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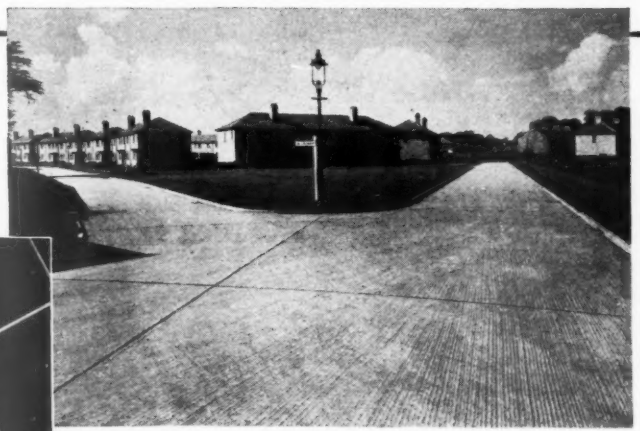

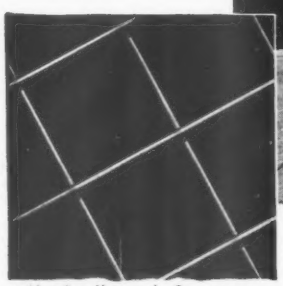

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B

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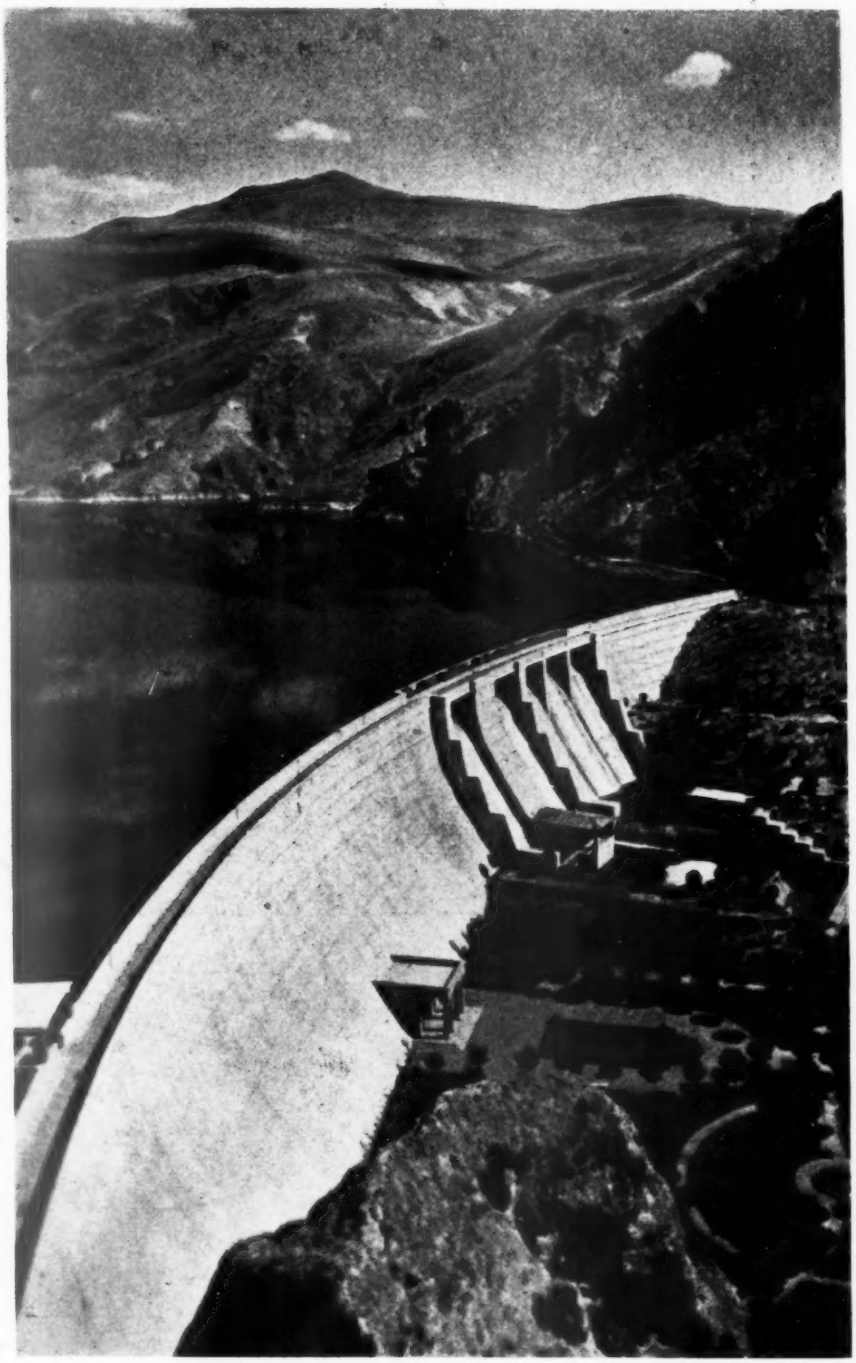
*The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.*

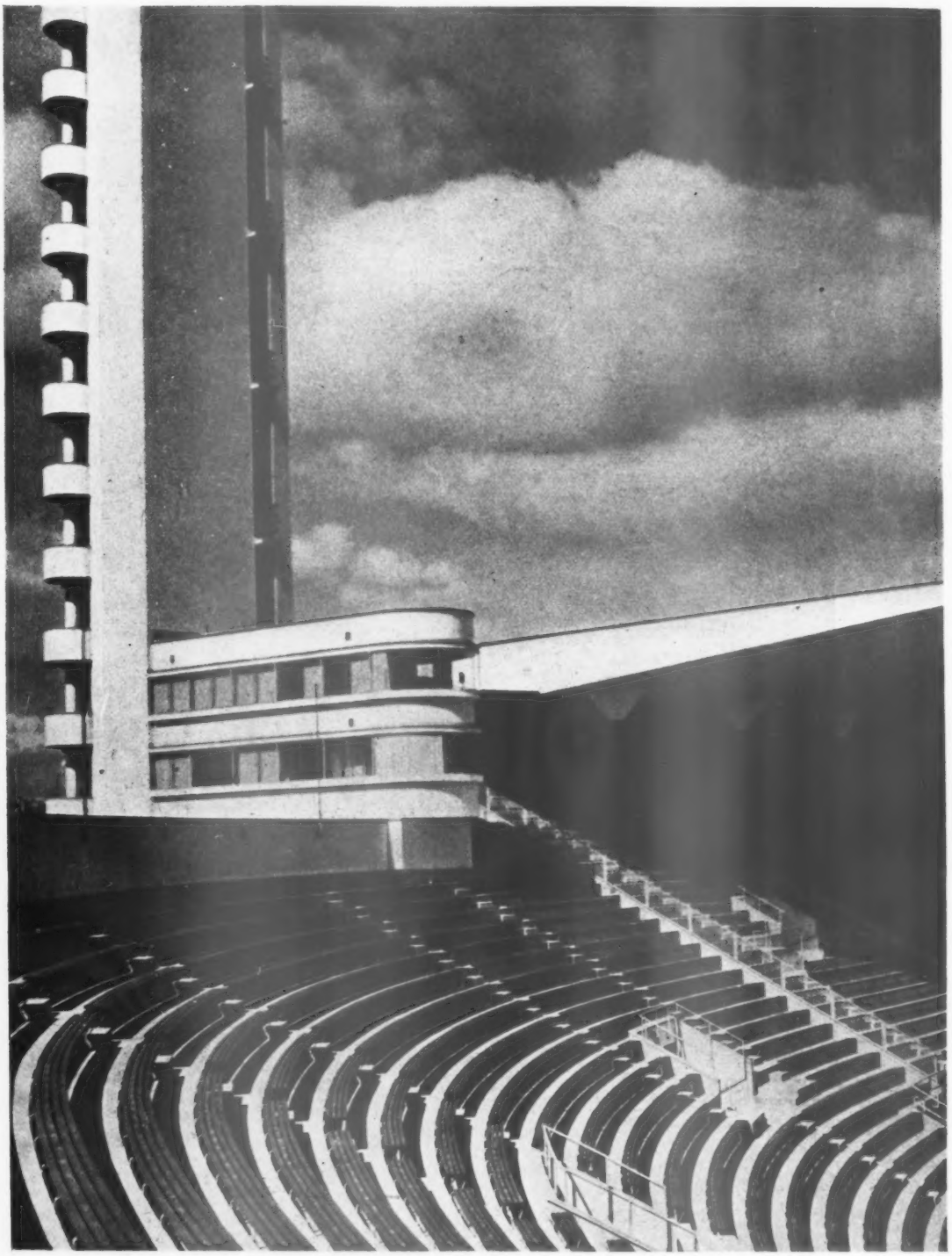
THURSDAY, JANUARY 25, 1940. NUMBER 2349 : VOLUME 91

## PRINCIPAL CONTENTS

# ARCHITECTURE IN TURKEY

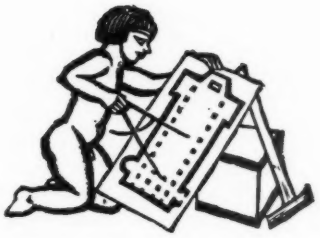


*General view of the barrage of Cubuk, designed by the Turkish Government Official Architect.*



## HELSINKI STADIUM

*Shortly before the Russian invasion of Finland the new Stadium for the Olympic Games (which were to have been held in Helsinki this summer) was completed. Above is a photograph of the Stadium showing the tower and terraces.*



# LIVELIHOOD CENSUS

THE architects' national register for war service has produced its first considerable result—a census of the ways in which 6,415 of the members of the R.I.B.A. earn their livings.

This, at first sight, is an event of outstanding importance. For a decade scarcely an R.I.B.A. event or meeting has taken place without reference to differences between private and salaried architects, without insinuations that the Institute was the last refuge of a minute and dwindling band of reactionaries, without the belief being expressed that once the various sources of architectural income were represented on the Council in their exact numerical proportions, the Institute would become a much more vigorous and influential body. But the difficulty always was that no one knew what *were* the livelihood figures for R.I.B.A. members and the Council flatly refused to find out—or try to find out. It was obvious that salaried members had increased, and were increasing, in numbers. That was all.

Now professional preparations for war have partially answered this red-hot question. Up to June 1, 1939, 6,415 out of the 8,283 members of the R.I.B.A. had placed themselves on the national register.

The livelihood analysis of these 6,415 show that 4,080 (63·5 per cent.) were either principals or assistants in private practice; 1,920 (30 per cent.) were principals or assistants in Government or local government offices; and 415 (6·5 per cent.) were principals or assistants in commercial or other non-official departments.

1,868 members are not included in the analysis. Of these 1,120 practise either abroad or in Eire and were therefore not asked to place their names on the Register. This leaves 748 (9 per cent.) unaccounted for. Many of these may have filled in their cards between June 1 and September 3 and therefore more complete figures may be expected in time. But in any case the outstanding 9 per cent. are unlikely to alter seriously the results of the Livelihood Census as now published.

The ways in which members of the R.I.B.A. earn their living might therefore be taken to be established, and thus to end the brandishing of figures in disputes of Private *v.* Official members. In fact, it is questionable whether the census will not lead—after a suitable pause for its study—to even more frenzied brandishing and sharper dispute. It is only too likely to become a mystic formula for curing all ills, the one and only yardstick in all R.I.B.A. discussions.

The most important fact revealed is that principals in private practice still retain a clear majority of 65 over all other livelihood divisions put together. This revelation will stop the charge of a small minority ruling the roost: but it will not stop anything else.

It may be maintained, for instance, that the interests of all salaried men are the same and that it is therefore fantastic that salaried men (forming just less than half the total membership) should have held only 5 seats in 39* on the Council of 1938–39.

The countercharge to that type of challenge is found without difficulty. It can be held that R.I.B.A. elections have always been elections of individuals, not of representatives of livelihoods: but that if livelihood is to be the right basis, then principals and assistants in private practice constitute 63.5 per cent. of all members and—proportional representation being un-English—are therefore entitled to sweep the board.

There is no end to this kind of cut and thrust if the mass of members allow themselves to be divided into two camps. Private practitioners can always say voting is free—salaried architects can always point to a representation disproportionate to their numbers.

The comforting fact is that the electorate, the average member, firmly refuses to be divided into two camps. He may feel it desirable that the livelihoods which have at present a small representation should have a larger one, but he is too sensible to believe that exact numerical representation of different livelihoods, or of any other architectural qualities or attitudes, is going to make the R.I.B.A. what he would like it to be. He is interested in measures, results and individuals, not in numerical proportions.

And he is specially interested in the R.I.B.A.'s relations with the general public.

The way the R.I.B.A. interprets architecture to the public, the way in which it informs the public on matters of national consequence of which architects have special knowledge, remains to the average member the chief test. The A.A.S.T.A. has proved this. The A.A.S.T.A. has for long asked with justice for greater representation of salaried men on the Council. But it was not until the A.A.S.T.A., which also deplored the R.I.B.A.'s handling of A.R.P., itself produced a first-rate report—the report which the R.I.B.A. should have produced—that very many R.I.B.A. members decided that A.A.S.T.A. representation on the Council should be increased.

It is, in short, men capable of doing the profession's business that R.I.B.A. members want at the R.I.B.A.—even if they only want them vaguely. It would be silly if the search for them were held up by an endless pull-devil-pull-baker over the Livelihood Census.

---

* Excluding representatives of Allied Societies and chairmen of Committees.

*The Architects' Journal*
*45 The Avenue, Cheam, Surrey*
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# NOTES & TOPICS

## HOW WE LIVE

IT was clear a year ago, when we were first asked to fill up our national register cards, that the R.I.B.A. would eventually have more in its cellars than our qualifications for war-time service. It would have the undeniable answer to that awful mystery: How do we all earn our livings?

*

The cat was let out of the bag ten days ago. No longer will official architects or assistants be able to rise at General Meetings and begin "Representing, as I do, 80 per cent. of R.I.B.A. members," while private practitioners shift in their seats and mutter. Now we have the figures. Here they are:

*

In the Kalendar for 1938-39 there were listed 8,283 members. Of these, 1,120 practise abroad or in Eire and were therefore not asked to place their names on the Register.

*

There remained 7,163, of which 6,415 filled in their cards before June 1 last. The present analysis applies to these 6,415, leaving 748 for whom figures may be published later.

*

The livelihood analysis of the 6,415 gives these results: Principals in private practice, 3,240 (50·6 per cent.); assistants to private practitioners, 840 (12·9 per cent.); principals in public departments, 270 (4·2 per cent.); assistants in public departments, 1,650 (25·8 per cent.); principals in commercial offices, 195 (3 per cent.); assistants in commercial offices, 220 (3·4 per cent.).*

*

The most remarkable of these results is certainly that the majority of R.I.B.A. members are still architects in private practice—even if it is only just a majority. Second big disclosure is the small number of their assistants (only one private architect in four has even one assistant). Third disclosure—and this explains many things—is that each principal in a Government or local government department has on the average 6·1 assistants at his beck and call.

*

Students of the future of architectural practice have much food for thought in these revelations.

*

They seem to show that the young man who joins a private architect is at once much closer to the job, and will obtain interesting responsibility much sooner. On the other hand, he may be exploited and has little security of tenure. The young man entering an official department enters a hierarchy, and may remain for years remote from interesting responsibility and never see the jobs he helps to design. But he has much more security.

*

The desirable reforms in both fields of practice are: the extension in private practice of the profit-sharing, junior partner, schemes which are already in being in some offices; and the breaking down of the "pyramid" in public offices into small groups, each responsible for one or more jobs.

*

Both have been advocated for a long time. Both should receive consistent R.I.B.A. support.

## THOUGHTS IN A ROOF

To the householder, sitting with a blowlamp in his roof-space and seven degrees of frost, the first gurgle of the ballcock must equal, for bliss, baby's first speech.

*

This was one of my thoughts as I crouched last week-end on a friend's ceiling joists. Another was that every young architect ought to be compelled to pass several years in a speculative house as part of his training: the more speculative the better.

