# THE ARCHITECTS' JOURNAL

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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, NOVEMBER 6, 1941. NUMBER 2441 : VOLUME 94

## 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.*

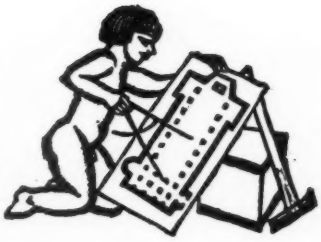
*Owing to the paper shortage the* JOURNAL, *in common with all other papers, is now only supplied to newsagents on a "firm order" basis. This means that newsagents are now unable to supply the* JOURNAL *except to a client's definite order.*

# RUSSIA: TRADITIONAL HOUSING

*Typical Russian Peasant's House on the Volga River. The group in the foreground were all resident in the house. Photograph by Mr. F. R. Yerbury.*

# RUSSIA: TRADITIONAL HOUSING

*Small timber house in Samara (now called Kuibishev), the new temporary capital. The elaborate fretted porch and window surrounds are typical of Russian peasant craftsmanship. Photograph by Mr. F. R. Yerbury*



In the JOURNAL'S belief a Big Half-Change has taken place in the building industry since war began. The four chief ingredients of this half-change are : manœuvres for position by big contractors and manufacturers instead of a race for profits; the changeover from fees to salaries by many members of building professions; the levelling effect of control of materials and "fixed wage and fixed job" policy; the impetus given by war building needs to modern architecture.

The test of any change in the industry at present is its result in terms of output. From this test the big half-change emerges without distinction. Manœuvres for position, apathy among both contractors and operatives, and feuds and changes of mind in client departments result in low output.

One remedy for these things lies in skilful publicity for war building. If the names and the success or failure of big firms carrying on war building were made public in well written periodical despatches, apathy might grow less in places where its effects are worst.

# THE BIG HALF-CHANGE—3

THE articles of which this is the third have intentionally put a less-important cart before an all important horse. They have analysed the half-change which has taken place in the industry since war began before considering whether war building output is good or bad. And it is output which matters. To the Cabinet, the man in the street and the progress of the war it is wholly unimportant whether a half or any change has taken place in the building industry. The crucial fact is that the industry is short on delivery.

The JOURNAL knows this, and puts the half-change first for three reasons. Members of the building industry alone can improve building output. It is possible that in their absorption in day-to-day work many of these men may forget how much has changed in their industry since war began and fail to realize that pre-war remedies for low output cannot now be applied. Third, a survey of war-time changes and their results may help to suggest where new remedies can be found for new conditions.

In the JOURNAL's view, as was stated last week, the remedy for low output which offers the greatest possibilities would be for the progress of every large war building contract to be given the same publicity as an engagement with the enemy. The names of client department, contractors and consultants should be published, and success or failure and rate of output reported in short communiqués in the press and on the radio. A very large amount of energy now devoted to manœuvres for position might be re-directed in this way into straight competition on level terms.

No doubt injustice would be done, for level terms are never quite level. Injustice is always with us. Injustice is occurring now while output is low. If output could be raised the country and the building industry could stand a little more injustice.

The second most hopeful remedy for present conditions would be the realization by M.P.'s and the public of how much supervision matters on war building contracts. By supervision is meant the work performed by architects, engineers and all other consultants. War-time control of materials and labour has added greatly to the work of these men, and from them must come the driving force on every war contract. The publicity suggested in Remedy No. 1 may make the difference between that driving force being effective or ineffective on those to whom it is applied, but responsibility for its generation and maintenance cannot be moved from the architect or engineer-in-chief. In the mouth of the Select Committee on National Expenditure the words "Cost Plus" have become the war cry of the lower world, and a Chancellor of the Exchequer can find time during a War Budget to look ahead (or backwards) from the half triumph of a Schedule of Prices to the golden heights of a Firm Price. So intoxicating are witchwords that in the minds of M.P.'s Abolition of Cost Plus has come to stand deputy for Maximum Building Efficiency. It is time Lord Reith coaxed our legislators back from Cloud Cuckoo-land. Under continuous skilful supervision Cost Plus is the most efficient means of executing war building work. Without that supervision high output and low cost cannot be achieved by any means.

The third most hopeful remedy for low output would be a successful appeal to building operatives for harder work. This remedy is left to the last not because the JOURNAL believes that it is impossible for such an appeal to be successful, nor because it underestimates the great results such a success could have. It has merely seen no sign of the advisers to building Ministries beginning to set about the job in a way that might hope to have some measurable result.

The building operative whose opinion now carries weight on the sites is over 40 and stubborn. He grasps relatively few facts but grasps them with great firmness, and has an unfortunately long memory. Posters and ten minute chats which drip B.B.C. platitudes move him not at all. His loyalty and generosity are very great but they are of a special kind. They might even repay special study.

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

# NOTES & TOPICS

### THE NEW PATTERN

IN a broadsheet called the New Pattern, P.E.P. outlines the changing background against which the activities of architects and of town,country and regional planners must be focussed. The problem is, perhaps, for the first time, clearly and publicly attacked from the right end. Its immense ramifications are mapped out and the superficial technical approach which stops short at façades and at the reorganization of services at their existing intensity, has been shown up for what it is worth—nothing.

★

Under the title *Where is Here?* the broadsheet describes the present state of affairs and points out the direction in which the remedy lies :—

Looking at the problem in deliberately over-simplified terms, we might say that the phase of industrial civilization which is coming to an end depended on three essential conditions :—(*a*) Economically on the driving force of free individual enterprise ; (*b*) socially on self-help eked out with charity from an upper class acting on the *noblesse oblige* principle ; (*c*) politically on a number of civic rights and an even smaller number of civic duties resting on tradition and upon a backward looking, inflexible structure of law, based largely upon property, and resisting change. The results were :—

(*a*) Fairly rapid expansion of wealth, but with intolerably severe fluctuations between different periods and with excessive discrepancies between different geographical, occupational and income groups ;

(*b*) A great development of voluntary and, later, of public social services, distorted by a bias towards salvage and piecemeal palliatives rather than constructive and preventive planning of social security on a comprehensive basis ;

(*c*) A remarkable growth of personal freedom, but a widening gulf between law and actuality, and a type of society which can only be called irresponsible.

The remedy lies in the direction of :—

(*a*) Economic planning to iron out fluctuations and assure steady growth and more even distribution of national income ;

(*b*) Social security planning to provide a higher level, a more constructive type, and much more complete coverage of social services for all, rather than piece-meal provision for a depressed class excessively swollen by failure to plan industry and to secure full employment ;

(*c*) A much wider conception of the duties as well as the rights of citizens, not only in their individual but also in their family and their neighbourhood and group status, reinforced by a flexible, socially-minded and forward-looking structure of law.

★

Physical planning, if it means anything, means orderly physical expression of a social organization that is *new*. It is impossible to make a well articulated plan which will allow anybody to do anything they like anywhere and at any time. This is what planners have been up against in the past ; no wonder they concentrated on façades and on technicalities, the only fixed points in a wilderness of muddle. Experience has shown that town planning and a policy of *laisser-faire* are incompatible.

★

The task is gigantic ; it is in fact two tasks ; the first stage being to formulate a programme : the second stage being to set up the machinery for realizing it. Till now people have tended to concentrate on the mechanical side : to call for a central planning authority to co-ordinate the work of lesser bodies already in the field. Their exertions have so far produced meagre results—an interdepartmental committee.

★

But there are indications that work is really going ahead, and that steps are being taken to formulate a programme which logically does come before the business of setting up a body to execute it. The Government *may* be right to hold its hand provided that the absence of a central planning authority is not an excuse for postponing the preliminary work.

★

The terms of reference of the committee on land utilization are wide and flexible. If the committee takes full advantage of these, their findings should go a long way towards providing the directives needed by planners ; also by the Ministry of Transport, the Ministry of Agriculture and Fisheries, the Forestry Commission and the Commissioners for Depressed Areas (just to mention a few of the people who seem badly in need of guidance).

### THOUGHTS ON A BYPASS

The war has caused many major upheavals ; among other things it has caused me to live for a fortnight in a speculative 3-bedroom house which, inside and out, represented the full flower of By-pass Tudor.

