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- 2** They are not affected by variations in the water level.
- 3** Immediately they are driven they can be capped and the building commenced.
- 4** Franki Piles can usually be driven alongside insecure buildings without fear of damage to the latter, owing to the lack of vibration due to blow being taken on unset concrete in toe of tube.
- 5** In driving operations, not only the Pile but the surrounding soil is highly compressed.

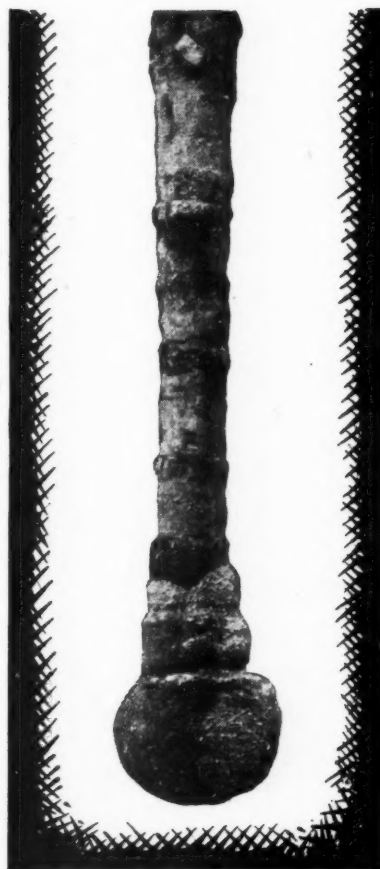
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JOURNAL

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WITH WHICH IS INCORPORATED THE BUILDERS'
JOURNAL AND THE ARCHITECTURAL ENGINEER
IS PUBLISHED EVERY THURSDAY BY THE ARCHI-
TECTURAL PRESS (PUBLISHERS OF THE 'ARCHITECTS'
JOURNAL, THE ARCHITECTURAL REVIEW, SPECI-
FICATION, AND WHO'S WHO IN ARCHITECTURE)
FROM 45 THE AVENUE, CHEAM, SURREY

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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, JUNE 5, 1941.

NUMBER 2419 : VOLUME 93

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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.

CHURCH FOR THE LONDON DIOCESE



*A church for the London Diocese: view from south-west.
By Michael A. J. Farey. (From The Royal Academy
Exhibition). An interior view of the church appears on
page 367.*

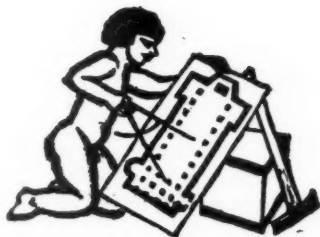


AIR RAID DAMAGE AT SOUTHAMPTON

Southampton has suffered several attacks by enemy aircraft during the past months. The photograph shows cooling-down operations in a badly damaged section of street after a recent raid.

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THE LIVING IN CITIES EXHIBITION

AN exhibition on reconstruction after the war has recently had a private view at the R.I.B.A. and is now being shown at Impington College, near Cambridge, prior to being shown in many towns throughout the country. It is the first copy of a series of four similar travelling exhibitions, arranged for the 1940 Council and being circulated by the Council for the Encouragement of Music and the Arts.

"It is too soon to start planning," says the arm-chair realist, "let us win the war first—we have our hands very full accomplishing that." This man is not the realist he thinks he is. He is right in that everyone must be doing all he can to bring about those conditions which will make it possible for everyone to live a full life. There is no place now for luxuries, or for human effort to be wasted on present pleasures. But the sacrifices of all those who are giving all their energy to winning the war must not be in vain. This is a bigger struggle than between two nations; it is a struggle for a better existence. This war is not a glorified wrestling match where the winner will just hold his hand above his head (incidentally the Germans have already got into the habit of doing this). The declared policy of Britain is to fight that all may enjoy the opportunities of life.

"But how will this be done? What is the city that I am fighting for going to be like? What of the countryside?" These thoughts pass constantly through the mind of nearly every Englishman. He dreams sometimes rather romantically of the surroundings he would like, but he does not know the problems; he wishes that he knew a little more exactly what he is fighting for. He is intensely interested, but little is being done to satisfy him, and little more to assure him that the problems are already being fully considered, and that a constructive planning policy is being formed so that the rebuilding of Britain may go ahead on a progressive plan. In the past, national town-planning policy and legislation have consisted in a series of "thou shalt nots," without any positive plan—planning has been based on the "laissez-faire" assumption reiterated again last month by a well-known architect that "all architects really have the same goal in post-war reconstruction, but are approaching it by different paths." This, of course, is quite untrue. Since the last war fundamental changes have been taking place in the minds of us all. During the progress of science and technics in the nineteenth century, architects had no philosophy whereby their minds could co-ordinate scientific progress, their own needs and those of their clients into a significant whole. They failed so dismally that they created revivals.

However, during the past twenty years, a number of planners have felt that "the whole" can have a

significance; and if reconstruction is to mean anything worth while at all, our new cities must be built up on this significance, which embraces the whole field of human activity, and is as tremendous a revolution in thought as any that has occurred in human history. Those who think that it is a matter of architectural style and personal taste show that they do not realize the true meaning of the change that is now taking place. These seem strong words, but it is necessary that they should be appreciated if reconstruction is not to slump into a rebuilding of the status quo—with a few concessions here and there.

It is to show the need for considering the whole problem from the broadest humanist viewpoint and to suggest the main developments that would follow, that the exhibition "Living in Cities," has been arranged. In a short historical review of the growth of cities, it shows that in early times the town had some significance and a "form"; and it shows how this form has been quite lost. If our towns are again to have significance, and this time for everyone, not a limited class, the greatest and clearest thinkers must begin now to solve in advance not only the main lines, but also the technical problems that will be involved.

But it will be necessary that as many people as possible should understand the issues. There is no doubt about the public interest in the subject, inasmuch as it really represents the cause for which we are fighting. So every possible chance should be taken now to present the problems in a simple and understandable form. The present exhibition, it is hoped, will reach a very large public, but it should be followed by more. Many individual screens in this exhibition could be developed into a whole exhibition. Let us have a series of exhibitions to follow. Wireless talks on the various issues involved should be a regular feature. Films should be made and these could be linked up with exhibitions. We should mobilize all the resources that Goebbels uses to spread error and illusion to show that we have a great and realistic plan for a better world.

If every man can see clearly how colossal are the opportunities; if every man can see that the most lively brains are already working and planning undaunted by the magnitude of the problems; if every man can see a realistic approach unhampered by present restrictions and "civil service" methods; then every man will know that he is on the track of something worth while. The right propaganda for reconstruction will do more than any amount of lip service to high abstract principles of Service and Sacrifice. It is something real that every man can be fighting for, and which architects in particular may have to fight for in more ways than one.



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

NOTES & TOPICS

THE leading article in the May 22 issue of this JOURNAL did its best to short circuit a squabble that was maturing between the hon. secretary of the Committee of Technicians in the Building Industry and the writer of this column, described by another correspondent as "Astragal, the advocate of political sterility." Why the alien hand of a leading-article writer should think it proper, or possible, to come between—and thrust apart—two such firebrands is not clear; enough that it has not succeeded.

