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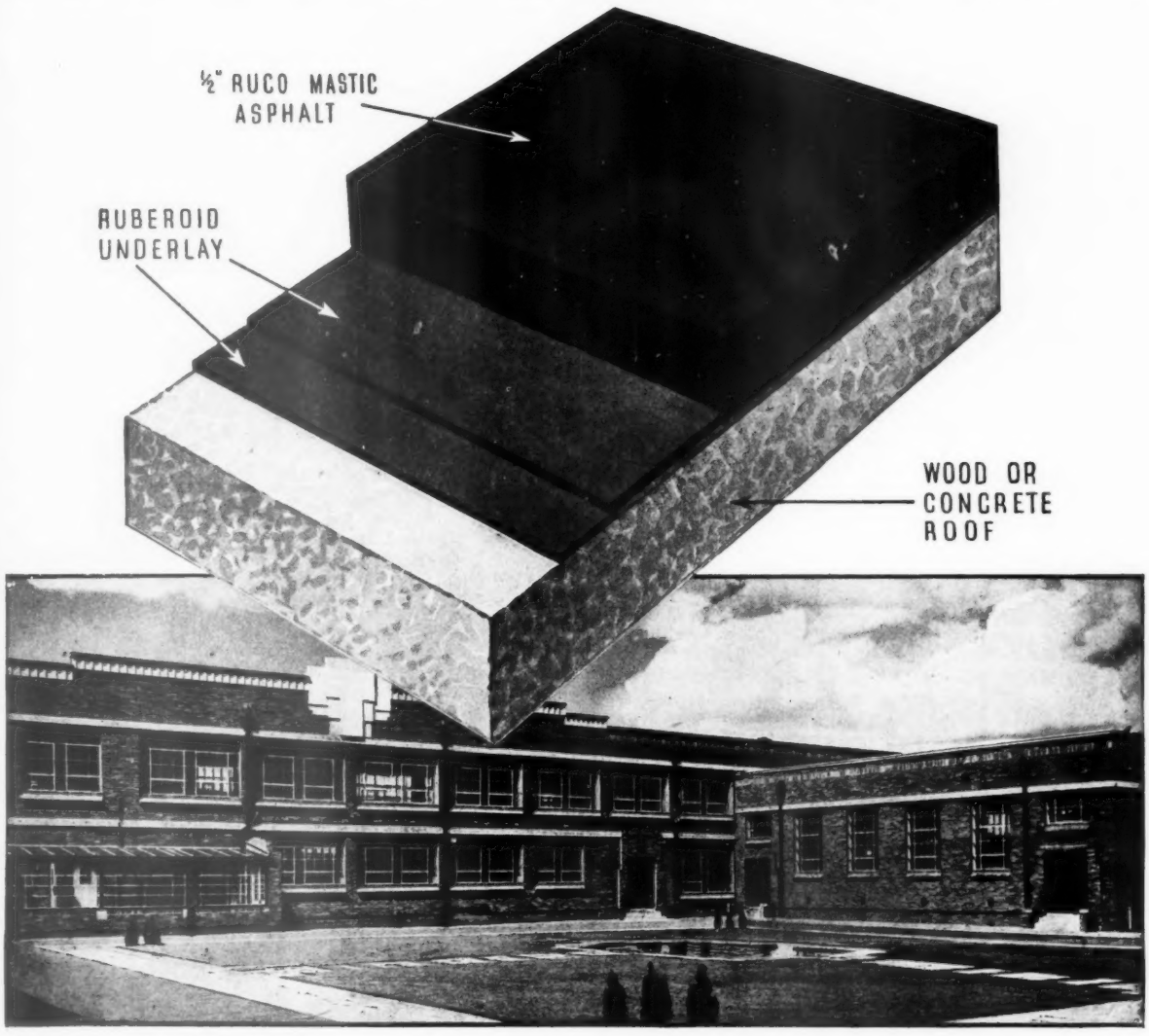

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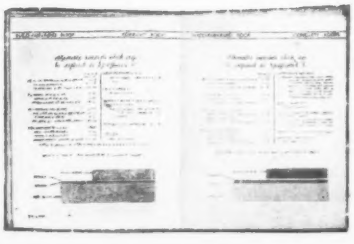

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The Economic Advantages of Reinforced Concrete in DOMESTIC CONSTRUCTION

Article number six in a new series on the principles and practice of reinforced concrete construction. It is suggested that each article should be cut out and kept in a personal file for the series, and for other information relating to reinforced concrete construction.

In the immediate post-war period, constructional emphasis will definitely be directed towards residential buildings, whether these take the form of houses or blocks of flats. Undoubtedly the quantities of building materials necessitated by such an extensive programme will be enormous, resulting in continued strain on the supplies of traditional

This cottage at East Bergholt provides a good example of the use of concrete in combination with other materials. Architect: H. R. Wheeler.

materials for domestic construction. The watchword of planning will therefore be economy in material and labour. Architects will be called upon to use vision in adapting to the building of the new homes, all available materials and methods of construction.

In the forefront of this adaptation, reinforced concrete will figure prominently, offering so many advantages when architectural ability is allied to technical skill. The foremost advantage of reinforced concrete is flexibility of planning. This, with a high degree standardisation of building elements and consequent economy without standardisation of plan or appearance, should appeal to all architects.

Embassy Court, Brighton. Reinforced concrete flats. Twelve storeys in height. The exterior of the building is faced with a light cream water-proof rendering. Architect: Wells Coates.

With reinforced concrete a wide variety of successful external texture treatments are available. Furthermore, the ability to reduce wall areas to a minimum allows maximum scope for arranging window and other openings which results in obtaining elevations to suit the dictates of individual tastes or environment.

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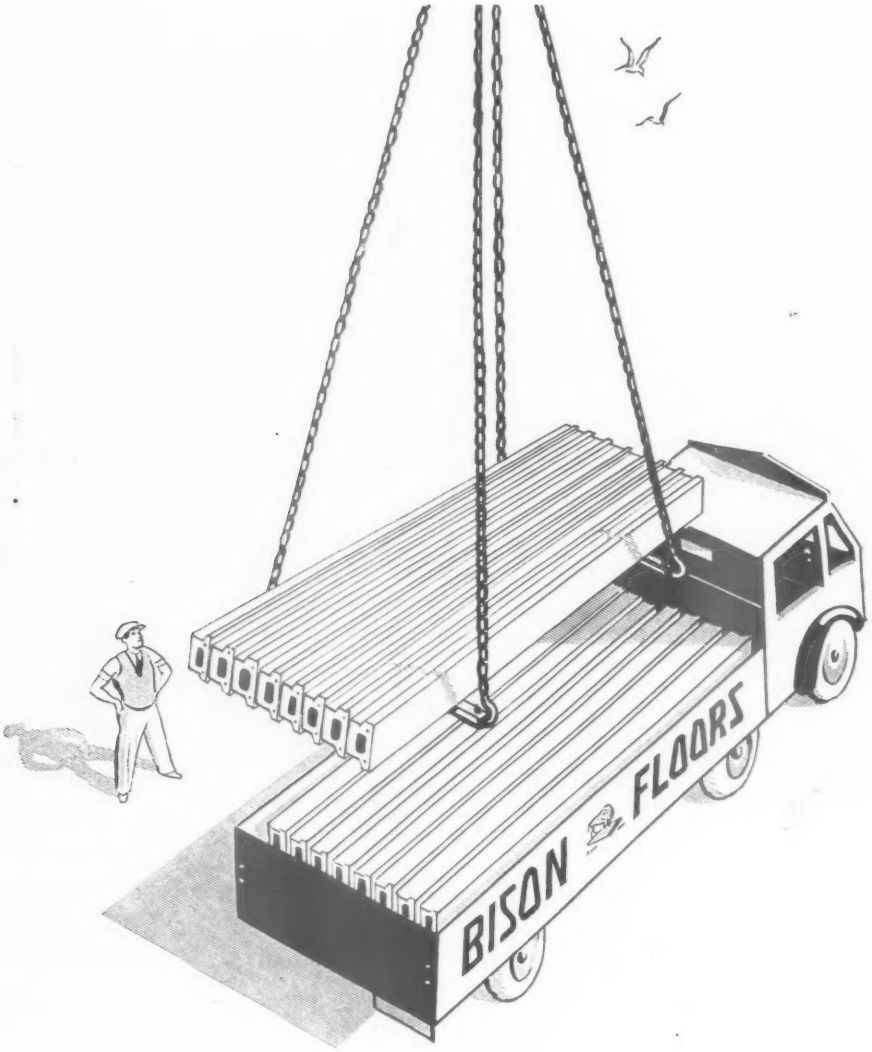

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The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, JULY 16, 1942. NUMBER 2477: VOLUME 96

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.*

PATENT WELDED TUBULAR CONSTRUCTION

Data Sheet No. 5

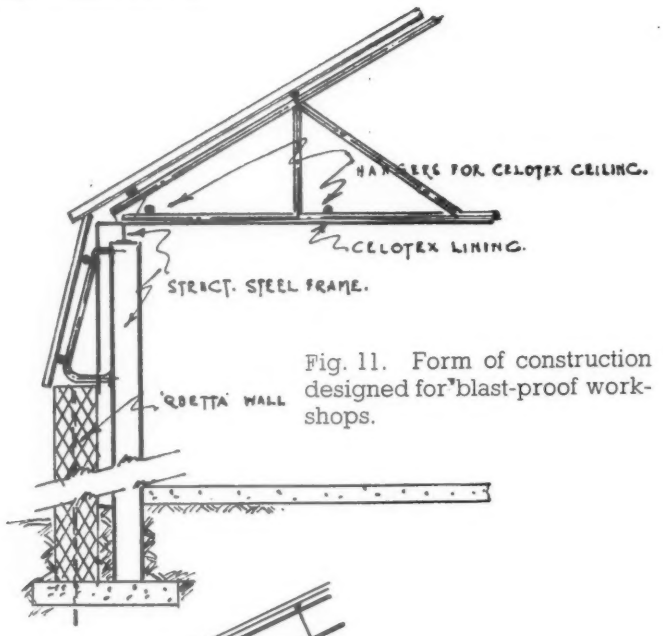


Fig. 11. Form of construction designed for blast-proof workshops.

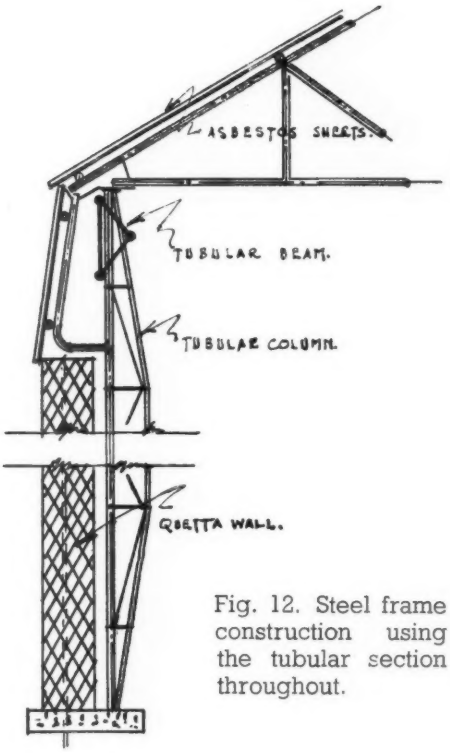


Fig. 12. Steel frame construction using the tubular section throughout.

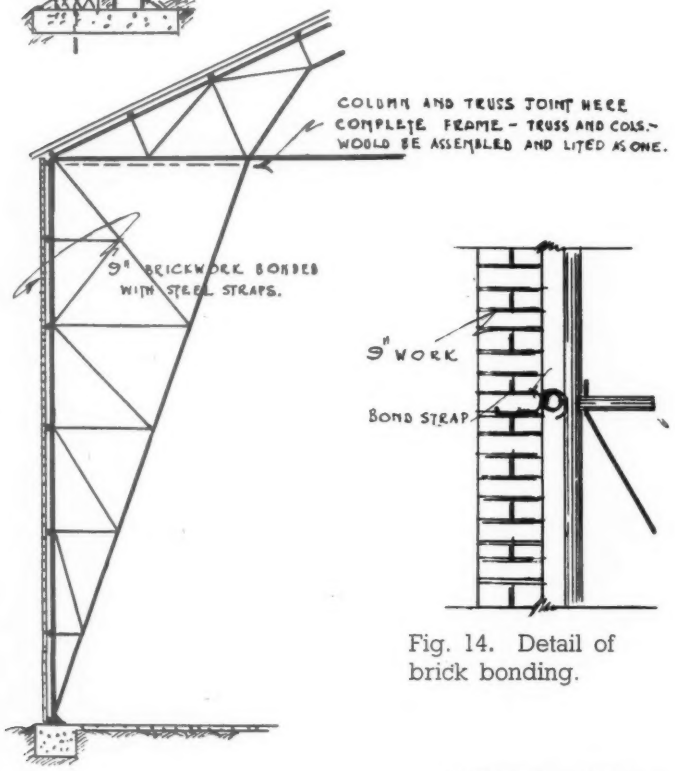


Fig. 13. 9" brickwork bonded to tubular steel column.