*

Good education in building should cover what should *not* be done quite as much as what should be done; the faults that show themselves every now and then teach the little things that matter as much as a book by Mr. Gunn.

*

E.g.: a pipe not thickly-enough lagged is worse than a pipe not lagged at all—you can't get at it with a blow-lamp. E.g.: lagging nearly always stops short of the elbow close against the wall—just the point where it matters.

*

General advice: Never be surprised. E.g.: I once lived in a house where the bath cold water tap wouldn't run in the mornings until the plug next door was pulled.

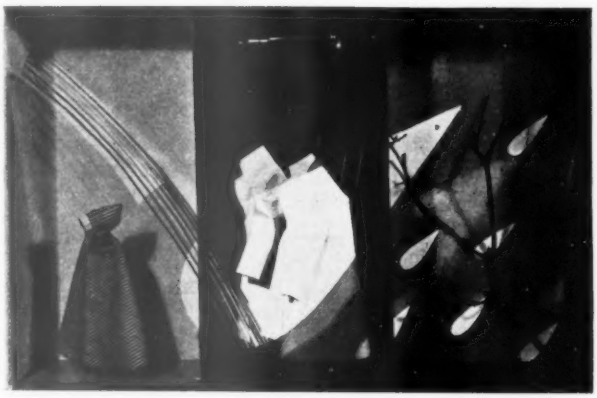
## WAR-TIME SHOPS

The Building Centre exhibition seemed to me, on closer inspection last week, to be spoilt both by scrappiness and lack of realism.

*

Organized by designers and mural painters, it aims at

* These percentages, some mine and some the R.I.B.A.'s, only add up to 99·9. I can't help this.



showing how the A.R.P. protection of shops can be turned into decorative and profitable displays. But it does not do it.

★

There are some good paintings—regarded purely as posters; but little or no attempt to co-ordinate the "pictures" with common protective devices, the ordinary requirements of a shop, or with the new lighting regulations. The shopkeeper would in fact see some nice pictures without any guidance as to how to use them.

★

With one exception: a model showing a raincoat display by Geoffrey Tomlin. This is thoroughly well worked out. It makes the best possible use of the lighting now allowed on a central display, and the cellophane on the windows is cut to contribute some outsize raindrops. It is reproduced above.

WALTHAM ABBEY EXPLOSION

There were two interesting points about this event. First, brown paper strips did prevent some glass which was *just* broken from falling; while they do not seem to have been successful with windows that were well and truly smashed. An examination of all the effects on surrounding property, and the publication of any A.R.P. conclusions to which they point, would seem well worth while.

The second fact is the curious hit and miss way in which noise and blast seems to travel. In the room I was in in Bloomsbury, screened by a multitude of buildings, the explosions were distinct* at a distance of 13 miles and the window moved in its frame noticeably at the second explosion. But in a friend's house near Barnet, in fairly open development and at least four miles nearer the explosions, they were barely perceptible. It was a case of "There! I told So-and-So I thought I heard something just then."

★

Letters in *The Times* report the hearing of the explosions up to 100 miles (human) and 147 (pheasants).

ALVAR AALTO

About a year ago an English architect, who had just been appointed as consultant for a building scheme in Finland, was congratulated with rather easy wit on having arranged his own war work in good time.

★

I recalled this at Christmas while removing a stain from my Alvar Aalto table; and went on to wonder where Aalto was at that precise moment.

★

A letter from the Norwegian architect Munthe-Kass now tells me that Aalto is serving with the Finnish army.

ATELIER

Mr. Yerbury's war-time atelier has now started work.

★

When I visited Bond Street the other afternoon I found three or four post-graduate men at work, a couple of students doing Testimonies of Study for the R.I.B.A., and a "history group" busy discussing their plans for studying architectural history afresh, from the contemporary angle. At least two of the leading historians from the younger ranks of the profession were in this little group . . . and the two students were, so to speak, listening in to the discussion. A housing group and a materials group are also in process of formation. The whole thing is still embryonic but it looks like being an interesting experiment.

★

Any communications should be sent to the Secretary, Miss Marjorie Morrison, who is in charge of all the arrangements, including the administering of refreshment—both kinds.

DOUBLE ELEPHANT

My question about the origin of the term "Double Elephant" has brought in several replies. One correspondent refers to the existence of an "Elephant" (28 in. by 23 in.), and explains the apparent discrepancy in sizes between an "Elephant" and a "Double Elephant" (40 in. by 26½ in.) by pointing out that a double bed is not necessarily twice the size of a single.

★

This seems only to beg the question. Another correspondent points out that "Double Elephant" is exactly twice the *weight* of an "Elephant," just as a "Double Large Post" is twice the weight of a "Large Post" and a "Quad Demy" four times that of a "Demy."

★

A third writes:

It has long been a tradition in my family that the zoological name was given to this size of paper by an ancestor of mine, who, returning to his office with a colleague one evening after dinner, was surprised to find a double elephant sitting on some just completed competition drawings. The size of the drawings was then unusual and so the name stuck. Unfortunately the date of this occurrence is doubtful.

★

As paper in bulk is sold by weight, the second correspondent's explanation seems most likely to be correct.

ASTRAGAL

* So much so that an Irish friend poked her head round the door and asked: "When exactly does one begin to lie down with these things?"

## PRICES

*Under the* JOURNAL'S *temporary scheme, the next publication of CURRENT PRICES will take place on March 4. Next week Messrs. Davis & Belfield will describe the important price changes which took place in January.*

★ *Although the war goes on, the first state of emergency, as far as the* JOURNAL *and architects are concerned, may be said to have passed. It is no longer necessary for architects to find their way to the right new Ministry in twenty-four hours and to do the drawings after the work is finished.*

*This return to something like orderliness is celebrated in these pages by a return to something more like the pre-war arrangement of our contents.*

*In future, News and Letters will follow Astragal's Notes, and be succeeded by current buildings. But the Information Centre (pages 118–125), though it has changed its position, will remain ready to answer any question and its "Current Problem" articles to deal with all important war-time developments.*

# NEWS

●

## *General*

### GERMANY CARRIES ON

A gathering of the German Academy for the Study of Building was held at Nurnberg in October, 1939.

Professor Dr. Schmidt, Departmental Director in the Ministry of Labour, discussed the building of dwelling houses during the war. He explained that the government had no intention of either stopping or throttling housing activities. The Minister of Labour had even ordered the speedy completion of 220,000 dwellings together with special facilities for the supply of materials.—*From the Bulletin just issued by the International Federation for Housing and Town Planning from its Headquarters in Brussels.*

### WATERLOO BRIDGE

It was intended that Waterloo Bridge should be opened in July, but the war has delayed supply of materials and labour, and it is now certain that the bridge will not be open to traffic until some time next year.

### R.S.A.

Paper to be read at Royal Society of Arts meeting on January 31, at 2.30 p.m., will be "Architecture—1919 to 1939," by Mr. Howard Robertson. Chairman, Sir Kenneth Clark.

### STANDARD FORM OF CONTRACT

Revision of the R.I.B.A. 1939 Standard Form of Contract to make it applicable to contracts entered into during the period of the war has now been completed by the Joint Contracts Tribunal, and the revised form has just been published.

Corresponding revisions are being made in the form specially adapted for use by local authorities, and this will be available shortly.

### I.A.A.S.

The Association intends, as soon as Parliament reassembles, to draw attention to the present circumstances of architects and surveyors, states Mr. J. E. Swindlehurst, President of the Incorporated Association of Architects and Surveyors. He says :—

We shall strongly urge upon the Government the following recommendations :

(1) That at the earliest possible moment consistent with the needs of the war effort, the general resumption of building should be encouraged.

(2) That every practicable step be taken to ensure that architects and surveyors are employed on all building work now being undertaken under the auspices of the Government and local authorities.

(3) That architects and surveyors, by reason of their training, are eminently suitable for many Government appointments of a supervisory nature outside their own professions. Supervisory duties in arsenals and Government factories immediately occur to the mind.

(4) That architects and surveyors (including students) who are called up for active service should be drafted to corps or departments where their professional knowledge would be of use and where they could keep in contact with their work in civilian life.

We are also undertaking a publicity campaign to make more widely known the services that the architect and surveyor can render the public, and the facilities that the I.A.A.S. can offer for bringing clients and professional men into contact. In other ways, too, it will be the object of this campaign to keep architects and surveyors before the notice of the public. Action is the keynote of our programme.

*A small display of Finnish goods (mostly furniture and pottery) is now being held at Heal's showrooms in Tottenham Court Road, W.C. Above, one of the exhibits—a writing table of polished birch, designed by Alvar Aalto. On the wall behind are examples of various linen yarns produced in Finland. Part of the proceeds of the Exhibition is to be given to the Finnish Red Cross Society.*

## *Building*

Deputation from the BUILDING INDUSTRIES NATIONAL COUNCIL was recently received by the Minister of Supply. Deputation was presided over by Mr. H. J. C. Johnston, President of the National Council.

A full discussion took place on the problems of the industry generally and with particular reference to supplies of materials, and the Minister undertook to report to his colleagues the views expressed. It was arranged that certain of the matters raised should be discussed further with the Departments concerned. Below are extracts from the report of the Deputation.

The investigation into stoppage of work conducted with the co-operation of the R.I.B.A. shows that the total value of work in the hands of private architects which has been stopped is in the neighbourhood of £200,000,000, at pre-war prices. Complete particulars have already been received of schemes to the value of £67,000,000 (at pre-war prices), the information being obtained under the following heads : (1) Nature of scheme; (2) type of construction or work ; (3) location of work ; (4) whether for public authority or private ; (5) approximate cost ; (6) stage reached ; (7) date of stoppage ; (8) reasons given for stoppage ; (9) remarks.

Information received as to the reasons for the stoppage shows that the chief cause was administrative action and not the uncertainty due to the war. Indeed, the latter factor would probably have had little effect on balance, since the virtual certainty of rising prices and the hope of capital appreciation would mitigate the deterrent effect of uncertainty. Chief reference in the returns was to the official Circulars, withdrawal of financial facilities and the effects of timber control.

The blanket restriction on civil work imposed by the official Circulars, which also influenced private investors, appears to have arisen from a desire to conserve resources. In fact, as pointed out above, the resources released will rapidly disintegrate unless they are kept employed. Moreover, the restrictions have already prevented important civilian war-time needs from being met and have had to be relaxed in some instances.

The control of timber arose from a complex of circumstances in which large Government demand, low peacetime stocks in relation to consumption, and unwise use of the available supply bulk largely. The present instructions prohibiting the release of timber for civil building work amount to the virtual commandeering of available supplies and have inflicted widespread hardship.

A parallel investigation by the Materials Group of the Building Industries National Council shows that there is no shortage of any building material except timber. The position as regards individual products is briefly indicated below :

*Asbestos Cement :* There is no shortage of asbestos cement and building products, and stocks are high. *Bricks, common :* There is demand for only a comparatively small proportion of the output; works are closing down in all parts of the country. *Bricks, engineering :* The demand is only moderate and far short of productive capacity. *Bricks, facing :* All over the country works are closing down, or are working only to a fraction of capacity. There are ample supplies everywhere. *Bricks, glazed :* Stocks and output are likely to be more than ample for all purposes. *Cement :* Stocks are high, demand declining and much below capacity. Ample supplies and manufacturing capacity are available, even after satisfying Government and Civil Defence requirements. *Glass :* No difficulty is anticipated in meeting any demand which might be made for glass required by the building trade. *Lime :* Deliveries of building lime have declined and are much below productive capacity. *Pipes, salt glazed :* The sanitary pipe industry is working at a fraction of capacity, and the outlook is becoming worse. All likely demands can be promptly met. *Sand, gravel, etc. :* There is no shortage, and the only difficulty likely to arise is transportation. *Sanitary fireclay :* The position is fast deteriorating and productive capacity is sufficient to meet all requirements. *Structural steel :* There is no shortage but there may be delay in supplying certain sections owing to abnormal demands. *Terra-cotta :* Trade is at a low ebb and productive capacity is more than sufficient to meet all requirements. *Tiles :* Trade is almost at a standstill. The majority of the works are either closed or on short time. Tremendous stocks are available.

Conclusions of the National Joint Council for the Building Industry, on the situation

which has recently been developing in regard to certain war-time jobs are printed at the bottom of this page.†

# LETTERS

## *Military Service*

SIR,—The borough surveyors of this district have been asked by the Central Highway Authority to form with their workmen a General Construction Company in the R.E.s, officered by their staff.

As these companies are for general and not road construction, the personnel would be more suitable if drawn from the building trade, and it would seem that the R.I.B.A., together with the building trade, could help their members to a suitable position in military life by forming similar companies.

Otherwise we shall find qualified men in all sorts of unsuitable positions, whilst military building work, like A.R.P. building work, is being carried out by road and sewer engineers.

EDGAR ALLEN

## *The Art of the Black-out*

SIR,—It is a hard but historical fact that war is usually accompanied by pestilence of some sort. Indeed, anybody who experienced the epidemic of 1918, and still lives, is never likely to forget it.

For some months the street frontages of innumerable buildings in London have been fortified with sandbags.

Sandbags do not necessarily contain sand. Many of them are, in fact, filled with vegetable earth and rubbish. Even those that may, originally, have contained sand of the purest quality are now polluted by dogs and cats and the filth that abounds in any city thoroughfare.

These foul and decrepit repositories of disease are now being carefully preserved with tar paper, matchboard, sheet iron and even brick enclosures, presumably as desirable up-to-date semi-detached residences for the rats of the Metropolis.

From a hygienic point of view, the presence of sandbagging inside buildings is even more dangerous, for not only rats but mice, beetles, cockroaches, ants and many kinds of parasite flourish and multiply in them.

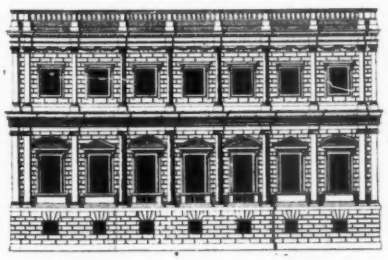
I have just witnessed the removal of a barricade of sandbags containing vegetable earth and erected about two months ago in a shop basement on a floor covered with solid rubber ¼-in. thick. Where the sandbags stood, the rubber has disappeared!

I gather that during the present conflict the experience of the architect is unlikely to be of any particular practical value to the State.

I venture, therefore, to ask you to allow me a small corner of your correspondence column (where I feel I shall be on friendly and familiar ground) in which to recall an investigation by Pasteur on the transmission of disease through vegetable earth.

In 1865, Baron Seebach, an Ambassador to Paris, found that clover had been cut from a field on his farm, where sheep, who had died of anthrax, had been buried. Soon afterwards a peasant, who admitted that she had stolen the clover, complained that her goat had died and her cow had contracted anthrax. Pasteur was consulted and discovered that the ground in the field where the sheep had been buried was swarming with germs of the disease. He inoculated healthy animals with germs taken from the earth and they all died of anthrax. He also sprinkled some of the earth on a stable floor and found that animals who passed over it afterwards died of the same disease.

F. R. JELLEY



## D'URTEPUERCHOS

### BY MALCOLM MACTAGGART

MY *vis-à-vis* in the otherwise empty smoking compartment lowered the "paper" he had been reading and glanced quizzingly in my direction.

"D'Urtepuerchos is dead," he announced. "Did you know?"

I proffered a cigarette. "You knew him?" I suggested.

He shook his head. "No," he answered, "I saw him but once, and that was at a lecture. He spoke on the deportment proper to architectural assistants when parting with their work to those responsible for it. In my opinion, no man can have exercised a profounder moral influence upon the young men of his day."

"An opinion," I contributed, "that is shared by many."

My *vis-à-vis* prodded his "paper" with an emphatic finger. "Nothing is lost of him in these pages," he asserted. "The obituary account has been supplied by one evidently well acquainted with the ways of his life. How to make india-rubbers last longer—what to do with unnecessary prints—all is here meticulously retold. Perhaps you would like to read it for yourself?"

Regretfully I declined the proffered "paper." "I am without my glasses," I explained.

