# THE ARCHITECTS' JOURNAL

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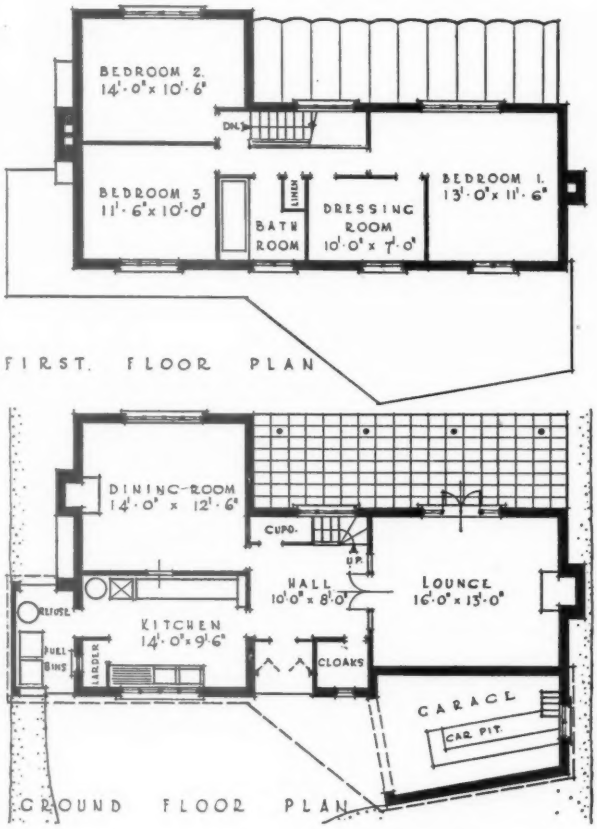
*The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.*

THURSDAY, APRIL 11, 1940. NUMBER 2360 : VOLUME 91

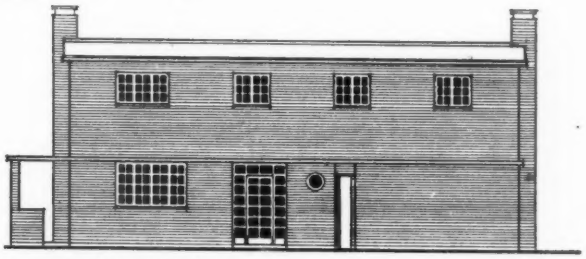
## PRINCIPAL CONTENTS

# HOUSE FOR WARTIME AND AFTERWARDS

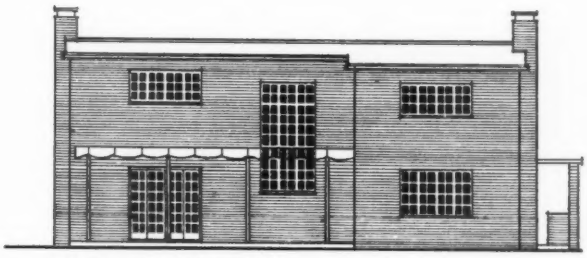
## *FROM THE IDEAL HOMES ANNUAL*




Because it is impossible to provide air-raid protection for its customary huge attendance—an average of 30,000 a day—the Ideal Home Exhibition is represented this year by an "exhibition on paper." The Exhibition was to have been held at Olympia from April 2 to April 27, but instead, Olympia has been "taken to the fireside" by means of "The *Daily Mail* Ideal Homes Annual," which was published yesterday, price one shilling. On this and the following page we reproduce (from the "Annual") illustrations under the title "The Architects accept a Challenge." Ian Jeffcott, L.R.I.B.A., and E. R. Goodall, A.R.I.B.A. (Joint Architects to the Exhibition) give you their ideas for a house for wartime and afterwards.



FRONT ELEVATION



BACK ELEVATION

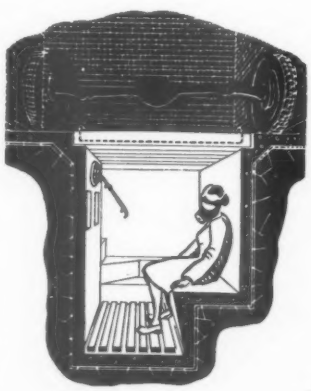
*SAID the Editor of the "Annual" to the architects: "Assume that you have a client who is willing to spend £1,500 on building a house now. It must be planned with due regard to wartime shortages and restrictions, it must include black-out and A.R.P. essentials and must be so designed that your client will be well content to live in it after the war."*

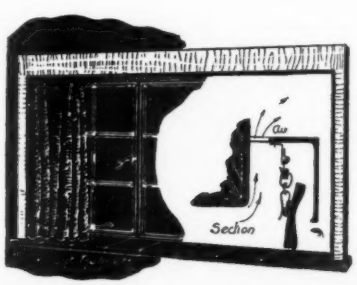
*ARCHITECTS replied: "The task of planning a wartime house such as is the subject of the Editor's challenge is one which from the outset presents problems difficult of solution—not the least of which is the question of costing.*

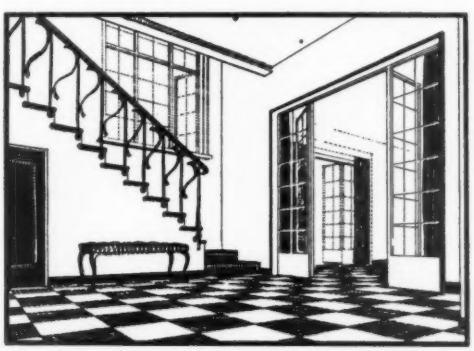
*"It is evident that a serious shortage of some building materials will necessitate the employment of more expensive substitutes, and we estimate that this and other factors will increase the general cost of a house by about 20 per cent.*

*"Timber during wartime is, and will be, almost impossible to get in sufficient quantities for private building. For this house, therefore, we intend to do without it altogether. Other materials, particularly those which are imported, are also restricted, and stocks vary tremendously in different parts of the country.*

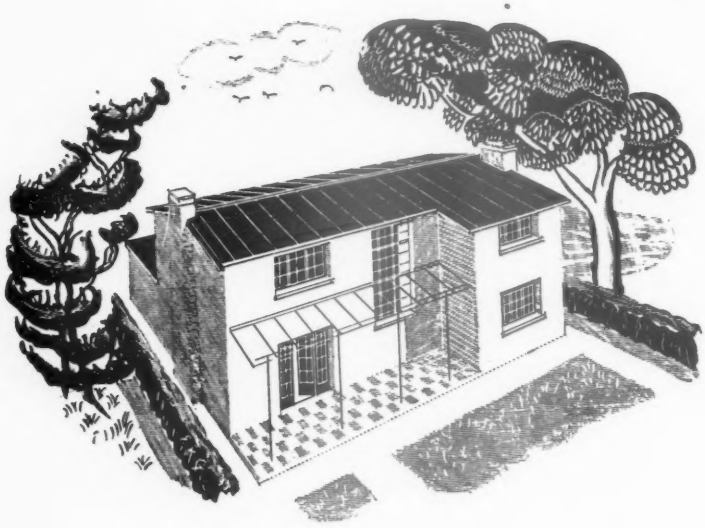
*"In designing, therefore, we have kept in mind that it may be necessary to select materials, according to the conditions which exist as regards quantities and prices, from local contractors and builders' merchants."*





*Left, air raid shelter and inspection pit in garage; above, black-out pelmets; right, the hall.*



# HOUSE FOR WARTIME AND AFTERWARDS

## FROM THE IDEAL HOMES ANNUAL

*See previous page*

*By*

*IAN JEFFCOTT*

*AND*

*E. R. GOODALL*

### EXTRACTS FROM THE ARCHITECTS' REPORT

#### *ACCOMMODATION AND DESIGN*

*Let us suppose that we have found a site roughly a quarter of an acre in size, with frontage of not less than 45 feet.*

*Our client needs a good-sized, well lit living room, and a smaller room to be used for dining, as a study, or as a morning room. He also wants four bedrooms, and a garage.*

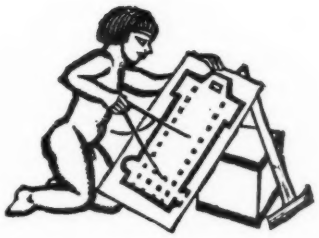
*We design the house in brick. If it is possible we will use local brick. The elevations of the house are simple and grow naturally from the plan. The windows are metal framed, made from standard sections, and have small rectangular panes to remove the splintering danger of larger sheets of glass. Cills are of quarry tiles, both inside and out.*

*The two chimney stacks, also of brick, will batter a little from the ground to capping, and so echo vertically the horizontal slope of the garage wall. The dining room and kitchen stack is increased in width on the outside, sufficiently to provide a store for garden tools.*

#### *MATERIALS*

*The roof at first seemed as though it was going to give us the most trouble, as we had denied ourselves wooden rafters, and we did not want to have the expense of making a concrete flat. We use, therefore, protected metal roofing. Floors are of concrete reinforced with dovetailed steel sheeting, which also acts as centering for the concrete, and forms a key for the plaster ceiling.*

*The house is 19,660 cubic feet in capacity, and costed at 1s. 3d. a cubic foot for the garage and fuel stores, and at 1s. 6d. for the main structure, it gives a figure of £1,444 for the total cost of building.*



# MR. HOWARD ROBERTSON'S SURVEY

IN this issue the JOURNAL publishes the first of several articles in which Mr. Howard Robertson examines the organization of the building industry.

These articles appear at an opportune moment. Since the last war the building industry has greatly increased in size and complexity. Each year changes occurred in the demand on the industry, and methods and organization were varied to meet them. But these variations were gradual and the effect of each small. Between the two wars there never occurred a change violent and sudden enough to affect the whole of the industry and its internal organization.

But since September 3 just such a change has taken place. As a result of the war a large part of the industry is idle ; and in the remaining part, not only usual methods but the industry's usual relationships have been scrapped. Under the new *regime* architects, if employed at all, are employed as organizers and not as designers. From permanent construction the industry has been changed to temporary construction at a violently quickened pace. And latterly it has been asked to construct temporary, cheap buildings in materials formerly used for durable and more costly purposes.

These developments have thrown methods of pre-war building into the melting-pot. The question for all builders and architects today is what will emerge from the pot : to which the only certain answer is—not the methods and relationships of 1939.

Does this mean that the industry should do nothing beyond devising expedients for the day-to-day necessities of wartime ? It does not. The industry may be unable to predict the conditions under which it will have to meet the next great building demand. But one step it can take now to be ready for those conditions : it can make sure that the aims common to the whole industry, and the part which each of its components is best fitted to carry out, are clearly understood and accepted by everyone *in* the industry. Once this common understanding is reached within the industry, it can face war—or peace—with a proper confidence.

The articles by Mr. Howard Robertson which begin this week are the results of a scrutiny of the whole of building from just this point of view. They contain a personal attempt to attain a clear picture of what building ought to do and the part each component of the industry ought to play in its execution.

Mr. Robertson begins by defining what building should be in its fullest meaning :

> . . . building provides static shelter and environment on land. . . . Considered as a craft, building stands unchallenged in importance. It embraces architecture, engineering, sculpture, painting ; in its composition and rhythms it is related to music ; its forms, in their expression of symbolism, are a literature in stone. History can be read from it, and poetry read into it. In addition, science in a hundred departments enters into building as a contribution to the pattern of its design. An art so popular in its appeal and applications, so materially essential, should, in an ideal community, be brought to a high state of cultivation. . . .

This conception of what building should be he uses as a standard throughout his articles. By it he judges the developments in building organization and methods during the last twenty years, the relationships between architects, builders, quantity surveyors and engineers, and the changes which may take place in the future.

It is natural that Mr. Robertson should pay particular attention to the architect in his survey. For it is the architect who controls the relationship of building with other arts, and it is largely through him that changes in design and methods must enter the industry. But though the architect is the central figure in Mr. Robertson's survey, he does not try to exalt him at the expense of other callings in the industry.

> The field which he is supposed to cover is so vast that no single human being can familiarize himself with all of it and still retain the one essential thing which an architect should have, namely, the creative artistic faculty, involving imagination, fertility of invention and resourcefulness.

And from this he goes on to state his conviction that, if good building is not to suffer, some of the architect's present responsibilities will have to be placed elsewhere.

Judging always by the same standard, the later sections of Mr. Robertson's survey examine the effect on building of changes in architectural outlook since the last war, changes in constructional methods, and the problems of labour and supply of materials, which will become more pressing as the war continues.

At a time when it is particularly important that everyone connected with building should understand the strong and weak points of the industry's internal organization, the JOURNAL believes that Mr. Robertson's articles will prove of great assistance. And, though the views and suggestions contained in them are personal, it is certain that their value is not diminished by Mr. Robertson's being not only one of the thousands who can suggest changes, but also one of the very few who will have the responsibility of carrying them out once they are agreed.

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

# NOTES & TOPICS

## RESERVATION OF LOCAL AUTHORITIES' ARCHITECTS

A REPLY to a question from a Northallerton architect in last week's Information Centre has caused considerable disturbance among architects employed by local authorities.

*

In this reply it was stated that

. . . Persons employed in Local Government service are reserved from the age of 25, but only if these individuals are unclassifiable under another heading—e.g., an architect employed as and acting as an architect in Local Government service is not reserved at any age.

This answer was obtained by telephone from the Ministry of Labour; and its publication has been followed by letters and telephone calls to the JOURNAL, nearly all of which stated that the Information Centre has been misinformed.

*

This question is obviously important, and the JOURNAL, the Information Centre and I have all tried to obtain a clear ruling in the last few days. Our findings are substantially the same.

*

The most important evidence available—a letter, dated January 3, from the Ministry of Labour, published in the *Official Architect* for January this year—contradicts the statement made by the Information Centre.

*

This letter contains the following paragraph:

The profession of Architects has now been taken out of the Schedule of Reserved Occupations, and Architects employed by Local Authorities will clearly be reserved at 25 years of age.

*

But it is plain that the paragraph referring to local government staffs in the Schedule of Reserved Occupations* has been variously interpreted by local authorities. The paragraph states that executive and clerical grades of local government staffs are reserved from the age of 25 if not otherwise specifically reserved at an earlier age.

*

Local authorities appear to have differed over whether architects are "executives"; and some have held that architects are excluded from the clause by being specifically *unreserved*. And it is clear, from the JOURNAL's own experience, that officials of the Ministry of Labour have given contradictory rulings.

*

The question of reservation as it affects all local government employees is still being discussed between the National Association of Local Government Officers and the Ministry of Health. But unless the Ministry of Labour's letter of January 3 has been cancelled by a subsequent ruling (of which we can find no evidence), the present position of architects in local government employment is that they *are* reserved from the age of 25.

## THE BUILDING INDUSTRY NOW

On April 2 an Informal Meeting was held at the R.I.B.A. to discuss "The Building Industry Now." And it is probable that most architects expected that the first part of the meeting would be used by those in authority to report past progress and future intentions to the rank and file.

