but talk. It might just be propaganda put out to silence the tiresome people who keep asking what we are fighting for. It might be, because, though the slogan business as usual seems to have been dropped for the duration, the phrase *business as usual after the war* still haunts us. It crops up from time to time when the government receives delegations of awkward business men.

But it seems more probable that such statements coming from key-members of a cabinet whose official policies right up to the date of these speeches were to treat planning as a war measure only, and all discussion of post-war planning as out of order, is much more significant. It must surely mean that the government senses a change in public opinion which it can't afford to ignore, and possibly doesn't want to ignore. As a matter of fact the nature of the change is one nobody can afford to ignore. Briefly it means that Englishmen as a whole *are converted to the idea of planning production in the interests of the community*. Many wouldn't put it like that but that's what they mean.

This Revolution, for it is one, is one that affects architects closely. An orderly system, once it becomes established, will require orderly expression. We may be at the beginning of an age which will see architects become key men in industry instead of being, as they are at present, society's lost sheep.

★

" I believe," said Mr. Lyttelton, " that there are three things which we all want. The first is to make this a truly cheerful country—a country in which we can laugh when we want and put out our tongues at the people we don't like—a spacious, active, enterprising country. The second is to see that we are never again faced with the horror of mass unemployment. The third is to modernize the capital equipment—by which I mean the transport, the roads, ports, towns, houses and amenities of our country, and the curious thing is that in reaching for the third of these objectives we shall be going a long way towards attaining the first two." Mr. Lyttelton doesn't use the word reconstruction at all. He talks instead of modernizing our capital equipment. He goes on to say that the efficiency of our workmen is our biggest industrial asset, more important to us even than good transport facilities and good machines. Once this idea takes root, logic will surely compel us all to see that we plan the arrangement of our homes and towns at least as carefully as the layout of plant and machinery is planned inside a factory, because there is no doubt that much energy could be saved if domestic buildings and service industries were planned to facilitate the business of living which now occupies so much of every adult's time. It can't be long now before town and country planning comes to be regarded as a necessary part of our industrial organization—a process to be insisted upon when and wherever any kind of complicated social life takes place.

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

NOTES & TOPICS

ASK LORD PORTAL

In the JOURNAL for May 21 it was announced that among other changes in MOWP Mr. Tait was being succeeded by Mr. Lorne as Assistant Director of Post-War Building (Standardization), and that Mr. F. R. S. Yorke was to be Assistant to Mr. Christian Barman, Assistant Director of Post-War Building (Administrative).

★

These names, as several architects have pointed out to me, are very good names, and therefore now is a very good time for Lord Portal to explain just what his Ministry is doing. I don't think there is any question connected with building and planning, in wartime or post-war, which is in more desperate need of a full and clear answer. In fact, discussions with men inside and outside MOWP during the last three months have shown that none was capable of describing, in broad outline, the present duties of MOWP, the degree to which responsibilities are shared with other Ministries or organizations, and the mechanism which exists to ensure that joint responsibilities are discharged with tolerable speed and efficiency. Questions as to how any particular joint responsibility is being dealt with have all received one of three answers: the " joint " responsibility is being discharged independently by each of half a dozen Ministries; it is in dispute and is not being discharged

by anyone—yet ; it is being discharged, or ultimately will be discharged, through systems of committees so complex that none of my consultants could be *sure* that he had described one of them correctly.

★

Now architects are quite clear on what they thought—on good grounds—MOWP was going to do when it was first formed in October, 1940. It was going to do five things : (1) Find out how much building work was then in hand and the labour and materials needed to complete it ; (2) forecast amounts of labour and materials which would be available for the next year, both for (1) and new schemes ; (3) collect and correlate programmes of all new works and arrange them in order of priority ; (4) execute all new building work except a few very specialized schemes ; (5) prepare for the skilled guidance of physical reconstruction through a central planning authority.

★

It has been plain for many months that MOWP is not doing these things. The degree to which it has flopped over duties 1, 2 and 3 is difficult to decide. It seems to obtain most of the information needed, and to keep a large staff to juggle with it, but there is every doubt whether it has any power to control distribution and use of labour on contracts for other Ministries ; and it is certain that it is Ministry of *Labour* officials who visit building schemes to decide whether labour is being well used.

★

Duty No. 4—that of *executing* all, or nearly all, war building work—was probably an unwise aspiration in 1940, and has certainly flopped. So far as one can tell, the Admiralty and the Ministries of Supply and Aircraft Production have entire control of their own building, and six other Ministries have every appearance of holding that they can get along very well by themselves.

★

Duty No. 5—physical reconstruction—has two parts, Part 2, investigation of post-war building problems and possible techniques, has been continuously in the charge of capable people. For a few months it seemed that MOWP was going to deal with Part 1—which concerned the pre-eminent questions of post-war planning and planning powers—with the vigour, breadth and nobility of mind which were so very clearly needed. It is quite certain that the Government and Lord Reith were staggered by the public interest which was exclusively concentrated on what had been meant to be a very small part of MOWP's wartime work. All that is an old story now. Public interest and public hope have been worn out by the old old dodges of long silences, interim reports and incomprehensible preparatory Bills, and a hand-picked heavyweight is now sitting on almost every aperture from which any invigorating statement about reconstruction might chance to emerge.

★

Thus, out of the five duties with which MOWP was charged, not more than half of one is being carried out as was first intended. The most important of all is not being carried out at all, and the remainder are being handled in an obscurity which would do much credit to a Continental invasion plan. In the meantime the Ministry grows in size, day by day. It is time the building industry called its master to account.

LORNE AND YORKE FOR POST-WAR BUILDING

Francis Lorne and his firm's investigations into standardization are world famous, and the results of their researches have been published. There are *The Information Book of Sir John Burnet, Tait and Lorne*, and five volumes of *The Library of Planned Information*. The firm also sponsored The Information Sheets, which have appeared in THE ARCHITECTS' JOURNAL since 1933.

★

Architects for a prodigious number of buildings in the modern manner, Sir John Burnet, Tait and Lorne have twice been awarded the R.I.B.A. London Architecture Bronze Medal.

F. R. S. Yorke's modern outlook first took practical shape in his concrete houses at Hatfield (1935), and Iver, Bucks. (1936). Later, in partnership with Marcel Breuer, he designed houses at Angmering-on-Sea, Eton and Lee-on-Solent, the London Theatre and dress showrooms in London. He is no stranger to literature either. Since 1935 he has been Editor of *Specification* (and still is). He wrote two of the best sellers : *The Modern House*, and *The Modern House in England*, and with Frederick Gibberd he was joint author of *The Modern Flat*, the most radical and comprehensive book of its kind.

CRAFTSMEN AT HEART

Mr. Gloag not so long ago was angry with me because I said that bricklayers were anxious to get as much as possible for as little as possible, and that architects could hardly blame them because they had a union of their own for much the same reason.

★

Mr. Gloag was angry because he thinks good craftsmen enjoy their work and take a pride in it and that most of us are craftsmen at heart. Of course we are, but we are so befuddled by our economic system that we seldom allow it to be noticed.

★

Here's a story that illustrates the point. A sapper was asked to render a concrete-walled hut by his fellows. He spent some hours on the job and the finish was perfect. After standing back to have a look at it, he decided he would like to put the number of his unit in one corner, but he was not satisfied with his own ability as a draughtsman, so he got an architect on the job to draw the number. When this was done to his satisfaction he spent some time longer rendering it most carefully in relief.

★

The point of the story is that before joining the army the man was a *jerry builder*. He prided himself on his skill as a craftsman, but unfortunately in civil life he measured this by the amount of money he made.

ASTRAGAL

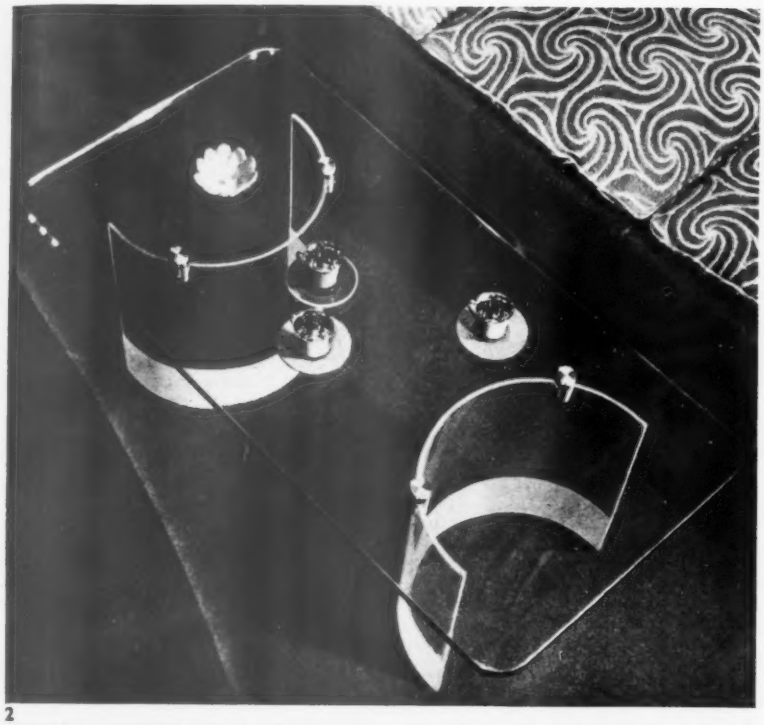
FIVE NEW USES OF P

1

1. *Glass-top occasional table. Legs are tubes of transparent plastic. The solid brass bushings are threaded to the tube at both ends and the leg is attached to the glass top by a solid brass screw. The table can be assembled without the use of tools; the top is* 34 *in. in diameter.* 2. *The plastic base of this occasional table makes it light in weight (the special plastic used for the table is claimed to be forty per cent. of the weight of glass). The portion of the base nearest the floor is sandblasted.* 3. *Suspended chair. The frame is of stainless steel and the seat and back are formed of one sheet of special plastics. This is claimed to be the first chair using any transparent material to be made with a stainless steel frame and scientifically designed for good posture.* 4 *and* 5. *Display fixtures made of plastics.*

