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, MARCH 13, 1941. NUMBER 2407: VOLUME 93

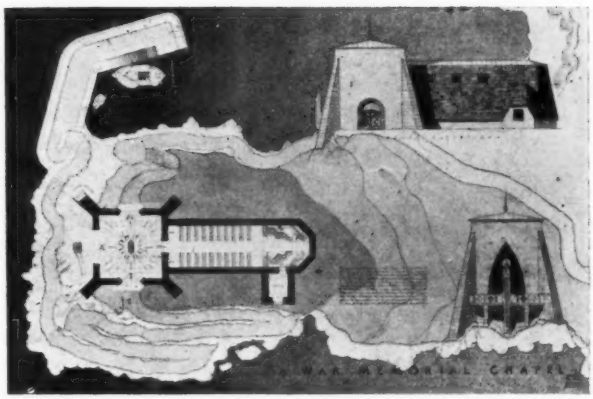
PRINCIPAL CONTENTS

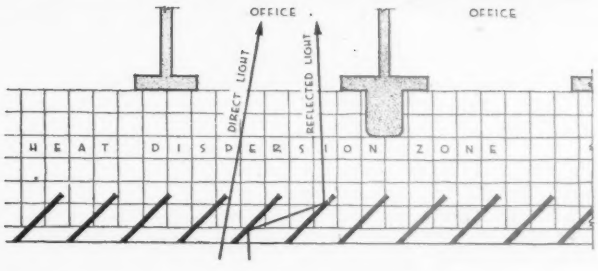
Owing to the paper shortage the JOURNAL, *in common with all other papers, is now only supplied to newsagents on a "firm order" basis. This means that newsagents are now unable to supply the* JOURNAL *except to a client's definite order.*

To obtain your copy of the JOURNAL *you must therefore either place a definite order with your newsagent or send a subscription order to the Publishers.*

STUDENTS' COMPETITION

The winning design for a chapel in memory of those lost at sea in a competition organized by "Art Notes." The winner was Mr. William S. Gauldie, 4th year student of the School of Architecture, Dundee College of Art.

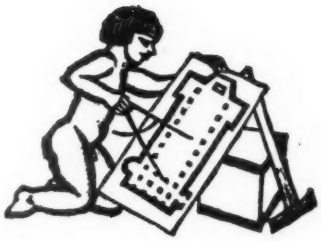




BRAZILIAN PRESS BUILDING

The new A.B.I. (Associacao Brasiliero de Imprensa) building in Rio de Janeiro, a reinforced concrete building with an extremely simple plan form. The greatest problem to be overcome in the building's design was sun glare and heat. The architects, Marcelo and Milton Roberto, met this problem by an external corridor on each floor which could serve as a "heat dispersion zone" and by sun-baffle louvres covering all openings. In addition the building has an elaborate air-cooling system. No heating plant was needed in the building, and lobbies could be left open to the pavement.

The illustrations are reproduced from "The Architectural Record".



ARCHITECTURE'S RECORD OFFICE

THE National Buildings Record, which has now been at work for a fortnight, has emerged from the fusion by the autumn Blitz of several ideas and aims.

The first firm step towards its formation came from the Ministry of Information, and all architects will remember this with gratitude. Towards the end of last October the Ministry suggested that an organization should be set up to reduce, by compilation of existing records and by photographic survey, the damage which the nation might suffer by the destruction of its architecture. The Ministry's initiative received immediate support both from the R.I.B.A., who were already thinking about the same problem, and from the smaller body of those who had long desired and worked for a national index of architecture.

The conference at the R.I.B.A. on November 18 was quickly followed by action. Lord Reith, to whom architects are becoming week by week more indebted, secured a treasury grant large enough to establish and maintain a small organization, which Mr. Walter Godfrey and Mr. John Summerson were appointed to direct.

The National Buildings Record was enabled to make a flying start by the work already done by the Architectural Graphic Records Committee. This body has been engaged for many years in cataloguing those records of notable buildings which are in the possession of public and semi-public institutions, and this catalogue forms a most important part of the R.I.B.A. Library. The Architectural Graphic Records Committee has now ceased to exist, and for the immense amount of work which it has carried out the profession owes a special debt to the enthusiasm and energy of Mr. F. H. Mansford.

The new Record's permanent work will be to extend the catalogue of the Graphic Records Committee to include records in private hands and photographs. But its immediate attention will, of course, be devoted in great measure to famous buildings which have already been damaged by bombs or those which are now in most danger.

Three points concerning the Record deserve special attention. It has been established to compile records of all buildings, not those of particular kinds or of special fame. Naturally the bulk of its work will concern old buildings, for it is of these that records are most hard to come by, whereas the architectural and building journals and local authorities hold in their files a certain minimum of information about the vast majority of buildings erected after 1860-70. But no qualifying test of architectural merit will be imposed by the Record. There are many buildings which cannot be left out of the Record's files: there are none which it intends to leave out.

The second important point of the Record's policy is that it has no acquisitive ambitions. It is hoped to list all records of notable buildings which are in private possession, and in the most important instances to copy and photograph them. It is also hoped that, where it is necessary, owners will be persuaded to safeguard originals and ensure that they do not pass into uninterested hands. But, these things accomplished, it is believed that the nation, architecture and architects will gain far more by records remaining in private possession than by their being gathered together in perpetuity in a single place. Such a policy involves a risk of loss, but the possible gain is worth such a risk.

Finally, National Buildings Record will be able to play a great part in reconstruction. Any worthwhile rebuilding in cities must involve the removal of undamaged buildings as well as those partially or wholly destroyed. It is human to dislike change and very human to dislike the removal of prominent buildings or groups of buildings in a town where one has lived for many years. And it is certain that this dislike will find an outlet in many cities by the attribution to doomed buildings of an architectural and historical value which they do not possess. In these most difficult problems of reconstruction the Record's help will be of utmost value. Architectural and historical importance varies with place, local feeling and time, and therefore the Record will issue not *ex cathedra* pronouncements. But it will be able to state sympathetically those aspects of the problem which come within its special knowledge; and, later, it may be able to assuage a minority's feelings by ensuring that measured drawings, photographs and the history of a vanishing building are preserved for the nation.

The National Buildings Record has had small beginnings in a time of emergency. Architects can be thankful that that emergency, the enthusiasm of the Record Council and the R.I.B.A.'s generous offer of accommodation, have made a beginning possible; but they should not think of the Record as an emergency institution. It must be, and the JOURNAL believes it will be, a permanent institution for which the most valuable, if not the most urgent, tasks are those of peace-time.

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The Architects' Journal
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NOTES & TOPICS

ARCHITECTS WAR SERVICE

AT a moment when a new schedule of reserved occupations, containing big changes, is just about to be issued Mr. Thomas E. Scott's letter which is printed elsewhere in this issue is of particular importance.

*

Mr. Scott is Chairman of the Committee which advises the Ministry of National Service as to the best means by which the architectural skill which is now needed, or may be needed in future, for the efficient prosecution of the war can be provided or kept readily available. And his letter reveals a difference of view between his committee and the paramount government sub-committee over preparations for the unexpected.

*

In examining this difference of view architects have to bear in mind that the time has long passed when an architect could be reserved just because he was an architect. The country can now only afford to reserve him under either of two sets of circumstances: if he is already engaged on work of national importance; or if it is so likely that he may be needed for such work at any moment that it is vital that he should be kept ready to undertake it.

*

The Ministry of Labour has admitted the validity of the first of these circumstances but not the second. Architects who are already engaged in war construction or air-raid repair work are not to be called up: the rest are. Mr. Scott's Committee contest this latter decision on two grounds. They hold that the evidence in their possession points to a present shortage of men physically and otherwise well-qualified for air-raid-damage work. And they maintain that, at any moment, this shortage may be vastly increased by heavy air raids on districts which have hitherto escaped them. This second contention seems incontestable. No one doubts that German night bombers and crews are being increased in number or that as the weather improves they will be more fully employed. And everyone can think of half a dozen large industrial districts which have suffered little or no bombing. It would therefore seem the height of folly for the architects aged 35 to 45 who are not already engaged on war work to be swept into services from which their recovery in an emergency might be difficult or impossible.

*

On the other hand, the mere re-reservation of all architects at, say, 35—although it has the advantage of simplicity—would seem too wasteful and inexact a method of providing a reservoir of architectural skill at a time when labour power is so precious. And it would also be in contradiction to the Government's ruling that future reservation will be based on the individual and the work he is doing and not on his trade or profession.

*

It would seem that the compulsory completion of a questionnaire by all architects over 35 who are not already in the Services or directly employed on wholetime war work would enable a reservoir to be prepared far more skilfully. From such a questionnaire it would be possible to set up a first-line reserve of the most suitable men who could be attached for training to those local authorities or public utilities who are now short of men; a second-line reserve of men who would be encouraged to serve in the A.F.S. or other local A.R.P. services until needed for their own job; and a third-line of the older architects who would be left to carry out private repairs and any other normal work until urgently required.

*

Such a scheme would seem to meet the objections of the Government to any general re-reservation and the far more vital objections of Mr. Scott's Committee to the nation's being left without a reserve of architectural skill when four or five "Coventry" blitzes might be inflicted in any week.

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HALF CENTURY ON THE OTHER SIDE

The *Architectural Record** has published in celebration of the fiftieth anniversary of its first issue a most impressive review of the changes in American architectural outlook and technique during the past half century.

*

The review is accompanied by illustrations of recent work in the U.S.A., and one's first thought on looking through these illustrations is one of surprise at the rapid growth in America of what has to be called modern architecture.

*

One has to be careful, in judging architecture from architectural papers, not to mistake the isolated for the general. Any country can, or could, produce enough modern architecture to keep an architectural paper filled during years when popular, and even professional, support for that architecture was negligible. But there is great evidence that this is not now the case in the U.S.A. For several years examples of first-rate modern work have been appearing in all American journals, and notable buildings have been entrusted to modern architects. Most important of all, the small houses which have been illustrated have shown the increase of a forceful and active interest in the æsthetics of modern materials and new building technique; and those who are now designing American small houses will in a decade be designing the skyscrapers, banking houses and apartment blocks which the European is apt to think of as American architecture.

* During a month when the establishment of a National Buildings Record in Britain is much in mind and print, it should be made clear that my reference is to the famous American magazine.

This increasing search for an external expression which conforms more closely with programme and structural technique promises that American architects will soon overhaul Europe in the one field in which they have hitherto been behind. Everything about modern architecture—except its æsthetics—is more American than it is anything else. Almost every component of modern building structure, equipment and method was either invented in America or so fully developed and improved there that its own maker would hardly have recognized it. But having done all those things, American architects did not see that by doing so they had not only burst building's clothes but had changed the creature itself so that no suits of the old cut would ever fit again. They either did not see it or it didn't interest them.

*

In generalizing thus about American architects I do not imply that, in contrast to those heedless giants, all European architects started worrying at once about the new situation and soon produced a satisfying expression for modern architecture. In fact, a few architects in the U.S.A. and a few in Europe worried for half a century, the only advautage on Europe's side being that her group of pioneers induced the rest of Europe's architects to worry a little sooner to a little better purpose.

*

This small start for the old world arose from two causes. For most of the last half century the U.S.A. has been still in the stage of industrial and social development. And her architecture has been influenced both by the strength and the weaknesses of pioneers: it has been fortified by initiative, resource, great engineering ability, a readiness to experiment and to back experiments with hard and big cash; it has been weakened by a simultaneous disinterest in æsthetics as effeminate, and a far too great readiness to believe that old world rulings on such matters were infallible.

*

It is only fifty-two years since the Chicago World's Fair when the full impact of Beaux Arts Classicism at its billowyest was unleashed on the United States public for the first time and set up the Beaux Arts system as the model and inspiration for the training of her architects for forty years. The blow thus administered to the American architecture which was being slowly developed by Root and Sullivan had effects which lasted till 1918 and after. Eclecticism became the rule, mostly classical eclecticism: Parthenons and palazzos were blown up into railway stations or shrivelled in Court Houses without the batting of a professional eyelid. Many British architects were coping with architectural expression by very similar methods, but if only through personal inability to attain to transatlantic dexterity, fewer British buildings were wholly devoid of individuality, while the smaller size of European buildings usually stopped copyism short of the grotesque.

*

There are grounds for believing that American eclecticism was first checked by a clients' revolt. Involved detail disappeared from 100-storey buildings because it had to, American architects were faced with the bare homes of the technique which they had so largely invented, and they started to think about appearances. The *Architectural Record* shows that in the last five years they have thought to some purpose. In proportion to its size, which is great, the U.S.A. has suffered from the Modernistical no more and no less than any other country and is now getting rid of it. American small houses are now reaching back towards the native-American expression whose development was broken in 1893 when hardly begun. There are signs of the influence of Frank Lloyd Wright and the famous Continental architects now in the U.S.A. about these houses. But these signs show that young architects have learnt from these men, not imitated them. And they forecast that when this war ends Europe may look westwards for instruction in more than the technique of building.