★

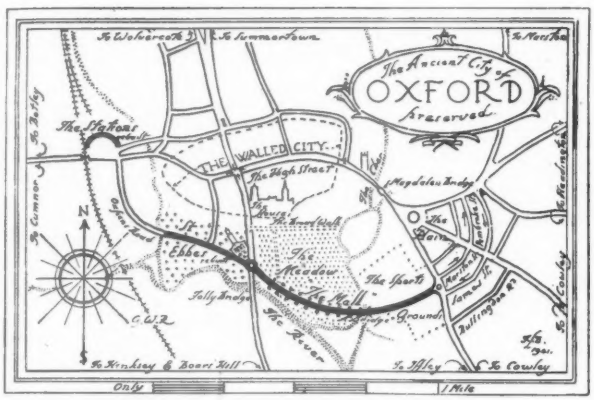
By some chance it was the first time I had lived in such a house. The fact that it was furnished throughout in keeping with the exterior made the experience particularly worth while ; everything could be tested in its intended surroundings. Results of such tests may seem commonplace to other architects, but two attributes of this particular house seemed notable to me.

★

Despite a large bay window with not too well-fitting wood casements, there was no trace of a draught in the front living room. In common with many designers of modern or semi-modern small houses, I have thought a lot about draughts in my time and this seems inexplicable.

★

Secondly, what must have been a very small boiler behind a small fireplace in the back living room was




*Carfax's scheme for solving Oxford's traffic problems. The new road which he suggests should be built through Christ Church meadow is shown in black. See note on this page.*

extremely efficient. It was impossible to discover what type of boiler it was : the only sign of its presence behind a modernistic briquette surround was a chromium-plated robin which was pushed or pulled to control the damper. It made one wonder whether the independent boiler installed by all small-house architects in the past decade has always deserved its space.

### CHRIST CHURCH MALL : A DIVERSION

From Carfax comes a proposal which virtually amounts to a replanning scheme for Oxford, though it doesn't pretend to be anything so grand. The idea is to build a short length of road, called Christ Church Mall, to start at the point where Oxpen's Road now ends, cross St. Aldates near Foley Bridge, and cut through Christ Church meadow to join Iffley Road. The whole proposal is outlined in a modest booklet,* three pages long with a map (reproduced above) on the back cover. The proposal is plausibly put.

★

The High is certainly ruined by traffic and the area round the station is a dead spot due for redevelopment. A civic centre is badly needed and St. Ebbes would be quite a good place for it, (though one hopes it would not be found necessary to squeeze it quite so tightly between main roads, or to place it facing a roundabout). Set well back from the road, and surrounded by open space, it would be an excuse for extending the green belt formed by Christ Church meadow behind the colleges facing St. Aldates, and even perhaps for carrying it as far as the station disguised as a parkway. Something of the kind is needed to separate the University from the Great Western Railway and form a barrier against further encroachments from that quarter.

★

There is, however, one point about the scheme which troubles me, and that is the position of the Mall itself. I like the cows that chew the cud on Christ Church meadow; I like to walk through Tom Quod, across the Broad Walk and down to the towpath with nothing to disturb me but the swish of their tails. Neither a pedestrian crossing, nor a subway, nor a footbridge would reconcile me to the necessity of crossing a large motor road carrying streams of traffic between Iffley and Botley right across my path. Then, again, imagine eights week taking place against a background of moving cars, tootling their horns as they race along at just about the same level as the top decks of the college barges. The idea is unthinkable.

★

Why not run the new road along the south bank at a discreet distance from the river? The south bank is equally open but has fewer charms. Would it really matter if a bit were lopped off the end of those flat and uninteresting playing fields? It would mean a larger loop and two bridges instead of one ; it might even mean widening Foley Bridge. But rather that any day than allow Oxford to be divorced from the Isis.

### MODERN IMPROVEMENTS

A technical development which will be worth the serious study of architects and housing authorities after this war is the supply, from a central point, of heating and hot water to a large number of houses.

★

The system has long been technically possible, but has hitherto been almost wholly confined in this country to hospital groups and similar institutional schemes. But it is now being used on a scale which makes it seem certain that housing authorities will have after the war all the data needed to bring it into general use if they so desire.

★

The scheme I examined while staying a weekend with an architectural exile served about a dozen houses, about 50 other dwelling units and some other buildings. The pipe system ran above ground and was nicely suited for forming the spine of a covered way or linking trellis. What economies are achieved by this elevation I could not discover, but I was assured that the system's efficiency at the consumer end was complete.

ASTRAGAL

* Christ Church Mall : a diversion by Carfax, c/o Hall the printer Ltd., Oxford.

# NEWS

★ Proposed Warranty for New Houses in Eire This page

★ Protection of Buildings against Incendiary Bombs Page 313

## LEVERHULME RESEARCH INTO RECONSTRUCTION

The group working under the Leverhulme Trust on research into reconstruction in Hull have commenced working on the preparation of a planning survey of existing conditions in housing, social services, transport and location of industry in the City and Port of Hull and its Region, with a view to putting forward proposals for its post-war planning and reconstruction. In this they have the co-operation of the local authority, the Ministry of Works and Buildings and the Ministry of Health. Their present work is confined to a land utilisation survey of the city. The members of the Group are Mr. Max Lock, A.R.I.B.A., Head of the Hull School of Architecture, Mr. B. A. Le Mare, A.R.I.B.A., Mrs. R. Bronowski and Mr. Peter Nicoll. The group is also working in close association with the Nuffield College Social Reconstruction Survey under the University of Hull, Mr. Lock being the group's representative on this Committee.

## A.A. ANNOUNCEMENTS

November 6 to November 14. Exhibition of Members' War-Time Sketches.

Tuesday, November 25, at 2.15 p.m. Prof. C. E. M. Joad, M.A., D.LITT. "Civilisation after the War." Members intending to be present must notify the Secretary accordingly. Luncheons will be served from 12.30 p.m. for which places should be booked early.

## PROPOSED WARRANTY FOR EIRE HOUSES

A recommendation that there should be a statutory implication of a warranty upon the sale of every new house is made in the majority report of the Town Tenants Tribunal appointed by the Eire Government. A standard, the report states, should be established for all materials in the formulation of which the assistance of reputable architects and builders should be entrusted. Then upon the sale of every newly built house there should be implied a warranty that the settled standard had been complied with throughout the construction of the house. A culpable failure to comply with the standard should be an offence severely punishable by law apart from any civil remedy for damages open to the victim. The warranty should pass with the house to subsequent purchasers. The adoption of this recommendation, it is suggested by the report, would put an end to the cases which had come before the courts, in which people had put their life savings into the purchase of a house, only to find when time and weather revealed the fact that inferior materials had been used, that they had lost everything.

## SHELTERS INTO HOUSES

A plan for the construction of air raid shelters which after the war will form the ground block of permanent houses, has been approved by the Coventry City Council. The scheme provides for the erection of 255 shelters on five partially developed housing estates in the suburbs, which after the war will require only the addition of a second floor block with the construction of interior walls and the provision of windows and doors to provide four-roomed houses. The scheme has been approved by the Ministry interested and it is expected that it will ease post-war housing problems and save the city £500,000.

# LETTERS

*E. S. W. ATHERTON, A.R.I.B.A.*

*EDWARD CARTER*
*Librarian, R.I.B.A.*

### *Outside W.C.*

SIR,—In your issue for October 16, you published a letter from the Chairman of the Executive Committee of the Housing Centre, representing and presumably with the authority of the Housing Centre, criticising the planning of houses recently built by the Haydock U.D.C., the criticism of which I agree with in the main, assuming that houses at ten to the acre or so are a desirable means of housing the people.

I suggest, however, that before the Housing Centre start to "debunk" the work of others, they put their own house in order first.

In the ARCHITECTS' JOURNAL for July 10 you published plans and photographs of a Nursery School designed by Miss Ledeboer who, I believe, is or was Secretary to the Housing Centre or connected with it in some way. I noted at the time with much regret the planning of the lavatory accommodation for the washing of between 30-40 children. The total washing facilities appear to consist of four enamel hand basins. Surely the use of hand basins in schools is pre-1914. This arrangement has been recognized by competent authorities as undesirable for many years, the principal objections being :—

(*a*) It makes unnecessary work for the assistants and helpers ;

(*b*) It causes the spreading of illness.

It is a survival of the days when old buildings were required to be converted for use as kindergartens.

The cost of providing a range of four or five basins to start with would not have cost a great deal more than the arrangement now existing.

E. S. W. ATHERTON.

Harrow-on-the-Hill.

### *Books for Prisoners of War*

SIR,—From time to time you have been good enough to draw the attention of your readers to the need for books on planning, architecture and building science in the British prisoner of war camps. The R.I.B.A. have recently heard from the Secretary of the Educational Books Section of the War Organization of the British Red Cross Society and Order of St. John that just under 400 books of this kind have been sent to German camps. More have been sent to the Italian camps, of which we have not yet received figures.

About 230 of the books are technical works on building science and equipment. There are not many history books and very few town and country planning books. Also, the list shows that the distribution at present among the camps is very uneven : one camp, for instance, has received almost 100 books, while others have received two or three books only and those often of a kind that can hardly be said to satisfy the needs of men wanting to keep in touch with the work of their profession. In one of the camps there are two books on cathedrals and one on abbeys as their complete architectural library ; in another the Elementary volume of Mitchell's "Building Construction" is the only book.