*

Indeed, if the ensuing discussion was to be in any way constructive, such a preliminary summary was essential. The war is now in its eighth month; all members of the industry know that a joint policy under B.I.N.C.'s leadership has been discussed; that statistics of work held up have been accumulated; representations made; meetings held with M.P.'s and memoranda prepared.

*

But what they do not know and must have hoped to learn at the meeting was: (1) How present building volumes compare with those of August last year; (2) what increase in present building B.I.N.C. intends to recommend to the Government; and (3) what recommendations are to be made to the Government for the better use of the industry's resources in building for war purposes.

*

Nothing that was not completely vague was forthcoming on these points. The audience was told what it had already gathered very clearly for itself: that building operatives, materials manufacturers and contractors were as badly hit as architects.

*

There followed various references to things that might be done: "Public works pools," preparation of plans for post-war schemes, training of apprentices, architectural research and so on. But no one considered it necessary to state, in clear, concise terms, what measures B.I.N.C. had already recommended to the Government on behalf of the whole industry, or those which it intended to put forward in the future.

*

It may be, of course, that collaboration between all sections of the industry is not expected to produce more than a unanimous demand for more work.

## PRESIDENT'S RESIDENCE

It is not generally known, nor in these days of delicate relations is it perhaps wise to mention, that the White House, Washington, was painted white to conceal the discoloration by smoke and fire caused by the damage done to the house in 1814 by British troops. The man responsible for this tactful piece of camouflage was an Irishman, James Hoban, who thereby reversed the rôle played by some of his countrymen today.

*

Mr. Hoban, who was a successful local architect of the

* The Schedule is at present withdrawn from sale for revision and the new edition is not expected to be available for another ten days.

period, built as well as designed the White House, and received for his services the sum of 300 guineas a year. The sub-contractors were Irishmen, and a man called Patrick Whelan dug the cellar. Yet another Irishman, Dermott by name, collaborated in the planning of the Federal City.

★

In recalling these facts, the *Irish Independent* writes that "they testify to the popular belief that Ireland, more than any other country in the world, was the largest contributor to the building of the New World."

FILMS AND THE M.M.A.

Alistair Cooke, who was well known to us a few years back for one of the brightest series of radio movie criticisms, is now director of the film library at the Museum of Modern Art in New York.

★

As one of its many enlightened activities, the Museum of Modern Art keeps a collection of movie films, fictional and documentary, from the earliest experimental days up to the very last minute. These films can be seen by the public in a small cinema which is part of the Museum group.

★

Is a similar permanent record of movie art being maintained in London? I haven't heard of one.

DR. THOMAS ADAMS

Thomas Adams, whom we so recently lost, must have lived a strangely divided life, for although he was a pioneer of the English garden city movement and the first secretary of Letchworth, and although he remained throughout his life attached to this country and was never for very long away from it, his best known work was done in Canada and the U.S.A.

★

It is a pretty far cry from an English garden city to the City of New York, and I thought when I saw him there, in a large office some distance up a skyscraper, that it takes a Scotsman to make himself at home, and make himself felt, in strange surroundings. Those were the fabulous boom days of the twenties, and Adams was surrounded by men of abounding confidence and energy, the architects, planners and engineers of a rapidly expanding metropolis.

★

There was much talk of parkways, the development of the riverside, the building of rapid-transit highways. And if that great regional plan did nothing more than help to realize a part of these great projects—and it certainly did this—it served to make New York something better than the mere paleotechnic growth which it was threatening to become.

★

The skyscraper beat him as it beat them all there, and beats us here in London today. Adams was a practical dreamer and le Corbusier's germinating ideas had not reached New York. It is not buildings I think of in connection with that plan, but roads. Roads, rapid travel, and trees. That combination is one that we might have had in abundance if we had had the sense and the vision of Adams and his collaborators.

★

When he retired from his work in New York and settled permanently in England, it became one of his ambitions to see carried out such a parkway from London to the south coast as would show us here the means of using the motor car's swiftness without destroying, but rather adding to, the beauty of the countryside.

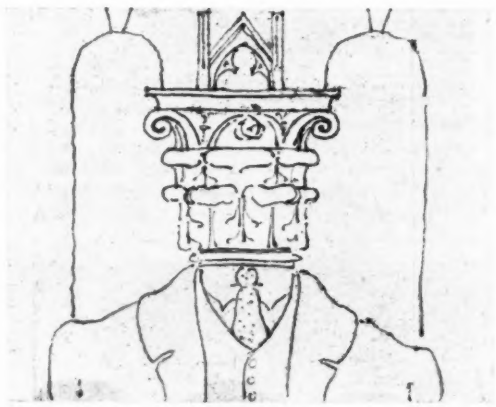
★

I had walked over some of the land which this imaginary road was to traverse and enjoyed with him the prospect of saving this and that fine piece of woodland. Then, tired with tramping, we had returned to his ancient cottage at Henleys Down, and there, surrounded by his flowers and trees, his wife and his children, we had talked until the light failed of parkways and the perversity of men. Despite New York, I continue to think of Thomas Adams as the countryman he was born and in his heart throughout his life remained.

THE UNCOVERED WAGONS

Frank Lloyd Wright is hibernating in Arizona. The annual pilgrimage from Taliesin, Wisconsin, to the warm, sandy South-West is staged with a Hollywoodesque exuberance. Here is a condensed extract from one descriptive letter:

> Picture a safari consisting of five or six trucks full of boys and girls, pots and pans, grand pianos and concrete mixers starting off from Wisconsin in a snowstorm and arriving ten days later in the desert. Several of the trucks invariably break down. . . . Frank and Mrs. Wright follow at a dignified distance in a handsome new Cherokee-red Lincoln Zephyr. As he never drives less than sixty miles an hour, he starts a few days later than the others and of course arrives ahead of time.



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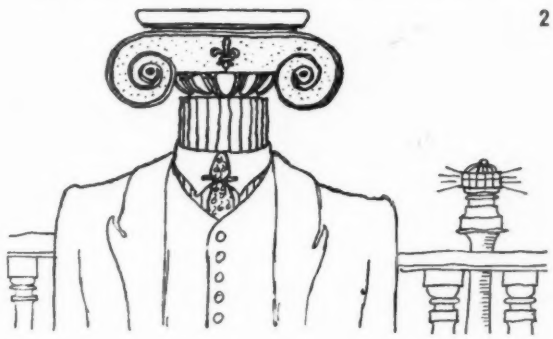

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POISON PEN

Some months ago I published a doodle which I found on the back of a packet of cigarettes at a London restaurant and asked for news of the author. None was forthcoming. (*See* 1, above.)

★

There has now arrived at this address an unsigned postcard from Cornwall, which is plainly the work of the same hand: (*See* 2, above.) There is something very sinister about this.

ASTRAGAL

# NEWS

## FIRST DIRECT RAILWAY LINK WITH WEST-END

Second extension of London's Underground Railways since the war will be opened on Sunday, April 14, when Northern Line Tube trains will begin to run beyond East Finchley over the 5½ miles of newly electrified L.N.E.R. tracks to High Barnet, thus providing the first direct railway link between High Barnet and the West End. High Barnet is 12 miles from Charing Cross, and Tube trains will run between Morden and High Barnet, a distance of 23 miles.

Extension has been undertaken jointly by the London and North-Eastern Railway and the London Passenger Transport Board, and is part of the £40,000,000 programme of extensions and new works in the London Transport area.

## ELECTION OF OFFICERS

At the recent annual meeting of the South Wales Institute of Architects, the following officials were appointed for the year 1940-41.

President: Mr. C. F. Bates, F.R.I.B.A., Newport; Vice-Presidents: Mr. O. S. Portsmouth, F.R.I.B.A., Swansea, and Mr. C. F. Jones, A.R.I.B.A., Cardiff; Hon. Treasurer: Mr. H. Teather, F.R.I.B.A., Cardiff; Hon. Auditor: Mr. E. E. Morgan, F.R.I.B.A., Swansea; Hon. Librarian: Mr. Lewis John, M.A., A.R.I.B.A., Cardiff; Hon. Secretary: Mr. Ivor P. Jones, A.R.I.B.A., Cardiff.

## CONCRETE HOUSES

Two thousand houses with roofs of concrete, concrete floors and staircases, and iron-framed windows, are to be built in Coventry by Christmas. Object is to save using as much timber as possible.

## OBITUARY

Death has occurred of Mr. George Eaton, of Derby, at the age of fifty.

He had carried on in Derby the practice started by his late father. He was a Fellow of the R.I.B.A., a professional Associate of the Surveyors' Institution, and Derby Diocesan Surveyor, and had been president of the Notts and Derbyshire Architectural Society, of the council of which he remained a member.

## TIMBER

Col. Llewellin stated, in the House of Commons last week, that the Ministry of Supply had placed no ban on civil building except in so far as arises out of the inability to release, for allocation by the department immediately concerned, more than a limited quantity of certain materials now in short supply. Col. Llewellin also stated that he could hold out no hope of the early release to the building trades of larger quantities of timber than at present.

## DIARY

*Friday, April* 12. I.A.A.S. visit to Doulton's new building, Albert Embankment. 2.30 p.m.

*Saturday, April* 13. Institution of Structural Engineers (Lancashire and Cheshire Branch). Annual dinner at the Midland Hotel, Manchester.

*Tuesday, April* 16. Housing Centre. "Responsibility." By Miss Neville Rolfe. 1 p.m.

## CHANGE OF ADDRESS

Mr. J. S. Thomson, as a wartime measure, is now conducting his practice at his private residence, 12 Durrington Park Road, West Wimbledon, S.W.20, having closed his offices at 49 Hill Road, Wimbledon, S.W.19. All communications should therefore be addressed accordingly, but the telephone number (Wimbledon 0194) will remain unaltered.

1

2

3

*Photographs taken at the annual luncheon of the I.A.A.S. (London and Home Counties Branch), on Friday last. 1: Mr. J. E. Swindlehurst (President of the Association); 2: Mr. and Mrs. Keith Preston talking to Mr. C. H. Ridge; 3: Mr. Laurence Gotch (left) and Sir Alfred Hurst* (see *page 394*).

★

*IN the eighth month of the war, the building industry, as a whole, is still where it was on September 4. It waits and hopes, but has not been asked to undertake any defined wartime job; and in the section of the industry which has been allotted war work, pre-war methods and organization have been turned upside down.*

*The articles by Mr. Howard Robertson, which the JOURNAL begins to publish this week, thus come at a moment when the industry is not only concerned with the effects of wartime changes—for nothing is apt to be more lasting than a temporary change—but has time to think about them.*

*Although Mr. Robertson's views and suggestions are personal, it cannot be forgotten that, besides being a Vice-President of the R.I.B.A., Mr. Robertson has been closely concerned, as a member of B.I.N.C., with the movement towards the fuller organization of the industry.*

*The suggestions he puts forward are therefore not only the outcome of long experience in building but are those likely to be raised in the inner councils of the building industry within a very short time.*

# ★THE NEXT YEARS

*By*

Howard Robertson

[*VICE-PRESIDENT of the ROYAL INSTITUTE OF BRITISH ARCHITECTS*]

## AUTHOR'S FOREWORD

When the present war is over, there will be hundreds of thousands of men longing to be demobilized, with their expectations raised by the conviction that they have been fighting for civilization. They will have the right to believe that peacetime occupations will absorb them. On the Government, and on the heads of industry, falls the obligation to plan ahead in such a way that these expectations will be fulfilled.

It is too much to expect that, at the present time, the active heads of the Government will devote much of their time and thought to planning ahead for peacetime. But there are available trained minds whose wartime occupations do not preclude a study of the peacetime problem; indeed, there is much to be learned from wartime organization and expedients, and they require close study from the standpoint of their possible adaptation to post-war conditions.

The building industry is one of those on which governments have come to rely for a lead in the return to normal prosperity, on account of its enormous ramifications. At present this industry is languishing; but that does not provide any excuse for failure to take advantage of the present lull in order to plan ahead. Indeed, it is at a time when the competition of ordinary life gives way to a spirit of whole-hearted co-operation that planning for the future can be most fruitful.

A preliminary to such planning is an examination of the machinery through which the planning will be set in motion. If the machinery needs overhauling or redesigning, now is the time to do it.

The purpose of this series of chapters on various phases of the art of building is to draw attention to some of the questions in which all members of the building industry, and a large section of the public also, are interested. The field is a large one, and any rapid survey of it must necessarily be loose and discursive. But it is someone's duty to raise, however vaguely, those questions which can only be solved by solid thinking and application.

The thoughts and views hereinafter expressed are merely those of one individual; they do not purport to represent in any way the policy of the Royal Institute of British Architects, the Building Industries' National Council, or any other body. Their author's aim is to promote discussion, to draw attention to problems affecting the industry, in the hope that the industry will tackle their solution.

THE French say that the object of civilization is well-being; a disdain for well-being implies a contempt for civilization.

A preliminary to well-being is order, the production of which requires the combined efforts of design to conceive it, and organization to carry it out. For a mere automatic sense of neatness is only a seed which requires a positive cultivation.

Among many dangers threatening our present civilization today, one of the most insidious and destructive is the growth of lawlessness. This strikes at the very root of order and of all the conventions through which order is established and maintained. Lawlessness is a potent weapon in the modern technique of combat provided that it contain the element of surprise. The aggressor uses it to obtain initial advantages. He no longer even declares war. Diplomatic usages are overthrown, and ambassadors and their staffs—neutrals as well as belligerents—flee for their lives as the bombs fall; international law, treaties, conventions, agreements of all kinds are treated either as a dead-letter or as moves in a game of tactics.

Against this spirit of lawlessness, fomenter of disorder and finally of destructive revolution, certain sections of the world are fighting. And yet, within those same sections are at work the same forces of disorder, though not on a sufficient scale and with sufficient backing to overthrow the national organization.

These forces are not necessarily destructive elements represented by groups of people, disciples of ideologies, or racial sections of the community. They may end by being so; but fundamentally they arise through the neglect of the community to correct the situations which eventually provide their breeding ground. The community itself is a conglomerate of millions of people following thousands of different occupations.

These occupations are followed by

individuals who, in the majority of cases, form part of groups, professions, careers, trades, industries. Each of these groups is in the main responsible for its own organization and order, though the strength of each is measured by the quality of the individuals who are its constituent members. These individuals are the nucleus cells, and they in turn have potentials which are influenced by all the conditions affecting human beings, including the character and type of government under which their activities are producing.

Here arises the question of whether the people produce the sort of government which they deserve, and are in this sense partly responsible for their own condition. It is pretty safe to say that they do ; for the individual comes first on the scene, and the organized communities after. The supreme government represents in theory all the organized communities.