Briefly the bone of contention is this. The Committee of Technicians in the Building Industry—please note the exact title—is a body which considers that the first step towards Reconstruction (I quote its honorary secretary) is to *replace* the existing government by one in which vested interests shall have no power to obstruct and which will be free to re-plan the people's land and resources in the sole interest of the mass of the people. The Committee of Technicians in the Building Industry is in other words a *political group*.

Then why, I ask, call itself a committee of *technicians*? When you go to the trouble of calling yourself say a gentleman, it is presumably because you wish the world to accept you as a person of a genteel address. Disguise yourself as a technician, and again the world will expect technics from you. To call oneself a technician, or one's party a technician's party, and to use that title to go electioneering is merely a political subterfuge, a perfectly legitimate one it may be, but a political one nonetheless, and one that others who have a right to call themselves technicians may very properly resent, since history is littered with the corpses of those who have sought political ends under the cloak of non-political organization. Under such a perversion of the use of terms, words like technics are likely to suffer by becoming politically tied.

At the same time let us admit that excessive political timidity is a serious nuisance. It has been well said that

the chairman who gets up in committee in a flutter of trepidation and says, "Gentlemen I must ask you not to discuss political issues," is saying in other words: "Gentlemen, I must ask you to accept the political opinions of the party in power."

The solution lies surely not in avoiding political issues, but in approaching them in a technical spirit. Mr. G. Goddard Watts is Managing Director of E. Walter George, a well-known firm of advertising agents, and has, according to the information in a new booklet,* been planning and conducting educational propaganda for eight industries and for eleven leading industrial organizations for many years.

A supporter of private enterprise? A lunch-out with vested interests? It may well be. And yet Mr. Goddard Watts can discuss the nationalization of the land with perfect aplomb. Mr. Goddard Watts can even give land nationalization the favour of his approval, without spoiling the luncheon of one of the managing directors (all, no doubt, landed proprietors) of the eight industries, and eleven industrial organizations he has planned and propagated for. "It is not only farmers," he writes (of farming) "who are sometimes inefficient. There are plenty of inefficient landowners and, if the land is not nationalized, they also must play a fuller part in the New Britain. If they cannot or will not, they, like the inefficient farmers, must be politely but firmly removed. Either the State finds another owner for the land, or the State takes over the ownership."

I call that a technician's statement, for he puts it in a way that shows the political aspect to be secondary to the technical. As a technician Mr. Goddard Watts is simply concerned with the proper control of land, and as long as that is achieved, he professes to be indifferent to the manner in which control is obtained.

Which may seem obvious, but a couple of years ago to talk about the control of land was to raise a whine of protesting voices inviting one not to bring up political issues. A victory has been won—by technicians speaking as technicians. In the technical field the political idiom is simply an encumbrance.

ZERO HOUR

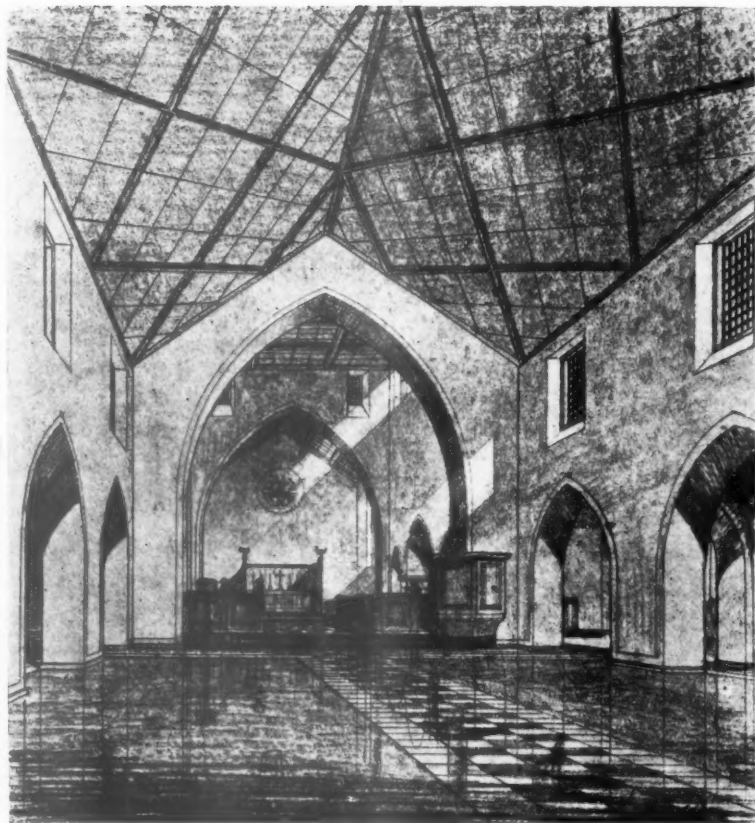
Nine prefabricated buildings have recently arrived in sections from the U.S.A. Thirteen others are to follow, and when erected the complete hospital, to be known as the Harvard hospital unit, will accommodate 125 patients and 80 staff.

According to the *Daily Telegraph*, Dr. J. E. Gordon, head of the unit and Professor of Preventive Medicine at Harvard, said at an interview: "All that remains to be done now is to run the buildings up. I am anxious to see how it works out, because I drew the plans myself."

PREFABRICATION CRISIS

Those who have followed the very considerable number of experiments in prefabrication which have taken place in

* An Agricultural Policy for Britain, and A Policy for British Agriculture. By G. Goddard Watts. George Allen and Unwin. Price 1/- net.



ARCHITECTS' FEES

for hostels, War Office camps and similar schemes of a standard type built for the Ministry of Works and Buildings have been agreed between the Ministry and the R.I.B.A., and approved by the Treasury. The full details can be found on page 369.

Church for the London Diocese. By Michael A. J. Farey. (From the Royal Academy Exhibition). An exterior view of the church appears on page 363.

the U.S.A. in the last decade could have prophesied that it would need only an urgent demand for a large number of simple housing units to make America debate very seriously whether or not to prefabricate the lot.

★

Such a demand has now arisen and redhot discussions are taking place. The "housing unit" schemes which are needed for the U.S.A.'s Defence Programme can be divided into two groups: army and industrial housing carried out by Federal housing agencies, and Navy housing carried out by the Navy. By mid-January the Navy had approved 46 schemes, placed contracts for 46, and begun 46. The Federal agencies had approved 80, placed contracts for 33, and begun 4.

★

This diligence of achievement, which I mentioned in a former note, is attributed in America to the Navy's freshness of mind. The Navy treated a need for 20,000 building units as it would treat a need for 20,000 motor trucks: it went to engineers and manufacturers, examined the achievements and possibilities of prefabrication with an open mind, and used prefabrication wherever it was possible to do so. The Federal housing agencies, however, were bogged by a "traditional-building-methods" outlook, by trying to carry out the programme with peacetime materials and equipment, and by contracts let to their usual contractors to be carried out in the usual way with the usual subdivisions of labour.