Fig. 14. Detail of brick bonding.

BLAST-PROOF CONSTRUCTION

The form of construction detailed in Fig. 11 was designed for the erection of blast-proof workshops (Architects: Messrs. Turnbull & Fraser), and incorporates the new Quetta reinforced brickwork. It will be noted that the structural steel frame is independent of the outer shell.

A development of this form of construction is shewn in Fig. 12 where the whole of the structural framework is carried out in prefabricated welded tubular steel sections—again the structural frame is independent of the outer wall of Quetta reinforced brickwork.

Fig. 13 shews another design for a prefabricated tubular steel column, the whole of the steelwork consisting of tubular sections, including the longitudinal ties and braces. In place of asbestos sheeting, which is being more generally employed with this form of construction, the structural frame is faced with 9 in. brickwork bonded by steel straps to the tubular steel columns (see detail in Fig. 14). Pre-cast concrete walling could be bonded in a similar way.

This system of prefabricated tubular construction is exceptionally flexible and adaptable, and lends itself admirably to the prefabrication of single storey buildings of any size. The advantages of the tubular section, as compared with other steel sections, may be summarised as follows: Reduced weight in section to resist compression. Its stiffness during handling, i.e., allowing larger prefabricated sections to be handled. Its uniformity in all directions—allowing connections to be made from any side and at any angle. Assembly and erection on site can be carried out rapidly and any subsequent alterations or extensions to the existing building can be simply and speedily effected.

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.*

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*

"The plan shews a group of six (flues) in a two and a half brick wall; by the side of this are two flues of the common construction, 14 inches by 9, made of this size to enable a boy to get up to the top and place his head out of the chimney pot."

From The Englishman's House *(published in* 1870*), by C. J. Richardson.*

NEWS

★ *The Board of Trade has set up an advisory committee to produce specifications for utility furniture* - *page* 35

★ *Constitution of the Committees set up by the Directorate of Post-War Building page* 46

BUILDING LABOUR

To cope with a new demand for labour, the Ministry of Labour and National Service has established a building and civil engineering department to control the use of man-power in those sections of the national effort. Tens of thousands of building and works construction operatives will have to be transferred, and not a day's avoidable delay is to be permitted. It has already been announced that the calling up of large numbers of building industry workers has been postponed, and the Minister will not hesitate to direct all these men to the industrial work which is at present more important than their Army training. It will be hard work, and long hours will be required.

The full resources of the placing machinery of the Ministry will be used to find the men and move them as fast as they can be housed.

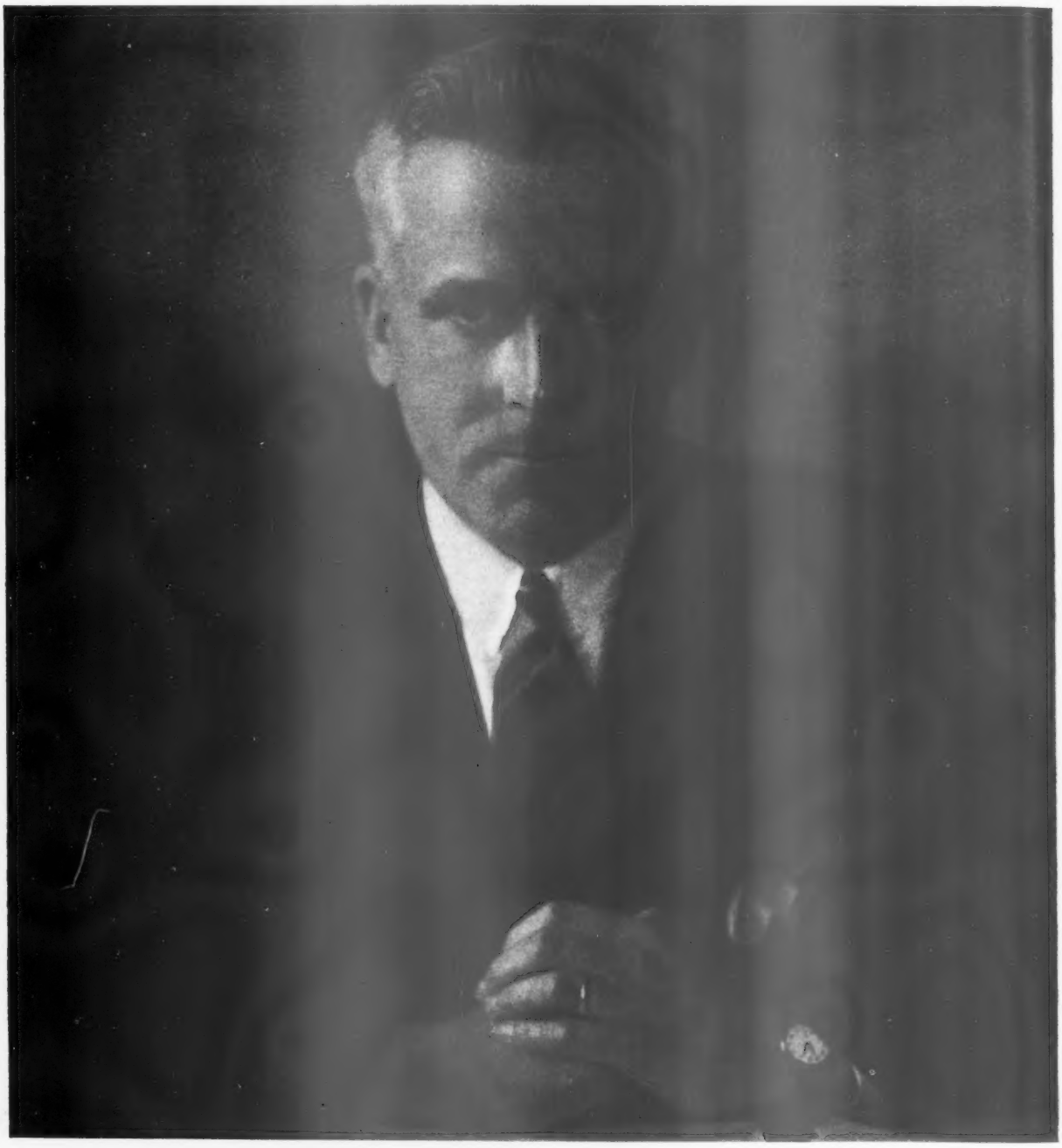
BUILDING PROGRAMME

Mr. Thomas Howarth, O.B.E., J.P., President of the National Federation of Building Trades Employers, made the following statement at the Federation's half-yearly meeting: "We have pledged ourselves at this time of crisis to give the same kind of service which called forth the praise of the Government after Dunkirk. We only hope that the present method of using the resources of the industry will be changed so as to use to the greatest possible extent the resources of the many contracting firms throughout the country. It would sometimes seem from the speeches with which we are favoured from time to time that this great industry of ours has in the past been run by a lot of wicked and dishonest people, and the view is taken by many competent people that nothing but a State-controlled and directed service can give the people good buildings and do first class work. I resent this aspersion on our work. I say that we can look with pride on most of the work done in this country. Nowhere in the world are to be found better architects, better builders and better craftsmen than in this country. Changes must come, and as the servants of the community we must set ourselves to serve our day and generation as we are called upon to do so, moving ever with progressive ideas in keeping with modern requirements. I agree with Mr. Lyttelton, the Minister of Production, that the 'essence of democracy should be a balance between the organizing power of the State and the driving force of the free individual.'"

I.A.A.S.

By arrangement with London University a Special Course of Military studies is to be held at the Incorporated Association of Architects and Surveyors, 75, Eaton Place, Westminster, S.W.1, commencing July 20, 1942, at 5.30 p.m. Application for entry forms may be made to the Hon. Secretary, Military Affairs Committee, the I.A.A.S., 75, Eaton Place, Westminster, S.W.1, or to Col. George Bayley, C.B.E., D.S.O., the Staff College, Camberley.

Photograph taken before the opening ceremony of the Court House in Sussex, illustrated in this issue. Left to right: Mr. C. G. Stillman (County Architect, Sussex), Bishop of Chichester, Lord Simon and Lord Leconfield.



director of bricks

When Mr. T. P. Bennett was appointed Director of Works, Ministry of Works and Planning, he was succeeded as Director of Bricks by Mr. Lockhart W. Hutson, F.R.I.B.A., F.R.I.A.S., who was Deputy Director of Bricks for Scotland. At the time of his appointment to MOWP. Mr. Hutson is a partner in the firm of Cullen, Lochhead and Brown, of Hamilton, Lanarkshire. He is a Past-President of the Glasgow Institute of Architects and Vice-President of the Royal Incorporation of Architects in Scotland. The second report of the Committee on the Brick Industry, recently issued, was dealt with last week.

ARCHITECTS AND WAR WORK

In his presidential address at the annual meeting of the West Yorkshire Society of Architects, at Leeds and County Conservative Club, Mr. J. E. Stocks said that although considerable Government war work and Civil Defence work had been undertaken by its members, there was still a reservoir of architectural skill and capacity only partially used, or not used at all, through no fault of the members of the Society.

Six months ago the Society approached the Ministry of Works and Planning and explained that it had at disposal 50 architects and 25 senior assistants, with additional junior and clerical staff, all of whom were ready to render service for urgent Government work in the West Riding, and that the machinery was ready whereby picked men could work together in large or small panels.

It was pointed out that it was strongly felt in Yorkshire that speed, economy and efficiency would be served by more employment of those with intimate knowledge of local labour, custom and materials, while in case of invasion the advantages of local control were self-evident. The Director replied that the building programme for 1942 had been very greatly reduced, but that he would get into touch with him (Mr. Stocks) should anything suitable arise. Apparently nothing suitable for panels had yet arisen, but they were still hoping.

The following officers were elected : President, Alderman W. Illingworth (Bradford) ; vice-presidents, Messrs. C. E. Horsfall (Halifax) and H. Jackman (Leeds) ; hon. secretaries, Norval R. Paxton and J. R. Tolson ; hon. treasurer, Mr. William Broadbent.

R.A. PLANNING COMMITTEE

The Royal Academy Planning Committee (chairman, Sir Edwin L. Lutyens, O.M., P.R.A.) will hold an Exhibition of their plans for the post-war reconstruction of London at the Royal Academy in October next.

A.A.S.T.A.

Forty delegates attended the A.A.S.T.A. meeting of Branch Secretaries at the London School of Hygiene, Gower Street, W.C., on Sunday last. The delegates discussed the role the organization should play in the new building programme. It was stated that there were now over 2,000 members of the Association, and that the membership during the past year increased at the rate of over 100 per month.

APPOINTMENT

Lt.-Commander E. Basil Green, R.N., Assistant Managing Director of the Royal Doulton Potteries, has been appointed Deputy Regional Commissioner for Civil Defence in the S.E. Region.

UTILITY FURNITURE

Following is the constitution of the advisory committee appointed by Mr. Dalton, President of the Board of Trade, to produce specifications for utility furniture. The furniture must be of good, sound construction, of simple but agreeable designs, reasonably cheap, and ensuring maximum economy in raw materials and labour. Chairman is Mr. Charles Tennyson, vice-chairman of the Council for Art and Industry, chairman of the board of governors of the National Register of Industrial Art Designers, secretary to the Dunlop Rubber Co., and late deputy director of the Federation of British Industries. The eight members are : Miss Elizabeth Denby, specialist in planning and equipment of low-cost housing ; Mrs. E. Winborn, member of the Tenants' Committee of the Kensal Housing Estate ; Rev. Charles Jenkinson, vicar of St. John and St. Barnabas, Leeds, former chairman of the Leeds Corporation Housing Committee ; Mr. John Gloag, consultant on industrial design ; Mr. W. Johnstone, furniture manufacturer, member of the executive of the Furniture Trades' Federation ; Mr. Herman Lebus, furniture manufacturer ; Mr. Gordon Russell, furniture designer, of Broadway, Worcs ; and Mr. W. Welsford, manager of the furniture factories of the Co-operative Wholesale Society.

EDINBURGH UNIVERSITY VACANCY

The Secretary of State for Scotland announces that he proposes to invite applications for the office of Regius Professor of Engineering at Edinburgh University.

Applications for the chair, accompanied by two copies of recent testimonials, should be addressed to the Private Secretary, Scottish Office, Fieldon House, 10, Great College Street, London, S.W.1, and should reach him not later than Monday, September 7, 1942. A note of the terms and conditions of the appointment will be supplied on request.

LECTURES

Saturday, July 18. Institute of Quantity Surveyors (Notts, Derby and Lincoln Branch). Meeting at Victoria Hotel, Nottingham, 3 p.m.

Thursday, July 23. Town and Country Planning Association. At 22, Regent Street, W.1. "Town Planning and Road Traffic." By H. Alker Tripp, 12.45 p.m. I.A.A.S. : At 75, Eaton Place, W.1. "No Clean City." By Arnold Marsh, 6 p.m.