There is a big task still to be completed and the R.I.B.A. very much wishes to encourage members to send more books of all kinds which are likely to be entertaining and instructive. All books are welcome, but particularly we want recent and up-to-date books to be sent. It is very little use providing throw-outs which no architect in England would think of using for his own studies.

Donors in London can deliver their books direct to W. J. Bryce, 41, Museum Street, W.C.1, or can arrange for Bryce to collect them. Donors out of London should post their gifts to Prisoners of War, Educational Books Section, Messrs. Blackwells, The Broad, Oxford. We should like to know what books are sent so that we can keep ourselves well informed of the progress being made.

Generous gifts of books have been received from two of the chief architectural booksellers in London, Messrs. Batsford and Messrs. Zwemmer.

EDWARD CARTER

London.

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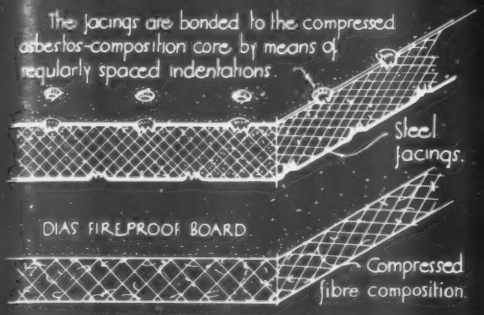
# THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

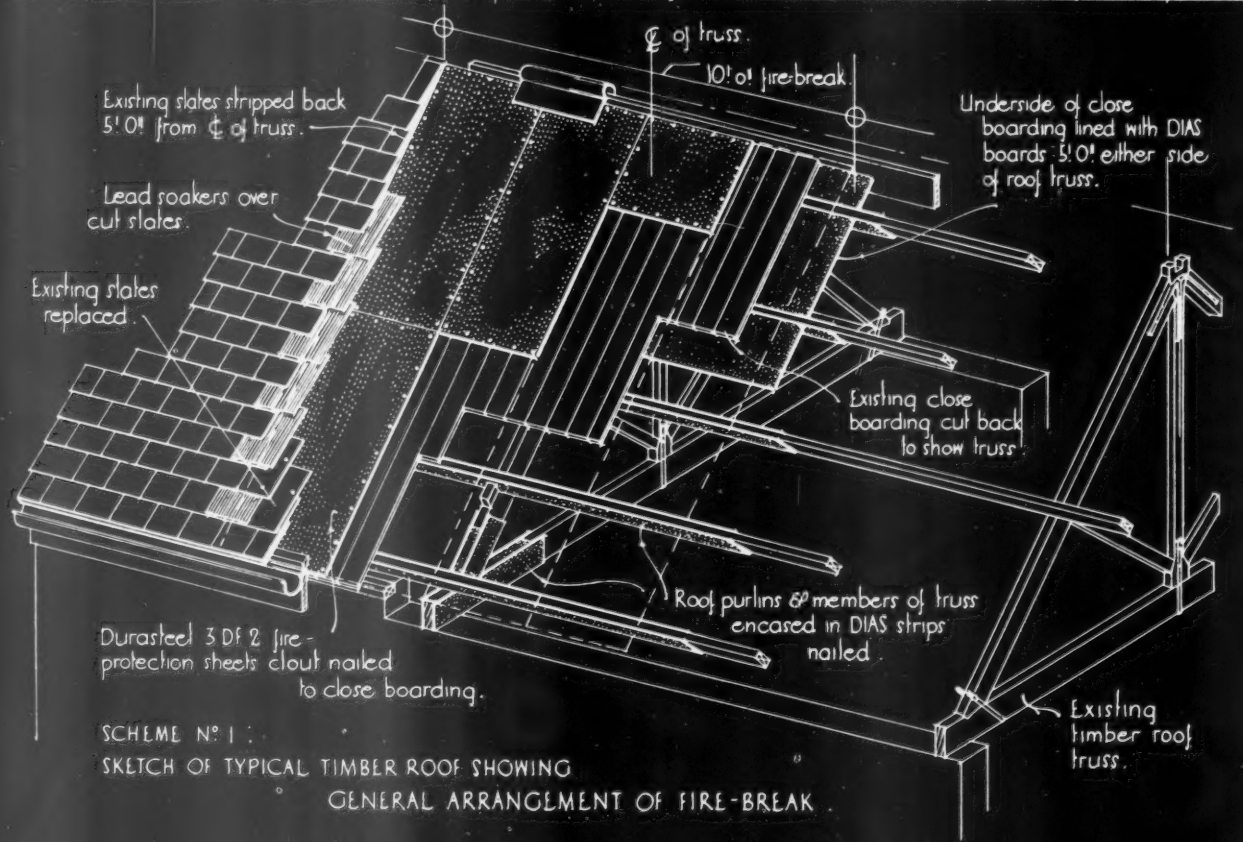
## DURASTEEL 3 DF 2 FIRE-PROTECTION SHEETS AND •DIAS• BOARDS :



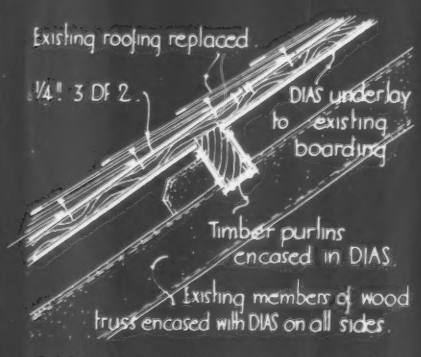

UPPER & LOWER MEMBRANES OF FIRE-BREAK SCHEME N°1.

TABLE GIVING SIZES & WEIGHTS OF STOCK SHEETS :

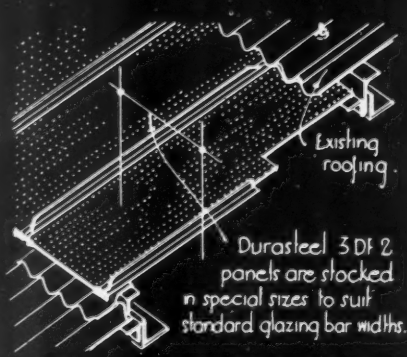
| TYPE. | Thickness (nominal). | STOCK SIZES nominal. | STOCK SIZES actual. | Gauge of steel facings. | APPROX. WEIGHT sheet | APPROX. WEIGHT sq. ft. |
|---|---|---|---|---|---|---|
| DURASTEEL 3 DF 2:- LIGHT : | 1/4" | 6' 0" x 2' 6" | 5' 11½" x 2' 5½" | 26. | 52 lb. | 3½ lb. |
| | | 8' 0" x 2' 6" | 7' 11½" x 2' 5½" | 26. | 70 lb. | 3½ lb. |
| MEDIUM. | 3/8" | 6' 0" x 2' 6" | 5' 11½ x 2' 5½" | 26. | 82 lb. | 5½ lb. |
| | | 8' 0" x 2' 6" | 7' 11½" x 2' 5½" | 26. | 110 lb. | 5½ lb. |
| HEAVY : | ½" | 6' 0" x 2' 6" | 5' 11½" x 2' 5½" | 18. | 127 lb. | 8½ lb. |
| DIAS : | 3/8" | 6' 0" x 2' 6" | 6' 0" x 2' 6" | none. | 45 lb. | 3 lb. |
| | | 8' 0" x 2' 6" | 8' 0" x 2' 6" | none. | 60 lb. | 3 lb. |




SCHEME N° 1 :
SKETCH OF TYPICAL TIMBER ROOF SHOWING GENERAL ARRANGEMENT OF FIRE-BREAK.




PART VERTICAL SECTION OF COMPLETED FIRE-BREAK, SCHEME N° 1.




SKETCH OF PATENT GLAZING REPLACED WITH DURASTEEL ¼" 3 DF 2 PANELS.


PART VERTICAL SECTION OF COMPLETED FIRE-BREAK, SCHEME N° 2.

*Issued by Durasteel Roofs Ltd.*

INFORMATION SHEET : A.R.P. : STELL & ASBESTOS FIRE-BREAKS IN WOOD ROOFS
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS. ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC

THE ARCHITECTS' JOURNAL
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# INFORMATION SHEET

## • 846 •

## A. R. P.

**Subject :** Steel and Asbestos Fire-breaks in Existing Timber Framed Pitched Roofs.

**Description :**

This Sheet illustrates a system of checking the spread of fire, in pitched wooden roofs. The schemes require no alterations to structural roof members.