The purpose of this preamble is to show that organized communities have a great responsibility, and are capable of exerting great influence and power both constructive and destructive ; but their strength and potentialities are, it must again be stressed, dependent upon the efforts of their constituent members.

If today we are still fighting the battle of our own conception of civilization, and the French are right, we are fighting for the well-being in general of ourselves and others ; in particular, we are fighting for those elements in our life which should be most capable of producing a spread of well-being.

Foremost amongst these are all the beneficent creative activities which to the ordinary man are the "humanities." Without these things life is thrown back upon a low plane. They are not material necessities, but to obtain their satisfactions are employed the bulk of the other activities which are purely material. They rank higher, and belong to the spirit in the same way as does religion. Fortunately, also, they are a link between the spirit and the senses.

The arts and the crafts related thereto have, therefore, an enormous importance in the matter of their power to civilize. Together, they form a sort of community force which at its broadest might be international. But before that state of widespread brotherhood is achieved it is necessary to perfect each individual unit, and organize each so that its own house is set in order and the disruptive forces which are at large today are eliminated from within that particular section. In other words, each cell must function well, and be able to add its quota to the common well-being, before its members can legitimately voice complaints of the state of the world in general and their own society in particular. The more important that cell or unit in the framework of society, the more vital it is that it should be subject to constant overhaul and improvement, and the more necessary it becomes to take advantage of any opportunity to examine weakness and prepare schemes for betterment.

## 2

IN all departments of human activity the creative and the executive faculties are complementary, in the sense that the one is indispensable to the other. They may be held in common, and in any case the borderline between them is not clearly drawn. But while creation can exist without execution, the converse does not apply. The idea precedes its application.

Among all human interests, the arts have the largest common denominator. In some form or other, they interest everybody. Creation in them becomes, therefore, a factor of first importance, in the fields both of quantity and quality. The fact that there is a universal response to art, in a whole range from its basest to its highest forms, throws a heavy responsibility on the creative artist. He is in general happily unconscious of it, except in so far as he feels an irresistible urge to succeed, partly for the gratifications of success, but more profoundly to satisfy an inner craving for production and expression. The artist is always tending towards the satisfaction of demands, his own and those of other people. The field and range of his art may be very slight and limited ; on the other hand, they may serve a fundamental and practical purpose, one connected with the very maintenance of conditions for existence.

Into this latter category comes first and foremost the art of building, providing static shelter and environment on land, and mobile shelter on the sea and now also in the air. Considered as a craft, building stands unchallenged in importance. It embraces architecture, engineering, sculpture, painting ; in its composition and rhythms it is related to music ; its forms, in their expression of symbolism, are a literature in stone. History can be read from it, and poetry read into it. In addition, science in a hundred departments enters into building as a contribution to the pattern of its design.

An art so popular in its appeal and applications, so materially essential, should, in an ideal community, be brought to a high state of cultivation. Building is a man-made thing, but it stands in surroundings which are in themselves an architecture, and into this setting it should in theory fit without a note of discord. It should adorn, not mar, and provide that element of human life and human scale which makes the contact between mankind and the world which it inhabits and cultivates. The difficulty of achieving this one single aim should be enough to make the artist feel his responsibility. For he is acting as a sculptor on a gigantic scale, not carving the heads of statesmen on a mountain, but modelling an almost living organism out of the very landscape.

But this aim of a sculptural harmony is only one in the huge bundle of objectives which must be related in the art of building. Convenience, durability, economy, are essentials to be achieved in fact. Beauty, expression of purpose, and all those qualities which continue to defy definition must be essentials of the language in which the bare facts are set out. Yet language is ever subject to constant change, so there must be in these qualities something so basic and so permanent as to be unaffected by those serial deviations from fundamental standards which occur in every age.

Well-building, in fact, is required to assist in creating well-being, based on those serious and permanent qualities which endure. But there is something else, something positive and almost aggressive, which the building art can do. This thing is related to economics, and the doing of it is part of the arduous creative labour which falls on any section of the community which aims to be constructing as opposed to merely "keeping going."

The tendency of the age is to force people down into the minimum life. While public services improve, social services are initiated, and facilities of all kinds developed, nevertheless taxation rises, debts increase, wealth is absorbed, and the spaciousness of existence—as opposed to its speed and equipment in accessories—tends to disappear. This may appear untrue, for there is constant talk of the increase in leisure, and what to do with it. There is, most certainly, an increase in forced leisure, that arising from unemployment, and there may be a slowing down in performance, which on the surface gives the impression of the easier life. But, in fact, the conception of living as an art has shown signs of cracking, particularly for certain hitherto fortunate classes of the community, who are coming to dwell in minimum flats with minimum kitchens and space-saving furniture, but not at minimum rents. A state of affairs which the aftermaths of wars inevitably aggravate, adding fresh classes of unfortunates to those which have existed for years as a reproach to our civilization.

It is at this point that the art of building must come to the rescue. It cannot achieve the impossible, abolish the abuses of the leasehold system, vanquish the speculator, and directly reduce rates of interest. But it can, by a positive contribution in design and organization, by an elimination of waste, a determined will to overcome familiar and hence accepted obstacles, contribute very much towards providing more for the same money. In other words, the art of building may, on the economic side, make a contribution arising solely from the perfecting of its technique.

If we can assume that the art of building should be as good as the resources of an age permit, it is evident that the machinery of the community which practises it must be examined, taken to pieces if necessary, overhauled or replaced if defective. It is a task to daunt the bravest. There is, if memory serves, a drink called "Tequila," made of a pale liquid which contains the kick of a broncho. Such a drink makes a man 10 feet high and 6 feet broad. The man who would examine the machinery of the building craft today needs a "Tequila."

Yet, if we cannot get inside the cylinders, we may at least take a glance at the layout of the engine. Money, we observe, is the spirit which provides the mixture, composed of unequal parts of architect, quantity surveyor, specialist and builder. The building owner is contact maker for the ignition; and the good relations between all these supplies the lubricant. The power which is developed depends on the balanced contribution of all the elements involved, but it is the quality of the mixture which above all counts.

Architect, quantity surveyor, builder, all have separate and distinct functions. The rôle of the quantity surveyor is well defined, and though as a profession the quantity surveyor is non-existent in some countries, he has duties and responsibilities which in England are fully recognized. His science is an exact one, and the high standing of his calling has led him to be regarded almost as a chartered accountant, dealing with the quantities and costs of the material and labour required in building operations.

The part played by the builder is in theory obvious. But in the practice of today the builder operates in a variety of ways, all it is true leading to the fulfilment of building enterprises, but not all based on the same conception of building as an industrial craft.

The builder, as an entity, is in theory a craftsman in building. Working himself, or directing the various trades, he is a technician familiar with materials and the processes of labour which bring them together in the building scheme. The builder, as defined in these terms, exists today in town and country. But he exists as a diminishing quantity.

The craftsman type of builder is being replaced by the building contractor who is primarily an organiser of building operations, comparable to the director of an industrial enterprise who handles and directs the business on broad lines without necessarily being familiar with the technical details of processes of manufacture. He is thus primarily a "business getter" and a production manager. Such a man relies for his detailed information on specialists in each section and subsection. The latter know thoroughly their departmental job; they work at specialized processes which, assembled together under the direction of other specialists, provide the finished article.

Broadly speaking, these are the lines along which industrial production is conducted, guided by the directives of the designer. And so, it may be argued, can be organized the production of the building industry.

And yet, on examination, it becomes clear that differences exist between the conditions of factory production and those of building as it presents itself today, with the reservation that if building does eventually become a process of solely factory production the whole case may appear in a different light.

Buildings are made, like fabricated articles, to a design. But, in the vast majority of cases, the design is not repeated in indefinite quantities. Even if it were, there are external conditions which affect it fundamentally, notably those related to siting and availability of materials and labour. The question of site affects building so profoundly that it is practically true to say that every building problem is different, and demands solutions in which technique must remain always fluid and always resourceful. In building, the applicability of the stereotyped solution is the exception, for the repetition of units in large schemes does not affect the fact that the schemes themselves can seldom be duplicated as ready-made solutions.

Each building problem requires, then, the drawing up of a preliminary and individual plan of campaign. As elements in this plan may be incorporated usages and methods already utilized and proved; these are the technical stock in trade, to be selected according to their suitability. But the general conception, with the rarest exceptions, must be conditioned exclusively by the problem.

In the formation of this conception, it is traditional that the architect plays the leading rôle. He is the planner and designer. His whole training and experience is, or should be, directed towards the adequate—and if possible inspired—solutions of building problems.

Conceiving his solution, he is inevitably affected by economic limitations. And here, apart from his own experience, he can draw upon the skill of his quantity surveyor colleague. Finally, in this ideal scheme of generalship, the architect has, as an executive collaborator, the builder, the man who knows construction and possesses, through a tradition of experience, a skilled knowledge of labour, of materials, and of the economic problems connected with both.

Here, then, are elements in the creation of a plan for well-conducted building operations, a plan based from the outset on the collaboration of persons whose functions, though all vital and complementary to the business, are yet distinct. These persons should, as a first essential, be capable in their individual functions; but on that point more will subsequently be said.

## 3

AT the present time, the conditions of building practice rarely permit of the collaboration, from the outset, of the three main participants in the building programme. The architect conceives, and having evolved his scheme, passes it to the quantity surveyor with sufficient details to relate the quantities to the job. He may, it is true, ask for the preparation of rough approximate costs or rough quantities, providing that time and expenditure permit. In any case, the bills are prepared, and printed, and released for tender. The builders, viewing the drawings, or sometimes not, as the case may be, submit their prices primarily on the bills of quantities; and the lowest tender is generally accepted. This tender may be high, as all the tenders may be; or else it may be cut to the bone. The circumstances and conditions existing in the building industry at the precise moment condition this.

The builder who is tendering, if he does not know his architect—and his surveyor—is really offering to supply at a fixed sum a commodity of which he can scarcely estimate the exact cost of production. He takes a chance, for better or worse. And if times are bad, very often for worse.

The objections to this system—as of course to any method of obtaining competitive prices—appear numerous. For one thing, the builder is buying a pig in a poke; and so is the client—and the architect—for in a list of builders tendering are inevitably one or two less fitted for the task in hand, yet difficult to exclude on grounds of equity or policy. More serious still, the architect is precluded from preliminary consultation with the man who eventually will be responsible for the erection of his design. Factors of importance to the project are not revealed or discussed; and expensive items in the design, not necessarily essential, may be included, whereas after consultation they might have been eliminated. Furthermore, the method of tendering in competition encourages all types of makeshift—even subterfuge—in order to toe the economic line. Fine craftsmanship, and eventually even decent, conscientious workmanship, risk to go eventually by the board under these conditions, to avoid which are created special organizations or even rings to circumvent the cut-throat character of competition.

The effect of the wholesale adoption of these methods, though not at first sight too serious in comparison with the advantages achieved, is bound in the long run to be deleterious. Standards are lowered; and eventually the economic advantages of this type of competitive system are counteracted by organizations set up purposely to maintain a reasonable margin of profits. The result, carried to its logical conclusion, may well be the production

of inferior buildings at the price normally payable for those of better quality.

The production of a better method of obtaining building prices requires careful study, and the solution, if arrived at, requires the whole-hearted endorsement of the building industry as an entity. The public will eventually approve any method which gives it better service. Already a few isolated building firms have instituted methods of obtaining and executing contracts which, while unorthodox, have yet created that measure of confidence which is a pre-requisite for the success of a sound enterprise.

The basis of a sounder method might well be the selection of a firm, or a group of two or three firms, especially suited for the execution of the job in hand and comparable in character and standing. With these firms the architects and surveyors would discuss the problem in all its aspects, thus studying it at the outset with a thoroughness which cannot now be guaranteed. Based on the information thus held in common and then translated into quantities or, better still, a priced schedule, the builders would submit a proposal for the erection of the building which would contain their financial proposition based on a fee added to the priced schedule (or else a firm all-in price) and an outline of all the factors which affect their schemes, including if so desired suggestions for effecting economies in construction and even in design; for no architect is so omniscient that he cannot benefit by the experience of others.

The proposals thus submitted would be weighed, with due consideration to each factor in their make-up. The chosen submission would be that best fulfilling, in the opinion of architect and client, the conditions for a successful building project. As a matter of fact, many architects know that, in the majority of cases, the best all-round result in building is achieved by selecting the right builder for the job in hand, and negotiating his employment direct on an agreed basis. It is the method most satisfactory, and widely used, for choosing men for positions of high responsibility; so why not for selecting builders?*

This procedure would encourage, on the part of builders, an attitude towards building of creative improvement in the direction of method, organization, craftsmanship, and understanding of building as an almost living organism, which in fact, with all its stresses, strains, and resistance to climatic conditions, it is. The builder who treats his work as a very distinguished and difficult craft, and not as a commodity to be purveyed, would eventually come out on top. The pursuance of this programme would assist in defining the aims of education within the industry, which today appear somewhat confused and nebulous. For there appears to be a hiatus between the approach which defines the building student as a young craftsman or tradesman, and that which aims at the production of what we might call, for want of a more agreeable term, the gentleman builder, the future manager or director who has personality and perhaps a military title, and who belongs to good clubs; but who does not always know as much as is desirable about the terribly complex and baffling problems arising in actual building.

The rôle of the builder is surely that of combining the art of his craft with the acumen necessary for the conduct of building as a business enterprise. But essentially he should himself possess, or have at his disposal, a first rate technical knowledge and experience which should blend, through consultation, with that of the architect with whom he is in contact.

If this became the rule, the architect would be relieved from much of the load of responsibility which makes today for uncertainty in the matter of the direction which he should take both in his technical education and in the subsequent management of his practice. The architect today runs the risk of developing in every direction to become Jack of all trades and master of none. The field which he is supposed to cover is so vast that no single human being can familiarize himself with all of it and still retain the one essential thing which an architect should have, namely, the creative artistic faculty, involving imagination, fertility of invention and resourcefulness. The architect should first be well educated, knowledgeable, and cultured, though these preliminaries to specialized training require time, trouble, and money. He then needs to acquire a knowledge of history and historical design at first hand. He should finally emerge as capable of infinite powers of expansion and able to cope, artistically and functionally, with the design of anything from a cocktail cabinet to a town plan, and should be acquainted with the basic requirements of a score of different types of highly specialized buildings. He should be familiar with finance and the conduct of the economic side of his work and he should know intimately the law, while retaining a capacity to survey and value. On the technical side he must be aware of all the highly complicated modern inventions and appliances forming the mechanical services (with an alert eye on the findings of research) and should know construction so well that he can rough out a framework skeleton, calculate stresses, and yet still be expert enough to allocate responsibilities for leaky basements or the failure of a specialist's flooring to remain *in situ*. Lastly, he must be up to date, moving with the times, yet always without endangering his client's interests thereby.