Tens of thousands of building and works construction operatives are to be transferred with not a day's unavoidable delay to the second war building programme. To cope with the demand the Ministry of Labour and National Service has created a new department to control the use of building and civil engineering man-power in the national effort. Thus, the first war building programme is over ; some lessons it has taught us are discussed below.

LESSONS OF THE FIRST WAR BUILDING PROGRAMME

STATEMENTS which have recently appeared in the popular press suggest that a second war building programme is already under way. If so, it must be carried out by an industry whose resources have been depleted to an extent which makes efficient organization a matter of extreme urgency. This being so, it seems worth while to review features of a system evolved to meet pre-war needs, which have recently been proved, if proof were needed, to be a very great handicap when it's a question of executing a nation-wide building programme with the greatest possible economy of labour, materials, time and transport. The first point that has been made clear by our experience since Dunkirk, is the need for a central authority capable of formulating a building programme as a whole. Without this MOWP cannot effectively exercise powers already conferred on it. Control over labour, plant and materials has, during the last year or so, given rise to apparent confusion because it has not been related to a time and progress schedule covering all the work to be undertaken throughout the country. Priorities in other words should be by jobs whose position is known, and not by ministries.

A coherent programme has not been the only thing we lacked ; there have been other serious weaknesses. Most noticeable has been the failure to insist on the preparation of accurate and complete sets of plans *and* working drawings in advance of building—though recently at any rate great importance has been attached to securing a firm estimate. It is true that drawings of some kind have to be produced before contractors can be asked to tender, but MOWP's policy is to use standard plans for this purpose. It's worth noting that Americans do not believe in standard plans ; they say so many alterations are necessary that this form of standardization does not pay. There is no point in discussing the wisdom of MOWP's decision to adopt the opposite policy as we now seem to be committed to it, but as recent experience seems to confirm the American view that alterations usually are necessary to make standard plans fit particular sites and circumstances it is to be hoped that this fact will be allowed for in future. Standard plans and standard

working drawings are not the same thing as accurate plans and working drawings. Whatever adjustments have to be made must be made (by somebody who has actually seen the site) and approved, before starting to build. And steps must be taken to see that materials necessary to complete the work have been ordered and can be delivered in time to allow work to go forward without a hitch.

Another source of weakness has been the failure to secure proper co-operation between different types of technicians. It seems clear that the work of designers, regardless of whether they are inside MOWP's centralized planning department or outside it, could be greatly speeded up and improved in quality by encouraging group work. So much for planning. As far as organization of work on the site is concerned the most obvious source of weakness has been division of responsibility; multiplication of office work, mistrust and confusion seem to be associated inevitably with the time-honoured system of subcontracting. It does seem essential to reduce the number of separate organizations and insist as far as possible on one only being responsible for time scheduling and for planning the use of labour, plant and materials on each site. The difficulty has to be faced, however, that there is a tendency for large scale organization in the building industry to result in a slackening of effort that is sufficiently marked to outweigh other advantages. Job committees have been suggested as the simplest method of counteracting this danger. They give operatives and technicians an opportunity of understanding problems connected with the running of the job, and encourage them to share with the management responsibility for securing maximum output—which incidentally they have every interest in doing so long as piece rates are paid and there is no prospect of unemployment.

Finally, building operations have been hampered by lack of mobility. All but a few of the largest contractors are organized to operate locally; labour is almost equally immobile. Because the resources of the industry are spread more or less evenly over the country (where as the last war building programme required concentration on a relatively small number of large sites), this lack of mobility resulted in many firms standing idle, or being employed on work of minor importance, even when that programme was at its height. While it is obviously desirable to choose sites where labour is available and to employ local firms wherever possible it's clear that the problem cannot be solved along these lines and that some way must be found of mobilizing both contractors and operatives if similar waste is to be avoided in future.

It has been MOWP's policy for some time to encourage the setting up of Job Committees. But no official statement of policy has yet been made in relation to other outstanding problems, and, so far, the formation of job committees does not seem to have proceeded very rapidly. There are grounds for hoping, however, that developments in the near future will show that we have profited by experience.

The Architects' Journal
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Telephone: Vigilant 0087-9

NOTES & TOPICS

CLIENTS' INSTRUCTIONS

When this war began our rulers told us to spurn rumour and to frown on those who tickled our ears with it, and on the whole we have been dutiful. Offhand, one can only recall the Invasion Repelled story, the Skoda-bombs-full-of-blessings and the Little-Brimstoke -clock-stopped-at -ten-to-three as having had a good run. Wireless seems to have defeated the untrue, and therefore the juiciest, rumours.

*

Rumours prophetic are different, and when the history of the war on the building front is written special note will doubtless be made of them. For rumour circulated by the most labyrinthine route seems to have become the customary way to announce a change in war building policy to those who will be closely affected by it.

*

There is no difficulty at all in distinguishing between the Fifth Column rumour and the rumour prophetic. The former may be the more juicy, but the latter is always the more incredible. The rumour prophetic would also invariably entail actions the exact opposite of those for which instructions have just been officially received; they are followed by a repetition of those instructions in categorical terms—as though Authority had raised its voice to keep its courage up; and

within two months they always prove to have been true.

★

Most architects and engineers engaged on war building will recall the rumour prophetic which made its appearance at the beginning of November last year. Building programmes were to be severely cut and even a proportion of works in hand were to be abandoned: and this at a time when gorgeous posters exhorting labour to do its utmost were appearing on every job and lecturers were letting themselves go in the luncheon break on the theme of *Bricks into Bombs*. Real Fifth Column stuff that rumour seemed to the innocent. But the engineer in charge of one factory job, who heard it first from a night watchman, recognized at once the shrill asinine ring of a genuine rumour prophetic; and he was quite right.

★

The assumption for some months has been that war building capacity was being scaled down until it was just capable of handling one big programme and half a dozen modest ones while leaving a small margin for contingencies. Night watchmen and other well-informed persons, however, have maintained for the past month that a big rush of work was coming and were quite prepared to give details.

★

It may be that MOWP has made all arrangements to cope with this additional work if it is indeed to be carried out, as seems obvious from the announcement by the Ministry of Labour and National Service.* But if so, it seems odd that staffs of architects and engineers still seem to be being reduced all over the country. It will be interesting to see whether, in a month or two, this reduction changes to another frenzied attempt to find architects and engineers.

NATIONAL BUILDING FORCE

The photographs of the Mobile Builders' caravans in the JOURNAL for June 18, made one wonder how much war building output had been lowered in Britain by our not having—one may as well make no bones about it—a Todt Organization. It is no good trying to avoid an answer by saying this is a war against Nazi methods. When big nations are fighting a total war there are a multitude of methods which each and all of them must adopt in order to survive; and whether Britain adopts one more or not ought to be, and at worst must be, a matter of expediency and that alone.

★

The working of the German Todt Organization, now presided over by Hitler's old architect pal, Professor Albert Speer, has only been touched on occasionally in the press. But it appears to handle all constructional works needed for war purposes from just behind the firing lines to the middle of Unter den Linden. The numbers employed in the organization are of course unknown, but they are clearly very large. According to one account about two-thirds of the total force is wholly mobile, nipping from Kharkov to St. Nazaire as required, while the remainder are regionally mobile with a range of 25-50 miles.

★

The immense advantage which this organization gives to our enemies is obvious. We have nothing between the wholly military R.E.'s and Pioneers (which must either be too small to cope with big emergencies or else must keep a very large number of men and much valuable equipment standing idle) and the almost completely static local groups of the building and civil engineering industries. A large building job more than 25 miles from a large labour centre at present creates great labour and transport difficulties even in summer, and in winter serious falls in output are unavoidable.

★

The rigidity of this system must be increasingly disadvantageous as time goes on; for changes in building needs are likely to become more violent and more frequent. A Second Front might call for half a million builders for three months in one part of the country, followed by an equally urgent need for the same number for the following three months in another. Requirements such as these could best be met, perhaps could only be met, by mobile construction units on a very much larger scale than we have thought about so far—let us say 100,000 men.

Of course, strenuous objections to any such scheme would be made both by contractors and by operatives and everyone knows what those objections would be. But within the next six months circumstances may arise in which, in default of such mobile construction units, builders will have to go where they are needed—in khaki.

THE OPEN FIRE

Here is a reply from a reader to my note in the JOURNAL for June 25:

Dear Astragal,—Sir Henry Wotton is not the only early pioneer of central heating. Our old friend Robinson Crusoe felt strongly on the matter as the following extract from Chapter 35 shows:

"As to a warm house, I must confess, I greatly dislike, our way in England, of making fires in every room in the house, in open chimneys, which, when the fire was out, always kept the air in the room as cold as the climate. But taking an apartment in a good house in the town, I ordered a chimney to be built like a furnace, in the centre of six several rooms, like a stove; the funnel to carry the smoke went up one way, the door to come at the fire went in another, and all the rooms were kept equally warm, but no fire seen; like as they heat the bagnios in England.

"By this means we had always the same climate in all the rooms, and equal heat was preserved; and how cold soever it was without, it was always warm within; and yet we saw no fire, nor were ever incommoded with any smoke."

Crusoe was in Siberia at the time.

J. P. ALCOCK.

STUMP EXTRACTION

Whatever reproaches can be levelled at the Ministry of Works and Planning on other scores, there is no doubt about its zeal as organizers of scrap-metal collection. The campaign initiated with so much enthusiasm by Lord Reith has reached a new level of intensity under his successor, Lord Portal. An ingenious tool invented by a thrifty Scots blacksmith is now being used to glean cast-iron stumps which were left projecting from stone

* See page 33.

parapets and area walls, like broken teeth by the first round of collectors.

★

Such thoroughness should convince the public better than any of the advertising campaigns yet launched of the grim urgency of the situation. Unfortunately the reaction of some people is not quite what one would expect from patriotic citizens. Surbiton Council has reported to the Ministry that a number of people are removing not only their gates, but their railings also, before the salvage men arrive.

FAKED UTILITY FURNITURE

New furniture of poor quality is being offered at exorbitant prices in some London shops. The Board of Trade says it is *not* responsible: but it has appointed an advisory committee to produce specifications for utility furniture. There are no architect members of the committee, which has as its Chairman Mr. Charles Tennyson, Vice-chairman of the Council for Art and Industry. The committee consists of 8 members, including Miss Elizabeth Denby, John Gloag and Gordon Russell.

★

Thanks to the war mass-produced women's clothes are already being designed by the Norman Hartnalls of the trade and made of good material. The alleged popular demand for something really vulgar just isn't being met. Unnecessary bows, buttons, frills, swathes, gathers and fringes have simply disappeared. The shoppers of Oxford Street haven't protested yet.

★

The possibility of an equally clean sweep being made in Tottenham Court Road is so delightful that one can scarcely bear to think about it. (If the shopkeepers are smart they can claim the credit of being converted by D.I.A. propaganda.) In the theatrical world (ignoring E.N.S.A.) a similar change has taken place, again in spite of the entrepreneurs. Thanks to the exertions of C.I.M.A. provincial audiences are being given a chance to see *Major Barbara* as opposed to *Shoulder Arms and Legs* and box office returns have more than justified the innovation.

ASTRAGAL

LETTERS

ANOTHER F.R.I.B.A.

JESSICA ALBERY, A.R.I.B.A.

Unity in the Profession

Sir,—I enclose a letter from Mr. George Muff, M.P., to *The Yorkshire Post* under the title Bureaucrats or Architects.

Sir, — Both F.R.I.B.A. and A.R.I.B.A. are unduly disturbed; in fact, they have the jitters. In replanning Britain we shall need all the 7,000 R.I.B.A.s, and others, too.

If the jitterbugs had accompanied the principal officers and leaders of Hull the other day to meet Lord Portal and Sir William Jowitt in conference they would have realised that neither bureaucrats nor jerry-minded architects are wanted or desired after the war.

After all, some of those who designed the modern monstrosities were members of R.I.B.A. Ribbon development owes much to the same clan of single-track-minded men.

The community must, and will, be protected against those who have sinned against public taste and culture. The services of architects with a vision will be at a premium, especially when animated with the spirit of the Georgian Society and kindred bodies.

There must be a power to prevent the R.I.B.A.s, etc., from perpetrating the horrors of the past generation. That power will be in the hands of such bodies as the Leeds City Council and the Office of Works. Let F.R.I.B.A. tremble if he is one of them. His day is done.

If, as I believe, he is a man of vision, let him co-operate with those whose difficult task it is to build a fairer Britain, and join with Lord Portal, Professor Abercrombie and others to prevent the bad architect from cumbering the earth with pest houses; and thus de-bunk your correspondent A.R.I.B.A. GEORGE MUFF.

So now you know. Reconstruction in a general sense has largely replaced the Football Pool in public interest. Anyone who experiences doubt about the future of architectural practice may be justifiably excused an attack of the jitters (usually a political phenomena), after reading the above letter. Moral. (A): Architects could learn a great deal from the British Medical Association on matters affecting their professional colleagues and the dangers of state monopoly in private practice. (B): A country deserves the Government it gets.

ANOTHER F.R.I.B.A.

York.

Post-War Control

Sir,—I was interested to read Astragal's pleas for 100 of our best brains to devote themselves to the planning of post-war control and reconstruction, but since the war effort demands the same attributes in even greater degree, and since first class intelligence is always at a premium, I do not think that the assumption that these people could be safely seconded from our war effort is correct.