★

There seems no doubt that contractors who had been accustomed to carry out housing work and the building

unions together exercised a pressure which prevented the F.W.A. (Federal Works Agency) letting a single contract to any one of America's score of highly efficient prefabricators. Only the Navy, which had carried out little previous housing work and therefore possessed no "usual channels" to exercise pressure, managed to break away.

... AND THE MORAL

This trans-Atlantic struggle will almost certainly have its counterpart over here after the war. It seems certain, whether architects, contractors and trade unions like it or not, that prefabrication will come to be used for many forms of light building. And it seems certain that the shortage of building materials and labour which is certain to occur after the war will present a golden opportunity to try out prefabrication on a large scale: for if small houses, schools, and light industrial buildings can be largely prefabricated, so much more "normal" materials and labour can be devoted to reconstruction inside cities.

★

But past history makes it doubtful whether manufacturers, contractors and building unions will be broad-minded enough to see this. The introduction of new materials in the last twenty years has been accompanied by endless disputes as to which traditional trade is to be responsible for handling them. Partition blocks, plasterboard and metal trim are examples. Yet these rows would be nothing to that caused by a proposal to prefabricate any considerable number of complete buildings. Once the decision has been taken to try out prefabrication on a large scale, the really big difficulties—the human difficulties—will be over: technical obstacles will be trifling in comparison.

ASTRAGAL

NEWS

A.A. ELECTION RESULT

The result of the ballot for the election of Officers and Council for the Session 1941-42 is as follows:—

President: Kenyon, Arthur W., F.R.I.B.A.
Vice-Presidents: Enthoven, R.E., F.R.I.B.A.,
 A.A. Dipl.; Grey, John, F.R.I.B.A., A.A.
 Dipl.

Hon. Secretary: Bridgwater, D.L., B.Arch.
 (Livpl.), A.R.I.B.A.

Hon. Treasurer: Anderson, A. F. B.,
 F.R.I.B.A., S.A.D.G.

Hon. Editor: Leathart, J. R., F.R.I.B.A.

Hon. Librarian: Summerson, J. N.,
 A.R.I.B.A.

Past President: Hill, Joseph, F.R.I.B.A.,
 F.I.A.R.B., M.I.STRUCT.E.

Ordinary Members of Council: Bird, E. L.,
 A.R.I.B.A.; Bower, S. E. Dykes, F.R.I.B.A.,
 A.A. Dipl.; Braddock, Henry, A.R.I.B.A.,
 A.A. Dipl.; Crowley, Miss M. B., A.R.I.B.A.;
 Fry, Major E. Maxwell, F.R.I.B.A.; Lock,
 C. Max, A.R.I.B.A., A.A. Dipl.; O'Rourke,
 E. B., M.A. (Cantab), F.R.I.B.A.; Pierce,
 S. Rowland, F.R.I.B.A.; Robertson, Howard
 M., M.C., F.R.I.B.A., S.A.D.G.; Tubbs, R. S.,
 A.R.I.B.A., A.A. Dipl.

ARCHITECTS AND THE WAR

1,827 members and students of the R.I.B.A. have served in various branches of the fighting forces since the beginning of the war, and of these 25 have lost their lives on active service.

R.I.B.A. EXAMINATION FOR BUILDING SURVEYOR

At the R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities, three candidates presented themselves and the following were successful:—Mr. C. Llewellyn Jones, Mr. Clifford Oates.

REFUGEE ACCOMMODATION IN GOVERNMENT BUILDINGS

The following scale of fees has been agreed by the R.I.B.A. with the Ministry of Works and Buildings for private architects employed on refugee accommodation in Government buildings. The services, except where otherwise stated, are to be performed by the architect as set out below:

1. Visit the site and interview the Chief A.R.P. Officer of the building.
2. Make a rough survey as to accommodation required and decide if this is to be within the building or outside it.
3. If the refuge is to be inside the building, make a detailed survey—see footnote.
4. Prepare a scheme of refuge accommodation, with an estimate of cost for a contract under the Ministry of Home Security's Prime Cost Contract.
5. Submit the scheme to the Ministry for approval.
6. When approved place the contract, the work being carried out by contractors to be nominated by the Ministry.
7. Generally supervise the work, assisted by a clerk of works and timekeeper, who will be approved and paid by the Ministry.
8. Interim certificates and the final accounts will be dealt with by the Ministry's quantity surveyors.
9. The architect will issue a certificate on completion that the contract has been properly carried out.
10. The architect is to supply the contractor with the necessary drawings for the execution of the work and is to provide the Ministry with three additional copies.

The fees to be paid for the above services are as follows:
 For work costing £300, £45 fixed fee; for work costing £300 to £500, £60 fixed fee; for work costing £500 to £1,000, £80 fixed fee; for work costing £1,000 to £1,500, £100 fixed fee; for work costing over £1,500, 7 per cent.
 Footnote.—Where a detailed survey is required under para. 3, an extra charge for the survey is to be allowed, based on the time occupied, at the under-mentioned rates:
 Principal's time, 5 guineas per day; Senior Assistant's time, £2 12s. 6d. per day (i.e., for Assistants receiving

6 guineas a week and upwards); Junior Assistant's time, £1 11s. 6d. per day (i.e., for Assistants receiving less than 6 guineas a week).

In addition to the foregoing, travelling expenses and other reasonable disbursements may be charged if they arise, but it is the intention of the Ministry to employ private practitioners in their own districts.

A.A.S.T.A. AND FIRE PREVENTION

The following resolution has been passed by the Council of the Association of Architects, Surveyors and Technical Assistants and sent to Mr. Herbert Morrison, Minister of Home Security.

"The Council of the A.A.S.T.A. expresses its disapproval of the Fire Prevention (Business Premises) Order and agrees with the statement of Mr. Gibson, Chairman of the Trades Union Congress, that the Order 'must be completely destroyed.' The Council calls for a new Order, based on voluntary service, that recognises both the rights of employees and the obligations of property owners."

R.I.B.A. NEW MEMBERS

The following new members have been elected:—

As Fellows (7).
 Clark, H. H. (London).
 Coia, J. A. (Dip. Arch.) (Glasgow).
 Davidson, A. J., F.S.A., M.T.P.I. (Douglas, Isle of Man).
 Hellberg, R. (Coventry).
 Hoar, H. F., B.A., A.M.T.P.I. (London).
 Snailum, T. W., A.A.Dip. (Trowbridge, Wiltshire).
 Ward, B. R. (London).

As Associates (15).
 Beacher, C. A. G. (University of Sheffield) (Tannersley, nr. Barnsley).
 Berneaud, H. C. (Edinburgh College of Art) (Edinburgh).
 Brown, B. J., B.A. (Hons., Cantab.) (Architectural Association) (Grays, Essex).
 Cooper, G. S. (University of Sheffield) (Doncaster).
 Cooper, S. E. (Shrewsbury).
 Gilbert, J. G. (The Polytechnic, Regent Street, London) (London).
 Hamp, Miss C. M. (Architectural Association) (Beaconsfield, Bucks).
 Little, M. E. (Victoria University, Manchester) (Manchester).
 Littlefair, Miss H. M. (Nottingham School of Architecture) (Nottingham).
 McKenzie, J. G. (Clydebank).
 Makins, Miss M. F. (Glasgow School of Architecture) (Rhyll, North Wales).
 Mansasseh, L. S. (Architectural Association) (Hadley Green, Herts).
 Moore, R. I. (London).
 Thompson, R. G. (Newcastle-upon-Tyne).
 Writer, A. (London).