There are still plenty of attributes which could be added to this nucleus of essential qualifications; but these will be sufficient as a *point de départ*.

The danger which results from the multifariousness of the demands on the architect's equipment lies in the possible submerging of his essential contribution to the cause of well-building, this being the ability to plan and design and organize. The architect may too readily become a specialist in one of his many activities, and emerge as a good specialist but as an indifferent architect. That is the fate of many in the profession today. There are architects who have become so skilled in factory work, in the design of monster flats, or the planning of theatres, that they achieve financial success and satisfy their clients' immediate material demands, but nevertheless produce what—dispassionately judged—are really bad or indifferent buildings. Whole districts may be sprinkled with their work, which is tolerable perhaps, yet definitely not good enough. It may be argued that since all concerned are happy, why worry? But that answer does not satisfy the long-term aim of any conscientious contributor to the art of building, which should be directed towards an always improving standard and the avoidance of any shoddy production. This always lowers the level of an art, corrupts the public taste and—curiously enough—ends as bad economics by depreciating values and eventually creating slums. A very well designed building is a good long-term financial asset, even if the immediate return on it be not so high as on a shoddy speculative construction. It is the architect's job to design well, and at present that job is endangered by the fact that the architect's capabilities are spread too thinly over too wide a field.

The architect's position in the community is being gradually eaten into as the result of his inability to visualize in what his future lies, and consequently to concentrate upon an effective preparation for it. Certain engineers are now practising architecture, and doing it with successful business results. They may plan reasonably well, particularly where the programme is defined, but the design is nearly always on a low plane. The auctioneer-surveyor does the same thing; and even the builder enters into the architectural field, having an alert flair for finance and the gift of providing a commodity for a market likely to absorb it.

Meanwhile, the architect, troubled by competition, risks to lose his force of unity through doubts as to his precise rôle, while the public must inevitably come to hold the view that if the architect cannot define it, the layman can hardly be expected to do so either.

[*To be continued*]

* There are obviously cases of building of a standardized or venture type to which present systems of competition are reasonably well adapted.

# WORKING-CLASS FLATS

## GARRATT LANE, WANDSWORTH

*ARCHITECT: EWART G. CULPIN*
*ASSISTANT: A. E. KELSEY*

GENERAL—Scheme was for the abatement of overcrowding, for the Wandsworth Borough Council. Accommodation required was mainly the larger type of flat with three, four and five bedrooms. Total number of flats, 272.

SITE—The site comprised a disused football ground, the remains of an old slaughter-house and a rubbish-tip, comprising a total of 9·88 acres. The rubbish-tip formed the greater part of the site.

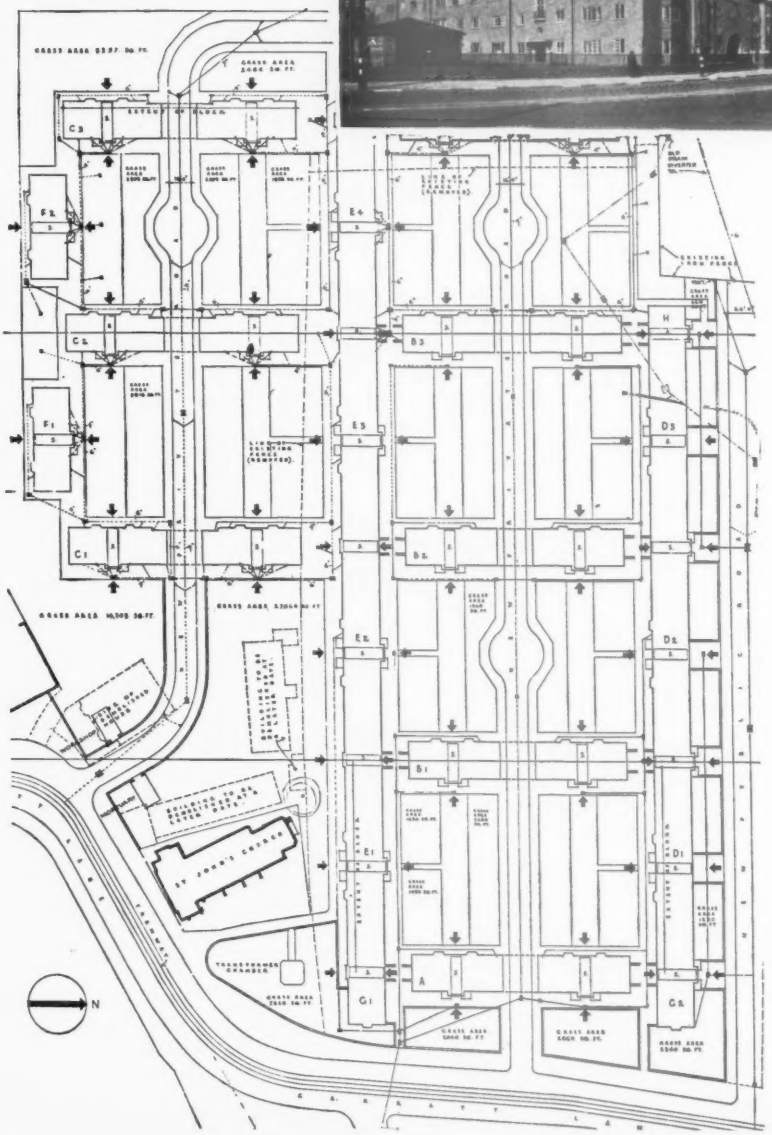
*Above, looking east from north end of Block C.*

**PLAN**—Flats were designed to allow the access of sunlight into the living-rooms and bedrooms during the greater part of the day. Each staircase, of which there are 34, serves only eight flats in order to give the maximum amount of privacy to the tenants. Each flat has bathroom and separate w.c. ; meters (gas and electric) are placed in the hall adjoining the flat entrance door.

**CONSTRUCTION**—Walls : brick. Roofs : timber joists, boarding, felt, counter battens, battens and hand-made sand-faced plain tiles. Internal walls : 4½-in. brick and pumice partition blocks. Floors : filler joists and solid concrete.

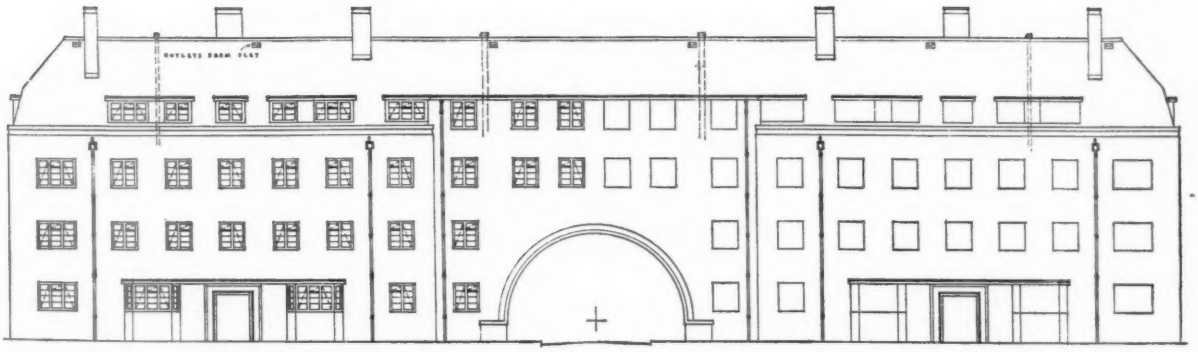
EXTERNAL FINISHES — Multi-coloured facing bricks with brown sand-faced tiles for the roofs and bay-fronts. Windows are wood (a particular request of the clients), painted cream. Staircase windows have Portland stone architraves and balconettes with a decorative wrought-iron railing.

*Left, view from Garratt Lane; above, part of south front, Block E*



SITE PLAN

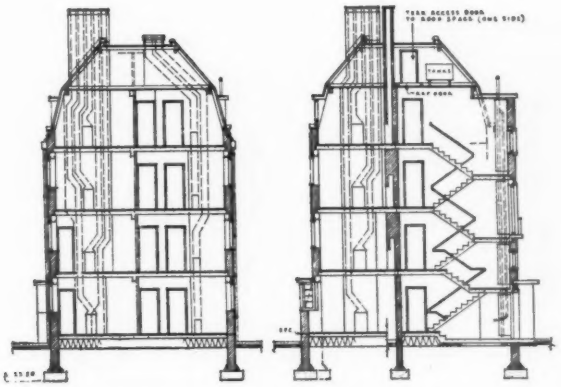
WORKING CLASS FLATS,



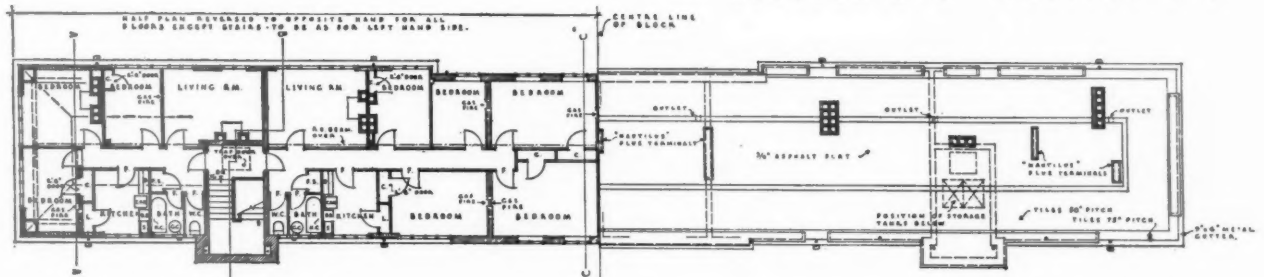
WEST ELEVATION

## ELEVATION, PLANS AND SECTIONS OF BLOCK C

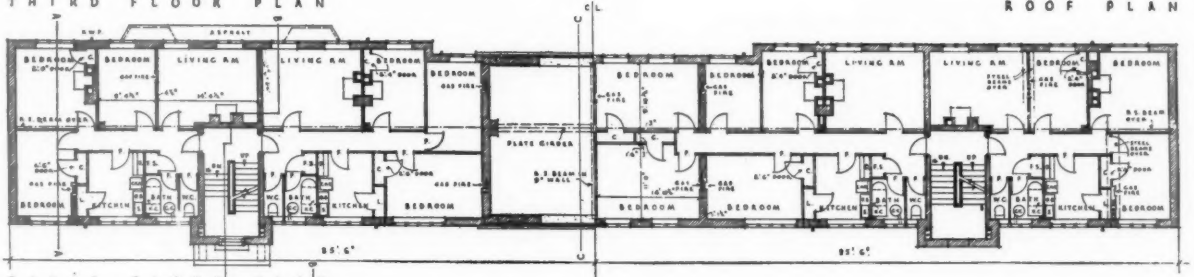
*Block C, west front*



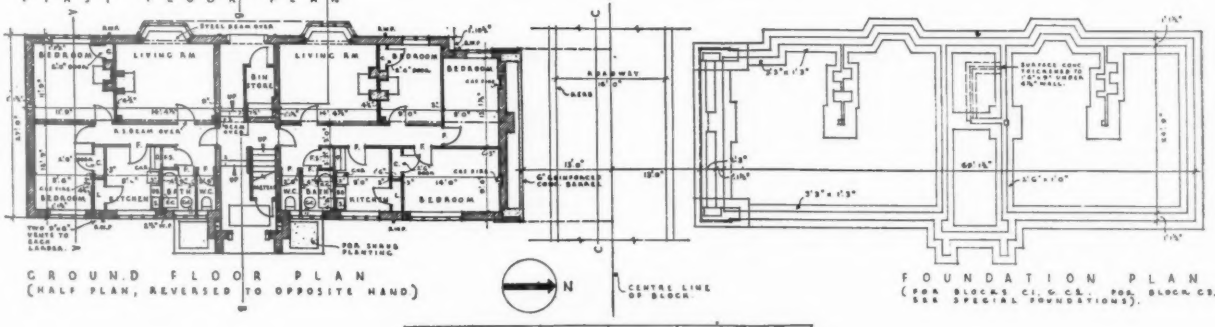
SECTION A-A SECTION B-B



THIRD FLOOR PLAN ROOF PLAN



FIRST FLOOR PLAN



GROUND FLOOR PLAN (HALF PLAN, REVERSED TO OPPOSITE HAND) FOUNDATION PLAN

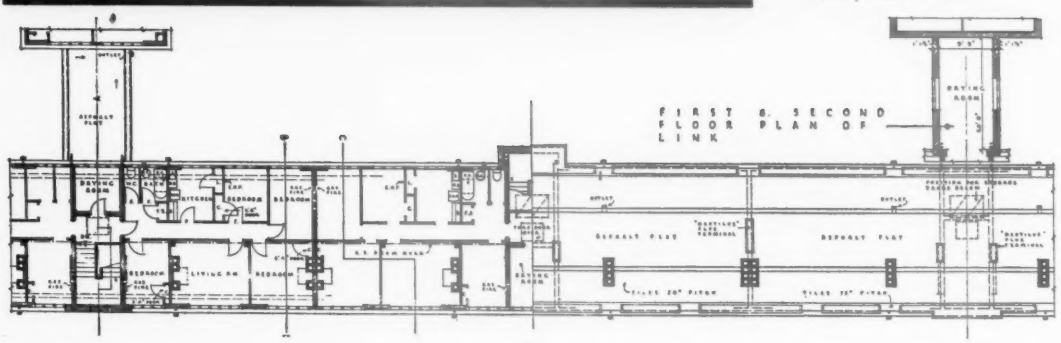
10 5 0 10 20 30 40 50

WANDSWORTH • ARCHITECT, EWART G. CULPIN : ASSISTANT, A. E. KELSEY

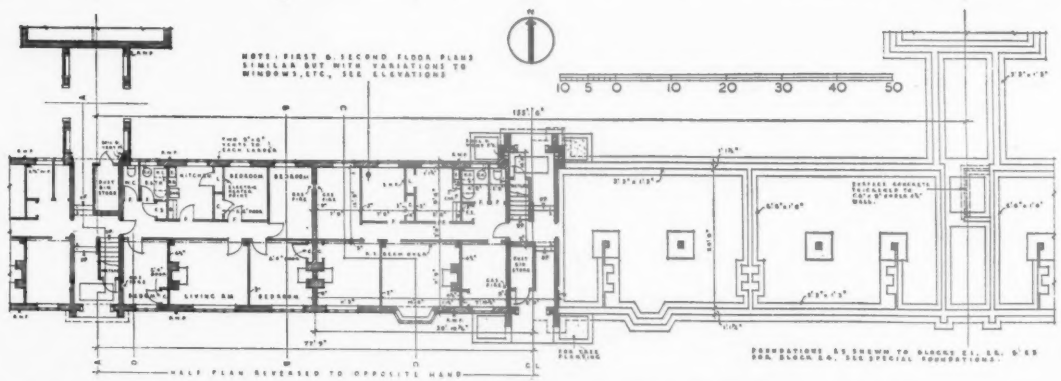
*South front, Block E*

INTERNAL FINISHES AND EQUIPMENT — In the rooms, the ceilings and walls are distempered a light cream. Floors are deal wood blocks, stained and polished. Bathrooms and w.c.s have quarry tile floors, the walls of the bathrooms being tiled to a height of 4 ft. 6 in. Built-in cupboards are provided to nearly all the bedrooms, and in the kitchen there are a totally enclosed dresser and additional shelving over the sink. Wall tiling is also provided in the kitchen behind the gas cooker (or electric cooker) and sink.