Perhaps the most dangerous current outlook is that which divides peace-time reconstruction from war-time organization. If we cannot organize constructionally and efficiently for total war, how shall we achieve the understanding and ability to reconstruct on an adequate scale for peace? As we organize now for war so shall we build later for peace. We must reconstruct now.

JESSICA ALBERY.

Hampstead Garden Suburb.

EASTERN FRONT

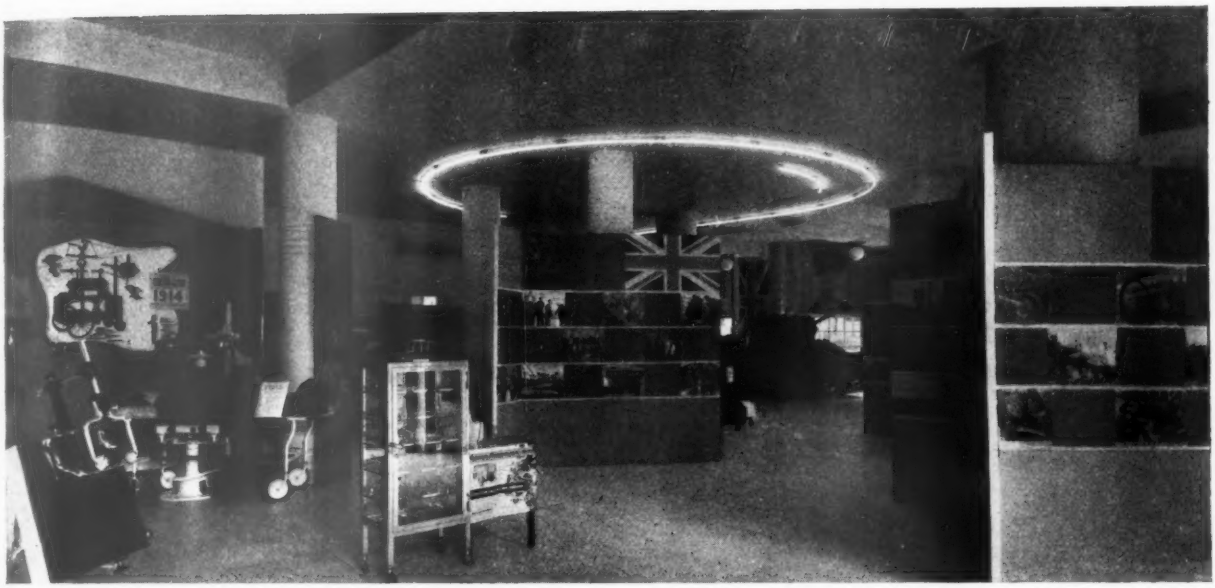
S.C.R. Exhibition designed by Ernö Goldfinger

An exhibition entitled Eastern Front was recently held at Rootes' Showrooms in Piccadilly. It was designed by Ernö Goldfinger for the Society of Cultural Relations with the U.S.S.R. The object of this exhibition was threefold: 1, To show some of the material sent from this country to the U.S.S.R. in fulfilment of the pledge of help, and its use by the Soviet fighting forces. 2, To show some of the essential raw materials sent by the U.S.S.R. to this country. 3, To show some manifestations of Anglo-Soviet friendship.

The material of the exhibition fell into two main categories: 1, Photographs and other graphic material. 2, Three-dimensional objects (these latter so varied as to include specimens in jars and a full-size tank of the Valentine model).

Following were the various categories of the exhibits:—

From Britain to the Soviet Union:

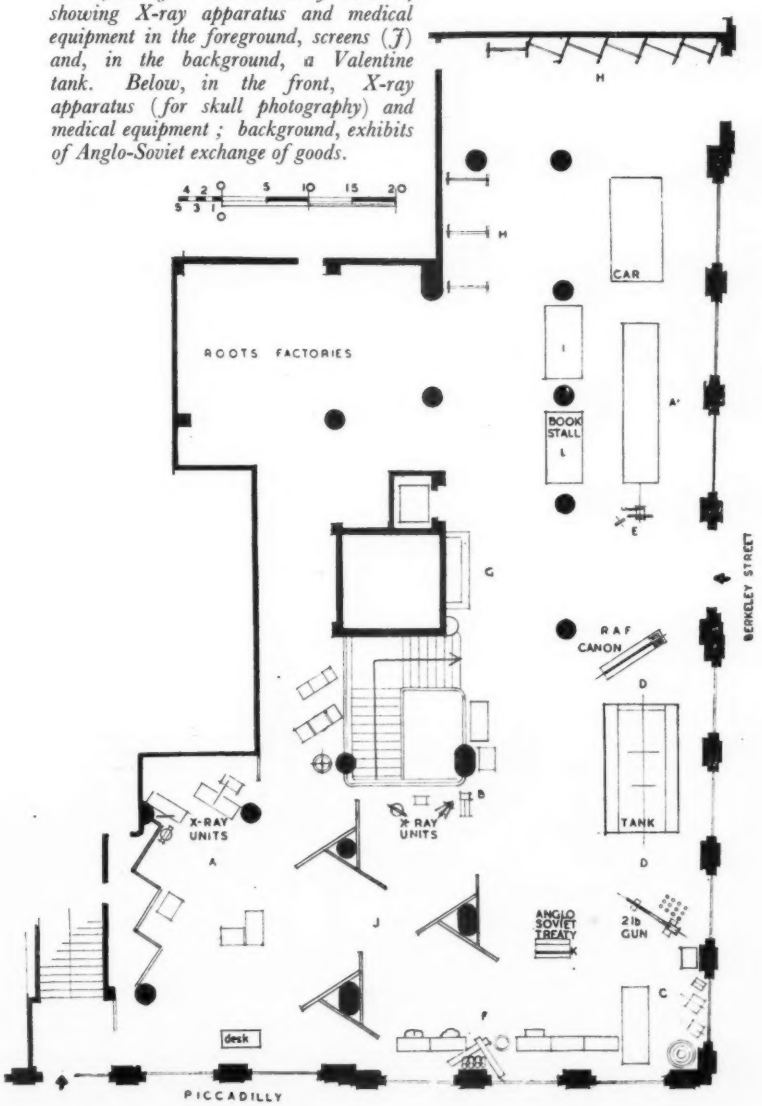


Above, view from the Piccadilly entrance, showing X-ray apparatus and medical equipment in the foreground, screens (J) and, in the background, a Valentine tank. Below, in the front, X-ray apparatus (for skull photography) and medical equipment; background, exhibits of Anglo-Soviet exchange of goods.

A, Medical equipment sent by voluntary subscription. B, Medical equipment sent by Government departments. C, Machinery, tools, machine tools, etc. D, Armament: Tank, anti-tank gun, "Hurricane" model and gun. E, A saddle—gift to Marshal Timoshenko. From the Soviet Union to Great Britain: F, Raw materials: timber, tar, turpentine, chemicals, cotton, furs, bristle, etc. G, Books, literature, etc. H, Exhibition of Soviet War posters. I, Cartoons, charts, etc.

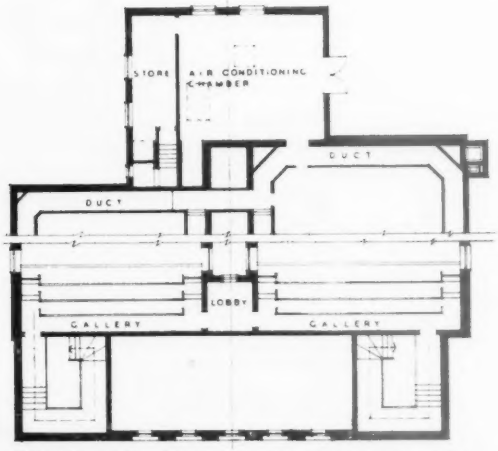
Explaining Anglo-Soviet friendship and the Soviet Union at war: J (1) British production; (2) convoys; (3) Soviet production; (4) What we are fighting against; (5) Comrades in arms; (6) What we are fighting for; (7) The Red Army; (8) The Red Navy; (9) The Red Air Force. K, Facsimile of the Anglo-Soviet Treaty. L, Bookstall of literature on the Soviet Union.

The exhibition hall was decorated with the flags of the two nations and the general colour scheme was a grey background enlivened by bright colours. The Soviet Ambassador, Mr. Maisky, opened the exhibition on the anniversary of the entry of the Soviet Union in the war.



COURT HOUSE IN SUSSEX

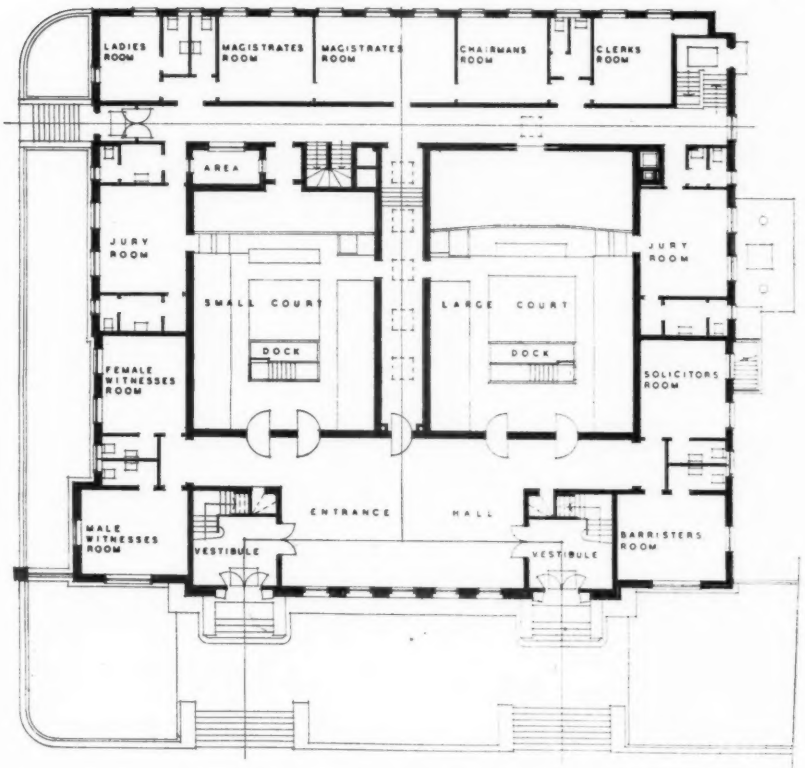
DESIGNED BY C. G. STILLMAN (COUNTY ARCHITECT)



PLAN OF UPPER PART OF ENTRANCE HALL AND PUBLIC GALLERY

Photographs show: above and facing page—two views of the main (west) front.

GENERAL—Petty Sessional Court used exclusively by a City Bench and a larger Court used for Quarter Sessions and other Courts. PLAN.—The building is almost square on plan with main public entrances to the left and right of a central entrance hall. The centre portion of the building is occupied by the two courts separated by a central corridor. Grouped around the courts are the ancillary rooms comprising male and female witnesses' rooms, jury rooms, ladies' room, magistrates' rooms, chairman's room, clerks' room, solicitors' room, barristers' room, together with lavatory and cloakroom accommodation for each. The plan has been so arranged that the public is kept from entering the well of the court by means of separate entrances from the front of the building which gives access



GROUND FLOOR PLAN

to vestibules with staircases leading directly to public galleries, one for each court. The jury retiring rooms are in each instance so planned that direct access is obtained to the jury boxes. The clerks' room, chairman's room and magistrates' room are conveniently placed to obtain easy communication with either Bench. All these rooms, with the exception of the galleries, are at ground-floor level. The ground floor is raised approximately 4 ft. above normal ground level so that natural lighting can be given to the accommodation which is provided in the basement. In this basement provision has been made for cell accommodation for males and females with attendant escort rooms; separated from this police and prisoners' accommodation is a large heating chamber for the central heating plant. From the corridor serving both cell blocks, staircases lead directly into the docks in either court. Surrounded as they are by all the ancillary rooms, the two courts are quite free from external sound and traffic noises from the main street. This sound-proofing has been rendered even more efficient by the fact that there are no opening windows to either of the courts, the main lighting being obtained from thick glass lenses placed in concrete frames in the concrete flat roofs. Side lighting is also obtained by similar lights placed high up in the side walls of both Courts. From bomb damage already experienced these glass and concrete lights have proved effective in resisting blast. CONSTRUCTION—Brick built with 18 in. walls below ground level and 15½ in. hollow walls above. Internal walls vary from 13½ ins. to 4½ ins., all being in brickwork. The roofs throughout are reinforced concrete finished with natural rock asphalt, covered with 2 ins. of washed beach ballast; the latter being used for insulating

Above and facing page : two views in the entrance hall. The walls are finished with rough texture plaster, distempered beige colour ; the buff-coloured ceiling has rectangular panels inset with a geometrical design, decorated in light pastel shades of grey, green and slate blue. Floor is covered with black composition relieved by panels of the same material in beige.

purposes. Floors are reinforced concrete.