As Licentiate (10).
 Bruce, R. M. (Newcastle-on-Tyne).
 Butler, E. C. (London).
 Colburn, G. B. (London).
 Dives, C. B., F.A.S.A. (Brentford, Middlesex).
 Fear, Major J. L., F.S.I. (Bromley, Kent).
 Lane, E. G. (Dagenham, Essex).
 Powell, P. M. (London).
 Rowles, D. L. (London).
 Singer, J. L. (Cheltenham).
 Tyrrell, J. E. (Purley).

U.S. ARCHITECTS' FUND FOR R.I.B.A.

The R.I.B.A. has received the following letter from Mr. Frederick G. Frost, President of the New York Chapter of the American Institute of Architects, accompanying the gift of £650 which has been collected from American architects for the benefit of the families and children of British architects who have suffered in the war. This money was collected from architects throughout the United States as the U.S. Architects' Fund for R.I.B.A. Children. In a letter to the R.I.B.A. some weeks ago, Mr. William Lescaze expressed the admiration of American architects for the British war effort; saying that this was the least they could do to show their great admiration. A copy of the President's reply to Mr. Frost is also printed below.

New York Chapter

The American Institute of Architects,
 115, East 40th Street, New York.

Sir Ian MacAlister,
 Secretary,
 Royal Institute of British Architects,
 66, Portland Place, W.1.

May 5th 1941.

My dear Sir Ian,—
 You will find herewith enclosed a draft to the order of the Royal Institute of British Architects for £650 1s. This sum is the result of an appeal made by a group

within the New York Chapter, A.I.A., to the Architects of America for help for the Architects of Great Britain, and especially their families and children.

The private architects in America have been severely hit by the hard times through which we are passing and, therefore, while this sum may not at first seem impressive, it represents the heartfelt sympathy of American architects for their British colleagues.

We all realise the terrific impact of the war on our professional brethren in Great Britain, and that your magnificent and all-out effort has resulted in the stoppage of all normal building and the consequent loss of livelihood to British architects.

We leave the distribution of this sum to your own good judgment, although it is our hope that it will be used particularly to help the families and children of those who have been most severely affected by your war efforts.

The official announcement of this gift was made at the April meeting of the New York Chapter, A.I.A., at which the British Consul, Hon. Wilfred H. Gallienne, was present as representative of the British Empire.

We send you this token with our warmest greetings and our earnest hope for a speedy and successful end to your afflictions.

Yours sincerely,

FREDERICK G. FROST,
 President New York Chapter, A.I.A.
 Hon. Chairman of the U.S. Architects' Fund for R.I.B.A.

The reply of the President of the R.I.B.A. was as follows:—

May 19th, 1941.

Dear Mr. Frost,—

May I express the grateful thanks of the Royal Institute of British Architects to you, to the New York Chapter, and to the architects of America for the kindness and sympathy which prompted your generous gift.

Far from being unimpressive, the amount is most acceptable. It will be used, as you suggest, to help the children of those British architects who have been severely hit by the war and it is, I assure you, a very welcome addition to our benevolent funds.

We value it, not only for its material help, but also because it is an expression of the unity of ideals of the architectural professions and indeed of the majority of the citizens of our two countries. This practical proof of your sympathy with us in the dire struggle which has been forced upon us is heartening and encouraging.

We shall continue until victory is achieved, be that soon or late. No force on earth, however evil or powerful, can stand indefinitely against the combined strength of the United States of America and the British Commonwealth of Nations.

This Institute sends fraternal greetings to you and your Chapter.

Yours sincerely,

W. H. ANSELL,
 President,

Royal Institute of British Architects.

Frederick G. Frost, Esq.,
 President,
 New York Chapter of the
 American Institute of Architects,
 115, East 40th Street,
 New York, U.S.A.

WAR DAMAGE TO ARCHITECTS' DRAWINGS

Several members of the R.I.B.A. have enquired whether architects' drawings and plans are insurable under Part II of the War Damage Act. An official ruling has now been received by the Royal Institute from the Board of Trade that architectural plans and drawings are regarded as "documents owned for the purpose of a business" under Section 95 of the Act and are, therefore, not insurable. This being so, members are recommended to inform their clients that drawings in the architect's possession are not insurable by the architect under the Act and to enquire whether the client wishes the drawings to be delivered to him or whether he will leave them in the architect's custody at his, the client's, risk.

TOWN AND COUNTRY PLANNING ASSOCIATION

In future the Garden Cities and Town Planning Association, Temporary Address: 10, Parkway, Welwyn Garden City, Herts (Tel. Welwyn Garden 693), will use the following name: Town and Country Planning Association. When the Association was started in 1899 there was no statutory planning in Britain: the only way of creating a really good environment for numbers of city workers was the building, mainly by private initiative, of new

towns and town extensions. After the Housing and Town Planning Act of 1909 was passed the Association (then the Garden Cities Association) enlarged its name to include Planning.

Later, statutory planning was extended to built-up areas. It is now generally agreed that it must be further extended to include some control of the size and density of existing towns and some guidance to the location of industry. This implies that the creation of new towns and the extension of small towns falls into place as one very important element in a larger policy. Coupled with it, there must be planned redevelopment of the old centres, and the protection against random development of agricultural land and areas of great natural beauty. National Planning opens up the possibility of applying, over a wider field, the essential planning principles of the Association.

The Association wishes to form planning groups to study and popularize sound planning in all towns and districts, and to work out its local and regional applications. It would welcome enquiries from any persons or societies interested.

ROYAL SOCIETY OF BRITISH SCULPTORS

Mr. Gilbert Bayes has been re-elected President of the Royal Society of British Sculptors.

PRIVATE CHATTELS INSURANCE

To remove misunderstandings the Board of Trade wish to make it plain that—

- (a) it is not necessary to take out any policy of insurance to obtain the benefits of the Government's scheme of limited free compensation for war damage to furniture, clothing and other private chattels. Persons who do not want more protection than is provided by this scheme are not required to take action unless and until their chattels have suffered damage. They should then apply to their Local Information Centre or the District Valuer for their district for a Form of Claim which should be filled in and sent to the District Valuer;
- (b) persons who want more cover than that automatically provided by the scheme of limited free compensation can secure the additional cover only by taking out a policy of insurance under the Private Chattels Insurance Scheme, which operates with effect from 1st May, 1941. Applications should be made to a Fire Insurance Company or Lloyd's Broker or others carrying on Insurance Agencies. Insurance is voluntary and the Fire Insurance Companies and Lloyd's will not circularise their clients on this subject.

These arrangements apply to war damage to private chattels after April 30, 1941. Damage up to that date will be treated as if an insurance policy had been in force. No further action is required than the filling up of Form V.O.W.I., which is obtainable from the office of the Local Authority, or of the District Valuer, Inland Revenue.