My *vis-à-vis* bestowed a further prod. "Some of this," he averred, "is too good to miss. I will read it to you," and forthwith he proceeded to read aloud the following story:

D'Urtepuerchos one day found his nose put out of joint by a certain underling of his Department. Being handed the completed drawings for a building "officialos," he found himself also thus addressed: "Respected Sir! I had promised my insignificant self that the building whereof I now hand UP the completed drawings was to have been the best thing Your Respected Self had ever designed! Alas, that by meddling and interference so high an aim should have been brought to so low a pass! Alas, that by the standard of ascendencies in this, Your Department, such a thing should be just as capable of happening again! I am deeply pyned."

"I, too, am deeply pyned," echoed d'Urtepuerchos. But he could not sack the underling for his Cockney—he being "permanent"—so went instead to see a man called Osteopathos.

"You look peeved, d'Urtepuerchos," said Osteopathos, when the two had exchanged greetings.

"Pyned—not peeved, Osteopathos," said d'Urtepuerchos. "Only deeply pyned. I want you to look at my nose."

"Blow your nose," said Osteopathos. D'Urtepuerchos blew.

Osteopathos ignored the frivolity. "Let me look at your feet," he said brusquely. D'Urtepuerchos untied his shoe-laces and took off his shoes and his sockings. "Somebody," observed Osteopathos, "has been treading on your toes. *They* are in a very nasty condition."

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†National Joint Council for the Building Industry, on January 11, considered the situation which has recently been developing in regard to certain war-time jobs where the size and situation, in relation to populous centres, are such that, in order to enable rapid completion of the work, the necessary labour has to be brought from a distance and where lodging accommodation is not available locally. Some of the large hutment camps would be of that type. The Council concluded that it was desirable to make a jointly-agreed arrangement, in conformity with its Rules, which would ensure a greater measure of uniformity in the matter of wages, travelling and lodging allowances in respect of such jobs. It was, therefore, decided to apply specific arrangements to a number of jobs which will be scheduled by a joint tribunal set up for that purpose. The arrangements will cease at the end of each such job and will be subject to review every six months.

Briefly the arrangements are:—

(1) Wage-level on Grade A basis.

(2) Men sent from Labour Exchanges over 20 miles away to have rail-fares at beginning and end of job, and an allowance of 3s. 6d. per night for lodging expenses. If the men are sent over 50 miles they would also have return rail-fare home every six weeks.

(3) Men coming from within 20 miles to receive no rail-fares or lodging allowance, but free transport will be provided for them as between the job and certain convenient centres between 4 miles and 20 miles from the job.

The National Joint Council for the Building Industry has made these arrangements in its desire to assist the Government in works which are essential to the conduct of the war.

The new provisions to meet war emergency conditions are intended to provide a uniform basis of compensating men sent from distant places for the extra cost and inconvenience due to separation from their normal homes and are to be regarded as in lieu of any other allowances for travelling, fares, lodging and similar expenses which may hitherto have been applied.

In order to prevent unsatisfactory lodging and other conditions which have arisen in some cases, the Joint Council further requested its representatives, who are closely in touch with the Government Contracting Departments, to urge upon them the desirability of appointing welfare officers for the large contracts or areas to which this scheme shall apply, and they have decided that members of their respective executives shall co-operate to the fullest possible extent with such welfare officers in the discharge of their useful and necessary duties.

" It is my nose that is the matter," insisted d'Urtepuerchos.

But Osteopathos was in no mood to argue. " With feet like that," he pronounced, " you will have to mind your step. You must have a staff to lean upon."

D'Urtepuerchos made a note of the advice and thereupon took leave of Osteopathos. The interview had done much to restore his spirits, " for," said he, " it is manifest that no man can blow his toes. As for a Staff, *that* is always easy to procure."

My *vis-à-vis* lowered his " paper."

" What a shocking tragedy," I exclaimed, " that one so brilliant should have ended his days, as it were, irretrievably *dottos*."

" Genius," observed my *vis-à-vis*, " is akin to *dottos*. We cannot have it both ways."

" *I* was present when it happened," I confided, and, being thereupon bidden to speak of my experience, recounted the following incident :

D'Urtepuerchos one day came upon a young man of his Department making dots. Inducing him to pause in the midst of his toil, he thus addressed him : " My Boy, why do you dot here ? "

" Dots," answered the youth, " when afterwards coloured green, is to indicate concrete. This here is a concrete building."

" How many dots is it proper to show ? " asked d'Urtepuerchos.

The youth answered that he had not any idea.

" Which is it proper to colour green ? " pursued d'Urtepuerchos, " the dots or the spaces left between ? "

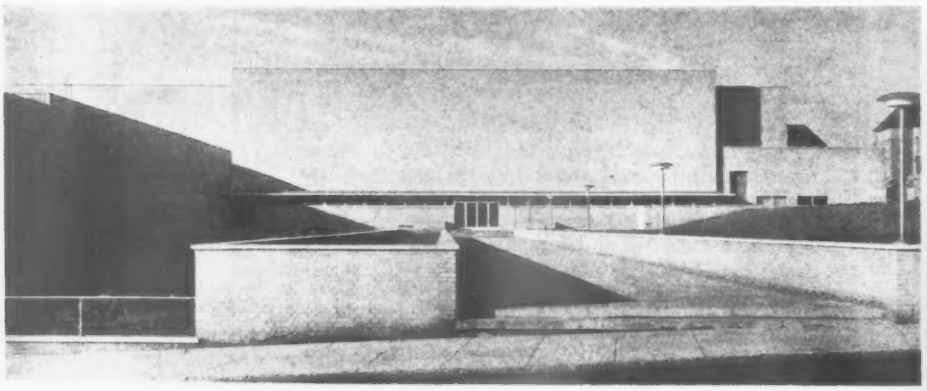
Again the youth answered that he had not any idea, whereupon d'Urtepuerchos betook himself to his own most inner sanctum, there to compose a memorandum to his staff, " for," said he, " it would be obviously a very bad thing if architecture were to become *too* dotty."

Several weeks passed by without event, when it became noted that the

# WEMBLEY TOWN H

GENERAL AND SITE—This building is the outcome of an open competition held in 1937 and assessed by Mr. Stanley Hamp. The site is about 5½ acres, roughly square in shape and with a fall of about 35 ft. from north to south. The buildings are set well back from Forty Lane to secure quietness in the offices and to give them an effective setting behind a wide forecourt. The latter serves also as a car-park.

CONSTRUCTION AND EXTERNAL FINISHES—Reinforced concrete frame. External



Department's accustomed output of work was being unaccountably exceeded. An enquiry was at once instituted, and d'Urtepuerchos was discovered to be still in his sanctum, which now bore the appearance of having suffered from a heavy fall of soot. Everywhere on the walls and furniture were dots, while he, d'Urtepuerchos, himself a mass of experimental dottings, was engaged between throwing ink at the ceiling and uttering this crazy quatrain :

" When dotting concrete do you know
How many dots it is proper to show,
And which it is proper to colour green—
The dots or the spaces left between? "

The pause which followed my recital was broken by my *vis-à-vis*. " Would not the tragedy have been averted," he suggested, " had it been the custom to colour concrete *purple ?* D'Urtepuerchos could not then have succumbed quite so readily to the suggestion of balderdash verse."

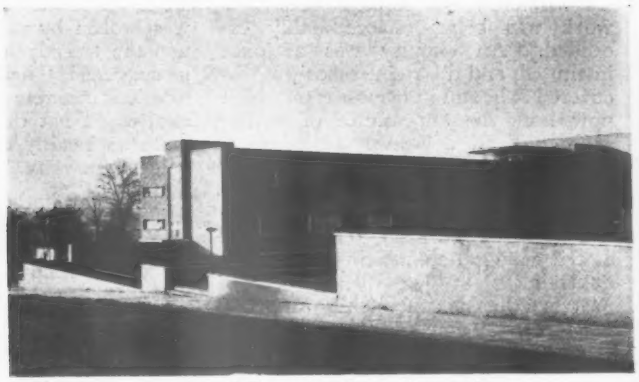
" The real bother," I rejoined, " is that so many people believe that concrete ought to be coloured *grey*. Everyone agrees, of course, that it would be obviously a very bad thing if architecture were to become *too* dotty."

At that moment our train entered a tunnel, and further conversation became impossible.

# N HALL *BY CLIFFORD STRANGE*

facings, 2-in. Lincolnshire bricks of a light yellow colour, the joints being raked out both horizontally and vertically. Metal windows; cills, with the exception of those on the ground floor, are slate ; ground floor cills and all copings are reconstructed Portland stone. Main entrance doors on the south front are bronze, flanked by wall panels of Belgian black marble.

*Facing page : top, view from the east, looking towards the flank of the assembly hall, in the centre of which is one of the emergency exits ; in the foreground is part of the system of walled-in flower beds with which the sloping site has been terraced. Bottom, looking along the south front from the west. Below, the main front of the building (view taken from Forty Lane) showing the retaining walls.*



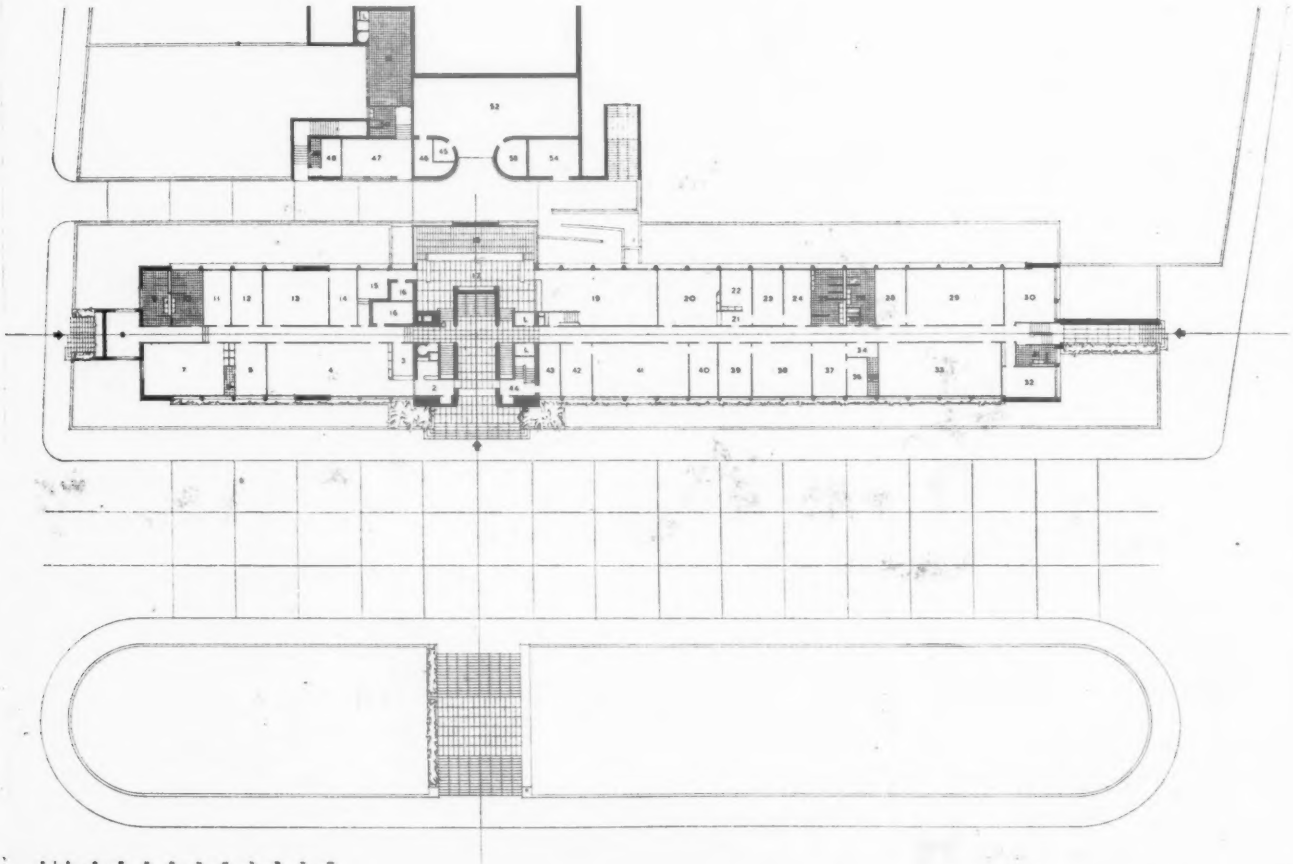
*Office wing from the north-east.*

KEY TO LOWER GROUND FLOOR PLAN

1. Stair Hall
2. Hall Porter
3. Enquiries and Waiting
4. Accountancy
5. Borough Treasurer
6. Borough Treasurer's Lavatory
7. Typists
8. Store
9. Female Lavatory
10. Male Lavatory
11. Deputy Treasurer
12. Internal Audit
13. Valuation
14. Valuation Officer
15. Chief Cashier
16. Strong Rooms
17. Public Space
18. Rates Office
19. Accountancy
20. General Office
21. Enquiries and Waiting
22. Typists
23. Director of Public Cleansing
24. Deputy Director
25. Male Lavatory
26. Female Lavatory
27. Cleaners
28. Chief Sanitary Inspector
29. Sanitary Inspectors' General Office
30. Store
31. Principals' Lavatory
32. Senior Health Visitor
33. Health Visitor's General Office
34. Enquiries and Waiting
35. Principals' Lavatory
36. Typists
37. Secretary
38. Medical Officer of Health
39. Assistant Medical Officer
40. Chief Clerk
41. General Office
42. Enquiries and Waiting
43. Telephones
44. Public Access to Council Chamber Gallery
45. Rectifier Room
46. Battery Room
47. Cycle Store
48. Gardeners' Store
49. Chauffeurs' Lavatory
50. Staff Lavatory
51. Kitchen
52. Garage
53. Switch Room
54. Transformers

KEY TO SECTION

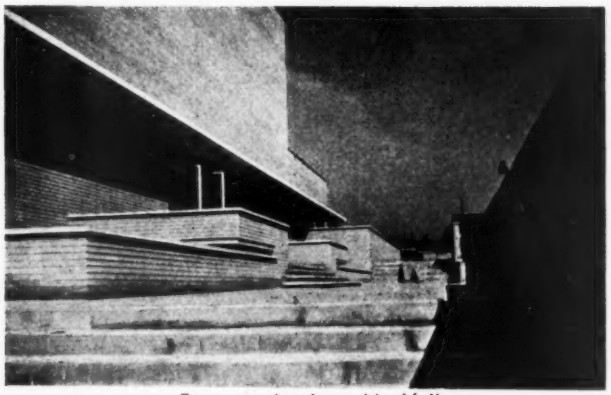
1. Main Entrance Hall
2. Main Staircase
3. Foyer
4. Rate Collection
5. Boiler Room
6. Fuel Store
7. Switch Room
8. Service Road
9. Garage
10. Ante Room
11. Council Chamber
12. Public Gallery
13. Caretaker's Quarters
14. Projector Room
15. Plenum Chamber
16. Assembly Hall
17. Stage
18. Green Room
19. Dressing-Room