EXTERNAL FINISHES—The building presents a symmetrical elevation to the main street with a broad forecourt dominated by five vertical windows. External facings are multi-coloured bricks $2\frac{3}{8}$ ins. in thickness. The two public entrances are reached by flights of steps in natural Anston stone leading on to a raised terrace, the latter being paved with squares of artificial stone paving with cream and black chequer pattern in the centre. The entrances themselves are built up with natural Clipsham stone with the Coat of Arms of the County Council incised over the door. The entrance doors are teak. The stone plinth to this elevation is in natural Clipsham.

INTERNAL FINISHES—The whole of the Court fittings, including the Bench, jury box, dock, etc., are finished with Austrian oak which has been wax polished, the natural colour being preserved as far as possible. There are few mouldings, the general effect being one of smooth unbroken surfaces. Colour has been introduced into the furniture—the magistrates' chairs and the tip-up seats in the well of the Court being covered with red leather. The walls of both Courts are panelled to a height of approximately 7 ft. with Austrian oak wax polished, and with horizontal insets 2 ins. wide and $\frac{1}{8}$ in. deep at intervals of approximately 1 ft. 6 ins. Above the oak panelled dado consideration has been given to the acoustical properties of the Court by the introduction of a light brown fabric in the form of a horizontal panel running round each Court with sound insulation at the back. Above this panelling soft lime plaster has been used which merges with the general colour scheme, being finished with a beige coloured distemper. The floor is covered with dark blue composition flooring. The

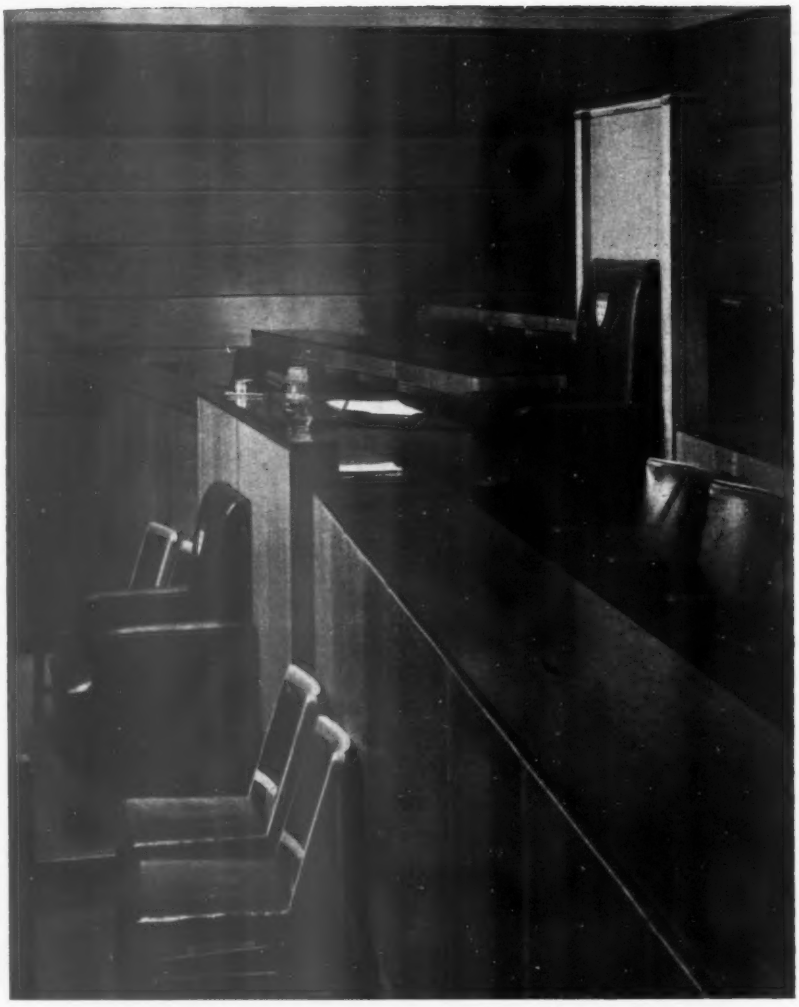
COURT HOUSE IN SUSSEX

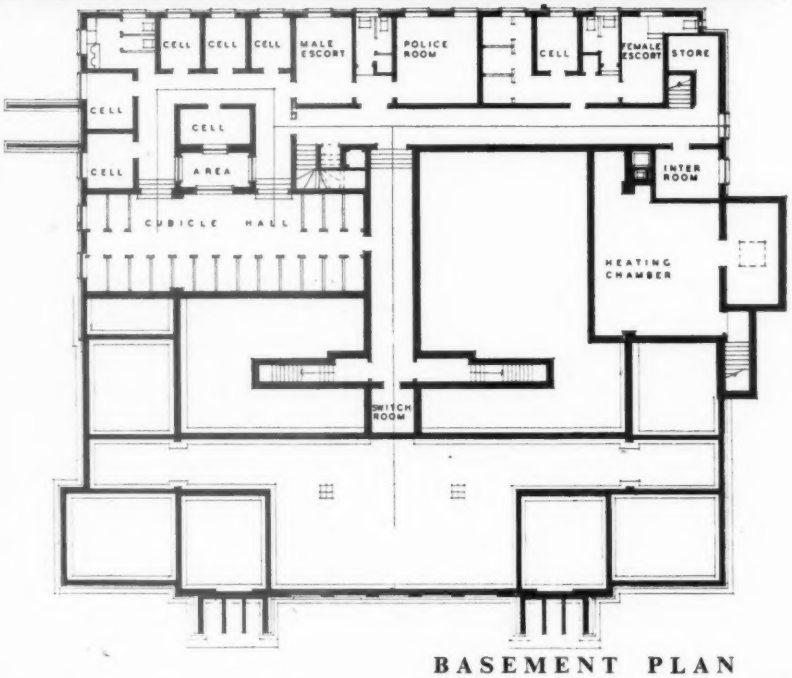
DESIGNED BY C. G. STILLMAN

C

Above, the large court, showing the public gallery ; the doors give access to the entrance hall. Facing page: the magistrate's bench in the large court; top, right, view from the entrance hall looking along the central corridor between the two courts; bottom, the large court room.

COURT HOUSE IN SUSSEX. *DESIGNED*



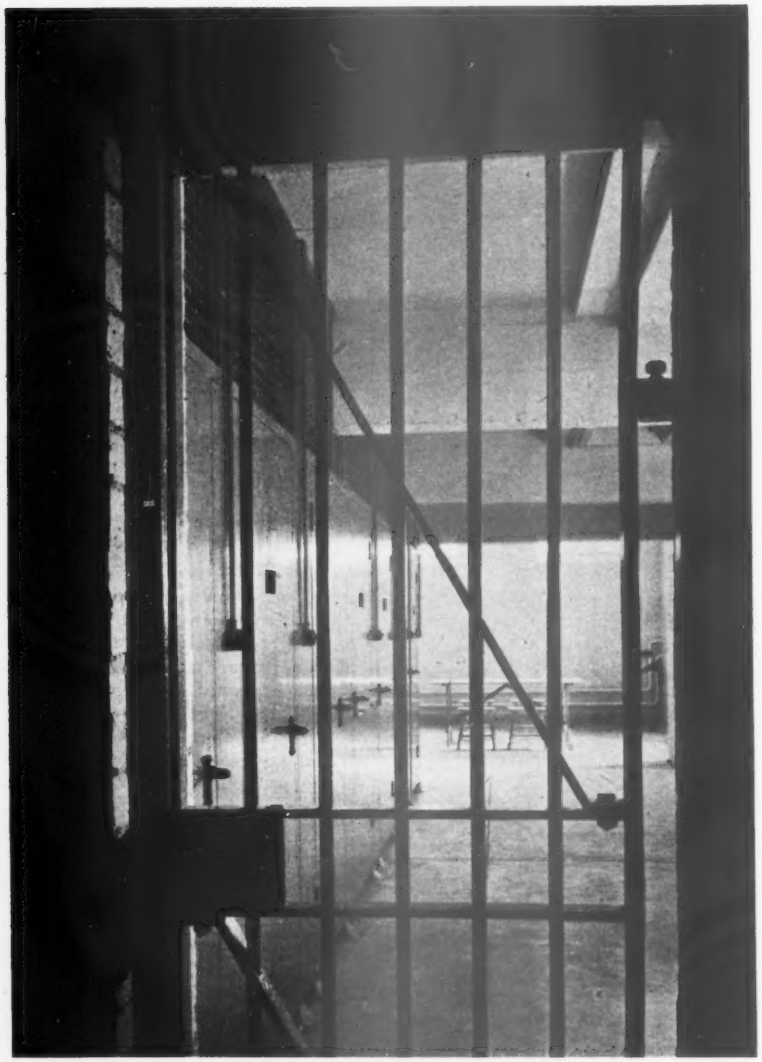


BASEMENT PLAN

BY C. G. STILLMAN

entrance hall has five narrow windows facing on to the main street. All the doors facing on to this entrance hall from the Courts and entrance vestibules are of solid teak. The walls have been finished with rough texture plaster, distempered beige colour; with the curtaining to the five windows of heavy fabric in similar colour. The buff-coloured ceiling has rectangular panels inset with a geometrical design, decorated in light pastel shades of grey, green and slate blue. The floor of the entrance hall is covered with black composition relieved by panels of the same material in beige. The ancillary rooms serving the Courts are decorated in a simple manner, the floors throughout being Granwood.

SERVICES—*Heating and Ventilation*—The Courts themselves are heated by means of thermostatically controlled electric units with the addition of conditioned tempered air entering and leaving the Court rooms by means of inlet and discharge fans. The air is changed 10 times per hour. The ancillary rooms are heated by means of hot water radiators from a battery of thermostatically controlled hopper fed boilers. In addition, conditioned tempered air is delivered to all the cells, cubicles and rooms in the basement. The air con-



ditioning plant is so arranged that it can be used during the summer months as a ventilating system, filtering and changing the air 10 times per hour. *Hot Water Supply*—Hot water is supplied to all basins and sinks from a thermostatically controlled boiler and storage cylinder fixed in the boiler-house. *Cooking Equipment*—Electrically heated cooking equipment is available for the provision of meals for prisoners whilst detained at the Courts. *Telephones*—A public telephone is provided within the Courts for the use of Court officials and the public. *Electric Lighting*—The building is equipped throughout with electric lighting system comprised mainly of ceiling type fittings.

COST—Contract price, £22,974.

The general contractors were Chapman, Lowry and Puttick; for list of sub-contractors and suppliers see page 47.

Above, the cubicle hall seen from the central corridor; left, the jury room to the small court.

COURT HOUSE IN SUSSEX

DESIGNED BY C. G. STILLMAN

The following review of Living in Cities *has been contributed by Lieut. MacCallum Bullock, a Canadian Officer now serving in this country.*

LITERATURE

Living in Cities. By Ralph Tubbs, Penguin, 1/-

England is the land where old ideas come to die. But even England is changing these days. Dreams are in the headlines. The dynamics of starvation, which wreck little bits of charity committees from the middle class shore of comfort, are driving deeper with war. The stress lines of society show. Cities are the containing shells of the liberty the island fights for. These times, then, should be ideal for the architect's influence.

Here is the case history of "architect's mind." A disease—a sort of athlete's foot in concrete. You may be an architect, reading Tubbs. May, and may not. Let's start even. Think of bombs. Of the smashed and smoking levelled ruins on which the firehose plays. Think of this war you're in as, for thousands of people in cities, a climax to personal misery yet a release to men and women who have always lived in filthy, ugly, verminous surroundings—unaware that better existed.

Dazed, leaderless, they need new houses. There are priorities. You can't build for them. Can't even plan for them as individuals. But you *can* make them sense the aura of change about them, show them progress, bring them ahead by the tens and hundreds. Tubbs tries it here. Successfully, because he realizes the existing ferment.

Now—the architectural shilling's worth:

Forget Athens, Carcassonne, the dominating castles in English towns Wipe them right out of mind. Why? To-day a new political unit is supplanting them here. Not the property of a family, but *family itself*, becomes the thing for which our cities are being rebuilt. Hence we must study from life. As builders we can't control these changes. Forget Fountain Abbey, Yorkshire, a religious community conceived on a careful, ordered life. No building of stones around people can be successful. To-day you build a bit of their present about the people on a site, and a part of their children's future. Remember

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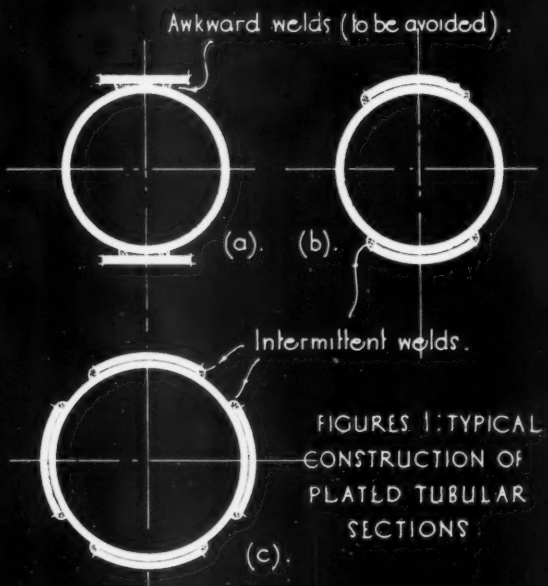
THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

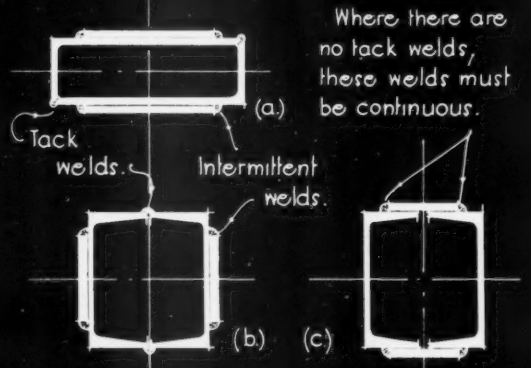
DETAILED CONSIDERATIONS OF DESIGN IN WELDED STEEL, 8 : COLUMN SECTIONS (b).