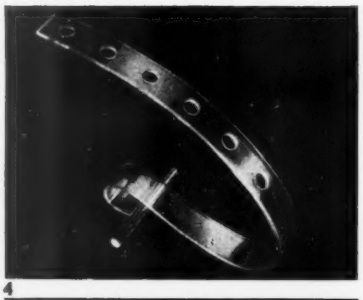
These illustrations from America show the characteristics of one of the materials—poly methyl-methacrylate—of the large family of " plastics." There are several products (transparent and coloured) which are known under various trade names and which are made of poly methyl-methacrylate, which is often referred to as acrylic-resins. These resins are well known to plastic technicians but, with few exceptions, they have been used mainly for scientific instrument parts—particularly in aeroplanes—on account of the high cost. Acrylics belong to the " thermoplastic " group of materials, which means that the finished product can be shaped and re-shaped by using suitable heat and pressure. " Thermosetting " or thermo-

F P L A S T I C S

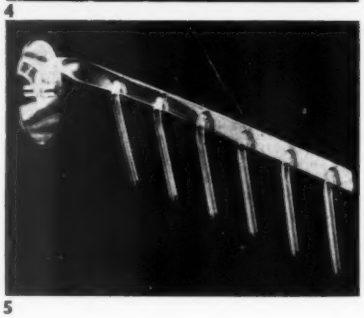


2

3



4



5

hardening resins appear on the market as rigid infusible and insoluble finished articles, generally unaffected by heat, within reasonable range. The " shaping " temperature of thermoplastics is generally just above boiling water temperature ; this consideration does not impose serious limitation on their possible use in buildings. In America this product has been used for furniture and fittings of various types, some of which are shown in the illustrations on these pages. Owing to the war, however, the availability of plastics is now restricted to work of national importance, such as the curved windows and wind shields of aeroplanes, and in automobiles and various types of naval craft.

LETTERS

J. ALAN SLATER, F.R.I.B.A.
D. E. MORRISON, B.A., A.R.I.B.A.
ASTRAGAL

R.I.B.A. Elections

Sir,—I fear that your readers may be weary of the apparently trivial aspect of my differences with Sir Ian MacAlister when the real issue is of paramount importance.

I admit inaccuracy in my statement that " ex-officio members of the Council are changed by the Council itself." The facts are that the holders of the offices of President, Vice-President, Hon. Secretary, Hon. Treasurer, are nominated by the Council itself, but that other ex-officio members are *selected or elected* by the Allied Societies.

In so far as these latter names do change, as was implied in the R.I.B.A. Secretary's letter, presumably the change is effected either by reference to the electoral bodies concerned, or by selection without that reference. My point is obvious and still stands, namely that the democratic rights, small enough in the existing constitution, whereby ordinary members may elect their representatives, has temporarily ceased, owing to the policy adopted by the Council R.I.B.A., and perhaps also (in so far as no reference is made to their members) by the Executive of the Allied Societies.

The R.I.B.A. Secretary does not appear to admit that his first letter was misleading. However, matters of accuracy or inaccuracy, statements of detail are trivial in comparison with my main contention that the policy pursued by the Council R.I.B.A. is unwise, and likely to lead to dissatisfaction among ordinary members.

J. ALAN SLATER.

SIR,—The letter in your issue for April 30, signed by members of the R.I.B.A. in the forces points to one reason why the R.I.B.A. elections should be held this year. The role of the architectural profession in 1942 is not the same as it was in 1939. A large number of architects are now serving in the Forces ; others hold official positions with Government departments and local authorities, or are in salaried jobs with consultants or contracting firms doing Government work ; the remainder are in private practice.

Now the present Council may, or may not, be representative of the needs and aspirations of the majority of the profession in its present role : we don't know. We do know that there has been dissatisfaction over the R.I.B.A.'s attitude to certain questions —its lack of vision in regard to the

official shelter policy and reservation in the past, and, at present, its concentration on post-war problems to the detriment of the urgent questions of to-day.

In a democratic country an election is the only obvious way of finding out whether this dissatisfaction has any widespread basis. The membership should be given an opportunity to exercise their democratic right.

D. E. MORRISON.

Mr. Gloag and the Bricklayers

Sir,—There is no doubt that correspondence columns only begin to reach their best when two disputants stop fiddling with the points at issue and settle down to calling each other names. But Mr. Gloag and I, Sir, are too old hands to be caught like that. So I will read carefully all that he has said about me, if he will read the note of mine on p. 387.

ASTRAGAL.

[With this mollifying suggestion this correspondence closes.—ED., A.J.]

At a lunch-time meeting of the Town and Country Planning Association held recently in London, Mr. L. F. EASTERBROOK *read a paper, extracts from which are printed below, entitled*

AGRICULTURE in the POST-WAR PLAN

Freedom is a relative term. Freedom is really a matter of deciding what sacrifices of individual liberty are least irksome to the community as a whole. It is in this light we must think about the greater amount of control that must undoubtedly be introduced for our food-producing industry after the war.

At present there is very drastic control of farming. Farmers are ordered to grow certain crops, to spread certain fertilisers on their land, and are even being forbidden to go out of dairy farming. There will be no excuse for anything as drastic as that when the war is over. But we must ensure first of all that our land is used to the best advantage.

The County Agricultural War Committees seem to offer a valuable type of machinery for seeing that this is done. It is a privilege to occupy British soil. It is a still greater privilege to own it. Therefore we cannot afford inefficient owners any better than inefficient farmers. Some think that the State should own all the land on this account. That may be so. If the State owned the land, it would have a vested interest in seeing that agriculture prospered. And that might not be a bad thing.

But before embarking upon so vast a project and venturing into such uncharted country, we must do some hard thinking. Who would be responsible for administering this gigantic enterprise? A body like the Forestry Commission, say some. The analogy between forestry and farming, however, is only a superficial one. The Ministry of Agriculture? After spending the first two years of this war as a member of that Ministry, they stand even higher in my estimation than they did before I knew them so well. But my experience has confirmed my belief that they were never designed to do such a job. Farmers in this war have achieved miracles. They have confounded the experts in the quantity of food they have grown under wartime conditions. A control plan and the work of the County Committees have helped greatly in this. But the Ministry themselves have been the first to admit that the secret of success has mainly been due to the efforts of 300,000 farmers thinking, acting and planning for themselves. I cannot see farming flourishing under the stereotyped management of a Government department—although, as I say, we may *have* to come to this.

But before emptying out the baby with the bath water and abolishing land ownership because our pre-war efforts to strangle it so nearly succeeded it, couldn't we see first if it can't be made to work? Could we not try to revive the profession of landowning just as we are now reviving the profession of farmer?

We might take a sample estate and try it out. That's the best way to find the answer. It would be desirable to select some of the best farms as local demonstration centres so that all could learn from the operations of the most successful practical men. That is the function that the home farm of the old-time estate should have fulfilled.

In return for this, owners would have security. Death duties would not be payable on the money invested in these enterprises. Owners unable or unwilling to co-operate would have to be displaced by others who would, just as inefficient tenant farmers are now dispossessed of land where they perform no useful function. There would, of course, have to be a central Land Commission for the whole country, responsible through the Minister of Agriculture to Parliament, for administering the whole scheme and evicting owners who were merely rent-receivers or winged game hunters. So far as possible execution of the plan should come from landowners themselves, even as the Ministry of Agriculture now depend largely upon farmers themselves to carry out their agricultural plan.

Side by side with this talk about nationalising the land runs the suggestion for laying farm to farm and running the countryside like a factory, with departmental managers in the place of farmers. I do agree that many of our farms are too small, and still more of our fields want straightening out and even enlarging, especially those under, say, eight acres. I will even say that there is a place for the big mechanised farm in certain parts of the country, like East Anglia or parts of Hampshire. But a much larger area of our country is suited to mixed farming, livestock and a certain amount of cultivated land to feed the stock and produce the best grass, and here I suggest that the big mechanised unit is utterly unsuited to the detailed care and supervision, the unremitting attention that knows no factory hours, so essential to successful management of animals. Those who want to Woolworthise our countryside have not yet brought forward one single shred of evidence to show that their factory methods will produce the best results. From time to time in the past farms have been amalgamated into vast enterprises of this nature, but sooner or later those enterprises have disintegrated again. They have not shown the slightest capacity to survive. What evidence there is goes to prove that it is the smallish farm that is most immune to economic shocks, and also that it produces both the highest output per acre and the greatest profit per acre—I mean farms say between 75 and a couple of hundred acres. The impassioned technocrats, crouching among their graphs and their statistics, are trying to put a quick one over on us with no attempt whatever to produce any practical evidence. It *sounds* all right, to a generation inclined to believe that the mathematician and the chemist hold the only keys to knowledge. But is it? Again I say, let us try and see, before we commit ourselves.