FAME AND FICTION

The death of Mr. C. F. A. Voysey called to mind that he figured more than once in fiction in his own proper person. In the novel *House Mates* by J. D. Beresford, which I turned to, he is referred to in several places, a distinction shared by some other real architects, Smith and Brewer, Norman Shaw and Aston Webb, who are mentioned casually in passing. But to Voysey there are several references: "Geddes, Horton-Smith and myself were very much affected by Voysey's work," and later his manner is the subject of discussion—"Don't you like Voysey's stuff? Those funny houses with the queer little buttresses," and so on.

*

House Mates contains also a host of fictitious architects: Heaton, Baxter, Kemplay, Budge, Wilfred Hornby the hero, Geddes, Horton-Smith—possibly under thin disguises. One of them, Sydney Baxter, was modelled on Lacy W. Ridge with his "shabby top hat rammed on the back of his head at the familiar angle."

*

Mr. Ridge in real life was a member of the Institute, for twenty-seven years on the Board of Statutory Examiners, and was further remembered in that he desired that his funeral cortège should halt a few moments before each of his buildings on the way to the grave.

REMARKABLE MODERNISMUS IN THE 'SEVENTIES

In reading of our grandfather's time one comes now and then on distinct signs of ideas not founded upon middle-class æsthetic and conventions penetrating the plan and purlieus of their houses. In that of Mr. Reuben Sassoon in Belgrave Square, the indefatigable Mrs. Haweis noticed some curious features.

"We find the common bath and shower bath combined in a kind of green alcove. On one side a row of stops suggest an organ, but in reality they apply to the various parts of the whole apparatus, which breaks out in spouts upward and downward, sideways and sprays hot and cold, this way and that, gentle and fierce, according to the stop pulled. It is a most ingeniously arranged machine, from Mr. Sassoon's own design."

*

Yet the most remarkable feature of the house far transcended the washing facilities—"The horses, however strange to say, are kept at the top of the house, in a stable reached by a leathern-padded lift, in which the animals ascend and descend every time they are required."

*

There were eighteen horses kept above Mr. Sassoon's residence. No mention is made of any of the little difficulties which might attend this departure from normality. The fair critic only makes the dry comment, that "no horse has suffered from the novel conditions."

*

Mr. Sassoon's bathroom has myriads of successors. I have not heard that anyone followed his lead in stabling.

ASTRAGAL

NEWS

AN R.I.B.A. PRESENTATION

At the War Executive Committee meeting on January 28, Mr. F. G. Baker, R.I.B.A., Chief Clerk, was presented with an address as token of the Institute's appreciation of his forty years' work. The address was handed to Mr. Baker by the President and read as follows:

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS
to
FREDERICK GEORGE BAKER

Clerk 1900 Chief Clerk 1914

The President, Council and the many Members of this Institute to whom you and your work are personally known, welcome this occasion to express their Gratitude and Appreciation of the Ability and Loyal Devotion that you have for 40 years given so unsparingly to this Institute, especially during the many years that you have borne the Responsibility of the position of Chief Clerk.

W. H. Ansell, *President.*
Chas. G. Soutar, Edward Maufe } *Vice-Presidents.*
Michael Waterhouse, *Hon. Secretary.*
L. Sylvester Sullivan, *Hon. Treasurer.*
Ian MacAlister, *Secretary.*

INSTITUTION OF STRUCTIONAL ENGINEERS

Members elected February 27.

Studentship.—Street, P. J., of Eltham, London.

Graduateship.—King, M. A., of Brighton, Sussex; Lloyd, H. G., of Dagenham, Essex.

Membership.—Cotton, A. E., of North Harrow, Middlesex; Fairhurst, W. A., of Newton Mearns; Knowles, R. W., of Alsager. Stoke-on-Trent; Oldfield, J. V., A.M.Inst.C.E., of Grimsby, Lincs.

AUCKLAND CATHEDRAL COMPETITION

The four premiated designs in the Auckland Cathedral competition are being exhibited at the New Zealand Government Offices, 415 Strand, W.C.2, until about the end of March.

TUBULAR STEEL

In the revision of B.S. 538, metal arc welding in mild steel as applied to general building construction, which was issued in April, 1940, a note was included in the foreword pointing out that the requirements of that standard are not applicable to the welding of tubular steel sections. It was considered that the factors affecting the welding of tubes—namely, the quality of steel of which the tubes are made and the forms of welded joint which are appropriate—were sufficiently diverse from those for the welding of the normal mild steel section as to justify the preparation and issue of a separate publication. The British Standard B.S. 938 metal arc welding as applied to tubular steel structural members has therefore been prepared to provide for the welding of tubes in steel construction. The economy in weight that can be obtained by using this method of construction in roof trusses is mentioned in Bulletin No. 8 of the Department of Scientific and Industrial Research. Copies of this new British Standard will be available shortly from the British Standards Institution, 28, Victoria Street, London, S.W.1, price 2s. 3d., post free.

FIRE PROTECTION OF STRUCTURAL STEELWORK

The fire protection of structural steelwork is dealt with in the latest wartime building bulletin issued by the Building Research Station of the Department of Scientific and Industrial Research (Bulletin No. 13).

The suggestions in the bulletin apply both to new and existing factories.

LETTERS

Reservation of Architects

SIR,—The proposal that architects should be reserved has again been rejected by the Schedule of Reserved Occupations Sub-Committee of the War Cabinet: it has, however, been agreed that the deferment of architects should continue on existing lines.

It is stated by the Department that:

> "Architects employed by Government departments are reserved as Civil Servants permanent or temporary, and may be deferred below those ages on the recommendation of the Government department concerned. Architects employed by local authorities may be reserved as local government officers according to the terms of appointment by the local authority. The Ministry of Health and the Ministry of Home Security will also consider on their merits individual applications for the deferment of architects fully engaged on air raid damage repair work in any area, whether or not they are directly employed by a Government department or local authority.
>
> "In addition, the Sub-Committee recommended that the Ministry of Transport should be free, subject to consultation with the Central Register, to apply for deferment of architects employed by railway companies."

In accordance with usual custom, no official reasons are given for the rejection of the proposal, but it is to be assumed that the Government have sound reasons for assuming the supply of architects to be adequate to deal with the planning and erection of war factories and the necessary temporary housing of workers, the repair of damage to essential buildings, air raid shelters, the carrying out of repairs and preparation of claims for private persons, and other work arising out of the war.

It must, however, be stated that the evidence before the Architecture and Public Utilities Committee, the experience of its members, and the views expressed by representatives of the Government departments chiefly concerned, all point to the fact that there is a shortage of architects, particularly of those physically and otherwise qualified to deal with the repair of air raid damage. This shortage is bound to become even more acute if and when bombing is resumed on a wide and heavy scale, and when more architects are called up.

The present official scheme provides for the deferment of those who are fully engaged on air raid damage work, or presumably upon any other work of vital importance, but this can only apply if they are so engaged at the time when they are called up. The official scheme does not provide for the intelligent anticipation of emergencies which might arise in any town or district likely to become the object of heavy enemy attack *after* the majority, if not all, of the younger and more active architects have been called up.

It therefore becomes the duty of architects and others responsible for public or other services and buildings of national importance to take whatever action may be necessary to retain the services of sufficient staff to deal with such emergencies as experience during the last few months has taught us to expect. Any difficulties will be brought to the notice of the Committee if they are communicated to me.

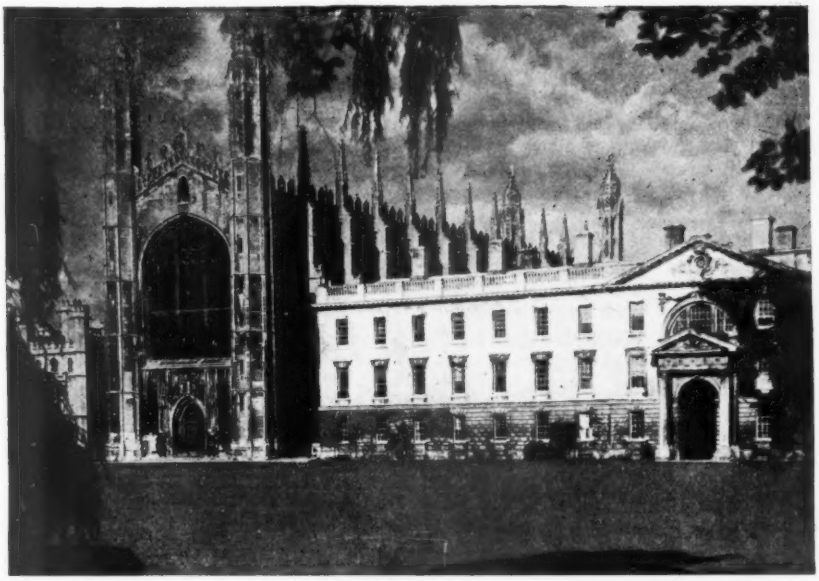
I shall be glad if you will allow me to take this opportunity, on behalf of the Architecture and Public Utilities Committee, to comment upon a statement which recently appeared in the Technical Press. In reporting upon a deputation from the A.A.S.T.A. to the Ministry of Labour and National Service, a representative of the Ministry is credited with stating that architects were removed from the Schedule of Reserved Occupations at the request of the Architecture and Public Utilities Committee. This statement—if correctly reported—is a half-truth, which is very misleading.

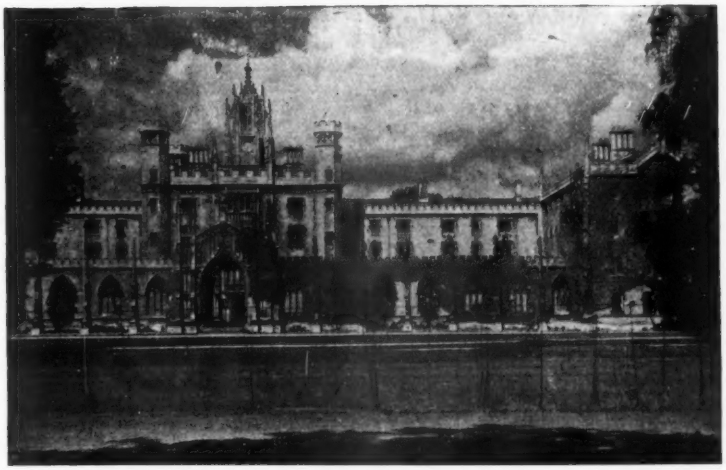
The truth of the matter is that in November, 1939, when architects were reserved at the age of 30, many architects who had military experience in the last war were anxious to join their old units. This they were prevented from doing by regulations governing the Schedule of Reserved Occupations. The Architecture and Public Utilities Committee urged the Ministry to consider individual applications from architects who were affected, and offered to set up a Committee to advise the Minister on such applications, but such an arrangement was considered impracticable. It was therefore decided that in view of the conditions then prevailing, and of the Government's urgent appeal for volunteers to the fighting forces, to recommend that the age of reservation be raised to 45. The Government, however, decided to remove architects from the Schedule so that they would be free to undertake any form of National or other Service which became available.

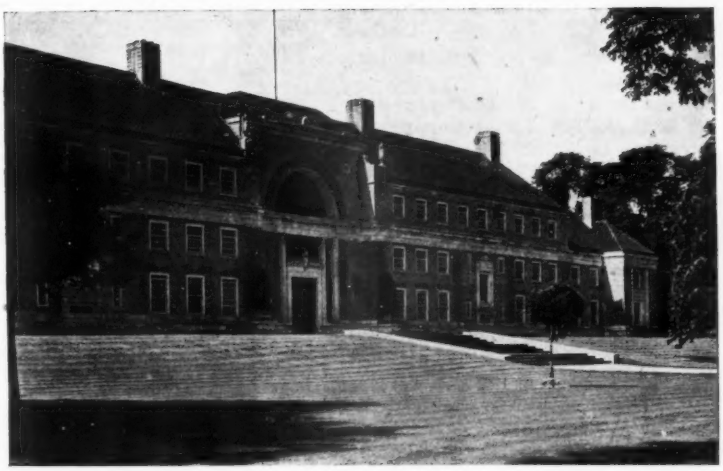
The Ministry at this time pointed out that the scheme of reservations provided for variations to be made in the Schedule to meet changing conditions. The Architecture and Public Utilities Committee consider that conditions have very materially changed, and that unless the war effort is to suffer unduly, architects should be replaced on the Schedule without further delay.

THOS. E. SCOTT.