The materials employed form upper and lower fire-resisting membranes to a distance of five feet either side of a chosen roof truss, the elements of which are individually encased. Existing roofing tiles, slates, iron, asbestos-cement, etc., may be retained in Scheme No. 1.

**Materials :**

The upper membrane in both schemes consists of Durasteel 3 DF 2 panelling, which is a laminated material having two light gauge steel facings keyed to a compressed asbestos-composition core, and capable of withstanding temperatures of over 1,000°C. without disintegration under prolonged exposure to direct flames. The lower lining and encasing material is DIAS board, a fireproof and resilient fibre board containing **asbestos.** Under test temperatures up to 3,000°C. wood boarding beneath two thicknesses of DIAS has been practically unmarked.

Both materials are easily sawn and drilled, and may be screwed or nailed.

**Scheme No. 1 :**

*Retaining existing purlins, close boarding and roofing.* The roof covering only is stripped to a distance of 5 ft. either side of the truss, and $\frac{1}{4}$ in. or $\frac{3}{8}$ in. 3 DF 2 panels nailed with $1\frac{1}{2}$ in. galvanized clout nails direct to the close boarding, with butted joints. Before the roof tiles or slates are replaced, 12 in. wide exposed, double course lead soakers are inserted between alternate courses on the cut tiles only, and dressed well over the top edge of each tile course. Soakers should be slightly longer than full length of each tile, and nailed above the head of each tile only. Additional nails required for the fixing of cut half tiles should be driven before each soaker is laid. The existing tiles are then laid normally, nailed through the 3 DF 2 panels into the close boarding.

Dias panels are finally nailed beneath the boarding as indicated, and the purlins and members of the wooden truss encased with strips of the same material.

**Scheme No. 2 :**

*Retaining purlins only.* The roof covering and close boarding are both stripped to distances as before, and the $\frac{3}{8}$ in. 3 DF 2 sheeting drive-screwed directly to the purlins. End joints must occur over the purlins, and are lapped 6 in. Side joints are butted, covered with felt weathering strip and seam-bolted between the purlins 12 in. wide secret soaker flashings are laid between each course of tiles at the ends of the fire-break, and dressed out on to the 3 DF 2 sheeting. The close boarding and roofing are not replaced.

The purlins are encased with strip Dias sheeting to the full length of the fire-break, and the truss members similarly treated.

**Replacement of Glazing :**

Durasteel 3 DF 2 in the $\frac{1}{4}$ in. thickness is used for this purpose, and panels are stocked in special narrow widths of 2 ft. to 2 ft. 2 in. which suit the spacing of most patent glazing bars. The existing cappings on the bars are removed and dressed on to the new fireproof panels as for glass. N.B.—The weight of the replacement panels is approximately that of the glass.

**Previous Sheet :**

For particulars of steel and asbestos fire protection panelling generally and composite A.R.P. shutters and doors, see Durasteel Information Sheet No. 818.

**Issued by :** Durasteel Roofs, Limited.

**Address :** Oldfield Lane, Greenford, Middlesex.

**Telephone :** Waxlow 1051, Private Branch Exchange.

**Telegrams :** Endurafire, 'Phone, London.

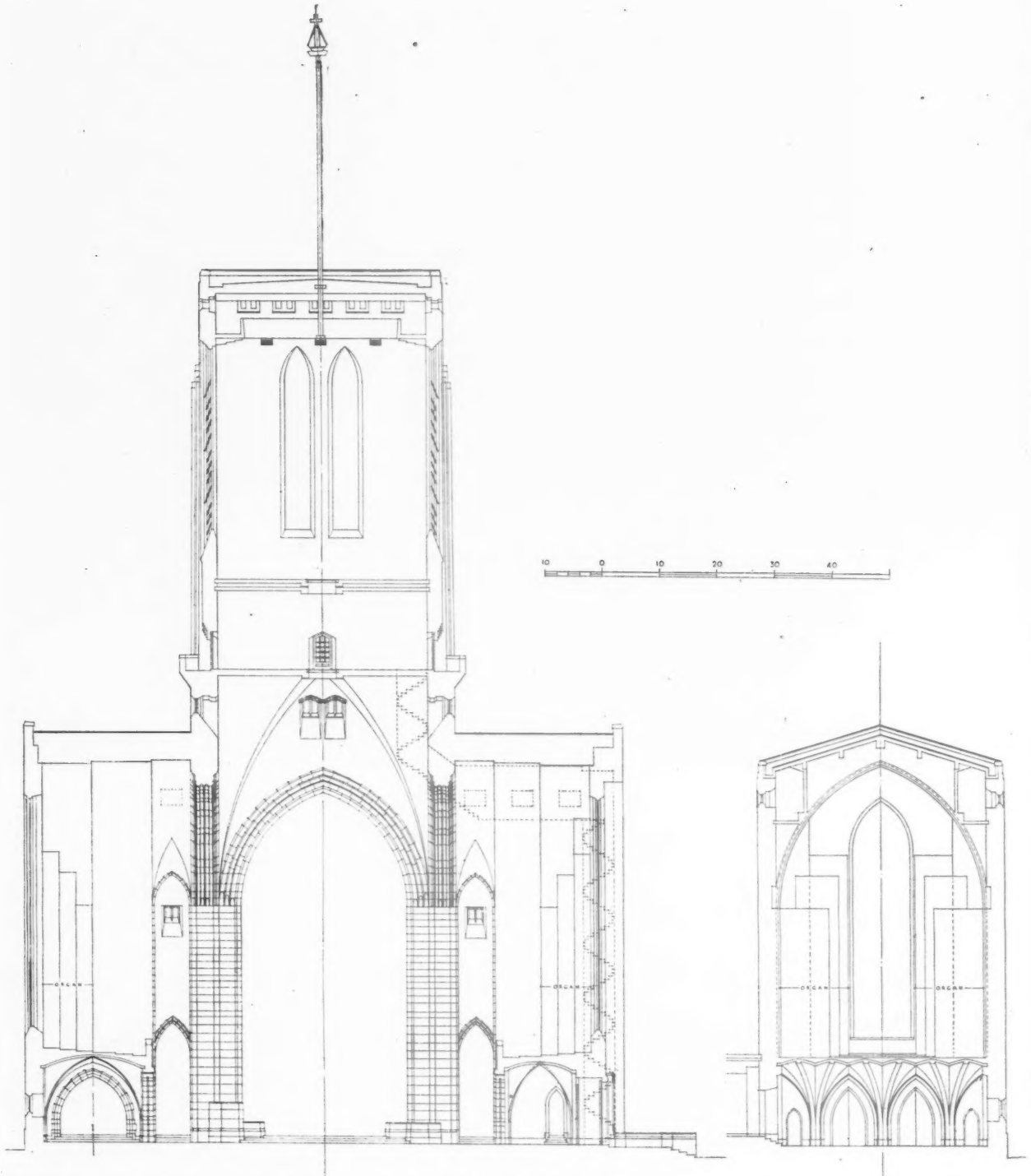
# GUILDFORD CATHEDRAL

## 2. THE INTERIOR

*BY EDWARD MAUFE*

GENERAL — This week we transport the camera into the interior of Guildford to examine the crossing, the ambulatory and the many constructional details that had been accomplished when the building work was suspended owing to war conditions.

*Above, south staircase to crypt; right, a sketch of the cathedral by the architect.*



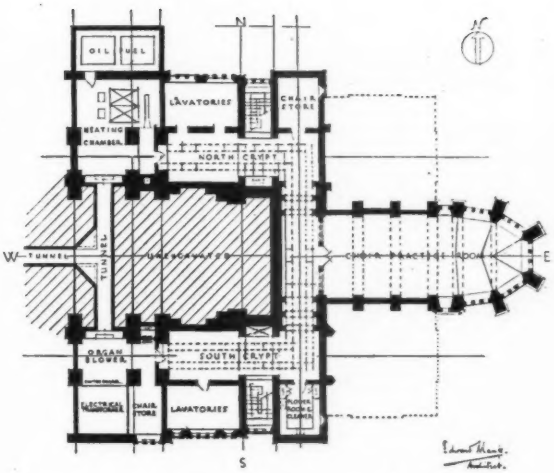

LONGITUDINAL SECTION THROUGH CROSSING

SOUTH TRANSEPT

# GUILDFORD CATHEDRAL

BUILDING PROGRESS—The foundation stone of the new cathedral was laid by the Archbishop of Canterbury on July 22, 1936. It rests on a stone of Canterbury Cathedral, the Mother Church of England, and a stone of Winchester Cathedral, in recognition of the fact that until recently the Guildford diocese formed part of the diocese of Winchester. The first brick of the superstructure was laid on May 25, 1938. When completed the portion commenced will be temporarily closed by a wall at the west end and will be used as a parish church for the neighbourhood. There will be seating accommodation in this portion for 800 people. The cathedral when completed will seat about 2,000.