For we have to realize that one of the main conflicts going on at the moment is between Science and Art. Science, with its test tubes and its paper conclusions. Art that still believes in quality, craftsmanship and the human spirit, that diversity within unity is one of the marks of civilisation. But agriculture, a business that deals with living, changing things, needs in my opinion both Art and Science if it is to be successfully pursued. *Don't let us forget that we planners are dealing not with dry bones but with the lives of men.* We shall not for ever, I believe, live under the present domination of science, these mechanistic ideas that have had so much to do with creating the mentality that has landed us in our present catastrophe. One day we shall awake to the fact that science is an invaluable servant, but if we accept it as our only master, it will lead us straight to hell, the hell of a robot world in which the free spirit of man can no longer flourish—or even exist. Therefore, when planning the future, let's remember that on our generation rests a responsibility greater than on any that has yet gone before. For now we must plan a new world, and whatever we do will live after us for scores of years. It is not enough to plan a world where wheat can be produced for 5s. a bushel instead of 5s. 9d. if we disdain all the teachings of ethics and philosophy. For the human spirit has a way of asserting itself, and we might well find that all our plans had gone awry because we had created a perfect world for the technocrat, but quite uninhabitable by the ordinary human being, and therefore completely unworkable. It would be no less idiotic to decide that we should all live on tabloids because then feeding would be much cheaper and we would all have more money to go to the pictures, or lend to the State to support more lunatic asylums.

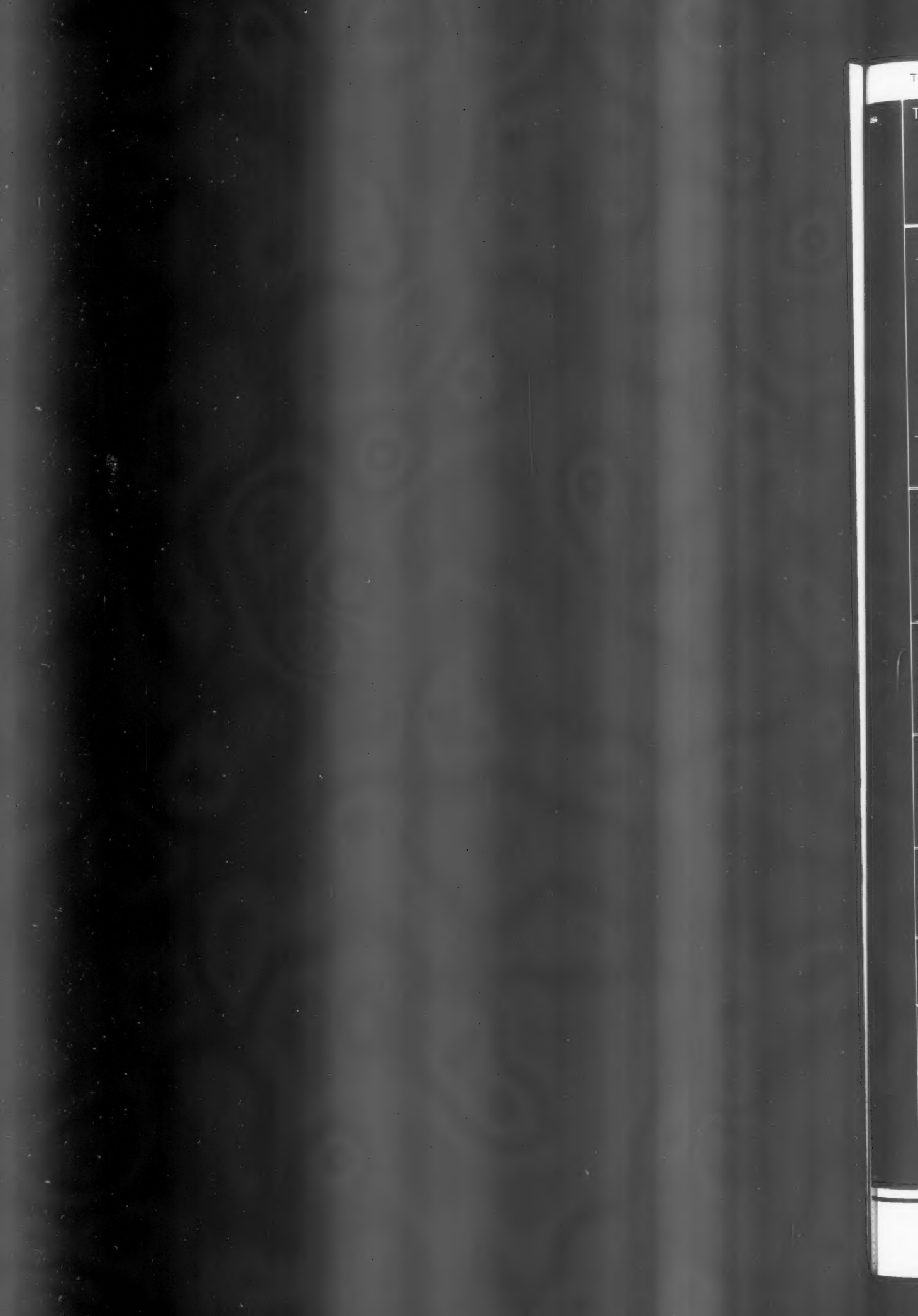
Man to-day is both scientist and artist. Therefore we must plan an efficient and a sensible world, but also a world where the art of living is not subordinated to the standard of living, where the spirit finds the means for self-expression and the countryside produces men and women of variety and character, not a dehumanized array of black-coated agronomes.

EXHIBITIONS

Exhibition of Domestic Planning and Design, arranged by Miss Elizabeth Denby, at the Exhibition Hall, St. Martin's School of Art, 109, Charing Cross Road, W.C.2. Until June 13 (11 a.m. to 7 p.m. weekdays).

Exhibition of Paintings, on behalf of the "Aid to Russia" Fund of the National Labour Council, at 2, Willow Road, Hampstead. Until June 21 (3 to 9 p.m. weekdays; 11 a.m. to 9 p.m. Sundays).

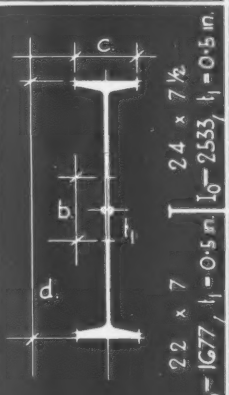
A women's conference and exhibition on housing and planning was opened at the R.I.B.A. last Thursday; the exhibition closes to-morrow. The conference and exhibition were arranged with two objects: (1) to persuade women that they have a great part to play in post-war housing and planning, and that they must see that due notice is paid to their knowledge and wisdom in matters particularly of interior house planning; (2) to show women what material there is for display to their own groups throughout the country, and by demonstration to encourage and help them to get planning needs thought out by women in their own localities. The following resolution was adopted by the conference: "In the opinion of this conference women are not adequately represented on the various committees already set up to deal with post-war housing and planning; we therefore urge the Government to appoint a committee of women qualified to advise on these problems."



THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

ORIGINAL BEAM SECTION, inches.

TABLE GIVING COMPARATIVE PROPERTIES AND EFFICIENCY COEFFICIENTS (e) OF R.S.J's. WITH INSERTED WEB PLATES.



	b.	OVERALL SIZE, c x d.	I.	Z.	w.	Z/w.	e.
24 x 7½ I_o = 2533, t_1 = 0·5 in.	0	24 x 7½	2533	210	95·0	2·20	2·09
	6	30 x 7½	5702	380	105·2	3·60	3·48
	9	33 x 7½	7513	455	110·3	4·10	3·90
	12	36 x 7½	9465	526	115·4	4·56	4·33
	15	39 x 7½	11583	594	120·5	4·95	4·70
	18	42 x 7½	13776	655	125·6	5·20	4·99
22 x 7 I_o = 1677, t_1 = 0·5 in.	0	22 x 7	1677	152	75·0	2·10	2·0
	6	28 x 7	4006	290	85·2	3·40	3·27
	9	31 x 7	5317	344	90·3	3·80	3·61
	12	34 x 7	6749	396	95·4	4·16	3·95
	15	37 x 7	8317	450	100·5	4·50	4·28
	18	40 x 7	10070	504	105·6	4·77	4·53
20 x 7½ I_o = 1673 t_1 = 0·5 in.	0	20 x 7½	1673	167	89·0	1·88	1·79
	6	26 x 7½	4242	326	99·2	3·28	3·12
	9	29 x 7½	5703	386	103·3	3·74	3·55
	12	32 x 7½	7345	457	108·4	4·20	3·99
	15	35 x 7½	9113	520	113·5	4·48	4·26
	18	38 x 7½	10916	575	118·6	4·80	4·56
18 x 8 I_o = 1292 t_1 = 0·5 in.	0	18 x 8	1292	143	80·0	1·79	1·70
	6	24 x 8	3461	288	90·2	3·20	3·04
	9	27 x 8	4722	350	94·3	3·70	3·52
	12	30 x 8	6214	415	99·4	4·17	3·90
	15	33 x 8	7632	463	104·5	4·40	4·18
16 x 8 I_o = 974 t_1 = 0·5 in	0	16 x 8	974	122	75·0	1·60	1·52
	6	22 x 8	2833	260	85·2	3·06	2·96
	9	25 x 8	3944	314	90·3	3·50	3·33
	12	28 x 8	5146	366	95·4	3·84	3·65
	15	31 x 8	6464	416	100·5	4·15	3·95
14 x 8 I_o = 706 t_1 = 0·5 in.	0	14 x 8	706	101	70·0	1·55	1·48
	6	20 x 8	2275	228	80·2	2·76	2·64
	9	23 x 8	3216	279	85·3	3·28	3·12
	12	26 x 8	4258	328	90·4	3·64	3·46
12 x 8 I_o = 488 t_1 = 0·375 in.	0	12 x 8	488	81·2	65·0	1·25	1·19
	6	18 x 8	1755	195	72·65	2·68	2·55
	9	21 x 8	2571	244	76·48	3·20	3·04
12 x 5 I_o = 221 t_1 = 0·375 in.	0	12 x 5	221	37	32·0	1·15	1·09
	6	18 x 5	808	88	39·6	2·96	2·82
	9	21 x 5	1194	120	43·48	2·76	2·63