(Chairman, Architecture and Public Utilities Committee, Ministry of Labour and National Service.)







Right: Gibbs' Fellows' Building and Chapel at King's. Centre: St. John's New Court, built in 1825 by Rickman and Hutchinson. Below: Clare Memorial Buildings, built in 1925 by Sir Giles Gilbert Scott.

From "Cambridge," by John Steegman.

CAMBRIDGE HALF MILE

MARCH, 1941, is an evil time to see, to comprehend for the first time, that if on the map of Cambridge straight lines are drawn through Clare Bridge and Peterhouse, Magdalene and Christ's, the land which these lines enclose is in area under half a square mile. There is a desire, when this is seen, to cross one's fingers, to wish that by wishing only the lawns of Cambridge could be expanded until hope of nipping across them unseen becomes hope in vain. If this feeling is not at all the right feeling for this month it can be pleaded that it is an architectural not a general cowardice.

Mr. John Steegman has just written a book about Cambridge*; which means a book about that under half mile which holds almost all which makes Cambridge better known than Ipswich or Guildford. He writes of Cambridge history, squabbles, ideas and men, of Erasmus, Cecil, Newton and Lord Rutherford, women students and the poet Gray, and of how the affectations of undergraduates offended worthy people in England long before the linotype helped them to offend so many more. Mr. Steegman shows us samples of the things which are Cambridge and imponderable. But mixed up with these pursuits and ideas and men, influencing them and being influenced by them, is the Cambridge which is solid; and this part of Cambridge is Mr. Steegman's real hero. Architects need not feel ashamed at fearing for it. The ideas, attitudes of mind and men of Cambridge are indestructible or replaceable: Cambridge in the solid is in different case. That half a square mile and a few patches outside it is the library in the solid of a thousand years of architecture. There is no other such half mile.

Mr. Steegman possesses the most agreeable prejudices. He obviously feels that Oxford cannot hold a candle to his hero: no properly educated person could think otherwise. A special interest in St. John's seems to pop into sight at times; and he rates highly that light opera of Gothic Revival, St. John's New Court. This the profession should note with care and thankfulness. Cambridge is, or was,

* *Cambridge.* By John Steegman. (Batsford). Price 10s. 6d.

crawling with people who are suffering from a Ruskin hangover, who have trudged round Europe peering at buildings and expecting Truth, Endeavour, and Faith and Charity to wink back at them in coloured lights. These people will say that the front of New Court is a plaster sham and the back looks like a Glasgow tenement. Very true. But the whole Romantic Revival began as sham, sham for the fun of sham.

The Gothic Revival of the 19th century produced some fine architecture; but it was fine in spite of Gothic forms having become symbols of moral rectitude, in spite of exact reproduction having taken the place of original thought and not because of these things. The New Court of John's contains the essence of the Romantic Revival in that it is permanent scene-painting not taken too seriously.

If the architects who have built in Cambridge since 1919 had all had Rickman's and his partner's ability to refuse to be hypnotized by adjoining buildings, had dared to think for a moment of having fun in designing for that half mile, Cambridge would have escaped half a million pounds' worth of over-studied mediocrity. As it is, that half mile's reputation has hung round architects like fetters. The dons of Cambridge perpetrated in the last century so many first-class floaters, that any suggestion of new building brought on jitters which quickly spread to their architects. No post-1919 architect of a building among other buildings has dared to say to himself: "They have asked for me because they like my work. I'm not going to be browbeaten. I'm going to follow Gibbs and Wren and let the others lump it"; or, if he did, the dons never let him act on it.

The architects chosen for post-1919 buildings in Cambridge have, with few exceptions, been the Famous Architects of the Day or men whose architectural beliefs were such as to ensure the new work doing what is called harmonizing perfectly with the old.

Beyond the work of these men there have been oddities. A few oddities are appropriate in Cambridge: though it seems a pity that King's should liven up its chapel and the work of Gibbs and Wilkins with an essay in smooth-coated Cotswold. (But King's, as Mr. Steegman admits, is an odd college.) And it should be mentioned that King's extension is downright lovable compared with Queens' transpontine venture a little way up the river. Queens' has come out of its shell to produce a corker—a real North Circular Close beside Silver Street Bridge.

Yet these oddities, and the work of the harmonizers, do not seriously matter in Cambridge. An occasional whimsy, a little more or a little less of sand-faced brick and mullion in unimportant places, cannot affect Cambridge as a National Portrait Gallery of architecture. The works of the famous architects in this gallery do matter. They are prominently placed and are part of what people come to see. And it is the famous architects who have failed Cambridge since 1919. Their works have neither been exact replicas of past times, nor representative of their own times—nor even represented their designers. In the main their general form and material have been heavily of the past with their designers represented only by the most careful, over anxious, variations in detail. And all have been costly.

Sir Edwin Lutyens is not a man who is likely to be browbeaten by his clients, yet his new Magdalene block has a massiveness of internal detail which suggests defensive self-assertion. Sir Giles Scott's Clare New Buildings, the best of the earlier post-war buildings, has its scale forced down in a way from which Sir Giles' own house in Bayswater—a generally similar building—is entirely free.

Yet this building marked a high point of architectural interest in Cambridge. Everyone talked about it, everyone roused themselves again over the Library, but since then new laboratories, new Downing, new Magdalene, new St. John's have succeeded each other so rapidly that interest and sharpness of view have become dulled. For the most part the buildings have been suave, costly studies in modified classic which seem—since good architecture must be an expression of contemporary attitude of mind—failures on the most important count. Compare, for example, the Scott Polar Research Institute—a small, costly, modern Palladian house in stone. Nothing less expressive of Polar Research or the year 1935 can well be imagined. And elsewhere in Cambridge than in the half-mile, large buildings have not even been carefully studied. They are careless, Georgian trimmed blocks redolent of open competition architecture. Only here and there, in a laboratory by Stanley Hall and Easton and Robertson and another by Mr. Hughes, has some braver and more real feeling forced its way into the recent architecture of Cambridge past the terror of the dons.

After this war it is certain that a new outburst of building will take place at Cambridge. The war itself may do away with suavity and competition in costliness or thin period trimmings on raw-boned blocks. But if it does not there will be only one way to bring fresh air into the architecture of the famous half mile. That will be for a College to choose an architect, give him a site plan, tell him that his building must cost less than a shilling a cube foot and forbid him to inspect the site until designs are complete. On other terms no architect should be allowed near Cambridge's sacred half mile: it contains too much faint-heartedness, too many Baedekers and too much money.

●

CHANGE OF ADDRESS

Messrs. Young and Hall, Chartered and Registered Architects, have moved to Crown Buildings, 9 Southampton Row, W.C.1 (Telephone: Holborn 3518).

the Other camp

SINCE the Nazi and Fascist parties came into power, a measurable proportion of party energy has been spent on telling the German and Italian peoples that there was a good time coming. Broadcasting has naturally played a large part in the campaign—the People's Car, the People's Flat, and People's Smallholdings in Libya have all been promised and described on the air. Latterly, these broadcasts have become more frequent, and many of them have dealt with the good things that are coming, after the war, in the way of buildings. Below, the JOURNAL *prints a further selection of what is now being promised to those who do what they are told in The Other Camp.*

Broadcast: Post War Reconstruction

(Bremen; In German for Germans)

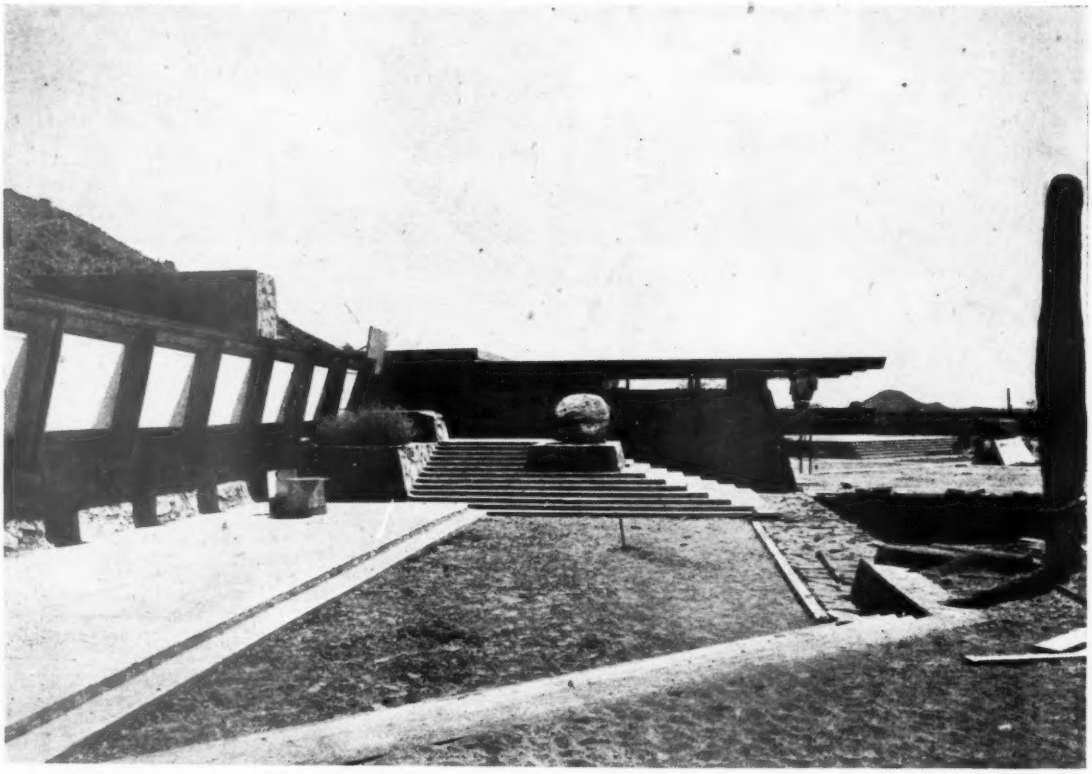
THE Fuehrer has entrusted Dr. Ley with a great new task: the building of houses for the people. The man who created "Strength through Joy," the man of the people's car and of the workers' fleet, will now build dwellings for the people, and when the war is over he will help a few hundred thousand German families, every year, to obtain a home. The Fuehrer has not only given his approval to the plans, but has himself taken a pencil and decided the question: bathroom or shower-room, balcony or no balcony. In the midst of war the Fuehrer thinks of his people.

Immediately the war is ended everything is to be ready for large-scale reconstruction. The Fuehrer has set forth the principles by which Dr. Ley will be guided. He has also appointed Dr. Ley Reich Commissioner for people's dwellings. The complicated questions which normally crop up in building have already been clarified.

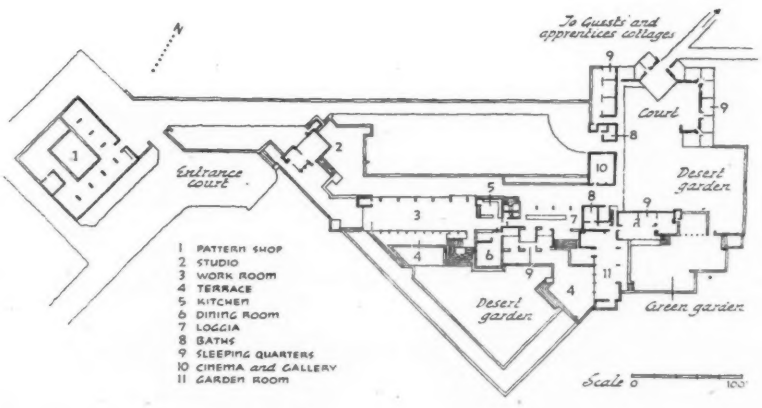
Rents will be low, but the dwellings will be beautiful and up-to-date and the best processes will be used in construction. Steps have already been taken to procure land. During the first year after the war 300,000 dwellings are to be completed. They will not be built by the State but by private enterprises, but the State will help the building industry in every way.

A Reich Standard Building Law will, for example, be necessary to put an end to the deplorable condition which previously rendered social building impossible. Hitherto, every town, every province, and every region had its own building laws, so that economic standardization of parts of buildings could never be carried out on a large scale. With this programme of the Fuehrer, Germany starts an offensive against the housing shortage, which is a legacy from pre-National Socialist days. That this is being done in the middle of the war proves how sure we are of victory. 'A people which, as Mussolini said yesterday, is already grasping victory, does not need to have promises made to it. The Fuehrer's programme for building is a fact, just as the motor-ways are. The finished plan is there. Dr. Ley is there. He will carry this new work to a successful conclusion on his broad shoulders.