## BLOCK E




THIRD FLOOR PLAN. FIRST AND SECOND FLOORS ARE SIMILAR BUT WITH VARIATIONS IN WINDOWS, ETC.

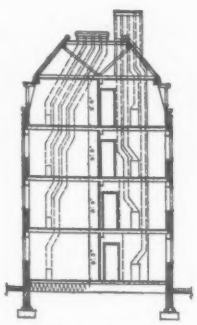



GROUND FLOOR PLAN

WORKING-CLASS FLATS, WANDSWORTH • ARCHITECT, E

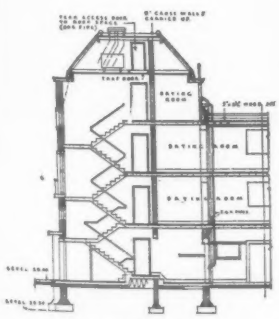
*Main, east, entrance from Garratt Lane*

*South-east entrance from Garratt Lane*



SECTION B-B

BLOCK E

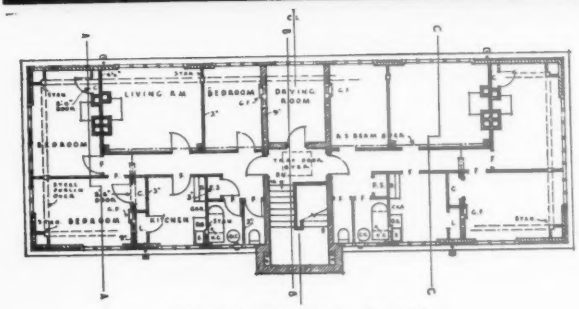


SECTION A-A

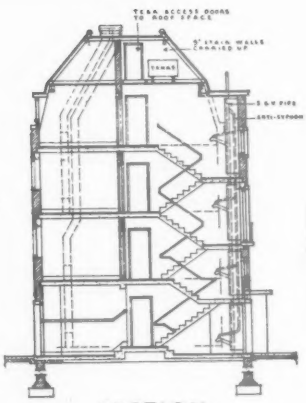
EWART G. CULPIN : ASSISTANT, A. E. KELSEY

BLOCK F:

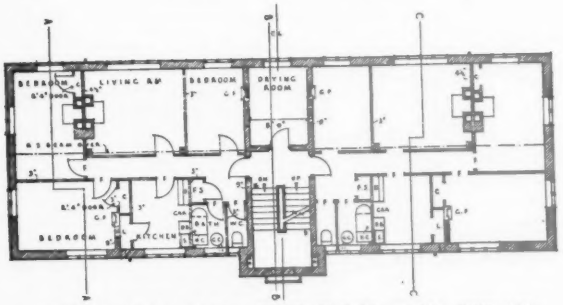
*South Front*



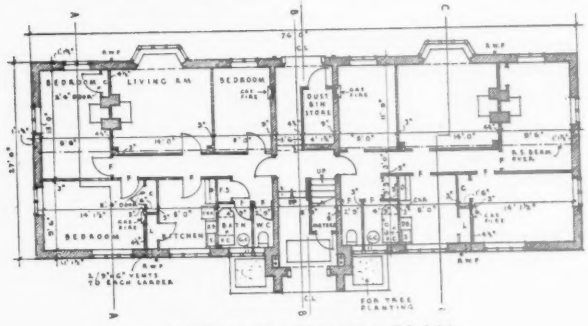

THIRD FLOOR PLAN



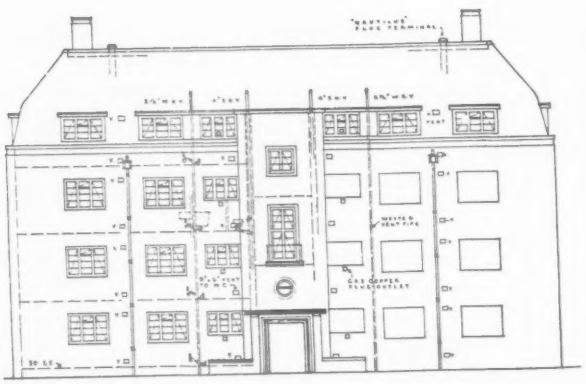

SECTION




SECOND FLOOR PLAN (FIRST FLOOR PLAN SIMILAR)

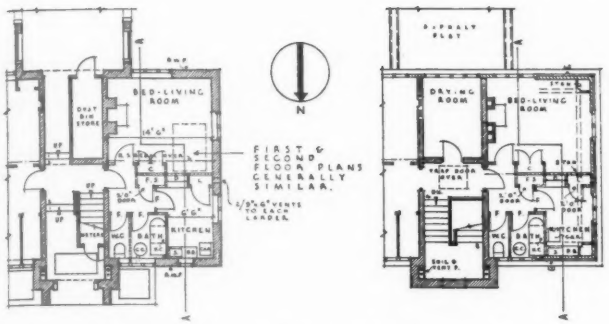



GROUND FLOOR PLAN

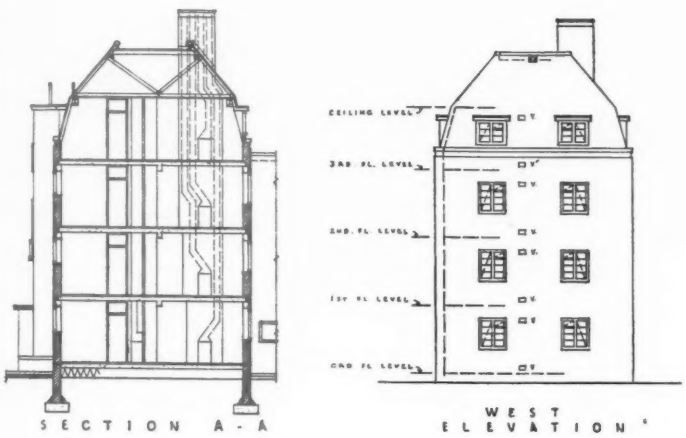


NORTH ELEVATION

WORKING-CLASS FLATS, WANDSWORTH • ARCHITECT, EWART G.




GROUND AND THIRD FLOOR PLANS




BLOCK H

SERVICES—Hot water is provided to the bath from a gas-copper in the bathrooms. Hot water to the sink is by a small gas or electric water heater at the discretion of the tenants. Gas coke fires are provided in all living-rooms, with a coal fire in the best bedroom of each flat. All other bedrooms have panel type gas fires. Electric light is provided throughout, with a plug in the kitchen for an iron and another in the living-room for a wireless set. A plug is also provided in the kitchen for an electric cooker if the tenant prefers this form of cooking. Gas has been installed throughout—the tenants may have this for lighting, if they prefer, as well as cooking. Gas fittings are not provided unless specially asked for by the tenants.

COST—£217,983. Price per foot cube, 1s. 1d. (This includes considerable excavation of the rubbish tip, new roads, sewers, and a reinforced concrete retaining wall along the whole length of the west boundary of the site—adjoining the River Wandle.)

General contractors were Unit Construction Co., Ltd.; for list of sub-contractors, *see* page xxvi.

G. CULPIN : ASSISTANT, A. E. KELSEY

# LETTERS

## *Architectural Criticism*

SIR,—I am afraid Mr. Henry H. Hill didn't read my letter. I have never "conceived the idea" nor have I ever suggested that it is shameful for architects to be interested in "aesthetics." What I did say, as a sympathetic onlooker, is that if architects want the public to think of them primarily as practical men who can plan, construct, light and drain a building better and more economically than anyone else, it doesn't seem obviously good tactics to talk almost exclusively about "aesthetics" when addressing them in lectures and articles.

If they want the public to think of them as primarily interested in ART (with Mr. Hill's big capitals), well and good. I don't mind. But they really can't have it both ways.

"ONLOOKER"

SIR,—Mr. Robert Byron has restored the balance in the discussion on architectural criticism, albeit in the *New Statesman* instead of THE ARCHITECTS' JOURNAL. For, in an interesting article on modern architecture, he accuses us of neglect of aesthetics, of raising commodity to the godhead and calling it Architecture.

Are we the hopeless idealists that "Onlooker" seems to suggest, or the gross materialists of Mr. Robert Byron?

Perhaps after all we have somewhere a synthesis that includes both the aesthetics for which Mr. Byron craves and the clarity of planning which "Onlooker" is so anxious lest we forget. Firmness (we suspect grudgingly) is taken for granted by both critics — the Wotton "indivisible trinity" is still the tops.

The truth of the matter is that "Onlooker" is still reacting, with the Corbusier school, against Victorian muddle and thinks beauty can look after itself (which it can't), whereas Mr. Robert Byron seems able to put up with some confusion (which isn't necessary) as long as he has his vistas over the top of it. The difficulty in each case is one of keeping up to date. In these days one assumes, with the wealth of planning ability available through the schools, that commodity can be taken for granted, as it is purely a rational achievement. It is only the quality of delight, beyond reason, which is still floundering between pediments and parabolas.

We have advanced a step: first firmness, now commodity, need no longer be discussed; all competent architecture has them. Delight only remains in doubt. When our civilization has decided which way its spiritual life is to go, aesthetics will again have

depth and direction, and an organic style will mature.

We can then cease writing and begin building.

Cork. KENNETH BAYES

### *Anglo-French Glossary of Building Terms*

SIR,—I am serving with B.E.F. as a garrison engineer, and have many dealings with French civilian contractors. The language difficulty is acute in the case of technical terms—the interpreter, excellent as he may be, often finds great difficulty in turning into French such phrases as "dig, part return and fill in," or "carry rising main up on internal walls," etc. These are not by any means the best examples which could be chosen, but I have only a few hours (on leave) in which to write letters.

Could not someone publish a short glossary of technical terms with French equivalents, and perhaps illustrations, further to help the Frenchman to understand what is required? There are in existence, I know, books of this kind, but a short and vital list of words with illustrations would be of great assistance.

I enclose a rough example.*

Naturally the list of words and phrases would be such as apply to the ordinary military engineering operations: camps, roads, water supply, drainage, camp structures, hospitals, etc.

CHARLES J. CABLE

Capt., R.E., Garrison Engineer.

### *Timber in War*

SIR,—Your leading article on the above subject in last week's issue brought out several important aspects, but there is one point which I think you missed. It is high time the Government controlled themselves (and especially the War Office) in the use of timber, and endeavoured to adopt the first change suggested by you. In a command area such as this, one sees the most prodigal use of timber going on in the construction of camps, hospitals, etc., and although this form of construction was necessary immediately before and after the commencement of war, since everyone expected a "Blitzkrieg," the position is now entirely changed. These buildings could very well have been erected in brickwork with timber roofs and lined inside with a building board. By this method indigenous materials could be used and the brickmakers would be glad of the output instead of having to close down their works. Moreover, brick buildings have some protective value against blast and splinters whereas wood structures have none. There is also available adequate skilled labour for the erection of such buildings.

J. K. GRANT

Chester. Deputy City Engineer

### *Architects' Benevolent Society*

SIR,—As a result of the appeal which was issued to raise a fund in memory of the late Maurice Webb, to be donated to the Architects' Benevolent Society, £47 has been received.

This has been handed over to the Society, and steps are being taken to decide in what way the money can be best utilized. In any case, the donation will be recorded in all the publications of the Society as a memorial to the late Maurice Webb.

It is hoped that the fund will reach a minimum total of £500, so that there is still an opportunity for those who have not already subscribed to add their contribution which should be addressed to

F. R. YERBURY, HON.A.R.I.B.A.
(Hon. Secretary to the Fund, Architects' Benevolent Society, 66 Portland Place, W.1).

## SOCIETIES AND INSTITUTIONS

### I.A.A.S.

Annual luncheon of the London and Home Counties Branch of the Incorporated Association of Architects and Surveyors was held at the Connaught Rooms, W.C.2, on Friday last. Mr. Keith Preston presided.

An address was given by Mr. J. E. Swindlehurst, President of the Association. He said:

It is no part of our policy to harass or browbeat the Government. Any body of men charged with the conduct of Britain in present circumstances deserve the sympathy and co-operation of every citizen. Mistakes and errors of judgment are being made and will continue to be made, for men are not perfectible; but we are entitled with all the force at our command to point out those errors when and as we detect them. Indeed, it is our duty to do so. I say then now that it is the belief of most responsible people connected with building, and of many financial and other authorities outside it, that the Government has not recognized the indispensability of building to the well-being of the community or its place in the national economy.

Our task is to convince them that they have made a grave error of judgment. We want to tell them that we do appreciate their difficulties, we do understand the motives that have led them to place such heavy restrictions on building. They want to win the war, and so do we, but as Sir Alfred Hurst so pertinently remarked in his recent lecture to us, winning the war has had very different meanings at different times. A war won at the expense of our constructive facilities, a war followed by a chaotic peace, could hardly be accounted a victory. Our object is to destroy evil, but we must take care that we do not destroy our own good in the process.

The crux of the problem is, of course, finance. The theory is that all our energies must be devoted to producing exportable commodities that will help to pay for the food and war materials that we have to import. Now, I am no economist, but it is pretty clear that even if the building industry were to be closed down entirely the money that would have been expended on building would not all be available to the Government. Provision has to be made for men displaced, and there is already loss of revenue from income tax and indirect taxation.

Building materials, with the tremendous exception of timber, are largely home produced, and although timber presents an enormous problem I do not believe that by itself it would be an insuperable obstacle to the resumption of building. There is still a demand for building—I understand that clients with available money are still coming to architects. Architects are compelled to advise them against preparing schemes as the materials to carry them out are unobtainable. The truth, of course, is that materials are restricted on the assumption that money spent on building is money diverted from the war effort. But, as I have said, the amount of money expected to be saved from restricting building may easily be overestimated. It has been put forward, on better authority than my own, that if sufficient building were permitted to maintain the industry as an entity, even in a modified form, it would make little difference to the national revenue—in short, the Government would get the money, but for part of it they would have to wait a little longer.