for explanation of notations, see reverse side of this Sheet

Issued by Braithwaite & Co, Engineers, Ltd. Compiled by Samuely & Homann, Consulting Engineers.

INFORMATION SHEET : STEEL FRAME CONSTRUCTION, 76 : WELDING 32 :
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE, BEDFORD SQUARE LONDON WC

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET
• 865 •
STRUCTURAL STEELWORK

Subject : Welding 32 : Comparative Properties and Efficiency Coefficients of R.S.J.'s with inserted Web Plates (a).

General :

This series of Sheets on welded steel construction is a continuation of a preceding group dealing with riveted and bolted construction, and is intended to serve a similar purpose—namely, to indicate the way in which economical design as affected by general planning considerations may be obtained.

Both the principles of design and the general and detailed application of welded steelwork are analysed in relation to the normal structural requirements of buildings. The economies in cover and dead weight resulting from the use of lighter and smaller steel members and connections are taken into consideration in the preliminary arrangement of the building components, in order to obtain maximum economy in the design of the steel framing.

This Sheet is the fifth of the section on detailed considerations of design in welded steel, and gives comparative Moments of Inertia, Section Moduli and Efficiency Coefficients of R.S.J. beams which have been cut into two parts and increased in depth by the insertion of an intermediate web plate. Such extended beams can be used with or without flange plates, but the Efficiency Coefficient is, of course, much larger in the first case.

Advantages :

The advantage of this type of beam is that a beam of the R.S.J. type can be rearranged so that it is deeper than the standard R.S.J. and, therefore, shows a marked increase in its Efficiency Coefficient.

Inserted Web Plate :

In all the examples the thickness of the intermediate web plate is assumed to be the same as that of the R.S.J.

Example :

If a 12 in. by 5 in. is cut into two parts and a web plate 12 in. by $\frac{3}{8}$ in. is introduced, the total depth is the same as that of a 24 in. by $7\frac{1}{2}$ in. R.S.J., but the thickness of the web is .375 in. instead of .57 in. Such beams are not, therefore, used where the Shear Force is exceptionally large, and requires considerable web area.

Use :

These sections are particularly useful for long spans where, compared with the Bending Moment, the Shear Force is comparatively small, and where an increase in depth is desirable to avoid excessive deflection. Compare the properties of the sections in the tables on the front of this Sheet with those in the tables on the front of Sheet 31 of this series.

Notations :

b = Depth of inserted plate, inches.

t_i = Thickness of inserted plate, inches.

I_0 = Moment of Inertia of original section.

I = Moment of Inertia of increased section.

z = Section Modulus of increased section.

w = Weight of section in lbs. per ft. run.

$\frac{z}{w}$ = Efficiency of section, by weight only.

e = Reduced efficiency of section allowing for extra labour costs.

Flange Plates :

Flange plates can be added to joists where the web plate is increased, and the formula given in Sheet 31 obtains :

The Efficiency Coefficient will be proportional to $\frac{z}{w}$ (but for the sake of comparison with R.S.J.'s, it will be reduced slightly to account for the additional labour costs).

w = weight per ft. run = 3.4 by total area.

z_i and h_i in this case, refer to the increased section including web plate, but without the flange plates.

Previous Sheets :

Previous Sheets of this series on structural steelwork are Nos. 729, 733, 736, 737, 741, 745, 751, 755, 759, 763, 765, 769, 770, 772, 773, 774, 775, 776, 777, 780, 783, 785, 789, 790, 793, 796, 798, 799, 800, 801, 802, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 816, 819, 821, 822, 823, 824, 826, 827, 829, 830, 832, 836, 837, 838, 839, 840, 842, 843, 845, 847, 848, 849, 850, 851, 852, 853, 855, 856, 857, 859, 860, 862 and 863.

Issued by : Braithwaite & Company, Engineers, Limited.

London Office : Temporary Address :
King's House, Haymarket,
London, S.W.1.

Telephone : Whitehall 3993.

HOUSE IN CALIFORNIA

ARCHITECT: JOHN EKIN DINDWIDDIE

ASSOCIATE ARCHITECTS:

ALBERT H. HILL AND PHILIPP E. JOSEPH

The western elevation of the living room. A hood against the early afternoon sun shades the window band below. It is supported by slanting uprights which are, above the window cill, reduced to a chamfered section. The wall is boarded red pine stained a greyish green to blend with the colour of the leaves of the tall eucalyptus tree behind the house.

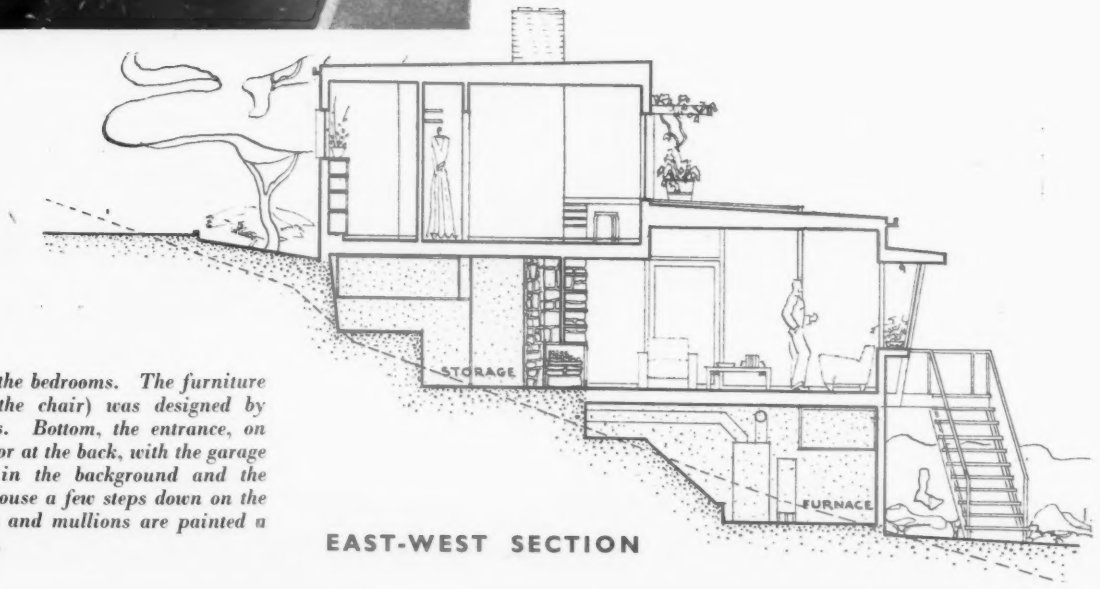
HOUSE, BERKELEY,

ARCHITECT, JOHN EKIN

ASSOCIATES: A. H. HILL,

GENERAL—Berkeley, the Harvard of California, lies opposite San Francisco, on the mainland side. There is hardly a break now between Oakland and Berkeley. The house has an unimpeded view to the west down over the bay of San Francisco behind John Galen Howard's university buildings.

PLAN—As the site slopes steeply down to the west, the architect has chosen a graduated plan which enables him to keep close to the ground on both floors and achieve in a house of only one living room and two bedrooms a surprising variety of spatial effects. The entrance lies on the hillside and is reached by a drive that comes round from the left to the back of the house, leading straight on into the garage. Six steps bring the visitor to the door—in size and position curiously insignificant. The hall, small and tapering to the left, gives access to the bedrooms with a combined bath and lavatory (the only one in the house) in between. The staircase is opposite the entrance and goes straight down into the large living room. The dining corner is separated by a curved curtain. The west wall of the room has a band of windows right across. The south wall is glass throughout



EAST-WEST SECTION

Top, one of the bedrooms. The furniture (except for the chair) was designed by the architects. Bottom, the entrance, on the upper floor at the back, with the garage straight on in the background and the door to the house a few steps down on the left. Sashes and mullions are painted a greyish blue.