"TALIESIN WEST," ARIZONA



BY FRANK LLOYD WRIGHT



PROBLEM—The winter quarters of Mr. Frank Lloyd Wright's group of students of architecture and social organization in the Arizona desert near Phoenix, Arizona. The accommodation units needed were so flexible in form, area and constructional materials that the problems to be solved were almost wholly those of achieving the most suitable form—of sculpture rather than architecture.

SOLUTION—The architect's theories of union between site and building are fully exemplified in the buildings—almost to the point of camouflage. The range of building keeps close to the natural stepping of the site, and units consist of desert rock buttresses and low terraces and a series of wood trusses and tilted canvas surfaces.

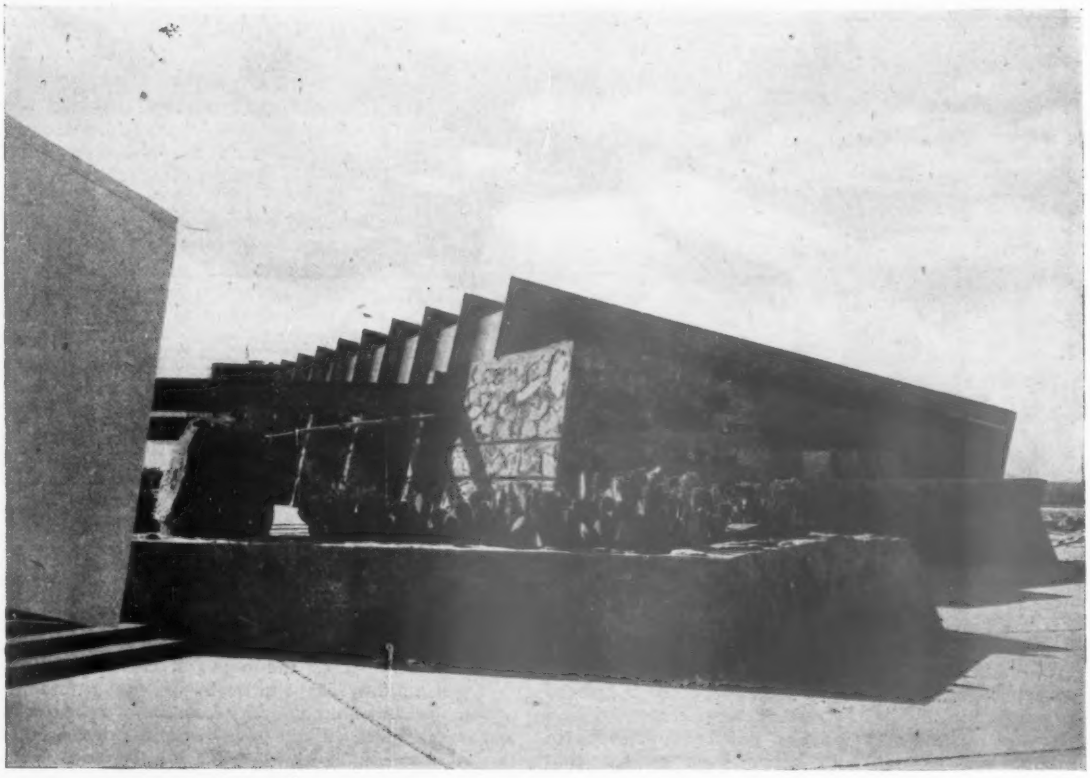
Close connection between units of the plan was unnecessary under camp conditions, and the layout was largely controlled by considerations of external form.

The photograph shows the terrace on the south side of the workroom.

CONSTRUCTION—Foundations, walls and terraces are of random-built volcanic desert stone. Floors are of concrete. Trusses and trellis beams are of timber left natural colour and rough finished. Walls, ceilings and windows are of wallboard, wood slat or canvas, and are almost everywhere hinged or louvred so that they can be opened to any wind while cutting off sun glare. The light which penetrates the canvas screens is well diffused. Rainfall is, of course, almost unknown.

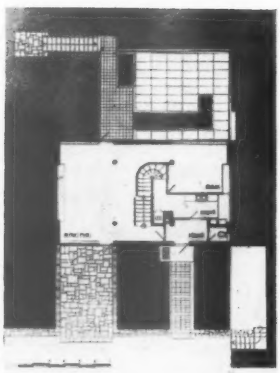
Above is Mr. Frank Lloyd Wright's study at the camp. Below is the north side of the workroom showing the raking canvas blinds between the trusses.

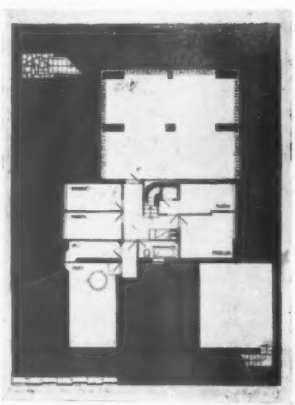
The illustrations of "Taliesin West" are reproduced from "Pencil Points."



"TALIESIN WEST," ARIZONA

DESIGNED BY FRANK LLOYD WRIGHT





HOUSE

NEAR PRAGUE

DESIGNED BY JAROSLAV FRAGNER

PROBLEM—House on a hillside near Prague with a magnificent view to the south. The house is an interesting interpretation in modern terms of "vertical" planning although the side lighting available on lower floors removes one of the biggest handicaps to the free planning of a terrace house.

The basement floor, lower left, contains heating chamber, two maids' rooms, a laundry and a store-room. The ground floor plan is interesting in its provision of direct access between both the living-room and dining-room and kitchen and dining-room.

CONSTRUCTION—Reinforced concrete frame with hollow concrete block infilling, rendered externally. Floors and roof are of reinforced concrete, the floors being finished in composition. Water from roof is collected centrally and discharged down a duct next the boiler flue.

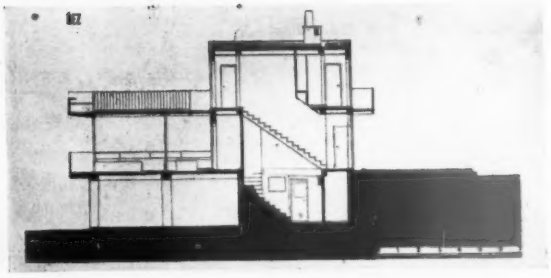
Top, the house from the north-west.

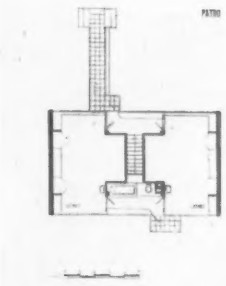
HOUSE NEAR PRAGUE

BY JAROSLAV FRAGNER

FIRST FLOOR PLAN—The first floor contains two bedrooms, each 21 ft. by 12 ft., and fitted with cupboards, shelves and washhand basins. The projecting balcony (left) was asked for so that visitors could be shown the view in every direction at once. It is fitted with a desk and seat and is used for breakfast in summer-time.

Below is a general view of the house from the south-west.





SOME QUESTIONS ANSWERED THIS WEEK:

★ *WHAT is the remedy for condensation drips from steel trusses?* - - - - - Q666

★ *HAVE I to pay extra for "war cost" on a small house started in August, 1939, and finished in June, 1940?* - - - - Q668

★ *WHAT is the best method of fixing glass substitutes so that they are not damaged if blown out again?* - - - - - Q670

THE ARCHITECTS' JOURNAL

INFORMATION CENTRE

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

Enquirers do not have to wait for an answer until their question is published in the JOURNAL. Answers are sent direct to enquirers as soon as they have been prepared. The service is confidential; and in no case is the identity of an enquirer disclosed to a third party. Samples and descriptive literature sent to the Information Centre by manufacturers for the use of a particular enquirer are forwarded whenever the director of the Centre considers them likely to be of use.

Questions should be sent by post to—

THE ARCHITECTS' JOURNAL
45 THE AVENUE, CHEAM, SURREY

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

VIGILANT 0087

The reply will come by post.

Q666

ARCHITECT, SCOTLAND.—*Some time ago I erected a two-storey warehouse, the lower part of which is utilized as a beer bottling hall, and during the cold weather a considerable quantity of* ***WATER DRIPS*** *frequently* ***FROM*** *the members of the* ***STEEL*** *roof* ***TRUSSES.*** *There is a certain amount of steam in this building and it seems to condense on these members and also on the underside of the roof boarding. The building is well ventilated, but in extreme weather these openings are kept shut by the employees.*

I shall be obliged if you could suggest a remedy for this, either to minimize it or cure it altogether.

In a building such as this there is no doubt that condensation will occur on cold surfaces, and the only really satisfactory remedy would be to insulate the roof. There are, of course, many ways of doing this, but probably the most economical would be to line the underside of the roof with fibre board such as Tentest or Celotex, which should preferably be fixed clear of the roof boarding on the underside of the purlins to allow an air space between. The manufac-

turers of these products will advise on the best method of fixing.*

In view of the steam, condensation would probably still occur on members of roof trusses and these could be painted with Cork-Tex-B, a process which is simpler and better than throwing granulated cork on to a varnished surface. Full particulars can be obtained from the manufacturers.†

Q667

ARCHITECT, STAFFORDSHIRE.—*I should be obliged if you could furnish answers to the following questions concerning: (a) Senior Regional Officer; (b) Regional Architect; (c) Senior Regional Technical Adviser.*

(1) How, by whom, or what Department are the appointments made? (2) The salaries attaching to each? (3) The qualifications (if any) required?

The salaries of the persons mentioned are as follows:

Regional Officer (Grade 3) £450-£550 per annum.
Regional Architect £5-£6 per week.
Senior Regional Technical Adviser (usually appointed as Assistant Regional Technical Adviser) £450-£500 per annum.

Anyone who considers that they have the necessary qualifications for these posts may apply to the Secretary, Ministry of Labour and National Service, Central Register, Queen Anne's Chambers, Westminster, London, S.W. 1. Any Government Department requiring persons for such posts will advise the Central Register, and those considered most suitable will be recommended.

Q668

ARCHITECT, SHEFFIELD.—*I am the architect of a small house which was begun in August, 1939, and completed in June, 1940.*

At the outbreak of WAR, I had a meeting with the Contractor AND my client on the site and asked the former if there was likely to be any difficulty in carrying on with the job to completion, due to his inability to obtain materials.

He replied, rather airily, we need have no fear at all as everything essential was either ordered or in hand. He also promised to complete the job for Christmas (1939). Nothing was said on either side about INCREASED COST.

The building work dragged on and was completed in June-July last year. The final account was rendered in October, with a "war cost" extra of 2½ per cent. on the contract figure. I refused to pass the account for payment, and the contractor then sent a revised account to the client direct, with a similar claim for a 10 per cent. extra. I naturally advised the client not to pay the whole amount, and he sent the contractor a cheque which made the payments to that date 95 per cent. of the contract figure. The contractor immediately issued a writ for recovery of the balance.

I can find no mention of any automatic increase of contract figures due to the war in any publication, and shall be glad to hear from you if the contractor has any grounds upon which an extra of this nature may be claimed. I would have been inclined to advise my client to meet him to some extent, as I know, of course, that even if he had all the material on hand, workmen's wages have gone up and various other increases will have cut into his profit, but as I appear to have been completely ignored during the latter stages of the business, I cannot do this.

Providing the contract was a normal building contract (such as the R.I.B.A. 1931 Form) and contained no provisions for the eventuality of war or for fluctuations in cost of labour and materials, the contractor is not entitled to claim an extra for "war costs."

If events which were not contemplated by either party make the performance of the contract impossible, the contractor has a remedy, and that is to ask the Court to dissolve the contract. However, a comparatively small extra cost should not be said to make the performance of the contract impossible.

In any case the Court cannot alter the terms of the contract, and can only declare the contract dissolved or not dissolved.

We advise you to obtain a copy of Council's opinion on the "Principles of Construction applicable to Building Contracts entered into prior to the Outbreak of War," obtainable from the Chartered Surveyors' Institution, 12, Great George Street, Westminster, London, S.W. 1, price 6d. This explains the position quite simply, and would undoubtedly help you to advise your client.

We might mention that the R.I.B.A. suggests that architects should point out to their clients the fact that there is a moral claim, and recommends that the nett extra cost should be paid without any additional profit. This, however, can only apply when the client is willing, and it does not affect the rights of the parties.

Q669

ARCHITECT, WARWICKSHIRE.—*Can you tell me whether the prices of all bricks are now controlled?*

All kinds of building bricks are price-regulated under the Price of Goods (Price-Regulated Goods) (No. 2) Order 1940 (S.R. and O., 1940, No. 1806).