Now this, of course, is an hypothesis; but it is, I think, an hypothesis that deserves consideration and an answer. For if this view is correct, there can be little justification for closing down the industry on financial grounds. The Government knows its business better than we; but without disrespect, we can claim to understand the building industry better than the Government. It is our duty to warn them that the consequences of the present policy must be the breakdown of a system that has taken years to build up. It may be that we who are so closely associated with building are inclined to overestimate its importance to the nation; but surely we have not deceived ourselves; the experience of the past is no illusion. The acute shortage of accommodation at the end of the last war was a fact, and for years housing was a national issue on which the fate of Governments and Local Governments depended. The crudities with which the jerrybuilder marred the countryside at that time are no dream but a reality that we swore should never be repeated.

It is in no spirit of acrimony that we mention past failures, but with excusable despair we contemplate their recurrence. For that is what will happen if the building industry is allowed to disintegrate.

Another point is this—can anyone be sure that the nation will not have need of the industry before the war is over? There is before us the example of a city in the North of England with which I am well acquainted. You have probably read of this yourselves in the papers. At the outbreak of war about 1,000 houses were in course of erection under the Corporation's re-housing scheme and provided only for normal requirements. Work on these was, of course, suspended. In the past six months a large number of armament factories have been built in the city. Now, some 40,000 new workers have arrived there, and it is estimated that in six months' time the number will have increased to 100,000. For these workers there is no accommodation at all—let alone for the families that are expecting to join them. Now, I don't want to be accused of making one swallow into a summer, but even a single swallow is a portent. With the redistribution of the population that war is causing, sudden demands for factories and houses may be made in all parts of the country. They will be required in the national interest, and we must have an industry capable of meeting those demands.

You will have noticed that I have so far said very little about architects and surveyors specifically; but as Sir Alfred Hurst has reminded us, we form part of the building industry, and the future of many of us depends upon the fate of that industry. Unilateral action, even unilateral representation, is doomed to failure. What we need is a collective point of view, and a policy based on collective interests. As a step towards that end, we are proposing to hold a public discussion—some time in May—at which representatives of the various sides of building will be able to make concrete suggestions for maintaining the industry during wartime. Sir Alfred Hurst has kindly consented to take the Chair, and the speakers will include an Architect, a Surveyor, the Secretary of the Builders' Trust, the Secretary of the National Federation of Building Operatives, a Master Builder, and a representative each of the Timber and Steel Industries.

Such a discussion cannot, of course, be exhaustive, but we hope that it will contribute something towards obtaining a unified approach to our common problem. The time and place of the meeting will be announced later, and I hope that as many of you as possible will be able to attend. My friends of the Press, whom I am glad to see here today, may also be interested.

In the meantime, we thought it well to draw up a Memorandum setting out the grievous position of Architects and Surveyors as the result of wartime conditions. Our members in various constituencies have co-operated with us by writing to their own Members of Parliament, enclosing a copy of this pamphlet.

In it we made certain general recommendations for ameliorating existing difficulties—recommendations with which I think no one will quarrel. Among them we urged that architects and surveyors, by reason of their training, are eminently suitable for appointments of a supervisory nature in many Government undertakings. It is regrettable and most disheartening that we should have to look for employment outside our own professions; but many architects and surveyors are faced with nothing less than destitution and the need for immediate help is imperative. I am glad to learn that Members of Parliament generally have been sympathetic and anxious to help.

I have taken up a good deal of your time, and even so have only traced an outline of the problems confronting us. These are problems that demand our individual attention, but I want in conclusion to go a step farther. I have already referred to the fact that our professions are part of the building industry and have stressed the need for concerted action in which the interests of all sections of the industry must be taken into account. Now, if this is true of building as a whole, it is even more true of the building profession and of the bodies that represent them. We realize that no single professional organization can hope to deal with this matter alone. To be effective the case for the building professions must be put forward with the unanimous support of all the bodies. Individual representations, though they might agree in principle, would necessarily vary in detail, and it would be manifestly unfair to expect the Government, in present circumstances, to discriminate among them.

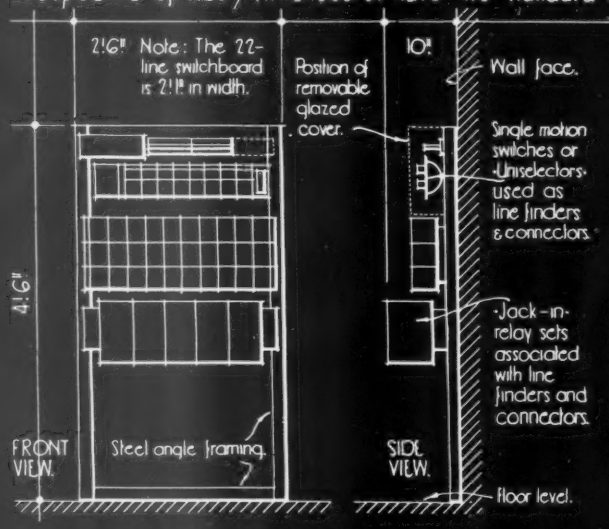
I make then an earnest plea for unity, for only by unity have we any chance of achieving what we desire or deserve. Speaking for myself, I say, here and now, that I will loyally co-operate in any proposals, whatever their origin, that have as their aim the preservation of our professions during wartime and their betterment when war is over. If unity of outlook and object could be achieved now it would do much more than help present difficulties, it would go far to create a new order in the world of our work. It would provide conditions in which we could all plan for the future—that future in which we should be free without deterrence to work for good building and to work in the faith that with good building as our immediate aim, we might with grace attain that combination of "firmness, commodotie and delight" that would qualify our work for the proud enduring title of architecture.

| ENGLISH | FRENCH | SKETCH, PHOTO, ETC. |
|---|---|---|
| * Tap main in road, lay onto site a 2-in. main etc. All horizontal supply pipes to have a slight fall towards main, etc | | |

# THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION.

## DETAILS & DIMENSIONS OF STANDARD "TELEMATIC" SWITCHBOARDS AND BATTERY ELIMINATORS :

Irrespective of size, switchboards have two standard components and identical operating principles.



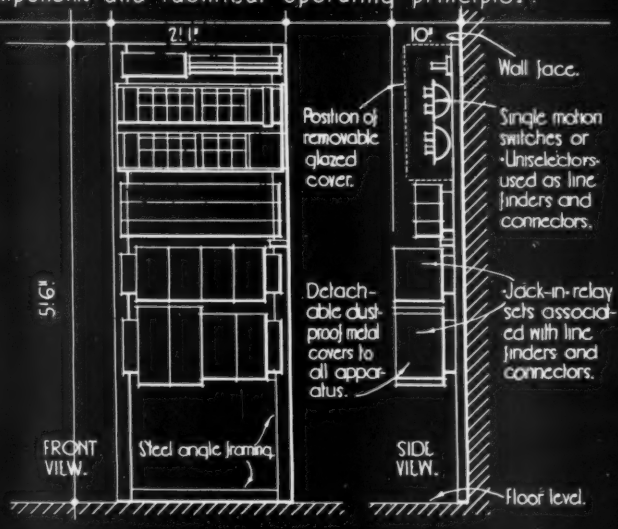

### 22/25-LINE SWITCHBOARD for 24 volt D.C. operation.


DIMENSIONS OF SHEET STEEL CASE.

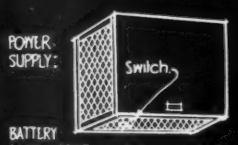
| Vertical height. | Horizontal width. | Projection from wall. |
|---|---|---|
| 14½" | 19½" | 8½" |

BATTERY ELIMINATOR (wall mounting) for operation of system direct from electric supply mains.

Alternatively :- Single or duplicate accumulator batteries with suitable charging equipment.




### 35-LINE SWITCHBOARD for 24 volt D.C. operation.

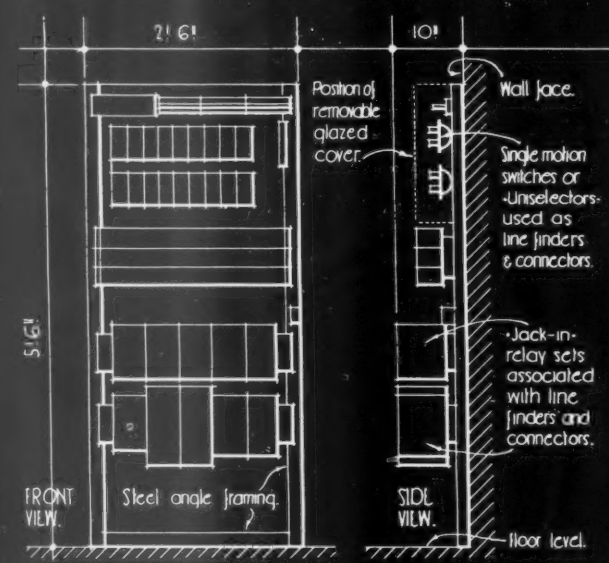


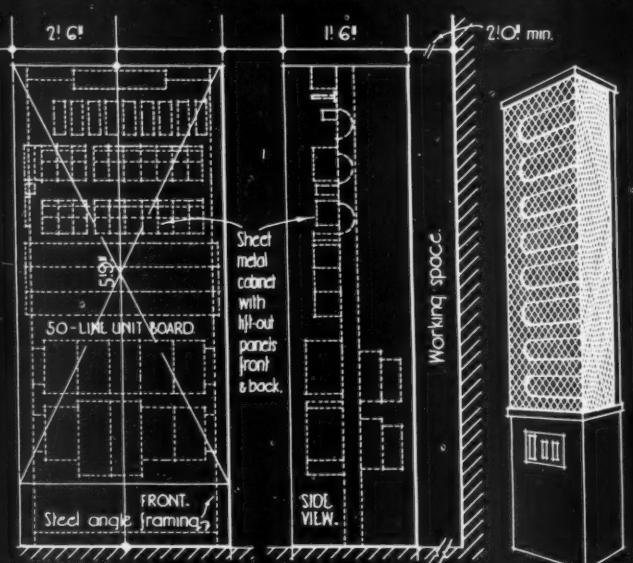

DIMENSIONS OF SHEET STEEL CASE.

| Vertical height. | Horizontal width. | Projection from wall. |
|---|---|---|
| 19¼" | 21¼" | 8½" |

BATTERY ELIMINATOR (wall mounting) for operation of system direct from electric supply mains.

Alternatively :- Single or duplicate accumulator batteries with suitable charging equipment.




### 50-LINE SWITCHBOARD for 24 volt D.C. operation.


DIMENSIONS OF SHEET STEEL CASE.

| Vertical height. | Horizontal width. | Projection from wall. |
|---|---|---|
| 21¼" | 24¼" | 8¾" |

BATTERY ELIMINATOR (wall mounting) for operation of system direct from electric supply mains.

Alternatively :- Single or duplicate accumulator batteries with suitable charging equipment.

### EXTENSIBLE TYPE SWITCHBOARD, (50-400 LINES) for 50 volt D.C. operation.

LARGER SYSTEMS:- By the inclusion of special units, not shown here, the capacity of the system can be increased indefinitely on similar operating principles.

### POWER SUPPLY: BATTERY ELIMINATOR, (up to 100 lines only)

DIMENSIONS OF SHEET STEEL CASE.

| Vertical height. | Horizontal width. | Horizontal depth. |
|---|---|---|
| 5' 9" | 15" | 13" |

Designed for floor mounting only.

Alternatively :- Single or duplicate accumulator batteries with suitable charging arrangements can be supplied and are recommended for installations above 100 lines capacity.

*Issued by Telephone Rentals Ltd.*

INFORMATION SHEET : AUTOMATIC PRIVATE TELEPHONE EXCHANGE EQUIPMENT : No 2.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC 1.

THE ARCHITECTS' JOURNAL
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# INFORMATION SHEET
# • 784 •
# ELECTRICAL EQUIPMENT

**Product :** Internal Telephone Installations (Intercommunicating and Automatic)—2

**General :**
This is the second of two Sheets illustrating various forms of internal telephone equipment of the intercommunicating and automatic types, and deals with standard Telematic switchboards and power supply apparatus. The first Sheet of the series gave particulars and sizes of intercommunicating and automatic type telephone instruments and certain other supplementary fittings for large-scale work.

**Standards of Manufacture :**
All apparatus, material and finishes comply with the British Post Office Specifications for the highest grade material.

**Characteristics :**
All sizes of Telematic Switchboards are built up of two main components, viz. standard relay sets and single motion switches. These consist of the most efficient, simple and robust construction within the range of standard automatic telephone equipment, and are incorporated to the exclusion of more complicated apparatus, solely on the grounds of reliable operation over extended periods.

Moreover, all sizes of switchboards are connected up in accordance with identical operating principles, thereby ensuring the same technical characteristics in every installation, and by the elimination of unusual problems, permitting maximum maintenance efficiency.

**Capacities :**
The switchboards are available in four sizes to suit the particular number of lines on the system, with an adequate reserve for extension. The 22/25-line, the 35-line and the 50-line boards are designed for floor mounting and are provided with metal brackets on the back for fixing against a wall. The extensible 50/400-line model is designed to stand clear of walls at front and back and requires a minimum working space of 2 ft. This unit board is similar in design and manufacture to the other models, but is wired with a circuit that allows for 50-line units to be incorporated as and when required.

**Apparatus :**
All apparatus on the boards is enclosed under easily removable dustproof metal covers, while that of the extending type unit board is additionally housed in the sheet steel cabinet shown. The cover over all switch assemblies consists of glazed wood framing carried in steel sheet.

**Line Finders and Connectors :**
Standard Post Office single-motion switches or Uniselectors are employed as line finders and connectors, manufactured to the latest specification for heavy duty service, with all wiper contacts duplicated.

As a rotary movement only is employed, the switch does not have to operate against gravity ; and as the only moving part is of light, robust construction, inertial effects are reduced to an absolute minimum and flexible connections are entirely avoided.

The switches are mounted on hinged gates to facilitate inspection, and are spring mounted to render operation as noiseless as possible. The driving mechanisms of the switches are individually replaceable.

**Relays :**
Post Office standard " type 3000 " relays are fitted throughout, with duplicated contacts. The relay sets associated with the line finders and connectors are designed to jack-in to the permanent wiring through standard multiple point jacks. This facilitates detailed inspection of the units and allows replacement by spares to be made in a few seconds.

**Tones :**
The full complement of dialling, ringing and engaged tones is provided by a vibratory tone set mounted on the switchboard, and designed to jack-in to the permanent wiring through a standard multiple point jack.

**Power Supply :**
From A.C. mains supply it is usual to operate the telephone system direct off the electric supply through a battery eliminator, using a metal rectifier as an essential component. The eliminator is designed for wall mounting and will operate off a wide range of mains supply voltages. Dimensions and details are given of the unit appropriate to each size of switchboard. For supplying speech current to the board, two smoothing stages are provided to eliminate any audio-frequency which might give rise to hum.

Special single battery charging units or duplicate batteries with charging unit and change-over switch gear can, however, be supplied when for any reason battery eliminators are not suitable.