ARCHITECTS' BENEVOLENT SOCIETY

The ninety-first annual report of the Architects' Benevolent Society, adopted at the Architects' Benevolent Society's annual meeting states that £3,719 had been distributed during 1940 in pensions and grants. 116 applicants were assisted during the year, 12 being new cases. Of the total, 43 were architects, 66 were widows and 7 orphans. Enemy action has rendered additional assistance essential in several cases. The Council extend their thanks to all those who have given their support to the Society, and hope that this may be continued in the future.

Mr. W. H. Ansell, M.C., P.R.I.B.A., was elected President of the Society in succession to the late Mr. E. Stanley Hall.

In moving the adoption of the annual report, Mr. Ansell said:

"I wish to say a word on the state of the profession and the possibilities of the future. Our younger architects are now mainly in the fighting services, the middle-aged are, many of them, in salaried official positions, such as with local authorities, the Ministries and the Office of Works, but the older men and those getting on in years are faced with rather a bleak future. Ordinary architectural work has ceased, and there is not enough new work in connection with the war to take its place, or to take in those who are reaching their seventies. It is from among this class, at present mostly living on dwindling savings, that we must expect increased calls on our funds in the future. It falls to us therefore to find some way to increase the number of contributors, even of small sums.

"During the year I signed a considerable number of letters to official architects and large private firms, asking them to inaugurate staff collections in their offices. We acknowledge gratefully the response to the letters sent out and we have already received over £100 from the staff and assistants in various offices, including those of the County Councils of Buckinghamshire, Derbyshire, Devon, Gloucestershire, Hertfordshire, Kent, Nottinghamshire and Warwickshire, and of the Cities of Bradford, Coventry, Liverpool and Nottingham.

Mr. Ansell urged all architects who pay Income Tax at the full rate to sign a seven-year covenant for the payment of their subscriptions to the A.B.S. He said: With Income Tax at its present rate of 10s. in the £ such a covenant means that the Society receives double the amount of the subscription paid, without extra cost to the subscriber. We have inevitably lost some subscriptions, but if more covenants were signed and more small subscriptions brought in the amount lost would be more than made up.

The Council and officers were elected for the year of office 1941-1942 as follows:—

President: Mr. W. H. Ansell, M.C., P.R.I.B.A.
 Vice-Presidents: Sir Harry Vanderpant, Sir Banister Fletcher, Sir Charles A. Nicholson, Bart., Messrs. H. Greville Montgomery and H. S. Goodhart-Rendel.
 Ordinary members: Messrs. Maxwell Ayrton, T. W. Bennett, H. Chalton Bradshaw, J. R. Leathart (also Architectural Association), Michael Waterhouse, S. Phillips Dales, G. E. Soulsby, L. Sylvester Sullivan, Charles Woodward, F. R. Yerbury, W. Curtis Green, H. Austen Hall, F. R. Hiron, J. A. Slater, C. A. Minoprio, Francis Jones (Manchester Society), C. M. Hadfield (Sheffield, South Yorkshire and District Society), Ernest Bird (Hampshire Society), Arthur C. Russell (Essex, Cambridge and Herts Society), T. Talliesin Rees (Liverpool Society), Cecil Burns (South-East Society), Percy W. Lovell (London Society), F. Hadden Parkes (Mount Pleasant Artists' Rest Home), and J. D. Broadbent (Architectural Students).

AIR-RAID-DAMAGE REPAIRS

In the House of Commons recently Mr. Lyons asked the Parliamentary Secretary to the Ministry of Works and Buildings, in what circumstances, and subject to what limitations, business premises are allowed facilities for immediate reconstruction after damage by enemy action; what is the position of private houses or other domestic premises so damaged; and whether and why any priority is given in relation to larger business premises as against the need of those whose homes have been affected.

Mr. Hicks, in reply, said: I am very glad to take this opportunity of making clear to the House the conditions that now govern air-raid-damage repairs. The Government has given an absolute priority over all other work to first-aid repair work for essential public services, war factories and houses. In the case of households where the owner is unable (or unwilling) to carry out the work himself, the responsibility rests on the local authorities. Where the owner himself puts the repair work in hand he will require a licence if the work is of the nature of reconstruction and costs £100 or more.

The owners of shops, offices, banks, warehouses and other industrial and commercial buildings, including factories not engaged to an important degree on war production, must apply for a licence if the work of reconstruction is to cost more than £100. Applications are referred to the Board of

Trade, who recommend that a licence be granted only if they consider that the work is urgently necessary in the public interest. Factories engaged on war production are dealt with by licence or otherwise in consultation with the appropriate Government department.

Until recently there had been no attempt to license reconstruction of air-raid-damage repair in cases in which the cost was below £500. But a new Order has been issued, and I would emphasize that all such reconstruction costing £100 or over requires a licence or an authorisation, and it is intended to enforce this. My hon. friend will see, therefore, that no priority is given to larger business premises as against the needs of damaged homes.

ARCHITECTS' FEES

for Hostels and Camps

The following basis of employment and remuneration of architects in regard to schemes for hostels, War Office camps and similar schemes of a standard type which involve repetition units for the Ministry of Works and Buildings, has been agreed between the R.I.B.A. and the Ministry of Works and Buildings, and has received Treasury approval.

The conditions of employment and remuneration shall be in accordance with the Scale of Professional Charges issued by the R.I.B.A., as revised in 1938, so far as it is applicable to this service, subject to the following amendments:—

A. The work described in Clause 2 (a) shall be remunerated:—

For hostel schemes, for which the architect will be required to design the lay-out on the general lines of a type lay-out and adapt the buildings from standard drawings supplied by the Ministry of Works and Buildings.

Fees are to be calculated on the total cost of the buildings, drains and roadwork as under:—

3 per cent.	on the first	£25,000
2½ "	"	next £25,000
2½ "	"	residue.

B. That the fee for partial services be charged in accordance with Clause 2 (e) of the Scale, but subject to the following amendments (i) and (ii) "quantum meruit" and (iii):—

1 per cent.	on the first	£25,000
½ "	"	next £25,000
½ "	"	residue.

C. (i) That the percentage charges are to be calculated on the total cost of all executed works for which the architect is responsible exclusive of any special works services mentioned later, or, if the work be not carried out, on "quantum meruit" or on the estimated cost thereof in accordance with "B" (above) of this memorandum.

(ii) Where consultants are appointed for any special works services by the Ministry of Works and Buildings or in respect of heating, electrical and other works carried out by the Ministry of Works and Buildings' own engineers, the architect's fee shall be 1 per cent. only on the cost of all works upon which the services of the consultants are retained or the Ministry of Works and Buildings' own engineers are employed.

(iii) Where consultants are *not* appointed by the Ministry of Works and Buildings or where the Ministry of Works and Buildings' own engineers are *not* employed the architect will himself be responsible for, and will carry out all the engineering services:—

(1) With his own engineering staff (if approved by the Ministry of Works and Buildings).

(2) By himself appointing and paying an approved consultant.

In these circumstances the architect's fees as shown in the scale set out in "A" (above) of this memorandum shall be increased by 1 per cent. as under:—

4 per cent. on the first £25,000
3½ " " next £25,000
3¼ " " residue.

(iv) That, for services referred to in Clause 2 (h) of the Scale, the charge to be based on the time occupied at the following rates:—

Principal's time . . . £5 5s. 0d. a day.