*Above : A view in the choir practice room in the crypt.*




PLAN OF CRYPT

## *DESIGNED BY EDWARD MAUFE*

*Left, two views in the south ambulatory; below, arches and vaulting in south transept. Facing page, looking from the south transept towards the Chapel of Chivalry.*

INTERNAL CONSTRUCTION AND FINISHES—The interior piers, arches and windows are stone, the inside brick walls being rough plastered to harmonize in colour. The stone for the interior is being quarried in the little village of Chelynch, near Doulting. Most of the square church towers, for which Somerset is famous, are built in this stone, as well as Wells Cathedral and the Bishop's Palace. It had been decided, naturally enough, before the work was suspended, not to undertake the internal finishings until after the war, but some of the

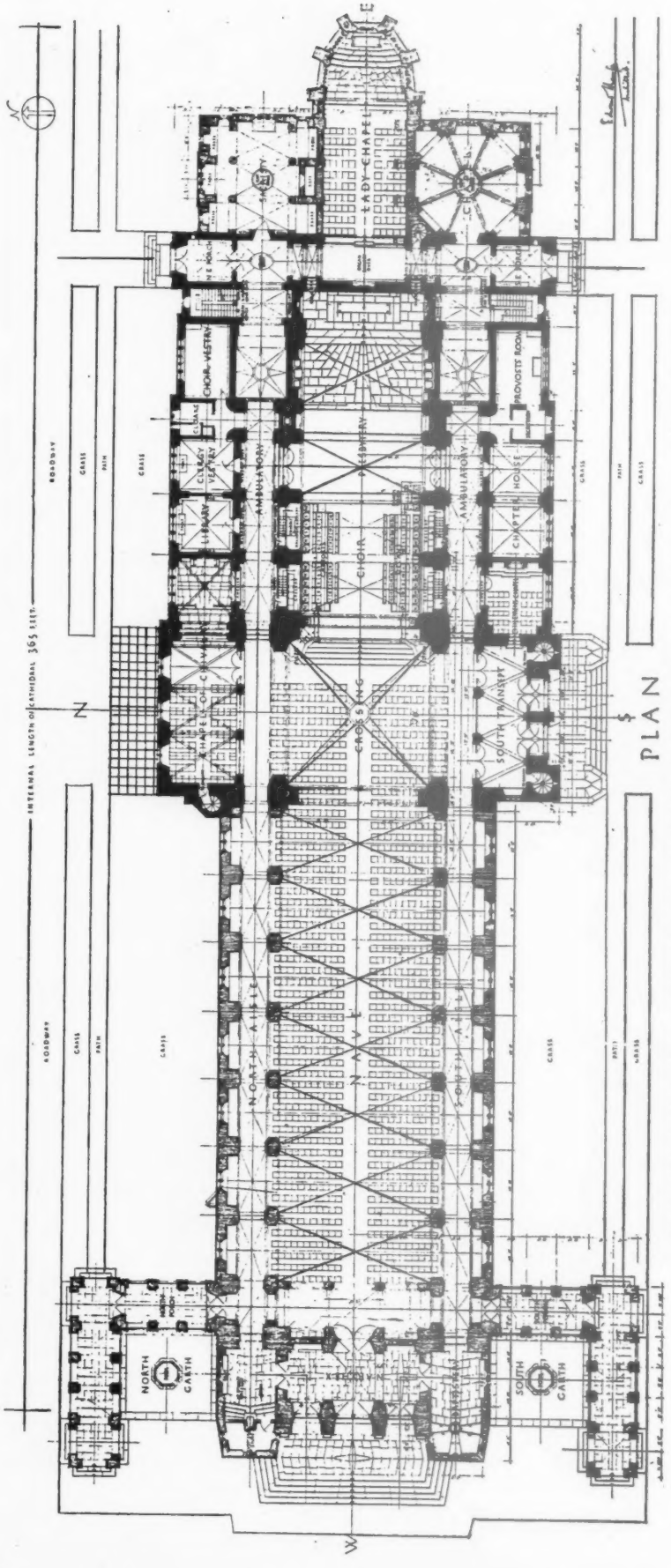
## GUILDFORD CATHEDRAL

sculpture is already in place. This includes, in addition to the figures on the exterior by the late Eric Gill, a figure of St. Ursula, in St. Ursula's porch. This is by Mr. Vernon Hill, who is also responsible for the Arms of the First Bishop of Guildford, and those of the present Bishop. High above the altar at the east end of the cathedral will be the Rose window, designed by Miss Moira Forsyth, and showing the Dove descending in a glory-of-rays, surrounded by the seven gifts of the Holy Spirit. The crypt will be heated by ceiling panels, and the cathedral by floor panels. A tunnel runs the whole length of the building to take the heating, lighting and water services and the electric leads for the organ and broadcasting points.

*DESIGNED BY EDWARD MAUFE*

# GUILDFORD CATHEDRAL

## *DESIGNED BY EDWARD MAUFE*




PLAN : THE WALLS OF THE SECTION UPON WHICH BUILDING WORK HAS COMMENCED ARE SHOWN BLACK.

*Top, vaulting of the south staircase leading to the crypt; above, archway from south-east lobby to ante to Lady Chapel.*

## PROTECTION OF BUILDINGS AGAINST INCENDIARY BOMBS

The Ministry of Home Security, Research and Experiments Department, in Bulletin C.23, Technical Notes on the Structural Protection of Buildings against Incendiary Bombs, state that the risk of damage to buildings by kilo magnesium bombs can be greatly reduced by the adoption of straightforward precautions. There is no one formula that can be recommended for all types of buildings, but there are certain general principles which should govern the choice of appropriate protective measures. In applying such measures due regard must be paid to the special features of the buildings under consideration and attention must be given to all parts of each building. A small portion of roof space left untreated or an unprotected skylight in an otherwise impenetrable roof may well render the other measures unavailing. The bulletin points out that simply stated, the principles are as follows :

(*a*) Consideration should first be given to the surface on which the bomb will be brought to rest. This is called the stopping layer. It may be an existing part of a building or it may be introduced for this special purpose.

(*b*) If possible the stopping layer should be the roof, *i.e.*, the aim should be to keep the bomb out of the building altogether. If this can be done no other special measures are necessary.

(*c*) If the roof is not and cannot be made impenetrable, a stopping layer should be provided at a suitable level beneath it. The stopping layer and the space above it should be so constructed or treated that an incendiary bomb burning on the stopping layer would be prevented from firing the building. To ensure this, three measures are necessary :—
(1) The provision of an incombustible surface to the stopping layer.
(2) Removal of all combustible material from above this level.
(3) Fire-retardant treatment of exposed timbers above the stopping layer.

(*d*) Incombustible material need not be removed, but it must be so arranged that all parts of the space occupied are readily accessible to fire-parties. Enough room must be left between the material and the roof or ceiling for fire-fighters to operate.

Practically any of the usual forms of fire-resistant concrete roofs will resist penetration by the kilo magnesium bomb, and therefore in themselves form suitable stopping layers. This should be borne in mind in designing new buildings.

With flat, boarded roofs the floor of the top storey will generally be the stopping layer. With pitched roofs as ordinarily constructed with a slate or tile covering and a lath and plaster ceiling only below, the floor of the top storey will again generally be the stopping layer, but if there are 1 in. boards above the ceiling joists it is probable that this will form the stopping layer. A number of constructions suitable as stopping layers are given in the bulletin.

The British Standards Institution has published specifications of standards which should be reached by materials for protecting internal stopping layers and timbers, and a number of proprietary brands both of incombustible materials and of fire-retardant treatments have been tested to the specifications. Lists of materials found to conform, and in addition a list of some other materials which, though failing to qualify under the appropriate test, may nevertheless be used, are obtainable from Ministry of Home Security, Publications Branch, Horseferry House, Thorney Street, S.W.1. Copies of the specifications may be obtained from the British Standards Institution, 28, Victoria Street, London, S.W.1

## PLANNING THE MODERN STORE

Mr. John S. Beaumont, B.A., A.R.I.B.A., reading a paper on the Economic Planning of a Modern Store, before the Manchester Association of Engineers, said that most people were probably influenced by the appearance of a building into which they intended to enter to transact business—the heavy over-ornamental monumental work of Victorian and Edwardian days interpreted the mental outlook of stability—and stores built during the early part of this century followed traditional lines. The goods sold in those stores were made of material meant to last, but with the advance in design and machinery for making attractive clothes at less cost the demand for variety had speeded up the changes in fashions and attractiveness of design had overwhelmed the lasting quality.