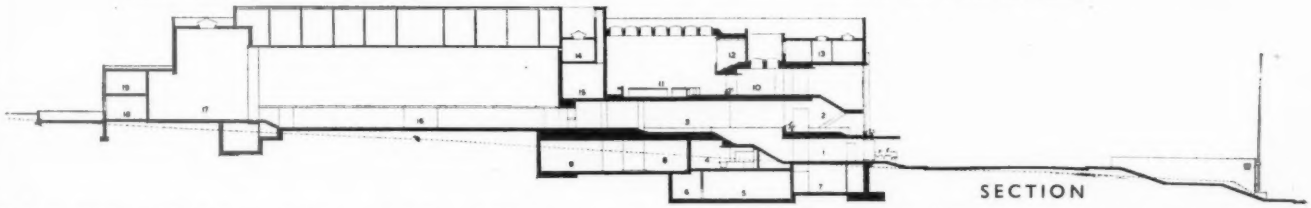
LOWER GROUND FLOOR PLAN

WEMBLEY TOWN HALL

*Main entrance on the south front.*



*Front to the Assembly Hall.*

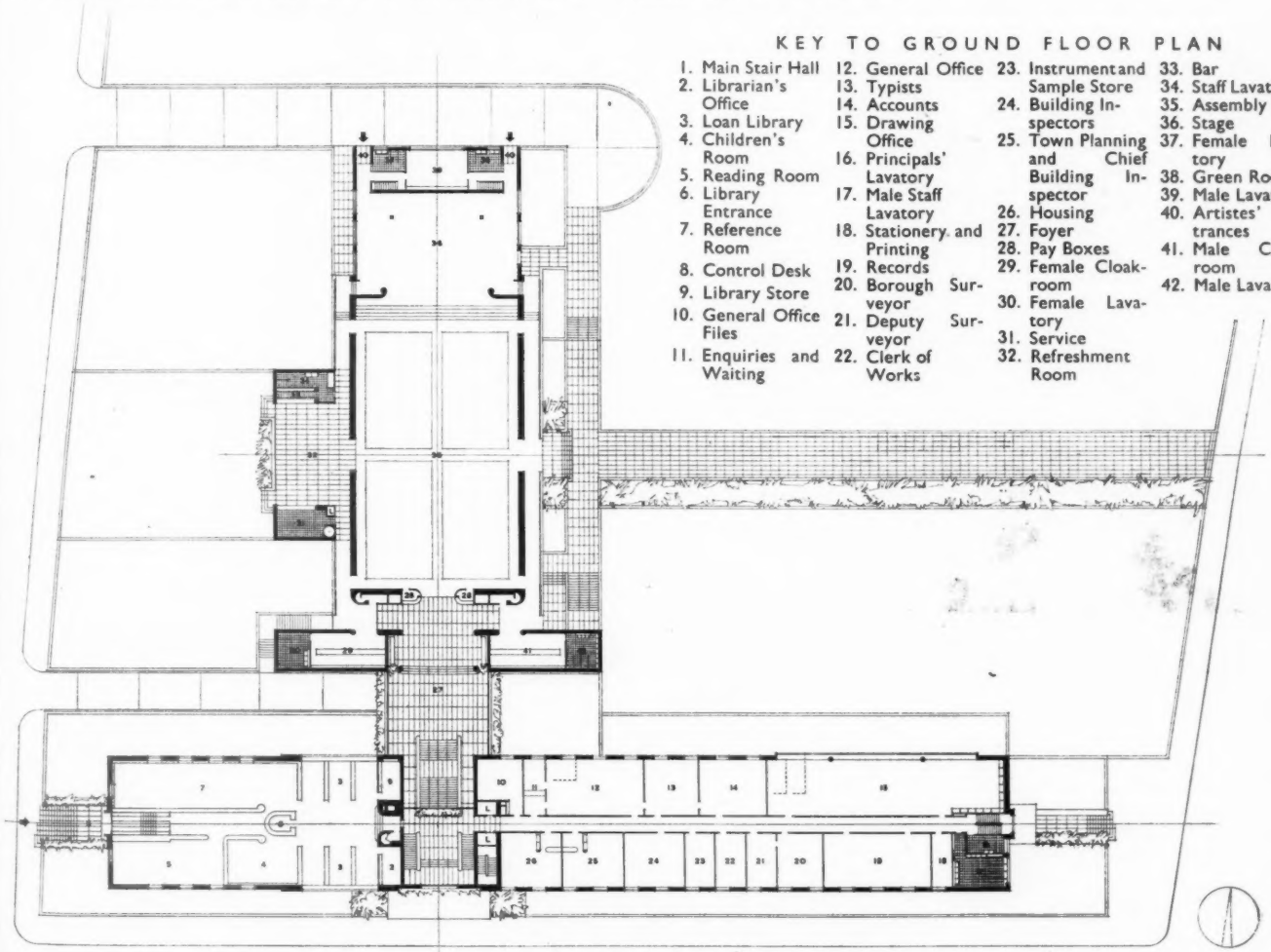


SECTION

PLAN—Composed of three distinct and self-contained units : the municipal offices, the public library and the assembly hall (seating 1,020 persons) running back at right angles to them. The Council chamber is in the centre of the building on an upper level, and beneath it is the main approach to the assembly hall from the entrance hall on the south front of the building. The Council chamber and assembly hall are therefore on the quietest portion of the site.

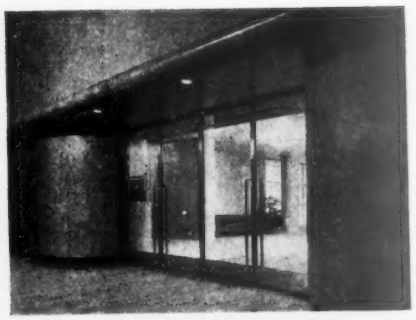
KEY TO GROUND FLOOR PLAN

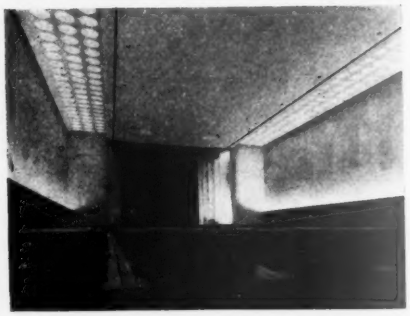
1. Main Stair Hall
2. Librarian's Office
3. Loan Library
4. Children's Room
5. Reading Room
6. Library Entrance
7. Reference Room
8. Control Desk
9. Library Store
10. General Office Files
11. Enquiries and Waiting
12. General Office
13. Typists
14. Accounts
15. Drawing Office
16. Principals' Lavatory
17. Male Staff Lavatory
18. Stationery and Printing
19. Records
20. Borough Surveyor
21. Deputy Surveyor
22. Clerk of Works
23. Instrument and Sample Store
24. Building Inspectors
25. Town Planning and Chief Building Inspector
26. Housing
27. Foyer
28. Pay Boxes
29. Female Cloakroom
30. Female Lavatory
31. Service
32. Refreshment Room
33. Bar
34. Staff Lavatory
35. Assembly Hall
36. Stage
37. Female Lavatory
38. Green Room
39. Male Lavatory
40. Artistes' Entrances
41. Male Cloakroom
42. Male Lavatory

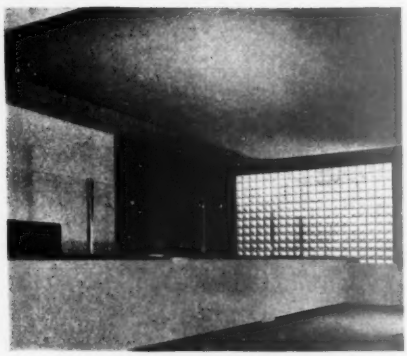


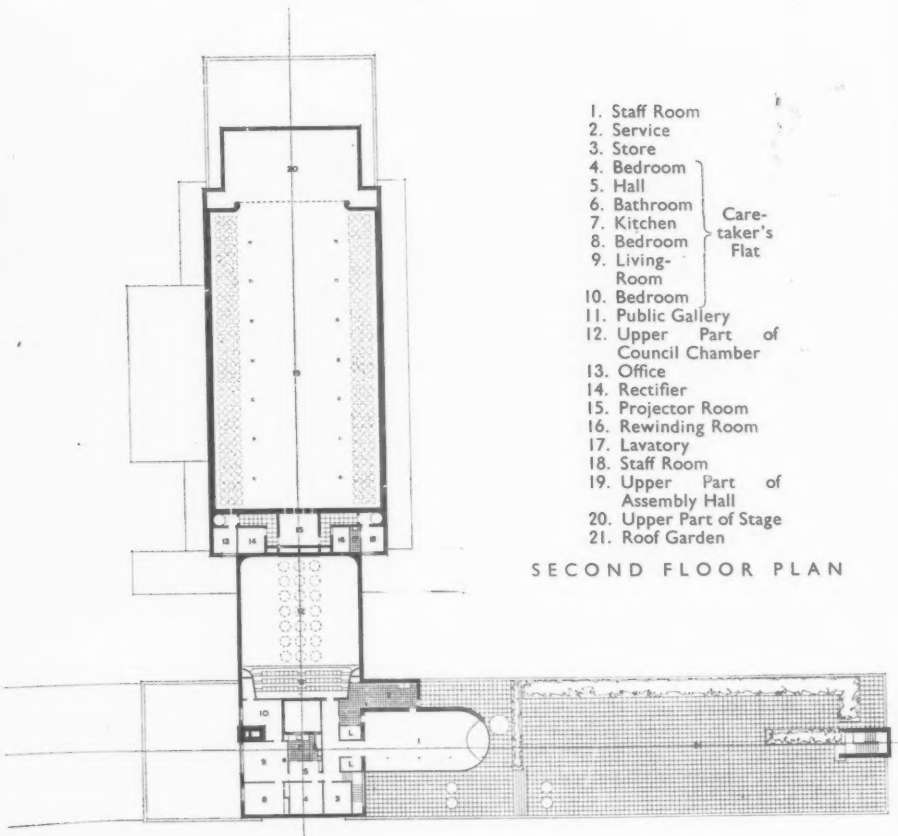
GROUND FLOOR PLAN

BY CLIFFORD STRANGE







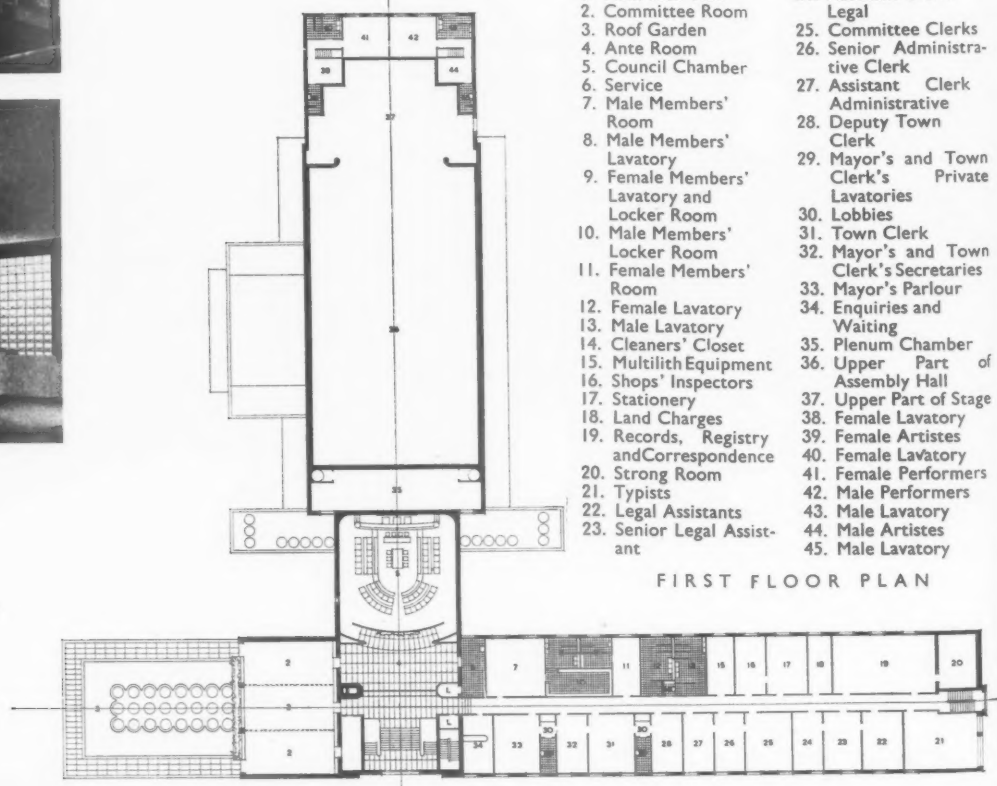


1. Staff Room
2. Service
3. Store
4. Bedroom
5. Hall
6. Bathroom
7. Kitchen
8. Bedroom
9. Living-Room
10. Bedroom

Caretaker's Flat

11. Public Gallery
12. Upper Part of Council Chamber
13. Office
14. Rectifier
15. Projector Room
16. Rewinding Room
17. Lavatory
18. Staff Room
19. Upper Part of Assembly Hall
20. Upper Part of Stage
21. Roof Garden

SECOND FLOOR PLAN

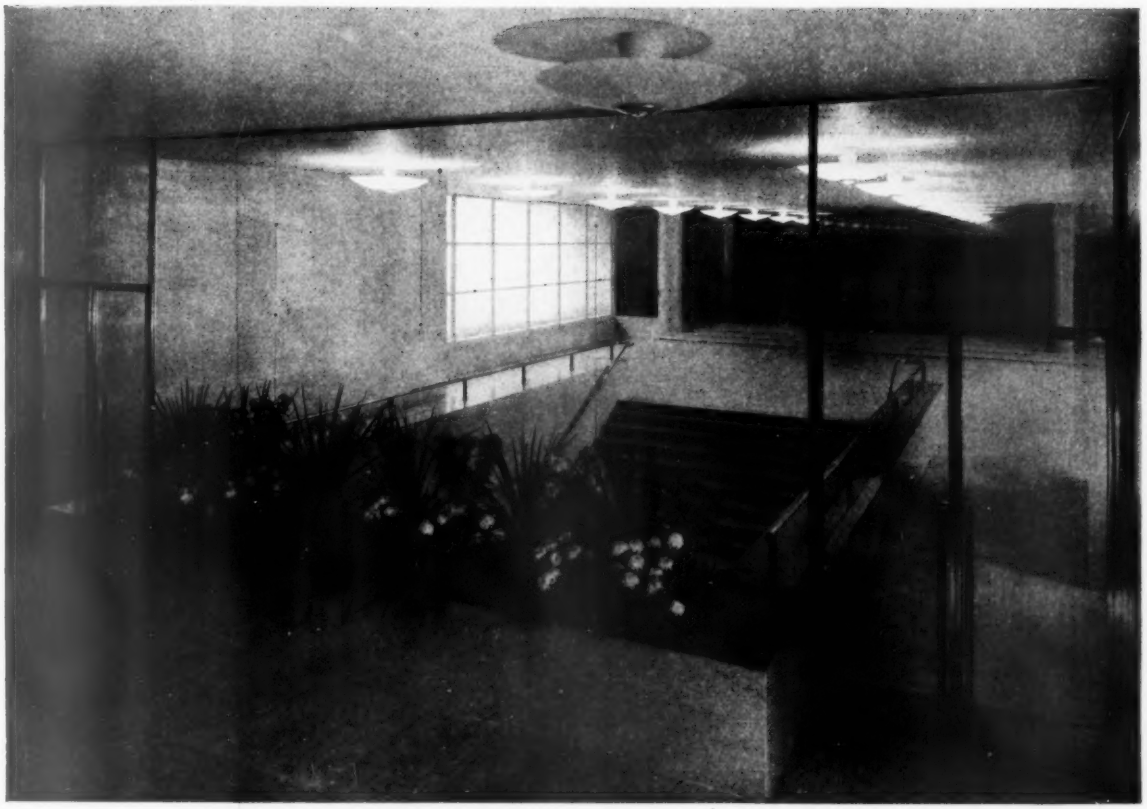


1. Main Stair Hall
2. Committee Room
3. Roof Garden
4. Ante Room
5. Council Chamber
6. Service
7. Male Members' Room
8. Male Members' Lavatory
9. Female Members' Lavatory and Locker Room
10. Male Members' Locker Room
11. Female Members' Room
12. Female Lavatory
13. Male Lavatory
14. Cleaners' Closet
15. Multilith Equipment
16. Shops' Inspectors
17. Stationery
18. Land Charges
19. Records, Registry and Correspondence
20. Strong Room
21. Typists
22. Legal Assistants
23. Senior Legal Assistant
24. Assistant Clerk Legal
25. Committee Clerks
26. Senior Administrative Clerk
27. Assistant Clerk Administrative
28. Deputy Town Clerk
29. Mayor's and Town Clerk's Private Lavatories
30. Lobbies
31. Town Clerk
32. Mayor's and Town Clerk's Secretaries
33. Mayor's Parlour
34. Enquiries and Waiting
35. Plenum Chamber
36. Upper Part of Assembly Hall
37. Upper Part of Stage
38. Female Lavatory
39. Female Artistes
40. Female Lavatory
41. Female Performers
42. Male Performers
43. Male Lavatory
44. Male Artistes
45. Male Lavatory

FIRST FLOOR PLAN

WEMBLEY TOWN HALL

*Facing page, from top to bottom : entrance doors to assembly hall ; general view of assembly hall ; the library ; the rates office. Below, the Town Clerk's room and a view from the landing at upper ground floor level showing the entrance staircase and foyer to the assembly hall ; right, Committee room.*



INTERNAL FINISHES—Main public entrance, staircase and foyer to the assembly hall are paved in Italian travertine, and all the walls are faced in botticino marble, specially quarried for large slabs and grain. Staircase handrails and the framing of the glass screens are in silver bronze. Assembly hall is panelled to a height of 7 ft. 6 in. in English ash veneer, with acoustic boarding above. Council chamber : panelled from floor to ceiling with English figured ash veneer, divided horizontally into three sections by a narrow white sycamore bead. Panel at the back of the Mayor's rostrum, bearing a carved coat of arms, is in botticino marble. Rostrum, desk tops and fronts are in American figured walnut ; their bases are in coromandel.