Senior assistant's time £2 12s. 6d. a day.

(For assistants receiving £6 6s. 0d. a week upwards).

Junior assistant's time £1 11s. 6d. a day.

(For assistants receiving up to £6 6s. 0d. per week).

D. In the event of more than one scheme being entrusted to the same architect the fees for subsequent schemes shall be reduced by 1/20 of those shown in "A" (above).

E. (i) The architect shall on the acceptance of the tender supply to the Ministry of Works and Buildings negative drawings in ink on linen of the following:—

(i) the lay-out plan;

(ii) the 1/4 in. scale working drawings so far as the standard drawings require any alterations, additions or adaptations, to a specific site.

(ii) The architect shall, at the completion of the work, supply to the Ministry of Works and Buildings a negative drawing in ink on linen of the lay-out plan as finally carried out showing the main lines of the drainage and other essential services, together with any major amendments to the working drawings which have been made during the carrying out of the work.

(iii) The architect will supply all the drawings to the general contractor and the clerk of the works which are necessary for the carrying out of the works.

The Ministry of Works and Buildings will supply any extra drawings which may be required, from the architect's negatives, to any other of the parties concerned.

F. (i) The architect shall not give instructions for works under 1 (e) of the Scale where the cost may exceed £100 0s. 0d. without prior approval of the Ministry of Works and Buildings.

(ii) The architect will be required to agree with the contractor time and progress schedules and to furnish weekly reports in such a form as the Ministry of Works and Buildings may require. These reports must include a statement as to any variations in cost from time to time.

G. The above scale is computed on the understanding that the Ministry of Works and Buildings will supply to the architect, in addition to the usual instructions, a typical lay-out plan, together with standard working drawings for his guidance. In the event of any dispute arising between the Ministry of Works and Buildings and the architect as to the interpretation of this Scale or matters arising therefrom, such dispute shall be referred to an arbitrator appointed by the President of the R.I.B.A.

FLASHBACK

ON the following pages the JOURNAL illustrates a building which it believes will very soon take a prominent place in the history of architecture: it believes that the United States National Gallery of Art, accepted on behalf of the nation by President Roosevelt on March 17 this year, will within a decade be regarded as the apotheosis, and the end, of an architectural outlook and endeavour which have had immense influence in this country, as in the U.S.A., for nearly 75 years. It believes that the architects of both countries will realize that along this road one can go no further.

The National Gallery of Art represents perfection in Neo-classical design in the Grand Manner, so far as an ideal site, unlimited money, the highest possible skill and unlimited care by some of the best craftsmen in the world, can achieve perfection. Its plan in balance, axis and vista is the perfect Beaux Arts plan; its external massing has the subordination and symmetry of Neo-classicism at its best; its detail—as might be expected—is superb. Other architects, handicapped by worse sites, limited means and worse craftsmanship, may claim in future that their Neo-classic designs have greater æsthetic merit. It is doubtful if the world will admit their claim: the National Gallery of Art observes all the definite rules of a rigid school of design. Once these rules begin to be broken in structure or plan Neo-Classicism breaks down and becomes increasingly an anachronistic veneer on the face of a building which cannot conform to Neo-Classical rules in all that really matters.

If, therefore, the National Gallery of Art seems insipid, even lifeless, it is because time has carried architects past Neo-Classical and nothing will ever bring it to life again. The architects who succeeded John Russell Pope seem to have feared this charge of insipidity for they published this apologia before the building was opened:

"The National Gallery has been designed with the aim of achieving harmony with neighbouring buildings, and making it a worthy element in the L'Enfant conception and plan of 1801 for the City of Washington. In the inception of the design and in the later execution of details, the architects have felt it proper to keep constantly in mind the belief of both Washington and Jefferson that the style of architecture for the Capitol City should not depart, under any temporary pressure of vacillating ideas, from the original broad base of the Classic. There will undoubtedly be voices raised in protest that the design is not in the spirit of a 1941 broadcasting station, or the latest steel-frame office building—something specifically representative of our day. If contemporary thought alone were permitted to determine the architectural style, the building might have been Richardson Romanesque, French Renaissance, Art Nouveau or Venetian Gothic, according to the year in which it was conceived. The National Gallery is built in the thought that it may serve its purpose for many centuries. America's finest architectural traditions—those of which the vast majority of Americans never tire—have seemed to the architects the one straight beam of light pointing the way through an epoch strongly marked by perplexity and irresolution. Time and the leisurely judgment of the American people will eventually decide whether that light has suddenly become a will o' the wisp."

To British architects, in the midst of war building problems, the National Gallery cannot but have an appearance of fantasy. Built almost wholly of marble at a cost of over 3½ million pounds, encased in solid marble of graded pink of which only about a sixth of that quarried was actually used, the Gallery must seem to British architects to belong to a world that is past. They will be glad that it has been built, glad that it is America that has built it. But they will feel that in achieving the ne plus ultra of Neo-Classicism, the National Gallery has also achieved contemporary architecture's greatest