Q670

ARCHITECT, LONDON.—*Can you tell me the best manner of FIXING GLASS SUBSTITUTES? The first time I used the material it was fixed with tacks and was soon blown out. The second time I used laths to hold the edges, but again the material was blown out. I have now obtained new material, as the edges of the old material are torn and frayed, and am hoping for better luck. Is an adhesive better than nails?*

The best method of fixing materials as a substitute for glass is to fix the top securely and to fix the sides and bottom in such a manner that they will give way, if subjected to blast, without tearing the material. This result is probably most easily obtained by wrapping the top edge well round a wood lath and by fixing the sides and bottom by adhesives only.

"Boscafix" 669, made by the B. B. Chemicals Co., Ltd., of Ulverscroft Road, Leicester, is a good adhesive for fixing glass substitutes to either wood or metal windows.

* Tentest: *The Tentest Fibre Board Co., Ltd., 75 Crescent West, Hadley Wood, Barnet, Herts.* Celotex: *Celotex Ltd., North Circular Road, Stonebridge Park, London, N.W.10.*

† Cork-Tex-B: *Thos. Parsons & Sons, Ltd., 315-317 Oxford Street, London, W.1.*

INFORMATION CENTRE

REFERENCE BACK

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

Q619. *December 26, 1940*

Messrs. Sealocrete Products, Ltd., of Atlantic Works, Macbeth Street, Hammersmith, W. 6, have informed us that their Sealocrete Double Strength Premix Solution is suitable for sealing leaks under pressure whilst the water is actually flowing and that this product was exhibited at the Builders' Exhibition in 1938.

THE

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INFORMATION SHEET

• 821 •

STRUCTURAL STEELWORK

WELDING—I

This series of Information Sheets, outlining the main principles of the technique of welded steel construction, is intended to help the architect to appreciate when—in the interest of his client as well as for the simplicity of the design—he should give preference to welded rather than riveted steelwork, and to help him co-operate more effectively with his engineer in the evolution of his design.

In a good many instances the welding of steel enables structural forms to be employed which could not be obtained in any other way, but the main attraction of the system will always remain the economy in material which may be effected. There are many cases in which well-designed welded steelwork requires no more than 75 per cent. to 80 per cent. of the steel which would be necessary for an equally well-designed riveted structure, and in the case of heavy construction the saving is often even greater.

In countries where welding is used extensively (and today these comprise almost the whole of the European Continent and America), welding machinery is arranged in the workshops in such a way that the saving in labour is equal to the economy of material, so that the above economies thus apply to the cost of the completed structure as well as that of the material.

In Great Britain, where structural welding is employed—at present only on a small scale—a ton of welded steel is at the moment (1941) more expensive than a ton of riveted steel, and a part of the saving in material is thus lost. In most cases, however, there is still a substantial balance left in favour of welding, and by insisting upon welded construction whenever it proves advantageous, the architect will help considerably to lower the cost of work by taking full advantage of the economies of the system.

The saving of material and the greater freedom of form are obtained in a number of different ways, which will be described more fully in Sheets 2, 3 and 4. The most important seem to be (*a*) the fact that by the direct, cleatless connection, different members, and different parts of one member, can be so arranged in relation to one another that they work with a maximum efficiency; (*b*) the rigidity obtained by welding different members, whereby a " monolithic " construction is created in steel.

Welding means the joining of two materials together in such a way that they become one unit. Theoretically, every metal can be welded by melting and re-solidifying, but some materials present practical difficulties in many cases owing to the oxidation of the metal at high

temperatures, and due to the reaction of the molecular structure during the welding process. Common structural steel, on the other hand, lends itself very well to such a procedure, and there are several methods suitable for melting the metal. One or two of these methods only are practicable for structural welding, and these will be explained in Sheet No. 8.

Although practical methods of welding have been invented before, it was not until during the last war that they were applied to any great extent. The fact that it was possible to repair steel by means of welding in such a way that the joint could not readily be distinguished from new material, gave welding a bad name in the first few years of its application, as "welded" tended to develop the same meaning as "repaired." This way of thinking is largely responsible for the misconception that welding is inferior; but, in fact, with modern methods a welded connection is even stronger than the parent metal, tensile tests showing that the latter often fails before the welds.

One argument, which although disproved by facts is still put forward by depreciators, is that as welding depends upon the skill of the workman it is a source of danger. This is a fallacy, as safety in modern civilization must always depend on manual skill, no less so when applied to a reinforced concrete building or a ride in a motor car or railway train than to a welded building, and in the last case the safety factor is so high that even an incompetent workman could scarcely cause an accident.

It is important that the architect, as well as the engineer, should realize that a welded steel structure is not just riveted steel construction with welds replacing rivets.

The principles involved are not the same, and the riveted structure necessarily differs considerably. Welded steel construction resembles that of reinforced concrete more closely than it does that of riveted steel, although rolled steel sections are used to a great extent. However, in order to make the fullest use of the advantages offered by welding, no rule that is valid for riveted steelwork should be taken for granted in welded construction. Sections suitable for columns, heavy beams, members of trusses, frames, etc., are quite different in welded construction, and a truss may be suitable, if welding is used, whereas in riveted construction a plate girder is usual, or *vice versa*. Moreover, the possible variation of sections to meet architectural requirements is much greater in welded construction, and even the principle that a beam must run in a straight line, connecting its two supports, does not necessarily hold good. If these facts are overlooked, much of the economy made possible by the use of welded structures may be lost.

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DIFFERENT TYPES OF CONNECTIONS FOR STEELWORK :

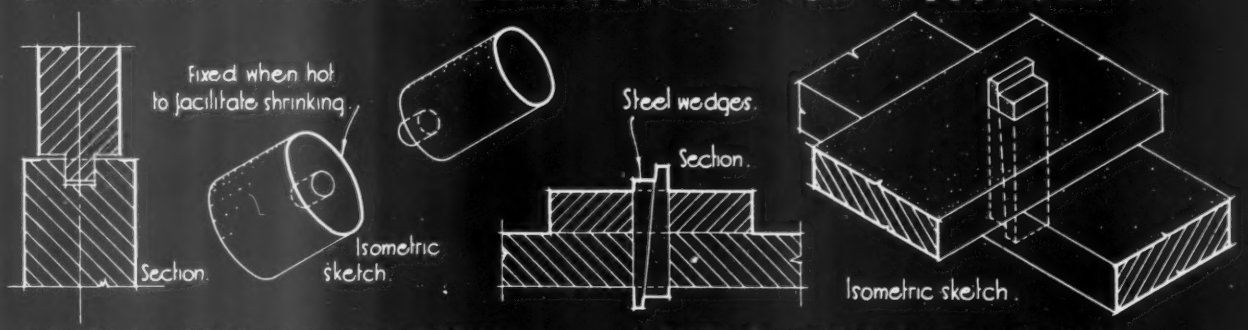


FIGURE 1 : DOWELLED CONNECTION. FIGURE 2 : WEDGED CONNECTION

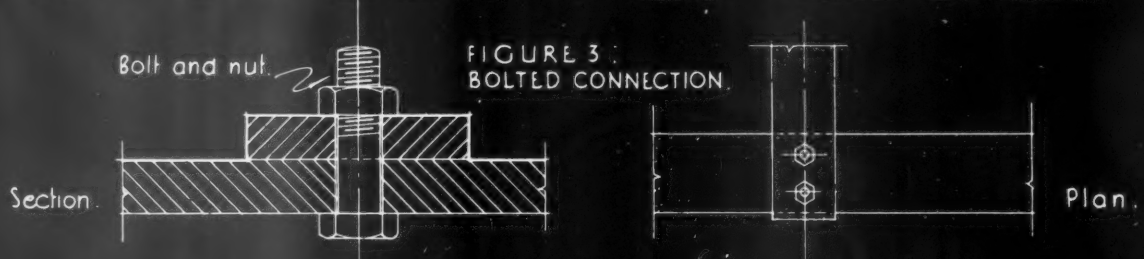


FIGURE 3 : BOLTED CONNECTION.

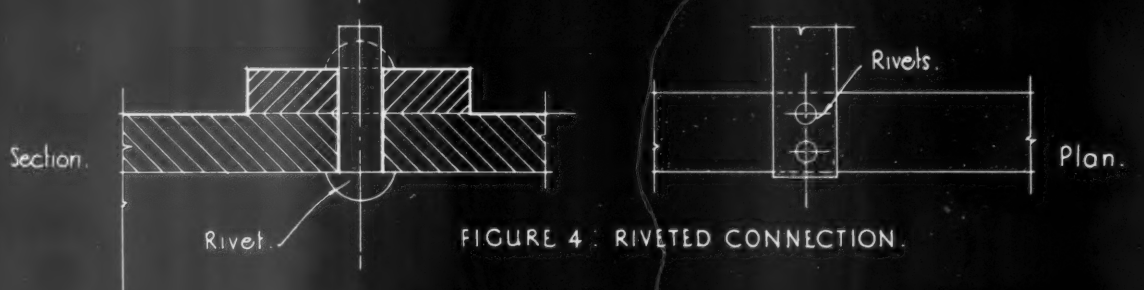
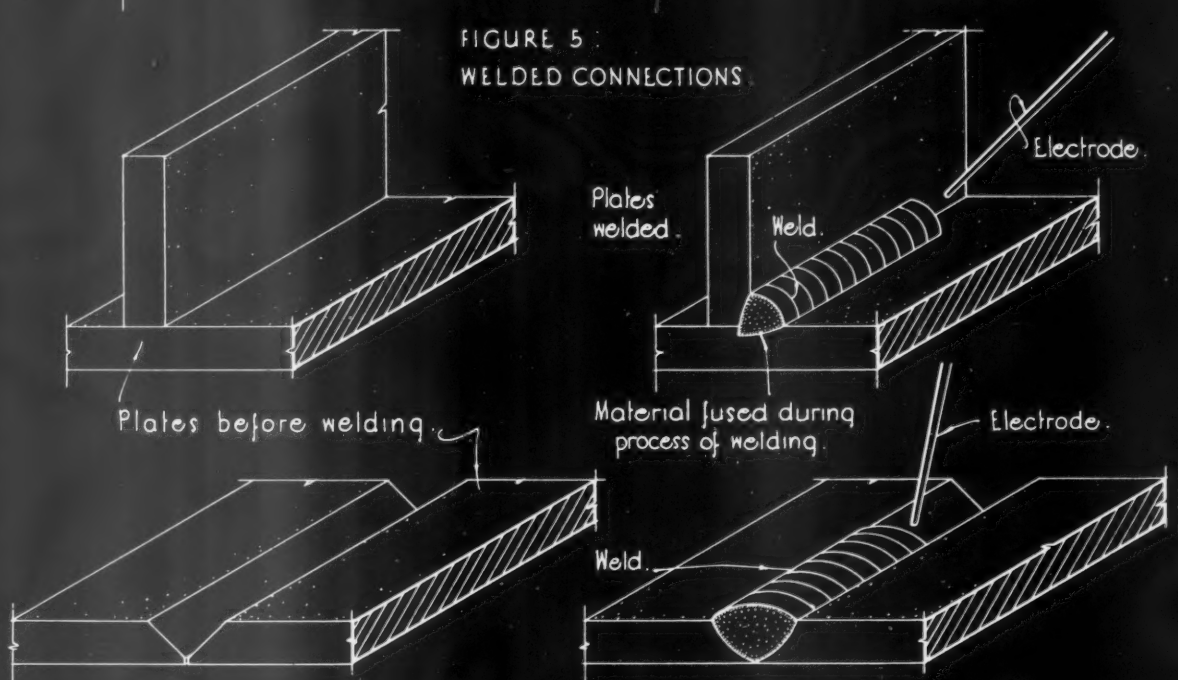


FIGURE 4 : RIVETED CONNECTION.

FIGURE 5 : WELDED CONNECTIONS.



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INFORMATION SHEET : STEEL FRAME CONSTRUCTION 46 : WELDING No 2.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1.

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INFORMATION SHEET

• 822 •

STRUCTURAL STEELWORK

Subject: Welding 2: Methods of Connecting Main Steel Members.

General:

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

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

This Sheet is the second of the welding group, and illustrates the five known ways of connecting main steel members to each other.

Form of Construction:

Structural steelwork as developed during the last century is definitely not a monolithic construction, but for ease of fabrication, transport, erection, etc., a form has been developed in which comparatively small members are connected, each of which is produced by the process of rolling and has, therefore, a longitudinal axis and a constant section. The section, of course, can be varied to a certain extent by cutting or burning away part of the members.

Such parts are joined in a manner that allows the transmission of all forces, and in order to facilitate such transmission, other short pieces of rolled material are often used to connect the main members, and are called cleats.

Methods of Connection:

The actual connection of main members to each other, or to cleats, can be effected in five known ways:

1. By varying the size of the diameter in order to shrink one member on to another. Figure 1.
2. By making a slot and pushing wedges into it. Figure 2.
3. As a further development of process No. 2, by inserting bolts and fastening them by means of nuts. Figure 3.
4. By replacing these bolts by a length of hot rod, which can be of such a shape that after cooling it cannot be removed (i.e., a rivet). Figure 4.
5. By melting connecting steel parts in such a way that they adhere to each other after cooling, or adhere to some additional material placed between them in a liquid state (welding). Figure 5.