Tables showing comparative efficiency of various structural sections used as columns.

	SECTION & SIZE (INS.)	Efficiency Coefficient (e)	Safe Load (tons)	Weight (lb/ft)
TABLE I : light columns, ℓ – 9' 0"	7 x 4	0·37	12·7	16·0
	4 x ¼	0·57	13·9	10·0
	3 x 3 x ¼	0·51	11·81	9·78
	3 x 1½	0·49	10·7	9·2
TABLE II : medium columns, ℓ – 10' 0"	9 x 7	0·73	77·8	50·0
	8 x ½	0·88	76·0	40·1
	6 x 6 x ½	0·78	71·5	39·1
	8 x 3½	0·80	76·5	40·42
	9 x 6	0·62	46·1	35·0
	6½ x ⅜	0·84	43·9	24·5
	5 x 5 x ⅜	0·72	41·9	24·55
	6 x 3	0·76	45·5	24·8
TABLE III : heavy columns, ℓ – 10' 0"	18 x 8	0·75	127·0	80·0
	10 x ⅝	0·94	124·0	62·6
	12 x 4	0·83	123·0	62·66
	12 x 5	0·85	122·6	64·0
	7 x 1 5 x 5 x ⅜	0·89	125·0	72·1



FIGURES 1: TYPICAL CONSTRUCTION OF PLATED TUBULAR SECTIONS



FIGURES 2 : TYPICAL EXAMPLES OF PLATED ANGLE & CHANNEL SECTIONS.

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

INFORMATION SHEET : STEEL FRAME CONSTRUCTION, 79 : WELDING 35.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1

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STRUCTURAL STEELWORK

Subject :—Welding 35 : Detailed Considerations of Design in Welded Steel 8 : Column Sections (*b*), built up from components other than plates.

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 eighth of the section on detailed considerations of design in welded steel, and is the second dealing with columns.

Sections :

The available sections have been shown in Figures 1 and 2 on Sheet No. 34 of this series. The figures on the front of this Sheet give an idea of the comparative weights of different sections, e.g., of a very light column 9 ft. long (Table I), a medium column 10 ft. long (Table II) and a column 10 ft. long capable of carrying approximately the same load as the largest R.S.J. (18 ins. by 8 ins.) (Table III).

Weight :

From the figures it will be seen that in each of the following three cases, (1) the tubular column, (2) the column composed of two angles, (3) that composed of two channels, the respective safe loads for a given weight per foot run do not vary greatly, while the corresponding R.S.J. sections involve, in every case, between 25 per cent. and 60 per cent. extra weight.

Choice of Section :

It should also be noted that channels, angles and tubes afford a much greater choice of section than R.S.J.'s. Thus a column 10 ft. in length, consisting of an 8 in. by 6 in. R.S.J. carries a safe load of 46.1 tons, while a 9 ft. 7 in. R.S.J. carries 77.8 tons. There is, however, no available section for loads of intermediate values. If columns consisting of channels, angles or tubes are considered, it will be found that between the two sections corresponding with the R.S.J.'s mentioned above the number of sections available for loads of intermediate values are as follows :—

Channel sections	...	4
Angle sections ...	...	9
Tubular sections...	...	15

Moreover, the hollow sections invariably require less space than the corresponding R.S.J.'s in addition to their greater economy in weight.

A further reduction in the amount of space required can, of course, be obtained at the expense of economy in weight.

Overall Sizes :

The overall sizes of the columns shown on the front of this Sheet are given in inches in the following table :—

Table I.	Table II.	Table III.
7 × 4	9 × 7	18 × 8
4 × 4	8 × 8	10 × 10
$3\frac{1}{8} \times 3\frac{1}{8}$	$6\frac{1}{4} \times 6\frac{1}{4}$	—
3 × 3	8 × 7	12 × 8
—	8 × 6	12 × 10
—	$6\frac{1}{2} \times 6\frac{1}{2}$	7 × 7
—	$5\frac{3}{16} \times 5\frac{3}{16}$	—
—	6 × 6	—

Fabrication :

The fabrication of a column of tubular section requires the minimum amount of labour, as it consists merely of a single section. On the other hand, connections and the addition of plates are more difficult when tubular sections are used. See Fig. 1.

Angle and channel sections require about the same amount of labour ; the weld shown in Fig. 2 is a tack weld in every case, i.e., one run carried out with a thin electrode, because due to the continuity of the connection, no pronounced transverse stresses are set up. Angles and channels can be plated in several ways, as shown in Fig. 2.

Loads :

The sections most suitable for light loads are angles; channels may be used for heavier loads, and for very heavy loads sections made up of two R.S.J.'s are most suitable.

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, 828, 830, 832, 836, 837, 838, 839, 840, 842, 843, 845, 847, 848, 849, 850, 851, 852, 853, 855, 856, 857, 859, 860, 862, 863, 865, 867 and 869.

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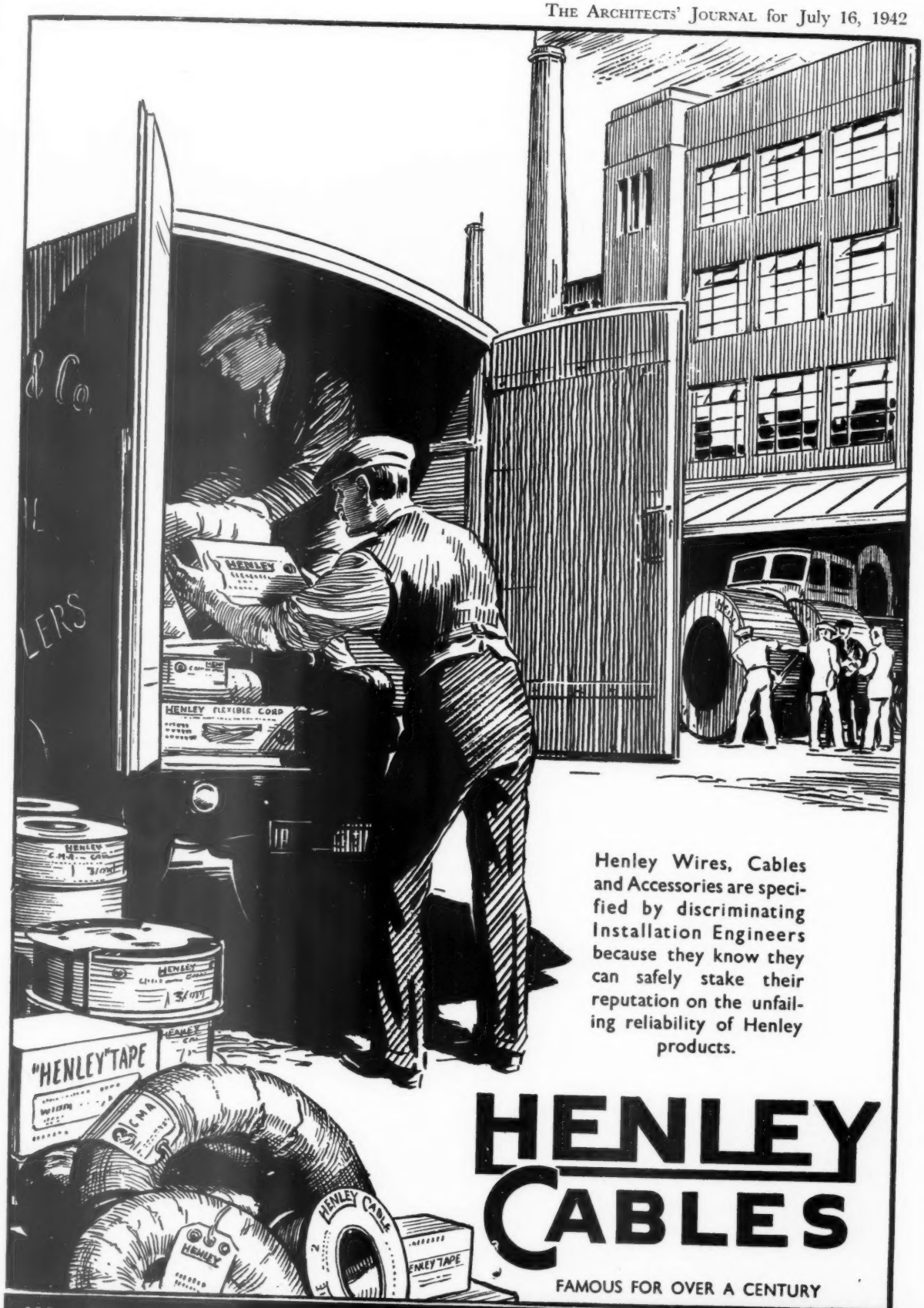

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TELEGRAMS: HENLETEL, DORKING

though York Minster, the Cathedral, as beautiful building expressing man's mysticism. Think once more of the modern single house as a similar end product satisfying the complicated emotions of healthy living.

Have a sense of cities. Do not think, as Tubbs does, that " To-day the town is diseased and the tentacles of sickness are creeping out and destroying the countryside. . . ." NO ! To-day we are alive ! To-day we cherish the countryside, appreciate it, realize it must touch our lives ! To-day we see the century's mistakes, and will not put up with the makeshifts accumulated around us. " We have inherited fine buildings. We hold them in trust for future generations." Aye ! Let's continue that ! Let's try, with Tubbs, not to perpetrate on those generations the slums of their fathers ! Greenbelts and parks are not all the solution. A national planning can be.

And so, subconsciously, little booklets lead the way.

There are disappointments to be faced. England, owner of much of the globe, has lost the art of producing for the needs of foreign markets. Architecture's greatest influence in the city is in the setting of great industrial juggernauts. In the ribbon system, building was a mechanical development. It spawned misery. Now, Tubbs believes, builders have their greatest chance to step out to the country. As things change, the world advances in waves ; ideas here, actions there, results elsewhere. Just now the island is seeking men with ideas. Tubbs' book is a good one. It will be forgotten in the " right " architectural circles and persist in the wrong place—people's minds. He goes in for the odd bit of building astrology, decorates it here and there with spinach, but does a neat graphic job on the basis of the town, movements of industry, soil use and distribution of population, road and rail use. In the Home, and Work In The City sections, he's clear. But all through, one feels the man glimpsing meanings of definitions without the know-how. Aalto's Sunila pulp mill he can appreciate but not assimilate. When he thinks about recreation, he writes of gardens for dozens instead of pubs for thousands. There's no sin in his little pamphlet. Transport is his never-never land. On health in the city he's just lost.

But on the place of children in our present teeming rat-boxes, he's grimly good. Cities are the one key gift we can give our offspring. They have so much of to-morrow about them. Flashes and conceptions touching myriad lives make senses when the architect ordains them on national scale. A new era begins, he believes, if the burial of our threadbare ideas is going on with the crashing of our bombed walls. *Living in Cities* is a happy combination of writer, publisher, and bombed-out public waiting to be housed.

The latter, by the way, aren't the ones to buy it. But the architects who are planning for them should.

MAINTENANCE REPAIRS

Drastic restrictions have been imposed on the use of lead for building and plumbing purposes. Lead sheet and pipes will henceforth be released only in limited quantities for special work of an essential nature ; all other uses of lead, except for chemical purposes, will cease.

The Committee on Building Materials Standardisation of the Ministry of Works and Planning has prepared the following list of materials which, it is suggested, can be used as alternatives in the cases specified, for new work and for repairs.

In repair work, it is pointed out that alternative materials should be used wherever possible, even as a temporary measure, pending the time when lead in quantity again becomes available.

NEW WORK.