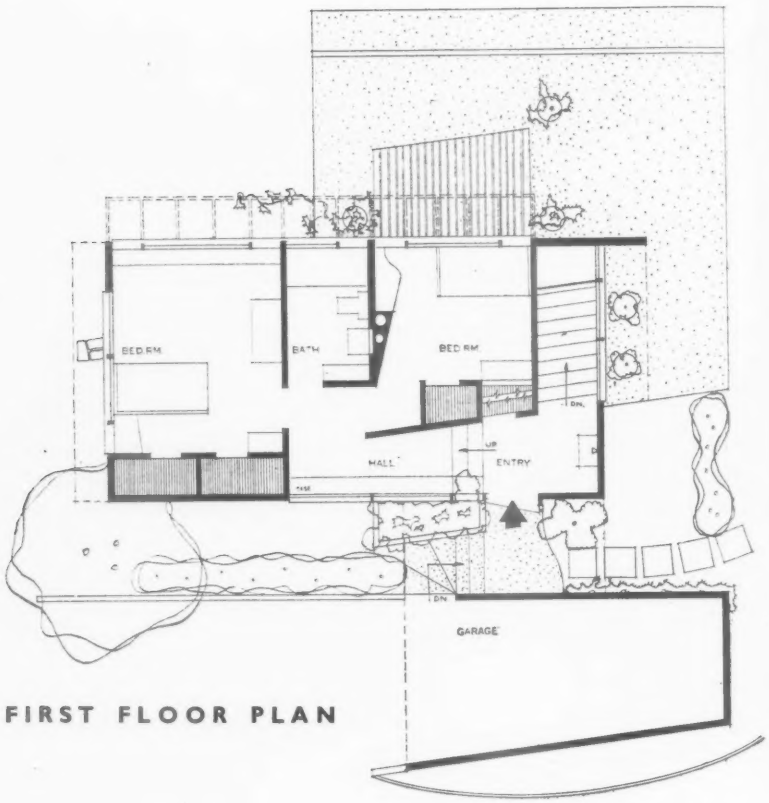
CALIFORNIA

DINDWIDDIE
P. E. JOSEPH

and has a door to the spacious south terrace. The kitchen lies in the north-east corner behind the dining compartment. All its equipment is built in. It has a special service entrance with steps down from behind the garage.

CONSTRUCTION AND EXTERNAL FINISHES—The back wall of the living room and terrace is fieldstone left in the rough. It provides an effective contrast with the red pine boarding, stained a greyish green, of the other walls. Only the front wall of the bedroom,

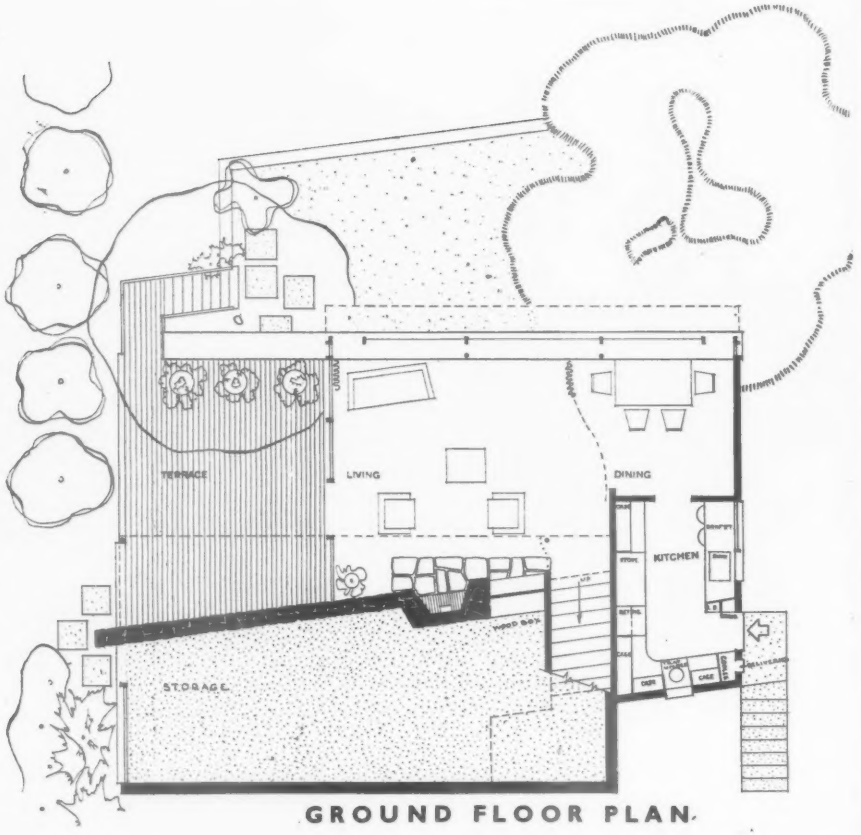
View from the south showing the campus of the California State University and the bay of San Francisco in the background. Below, the south front, showing the fieldstone and light timber walls. On the top floor there is a trellis for vines in front of the bedrooms.



FIRST FLOOR PLAN

shaded by an open trellis for vines growing down from tubs on the roof, has the boarding stained a greyish gold and the timbers vertical instead of horizontal. Sashes and mullions are greyish blue. The silvery grey of the tall eucalyptus tree behind the house in the south blends subtly with shades of the woodwork. The front wall of the living room has a timber hood on slanting cantilevered wood supports.

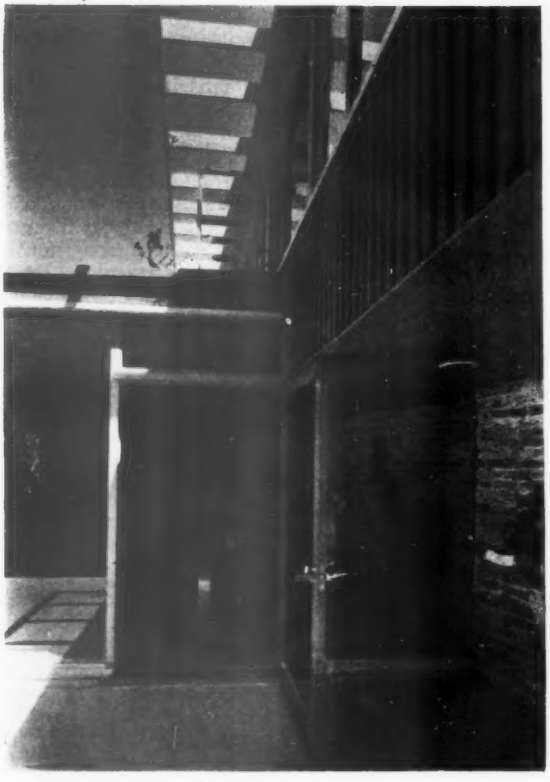
INTERNAL FINISHES—Inside the living room the ceiling above the fireplace is lower to give this part more intimacy. The lowering is obtained by carrying the bedroom block on the first floor forward into the living room space. Most of the furniture is of the Finnish Aalto make; Persian rugs cover the floor. The furniture in the kitchen, with the exception, of course, of the standard refrigerator, is all built in and all of one height.



GROUND FLOOR PLAN

HOUSE AT BERKELEY,

ARCHITECT: J. E. DINDWIDDIE. ASSOCIATES: A. H.



Top, the living room; the dining corner can be cut off, if desired, by a curved curtain. The windows face west, the terrace south. Note the reeded face of the lowered fireplace part of the room, and the poles of circular section which indicate a separation between the fireplace part and the staircase. Most of the furniture is of the Finnish Aalto make. Left, the terrace with the living room behind. Right, the ply-boarded staircase down from the entrance into the living room.

CALIFORNIA

HILL AND P. E. JOSEPH

T. McLACHLAN, *a stone-mason, who comes from the Orkneys, once broadcast some of his reminiscences about that part of the world. He now lives at Flixton, near Manchester, and was on the air again in the "Men on the Job" series. In the talk, published below, he describes his work as a*

BUILDER MASON

I am a builder-mason by trade, but not the kind of craftsman you may have seen working on fine dressed stone-work on cathedrals or churches. My work is more like that of a dry-stone waller who only roughly dresses the stones he builds. If you have visited Derbyshire, the Lake District, or any of the country districts of Scotland, you have probably seen many examples of the kind of building I do.

The tools used in my trade are very simple and few, with a nobbling hammer, or as we call it a catchy, a mash hammer and a few pointed chisels, a line, a three-foot rule, a short broad trowel, and a plumb rule, it is possible to "big a hoose fae steeth tae riggin" as we say in the north of Scotland.

When I began my trade some thirty years ago, apprentice masons had to start as lime-boys. I had to mix mortar of sand and lime for the journeymen masons as well as help the labourers to fetch them stones. At first only during the rare occasions when my seniors were amply supplied with those materials was I allowed to try my prentice hand at building. Before I began laying the ill-shapen stones, it looked very easy. At least when the old bearded masons were doing it.

I was put under the guidance of a very old hand who had earned as a journeyman in his young days no more than I was getting as an apprentice, and that was threepence per hour for a sixty hour week. He had saved money too. When I asked him how on earth he had managed to exist, let alone save, he said that his chief diet consisted of milk and meal, fish and potatoes.

Old Bob was a patient kindly old man and full of good humour. Incidentally this is a trait which my fellow workers need to have when the stones are particularly rough. Especially in your prentice days.

"No Tammie," he would say. "There's naethin' in this job at all if thoo minds whit thoo does. Here is the whole thing in rhyme for thee tae mind on :

'Lay a stone on a stone ; Ane upon twa,
Pack weel and pin weel ; An' thoo mak's a good wa'."