This rapidity of change, he said, cannot take place as frequently in the outer appearance of a building and, therefore, a design must aim at giving the impression that behind the front there may be lightness and daintiness and at the same time give a dignity which can remain undated. The building should be attractive from a distance but on near approach the eye should drop to the display windows. Display windows are advertising space and as much frontage as possible should be allotted to their provision. In this country great advantage can be gained by the construction of a canopy over the windows to allow the public to study the goods in them protected from the weather.

The provision of a canopy calls for artificial lighting to the windows; and it is a definite fact that even on a clear bright day windows lit artificially will attract people from those which rely on daylight only. The mobility of display within the window space calls for flexibility of lighting, but no set rules can be laid down for intensity or distribution of light because the requirements vary considerably, but provision of floor lighting and for arranging spotlights from almost any corner of the window space must be made. Each window in fact must be treated as a miniature theatre stage.

Escalators as a means of transport in stores from the first and again until recently have been looked upon as a novelty and advertisement, as well as of practical value, with the consequence that they have been given a prominent position in the place, an inheritance of the grand staircase. Their true economical value lies in their use as moving staircases in their appropriate positions. With a speed of 90 ft. per min. each escalator can move about four thousand people per hour, which in a popular store is invaluable.

## A.A.S.T.A. ANNUAL MEETING AND CONFERENCE

On November 8 and 9 the A.A.S.T.A. are holding their annual general meeting and a conference on wartime building at the University of London Club, 21, Gower Street, W.C.1. The annual meeting will take place on November 8, at 2.30 p.m. The agenda includes the presidential address by Mr. Colin Penn, A.R.I.B.A., and the election of officers and council for the coming session.

The conference on wartime building opens at 11 a.m. on November 9 under the chairmanship of Professor W. G. Holford, A.R.I.B.A., M.T.P.I., Professor of Civic Design, Liverpool University. The morning session will be opened by Mr. Richard Coppock, L.C.C., General Secretary of the National Federation of Building Trades' Operatives, President of the Building Industries National Council ; the afternoon session, at 2 p.m., by Professor J. D. Bernal, F.R.S., Birkbeck College. All interested are invited to the Conference.

## BIRMINGHAM SURVEYED

Mr. C. B. Parkes described, before the Housing Centre, the results of a survey of Birmingham recently carried out by the Bournville Village Trust. Mr. Wesley Dougill presided.

Mr. Parkes said that Birmingham was almost entirely built up, despite the fact that the Corporation had by successive extensions increased the municipal area from 6,340 acres in 1891 to 51,000 acres at the present time. In Birmingham as a whole 60 per cent. of working class householders spent less than 2s. 0d. a week on travelling, 27 per cent. of the householders went home to dinner and there was a further 10 per cent. who were at home at mid-day either because they were night workers or because they worked at home.

The people of Birmingham liked their little gardens. In the crowded central wards there were some houses with gardens no more than 100 square feet in area. Of 7,023 people asked if they liked gardens 92.4 per cent. said they did, and an examination of existing plots showed that amongst these people 41 per cent. kept them in good condition and 44 per cent. in fair condition. Only 15 per cent. were in bad condition. Here was positive proof of a genuine liking for gardens which ought not to be ignored.

Asked whether they wished to move to another district about one-third answered yes, but in the crowded central district this proportion rose to 55 per cent. In the case of those who preferred to remain in the central district nearness to the husband's place of work, living near the city's centre and cheapness of rents were the principal reasons given.

In the outer ring the principal reasons given for preferring to remain in that neighbourhood were a liking for the house the family were occupying, a preference for living away from the city's centre and a liking for a garden.

The principal reason given for wishing to move was in order to get a nicer house. In the central ward nearly 90 per cent. of the householders expressed this desire.

The large new housing estates needed the development of communal and social centres. A halt should be called to Birmingham's outward growth by the creation and maintenance of an agricultural belt.

## MANCHESTER SCHOOL OF ART EXHIBITION

The following exhibitions are being held by the Municipal School of Art, Manchester :—

Living in Cities—November 6 to 8. Exhibition designed by Mr. Ralph Tubbs, A.R.I.B.A., for the 1940 Council, circulated by the Council for the Encouragement of Music and Art through the British Institute of Adult Education. Its objects are to promote planning of social environment through research groups and other means, to make widely known the need for such planning, and to secure its effective realization.

British War Posters—November 12 to 26. A collection of war posters representing National Savings Committee, Post Office Savings Bank, Ministry of Information, Board of Trade, Air Ministry, Ministry of Home Security, Air Raid Precautions, and Recruitment.

## HOME FROM HOME EXHIBITION

This exhibition at the Housing Centre, 13, Suffolk Street, London, S.W.1, has been designed for further exhibition in shelters, rest centres, etc. It is intended to arouse discussion in new homes after the war, and consists of 24 posters, made from photographs mounted on backgrounds of different wall papers. It illustrates in a simple and direct way the principal housing and neighbourhood requirements. The sheets are enclosed in transparent envelopes which can be displayed by the demonstrator on a small easle or chair back. It is hoped that welfare workers, members of the Red Cross and others already working in the shelters will undertake to show the exhibition to shelterers. A brief outline may be supplied as a guide for the demonstrators, if required.

It is hoped that where possible a fee for hiring will be paid towards the cost and maintenance of the exhibition. Owing to a generous gift from two societies interested in housing in New York, it will be possible to make this fee a nominal one only. Applications for hire should be made to the Secretary of the Housing Centre.

The exhibition will be open from November 10 to 22.

## PLANNING FOR LIGHTING

In his presidential address at the opening meeting of the 1941-42 Session of the Illuminating Engineering Society, Mr. W. J. Jones, M.Sc., M.I.E.E., Director of the Electric Lamp Manufacturers' Association of Great Britain, paid high tribute to the part the architectural profession has played in educating the public to the use of new and interesting forms of light. I am convinced, he said, that all present day lighting should be considered architecturally as an integral part of a building and I believe the time is not far distant when

architects will take as a matter of course the stipulation of the degree of illumination and the tone levels they require in their buildings.

He said he foresaw a revolution in the lighting technique of the future through the introduction of the fluorescent tubular lamp which, after the war, would be widely developed for all purposes. He also stressed the importance of a nation-wide, if not world-wide, standardization of voltages for lighting purposes.

It seems inconceivable that this country, he continued, will be content to leave workers of any kind to work under unsuitable lighting conditions and it would be folly in post-war reconstruction to perpetuate the bad lighting of pre-war days. Planning for lighting must consider the requirements of the future as well as the immediate present so that in any installation its expansion or its modification will be a matter of relative simplicity.

## FIRE STOPS FOR TIMBER ROOFS

War-time Building Bulletin No. 18, Fire Stops for Timber Roofs, which has just been issued by the Building Research Station of the Department of Scientific and Industrial Research, describes simple structural devices that can be erected to check the spread of fire along roofs containing timber or other combustible material. In tests carried out at the Building Research Station on two small roofs the devices proved to be effective in stopping a fire, and it is believed that they would provide a useful check on large roofs. Work on the development of these fire stops was carried out at the instance of and in collaboration with the Fire Prevention Executive and the Ministry of Aircraft Production. Copies of the Bulletin may be obtained from H.M. Stationery Office, price 1s. 0d. net.

## VALUE PAYMENTS

The War Damage Commission has issued the following notice concerning the effect of Restrictive Covenants, Easements and other incidents on the amount of a Value Payment.

Some doubt has been expressed as to the correct meaning to be attached to the words "at that time" in line 13 of Section 3(5) of the War Damage Act, 1941.

In general terms, the amount of a value payment is computed as the difference between the values of the fee simple in the hereditaments in the physical state in which it was immediately before and immediately after the war damage respectively, these values being taken to be the market value obtainable on hypothetical sales on March 31, 1939, with vacant possession.

The point on which doubt has arisen is whether, for the purpose of these valuations, the restrictive covenants, easements and other incidents are to be assumed to be those attaching immediately before and immediately after the damage respectively, or on the date of the hypothetical sales, namely March 31, 1939. The War Damage Commission has now decided in favour of the former alternative. The Commission's forms ask for particulars of the incidents existing on March 31, 1939. Arrangements are being made to correct this in future issues.

Where claims have already been lodged on existing claim forms, the claimant will be asked, before a final determination of the amount of the value payment is made by the Commission, whether there was any change in the incidents between March, 1939, and the date of the war damage.

## BRITISH WAR VICTIMS

*Help from American Building Industry*

Contributions to the British War Relief Society from the American Building Products Committee exceed $21,000. Additional contributions are expected from several major cities in which local committees are at work. The committee is making every effort to augment the funds of the society and to give aid of the kind most needed to the bombed-out civilian population of Britain and the families of men killed in action. The Committee, under the chairmanship of Mr. Herbert Abraham, President of the Ruberoid Co. of New York, is carrying out its plan by seeking the help of all American manufacturers of building products in three ways, (1) a contribution from each corporation; (2) contributions from executives; and (3) contributions from employees. The funds received by the society are distributed through the American Committee for Air Raid Relief in London, of which Mr. Bertram de N. Cruger is chairman.