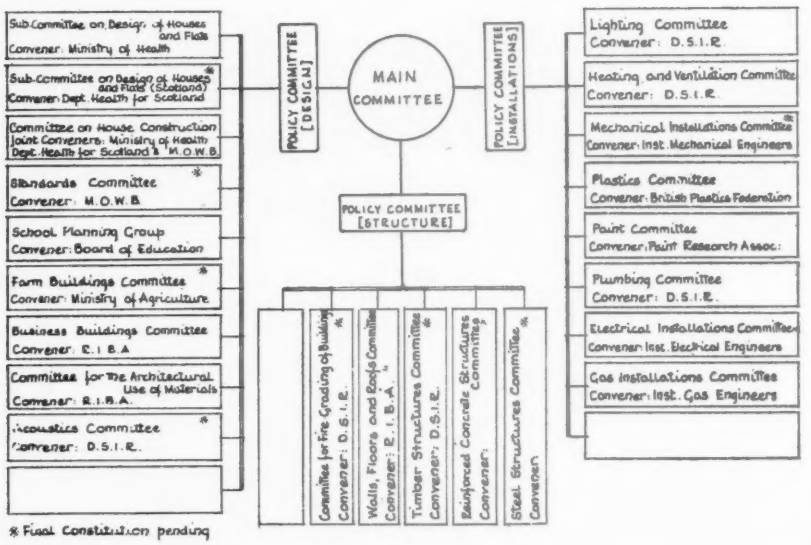
The Job	Restriction on Lead	Alternatives
Damp Proof Courses	Sheet lead or lead cored felt should not be used.	Slates, blue bricks, etc. Tar felt to temporary work or under walls of prefabricated huts, if required.
Water Service Pipes ..	When not practicable to use alternatives, lead may be used for underground service pipes in made ground, provided piping is not more than 30 feet long and 1½ ins. in diameter.	
Hot and Cold Water Distributing Pipes.	Lead not to be used. Where waters are corrosive, pipes should be coated with anti-corrosives. For large installations, chemical treatment may be adopted in place of anti-corrosive lining.	Light-weight welded steel tubes with screwed or socketed joints in accordance with revised weights specified in War Emergency British Standard Specification No. 789A—1940 ; a small quantity of light gauge welded steel tube for use with compression type connections may be available from stock.
Traps	Lead traps to bath, lavatory and sink wastes to be used only where use of cast iron or cast brass is impracticable.	Waste pipes to be of light gauge welded steel, plastic tube, etc. In ranges of basins, straight waste pipes without traps, discharging into open channels, should be used wherever possible.
Soil, Waster and Vent Pipes.	Lead pipes not to be used.	Asbestos-cement, cast-iron pipes (thickness of metal $\frac{1}{16}$ in.). Cast iron to be used where pipe may be damaged, e.g., first length above ground level.
Flush Pipes	Lead not to be used.	Light gauge welded ungalvanised steel tube.
Rainwater Pipes, Fittings and Gutters.	Lead not to be used.	Asbestos-cement, cast iron (thickness of light steel $\frac{1}{8}$ in.) or light steel with protective coating.
Valley Gutters ..	Lead not to be used.	Asbestos-cement, tar felt, mastic asphalt, pressed steel, etc. Cast iron to be used only when alternatives not practicable.
Flashing and Soakers	Lead not to be used.	Tar felt, slates, cement fillets, etc.
Gas Distributing Pipes	Lead not to be used.	Light-weight steel tube as War Emergency British Standard Specification No. 789A—1940.
Flushing Cisterns ..	Lead lining not to be used.	Cast iron treated with bituminous paint, cast-iron glass enamelled, sanitary ware (fireclay, vitreous china, etc.), moulded composition, porcelain enamelled pressed steel, etc.
Storage Cisterns ..	Lead lining not to be used.	Steel (ungalvanised about 12 g. and treated with non-toxic compound) as War Emergency B.S.S. 417/1940, Grade " B " ; asbestos-cement.
Paints	Lead paints restricted. War Emergency Standard Specifications for substitute paints now being prepared.	

MAINTENANCE AND REPAIRS.

Flat Roofs, Valley Gutters, Flashings.	Lead not to be used.	Tar felt (B.S. 989-1941 and B.S. 988-1941), mastic asphalt.
Water Supply and Distributing Pipes.	Lead to be used only for essential small repairs (not exceeding 10 feet run), in existing lead pipe installations, and only where alternatives are not available.	
Gas Supply and Distributing Pipes.	Lead not to be used.	Light-weight welded steel tube, as War Emergency B.S. 789A, 1941.

THE BUILDINGS ILLUSTRATED

NEW COURT HOUSE, SUSSEX (Pages 40-46). Architect C. G. Stillman. General contractors were Chapman, Lowry and Puttick, Ltd., who were also responsible for the demolition, foundations, reinforced concrete, partitions, plumbing, stairtreads, plaster, joinery, water supply, etc. Sub-contractors and suppliers included : G. Asserati, Ltd., asphalt and special roofings ; Roberts Adlard & Co., Ltd., bricks ; Damer Bros., Ltd., stone ; Blokcrete Co., Ltd., artificial stone ; Matthew T. Shaw & Co., Ltd., Structural steel ; Pilkington Bros., Ltd., glass ; J. A. King & Co., Ltd., patent glazing ; Granwood Flooring Co., Ltd., woodblock flooring ; Korkoid Decorative Floors, floor covering ; A. A. Byrd & Co., Ltd., waterproofing materials (Tricosal) ; Brightside Foundry and Engineering Co., Ltd., central heating ; Hall Boilers Ltd., boilers ; Cosh and Hammond, electric wiring ; Falk Stadelmann & Co., Ltd., electric light fixtures ; Brightside Foundry and Engineering Co., Ltd., ventilation ; Bunce & Co., Ltd., door furniture and cloakroom fittings ; Crittall Manufg. Co., Ltd., casements and window furniture ; G. P. O., telephone ; James Gibbons Ltd., cell doors and grille gates ; Bayliss Jones and Bayliss Ltd., metalwork ; Jordan and Cook Ltd., textiles and furniture ; Smith's English Clocks Ltd., clocks ; Dales, Ltd., signs.



MOWP

Directorate of POST-WAR BUILDING

The first report of the Directorate of Post-War Building of MOWP., published last March, showed that of the 15 Study Committees, 5 were under discussion, 8 were formed or being formed, and 2 actually sitting. The latest report of the Directorate shows that, of these 15 committees, 11 are now sitting, the remaining 4 are being formed. They are: Steel Structures Committee; Reinforced Concrete Structures Committee; Timber Structures Committee; Standards Committee.

The chart accompanying the report (reproduced on this page) shows 22 Study Committees. Only one of these (the Standards Committee) is a committee of the Ministry of Works and Planning, convened by the Ministry itself, but the Ministry is also *joint* convener of the committee on House Construction. Of the 22 committees, the following 7 are new: Sub-Committee on the Design of Houses and Flats (Scotland); Committee on House Construction; Farm Buildings Committee; Acoustics Committee; Committee for Fire Grading of Buildings; Mechanical Installations Committee; and Gas Installations Committee.

Of these 7 new committees, only the last has started work; 12 Study Committees, therefore, are now sitting; 9 more will be at work by the end of the summer; another (the Acoustics Committee) will be set up during the autumn. Several more Study Committees are projected; there should be about 25 at work by the end of 1942. Constitution of the 11 committees now sitting is as follows:

STUDY COMMITTEES CO-ORDINATED UNDER THE POLICY COMMITTEE (DESIGN).

SUB-COMMITTEE ON THE DESIGN OF HOUSES AND FLATS.—Convener: Ministry of Health. (A sub-committee of the Central Housing Advisory Committee constituted under the Housing Act, 1936.) Terms of reference: To make recommendations as to design, planning, lay-out, standards of construction and equipment of dwellings for the people throughout the country. Constitution: Chairman, Earl of Dudley, M.C.; Joint Secretaries: H. J. Ryan and Miss J. G. Ledeboer, A.R.I.B.A.; Members: Mrs. M. M. Dollar (L.C.C.), Lady Sanderson (Women's Housing Advisory Council), Sir Harold Bellman, M.B.E., J.P., (chairman, Abbey Road Building Society), Sir George Burt, F.I.O.B. (John Mowlem & Co., Ltd., chairman, Building Research Board), R. Coppock, HON. A.R.I.B.A. (president, National Federation of Building Trades Operatives), L. H. Keay, O.B.E., F.R.I.B.A. (Director of Housing, Liverpool), Sir Miles Mitchell, J.P. (Alderman, City of Manchester), J. W. Robertson-Scott, J.P., C.C. (Editor, *Countryman*), Louis de Soissons, O.B.E., A.R.A., F.R.I.B.A., J. A. F. Watson, J.P., F.S.I., Sir Seymour Williams, K.B.E., J. Greenwood Wilson, M.D., D.P.H. (M.O.H. Cardiff).

SCHOOL PLANNING GROUP.—Convener: Board of Education. Terms of reference: To report on the application of standardization to the planning of schools: (*a*) as a whole; (*b*) in component parts (classrooms, etc.); (*c*) in units such as windows. Constitution: Chairman, Sir Robert Wood, K.B.E., C.B. (Deputy Secretary, Board of Education); Secretary: A. R. Maxwell-Hyslop (Board of Education); Members: F. Jackman, A.R.I.B.A. (Board of Education), Dr. J. Jardine, F.R.I.B.A. (Scottish Board of Education), J. H. Markham, F.R.I.B.A. (Directorate of Post-War Building), W. G. Newton, O.B.E., F.R.I.B.A.

BUSINESS BUILDINGS COMMITTEE.—Convener: R.I.B.A. Terms of reference: To review practice in designing business buildings and to formulate principles for the planning and general treatment of such buildings in the post-war period. Constitution: Chairman, Stanley Hamp, F.R.I.B.A.; Vice-Chairman, J. R. Adamson, F.R.I.B.A.; Secretary, A. T. Scott, F.R.I.B.A. Members: Graham Dawbarn, M.A., F.R.I.B.A., Joseph Emberton, F.R.I.B.A., Bernard George, F.R.I.B.A., Joseph Hill, F.R.I.B.A., T. C. Howitt, D.S.O., F.R.I.B.A., Gordon Jeeves, M.C., F.R.I.B.A., Francis Lorne, F.R.I.B.A. (P.W.B.), T. F. Maclennan, F.R.I.B.A. (R.I.A.S.), C. J. Mole, M.B.E., F.R.I.B.A. (MOWP.), H. J. Rowse, F.R.I.B.A., J. Alan Slater, F.R.I.B.A., L. Sylvester Sullivan, F.R.I.B.A., Henry Tanner, F.R.I.B.A.

COMMITTEE ON THE ARCHITECTURAL USE OF MATERIALS.—Convener: R.I.B.A. Terms of reference: 1. To collect and sift existing information on the use of materials from the æsthetic point of view. 2. To make recommendations for post-war building practice: (*a*) on the resumption of normal conditions, and (*b*) in the conditions existing immediately after the war, taking them in that order. Constitution: Chairman, Edward Maufe, A.R.A., M.A., F.R.I.B.A.; Vice-Chairman, Oswald Milne, F.R.I.B.A.; Secretary, Basil Sullivan, C.I.E., O.B.E., F.R.I.B.A. Members: Robert Atkinson, F.R.I.B.A., Maxwell Ayrton, F.R.I.B.A., Hope Bagenal, D.C.M., A.R.I.B.A. (Building Research Station), W. T. Curtis, F.R.I.B.A., J. Murray Easton, F.R.I.B.A., H. M. Fletcher, F.R.I.B.A., J. M. Forshaw, M.C., M.A., F.R.I.B.A., A.M.T.P.I., W. Curtis Green, R.A., F.R.I.B.A., Francis Lorne, F.R.I.B.A. (P.W.B.), Lionel G. Pearson, F.R.I.B.A., J. R. McKay, F.R.I.B.A., Brian O'Rorke, F.R.I.B.A., W. A. Rutter, A.R.I.B.A. (MOWP.), J. Hubert Worthington, O.B.E., F.R.I.B.A.

STUDY COMMITTEES CO-ORDINATED UNDER THE POLICY COMMITTEE (STRUCTURE).

WALLS, FLOORS AND ROOFS COMMITTEE.—Convener: R.I.B.A. Terms of reference: To review existing practice in this country and abroad on the structure of walls, partitions, floors and roofs to houses, flats, schools, office buildings, shops and agricultural buildings and to make recommendations. Constitution: Chairman, C. Lovett, Gill, F.R.I.B.A.; Vice-Chairman, Horace Cubitt, A.R.I.B.A., F.S.I. (District Surveyor for City of London East); Hon. Secretary, P. V. Burnett, F.R.I.B.A. Members: R. Fitzmaurice, HON. A.R.I.B.A. (B.R.S.), G. A. Gardner, M.I.STRUCT.E. (MOWP.), Stanley Heaps, L.R.I.B.A. (Architect, London Passenger Transport Board), A. W. Kenyon, F.R.I.B.A., Hubert Lidbetter, F.R.I.B.A., Francis Lorne, F.R.I.B.A. (P.W.B.), William McCrea, A.R.I.B.A. (R.I.A., Scotland), Allister G. Macdonald, F.R.I.B.A. (Chairman, Architectural Science Board), F. P. Scott, A.M.INST.C.E.

STUDY COMMITTEES CO-ORDINATED UNDER THE POLICY COMMITTEE (INSTALLATIONS).