In other words I had to watch and break the bond or joints of the stones : lay them solid ; pack the centre of the wall properly to do a good job of work.

Always I seemed to be doing something wrong. Each stone had to be laid with an incline or slope downwards to the front face of the wall, so that any rain that was driven in by the wind would run out again. I must not lay a stone on edge. They had to be laid as they lay in the quarry with the grain or strata parallel to the foundation of the wall.

Many a day along with the masons I went to quarry special stones required on the job. Sometimes the quarry was only a few yards from the building site, so it was no trouble to quarry window lintels or sills, corner stones, or chimney-head corners when we needed them. Here I got a knowledge of this trade, and was able to tell a sound stone from one with flaws in it.

For the ordinary walling stone we did a bit of blasting to loosen the great beds of stone from the quarry face or bottom. This was the most exciting part of the job, and I was very disappointed if the bang wasn't big and the debris didn't fly hundreds of feet in the air. Actually it was a bad shot that sent splinters flying high. The dull thud always told us that the explosion had loosened a fine big bed of stone. The sharp crack and spectacular fountain of dirt and stones meant a miniature crater around the shot hole, which had been drilled by hand to a depth of fifteen inches or so into the solid rock.

The shot hole was made with a long punch or jumper which was struck by alternate blows from sledge-hammers in the hands of competent quarrymen or masons. The punch itself was held by a third man or lad. I often felt nervous when I held the thing to see those heavy hammers descending with rhythmic beat above my knuckles, but I never once was hit, nor do I recall any one else getting their hands hurt at this job.

As time went on I began to do a little more building, but always on a part of the house or in a job where it would not show. This was chiefly on the inside part of the two-foot thick walls, or on the gables which were two feet six inches thick, to allow for the chimney flues to be built in. When I came across a stone which was particularly dour and nobbly, I would say to Old Bob in despair. "I can't find a place for this so and so bit."

"Noo mind on whit I telt thee," he would say. "Noo wat this," and he would give the stone a sharp crack with his heavy catchy hammer. Sure enough there before me were two clean cut straight-faced stones which I could place in a suitable place in the masonry. "Never pit doon a stone on the scaffold wance thoo hes picked it up," he would say. "There's aye a neuk for it some wey in the wa'."

After three years I was considered good enough to build any part of a house, or take part in the slating of the rood ; and my wages were increased to fourpence halfpenny an hour. Journeymen were getting then the sum of sixpence an hour.

In the Orkneys as in many country places the mason did more than simply build the shell or fabric of a house.

He put in the drains, he harled or rough-casted the walls, he put on the rhones or gutters, and did the slating. He quarried, dressed and laid the flag stones in the kitchens or out-houses. He built in the ranges and fireplaces. He did any brick-work that was necessary such as the chimneys in wooden buildings. He did all the different concreting jobs like rain-water tanks, sheep-dipping tanks, floors of fish-curing stations, et cetera. He erected tombstones, and often did the lettering on them, and, believe it or not, he carried out repairs on board the local steamer and other vessels.

Perhaps if you have examined carefully the decks of a steamer, you will find a gully or channel running along the sides of the deck. I think these are only found in the 'tween or "between decks," and the nautical name for it is the scuppers. A mason on board a ship seems incongruous, but in the piping days of peace there were gardeners on board the large luxury liners!

If the job of building is sometimes prosaic enough and certainly always hard, it is not always dull. The material I use is millions of years old, and I suppose mine is the oldest craft in the world. Long before Solomon's Temple was built the rude rough masons of the stone age, without the aid of steel or iron, fashioned themselves dwellings of stone. I am amused at passers-by making remarks about what they call *new* stones, in which I find occasionally the fossils of creatures and plants that existed before the history of man began.

Stone building such as I have been used to, is dying out. Even where stone is easily got, the cost of labour is too high to make house-building a paying proposition in this medium. It may surprise many to know that my fellow-craftsmen in the Orkneys have been building houses with brick imported from Belgium, or with concrete blocks made on the site. It used to take six masons about three months to build a house of five rooms. The same type of house can be built by as many bricklayers in a week or so.

It was a slow job in the old days.

PATENT WELDED TUBULAR CONSTRUCTION

Data Sheet No. 3

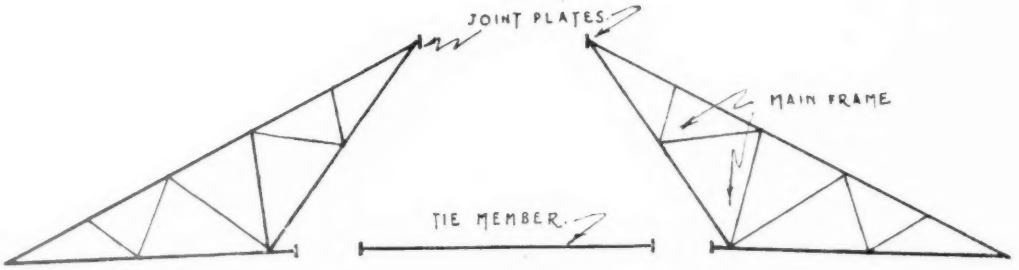


Fig. 1. Composite roof truss for spans ranging from 15′ to 40′.

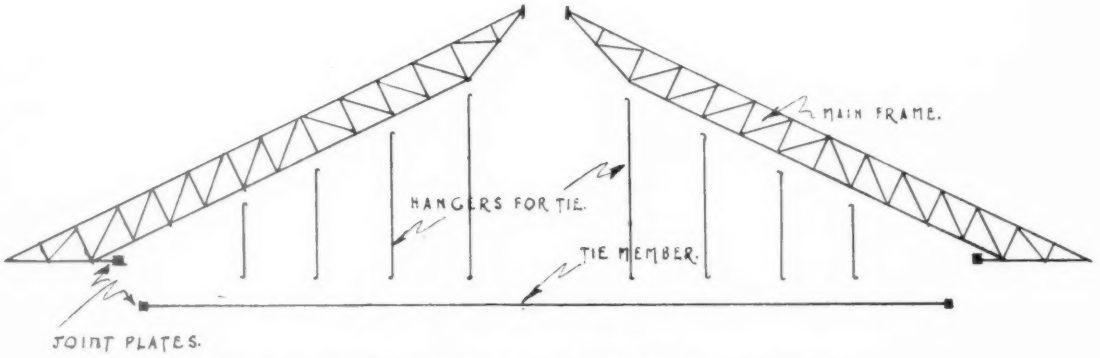


Fig. 2. Composite roof truss for spans ranging from 30′ to 120′.

COMPOSITE TRUSSES

Truss designs dealt with in Data Sheet No. 2 were designed and produced to give a range of trusses for roof spans from 15 ft. to 60 ft. suitable for quarter and 30° pitch roofs at 10 ft. to 12 ft. centres—purlins to be of tubular steel or timber. Fig. 1, above, shows this composite form of truss.

An alternative design is detailed in Fig. 2. This design may be said to supersede the earlier standard designs ; it is suitable for spans from 30 ft. to 120 ft. and offers a simplified form of construction by reduction of the number of intersecting members at any one point. This form of truss is employed for roofs of quarter to 30° pitch and provides the simplest possible form of fixing for the asbestos-cement roof covering; the large roof cubage may be considered a disadvantage and the pitch of the roof can be reduced by slight amendments to the truss design. Details showing a further modification of this type of truss, for barrel form roofs, are dealt with in a later Data Sheet.

These composite trusses (Fig. 1 and Fig. 2) are composed of two main sections and a tie member and greatly facilitate handling and transportation ; erection is extremely simple, the sections being bolted or welded together on the site and lifted into position by means of a single pole and tackle. The reduction in weight effected by this form of construction may be estimated as approximately 50 per cent. on existing methods.

(continued overleaf)

- **Speed in erection**
- **Economy in steel**
- **Lightness of structure with great strength**

PATENT WELDED TUBULAR CONSTRUCTION

Data Sheet No. 3

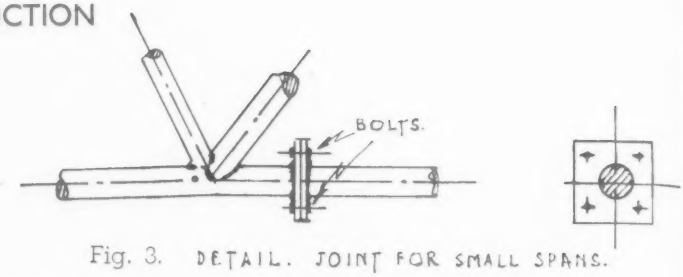


Fig. 3. DETAIL. JOINT FOR SMALL SPANS.

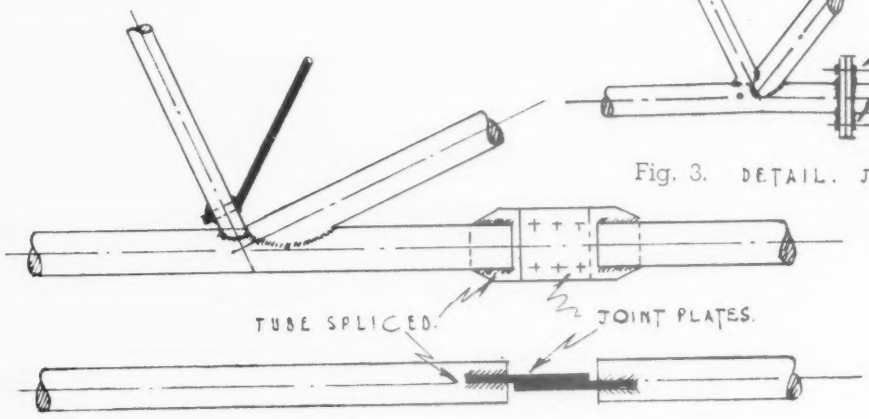


Fig. 4. Bolt connection for larger trusses.