Application:

The first of these methods has a very limited application as only solid pieces can be provided with a dowel pin for fitting. Figure 1.

The second method (wedging) has been altogether superseded by bolts, as these are much easier to handle. Thus methods 3, 4 and 5 are the only practical ones generally used for structural steelwork.

Methods 3 and 4 constitute the standard steel construction for riveting, while to substitute welds for rivets, conforming to Figure 5, with the occasional use of bolts, constitutes welded construction.

Each method of connection has its repercussion on the construction as a whole. For instance, if rivets or bolts are to be used, flanges must be provided in which holes can be drilled for the bolts or rivets to be inserted. Again, if members are to be connected by means of welding, suitable space must be provided for placing sufficient welds to transmit all stresses.

Previous Sheets:

Previous Sheets of this series dealing with structural steelwork are Nos. 729, 733, 736, 737, 741, 745, 751, 755, 759, 763, 765, 769, 770, 772, 773, 774, 775, 776, 777, 780, 783, 785, 789, 790, 793, 796, 798, 799, 800, 801, 802, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 816 and 819.

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Address: Horseferry House, Horseferry Road, Westminster, London, S.W.1

Telephone: Victoria 8571

PRICES

FOURTH WARTIME LIST

EXPLANATORY NOTE

It is hardly necessary to stress that prices are fluctuating a great deal at the present time, and that the prices given here must be regarded rather as a reasonable guide than as fixed quotations.

In certain instances quotations were not obtainable or supplies were not readily available, in others different quotations for the same product varied considerably. In all such cases where it was felt that no reasonable guide could be given prices have been omitted altogether.

Rates of wages have not changed since the beginning of February. The rates for the Central London Area being 1s. 11½d. for craftsmen and 1s. 6¼d. for labourers.

F.S.I.

CURRENT MARKET PRICES OF MATERIALS

BY DAVIS AND BELFIELD, Chartered Quantity Surveyors

Prices vary according to quality and the quantity ordered. Those given below are average market prices and include delivery in the London area, except where otherwise stated, but do not include overhead charges and profit for the General Contractor.

CONCRETOR

Cements

† All delivered in paper bags (20 to the ton) free and non-returnable.
* Paper bags charged at 6/– extra per ton non-returnable; jute sacks charged at 1/9 each and credited on return at 1/6.

		4 Tons and over	In 80-ton freights F.A.S. Safe Wharf in River Thames, London Area.
*Portland	per ton	49/6	47/–
*Rapid hardening	pet ton	55/6	54/6
*Water repellent	per ton	79/6	—
Atlas White (1 barrel 376 lbs.)			per barrel — 1 ton upwards
*Colorcrete rapid hardening, buff and red	per ton		79/6
*Colorcrete rapid hardening khaki	per ton		79/6
†Colorcrete rapid hardening dark	per ton		129/–
†Colorcrete non-rapid hardening	per ton from 155/– to 379/–		
†Snowcrete	per ton 185/–		

	1–9 cwts.	10–19 cwts.	1 ton and upwards
*Ciment Fondu, delivered Central London area per cwt.	12/–	11/6	9/7

Aggregate and Sands (Full Loads)

2″ Unscreened ballast	per yard cube	8/6
¾″(Down) Washed, crushed and graded shingle	per yard cube	8/9
⅜″ (Down) Ditto	per yard cube	9/9
2″ Broken brick	per yard cube	10/6
¾″ Ditto	per yard cube	11/9
Washed pan breeze	per yard cube	8/–
Coke breeze 1″ to dust	per yard cube	—
$\frac{3}{16}$″ Sharp washed sand	per yard cube	12/3
White Silver Sand for white cement (one ton lots)	per ton	—

(For Sands for Bricklaying and Plastering *see* respective trades)

Pavings

Brick hardcore	per yard cube	4/6
Concrete ditto	per yard cube	—
Clean furnace clinker and boiler ashes	per yard cube	4/–
Coarse gravel for paths	per yard cube	9/6
Fine ditto	per yard cube	13/6
Clean granite chippings	per ton	28/3

CONCRETOR—(*continued*)

Pavings—continued

Red quarry tiles, 6″ × 6″ × $\frac{7}{8}$″	per yard super	7/2
Ditto 6″ × 6″ × $\frac{7}{8}$″	per yard super	6/–
Buff ditto, 6″ × 6″ × $\frac{7}{8}$″	per yard super	7/10
Ditto 6″ × 6″ × $\frac{5}{8}$″	per yard super	6/7
Hard red paving bricks, 2″	per 1,000	235/–
Ditto 1½″	per 1,000	190/–

Reinforcement

Home trade maximum basis price for mild steel rods, ⅝″ diameter and upwards, ex mills delivered to station or siding per ton £16 19 6

Extras for:—

$\frac{9}{16}$″ and ½″ diameter	per ton	10/–
$\frac{7}{16}$″ diameter	per ton	15/–
$\frac{15}{32}$″ diameter	per ton	20/–
$\frac{5}{16}$″ diameter	per ton	30/–
$\frac{1}{4}$″ diameter	per ton	40/–
$\frac{1}{16}$″ diameter	per ton	60/–
Lengths of 40 ft. to 45 ft.	per ton	10/–
Lengths of 45 ft. to 50 ft.	per ton	15/–

Sundries

Retarding liquid, in 5-gallon drums (for exposing aggregate)	per gallon	21/–
Ditto (for obtaining a bond)	per gallon	13/1½

Ex Warehouse, Southwark Bridge. Drums chargeable and credited, if returned.

BRICKLAYER

Common Bricks

Rough stocks	per 1,000	83/–
Thrid stocks	per 1,000	73/9
Mild stocks	per 1,000	88/10
Sand limes	per 1,000	67/6
‡Phorpres pressed Flettons	per 1,000	51/9
‡Phorpres keyed Flettons	per 1,000	53/9
Blue Staffordshire wirecuts	per 1,000	188/–
Lingfield engineering wirecuts	per 1,000	110/–
Firebricks, best Stourbridge 2½″	per 1,000	—
Firebricks, best Stourbridge 3″	per 1,000	—

Facing and Engineering Bricks

Sand Limes, No. 1	per 1,000	—
Sand Limes, No. 2	per 1,000	—
‡Phorpres rustic Flettons	per 1,000	71/9

‡ At King's Cross. For delivery in W.C. district add 6/6 per 1,000

BRICKLAYER—(*continued*)

Facing and Engineering Bricks—continued

Midhurst Whites	per 1,000	100/–
Hard stocks, firsts	per 1,000	108/6
Hard stocks, seconds	per 1,000	101/6
Sand-faced, hand-made reds	per 1,000 from	120/–
Sand-faced, machine-made reds	per 1,000 from	115/–
Red rubbers (9¾-in.)	per 1,000	—
Uxbridge Flints (white)	per 1,000	80/–
Uxbridge Flints (creams, light greys, etc.) per 1,000	from	110/–
Dunbricks (concrete), multi reds, ex works	per 1,000	95/–
Dunbricks (concrete), multi lavender, buffs and golden brown, ex works	per 1,000	95/–
Southwater engineering No. 1 (first quality red pressed)	per 1,000	155/–
Southwater engineering No. 2 (second quality red pressed)	per 1,000	135/–
Blue pressed	per 1,000	210/6

Limes and Sand

		1-ton lots	6-ton lots
Lime, greystone	per ton	54/6	—
Lime, chalk	per ton	54/6	—
Lime, blue Lias (including paper bags)	per ton	60/6	—
Lime, hydrated (including paper bags)	per ton	60/6	—
Washed pit sand	per yard cube		10/9

(For cements, *see* "Concretor.")

Hire of jute sacks charged at 1/6 and credited at 1/6. If left, charged at 1/9.

Sundries

Wall ties, self coloured	per cwt.	—
Wall ties, galvanized	per cwt.	—
D.P.C. slates, size 18″ × 9″	per 1,000	200/–
D.P.C. slates, size 14″ × 9″	per 1,000	160/–
D.P.C. slates, size 14″ × 4½″	per 1,000	80/–
‡Ledkore D.P.C. Grade A	per foot super	6d.
‡Ledkore D.P.C. Grade B	per foot super	7½d.
‡Ledkore D.P.C. Grade C	per foot super	9½d.

‡ Trade discount 5 per cent. and cash discount 5 per cent. Prices include delivery on minimum of £5 orders.

Earthenware airbricks:	9″×3″	9″×6″	9″×9″	12″×9″	14″×9″
Red, blue, vitrified and buff terra cotta (each)	–/10	1/8	3/–	5/–	8/–

Black cast iron, School Board pattern airbricks	9″×3″	9″×6″	9″×9″	12″×6″	12″×9″
per doz.	6/–	10/6	15/3	15/3	24/–
Galvanized ditto per doz.	9/9	18/–	26/9	26/9	49/6
Black hit and miss cast iron ventilators per doz.	15/–	24/–	33/–	33/–	45/–
Galvanized ditto per doz.	30/–	48/–	66/–	66/–	90/–

		1′ 0″	1′ 6″	2′ 0″	2′ 6″	3′ 6″	5′ 0″
Buff terra cotta chimney pots	each	3/–	3/8	5/4	6/11	15/10	27/–
Fireclay	per ton	55/–					

Wall reinforcement supplied in standard rolls containing 25 yards lin.

*2″ wide black japanned	per roll	2/5
*2″ wide galvanized	per roll	—
*2½″ wide black japanned	per roll	3/–
*2½″ wide galvanized	per roll	—

Greater widths pro rata 2½″ price carriage paid on orders of £5. Discounts for quantities.

Partitions

		2″	2½″	3″	4″
Breeze	per yard super	2/2	2/7	3/2	3/10
Clay tiles	per yard super	2/6	2/9	3/–	3/4
Pumice	per yard super	3/6	4/3	5/–	5/6
Plaster	per yard super	3/1	3/11	5/–	5/9

Gas Flue Blocks

		Single Flues	Double Flues
Straight blocks	each	1/3	2/2
Building in set	per set of 3	2/11	5/4
Cover blocks	each	1/7	3/4
Raking blocks 45°	each	3/–	4/3
Raking blocks 60°	each	2/2	3/1
Offset blocks	each	3/8	5/4
Closer blocks	each	1/3	2/2
Closer flashing blocks	each	1/1	1/10
Straight flashing blocks	each	1/1	1/10
Terminal and cap	per set	7/5	12/8
Middle terminal and cap	per set	6/11	11/10
End terminal and cap	per set	7/2	12/5
Corbel block	each	5/4	3/6
Gathering block	each	—	10/8

DRAINLAYER

Agricultural Pipes

		2″	3″	4″	6″
Pipes in 12″ lengths	per 1,000	72/6	100/–	135/–	235/–

(Delivered in full loads Central London Area.)

Salt Glazed Stoneware Pipes and Fittings

		4″	6″	9″
Pipes (2′ lengths)	each	1/8	2/6	4/6
Bends, ordinary	each	2/6	3/9	6/9
Single Junction, 2′ long	each	3/4	5/–	9/–
Yard Gulley, without grating	each	6/3	6/10½	11/3
Ordinary round or square Grating, painted	each	–/7½	1/3	2/6
Ordinary round or square Grating, galvanized	each	1/0½	2/1	4/4½
Extra for Inlets, horizontal	each	1/6	1/6	1/6
Extra for Inlets, vertical	each	2/3	2/3	2/3
Intercepting Trap with Stanford Stopper	each	17/6	22/6	37/6
Grease and mud interceptor with bucket for removing silt and grease for 6″, 9″ and 12″ drains, with iron grating, painted	each	20/–		
Ditto, with iron grating galvanized	each	21/10½		

The above prices to be varied by the following percentages for the different qualities given. All subject to 2½ per cent. cash discount.