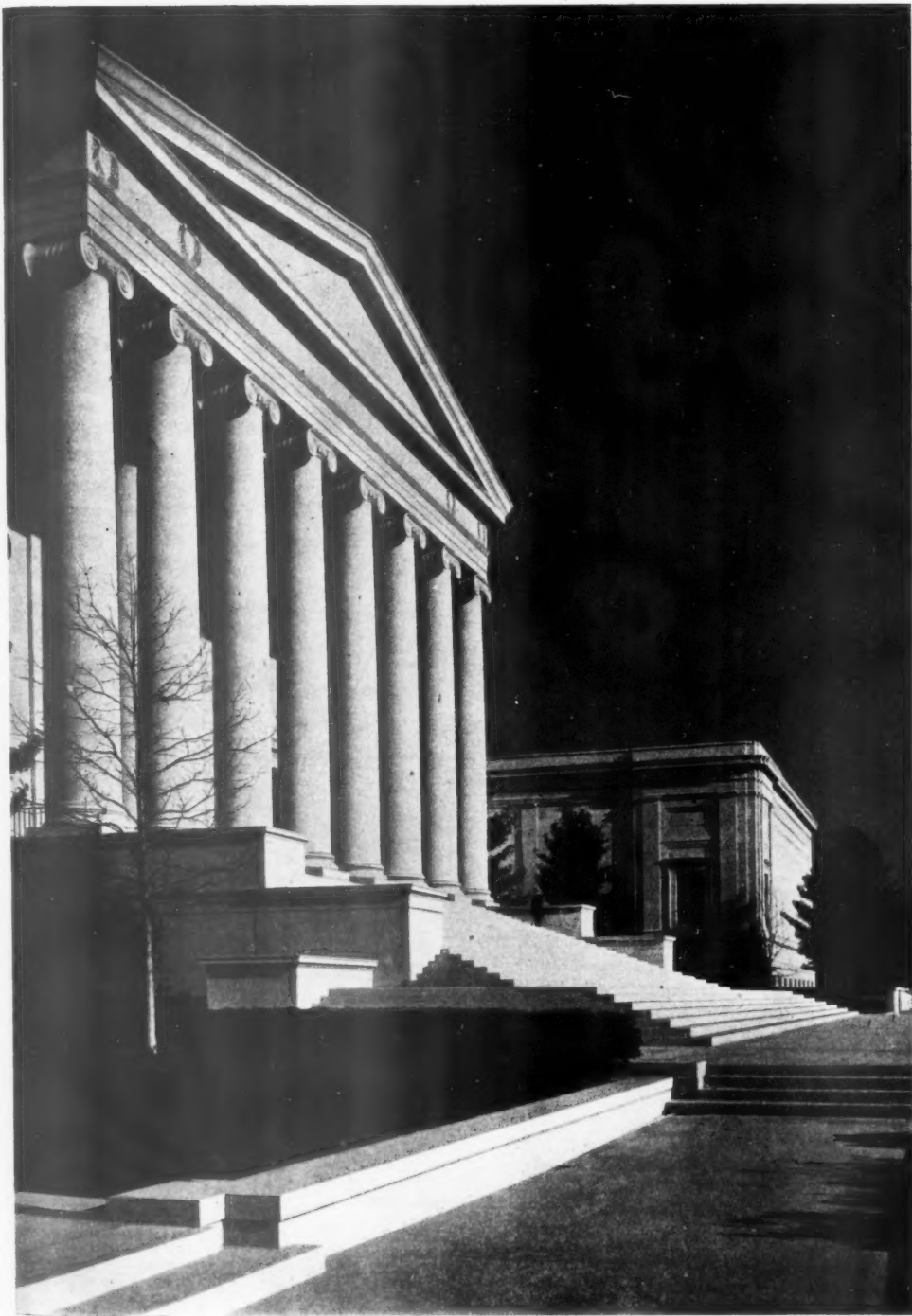
FLASHBACK

MARBLE MARVEL

DESIGNED BY JOHN RUSSELL POPE. ASSOCIATE ARCHITECTS: OTTO R. EGGERS AND DANIEL PAUL HIGGINS

This, the National Gallery of Art, Washington, U.S.A., is the largest marble building in the world—782 ft. by 303 ft., exclusive of steps and approaches. Built of a buff limestone—"Shawnee Select Buff"—the monolithic columns in the Garden Courts illustrate the standard of perfection that went into the making of the building. Found at a depth of 60 ft. below the surface, where a vein afforded sufficient quantity of the desired colour, the blocks for these shafts were 25 ft. long and 4 ft. square—weighing 40 tons each. Thirty-two were required, but sixty were cut and laid aside for possible replacement of those that might reveal imperfections when cut to final shape. Each 40-ton block was cut away to 15 tons as the column took its final dimensions of

24 ft. developed were required high covered out to dust of 7

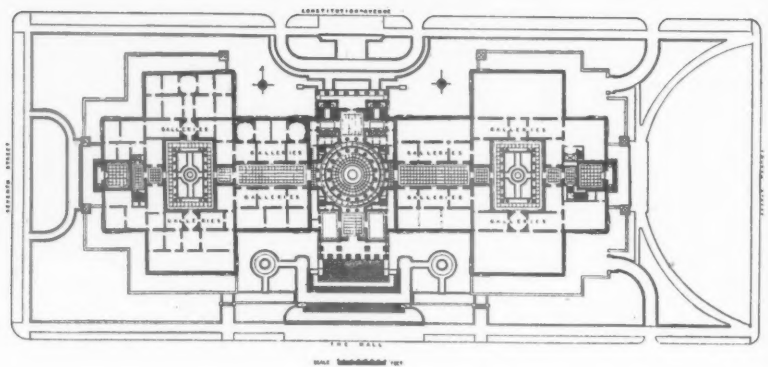


The main entrance portico.

24 ft. long, 3 ft. 6 in. in diameter. New quarrying techniques had to be developed to saw out these huge stones. Shipped to the mill, the blocks were turned down to size in a huge lathe. To assure the exact uniformity required, this lathe work was performed on the whole 32 columns by one highly-skilled mechanic. Then each had to season for a time, untouched by the covering that excluded the weather, but entirely surrounded by air to dry out the dampness known as "quarry sap." High-side coal cars were rebuilt to carry the finished product to Washington, protected from weather and dust—fourteen of these cars making the round trip until the whole shipment of 70 carloads were delivered.



*Principal floor
plan*



THE SCHEME.—The National Art Gallery was a gift to the nation by the late Andrew W. Mellors. The building was designed by John Russell Pope, who died in 1937, and was completed by his associated architects. The building measures 782 by 303 ft. within main walls, and provides 126,000 ft. sup. of gallery area on its main floor. Its cost was something over £3,500,000.

ELEVATIONS.—Of graduated pink Tennessee marble, graded from dark at the base to very pale pink at the cornice. The dome, of very pale marble, was kept low in order not to compete with that of the Capitol.

Above is a general view of the building from Constitution Avenue.

T H E N A T I O N A L G A L L E R Y O F

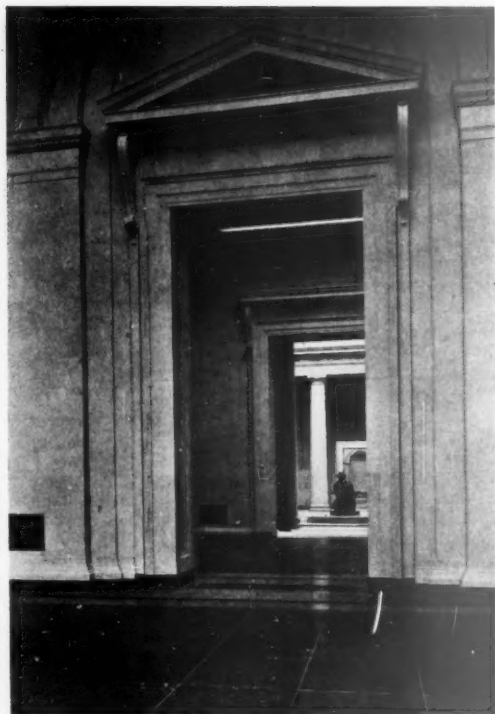


DESIGNED BY JOHN RUSSELL POPE.
ASSOCIATE ARCHITECTS: OTTO R.
EGGERS AND DANIEL PAUL HIGGINS

Above, a detail of the return of the building to the east of the Mall entrance. The dome of the Capitol is on the right. The building is in graduated pink Tennessee marble and the fountain and kerbs in white Italian Botticino.

Left, a colonnade in one of the garden courts. The columns were each turned from single blocks of Indiana limestone weighing 40 tons each. Floor is of light Tennessee Clair marble and borders are of Phantasia rose.

A R T , W A S H I N G T O N , U . S . A .



DESIGNED BY JOHN RUSSELL POPE.
ASSOCIATE ARCHITECTS: OTTO R.
EGGERS AND DANIEL PAUL HIGGINS

Above, a view along the central gallery towards a garden court. Walls and doorways are of Alabama limestone, floors are of green Proctorsville marble with Tennessee Phantasia rose borders. Facing page, the rotunda under the dome. Columns are of dark green Italian marble, with golden buff caps and bases. Floor is of green Proctorsville marble with Phantasia rose strips.