# PRICES

## BY DAVIS AND BELFIELD, CHARTERED QUANTITY SURVEYORS

The prices of basic materials have generally remained stable. Rates of Wages have not risen since June 1st. The rates for the Central London Area are 2s. 0d. and 1s. 6¾d. per hour for craftsmen and labourers respectively.

| BASIC MATERIALS | Increases over pre-war prices at end of | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Jan., 1941 | Feb., 1941 | Mar., 1941 | April, 1941 | May, 1941 | June, 1941 | July, 1941 | Aug. 1941 | Sept., 1941 | Oct., 1941 |
| | per cent. | per cent. | per cent. | per cent. | per cent. | per cent. | per cent. | per cent. | per cent. | per cent. |
| Portland cement | +35·37 | +35·37 | +35·37 | +35·37 | +35·37 | +35·37 | +35·37 | +35·37 | +35·37 | +35·37 |
| 2-in. unscreened ballast | +47·8 | +47·8 | +47·8 | +60·9 | +60·9 | +60·9 | +60·9 | +60·9 | +6 ·9 | +71·01 |
| Fletton bricks (at station) | +11·89 | +11·89 | +11·89 | +11·89 | +11·89 | +11·89 | +11·89 | +11·89 | +11·89 | +11·89 |
| Stoneware drain-pipes (British Standard) 2 tons and over | +18¾ | +18¾ | +18¾ | +18¾ | +18¾ | +18¾ | +18¾ | +18¾ | +18¾ | +18¾ |
| Roofing tiles | +20 | +20 | +20 | +20 | +20 | +20 | +30 | +30 | +30 | +30 |
| Steel joists (basic sections) ex mills | +47·5 | +47·5 | +47·5 | +47·5 | +47·5 | +47·5 | +47·5 | +47·5 | +47·5 | +47·5 |
| Lime greystone | +29.76 | +29·76 | +29·76 | +29·76 | +33·33 | +33·33 | +33·33 | +33·33 | +35·29 | +35·29 |
| Sheet lead | +50 | +50 | +50 | +50 | +50 | +54·35 | +54·35 | +54·35 | +54·35 | +54·35 |
| Iron rainwater goods and soil pipes | +18 | +18 | +18 | +21 | +21 | +21 | +21 | +21 | +21 | +21 |
| Copper tubes | +27.66 | +27·66 | +27·66 | +27·66 | +27·66 | +27·66 | +27·66 | +27·66 | +27·66 | +27·66 |
| White lead paint | +26½ | +26½ | +26½ | +26½ | +26½ | +26½ | +26½ | +26½ | +26½ | +26½ |
| **RATES OF WAGES (Central London Area)** | | | | | | | | | | |
| Labourers | +12·70 | +15·87 | +15·87 | +15·87 | +15·87 | +19·05 | +19·05 | +19·05 | +19·05 | +19·05 |
| Craftsmen | + 9·52 | +11·90 | +11·90 | +11·90 | +11·90 | +14·29 | +14·2 9 | +14·29 | +14·29 | +14·29 |

T. A. Davis.

F.S.I.

*SOME QUESTIONS ANSWERED THIS WEEK:*



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 by post to—

THE ARCHITECTS' JOURNAL
45 THE AVENUE, CHEAM, SURREY

—but in cases where an enquirer urgently requires an answer to a simple question, he may save time by telephoning the question to—

VIGILANT 0087

The reply will come by post.

## Q 821

ARCHITECT, YORKSHIRE.—*I have completed for the local council a scheme for the LAYOUT OF a new BURIAL GROUND, the accommodation being for approximately 2,000 grave spaces, together with layout of footpaths, shrubberies, flower beds, etc. I provided with the drawings a rough estimate of the cost of the layout. As the work will not be proceeded with in full for some time it is not possible to charge fees on the scale of cost. What would you consider a reasonable charge for the work?*

It is not altogether impossible to base your charges on the cost of the work as you have estimated the cost, and the R.I.B.A. has an appropriate scale for work up to the contract stage. However, the type of work may not be suitable for this scale and it might be better to base your charges on time expended.

The R.I.B.A. Scale of Charges lays down a minimum fee of five guineas per day for an architect's time, exclusive of assistants' time; printing, travelling and other expenses should be charged extra.

It appears that you have done the whole of the work yourself, in

which case the matter is more complicated, as you could not expect to charge five guineas per day for work which could be done by a junior draughtsman. If our assumption is correct, we suggest that you endeavour to estimate the costs which would be incurred by a firm with staff. This would safeguard you from overcharging and from undercutting your competitors.

First you should sub-divide the time expended into two or more categories, e.g., Principal's time, assistants' time and junior assistants' time, assuming that the Principal would attend upon the Council and work out the preliminary designs, that the assistant would do a portion of the drawing, under supervision, and that the junior assistant would do tracing, etc. In this connection it might be fair to assume that the assistants would have taken rather longer than yourself.

Having sub-divided the time expended, we suggest that you charge Principal's time at five guineas per day, inclusive of profit and overhead charges, and assistants' time at normal rates plus an allowance for overheads and profit.

Architect's overhead charges vary considerably, but it should not be impossible for you to work out with some degree of accuracy the cost of accommodation, lighting, heating, secretarial work, etc., appropriate for your imaginary staff.

Should you decide to adopt our suggestion, we would advise you not to prepare your account in such a manner that the charges would be taken for the true costs, as you might be considered guilty of misrepresenting the facts ; it would be better to charge a lump sum and to explain the basis of your charges in detail if and when you are called upon to do so.

## Q 822

ENQUIRER, ESSEX.—*Would owners of an estate have to pay part cost of an up-to-date sewage or rain water drain, after having taken precautions within their own estate to discharge all water and sewage to the main public thoroughfare.*

*In the event of FLOODING OF PREMISES DURING frequent heavy RAINFALLS owing to an inadequate main surface water drain on the adjoining public roadway, can the property owners claim damages from the local authorities, should the latter decide not to improve the existing main drain, or increase the capacity of discharge?*

*The drainage from nearby recent building extensions connect to the council's main surface water drain, thus causing the manholes to overflow, and thereby prevent the flow of water from private premises where the floor level is lower than the main roadway.*

*The same point would arise if the owners' estate wished to connect their drainage system to the council's main surface water drain or sewer, which when laid may have been adequate for general purposes, but would be quite unsuitable to cope with the modern development.*

The following must be regarded solely as an opinion :—

1. If substantial damage has been caused by negligence or lack of reasonable care and skill on the part of the local authorities, property owners would be successful in an action for damages.
2. A decision on the part of the local authority to improve or not to improve the sewer would not affect the question of damages, as the action would be for damage already suffered.
3. The amount of damages awarded would only correspond to the actual loss suffered, and it would be very unwise to commence an action unless the loss was considerable and there was a clear case of negligence.
4. It is probable that the owners are more interested in stopping the nuisance than in securing damages for loss already suffered, in which case, if the trouble is likely to occur at frequent intervals (and not only during freakish weather) and if the local authorities refuse to undertake improvement, we suggest that the matter should be taken up with the Ministry of Health.
5. In your accompanying letter you ask whether owners of a new estate can be called upon to pay part of the cost of enlarging an existing sewer in a main public thoroughfare, to take the drainage from their estate. In our opinion the enlargement of the existing sewer in the main thoroughfare would be a matter for the rates, and no claim could be made on the owners of the estate.

## Q 823

MERCHANTS, CORNWALL.—*Can you give us the name and address of the manufacturers of Pellutex emergency glazing?*

Pellutex emergency glazing is made by the Calico Printers Association Ltd., St. James Buildings, Oxford Street, Manchester. London Offices : 67, Watling Street, E.C.4. 'Phone CITy 1664.

## Q 824

BUILDERS' MERCHANTS, BIRMINGHAM. —*We have an order for 125 yards of Steined bricks and are unable to trace the manufacturers.*

Stein high-temperature bricks are made by John G. Stein & Co. Ltd., of Bonnybridge, Stirlingshire.

125 yards of Steined bricks might not mean Stein bricks or any particular type of brick, it might refer to steined brickwork or brick steining, i.e. the lining to a well or cesspool built dry or with open joints.

It would be advisable to find out what the bricks are for before placing an order.