	British Standard	British Standard Tested
Orders for 2 tons and over	Less 5%	Plus 20%
Orders under 2 tons, 100 pieces upwards	Plus 12½%	Plus 37½%
Orders under 2 tons, less than 100 pieces	Plus 22½%	Plus 47½%

	Best	Seconds
Orders for 2 tons and over	Less 12½%	Subject to 15% off the price of best quality for all sizes
Orders under 2 tons, 100 pieces upwards	Plus 5%	
Orders under 2 tons, less than 100 pieces	Plus 15%	

Cast Iron Drain Pipes and Fittings

Socket and Spigot Pipes:—

Weight (per 9 ft.)	Size	9 fts.	6 fts.	4 fts. each	3 fts. each
1.1. 8	4″ per yard	7/7	8/5	13/1	10/–
1.1.20	4″ per yard	7/11	8/7	13/4	10/4
2.0. 6	6″ per yard	11/5	13/5	21/5	17/2
4.0. 2	9″ per yard	21/–	26/9	45/6	35/–

		2 fts.	18 ins.	12 ins.	9 ins.
1.1. 8	4″ each	8/2	6/11	6/1	5/7
1.1.20	4″ each	8/3	—	—	—
2.0. 6	6″ each	12/10	—	—	—
4.0. 2	9″ each	—	—	—	—

Tonnage Allowances:—
Orders up to 2 tons nett.
Orders 2 to 4 tons less 2½ %
Orders 4 tons or over less 5%

		4″	6″	9″
Bends	each	7/1	14/8	45/2
Single junctions	each	12/5	25/5	78/–
Intercepting traps	each	33/10	56/6	139/–
Gulleys ordinary trapped	each	16/5	—	—
Extra for inlet 4″	each	4/3	—	—
Grease Gulley trap	each	128/7	—	—
H.M.O.W. large socket gulley trap with 9″ gulley top and heavy grating and one back inlet	each	29/9	52/6	—

Channels in Brown Glazed Ware

		4″	6″	9″
Half round straight channels 24″ long	each	1/3	1/10½	3/4½
Half round straight channels 30″ long	each	—	—	4/2½
Ditto, short lengths	each	1/3	1/10½	—
Half round ordinary channel bends		1/10½	2/9¾	5/0¾
Ditto, short	each	1/10½	2/9¾	—
Ditto, long	each	3/9	5/7½	10/1½
Three-quarter round branch bends	each	5/–	7/6	—

		6″×4″	9″×6″
Half round taper channels 24″ long	each	3/9	6/9
Half round taper channel bends	each	4/8¼	8/5¼

The above prices are subject to the same discounts as those given for "Best" quality salt glazed stoneware pipes.

Manhole Covers etc.

	Black	Galvanized
24″ × 18″ single seal for foot traffic. (Weight 0.0.3 in lots of 24) each	14/3	28/6
24″ × 18″ single seal for light car traffic. (Weight 2 cwt. in lots of 24) each	40/6	81/–
24″ × 18″ Wood Block pattern. For road traffic. (Weight 3 cwts.) each	Coated 67/6	

DRAINLAYER—(*continued*)

Manhole Covers, etc.—(continued)

		Fine Cast	Galv.
Cast iron steps, 13½″ long, 6″ wide, 9″ in wall, approximate weight 5½ lbs. each	per dozen	14/9	25/6
Galvanized fresh air inlets with cast brass fronts (L.C.C. pattern)	each	4″ 6/9	6″ 26/6

MASON

Yorkstone

Building quality Robin Hood and Woodkirk Blue Stone.

Blocks scrappled, random sizes	per foot cube	5/–
Add for blocks to dimension sizes	per foot cube	6½d. (each dimension)
Templates with sawn beds, edges rough (up to 4 ft. super and not over 2′ 6″ long)	per foot cube	5/6
Templates with sawn beds, sawn one edge,	per foot cube	6/7¼
Templates with sawn beds, sawn two edges, per foor cube		7/8½
Prices f.o.r. Yorkshire, railway rate to London Station per ton. (Minimum 6-ton loads.)		21/4

Artificial Stone

6″ × 3″	Copings and sills	per foot run	1/8
6″ × 6″	Copings and sills	per foot run	2/7
9″ × 3″	Copings and sills	per foot run	2/2
9″ × 6″	Copings and sills	per foot run	3/8
12″ × 3″	Copings and sills	per foot run	2/7
12″ × 6″	Copings and sills	per foot run	4/2
Cornices according to detail, per foot cube (from)			7/6

SLATER, TILER AND ROOFER

Best Bangor Slates	£	s.	d.
24″ × 12″ per 1,000 actual	44	13	4
20″ × 10″ per 1,000 actual	29	0	0

Prices include for delivery to site in lots of 1,000 and upwards.

Tiles	£	s.	d.
Hand-made sandfaced 10½″ × 6½″ red roofing tiles per 1,000	7	10	0
Machine-made sandfaced 10½″ × 6½″ red roofing tiles per 1,000	6	10	0
Berkshire rustic pantiles per 1,000	26	0	0

Asbestos-cement

†6″ corrugated sheets, grey	per yard super	3/0¾
†Standard 3″ corrugated sheets, grey	per yard super	2/9½
Slates:—		
* 15¾″ × 7⅞″ grey per 1,000	£6	3 9
* 15¾″ × 15¾″ diagonal, grey per 1,000	£11	15 0
* 15¾″ × 15¾″ diagonal, russet or brindled per 1,000	£14	16 9
Pantiles.		
* Large russet brown per 1,000	£19	8 6

* Prices are for minimum two-ton loads, and are subject to 6¼% advance and 5% trade discount.

† Do., but 3¾% advance and 5% trade discount.

JOINER

Asbestos-cement and Asbestos Products

3/32″ Semi-compressed flat building sheets, grey	per yard super	1/3½
1/16″ Ditto	per yard super	1/4
¼″ Ditto	per yard super	1/11

Prices are for orders of two tons and over and are subject to 5% advance and 5% trade discount.

¼″ Asbestos wallboard (in sheets 8′ 0″ × 4′ 0″, 10′ 0″ × 4′ 0″ and 12′ 0″ × 4′ 0″)	per foot super	–/4⅝
1/16″ Ditto	per foot super	–/3¾
1/8″ Asbestos wood (in sheets 8′ 0″ × 4′ 0″)	per yard super	2/2¼

The following asbestos prices are subject to 10 per cent. trade discount:—

Asbestos-cement stipple glazed sheets (in sheets 8′ 0″ × 4′ 0″ and 4′ 0″ × 4′ 0″)	per yard super	8/–
Ditto, plain white glazed sheets (in sheets 8′ 0″ × 4′ 0″ and 4′ 0″ × 4′ 0″)	per yard super	9/6
Marble glazed sheets (in sheets 8′ 0″ × 4′ 0″ and 4′ 0″ × 4′ 0″)	per yard super	8/–
½″ Fibre board	per foot super	–/8½

		25–75 yards	150–300 yards	Over 600 yards
⅜″ Firerpoof plaster board	per yard super	2/5	2/1	1/9
¼″ Ditto	per yard super	2/3	1/11	1/7
Joint tape (approx. 250 feet run)	per roll			1/6
Joint filler	per lb.			–/4

Sundries

Slaters or sarking felt	per yard run	–/7
Roofing felt	per yard run	–/9¼
Bituminous hair felt	per roll	45/–

All rolls 25 yards long by 32″ wide.

JOINER—(*continued*)

Sundries—(continued)

Black waterproof paper, 5′ wide	per yard run	–/7
Building paper in rolls of 100 yards, 1-ply, 60″ wide (B.I. 120)	per yard run	1/2¼
"Cabots" Quilt:—(Ex Works) Twenty roll lots delivered carr. free.		
Double ply per roll	47/6	per half-roll 27/–

All rolls 28 yards long by 36″ wide. Special terms for quantities.

Cut steel clasp nails	1″ per cwt.	38/3	4″ per cwt.		29/3
,, ,, floor brads,	2″ ,,	29/3	3″ ,,		28/–
Bright oval wire nails,	1″ ,,	43/4	4″ ,,		31/3
Galvanized wire staples with slice cut points	1″ × 12 gauge		per cwt.		52/–
Scotch glue			per cwt.		—

STEEL AND IRONWORKER

Steelworker	£	s.	d.
Basis price for rolled steel joists sections 5″ × 3″ to 16″ × ″6, in 10 ft. to 50 ft. lengths per ton	15	10	6

PLASTERER

Plaster and Cement

		1-ton loads	6-ton loads
Sirapite ((coarse)	per ton	88/6	82/6
,, (fine)	per ton	87/6	81/6
Victorite No. 1	per ton	102/6	96/–
,, No. 2 or non sweat	per ton	97/6	91/–
Thistle (browning, haired and pink finish)	per ton	87/6	82/6
Thistle (fine)	per ton	88/6	—
Pink plaster	per ton	83/6	—
White plaster	per ton	93/–	—
Keene's pink	per ton	135/–	—
Keene's white	per ton	140/–	—
Super Carbo	per ton	—	—
Carbo-setting	per ton	—	—

		1 ton upwards £	s.	d.
Cullamix No. 2 cream (rendering mixture)	per ton	6	3	6
,, No. 3 cream	,, ,, per ton	6	3	6
Snowcrete mixture	,, ,, per ton	5	18	6

Sundries

Sharp washed sand	per yard cube	12/3
Cow hair	per cwt.	42/–
Goat's hair	per cwt.	66/–
Expanded metal lathing, 9′ 0″ × 2′ 0″ ⅜″ mesh × 26 gauge	per sheet	2/9
Wire Slate nails (galvanized) 1¼″ × 15 gauge	per cwt.	62/5
,, ,, ,, (bright wire)	,, ,, per cwt.	27/–

	Less than 150 yds.	Less than 300 yds.	Over 300 yds.	Over 600 yds.
⅜″ Plaster board per yard super	—	—	—	—
1½″ Galvanized nails per cwt.	—			
Scrim cloth in 100-yard rolls per roll	—			

Wall Tiles

The following prices are subject to 35 per cent. addition:

Commercial quality.		
Ivory, white, etc., glazed 6″ × 6″ × ⅜″	per yard super	10/1
Angle beads (1½″ wide)	per yard run	1/2¾
,, ,, (1″ ,,)	per yard run	–/10
Rounded edge tiles	per yard run	2/6½
Coloured enamelled bright glazed, 6″ × 6″ × ⅜″	per yard super	14/3
Angle beads (1½″ wide)	per yard run	1/4¾
,, ,, (1″ ,,)	per yard run	–/11¼
Rounded edge tiles	per yard run	2/7
Eggshell gloss enamelled, 6″ × 6″ × ⅜″	per yard super	15/–
Angle beads (1½″ wide)	per yard run	1/7¼
,, ,, (1″ ,,)	per yard run	1/0¾
Rounded edge tiles	per yard run	2/8¼
Special rates for quantities		

PLUMBER

Lead

3½ lbs. and upwards milled sheet lead in quantities of 5 cwts. and upwards	per cwt.	34/6
Add if cut to sizes	per cwt.	3/–
Lead ternary alloy, No. 2 quality extra over sheet lead	per cwt.	7/–
Allowance for old lead delivered to merchant	per cwt.	22/3

PLUMBER—(*continued*)

Cast Iron Goods

	Percentage Adjustment on List No. 3100 A B, 1/2/40
Rainwater Goods (painted or unpainted) ..	*Plus* 5 per cent.
Soil goods (coated or uncoated)	*Plus* 5 per cent.

Mild Steel Rainwater Goods

The following prices are subject to 2½ per cent. trade discount and 22½ per cent. advance.

24 gauge rainwater slip jointed pipes.

	2″	2½″	3″	3½″	4″
Galvanized round pipes with ears .. .. per 6′ 0″	2/7½	3/1½	3/9	4/3	4/9
Painted round pipes with ears per 6′ 0″	2/4½	2/9	3/1½	3/7½	4/–
Painted or galvanized short lengths with ears, extra each	–/6	–/6	/–6	–/6	–/6

18 Gauge gutters.	3″	3½″	4″	4½″	5″	6″
Galvanized half round gutters per 6′ 0″	2/–	2/3	2/4½	2/9	3/–	3/7½
Painted half round gutters .. per 6′ 0″	1/6	1/9	2/–	2/3	2/6	3/–
Painted or galvanized short lengths extra each	–/3	–/3	–/3	–/3	–/3	–/3

Asbestos-Cement Rainwater Goods

The following prices are subject to 15 per cent. advance and 12½ per cent. trade discount.

Orders over £30 are subject to 17½ per cent. trade discount.

Rainwater pipes.

Prices are for 6′ 0″ lengths, and 10′ 0″ lengths in 2″, 2½″ and 3″ diameters. Short lengths up to 2′ 0″ are charged as one yard. From 2′ 0″ to 4′ 0″ charged as 1½ yards. From 4′ 0″ to 6′ 0″ charged as 2 yards. Over 6′ 0″ charged as 10′ 0″.

Round pipes.

2″ .. .. per yard run	1/10
2½″ .. .. per yard run	2/0½
3″ .. .. per yard run	2/5¾
3½″ .. .. per yard run	2/11¼
4″ .. .. per yard run	3/4½
4½″ .. .. per yard run	4/10¼
5″ .. .. per yard run	5/9½
6″ .. .. per yard run	7/1¾

Gutters.

Short lengths of gutter up to 2′ 0″ charged as 1 yard; from 2′ 0″ to 4′ 0″ as 1½ yards, and over 4′ 0″ as 2 yards.