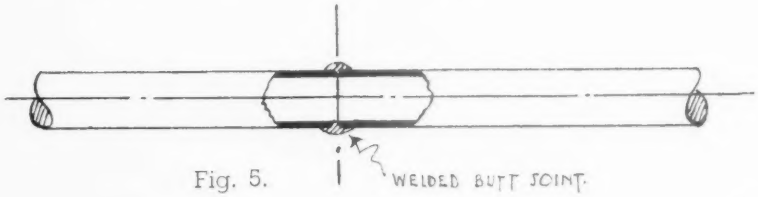


Fig. 5.

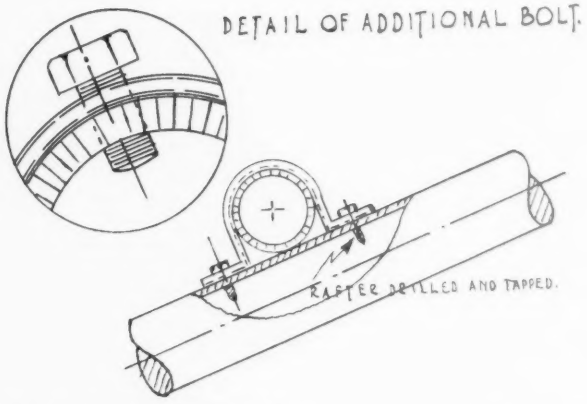


Fig. 6. Detail of purlin clips.

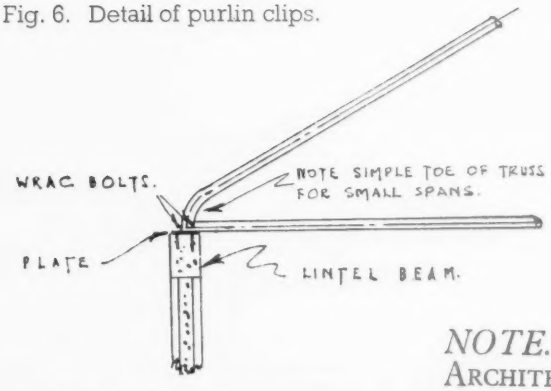


Fig. 7. Truss toe fixing for 20′ span principle.

Figures 3, 4 and 5 show alternative methods of jointing the composite parts. For small span trusses the bolt connection, with the bolts in tension, as shown in Fig. 3, is employed. Fig. 4 shows the bolt connection for larger trusses, with the plates reversed and the bolts used in shear instead of tension. Fig. 5 shows the alternative method of butt welding for large span trusses.

In deciding the method of jointing to be used the economy factor has to be considered, and this is governed by the size of the job and the site conditions prevailing. It may be said that the bolt connection shown in Fig. 4 is more generally used. (This question is more fully dealt with in Data Sheet No. 7).

Detail of purlin clips for single section tubular purlins is given in Fig. 6 (fabricated purlins, and their fixings, for large span trusses are dealt with in later Sheets). This method of connection is not entirely direct, being in the form of a clamp tightened by two bolts and, with the larger span trusses, owing to the human element, might not be considered to provide adequate stiffening against horizontal movement; the use of the additional tightening bolt, inset in Fig. 6, eliminates the possibility of such horizontal movement.

Fig. 7 shows the toe of the small 20 ft. span principle and the method of attachment employed when this type of principle is used in conjunction with precast reinforced concrete beam and panel construction (the same method of fixing can also be used with brick construction).

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

Work was rarely scamped for the owner of the house you were building was on the job every day watching every course of stone slowly rising to the wall-heads. Every man on the job got a dram of whisky when the walls reached joist-height, another dram at first-floor level, and another when the chimney-heads were capped. Those days are gone for good, what with the price of whisky, the cost of material, and two wars to upset the even tenor of the old time.

When I was building in the lonely places of the Orkneys or the West Highlands I had time enough for musing. I often thought of those who had forsaken the building scaffold to climb the steep ladder of fame. Paavo Nurmi, the world famous runner, was a mason by trade. Sean O'Casey, the playwright, once worked at the building trade. Hugh Miller, the great geologist, was mason and quarry-man. Allan Cunninham, biographer of Burns and author of the song "A Wet Sheet and a Flowing Sea," was a mason. Thomas Hardy was architect before he became author and poet. I often wonder whether the great Tammas Carlyle ever gave his father or uncle a hand in building for both relations were masons. One of the greatest engineers of all time was Thomas Telford, who began his career as a mason.

So I dreamed dreams of following in the footsteps of the famous. The last war put a stop to my building up of walls or of hopes, for on August the second, nineteen fourteen, I was called up for active service with the Territorials.

During my fifty-six months army service I laid only one stone. True, it was a whopper, weighing some thirty-five hundredweights. It was used for steadying or ballasting the wooden platform of a Percy Scott mounted gun, one of the first mounted on the Scapa Flow defences in 1914. Admiral Sir Percy Scott was the inventor of this type of mounting—naval guns bolted down to great bulks of timber buried in the ground. They were a bit shaky before they got settled, so I thought I would overcome this difficulty by laying a huge stone over the timber. With the help of fifty hefty gunners the stone was quarried and then dragged from the beach with ropes and put into position under my instructions. This was the only gun of the battery which did not give the gun-layer a black eye when it was first fired. I may say that I was learning gunlaying at the time, and it came in very handy to have a knowledge of quarrying.

In the north of England where I have worked as a charge hand for an Urban Council, my work has been very varied. Any job from kerbing and flagging, to building paddling pools and mortuaries in brick, stone or concrete. I once built a relief map of England in concrete in an artificial pond. The walls of England were eighteen inches deep, and it was possible for children to learn geography while watching carp and roach swimming from The Wash to the Channel and up the Irish Sea. I learned enough physical geography of England on that job to satisfy any School Inspector. I had some trying times too.

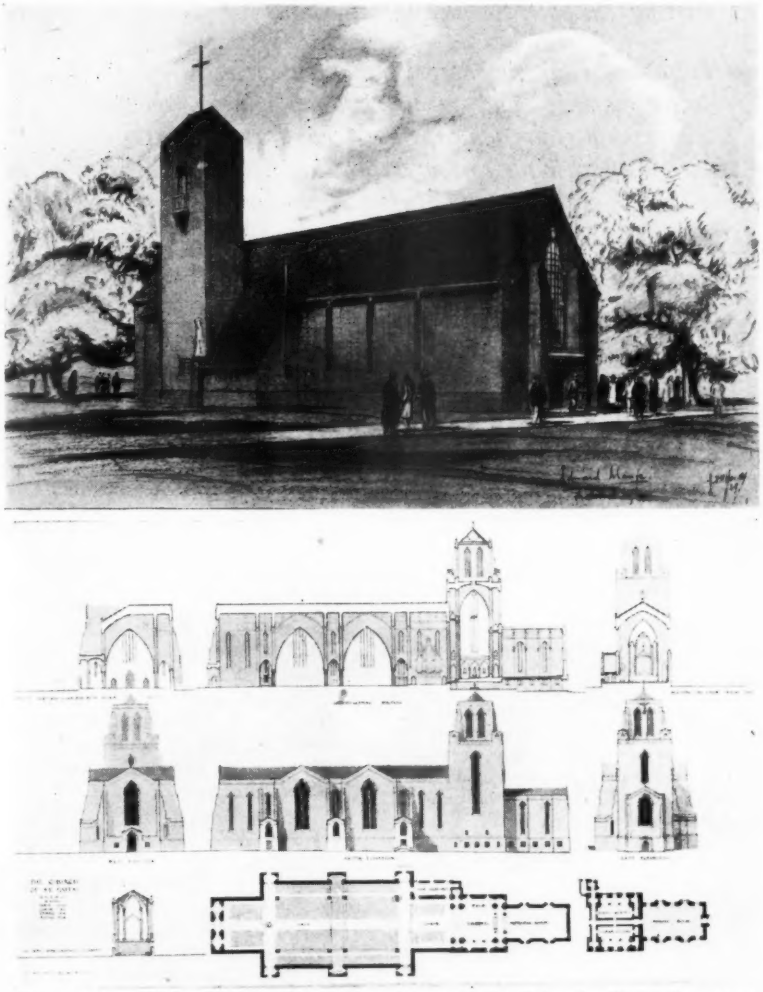
Youngsters thought it good fun one day during the dinner hour, to throw the Isles of Wight and Anglesey over a nearby hedge. They left their footprints in the Pennines and kicked Snowden into the Bristol Channel, but in the end I got it to my heart's desire.