Duplicate secondary lead-cell charging batteries are supplied in all cases for D.C. mains supply, with a metal rectifier capable of giving either of the batteries trickle or quick charge. Switches and suitable charging resistances are supplied for charging either of the batteries from the D.C. mains while the other is serving the automatic telephone system.

**Facilities :**
Telematic switchboards serve any of the different types of automatic telephone stations described in Sheet No. 1; they also provide without wiring alterations a number of auxiliary facilities including automatic staff locating signal devices, priority calling, tie-line and loud speaker services, special ringing, emergency and fire alarm systems, etc.

**Installation and Maintenance :**
The installation and maintenance of Telematic private automatic exchange telephone systems is carried out by the regional companies listed below, each of which maintains permanently stationed resident engineers available on an emergency call basis, in addition to an established system of regular inspection visits.

| Area Served | Installation and Maintenance Company |
|---|---|
| London and the Counties South-East of a line drawn from the Wash to Poole (Dorset). | Telephone Rentals (Telematic), Ltd., Britannia House, 233 Shaftesbury Avenue, LONDON, W.C.2. Telephone : Temple Bar 9292. |
| The South-Western Counties of England ... ... | Telephone Rentals (Western), Ltd., 9-10 King Street, BRISTOL, 1. Telephone : Bristol 20893. |
| South Wales and Herefordshire ... ... ... | Telephone Rentals (South Wales), Ltd., Imperial Buildings, Mount Stuart Square, CARDIFF. Telephone : Cardiff 2073. |
| The Counties of Lancashire, Cheshire, Westmorland, parts of Derbyshire and Yorkshire, with North Wales. | Telephone Rentals (Lancashire), Ltd., Telematic House, Aytoun Street, MANCHESTER, 1. Telephone : Central 1112-3. |
| The Counties of Worcester, Warwick, Shropshire, Stafford, Northampton and Leicester. | Telephone Rentals (Midlands), Ltd., City Buildings, Martineau Street, BIRMINGHAM, 2. Telephone : Midland 3658-59. |
| The Counties of Derby, Nottingham, Rutland, Lincoln and the Southern part of the West Riding of Yorkshire. | Telephone Rentals (Notts and Yorks), Ltd., Mappin Buildings, Norfolk Street, SHEFFIELD, 1. Telephone : Sheffield 23782. |
| Part of the West Riding, and the whole of the East Riding of Yorkshire. | Telephone Rentals (Yorkshire), Ltd., Britannia House, Wellington Street, LEEDS, 1. Telephone : Leeds 23786. |
| The Counties of Northumberland, Cumberland, Durham and the North Riding of Yorkshire. | Telephone Rentals (Northern), Ltd., Collingwood Buildings, Collingwood Street, NEWCASTLE-ON-TYNE, 1. Telephone : Newcastle 22910. |
| Scotland ... ... ... ... ... ... ... | Telephone Rentals (Scotland), Ltd., St. Enoch House, 163-5 Argyle Street, GLASGOW, C.2. Telephone : Central 1434. |
| Northern Ireland ... ... ... ... ... ... | Telephone Rentals (Northern Ireland), Ltd., 16 Donegall Square South, BELFAST. Telephone : Belfast 26533. |
| Eire ... ... ... ... ... ... ... | Irish Telephone (New System), Ltd., American Chambers, 14-15 Lower O'Connell Street, DUBLIN. Telephone : Dublin 44674. |

**Issued by :**
Telephone Rentals, Ltd., on behalf of the Telematic Service Companies

**Address :** Beckenham, Kent

**Telephone and Telegrams :** Beckenham 5014-8

*SOME QUESTIONS ANSWERED THIS WEEK:*

★ *IS there any published work on the technique of building demolition?* - - - Q254

★ *WHAT is the best type of wallboard that could be employed for some semi-permanent buildings where weatherboarding would be the external finish in normal times?* - - Q255

★ *CAN you give us the names and addresses of firms that manufacture paint suitable for applying to concrete walls and floor of an open air swimming bath?* - - - - Q260

THE ARCHITECTS' JOURNAL

# INFORMATION CENTRE

SINCE the Information Centre was started many manufacturers and suppliers have asked for the names and addresses of enquirers to whom they consider their products would be of special interest. It must, therefore, be made clear that the Information Centre's Service is confidential, and the names and addresses of enquirers cannot be disclosed.

Manufacturers who feel that certain of their products would fulfil the special requirements of an enquirer are, of course, at liberty to send to the editor descriptive literature and samples, and these will be sent on in all cases where the Director of the Information Centre considers that they will be helpful to the enquirer. A number of enquiries are, however, made by telephone, and in this case the full name and address of the enquirer is sometimes not known.

*Any questions about building or architecture may be sent to:*

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

*or ring the Architects' Journal Information Centre at*

REGENT 6888

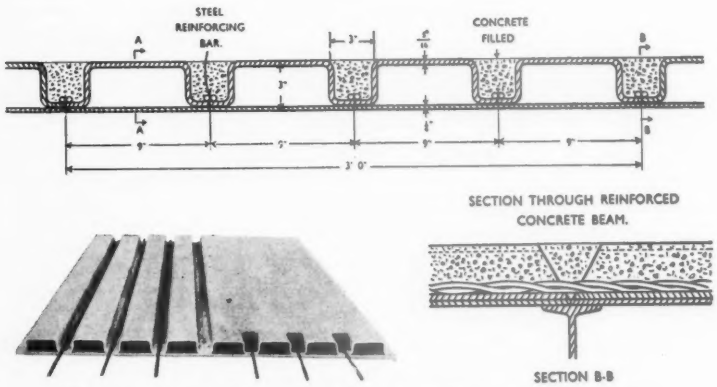
Q252 NOMINATED SUB-CONTRACTORS, LONDON.—*On a contract completed, in which we were appointed by the architect as a nominated SUB-CONTRACTOR to carry out wall tiling, the general contractor has been paid except for normal retention moneys. Our contract, of course, was with the general contractor and payments made to him included moneys for work done by us. But from the general contractor we have not received anything like the sum due us. The general contractor has now called a meeting of creditors AND we feel that this is only a preliminary to worse happenings. We approached the architect to see whether we could be paid the balance of our moneys from the retention moneys now almost due to the GENERAL CONTRACTOR, but the architect is not certain whether this step can be taken. Is some such arrangement possible?*

It would appear that when the affairs of the general contractor are placed in the hands of a Receiver, any moneys due to the general contractor will be payable direct to the Receiver, and your claim will rank as that of an ordinary creditor. Before such steps occur, however, it should be within the power of the architect concerned to arrange with the general contractor

for the retention moneys to be paid direct to the sub-contractors. Approaches to this end should be made immediately.

**Q253** ARCHITECTS, BRISTOL.—*At the last Building Exhibition at Olympia, London, there was exhibited a form of ASBESTOS-CEMENT roof troughing on which could be superimposed a REINFORCED CONCRETE slab. Which firm exhibited this? I am contemplating its use for small span flat ROOFS, and if I remember rightly it will eliminate the need for shuttering.*

No doubt the material you have in mind is that used in the "Besdek" asbestos-cement decking as carried out by the firm given below*; but its uses are not quite as you visualize them. They are best explained in the accompanying diagrams. The system is sold and erected complete by the firm mentioned, and comprises the decking, the reinforcement, the concrete infilling of the beams and the surface screeding, and also the provision on top of a built-up type of bitumen sheet roofing. In present-day use, for 6 ft. centres of support, a 3 in. deep section is supplied, and for 8 ft. and 10 ft. centres a 5 in. deep unit. It might well be, of course, that the decking could be put to the use indicated in your enquiry with, say, modification of the reinforcement and, probably, some temporary support of the unit while the concrete is setting.




*Photograph and details of "Besdek" asbestos-cement decking.*

**Q254** ARCHITECT, LOCAL AUTHORITY, LONDON.—*Is there any published work on the technique of BUILDING DEMOLITION?*

A series of articles on the subject by Edgar Lucas has appeared in the *Illustrated Carpenter and Builder*, 1939, June 2–July 7. The references are as follows:

Part I. Organization and Equipment.
" II. Rescue Work.
" III. Fire, Floods and Broken Service Mains.
" IV. Securing Dangerous Buildings.
" V. Demolition.

A paper by H. Hamer, City Engineer of Liverpool, was published in the *Journal of the Institution of Municipal and County Engineers*, 1939, 65 (18), 920–4, entitled, "Air Raid Precautions in Liverpool: Training of Rescue, Shoring-up and Demolition Parties."

**Q255** ARCHITECTS, CARLISLE. — *For some SEMI-PERMANENT BUILDINGS where weatherboarding would be the external finish in normal times, what is the best type of WALL BOARD that could be employed?*

The following notes indicate the suitability of various types of boards normally available, but the actual choice may well be limited by the range now obtainable. Plywood could be used and would be perfectly suitable if it were of the waterproof or marine type, in which the glue between the ply layers is not affected by moisture. Even so, it is advisable that an external finish of paint, or similar protection, should be used. Of the wood fibre boards the super-hardboard type would be the most serviceable. The normal hardboard could be used and the construction be designed to prevent moisture having access to the edges of the boards—even to the extent of bedding the edges in a mastic. Again, the surface could be painted or should at least be oiled. Normally, plaster boards would not be used in this position, but one firm* is now marketing "Paramount" weatherproof board. This board has a base of normal plaster board of $\frac{3}{8}$-in. thickness and surfaced with a two-ply bituminous roofing felt. The joints between adjacent sheets are sealed with a 3-in. strip of bituminous felt melted on by heating with a blowlamp and rolling into position while still hot. For work such as roof coverings a heavy duty board is produced in which the bituminous surfacing is mounted on a $\frac{1}{2}$ in. plaster board. The form of weatherproof plaster board is available in 2-ft. and 3-ft. widths and in lengths up to 12 ft.

**Q256** ARCHITECTS, LONDON.—*We erected a house last year about one mile inland, on a flat part of the Sussex coast. The house was built with cavity walling in fletton brickwork which was given two coats of external distemper. The interior of the building is quite dry, but the DISTEMPER on the outside is FLAKING OFF rather badly on the wall faces which are exposed to the prevailing south-west wind. We should be glad to know of any suggestions for treating these walls to overcome this difficulty; our clients do not wish to apply rendering, but prefer the appearance of whitewashed brick. During stormy weather the wind drives on to the walls almost horizontally and it seems to us that during the recent severe weather the distemper has become thoroughly saturated; a severe frost has occurred and the distemper has flaked off. The walls are of plain flettons built in cement mortar with a weather struck joint.*

If it is accepted that failure of the distemper took place because of saturation and subsequent frost action, then it would seem that some coating of more water-repellent qualities will be necessary for greater permanence. Alternatively, if a recurrence of saturation and frost to a similar degree is considered unlikely, after light wire brushing of the surface further coatings of external distemper could be applied. This second possibility is mentioned because of difficulties in the use of a stronger and more water-repellent film. To put such a coating over existing distemper is almost bound to cause early flaking of the underlying distemper, and, of course, damage and patchiness of the new decoration. Almost invariably it will be found that while certain sections of the existing distemper are flaking badly, others are adhering with a tenacity which no amount of

* *D. Anderson and Son, Ltd., Park Road Works, Stretford, Manchester.*

* *The British Plaster Board, Ltd., Wallasey, Cheshire.*

wire brushing will break down. But it may well be that saturation and frost are only causes contributory to the failure and that the primary reason is that of failure of the film to adhere to certain sections of the work. Close examination of the other elevations will prove or disprove this factor. It is well known that with plain fletton brickwork the surface varies enormously, in some instances from a dense, almost glazed surface to a porous open texture. From such variation in surface, differences will arise in the adhesion of the distemper coating. The key provided by the glazed portions of the brick or brickwork will be negligible and early flaking take place as a result. Before attempting remedial measures it will be necessary to satisfy yourselves on two points: (1) that the non-flaked portions of the work can be economically removed, and (2) that more widespread failure due to lack of keying of the coating to these near-glazed surfaces is not imminent. With a clean wall it is possible to use any of the external decorative mediums such as limewhite (tinted if desired), external distemper, silicious and equivalent external washes (such as "Snowcem," "Ellicem" and "Paintcrete," or one of the so-called stone paints (as Stic B., Tungcrete, etc.).* In so far as it is possible it has been attempted to list these products in order of increasing strength of resistance to water penetration and strength of adhesion. It is to be appreciated also that they are arranged in increasing order of cost. When applied over a dry surface, it is to be expected the greatest adhesion and water repellence will be obtained from the stone paint type of medium. But if the material to be used is to be applied over work which in part is covered with the present distemper—say, from sheer inability to remove portions of the present decoration—then nothing stronger than that decorative medium should be used. In other words, the choice is confined to external distemper and tinted limewhite.

Q257 MANUFACTURERS, COVENTRY. — *Can you give us the name of any firm supplying small LETTERS and NUMERALS similar in character to a sample enclosed? Also can you inform us who supplied the small lettering to the rooms at the Queen's Hotel, Leeds?* (*Messrs. Curtis Green, R.A., Son and Lloyd, Architects.*)

For lettering similar in character to the specimen, the firms mentioned below should be approached for supplies.* Messrs. Dales, Ltd., supplied the lettering to the rooms at the Queen's Hotel, Leeds.

Q258 ARCHITECT, LONDON.—*We are looking for an alternative to GLASS for SHELVING in hospital work. The material must be easily cleaned and equally resistant to acid solutions.*

From examination of the properties of other possible materials, it would seem that no alternative is available which will answer in cleanliness and resistance to acid solutions. Certain of the possible alternatives show greater resistance to accidental breakage, but this property could be added to glass by the use of shelves of "Armourplate" glass or, if coloured shelves are required, by the use of toughened black glass.†

Q259 ARCHITECT, LONDON.—*What is the ADDRESS of the British Door Manufacturers' Association?*

Shobnall Road, Burton-on-Trent. If, however, a contact with the Association is desired in London, communication should be made with Mr. Bardolph, of Merchant Trading Co., Ltd., Columbia House, Aldwych, London, W.C.2. Telephone No.: Holborn 3291.

Q260 ARCHITECTS AND SURVEYORS, KETTERING.—*We should be obliged if you would kindly give us the names and addresses of firms that manufacture PAINT suitable FOR applying to concrete walls and floor of an open air SWIMMING BATH. This bath has been constructed approximately nine months and our clients are anxious to paint its inside surfaces with a durable azure blue paint.*

This is always a difficult painting problem, since it is impossible to have dry conditions under which the paint could be applied, so that no great amount of adhesion is obtained. Your choice also of an Azure Blue is about as difficult as could be for choice of a pigment to withstand lime and light conditions, but such success as is possible should be obtained by the use of some of the special materials prepared for this purpose by the firms mentioned below.* If satisfactory surfaces are expected for a period over a year, then this condition should be laid down when approaching the manufacturers. Usually under such conditions applications are made yearly.