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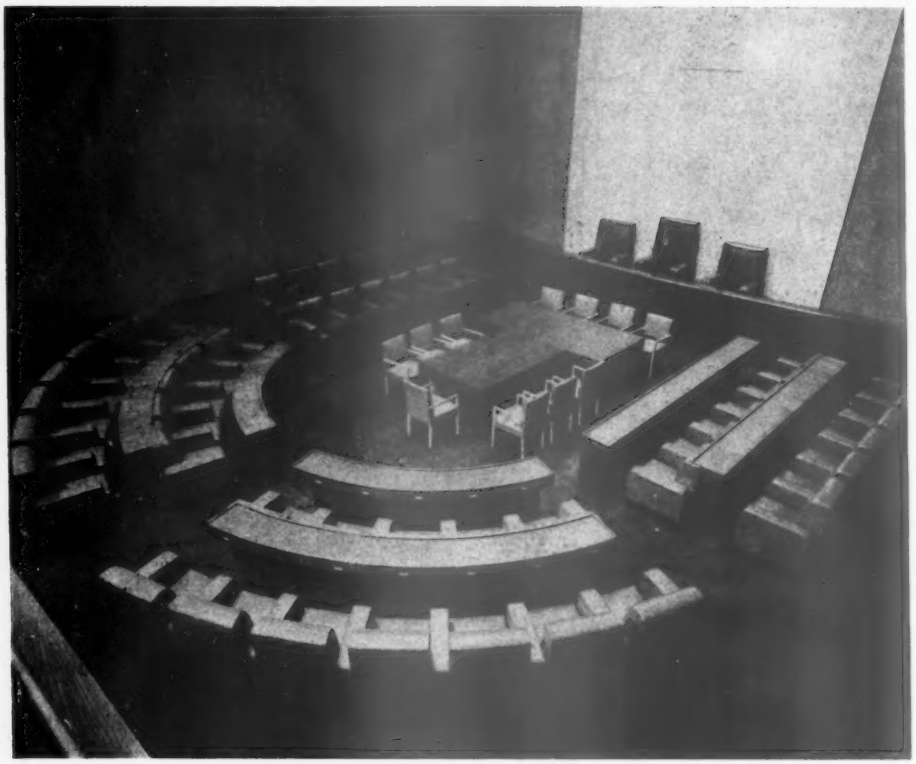

INTERNAL FINISHES (cont.)—Library : Fittings and bookshelves are in English cherry with skirtings of American walnut. Floor is of blue-green linoleum and the chairs are upholstered in brick-red hide. Office wing : Treatment of offices and corridors is standardized throughout. Floors are blue-green linoleum. Walls and ceilings are plaster, distempered. Lavatories are tiled to a height of 7 ft. and have quarry-tile flooring and w.c. partitions in pre-cast terrazzo with silver bronze frames. The Mayor's parlour is panelled in weathered sycamore veneer from floor to ceiling, with a recessed skirting of Indian laurel. The furniture is English walnut with upholstery in a red cord material. Carpet and curtains are similar to those in the Town Clerk's room.

General contractors were Wm. Moss and Sons, Ltd. ; for list of sub-contractors and suppliers see page xviii.

WEMBLEY TOWN HALL • DESIGNED BY

*Facing page : top, the refreshment room : bottom, the Council chamber. On this page : above, another view of the Council chamber : below, the Mayor's parlour.*

BY CLIFFORD STRANGE

## *R.I.B.A. EXAMINATIONS*

*Intermediate Examination.*—The R.I.B.A. Intermediate Examination was held in London, Belfast, Manchester, Newcastle and Plymouth from November 17 to 23. Of the 144 candidates examined, 78 passed and 66 were relegated. The successful candidates are as follows :—

R. A. Ainsworth ; P. D. Anderton ; K. J. Ball ; R. M. Betham ; J. B. Bone ; A. K. Bray ; J. H. Bright ; R. H. Bulmer ; R. E. Burley ; H. E. Buteux ; R. E. Carlick ; H. A. J. Clements ; E. Collinge ; D. G. Cornfield ; A. Crossley ; (Miss) B. M. Dixon ; D. B. Doe ; F. H. Elder ; J. Eyre ; (Miss) E. D. Fish ; J. M. Forbes ; C. H. Foster ; I. G. Foster ; J. Gradel ; R. M. Graham ; W. Greenacre ; R. A. Hack ; H. S. Haines ; A. Hall ; E. M. Harvey ; F. F. Hawkins ; C. Heathcote ; I. M. Hindle ; T. T. Houston ; R. Hume ; D. B. Johnson ; E. W. Jolly ; (Miss) I. M. Kendall ; K. J. King ; V. C. H. Knight ; S. Litherland ; C. G. Looker ; D. J. MacRandal ; T. L. K. Mason ; D. H. Mathieson ; G. R. M. Matthews ; H. W. Milam ; S. G. V. Milligan ; L. E. Morris ; G. E. Mortimer ; M. W. Ofield ; D. A. Packer ; A. W. Parkinson ; C. C. Partridge ; G. A. H. Pearce ; B. A. Phillips-Howard ; R. Raeburn ; N. M. Robertson ; P. V. Rowe ; R. E. Rowlatt ; F. B. Schofield ; W. B. Shepherd ; H. Shuttleworth ; S. Sisson ; V. L. Slade ; H. T. D. Smith ; R. G. Smith ; W. S. Stewart ; H. A. Sutton ; J. H. Thomas ; H. Tompkin ; A. Travis ; R. Turley ; J. R. Walker ; R. J. Ward ; F. S. White ; S. K. Wills ; J. O. Wilson.

*Final Examination (December, 1939).*—The Final Examination was held in London and Edinburgh from November 29 to December 7. Of the 119 candidates examined, 75 passed (20 of whom sat for, and passed in, Part 1 only), and 44 were relegated. The successful candidates are as follows :—

H. K. Ablett ; C. Adler* ; A. F. Almrott* ; P. B. Arkcoll* ; G. W. Armstrong ; E. S. W. Atherton ; J. W. Ball* ; W. Barker ; T. R. Bateman ; P. R. Bee ; J. G. Berry (Distinction in *Thesis*) ; J. W. Boddy ; K. E. Bradley ; P. E. Bushell* ; I. Chaikin ; J. G. Cheyne* ; R. J. B. Christie ; A. H. Clarke ; R. E. Collis ; J. H. Cox (Distinction in *Thesis*) ; L. G. Creed ; A. C. Crook ; G. J. Cuzens* ; J. W. T. Dakin ; A. R. Dannatt ; E. H. Davie ; R. Davies ; R. A. Dean ; J. H. Deas ; J. I. Ford ; A. M. Freeman* ; E. R. Goodall ; J. I. S. Gray* ; L. H. Hammond ; (Miss) C. Hindshaw ; H. G. Huckle (Distinction in *Thesis*) ; C. G. Jacobs ; A. D. P. Jenkinson ; T. M. Jones* ; H. A. Kay* ; J. M. Kidall* ; F. Lawrence ; (Mrs.) A. Lee ; A. Le Sueur* ; J. T. Lewis* ; C. A. Lomas* ; H. W. Lovell ; J. A. R. McKee ; D. D. Moore ; L. C. Moulin* ; E. Narracott ; T. D. Oxley ; A. T. Parrott ; D. G. Payne ; C. de C. Penn ; F. B. Pooley ; W. H. Ralph ; P. H. G. Rexilius* ; (Miss) B. M. Rider ; S. G. W. Ross ; W. W. Ryder (Distinction in *Thesis*) ; R. Saddler ; J. D. Scholes* ; W. K. Shuttlewood ; P. B. Sidebottom ; L. R. Smith ; R. V. R. Smith* ; W. V. Smith ; G. H. Smithson ; J. Steel ; O. E. Steer* ; J. O. Stevens ; P. E. Walker ; C. B. Wells ; A. P. Wolf.

*Special Final Examination (December, 1939).*—The Special Final Examination was held in London and Edinburgh from November 29 to December 6. Of the 36 candidates examined, 18 passed (3 of whom sat for, and passed in, Part 1 only), and 18 were relegated. The successful candidates are as follows :—

R. Barrows ; C. W. Boddie ; C. K. Brice ; D. Chamberlaine ; S. C. Gould* ; H. M. Jones ; A. G. Jury ; H. McMaster ; L. S. Middleton* ; E. K. Preston ; G. C. Robb ; K. J. Sandbrook ; H. Thornley ; P. F. Tilley ; G. B. Townsend ; P. B. Walker* ; R. W. Weir ; E. H. H. Williams.

*Examination in Professional Practice for Students of Schools of Architecture recognized for exemption from the R.I.B.A. Final Examination.*—The examination was held in Edinburgh on December 5 and 7. Of the 2 candidates examined, 1 passed and 1 was relegated. The successful candidate is Mr. T. F. Lyon.

* Part 1 only.

*The Information Centre owed its inception to the difficulties that arose when architects were faced with the problems of A.R.P. and other emergency work that followed the outbreak of war. After five months building work has become less hand to mouth and the various building controllers more generally known. In this issue the* JOURNAL *celebrates this greater orderliness by moving the Information Centre to the second half of its pages. But this does not mean that the need for the Centre has grown less. The passing of the first emergency has in fact stressed the need for an Information Centre to deal with all aspects of wartime building and architectural practice, and the Centre will continue to answer all such questions.*

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ARCHITECTS' JOURNAL

*EMERGENCY*

# INFORMATION CENTRE

If you have a problem which demands an expert answer send it to:—

THE ARCHITECTS' JOURNAL,
45 THE AVENUE,
CHEAM, SURREY.
*VIGILANT 0087*

*or ring:*

THE A.J. INFORMATION CENTRE
*FLAXMAN 5322*

***The Information Centre itself is working from London, but enquiries sent direct to the* JOURNAL *will be passed on without delay.***

***These are typical of the questions we have already answered:***

What are the relative costs of sandbagging and brickwork?

How is a gas-lock formed?

How is a factory protected from incendiary bombs?

Are footings necessary to walls sub-dividing basement shelters?

How is wood protected against liquid gases?

How are ventilated black-out window screens formed?

How is sandbagging rotproofed?

How much safer is a 20-ft. deep shelter than a semi-surface type?

How is a light-lock formed?

How should screen walls be arranged?

How is a basement shelter protected from bursting water mains?

What is the definition of a light-proof material?

What publications are there on farm buildings?

What would be the maximum spread of debris if an h.e. bomb hit a 330-ft. stack?

What publications are there on camouflage?

What protection is needed for light shafts?

What is adequate provision for a first aid and decontamination centre?

Is a 1938 contract binding?

Who is responsible for making good air-raid damage to unfixed materials?

What is the cost per head of gas filtration?

Under what obligation is a building owner to provide shelter for the occupants?

How is a leaking shelter waterproofed?

How will the grant be paid?

Are cinemas to be provided with shelters?

Can blast-proof doors be used for naturally ventilated shelters?

---

Q145 WANDSWORTH.—*Are we correct in assuming that work done to a basement to provide an AIR RAID SHELTER may be demolished as soon as the war is over?*

No. It must be remembered the Civil Defence Act was in force before the commencement of hostilities, and further legislation will have to be made before work to provide shelter done under the Act can be undone.

Q146 CENTRAL.—*Can you tell me the manufacturers of "Permatile" ROOFING?*

Messrs. Permanite, Ltd., Asphalters.*

Q147 W. 12. — *The enquirer enclosed a sample of bitumen-impregnated underslating felt intended for use in blackout window screens, and wished to know of any process by which the material could be FLAMEPROOFED, suggesting at the same time that he had in mind applications of cement slurry or an alum solution.*

The problem of flameproofing a bitumen-impregnated underslating felt would have to be attempted in the light of an experiment. It is to be expected that the action of heat, even without flame, will cause the bitumen content of the felt to flow so that any superimposed coatings must of necessity possess a degree of rigidity and tensile strength to overcome this tendency of the underlying bitumen. Your suggestions of cement slurry or alum solutions could be attempted, but if success is to be attained it is more likely to be met by the use of a coating of a material of the nature of Porcella fireproofing paint.* A coating of this material, under conditions of extreme heat or flame, devolves into a stone-like substance or may possess the characteristics previously mentioned. If alternative materials for the screens could be considered, asbestos fibre cloths and felts† or asbestos-base bitumen impregnated underslating felts‡ might prove more satisfactory. With the latter material, while the bitumen content will be highly inflammable, the structure of the fabric need not disintegrate entirely under the action of the fire.

Q148 CHELTENHAM.—*The enquirer submitted a sketch of an existing BOILER HOUSE lay-out in which it is intended to add one more Lancashire boiler. Information was desired as to works of reference likely to be of assistance in the planning, billing quantities and the costing of the works involved.*

Various aspects of boiler-house practice appear in numerous reference

* 455 Old Ford Road, London, E.3 (works), *Advance* 2753. Salisbury House, E.C.2 (sales office), *Met.* 7276.

* Porcella Products, Ltd., Chase Road, Park Royal, London, N.W.10.

† Obtainable from Bells Asbestos and Engineering Supplies, Ltd., Bestobell Works, Slough; and Newalls Insulation Co., Ltd., Broxbournebury, Broxbourne, Herts.

‡ Turners Asbestos Cement Co., Ltd., Erith, Kent or Ruberoid Co., Ltd., High Holborn, London, W.C.1.

books, but there are few complete treatises on the subject. As to the planning and requirements of the boiler setting, probably the most useful recent work is "Boiler House Practice."* Standard works of reference containing sections on boiler foundations and setting are "The Heating and Ventilating of Buildings," by R. C. Carpenter (1904), and "Foundations for Machinery," by H. Adams (1919). These books should be available through any Public Authority Loan Library. On the shelves of the Library of the Royal Institute of British Architects there is an excellent thesis on the Heating and Ventilating of Buildings and boiler foundations and settings are dealt with on pages 32 onwards. The publications mentioned deal only with various aspects of planning and construction. The determination of quantities and cost are aspects of the work which will depend largely on the experience of the inquirer. The billing of the quantities would be carried out in accordance with the principles laid down in the method of measurement ordinarily used.

Q149 CHARING CROSS.—*What is the position regarding CHILDREN'S CLUBS under the Civil Defence Act?*

We understand that under section 22, sub-section 2, of the Act, no grant would be paid towards providing shelter in such premises, and that the owners are not under any obligation to provide an air raid shelter.

Q150 BLOOMSBURY.—*I shall be obliged if you will refer me to a publication with information as to SEPTIC TANK suitable for a five-room semi-bungalow. The Medical Officer has asked that a septic tank be used instead of the cesspool proposed. The soil is gravel. The drainage is temporary only until such time as the sewer is extended up to the site of the bungalow.*

The best-known standard reference book on this subject is "Sewage Disposal from Isolated Buildings."† It might be mentioned that the size of a septic tank is computed on the basis of 25–40 gallons per person per day.