## Q 825

ENQUIRER, SHEFFIELD. — *Can an ARCHITECTURAL ASSISTANT apply to have his name included ON THE CENTRAL REGISTER? If so, can you tell me the details required by the Register, the type of situation obtainable and whether there is any obligation to accept any situation offered?*

You should write to the Central Register, Queen Anne's Chambers, Westminster, London, S.W.1, giving a brief outline of your knowledge, experience and qualifications. If you are considered a suitable person for the Register you will be sent an application form.

We cannot predict what type of situation you will be offered.

There is no obligation to accept a situation offered by the Central Register.

# *REFERENCE BACK*

[*This section deals with previous questions and answers.*]

## Q 789

The enquirer stated that he proposed building ordinary brick or concrete blast walls and asked what foundations were necessary. In reply we stated that only normal foundations were required and confirmed this in a Reference Back published on October 16.

The answer was correct at the time the enquiry was made. In the meantime the Ministry of Home Security, Research and Experiments Dept., issued Bulletin C.18, which advocates either reinforced concrete or reinforced brick walls, with spreaders at the feet of the stanchions or posts to prevent overturning.

FACTS ABOUT GLASS FOR ARCHITECTURAL STUDENTS

# No. 6 – Figured Rolled Glass

**NOTE :** Figured Rolled Glass comes strictly into the same category as Cathedral Glass (dealt with in Information Sheet No. 5). Each is a rolled glass, one surface of which has a definite texture (Cathedral) or pattern (Figured) obscuring vision partially or completely according to the depth and configuration of the texture or pattern. The glass may be either tinted or untinted, and the texture or pattern imprinted by either the table or the roller. The process of manufacture may be either intermittent or continuous.

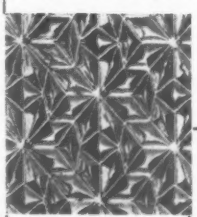
**FORMAL PATTERNS :** A deeply impressed formal pattern gives a high degree of brightness to the glass. Direct vision through the glass is almost obscured.

| | Manufacturing Sizes | Thicknesses | Weights (per sq. ft.) | Light Transmission (giving considerable diffusion) |
|---|---|---|---|---|
| ARCTIC | White: 120″×48″ Tinted: 100″×36″ or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 80% to 85% |
| ARCTIC (Small) | White: 120″×48″ Tinted: 100″×36″ or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 80% to 85% |
| JAPANESE | White: 120″×42″ Tinted: 100″×36″ or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 75% to 85% |
| KALEIDOSCOPE (Large) | White: 120″×42″ Tinted: 100″×36″ or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 75% to 85% |
| MAJESTIC | White: 120″×42″ Tinted: 100″×36″or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 75% to 85% |
| RIPPLED | White: 120″×48″ Tinted: 100″×36″ or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 75% to 85% |
| MURANESE | White: 120″×42″ or 110″×47″ Tinted: 100″×36″ or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 75% to 85% |

**DIFFUSION PATTERNS :** A deeply impressed pattern giving a high degree of brightness to the glass. Direct vision is completely obscured, with very little loss of light.

| | Manufacturing Sizes | Thicknesses | Weights (per sq. ft.) | Light Transmission (giving almost complete diffusion) |
|---|---|---|---|---|
| MOROCCO (Pinhead) | White: 120″×48″ Tinted: 100″×36″ or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 80% to 85% |
| MOROCCO (Small) | White: 120″×48″ Tinted: 100″×36″ or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 75% to 85% |
| MOROCCO (Large) | White: 120″×48″ Tinted: 100″×36″ or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 75% to 85% |
| AMAZON | White: 120″×42″ Tinted: 100″×36″ or 90″×42″ | $\frac{1}{8}$″ and $\frac{1}{4}$″ | 1½ lbs. and 3½ lbs. | 75% to 85% |

## COMPLETE DIFFUSION AND OBSCURATION PATTERNS



KALEIDOSCOPE

A deep geometric pattern is impressed, giving a high degree of brightness to the appearance of the glass and complete obscuration with very little loss of light.

**Manufacturing Sizes:** White : 120″ ×42″. Tinted : 100″×36″ or 90″×42″

**Thicknesses:** $\frac{1}{8}$″ and $\frac{1}{4}$″

**Weight per sq. ft.:** 1½ lbs. and 3½ lbs.

**Light transmission:** About 75% with perfect diffusion.

**TINTS :** Available in thirteen standard tints.

**USES :** Largely used for partitions in offices and warehouses when direct vision is not desired. Also for window glazing of warehouses, factories, etc., where Wired Glass or the heavier Rolled types of glass are not considered necessary.

**SPECIFICATIONS :** In preparing specifications, the following clauses should be included for glazing :—

(1) General Clause : All glass to be of the type, quality, and substance specified, and to be of British manufacture. The glazier must be prepared to produce at the completion of the job invoice or voucher from the manufacturer to show that the glass is of the specified standard.

(2) Glasses should be described by the recognised trade terms, thicknesses and qualities.

*This is published by Pilkington Brothers Limited, of St. Helens, Lancashire, whose Technical Department is always available for consultation regarding the properties and uses of glass in architecture.*

**LONDON OFFICE AND SHOWROOMS AT 63 PICCADILLY, W.1**
**Telephone : REGENT 4281**

# TRADE NOTES

*Plywood*

Many architects and builders have been exercising their ingenuity in efforts to employ various materials as substitutes for plywood. It should be pointed out, however, that substitutes are not now by any means necessary ; there is available a considerable amount of plywood which will be released for all reasonably important purposes.

There are grades of plywood, made with special waterproof glue, which are suited to outdoor work ; these grades have been, and are being used with success as exterior walls of houses, both in this country and across the Atlantic, as well as for other equally exacting purposes.

Builders, architects, or other consumers of plywood should, therefore, before seeking for substitutes, apply to their Area Officer of the Timber Control for release of plywood. Readers requiring technical information about plywood in any of its forms, should write to the Timber Development Association, Limited, 75, Cannon Street, London, E.C.4.

*A New Distribution Pillar Catalogue*

The new edition of Henley's Catalogue W.A.5, details the dwarf type Unit Distribution Pillars and Panels. It recalls the pre-war series of advertisements featuring the Henley dwarf, who, week by week, found his way into technical journal advertisement pages to indicate some new aspect of advantage in these items of distribution equipment.

"There's always room for a Dwarf," ran the slogan. Additions and improvements made to the equipment since the issue of the previous edition, give the slogan even more substance, particularly when the equipment is for installation on sites where space is restricted.

Neatness and compactness remain outstanding features ; metering equipment, often ordered with panels, can be mounted either on the top or at the side of the main panel ; and the panels themselves can be tucked away unobtrusively inside a kiosk.

Industrial undertakings particularly will be interested in this new catalogue.

## THE BRITISH STONE FEDERATION

Pending completion of the work of the sub-committee appointed to prepare the draft constitution and bye-laws of the newly formed British Stone Federation, it is officially announced that the principal objects of the Federation will be broadly as follows :—

To do everything possible to ensure the fullest use of British Stone, particularly in the post-war period for reconstruction and monumental work.

To estimate the demands which will be made on the Industry in the post-war years, and to ascertain the present and potential capacity of the Industry to meet those demands.

By the compilation of up-to-date statistics and information, to have available such data as may be required by the Government and by the Industry to facilitate post-war reconstruction.

To co-operate with existing organizations, when it is mutually considered that joint action would be advantageous to the Nation and to the Industry.

The Federation was created at a meeting of the leading manufacturers and associations of manufacturers producing building, decorative and monumental stone in Great Britain held in Birmingham recently. The question of subscriptions has not yet been fully considered, but the general opinion expressed at the meeting was that from October 1, 1941, to March 31, 1942, the financial requirements of the Federation would probably be met by a payment not exceeding five guineas per member. The hon. secretary is Mr. Harold Fletcher, Bank House, The Bridge, Matlock.

## CHANGE OF ADDRESS

As from November 1 Messrs. Gyproc Products Limited have changed their address from Great Burgh, Epsom, Surrey, to "Westfield," Upper Singlewell Road, Gravesend, Kent. Telephone : Gravesend 4251-4. Telegrams : Gyproc Gravesend. The registered office remains at 21, St. James's Square, London S.W.1. Telephone : Whitehall 8021.

## ECONOMIC ADVISER TO BOARD OF TRADE

Mr. Henry Clay, Economic Adviser to the Governors of the Bank of England, has been granted temporary leave of absence from the Bank of England to take up the post of Economic Adviser to the Board of Trade. Mr. Clay will be concerned with all the problems (both commercial and industrial) of post-war reconstruction falling to the Board of Trade.

## THE ROYAL INSTITUTION

In publishing the four drawings of the Royal Institution on pages 269-270 of our issue for October 23, we omitted to state that the drawings were reproduced from the R.I.B.A. Collection.