* *SNOWCEM. Cement Marketing Co., Ltd., Saxon Works, Coldhams Lane, Cambridge.*
*ELLICEM. The Adamite Co., Ltd., Manfield House, Strand, London, W.C.2.*
*PAINTCRETE. Geo. Lillington & Co., Ltd., 11 Higher Drive, Banstead, Surrey.*
*STIC B. Stic B. Paint Sales, Ltd., 14 Palmer Street, London, S.W.1.*
*TUNGCRETE. Sissons Bros. & Co., 203 Borough High Street, S.E.1.*

* *Designed Productions, Ltd., Queen's House, Leicester Square, London, W.C.2; Dales, Ltd., 62 Bonchurch Road, Elm Grove, Brighton; Daymonds, Ltd., 62 Oxford Street, London, W.1; Percy Smith, Esq., The Dorno Workshop and Studio, 1/2 Gray's Inn Place, W.C.1.*
† *Obtained from Pilkington Bros., Ltd., St. Helens, Lancs.*

* *Joseph Freeman, Sons & Co., Ltd., Cementone Works, Wandsworth, London, S.W.19; The Silexine, Ltd., Richford Street, Goldhawk Road, London, W.6; Sissons Bros. & Co., Ltd., 201 Borough High Street, London, S.E.1; Messrs. A. A. Byrd & Co., 11 Queen Victoria Street, London, E.C.4; Stic B. Paint Sales, Ltd., 14 Palmer Street, London, S.W.1.*

## REFERENCE BACK

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

### Q 242. *April 4, 1940*

In last week's issue of the JOURNAL it was stated that persons in Local Government employment are reserved from the age of 25 only when they are unclassifiable under another heading —e.g. that architects so employed are unreserved at all ages.

The Information Centre has received a large number of letters challenging the correctness of this statement—which was given on the authority of an official of the Ministry of Labour. And enquiries made by the Centre in the last few days bear out that it is incorrect.

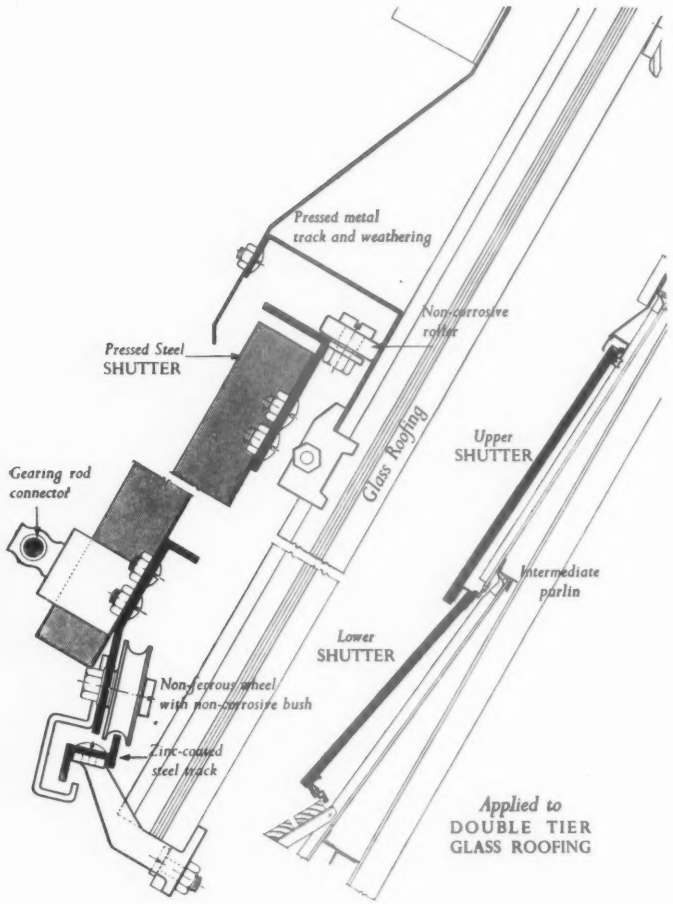
The latest definite ruling on the position of architects in Local Government employment is contained in a letter from the Ministry of Labour on January 3 this year. This stated that: the profession of Architects has now been taken out of the Schedule of Reserved Occupations, and Architects employed by Local Authorities will clearly be reserved at 25 years of age.

It appears that confusion has been caused by the paragraph referring to Local Government staffs in the Schedule of Reserved Occupations being variously interpreted by local authorities. The paragraph states that executive and clerical grades of Local Government staffs are reserved from the age of 25 if not otherwise specifically reserved at an earlier age.

Local authorities appear to have differed over whether architects are "executives"; and some have held that architects are excluded from the clause by being specifically *unreserved*.

It should be added that the question of reservation as it affects all local government employees is still being discussed between the National Association of Local Government Officers and the Ministry of Health. The N.A.L.G.O. has suggested that, for greater clarity, the phrase "executive and clerical

grades" should be expanded into "administrative, executive, professional, technical and clerical grades." In reply, the Ministry has asked what professions, trades or callings the N.A.L.G.O. proposes to group under each of its proposed headings. The question who is, and who is not, an "executive" on a local authority's staff therefore still appears to be undecided.




# TRADE NOTES

[*By PHILIP SCHOLBERG*]

### *Sliding Shutters for A.R.P.*

It was suggested a week or so ago in these notes that, so far as black-out regulations are concerned, many manufacturers had given up the unequal struggle, completely obscured their natural lighting, and gone over to a system of internal lighting all the time. So on the one side we have the electrical interests using this argument in favour of increased lighting intensities (and increased lighting costs) and on the other the medical profession insisting that continuous artificial light is bad for the workers. For those factory owners who prefer as much natural lighting as possible, Henry Hope and Sons have evolved a firm and well-thought-out system of sliding shutters, a typical section of which is shown on this page. These shutters give a complete black-out and at the same time weatherproof protection if the glass should be shattered by blast. The shutters themselves are formed of steel sheets strengthened by corrugations, and are fitted with non-ferrous wheels and guide rollers running on zinc-coated steel tracks, and slide over the panels of unobscured glazing. A continuous pressed steel section, forming a head weathering and track, is fitted at the top of the glazing and alternating with the shutters are panels which are permanently obscured with steel sheets placed on the glass under the lead weathering of the glazing bar. Control may be either by a hand winch or push button electrical gearing, and, since the shutters are on the outside of the glass, there can be no reflections. These shutters are adaptable to any type of roofing or window which will allow a practical fixing detail, and installation is carried out by Messrs. Hope's workmen.—(*Henry Hope and Sons, Ltd., Smethwick, Birmingham.*)

### *One Name, One Timber*

Quite one of the best things which the British Standards Institution has ever done is to produce a standard nomenclature for hardwoods (Specification No. 881). Every architect has been driven nearly mad by fancy names: some of them are no doubt perfectly justified, but there are others which are nothing more than the same thing under a different name, a habit which, when it is not definitely sharp practice, is at least confusing. In the words of the British Standards Institution "the guiding principle on which the nomenclature has been based was to establish a single standard name for any one timber, and to restrict that name to one timber only."

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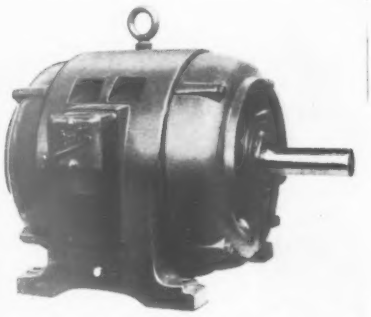
Knowing a certain amount about the many influences at work in the timber trade, it seems to me unlikely that merchants will ever be persuaded to abandon those private names which make a timber sound quite a lot better than it actually is. Have you ever seen a "teak" garden table curl up and laugh at its designer? The new specification does not do away altogether with these fake names, but the official statement is as follows:—"In a number of instances the names of well-known woods such as oak, walnut, mahogany or teak have been applied to timbers which have no botanical relationship with those properly so named. Names coming within this category are distinguished throughout the nomenclature by quotation marks." These quotation marks are a pity, for it would have been better to bar unjustified names altogether, but the quotation marks at least give some of the games away, and it is up to architects to stick to the timbers they know something about. If they do that, and keep this specification handy, they stand a chance of getting what they ask for (provided that the Government hasn't snatched it all). This specification isn't perfect, but it was very well worth doing: 3s. 6d. well spent. (*The British Standards Institution, 28 Victoria Street, London, S.W.1.*)

### *Electric Motors*

Bull Motors have just issued a new publication. It is called, appropriately, the *BULLetin*. In addition to full information concerning motors available from stock, the *BULLetin* contains particulars of new developments, service facilities and what is particularly useful in these days of changing prices, up-to-date firm prices for all stock motors.



*Bull Standard Industrial Squirrel Cage Motor.*

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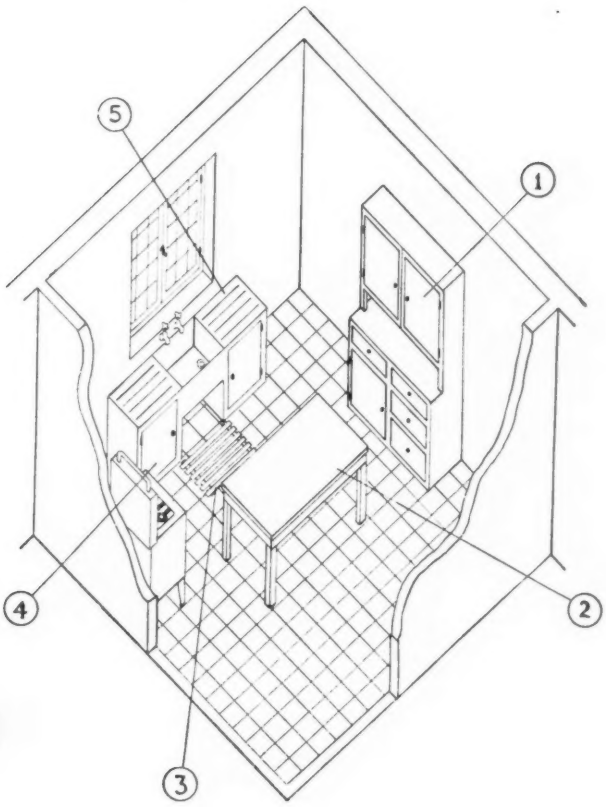
This firm was fortunate enough to complete new works before the war, with the result that their output of motors has been very

1. KITCHEN CABINET
2. TABLE
3. GRATING
4. CUPBOARD
5. DRAINING BOARD




# five uses for teak in the kitchen

In a kitchen there is a continually changing climate. When the oven is on, the air is warm and dry. At other times, it is moist from steam. No wonder that ordinary woodwork is constantly changing shape — drawers sticking and cupboard doors not shutting properly—as the timber takes up moisture and gives it off again. Teak is different. It is a timber which, owing to its oily nature and closeness of grain, repels moisture and reacts little to atmospheric changes. Once in place it stays put. Nor will it rot, however much it is wetted and dried, and therefore it is the ideal timber for sinks and draining boards.


4 CROSBY SQUARE, LONDON, E.C.3

## Teak — *Tectona grandis*

*The only true Teak is Tectona grandis. (See the recently issued "British Standard Nomenclature of Hardwoods" on this point.) Beware of other so-called 'Teaks' which do not possess that combination of properties which makes genuine Teak the most satisfactory and economical timber now available for many purposes. Its cost is less than most people imagine, and there are ample supplies.*

# BURMA TEAK

Stoneham & Kirk

substantially increased. A complete new range of industrial motors has been developed, including screen protected, drip-proof, totally enclosed fan cooled, flange mounting and vertical spindle type.

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The system of production is such that all the standard screen protected motors of the usual powers and speeds are available for delivery from stock, and most of the other types can be despatched in about fourteen days.

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The *BULLetin* is to be published regularly. Copies may be obtained on application to the manufacturers.—(*Bull Motors, Dept. R.E., Cecil Chambers, Strand, W.C.2.*)

## Manufacturers' Items

Belling & Co., Ltd., have made a further advance of 5 per cent. in the list prices of all their products, making a total of 12½ per cent. above pre-war levels. This advance has been made necessary by the continued rise in the cost of raw materials, and the recent Labour Award of increased wages.

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Following letter has been received : " From April 1, 1940, the trading activities of the Sussex Brick Company, Ltd., and its subsidiary, the Dorking Brick Company, Ltd., will be carried on by a new company—The Sussex and Dorking United Brick Companies, Ltd. This will result in the range of products now manufactured by the two companies being obtainable from the one company, with the head office at 14 Market Square, Horsham, and a branch office at North Holmwood, Dorking.

" Under war conditions, and the consequent cessation of nearly all private building and building by local authorities, we have had to concentrate on the manufacture of the commoner types of building and facing bricks for defence and other Government schemes. The well-known ' Southwater ' engineering and sewerage bricks are, however, still in production, and ample stocks are available of all the classes of higher grade facing bricks for which both companies are noted."

*As a result of the necessity of economizing paper in wartime, newsagents are unable to keep a stock of journals and periodicals for casual sale. If you wish to make sure of receiving your copy of this* JOURNAL *in future, you should either place a definite order with your newsagent or subscribe direct to*

THE PUBLISHER, 45 THE AVENUE, CHEAM.

*Annual subscription rates £1 3s. 10d. inland ; £1 8s. 6d. abroad.*

## THE BUILDINGS ILLUSTRATED

**WORKING-CLASS FLATS, GARRATT LANE, WANDSWORTH, S.W.18** (pages 385-391). Architect : Ewart G. Culpin, F.R.I.B.A. Assistant architect : A. E. Kelsey. The general contractors were Unit Construction Co., Ltd. The sub-contractors and suppliers included : Henry C. Parker & Co., bricks ; Redpath, Brown & Co., Ltd., structural steel ; G. R. Speaker & Co., Ltd., and F. C. Flack, partitions ; Jos. F. Ebner, woodblock flooring ; Wandsworth Gas Co., stoves and gas fixtures, etc. ; Edward Marshall, Ltd., grates ; General Light Castings, grates and sanitary fittings ; E.P.I.C., electric wiring, heating, etc. ; Hill and Smith, Ltd., metalwork ; Syncro Times System, Ltd., clocks ; A.B.C. Signs, Ltd., signs ; H. and C. Davis and Co., Ltd., clothes posts ; Penfold Fencing Co., Ltd., fencing ; Roll-up Metal Matting Co., mats ; Williams and Williams, Ltd., metal weatherings.

## SOCIETY OF ANTIQUARIES

The Society's Gold Medal for distinguished services to Archæology will this year be presented to Dr. Aarne Tallgren, HON.F.S.A., of the University of Helsinki.

The presentation will be made at the anniversary meeting, at 5 p.m. on Tuesday, April 23, after the President has delivered his anniversary address.