* *By E. Pull, published in 1938 by the Technical Press, Ltd., of 5 Ave Maria Lane, E.C.4.*
† *By G. M. Flood, published at 12s. by the Sutherland Publishing Co., Ltd., 9 Albert Square, Manchester.*

Q151 CENTRAL.—*Can you tell me of any way of treating brick or concrete wall surfaces so that paint applied for CAMOUFLAGE purposes can be removed easily after the war?*

We do not know of any successful way of treating the wall surface itself. A satisfactory method is to hack out brick joints and insert wood laths, and nail to these a cheap felt to which the paint can be applied.

Q152 E.C.4.—*Can you tell me where to find the latest information on the layout and details of DECONTAMINATION CENTRES and emergency FIRST-AID POSTS.*

In the ARCHITECTS' JOURNAL for June 8, 1939, a special number dealing with Civil Defence, plans and description of layout were reproduced on pages 980 and 981. This issue is out of print, but the matter has been reproduced in "Civil Protection."* In the ARCHITECTS' JOURNAL, October 5, 1939, page 439, Q. 21, there is a question and answer on first-aid posts and decontamination centres. Home Office Publication No. 56, 1939, obtainable from Room 407, Horse-ferry House, Thorney Street, S.W.1, is the only official publication dealing with the subject.

Q153 NEWCASTLE-ON-TYNE. — *We act as architects for the owners of a factory employing about 600 persons. We have erected shelter accommodation in accordance with the requirements of the authorities, and our clients are now being asked to build a DECONTAMINATION CENTRE, FIRE LOOK-OUT POSTS, and a control room with telephonic communication to all other posts. They are also being asked to arrange for fire-watching and fire-fighting parties, etc., to deal with fires and incendiary bombs during a raid. It will be very difficult for them to conform with these requests, first on account of the lack of floor space, and second on account of the unwillingness of the staff to volunteer to train for the necessary posts. The requests have all been given in a vague form, and we should be glad if you would advise us whether the obligation to comply with the requests is a legal one, subject to a penalty. If it is, perhaps you could give us some exact information as to the extent of the obligation?*

* *By Felix J. Samuely and Conrad W. Hamann, published by the Architectural Press, price 8s. 6d.*

The Air Raid Shelter Code, paragraph 5, stipulates that "every air-raid shelter providing accommodation for more than 12 persons must be so constructed as to permit of its being made gas-proof without structural alteration should the need arise." If a shelter is to be gas-proof it generally needs decontamination rooms. It is, therefore, correct for the factory inspector to ask for a space within the precincts of the shelter to be reserved for decontamination. He cannot, however, ask for partition walls, subdividing the centre, nor for the installation of the necessary equipment. Fire lookout posts, control rooms, first-aid rooms, etc., are not mentioned at all in the Code. If, however, the factory is considered to be of national importance the Government is entitled, by emergency legislation, to require the arrangements mentioned to be carried out. This is nothing to do with local authority. (*See reference back, Q143, below.*)

## *REFERENCE BACK*

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

### Q142

A reader asked for names of CORRESPONDENCE SCHOOLS for R.I.B.A. Examinations. In the list given we inadvertently omitted the International Correspondence Schools, International Buildings, Kingsway, W.C.2.

### Q143

*Mr. F. N. Hillier, Press Officer, Ministry of Home Security, in the letter below, amplifies the answer to Question 143 published in the JOURNAL for January 11.*

May I be allowed to amplify your reply to a correspondent who inquired whether FIRE LOOK-OUT POSTS, CONTROL ROOMS, etc., are only necessary upon receipt of legislative instructions? In your reply you intimated that such posts, etc., need not be installed except on receipt of legislative instructions. It would perhaps help your correspondent if it is pointed out that the "Preliminary Memorandum on the Organization of

Air Raid Precautions Services in Industrial, etc., Undertakings," published by the Stationery Office, price 3d., gives a clear indication as to what the Civil Defence Act requires. The introduction states :—

"This memorandum outlines the organization and facilities which will be required to give effect in industrial, etc., undertakings to the provisions of the Act."

And Section 4 of this memorandum states that—

"The provision of control posts, of first-aid accommodation, and of cleansing accommodation, is essential in factories where more than 500 workpeople are employed."

The memorandum does in fact indicate clearly what squads, control rooms, etc., are necessary for industrial establishments of all sizes.

*CURRENT PROBLEMS:* *10th Article*

# TEMPORARY & SEMI-PERMANENT BUILDINGS

*BY EUGENIO FALUDI AND GODFREY SAMUEL*

## 3 : ALL DRY CONSTRUCTION

## PART II.

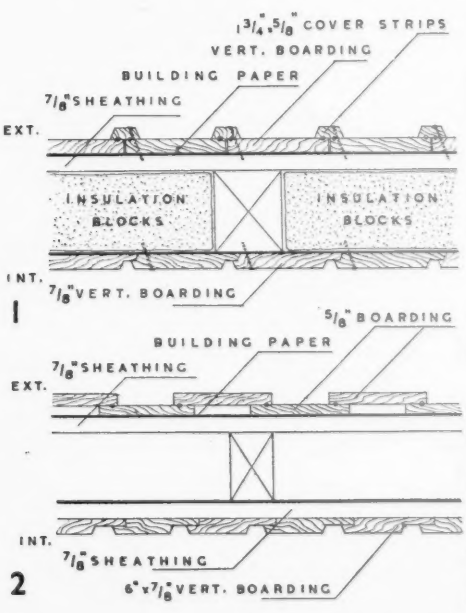
(*Continued from issue for January 11.*)

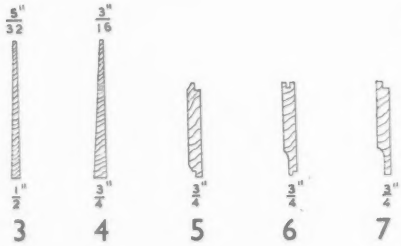
### C.—THE WALL

1. *General.*

Determining factors in the choice of method are :

(*a*) Ease of transport.
(*b*) Ease of erection.
(*c*) Ease of maintenance.
(*d*) Ease of disassembly.




1 and 2 : *Vertical boarding*

3–7 : *Horizontal weather boarding.*

Alternative methods of construction with columns are :

(*a*) All work done on the site ; only useful for small individual buildings or large permanent ones, and not really within the scope of this article.

(*b*) Timber for panel frame prepared in the shop and assembled on the site ; most useful for small individual buildings, but in certain other cases there may be a saving in labour costs compared with (*c*) or (*d*).

(*c*) Timber panel frame completed in the shop, erected on the site and covered ; preferable where a continuous wall covering is required, e.g. on individual buildings and exposed sites.

(*d*) Panel frame and external covering assembled in the shop and lined ; preferable for large jobs requiring repeating units, or where disassembly is desired.

(*e*) Panel frame and both external and internal coverings assembled in the shop preferable, especially where disassembly is desired, but only where weather conditions do not require the roof to be erected before the wall lining (unless the panels are of the type fitting clear of columns ; otherwise erection in conjunction with the columns is necessary).

The construction of the panel frame depends, of course, on the type of external and internal covering used.

Alternative materials with their weights, sizes and insulating values are set out in Table II.

2. *External Covering*

Alternative systems are :

(*a*) Continuous, preferable on exposed sites, on account of greater weather protection, where disassembly is not desired.

(*b*) Discontinuous, capable of prefabrication and more economical if mass produced.

Alternative materials for continuous external covering are :

(1) Timber.
(2) Corrugated sheets, steel or asbestos cement.
(3) Flat sheets, steel, asbestos cement, plywood or hardboard.
(4) Rendering.

1. Timber boarding may be either—
(*a*) Vertical ; (*b*) Horizontal.

(*a*) The advantage of vertical boarding lies in the possibility of always using a standard length of timber. The disadvantages are the necessity for cover strips or lapping double thickness and the smaller degree of protection against the weather. Typical sections are shown in Figs. 1 and 2.

(*b*) The advantages of horizontal boarding are greater weather resistance and quicker fixing. Typical sections are shown in Figs. 3–7.

The disadvantages of both systems compared with synthetic materials are the greater weight of material, greater labour in fixing, and the present difficulty of obtaining supplies.

2. Corrugated sheets.
(*a*) Steel.
Advantages are : Ease of erection, especially for disassembly and re-use, and ease of jointing ; disadvantages are : Cost of maintenance, since galvanizing is not really durable, weight, poor insulation and the present difficulty of obtaining supplies.
(*b*) Asbestos cement.

Advantages are : Ease of erection, especially for disassembly and re-use, ease of jointing and ease of maintenance ; disadvantages are : Weight and liability to breakage in handling.

3. Flat sheets.
(*a*) Steel.
(*b*) Asbestos cement. (Fig. 8.)

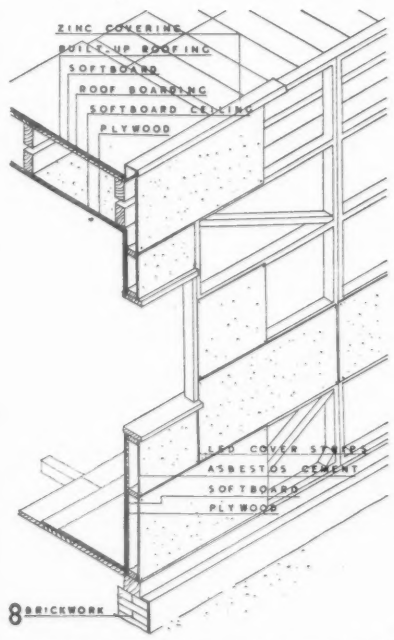
Both are subject to the same relative advantages as corrugated sheets, except that they are lighter in weight, but additional framing and generally also

INFORMATION CENTRE

TABLE II.—SHEET MATERIALS

| Material | Source | Standard Sizes: Thickness | Standard Sizes: Width | Standard Sizes: Length | Weight lbs. per sq. ft. | Max. Span approx. | Thermal Conductivity B.T.U.'s per in. or actual | Order of Preference: Weather Resistance | Order of Preference: Ease of cutting | Order of Preference: Nailing | Order of Preference: Painting | Use* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Cedar Weather Boarding | U.S.A. .. Canada .. | ¾″ | 5″–12″ | max. abt. 16′ 0″ | 1·8 | 14″–18″ | With paper 0·9 actual thickness, plus sheathing 0·5 | 1 | 1 | 1 | 1 | E |
| 2. Deal Match Boarding | Europe .. America | ¾″ | 5″–12″ | 16′ 0″ | 1·8 | 14″–18″ | — | 4 | 1 | 1 | 1 | I |
| 3. Plywood .. .. | Baltic .. U.S.A. .. Canada .. | ⅛″–1″ | 3′ 0″–5′ 0″ | 4′ 0″–8′ 0″ | 0·5 / 2·0 | 9″–2′ 0″ | — | 4 | 2 | 1 | 1 | EI |
| 4. Hardboard† .. | Scandinavia Canada .. England | ⅛″ (and 3/16″) | 3′0″–4′0″ (or 5′ 0″) | 4′ 0″ or 6′ 0″–14′ 0″ or 16′ 0″ | 0·6 –0·8 | 14″–18″ | Per in. 0·7 | 3 | 3 | 1 | 1 | EI |
| 5. Medium hard board† | do. | ¼″ (and 5/16″) | do. | do. | 0·6 –0·8 | do. | ,, 0·53 –0·58 | 5 | 2 | 2 | 2 | I |
| 6. Softboard† .. | do. | ½″ (and 7/16″) | do. | do. | 0·6 –0·8 | do. | ,, 0·33 –0·38 | 5 | 1 | 3 | 3 | IB |
| 7. Wood Wool .. | do. | ⅝″, 1″, 3″ and intermed. | 1′8″–2′0″ | 4′ 0″–7′ 0″ | 1·2 / 2·1 / 6·3 | do. | ,, 0·53 –0·58 | 5 | 3 | 3 | 4 | IB |
| 8. Corkboard.. .. | Spain .. | 1″ (–4″) | 1′ 0″–2′ 0″ | 3′ 0″ | 0·75 | 12″ | ,, 0·25 | 5 | 3 | 4 | 4 | B |
| 9. Asbestos Cement: (a) Plain.. .. (b) Corrugated .. | England .. do. | ¼″ ¼″ | 3′ 0″–4′ 0″ 2′ 6″–3′ 6″ | 4′ 0″–8′ 0″ 4′ 0″–10′ 0″ | 3·5 4·0 | 18″ 5′ 0″ | ,, 0·8 | 1 | 4 | 4 | 2 | EI |
| 10. Plasterboard .. | do. | ¼″ (and ⅜″) | 2′ 4″, 3′ 0″, 4′ 0″ | 3′ 0″–12′ 0″ | 1·1 (& 1·55) | 14″-18″ | ,, 1·4 | 5 | 2 | 3 | 2 | IB |
| 11. Rendering .. | do. | ¾″ (gen.) | — | — | 8·10 | 1½″ | — | 2 | 5 | 4 | 3 | EI |
| 12. Steel .. .. | do. | ·0248″ (24G) | 2′ 0″ | 4 ′0″–10′ 0″ | 1·29 | 5′ 0″ | — | 1 | 5 | 4 | 1 | E |

* E = Exterior. I = Interior. B = Between. † Dimensions vary according to manufacturer.




*Prefabricated timber panel frame, 4 ft. wide. External covering asbestos cement with lead cover strips. Internal, softboard and plywood.* (E. Faludi, Italy.)

cover strips to joints are required, and the material is in smaller units.

(*c*) Plywood

This has been little used hitherto on account of the glue not being weather-resisting, but with the development of resin glue the difficulty has been largely overcome (U.S. Forest Products Research Laboratory).

The minimum thickness for external use is ⅜ in.

Advantages are light weight and easy prefabrication ; disadvantages, the necessity for cover strips, and maintenance, as painting is required except in the case of very temporary buildings.

Metal-faced plywood is available and has somewhat better weather resistance, but it is heavier and more expensive.

(*d*) Hardboard

This has seldom been used in this country, but it has been tried with success abroad, especially in Italy. It has somewhat similar advantages and disadvantages to plywood, but it has greater insulating value. Painting is unnecessary except for more or less permanent buildings, and for very temporary work it is possible to use carefully cut material and to dispense with cover strips.

Metal-faced hardboard is available, but is subject to the same criticism as metal-faced plywood.

4. Rendering :

Advantages are : Good weather resistance, easy maintenance, and availability of material under war conditions.

Disadvantages are : Weight, more site work, more highly skilled labour, the use of water, and liability to cracking (unless frame is exceptionally rigid).

It can be applied to (*a*) timber lathing, (*b*) metal lathing, (*c*) wood wool, (*d*) softboard.

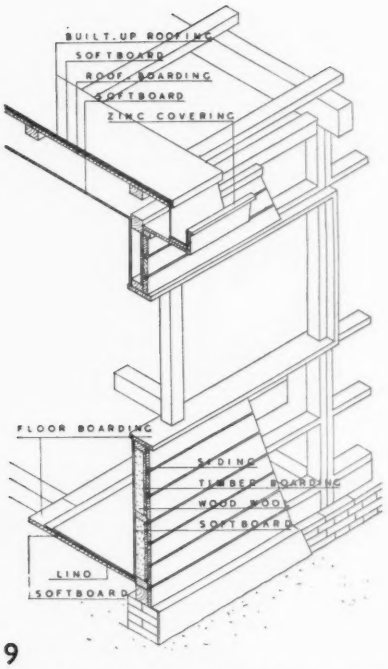
The first is the most economical in normal times, but requires more site work than the second. The third has the advantage of providing insulation. The fourth also provides insulation and is cheaper, but special preparation is required for a good key. In such cases holes can be made or nails driven in.

Discontinuous covering :

All these materials with the exception of rendering can be used for discontinuous coverings. The differences in the panel framing are discussed below.

3. *Internal covering*

Determining factors in the choice of materials are to some extent similar to those in the case of external covering.