	3″	4″	4½″	5″	6″	8″
Half round gutters per yard run	1/3⅜	1/6⅜	1/7⅜	1/11	2/8	3/3½
Ogee gutters per yard run	—	1/11	2/0¾	2/5¾	3/0¼	3/11¼

INTERNAL PLUMBER

Lead pipe in coils, 5 cwts. and upwards per cwt.	34/–
Lead soil pipe .. .. per cwt.	37/–
Add if ribbon marked .. .. .. per cwt.	–/3
Lead ternary alloy, No. 2 quality extra over lead pipe per cwt.	7/–
Plumber's solder .. .. per cwt.	136/–
Tinman's solder .. .. per cwt.	191/–

Drawn lead traps with brass screw eye, 6 lbs.

		1″	1¼″	1½″	2″
S. trap	eaeach	2/3	2/8	3/4	4/9
P. trap	ch	2/–	2/2	2/3	3/2
Extra for 3″ deep seal ..	each	–/6	–/6	–/6	–/6

Screwed and Socketed Steel Tubes and Fittings for Gas, Water and Steam, etc.

Tubes.

		½″	¾″	1″	1¼″	1½″	2″
Tubes 2 ft. long and over	per ft.	–/5½	–/6¾	–/9¼	1/1	1/4½	1/10
Pieces 12″ to 23½″ long	each	1/1	1/5	1/11	2/8	3/4	4/9
Bends	each	–/11	1/2	1/7½	2/7½	3/2	5/2
Fittings.							
Elbows, square	each	1/1	1/3	1/6	2/2	2/7	4/3
Elbows, round ..	each	1/2	1/5	1/8	2/4	2/10	4/8
Tees	each	1/3	1/7	1/10	2/6	3/1	5/1
Crosses	each	2/9	3/3	4/1	5/6	6/7	10/6
Sockets, plain ..	each	–/4	–/5	–/6	–/8	–/10½	1/3
Sockets, diminished	each	–/6	–/7	–/9	1/–	1/4	2/–
Flanges	each	1/–	1/2	1/4	1/9	2/–	2/9
Caps	each	–/5	–/6	–/8	1/–	1/3	2/–
Plugs	each	–/4	–/5	–/6	–/8	–/10	1/3

INTERNAL PLUMBER—(*continued*)

Screwed and Socketed Steel Tubes and Fittings for Gas, Water and Steam, etc. (continued)

Fittings and flanges and tubes ordered in long random lengths are subject to the following trade discounts:—

	Tubes	Fittings	Flanges
"Light Weight" ..	51½%	47½%	51%
"Heavy Weight" ..	44%	39¾%	41%

COPPERSMITH AND ZINC WORKER

Copper

Hot rolled copper sheeting in 1 cwt. lots, all gauges to 24 wire gauge	per lb.	–/11¼
Light gauge copper tube, solid drawn	per lb.	1/3
Copper tube, solid drawn screwing sizes ..	per lb.	1/2½
Copper wire, 10 and 12 gauge	per lb.	1/1
Copper nails, 1″ and up	per lb.	1/1½

GLAZIER

Sheet Glass cut to size (ordinary glazing quality)

		In squares not exceeding 2 ft.	4 ft.	6 ft.	Over 6 ft.
18 oz. clear sheet ..	per foot super	—	–/3¼	–/3⅝	–/3⅞
24. oz. ditto ..	per foot super	—	–/4½	–/4⅞	–/5¼
32 oz. ditto ..	per foot super	—	–/6⅞	–/8	–/9
Obscured sheet glass net extra ..		—	–/3	–/3	–/3
⅛″ figured rolled glass, white and cathedral	per foot super	–/7½			
⅛″ ditto, normal tints	per foot super	–/10½			

British or Foreign Polished Plate Glass cut to size

Ordinary ¼″ Substance In Plates not exceeding		Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
1 ft. super ..	per foot super	—	—	—
2 ,, ..	per foot super	1/8	1/11	2/3
3 ,, ..	per foot super	2/3	2/7	3/1
4 ,, ..	per foot super	—	—	—
6 ,, ..	per foot super	3/2	3/5	3/11
12 ,, ..	per foot super	—	—	—
45 ,, ..	per foot super	3/6	4/–	4/11
65 ,, ..	per foot super	—	—	—
90 ,, ..	per foot super	—	—	—
100 ,, ..	per foot super	4/2	5/7	6/–

Plates exceeding 100 ft. super or 160 in. long or 100 in. wide at higher prices.

Special quotations should be obtained for other qualities and thicker substances.

Wired Glass Cut to Sizes

¼″ Rolled or rough cast	per ft super	10½d.			
‡¼-in. Georgian rough cast	per ft super	11d.			
	In squares not exceeding 1 ft.	2 ft.	3 ft.	4 ft.
‡¼-in. Georgian polished plate per ft. super	2/6	2/8	2/10	3/2
	8 ft.	12 ft.	20 ft.	30 ft.
‡¼-in. Georgian polished plate per ft. super	3/8	3/10	4/2	4/6

Supplied in sizes up to 110 in. long and up to 36 in. wide.

‡ For cutting to allow for wires in adjacent pieces to be "lined up," add 4d. per foot super.

PAINTER

White ceiling distemper	per cwt.	14/–
Washable distemper	per cwt.	60/–
Petrifying liquid	per gallon	—
Ready mixed white lead paint (best) 5-cwt. lots, in 14 lb. tins	per cwt.	83/6
White enamel	per gallon	27/6
Stiff white lead, genuine English stack process, 1-ton lots, in 1-cwt. kegs ..	per cwt.	61/9
Driers	per cwt.	42/–
Linseed oil raw (5-gallon drums)	per gallon	—
,, boiled ,, ,, ...	per gallon	—
French polish	per gallon	12/6
Knotting	per gallon	16/–
Oil stain	per gallon	12/–
Varnish, oak	per gallon	12/6
,, copal	per gallon	17/6
Varnish, flat	per gallon	22/6
Turpentine, genuine American, 5-gallon lots	per gallon	4/–
Creosote, 1-gallon lots	per gallon	1/9
Putty	per cwt.	14/9
Size	per firkin	4/6
Best quality English gold leaf, 23 carat ..	per book	3/–
Extra thick, ditto	per book	4/–

Plan today . . . for the "world of tomorrow"

OUT OF the colossal catastrophe of war the architect's vision can bring into being a period of planned reconstruction surpassing in fitness, integrity and beauty the best of the past.

Far-reaching social and economic changes are already shaping future needs, and new materials are simplifying the construction of buildings that will express the ideals and activities of a contemporary world.

In this new scheme of things, Vectair Heating will play its part. Warmth and a healthy atmosphere are primary needs in any society . . . and Vectairs supply both. Their scientific construction provides the constant air movement vital to health and uniform distribution of heat with maximum efficiency. The logic and simplicity of Vectair design culminates in the Concealed Vectair. Entirely recessed into the structure, only two inconspicuous grilles indicate the presence of a heating unit. Being readily adaptable to straight or curved surfaces, these units allow an unusual flexibility in planning, and make possible interior decoration in which the heating units contribute their quota to the æsthetic harmony of the entire scheme—a feature which alone goes far to make Vectair Heating the system of the future.

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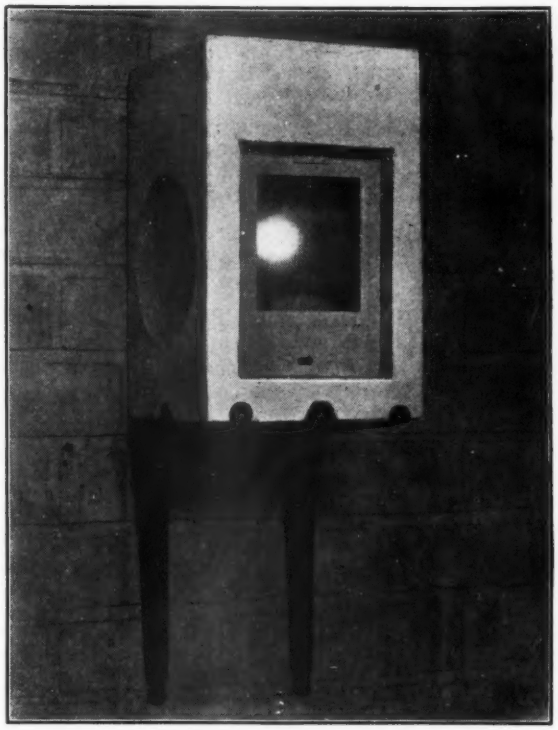

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(Prov. Pats. Nos. 2957, 10133 and 10512)

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FEATURES OF MODEL "C" ILLUSTRATED

Three-way illumination diffused through obscured glass "windows." "Lynlight" burner gives approximately 2-candle power light for 100 hours continuously on one fuel charge of 1½ pints paraffin oil. Combusted products can be exhausted into the open air from back of lantern. Body of lantern is cast in reinforced fine-finish cement-sand concrete.

Other Bell Lanterns include Model "A," Shelter Indicator, Model "B" for Street Islands, etc. Model "D" for Military Road Blocks. Model "E" for use with Main Electric Supply.

APPROVED BY THE MINISTRY OF HOME SECURITY

Why not write now for complete details of these models? A sample lantern will prove a convincing test. May we send you one?

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TRADE NOTES

Insulation

It is a pleasant change at the moment to announce the arrival of a new material which should make a permanent contribution to normal building technique. It is a heat and sound insulating medium called "Stillite" which is manufactured in England entirely from home-produced materials. Technically it is a "calcium alumino silicate insulant in lanate form, containing carefully controlled proportions of metallic oxides, notable for their heat-resisting properties" and "it has a chemical analysis approximating to granite." That, I take it, is the scientific way of referring to mineral wool.

"Stillite" is available in a wide range of forms to suit every purpose. One can choose between felted wool, blankets, wired mattresses, flexible felted sections, moulded sections, and a special form principally for refrigeration purposes, known as "Rock Cork." It is also supplied in a plastic form.

The principal characteristic of the material is its exceptionally low thermal conductivity (0·42 B.T.U. at 700° F., and 0·46 B.T.U. at 100° F., to quote representative figures). The manufacturers have produced graphs showing comparative tests with the most commonly used of the insulating materials and have recently published an interesting booklet of technical data relating to their product. I have also been looking through an extremely erudite volume concerning the theoretical and practical aspects of heat insulation generally, which they have produced for the use of their own technical staff. They state in the preface that it is hoped to make this volume available to architects and engineers at some future date, and as this is the only book I have seen in the English language which makes any attempt to cover this very important field, its general release would be a great help.

I had hoped to complete this note without mentioning war work. Unfortunately for me, one of the characteristics of "Stillite" is its ability to stand up to very high temperatures. This makes it suitable for resisting the effects of incendiary bombs, which feature is of the utmost importance and value at the present time.

The manufacturers recommend lining the roof space with light-weight blankets, which are supplied with a wire-netting finish, completely insulating all roof timbers and ceiling joists. As it is not always possible to obtain the release of the necessary wire netting for these blankets, an alternative suggestion of packing "Stillite" wool to a thickness of 2 or 3 in. and to a density of 10 to 12 lbs. per cu. ft. is probably nearly as effective as the other methods, and certainly cheap enough, as the cost of this latter method works out at about 2d. per sq. ft. This form of protection will provide a definite smothering action upon incendiaries and render the bombs comparatively harmless until they can be dealt with in accordance with the usual practice, and will also have the effect of keeping the whole buliding well insulated, and cisterns and water pipes will be safeguarded from frost.

Speaking, however, as a warden who has recently been introduced to a Molotov bread-basket, I hope householders of my area will read this note and act upon it. It might save me a lot of trouble. Drawings showing the recommended methods of roof insulation may be obtained from Stillite Products Ltd., Stillington Station, County Durham, or from their London office at Sardinia House, Kingsway. H. M.

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NEWS ITEMS

THE ASHPITEL PRIZE, 1941

The Ashpitel Prize, books to the value of £20 awarded to the candidate who, taking the R.I.B.A. Final Examination to qualify as an Associate, shall most highly distinguish himself among the candidates in the Final Examinations of the year, has been awarded to Mr. Edmund Laurie Cathery, A.R.I.B.A.

MR. W. E. RICE TO ASSIST ARMY WELFARE

At the invitation of Lord Nathan, Director of Welfare to the Eastern Command, Mr. W. E. Rice has joined the Command Welfare Advisory Council. Mr. Rice, who is Vice-Chairman of Rice and Son, Ltd., holds two other appointments under the Minister of Labour, within the Command area. He is also Chairman of the Brixton Employment Committee, and a member of one of the two London Conscientious Objectors Tribunals.