LIGHTING COMMITTEE. — Convener: B.R.S. Terms of reference: To review existing scientific information and practice in this country and abroad on the lighting of buildings. To make recommendations for practice in post-war building. To make such recommendations for further research as may suggest themselves in considering the above. Constitution: Chairman, Dr. C. C. Paterson, O.B.E., M.INST.O.E., M.INST.E.E. (Director of Research, General Electric Co.); Secretary, C. C. Handisyde (B.R.S.). Members: R. O. Ackerley, F.I.E.S. (Illuminating Engineering Society), P. V. Burnett, F.R.I.B.A., M. E. Chasteney (Factory Dept., Ministry of Labour), J. S. Dow, B.SC., A.C.G.I. (Secretary, Illuminating Engineering Society), P. Good, M.I.E.E., F.C.G.I. (British Standards Institution), H. Austen Hall, F.R.I.B.A., T. C. Keeley, M.A. (Clarendon Laboratory, Oxford), R. H. Mathew, F.R.I.B.A., F.R.S.E. (Deputy Chief Architect, Dept. of Health for Scotland), A. Scott, M.B.E., F.R.I.B.A. (Chief Technical Officer for Building and Town Planning, Ministry of Health), F. C. Smith, F.C.S., M.INST.GAS E. (Gas Light & Coke Co.), G. Smith, M.B.E. (MOWP.), Sir James West, O.B.E., F.R.I.B.A. (P.W.B.), H. C. Weston, F.I.E.S. (Industrial Health Research Board), H. T. Young, P.F.INST.E.E. (Inst. of Electrical Engineers).

PAINT COMMITTEE.—Convener: Paint Research Association. Terms of reference: To review practice in paint manufacture and in painting technique in the most general terms. To study such problems as arise out of this review and to supervise research as may be desirable and necessary. To report and make recommendations on: (1) improvements in practice (*a*) with a view to simplification to meet essential needs during the first three years of peace; and (*b*) generally; (2) decorative, protective and other technical properties of paint products; (3) specifications as may be necessary to give effect to the above requirements and to meet both general and special needs in building; (4) a suggestion for a scheme of official certification for quality in paint products. Constitution: Chairman, S. K. Thornley (Thornley & Knight, Ltd.); Secretary, Dr. L. A. Jordan, D.SC. (Paint Research Station). Members: W. Abnett (MOWP.), L. H. Bucknell, F.R.I.B.A., C. A. Klein (Goodlass Wall & Lead Industries, Ltd.), J. Lawrance (Dixon's White, Ltd.), H. M. Llewellyn (B.R.S.), J. H. Markham, F.R.I.B.A.

(P.W.B.), Dr. H. H. Morgan (I.C.I. (Paints) Ltd.), H. Todd Thornbery (Griffiths Bros. & Co., Ltd.).

PLASTICS COMMITTEE.—Convener: British Plastics Federation. Terms of reference: To consider present practice and new proposals in the application of plastics to heating and ventilating, lighting, plumbing, electrical, gas and mechanical installations, painting, internal and external furnishings, building construction and any other applications which may suggest themselves. To make recommendations for practice in post-war building; to make such recommendations for further research as may arise after these studies. Constitution: Chairman, H. V. Potter; Secretary, Gilbert T. Beach (British Plastics Federation). Members: T. L. Birrell (B.X. Plastics, Ltd.), E. A. Blanch (Kork-N-Seal, Ltd.), Herbert Bridge (Thomas De La Rue & Co., Ltd.), C. S. Dingley (Streetly Mfg. Co., Ltd.), Major Stanley M. Mohr (Micanite & Insulators, Ltd.), W. M. C. Norie (I.C.I. (Plastics), Ltd.), Dr. R. J. Schaffer (B.R.S.), A. E. Skan (Ellison Insulation, Ltd.), R. H. Sheppard, A.R.I.B.A., F. E. Towndrow, A.R.I.B.A. P.W.B.), S. Whyte (Consultant).

PLUMBING COMMITTEE. — Convener: B.R.S. Terms of reference: To review existing scientific information and practice in this (country and abroad on plumbing (including the underground drainage forming part of normal building works) with particular reference to the supply of cold and hot water in buildings and the removal of soil, rainwater and waste therefrom. To make recommendations for practice in post-war building. To make such recommendations for further research as may suggest themselves in considering the above. Constitution: Chairman, Sydney Tatchell, F.R.I.B.A., F.R.SAN.I.; Secretary, F. L. Barrow (B.R.S.). Members: W. Mumford Bailey, M.R.SAN.I., M.INST.H.V.E. (Mumford, Bailey & Preston, Ltd.), Major Henry Clay, F.R.SAN.I., F.I.S.E., R.A.M.C. (London School of Hygiene), G. H. Harris, F.S.I. (Asst. Secretary, Plumbers', Glaziers' and Domestic Engineers' Union), R. G. Hetherington, C.B., O.B.E., M.INST.G.E. (Chief Engineering Inspector, Ministry of Health), J. Laing, F.I.O.B., F.A.R.P.I. (Building Contractor), A. Longworth, F.R.SAN.I., A.M.I.S.E., F.I.O.P., F. Lorne, F.R.I.B.A. (P.W.B.), H. J. B. Manzoni, C.B.E., A.M.I.S.E., M.INST.C.E. (City Engineer and Surveyor, Birmingham), J. H. Markham, F.R.I.B.A. (P.W.B.), W. M. Lloyd Roberts, M.ENG.(LIVERPOOL), M.INST.C.E. (Distribution Engineer, Metropolitan Water Board), A. Scott, M.B.E., F.R.I.B.A., M.I.STRUCT.C.E. (Chief Technical Officer for Building and Town Planning, Ministry of Health), R. S. Sidle, F.R.SAN.I. (Chief Sanitary Engineer, MOWP.), Dr. Charles White, M.D., D.P.H., D.T.M. (M.O.H., City of London), J. Wilson, O.B.E., F.R.I.B.A., F.R.S.E. (Chief Architect, Dept. of Health for Scotland).

GAS INSTALLATIONS COMMITTEE.—Convener: Institution of Gas Engineers. Terms of reference: To review existing information and practice concerning gas installations in buildings, from the point of entry of the gas to the property boundary up to the point of its delivery to an appliance, and to make recommendations for practice in post-war building. Constitution: Chairman, R. J. Rogers (Birmingham); Secretary, Dr. W. T. K. Braunholtz, M.A. Members: B. J. Bell (Cardiff), H. M. Browne, B.SC. (London), R. D. Keillor (Greenock), S. Lacey, B.SC. (London), R. N. le Fevre (London), F. Lorne, F.R.I.B.A. (P.W.B.), H. P. Lupton, B.SC. (Liverpool), J. M. A. Mitchell (Newcastle-on-Tyne), H. Singleton (Huddersfield), N. Smith (Bristol).

ELECTRICAL INSTALLATIONS COMMITTEE.—Convener: Institution of Electrical Engineers. Terms of reference: (1) To review existing information and practice concerning installations in buildings for: (*a*) the supply of electricity for all purposes from the point of entry of the current at the property boundary to the point of its delivery to an appliance; and (*b*) all forms of electrically operated telecommunications. (2) To make recommendations for practice in post-war building. Constitution: Chairman, J. R. Beard, M.SC. (Merz & McLellan); Secretary, W. K. Brasher, M.A. Members: J. I. Bernard, B.SC.TECH. (British Electrical Development Association), Miss G. H. Haslett, C.B.E. (Electrical Association for Women), P. V. Hunter, C.B.E. (Cable Makers' Association; Callenders' Cable and Construction Co., Ltd.), Forbes Jack son(Chief Engineers' Department, L.C.C.), J. H. Markham, F.R.I.B.A. (P.W.B.), H. Marryat (Electrical Contractors' Association), Lt.-Col. S. E. Monkhouse (Incorporated Association of Electric Power Companies; North Eastern Electric Supply Co.), H. G. S. Peck (Post Office Engineering Dept.), A. G. Ramsey, O.B.E., B.SC.(ENG.) (MOWP.), E. A. Reynolds, M.A., Howard Robertson, F.R.I.B.A., J. W. J. Townley (Incorporated Municipal Electrical Association), W. H. Walton, National Electrical Contractors' Trading Association), V. Watlington, M.B.E. (British Electrical & Allied Manufacturers' Association), E. B. Wedmore, C.B.E. (British Electrical & Allied Industries Research Association), H. T. Young, M.I.E.E. (Troughton & Young, Ltd.).

CENTRAL BRICK COMMITTEE

The second report of the Simmonds Committee is now under consideration by the Government, but it has been decided to implement one of its recommendations at once by establishing a Central Brick Committee composed of representatives of the brick industry (both employers and operatives): and the research organizations. Mr. Leslie William Farrow, F.C.A., has been appointed chairman of the committee.

The Information Centre is held over from this issue; it will be resumed next week.

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 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," 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

CAMBRIDGESHIRE EDUCATION COMMITTEE.

CAMBRIDGESHIRE TECHNICAL SCHOOL.

Principal: R. W. WILSON, B.Sc. (Eng.), A.M.I.E.E.

Applications are invited for the post of RESPONSIBLE FULL-TIME TEACHER OF BUILDING SUBJECTS.

The post includes teaching and supervisory duties in the Building Section of the Day Trade School, which is being extended so as to meet the needs of post-war building, and in the Evening Building Classes, which at present lead to the ordinary National Certificate in Building.

The post offers scope to candidates who have a wide experience of the Building Industry. Ability to deal with problems of housing and town planning would be an additional recommendation.

Candidates should have had teaching experience and practical experience in the building industry or in architecture.

The salary will be in accordance with the Burnham Technical Scale plus an annual allowance of £50 for special responsibility.

Further particulars and application forms may be obtained on receipt of a stamped addressed foolscap envelope, from the Education Secretary, Shire Hall, Cambridge, to whom completed forms should be returned not later than 25th July, 1942. 784

Architectural Appointments Vacant

Advertisements from Architects requiring Assistants or Draughtsmen, and from Assistants and Draughtsmen seeking positions in Architects' offices will be printed in "The Architects' Journal" free of charge until further notice. Other "Appointments Vacant" and "Wanted" will be found under later headings, and are subject to the charges given under each heading.

Wherever possible prospective employers are urged to give in their advertisement full information about the duty and responsibilities involved, the location of the office, and the salary offered. The inclusion of the Advertiser's name in lieu of a box number is welcomed.

ARCHITECTURAL ASSISTANT, R.I.B.A. standard at least essential, with experience in large factory work, required at once. Write, stating salary, to Lavender & Twentyman, Waterloo Road Wolverhampton. 480

Architectural Appointments Wanted

ARCHITECT (pre-war private practice), offers qualified services. Building maintenance; Surveys (full experience of War Damage); Designing—draughting. London area. Box 453.

ARCHITECT AND SURVEYOR, Chartered and qualified, London, with many years' experience in general practice, flats, commercial buildings, conversions and domestic work, is prepared to undertake reinstatement of war damaged buildings, making any necessary application to the Ministry of Works and Buildings and the War Damage Commission, for licences and payments, or will consider co-operation with another architect who may have pressure of business. Replies to Box No. 457.

ARCHITECT'S ASSISTANT requires position, London area. Capable supervisor; large contracts; setting out of buildings; sites, etc. Over military age. 188, Great West Road, Hounslow. 455

SENIOR ASSISTANT (48) to first-class Consulting Practice, desires position offering greater scope. Capable of working without supervision. Would manage for younger man joining Forces. Chartered Structural Engineer and Corporate Surveyor. Experienced in Building Construction, Reinforced Concrete, Steelwork, Surveys, Valuations. Recently completed very large Underground Shelters and Industrial Civil Defence Scheme for County Borough. £400 p.a. Box 458.

DESIRED: EMPLOYMENT WITH ARCHITECT. School certificate; Credits, Art (3 A's), French; (pass in German). Educated: Manwood's, Sandwich and Herne Bay College. Particulars Box 459.

SENIOR DESIGNING AND SURVEYING ASSISTANT, experienced in factory planning, detailing, prefabrication in reinforced concrete, and in local government A.R.P., desires post preferably central London. Box 460.

A.R.I.B.A. (woman), 31 years), seeks position Sheffield or district. Free end July. For particulars write Box No. 462.

ASSISTANT, aged 21, recently discharged army, 4 years' country and W.D. offices. Good draughtsman and modeller. London preferred. Available immediately. Box 466.

ARCHITECT, experienced in carrying through large and small schemes, all parts country. Salary £800 to £1,000 per annum, according to locality. Box No. 468.

B.A. (Arch.), A.R.I.B.A., A.M.T.P.I., requires responsible position. Varied experience of all types of work over last 6 years, including full supervision. A.R.P. and War Damage. Replies to Architect, 194, All Souls Avenue, London, N.W.10. 469

REGISTERED ARCHITECT, exempt from military service, requires responsible position. Eight years in general practice and with public authorities. Experienced in design and construction of factories, housing, war buildings, etc., civil defence schemes. Reconstruction and post-war planning. Can drive car. Available immediately. Write: Architect, "Keeper's House," Roffey Park, Faygate, nr. Horsham. 470

A.R.I.B.A. requires part-time work, many years experience all types of work, including war damage. Box 472.

Classified Advertisements continued on page xxviii.

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