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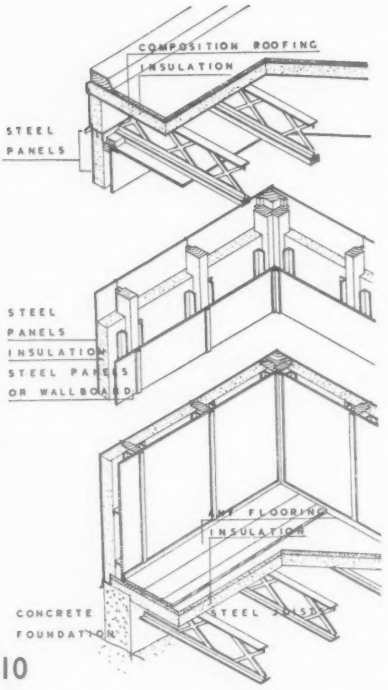
*Prefabricated timber panel frame, 4 ft. wide. External covering, continuous horizontal boarding. Internal, wood wool and soft board. (Faludi, Griffini, Bottoni, Italy.)*

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*Hollow steel panels, with 3½-in. rock wool insulation finished internally with wallboard or steel sheets. (General Houses, U.S.A.)*

But weather resistance is not, of course, required. On the other hand a good wearing surface sometimes is.

Materials available are :

(*a*) Timber boarding. Again this can be either vertical or horizontal, the choice depending upon appearance and whether it is more economical in a particular case of continuous covering to standardize the length of timber or to be able to use varying lengths. If there are many openings, less cutting is required with horizontal boarding.

If external boarding is vertical, extra rigidity can be obtained by running the internal boarding horizontally, and *vice versa*.

Advantages of timber are : Low cost and good wearing surface.

Disadvantages are : More fixing and less insulating value.

(*b*) Asbestos cement :

The advantage is the resistance to moisture and heat, and this material is to be preferred where such conditions are likely to occur. The disadvantages are the same as in the case of external covering, and fixtures require special preparatory work.

(*c*) Plywood :

Advantages are : Light weight, a hard wearing surface, good appearance, and value in bracing ; the disadvantage is less insulating value.

(*d*) Hardboard :

Advantages are the same as plywood, though there is less structural value ; but there is greater insulating value.

(*e*) Medium hard board :

This has less wearing value, but more insulating value than hardboard.

(*f*) Softboard :

This has still less wearing value, but still more insulating value.

(*g*) Plasterboard :

The advantages are the almost complete freedom from shrinkage and consequent value as a base where plaster is required and incombustibility.

The disadvantages lie in the liability to breakage and poor insulating value.

(If a continuous internal covering is made of 4 ft. wide wall boards it may be economical with a clear height of 8 ft. to fix them horizontally. It is a common practice in America to cut half the sheets into 32-in. and 16-in. widths, for a dado and frieze respectively, and use the other half uncut between. If a 4 ft. high window is used at 2 ft. 8 in. cill level, this saves much wastage, and the middle width can be of softer and better insulating material than the dado.)

4. *Insulation*

Some insulation is provided by the air space in the panel, if it is sealed, and the value increases with the width, but not in direct proportion.

The covering materials provide additional insulation in varying degrees (Table II). It can be further increased by the use of two or more materials in combination.

Further materials are available for insulation which are unsuitable for external or internal covering.

They are : (*a*) Thin metal sheets ; (*b*) wood wool ; (*c*) rock wool ; (*d*) cork ; (*e*) corrugated paper.

An example with wood wool is shown in Fig. 9, and with rock wool in Fig. 10.

Paint with definite insulating value is also available.

Insulation is not the only method of reducing heat losses and consequently heating costs. The reduction of air infiltration is also important. This is best done by the use of building paper behind the external covering ; infiltration may be reduced to about one-sixtieth.

Building paper is also useful in giving further protection to the frame against moisture. Where plywood is used inside and out, there may be a greater risk of moisture entering the framework by condensation from the inside than by penetration of the weather. In such cases the building paper should be applied immediately behind the internal covering.

5. *Weather resistance*

Some materials will resist normal weather conditions without special treatment.

Examples are : (*a*) Cedar boarding ; (*b*) certain hardboards (for temporary work) ; (*c*) asbestos cement ; (*d*) good rendering. Others require special treatment.

(*a*) Sheet metal should be heavily galvanized, but for more or less permanent work painting is eventually required.

(*b*) Timber can be preserved against both the weather and decays from fungi and insects in two ways : (i) impregnation of the fibres ; (ii) coating of the surface.

(i) Available materials are :

(*a*) Tar creosotes, applied by (1) brush or spray, for temporary work only ; (2) baths of various types ; (3) various pressure processes, advisable for permanent work.

Advantages are : Cheapness and ease of application, for temporary work. Disadvantages are : impermanence, even where application is made by pressure process, smell (sometimes) and inflammability.

(*b*) Zinc chloride, etc., in the form of various proprietary preparations.

These materials solve the problems in varying degrees, but it is difficult to give tested information on all of them.

(ii) Paint offers good surface protection, but requires greater maintenance, and is seldom preferable for the type of building we are discussing. If used for boarding, plywood or hardboard, a priming coat should be applied and two finishing coats.

6. *The Panel Frame*

The term is used to describe all structural work between columns and between coverings.

For boarding the most economical studding is 4 in. by 2 in. This may be at 14-in.–18-in. centres. 16-in. centres

are generally best, where wallboard or similar sheeting is used inside, as this allows three studs to a standard width. The same applies to rafters where they are used. Clear openings arranged to fit the studding will be 2 ft. 3 in. and 3 ft. 7 in. (Figs. 11 and 12).

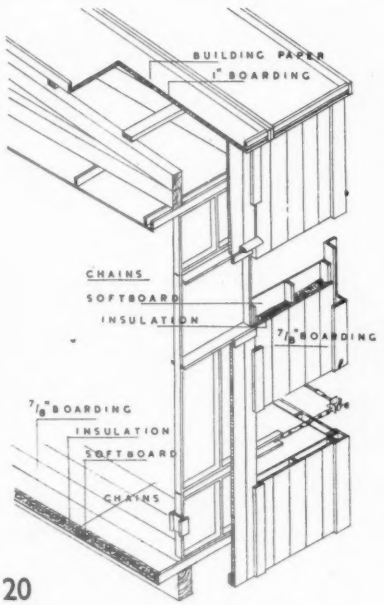
For asbestos cement, hardboard and other types of sheeting without boarding, 2 ft. centres will be adequate for the rails or studs, if sufficient lateral stiffening is provided. An example of the use of rails with strengthened joints is shown in Fig. 13.

For prefabricated plywood used on the U.S.F.P.L. system, 12-in. centres are advised.

It is seldom economical to use coverings which will in themselves provide sufficient lateral stiffening of the building. With most coverings, either braces or diagonal sheathing is required. Where external rendering is used it has been found that horizontal sheathing is preferable to diagonal.

Bracing may be slightly cheaper than sheathing, but the latter provides additional insulation and weather protection. Bracing should generally be fitted between the studs. If very heavy wind pressure calls for continuous bracing, the studs should be mortised to it if possible. Relative strengths are: Horizontal Sheathing, 1·0; Diagonal Sheathing, 8·0; Cut-in Braces, 1·4; Let-in Braces, 3·5.

Prefabricated panels should be of a width easily handled and suited to

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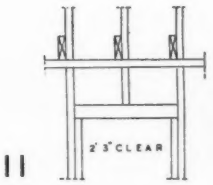
*Prefabricated timber panels, 2 ft. 3 in. wide. External covering 7/8 in. vertical boarding. 3 in. void or cork. Internal covering, plywood. Panels inserted in grooved columns and held by chains. (Guerin et Herlutot, France.)*

standard sizes of material. Boarded panels can be 5 ft., but sheet materials generally require 4 ft. Panels should be

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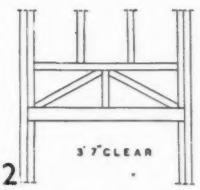


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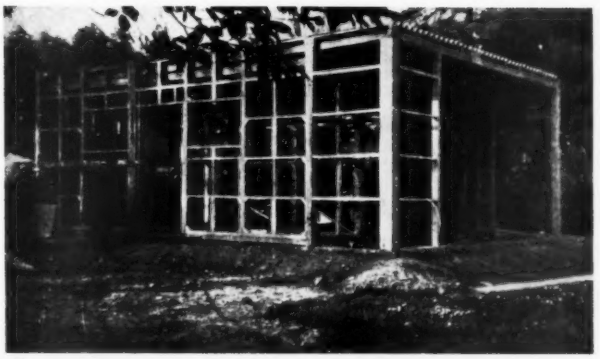
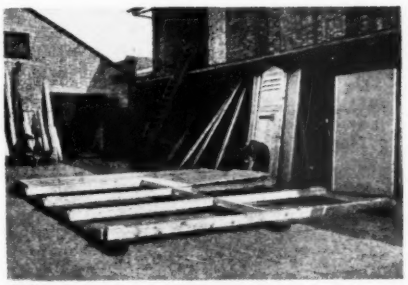
11 and 12 : *Openings in stud wall.*



13 (*E. Faludi, Italy.*) *Framing with rails.*



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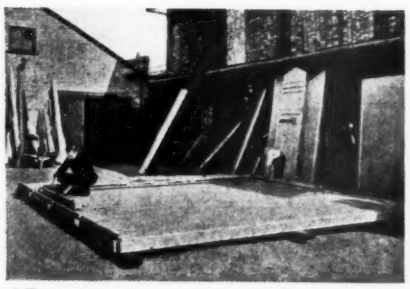

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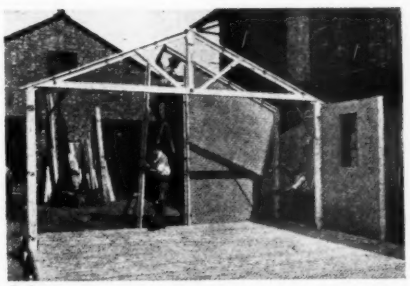

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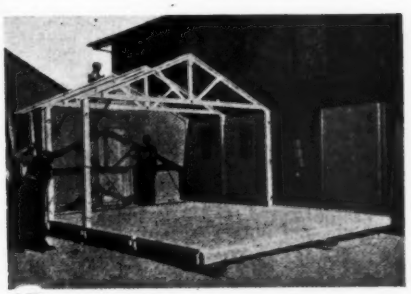

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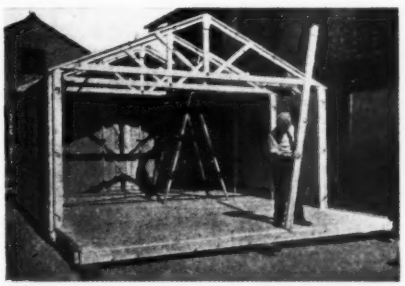

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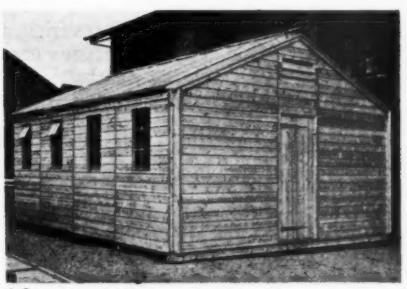


19

14-19 : *Army type of portable hut. (By courtesy of the Director of Fortifications and Works, and Mr. F. J. Leather, the designer.)*

standardized in three types : (*a*) blind, (*b*) with window opening, (*c*) with door opening. Door and window details will be discussed in a later article.

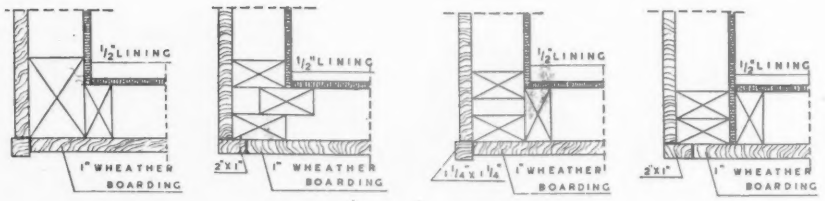
### 7. *Panel Fixing*

Prefabricated panels can be fixed to columns by :

(*a*) Finishing external covering flush with panel frame, nailing and lining. This is the cheapest method, but requires a wider cover to the joint.

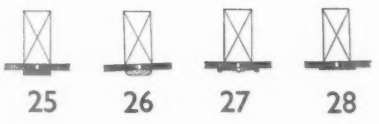
(*b*) Rebating panel frame and finish external and internal covering flush. This method has been adopted for army portable hutting and is illustrated in Figs. 14–19.

(*c*) Projecting external covering, nailing



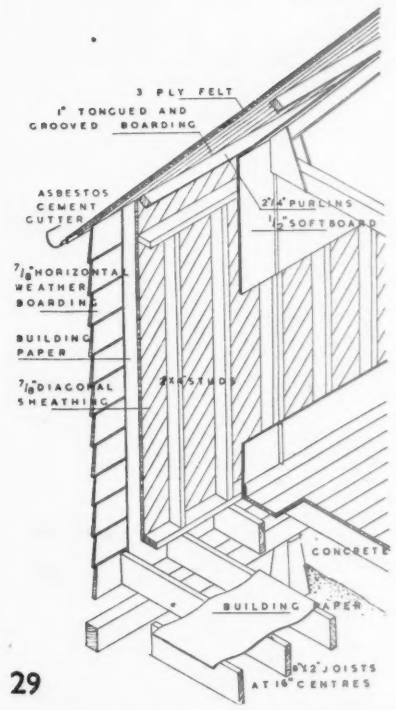

21 22 23 24

*Alternative treatments of corners.*



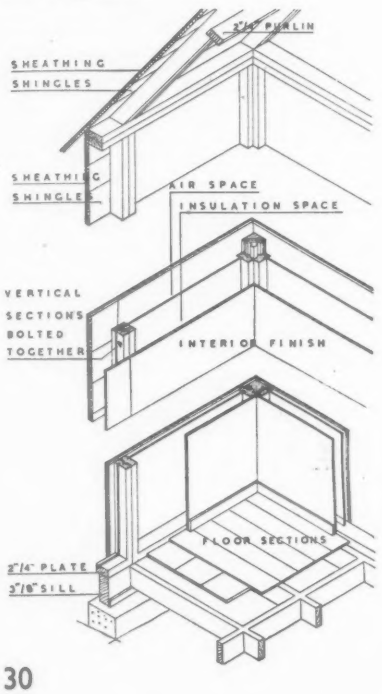
25 26 27 28

*Alternative treatments of internal joints*



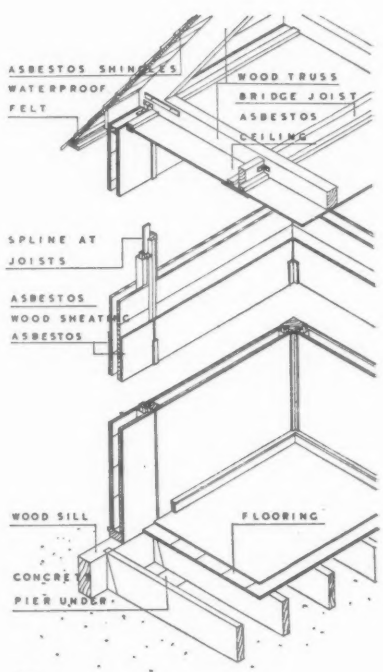

29

***Prefabricated timber supporting panel, 4 ft. wide, with 4 in. by 2 in. panel frame, external covering, horizontal weather boarding and sheathing, and internal, softboard.***




30

***Prefabricated timber supporting panel, 3 ft. wide, with 4 in. by 2 in. panel frame, external covering, sheathing and shingles, with divided air space. Internal covering done on site. (Bossert, U.S.A.)***




31

***Prefabricated timber supporting panel, 4 ft. wide, external and internal covering, asbestos cement. Note spline connection. (Ambler, U.S.A.)***

through frame and through covering, and lining. This requires more careful handling but is more weathertight.

(*d*) Projecting external and internal coverings, erecting alternately with columns on bars or chains. This may be useful for short lengths of wall and narrow spans.