Now war has again stopped the building of ornamental things or stone walls. Building shelters above and shelters below ground, repairing and demolishing blitzed property, and in my spare time acting as voluntary leader of a Rescue Squad has kept me busy during this war. Now it is the unthankful task of pulling down railings for salvage—gates and railings, many of which I had put up not so very long ago. It may be natural that I get more kicks than ha'pence on this job, but I get a wonderful insight into the attitude of the ordinary people's reaction to the war. Ninety-nine per cent. part with their cherished gates without a murmur. The other one per cent. are not worth mentioning.

One thing I have learned from this job, and that is, the junk man will not make a fortune after this war, and I don't expect the railings will be replaced by stone walls. My trade will probably die out completely, except in remote country places where no other building material is available, though as far back as twenty years ago the West Highland crofter roofed his humble cottage with sheets of corrugated iron or asbestos. He still has to use stone for the walls. Any lighter substitute would get blown away by the Atlantic gales!

So except on cathedrals or memorials, the stone builders will vanish from the earth. The work they did will long endure and their epitaph may well be in the centuries to come: "They builded better than they knew."

ROYAL ACADEMY EXHIBITION



Two of the exhibits in the architectural room: top, St. John the Evangelist, Hook, Hampshire. By Edward Maufe (Perspective by J. D. M. Harvey). Bottom, Church of St. Faith. By W. Curtis Green, R.A., Son and Lloyd.

★ *CAN you recommend a firm making a jointless flooring suitable for laying on boards?* - - Q 915

★ *IF a house of roughly £6,000 value has received severe damage and is uninhabitable, how should one make a claim when prima facie it is impossible to tell whether the cost of reinstatement will exceed the value of the property before it received damage?* Q 916

THE ARCHITECTS' JOURNAL

INFORMATION CENTRE

THE Information Centre answers any question about architecture, building, or the professions and trades within the building industry. It does so free of charge, and its help is available to any member of the industry.

Enquirers do not have to wait for an answer until their question is published in the JOURNAL. Answers are sent direct to enquirers as soon as they have been prepared. The service is confidential; and in no case is the identity of an enquirer disclosed to a third party.

Questions should be sent to—

THE ARCHITECTS' JOURNAL
45 THE AVENUE,
CHEAM, SURREY.

Telephone: VIGILANT 0087

Q 915

MERCHANTS, SURREY.—*We are converting existing premises into a canteen, and the present floor of the kitchen is wood boards. This is unsatisfactory, as the joints have opened, and we are advised not to put down linoleum or rubber. Could you recommend a firm making a JOINTLESS FLOORING suitable for laying on boards? The room is a first floor one, and the building was erected many years ago.*

Magnesite jointless floors are unobtainable and most substitutes are unsuitable for laying on wood floors, as they contain a cement base which is liable to crack. Some firms now make substitutes which they claim can be laid on wood floors, in particular we might mention The British Magnesite Flooring Co., Ltd. (Silwood Street, London, S.E.16) and The Stonart Asbestos Flooring Co., Ltd. (Salisbury House, London, E.C.2), but we personally have no experience of such floors laid on wood and cannot offer any comments.

Asphalte would be a suitable floor covering, and we would suggest Colourphalt made by the Limmer & Trinidad Lake Asphalte Co., Ltd., 19, Grosvenor Place, London, S.W.1.

For your information, the Wartime Meals Division of the Ministry of Food, Portman Court, Portman Square, W.1, advises on the construction and finish of British Restaurants, Canteens, etc., and you would do well to apply to this Department for any further information you require.

Q 916

ARCHITECT, SURREY.—*The following questions refer to the cost of preparing CLAIMS ON the WAR DAMAGE Commission. If a house of roughly £6,000 value has received severe damage and is uninhabitable, what is the correct procedure as to making a claim when prima facie it is impossible to tell whether the cost of reinstatement will exceed the value of the property before it received damage? A client of mine engaged the services of a Surveyor in this matter who prepared a Bill of Quantities from a survey of dilapidations he made and then priced. The final figure shows that a value payment is highly probable. The Surveyor's fees at £5 5s. per cent. amount to about £250. Do I understand correctly that these fees will not be met by War Damage Commission in any case and, therefore, will become the burden of his client? In what amounts and at what stages in the proceedings should these fees be paid if this is so and assuming that the Surveyor takes the negotiations to a final conclusion with the Commission?*

1. The procedure for making a claim for War Damage is to submit a form C.1 to the War Damage Commission, which should normally be completed within 30 days of the date of the damage. In due course you will receive a C.2 form from the War Damage Commission which will enable you to claim the cost of any temporary repairs or other work carried out, to which you are entitled.

If the property is severely damaged the War Damage Commission will make a preliminary determination as to the kind of payment. If the property is a "total loss" it would be placed in Class A ("Safe" total loss). In other cases it may be placed in Class B ("Safe" partial loss) or Class C (Undetermined). Claimants will be informed of these preliminary decisions which are not binding on the Commission or the claimant, and the claimant will be entitled to controvert the classification. The formal determination will follow later.

2. The forms in connection with claims for compensation are designed to assist the War Damage Commission, who will be responsible for determining the amount to be paid, and it should be possible for laymen to complete the forms, perhaps with the aid of a builder, but without seeking professional advice. No professional fees are allowed by the War Damage Commission, therefore, in connection with formulating the claim, and if the claimant chooses to safeguard his interests by employing professional advisers, he must do so at his own expense. Where it would be usual and necessary to employ an Architect or Surveyor in connection with the rebuilding, their fees form part of the cost of reinstatement, and are allowable.

The work undertaken by the Surveyor mentioned in your enquiry is purely for the purpose of the claim, and the claimant will not be able to receive reimbursement of the fees incurred, unless he receives compensation in the form of a "Cost of Works" payment, and it is deemed necessary to have a Bill of Quantities in connection with the reinstatement. In any case the claimant would only be entitled to claim the fees for preparing a Bill of Quantities as a part of the cost of reinstatement when the work is done.

3. It is difficult to say exactly how much the claimant should pay to his Surveyor now if the latter is claiming an overall percentage for preparing a Schedule of Dilapidations, a Bill of Quantities and Estimate for the cost of reinstatement, and a valuation of the property in its damaged and undamaged state, and finally for carrying through negotiations with the War Damage Commission. It is clear that the Surveyor should be paid for all the work done, and that the only matter outstanding—the negotiations with the War Damage Commission—is a fairly small proportion of the whole. If you refer to the R.I.B.A. Scale of Charges you will see that for estimating dilapidations and furnishing or checking a schedule of the same, the fee is £5 5s. per cent.

on the sum agreed, and although some estimating is involved in valuing dilapidations, it does not normally warrant a fully priced Bill of Quantities (for which the scale fee alone is 3 per cent.) The fee for valuing freehold or leasehold properties, is £1 1s. per cent. on the first £1,000 and 10s. 6d. per cent. on the next £9,000.

Bearing the scale fees in mind, it appears that the Surveyor has only charged a very reasonable sum, and that the claimant could have no objection to paying a large proportion of it at this stage.

Q 917

Enquirer, Cheshire.—*You may remember that some time during the 1920's an EXHIBITION was held in Hyde Park, of a number of all-steel cottages and small houses. Have you any information concerning them and would you be able to let me have pictures or drawings of them. If not, perhaps you could tell me another authority to whom I might apply. I believe the exhibition was sponsored by Sir Harold Bowden.*

We regret that many of our records have been lost and it is not possible to answer your enquiry from the particulars in our possession.

The R.I.B.A. Library contains back numbers of architectural papers as well as books, but on searching through their catalogue we could find no record of any such exhibition having been held. We telephoned the Ministry of Health under whose auspices such an exhibition would probably have been held, the Parks Department of the Ministry of Works and Buildings, the British Steelwork Association and Messrs. Dorman Long none of whom had any recollection or records of such an exhibition. If any of our readers can help us, we will write you further.

Messrs. Dorman Long said that they would be pleased to deal with any enquiries about steel houses in general, and for your information there are the following direct references to all-steel houses in British Publications in the R.I.B.A. Library catalogue.

"The Steel House," by the Duke of Atholl. *The Spectator*—Feb. 27, 1926. p. 355.

"Steel House Construction." *The Builder*, May 11, 1934. p. 816.

"Report by Court of Enquiry Concerning Steel Houses," by the Ministry of Labour. Pamphlet No. C.M.D. 2392—1925.

There are, of course, other British publications in the R.I.B.A. Library which probably have some bearing on the subject, and also a considerable number of articles in foreign and, more particularly, American periodicals, which deal with steel house construction.

Q 918

Architect, London.—*I have been asked to give my opinion about a building to be built in the Newcastle area after the war. Can you give me any idea what is the best type of COLOURWASH FOR EXTERIORS, how often it needs replacing, and how the cost of common bricks colourwashed, compares with a good facing brick?*

The best type of colourwash is an exterior quality washable water paint or distemper, which is oil bound.

The life of washable distemper externally depends upon the locality, aspect, etc., but we should not expect it to remain in good condition more than two years, or at the most three.

Quoting from the Ministry of Works and Planning's Standard Schedule of Prices, which is the latest official schedule published, "Fair face and struck jointing," costs 9d. per yard super. and "Preparing and twice distempering" costs 10d. per yard super.—a total of just over 2d. per foot super. "Extra for facings and pointing," with facing bricks at £6 10s. 0d. per thousand, over common bricks at £3 10s. 0d. per thousand, costs 9¼d. per foot super. for Flemish bond and 7½d. per foot super. for stretcher bond.