(*e*) Grooving columns, and erecting as in (*d*). This has similar uses. It also avoids the necessity of cover strips, but requires wrought columns well preserved against the weather (Fig. 20).

8. *Jointing and Finishing*

(*a*) External cover strips may be:

(i) Wood, preferably cedar; standard sizes should be used. Alternative arrangements at the corners are shown in Figs. 21–24.

(ii) Metal, not advisable on account of maintenance, and difficulty of supply in war-time.

(*b*) Internal cover strips are unnecessary if boarding is used, or lining sheets are butted. The latter arrangement calls for specially finished edges and is seldom advisable. Alternative materials and types are:

(i) Lining material, expensive and less satisfactory in fixing (Fig. 25).

(ii) Wood strip, the most economical; it should be designed to finish neatly with the skirting and angle fillets; for this purpose a semi-circular section is best (Fig. 26).

(iii) Anaglypta strip, economical and easy to fix, but worse in appearance (Fig. 27).

(iv) Linen paper, essential for a reasonably flush finish (Fig. 28).

The corner fixing of internal coverings always provides a problem, where columns are not used, and require a special arrangement of studs. Alternative solutions are shown in Figs. 22–25.

The first is only economical where heavy framing is required in any case.

The second or third are usual.

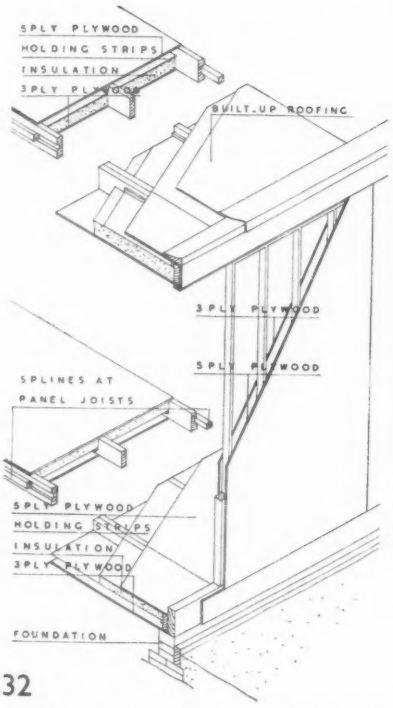
The fourth has advantages where the end bay or span dimension provide an overlap of the standard width of internal covering, but the work of lining must be interrupted for the insertion of the third stud.

9. *Supporting Panels*

The incorporation of columns in the panels is desirable for the more temporary kinds of buildings, especially where disassembly is required. If the panels are entirely prefabricated, there may be a disadvantage in the erection of the internal lining before the roof and consequent liability to damage by weather. Another disadvantage is the greater weight of panel where frequent handling in transport is required.

The normal type of timber covered supporting panel used in this country is shown in Fig. 29. Other alternatives in Figs. 30, 31 and 32.

An example of a steel supporting panel is shown in Figs. 33–35.




32

*Prefabricated timber panel, 4 ft. wide, with 2⅜ in. by 1 in. frame. External covering ⅝ in. plywood, internal ⅜ in. plywood, 2½ in. by 2⅜ in. column connector. (Forest Products Laboratory, U.S.A.)*

35

33-35 : *Prefabricated supporting steel panels with tongue and groove joints. Two thicknesses $\frac{1}{16}$ in. with three layers corrugated pasteboard between, and internal finish of insulite. (Kletzin, Germany.)*

It may be asked whether, if the columns can be incorporated in the wall panels, the rafters could not be incorporated in the roof panels. For small spans, up to about 12 ft., this can be done. (*Cf.* U.S. Forest Products Laboratory System.) For larger spans, problems are raised by the necessity for ties and ridge covers and by difficulties in erection, but the subject deserves special research.

### D. The Partitions

The framing again depends on the material used for linings. This is generally the same as the wall lining, for the sake of appearance. Although there is usually no necessity for insulation, such materials as softboard have also sound-absorbent properties which are valuable.

Unless the floor has been specially designed, it is desirable to distribute the weight on to the stronger parts by suitable bracing. Where the partition is parallel with the floor joists, it should either be carried on two joists together or centrally between them on cross-strutting. With 4 in. by 2 in. external studding, partition studding can be 3 in. by 2 in., and framing for cupboards and intermediate w.c. partitions 2 in. by 2 in.

# TRADE NOTES

[*By PHILIP SCHOLBERG*]

33

34

### *Aluminium in Architecture*

It is rather unfortunate that *Aluminium in Architectural Work*, a large volume published by the Aluminium Union, should see the light at a time when aluminium is virtually unobtainable except for warlike purposes. (A recent advertisement by one of the English manufacturers specifically limited inquiries to firms working on contracts of national importance, so that this is not an unfair comment.) Remembering, too, that war provides a powerful stimulus to the metallurgist, we shall probably have a large new crop of alloys when the present business is over, though these will probably not affect the present commercial alloys, which during the last few years have become reasonably cheap viewed on a cost/strength basis.

The volume under review follows the usual arrangement for books of its kind. Introductory notes on the properties of the metal, its alloys and the methods of working and finishing, the remainder consisting of photographs of executed work, which are probably, to the architect, the most interesting part. Here is something to suit all tastes and, I am tempted to add, what tastes! A severely excellent gate by Mr. Brian O'Rorke from the *Orcades* makes the fret-work grilles and the peacock-encrusted gates look even worse than they are, while a lily centre-piece (5 ft. high) is a monument to the craftsman's skill, but a sad misuse of an excellent material. In the less fancy uses, roofings, railings and general external building work, the material shows up very well, particularly on the Montecatini building in Milan, and for interior work there are the admirable Adelphi offices of the Union itself (by Mr. Michael Rachlis), not forgetting the spiral staircase at Bexhill Pavilion. Shop-fronts and entrance doorways are also well represented, but not quite enough is made of the possibilities of sheet as a finish for bars and counter tops, nor are there any examples of the simple strips and headings for edging shelves or tables. This latter use is not altogether unimportant. The weight of aluminium used would be comparatively small, but the simple headings can be used in a variety of places on almost any small job, and would provide a means of introducing architects to the material.

By and large, this is a useful and informative book, and it has been produced lavishly enough to be a handsome addition to one's reference shelf. It is easy to be critical of some of the illustrations which have been selected, but it is worth adding that, in their own head offices, the Aluminium Union (or their architect) have produced an effect of restraint which is all too often lacking in the "modernizations" of the last few years. So it may be assumed that this particular group knows what is what, in spite of the tortures to which some designers subject their material. This book will be available for distribution in February or March.—(*Aluminium Union Limited, The Adelphi, Strand, London, W.C.2.*)

### *Switches for the Black-Out.*

In these notes reference has already been made to the types of switch suitable for mounting in the doors of entrance halls to make certain that the light shall be switched

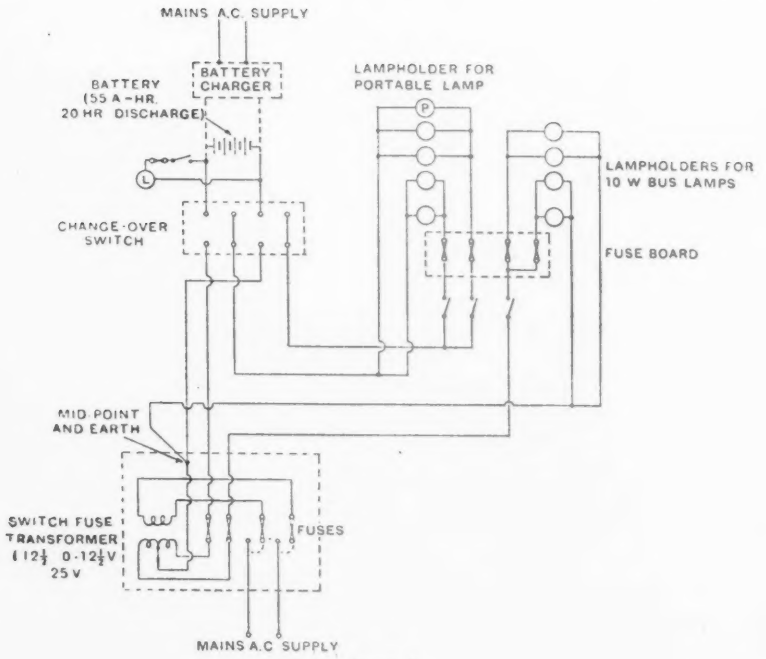



*Figure 1*

off as soon as the door is opened, thus preventing a shaft of light blazing out through the opened door. The latest effort to be produced is by Sanders of Wednesbury, whose device is, in some ways, an improvement on the switches I have seen so far, for it consists of two switches in the same housing, one switch being on while the other is off. Mounted on the lintel of the door, one switch is wired up in series with the hall light, turning it off as soon as the door is opened. The second switch can be used to control any form of pilot lighting which would not give an excessive amount of light outside, or for shops this secondary switch could be used to control a buzzer. The switch is operated by a sliding steel member, spring loaded, and is suitable for use with alternating current only. Fixing is easy, and it can be used with doors opening either inwards or outwards. Price is 2s. 8d. each.—(*William Sanders & Co. (Wednesbury), Ltd., Falcon Electrical Works, Wednesbury, Staffs.*)

### *Safe Lighting for Shelters*

A fortnight or so ago I suggested that people who took electric heaters and kettles into shelters were asking for trouble. To a lesser extent the same criticisms apply to lighting, though with present-day shock-proof holders the danger is rather remote.

Most of the larger shelter lighting plants have a high-tension supply to a transformer, the lights in nearly all types being run at the lower voltage, either from the transformer or from the accumulator if the mains supply should fail. For jobs where the lighting load is comparatively small, the G.E.C. has recently introduced a series of transformer, switch and fuse units. These are about twice the size of the average cooker control unit, and are connected straight to the mains supply. The transformer steps this current down to 25 volts, and has a centre tapping, thus giving 12½ volts each side so that ordinary car or omnibus type lamps can be used. The wiring diagram shows how this unit would be arranged, and provision can also be made, via a change-over switch, to use a battery and charging set if necessary, though if this is done the transformer should be double wound and not the auto type. Figure 1 shows the amount of equipment which would be necessary in a shelter for 50 persons. Leaflet No. 8925 gives details of the transformer switch and the appropriate lamps and fittings.—(*The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2.*)

## R.I.B.A.

### *MEMBERSHIP*

There is much misunderstanding about the distribution of the membership of the R.I.B.A. as regards private practice and official employment. The census recently made by the R.I.B.A. has brought the true figures to light.

The analysis has been completed up to June 1, 1939, and it gives the following results :—

| Group | | |
|---|---|---|
| (a) | Architects in private practice .. .. .. .. | 3,240 |
| (b) | Assistants to architects in private practice .. .. | 840 |
| (c) i | Heads of Government, County and Municipal Offices .. | 270 |
| (c) ii | Heads of Commercial and other offices .. .. | 195 |
| (d) i | Assistants in Government, County and Municipal Offices .. .. .. | 1,650 |
| (d) ii | Assistants in Commercial and other offices .. .. | 220 |
| | | 6,415 |

[N.B.—The above figures do not include information contained on cards received since war broke out.]

These figures show that the members engaged in private practice number 4,080 or 63.5 per cent. of the whole ; that the members working in Government, County and Municipal employment number 1,920, or 30 per cent. of the whole, and that the members working in commercial and other non-official offices number 415 or 6.5 per cent. of the whole.

It is therefore clear that such statements as the one contained in a letter to the *Builder* of January 5, in which it is affirmed that "salaried architects already account for 75 per cent. of the profession" are without foundation in fact as far as the R.I.B.A. is concerned.

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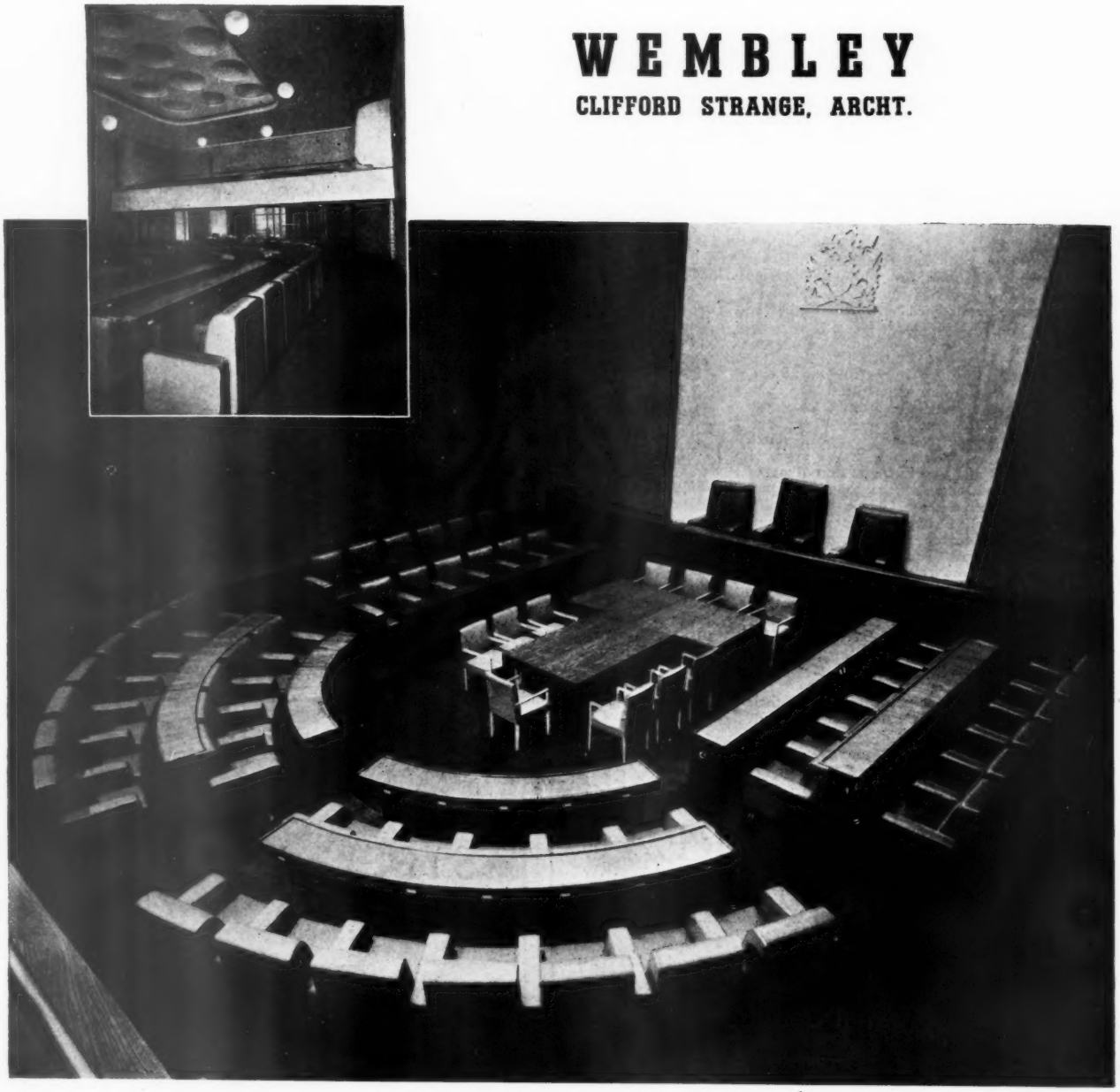

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•

In order to relieve the purses of those of their employees now on active service, Messrs. R. A. Lister & Co., Ltd., of Dursley (Glos.), have decided to pay the workers' contributions to the pensions fund and superannuation and assurances schemes in operation at Dursley, as well as maintaining the firm's own. Steps have also been taken to provide that those in the Forces shall as far as possible have the benefits accruing under these funds made "applicable to their war-time risks and obligations."

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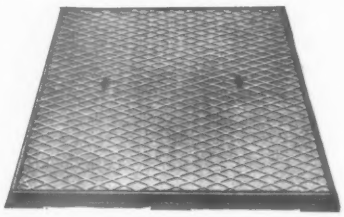

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