ACOUSTICS—The use of marble for floors and walls of main circulation and stone walls in certain of the galleries made the problem of sound absorption difficult. It was assumed that visitors to an art gallery are usually quiet and the vaulted ceilings were lined with absorbent plaster. Elsewhere, in machinery and ventilation trunking, etc., elaborate precautions were taken.

LIGHTING—Natural top lighting, suitably screened, is used in all main galleries, supplemented by artificial lighting of various strengths and colours. A different lighting is possible for each object in a gallery.

EQUIPMENT—The building is fully air-conditioned and very elaborately equipped with other services. Special automatic Diesel pumps have been installed as a precaution against the flooding of the building by the Potomac river.

AIR CONDITIONING—Air throughout the interior of the National Gallery is fitted to the requirements of the priceless art treasures, in order that they may be preserved indefinitely. One such requirement is a constant relative humidity of 50%. Another is the filtering of air and cleansing it of the sulphur dioxide fumes that injure paintings. A temperature ranging between 70° and 80° Fahrenheit is automatically regulated in its proper relation to the outside temperature. Warming the air that is changed six times per hour, filtering and washing it, adding or taking away moisture to maintain the proper humidity—these operations are relatively easy compared with the job of cooling it. Into the acres of glass roof the sun pours its own heat at a tremendous pace. The space between the skylights and the

T H E N A T I O N A L G A L L E R Y O F



flat glass of the gallery ceilings has its air rapidly changed by supply and exhaust blowers—28 of them, capable of moving 700,000 cu. ft. of air per minute. Nevertheless, the engineers estimate that under maximum heat conditions, the heat that must be removed from the gallery would be sufficient to melt 2,720,000 lb. of ice in 24 hours. Obviating the necessity for making that much ice or its equivalent, the waters of the Tidal Basin are put to work. A great underground conduit brings over 5,000 galls. of water per minute through huge compressors in the basement to lap up heat and pass on underground to the Ships Canal.

A R T , W A S H I N G T O N , U . S . A .

SOME QUESTIONS ANSWERED THIS WEEK:

- ★ *WHERE can literature on High Flats v. Cottages be obtained?* - - - - - Q 721
- ★ *WHAT was the increase in building costs between 1900 and 1939* - - - - - Q 723
- ★ *WHY are bricks wetted before laying?* - - - - - Q 725
- ★ *CAN a farmyard be surfaced with chalk?* - - - - - Q 726

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.

Q 721

STUDENT, ROSS-ON-WYE.—*I am reading a large number of books on housing and Town Planning, and several of the more recently written of these (by T. Sharp and G. Boumphrey, etc.) urge the necessity of building LARGE BLOCKS OF FLATS AS the only SOLUTION TO OUR PRESENT PROBLEMS of Town Planning. As a means of providing the extra accommodation required without extending the boundaries of our already too extensive cities, this thesis seems very sound. Yet I am aware that a large body of well-informed opinion is opposed to it. Can you suggest some books which set out to disprove this "greater density—more open space" school of thought? Most of the standard text books on Town Planning seem to ignore the question. Can you give me any information about The Hundred New Towns Association, and the M.A.R.S. Group, and do they publish literature which might prove useful in this connexion?*

Town Planning in Practice, by Raymond Unwin, is a standard work which might be useful to you if you have not already read it.

The case for and against flat development has been discussed at the

International Federation of Housing and Town Planning Conferences, and the reports of these might be useful to you. You should be able to obtain further information from the Ministry of Health, Whitehall, London, S.W.1.

If you wish only to hear the case against large blocks of flats as a solution to problems of Town Planning, we should advise you to write to F. J. Osborn, The Garden Cities and Town Planning Association, 10, Parkway, Welwyn Garden City, Herts.

Information about the Hundred New Cities Association can be obtained from A. Trystan Edwards, c/o The Athenaeum Club, Pall Mall, London, S.W.1, and about the M.A.R.S. Group from Ralph Tubbs, 17, Clarges Street, London, W.1.

Q 722

ENQUIRER, LONDON.—As I am REVERTING TO ARCHITECTURE AFTER an ELEVEN YEARS break, I should appreciate your advice on a few points.

I am 40 years old, served three years articles, 1919-1922, and from 1922 to 1930 held various positions, my longest being with the London County Council and the Public Works Dept., Tanganyika Territory. I have not entered for or passed any exams.

From 1930 to the present time, I have been engaged in commercial life, but am now in the architectural section of a Government Dept. After the war I anticipate joining a firm of wall-board manufacturers as architectural representative.

The following are the points :—

1. Can I be registered as an Architect?
2. As letters after one's name are always useful, what is the easiest way of obtaining these?
3. Being interested in Modern Architecture, can you give me particulars of MARS or any similar group?

1. You can only register as an Architect after passing the final examination of the R.I.B.A. or the final examination of one of the recognised Schools of Architecture.

2. You can only become an A.R.I.B.A. after passing the R.I.B.A. examinations.

3. Information in connexion with the M.A.R.S. Group can be obtained from 17, Clarges Street, London, W.1.

The following Groups may also be of some interest to you :—

The Association of Architects, Surveyors and Technical Assistants, 113, High Holborn, London, W.C.1.

The 1940 Council, 13, Suffolk Street, Haymarket, London, S.W.1.

The Architectural Science Group of the Research Board, R.I.B.A. (Secretary, Arthur Cobb, B.A., 38, Barton Road, Cambridge).

Q 723

ARCHITECT, BRISTOL.—In connexion with damage caused by enemy action to certain buildings, we are preparing claims for submission.

Information is available as to the actual cost of these buildings, which were built in 1900, and it would be much appreciated if you could give an opinion as to the INCREASE IN BUILDING COSTS BETWEEN 1900 AND MARCH, 1939.

According to Messrs. Davis and Belfield, who are responsible for the prices published in the JOURNAL, it would be unwise to make any theoretical statement as to the increase in the cost of building between 1900 and 1939, and in any case such a statement would form a very inaccurate basis for a claim for war damage. Materials have not all risen by anything like the same proportion, and the increased cost of certain classes of building would be quite different from others. We regret that we have no record of prices for 1900, but we give below the cost of various work executed complete, as set out in Lockwood's Price Book, 1901, and Laxton's Price Book of 1939 (the former was the forerunner of Laxton). These figures will show you the difficulty of arriving at any comprehensive increase for building generally, and at the same time will assist you to make fairly accurate calculations if you can determine the approximate value of the various trades as a percentage of the whole. No doubt prices during 1900 and 1901 were comparatively stable, and any difference is unlikely to affect the percentage by an appreciable amount :—

	1901			1939			Percentage increase in cost.
	£	s.	d.	£	s.	d.	
Excavate and cart away	0	3	4	0	7	10	135
Concrete (6 : 1)	0	14	6	1	5	3	74
Common brickwork	18	15	0	26	16	3	43
Drain trench 3 ft. deep including 4 in. pipe and concrete bed	0	1	8	0	4	6	170
Plain tiling	3	0	0	3	0	0	Nil
Fir in carcassing	0	2	6	0	4	3	70
Fir in joinery	0	5	6	0	12	0	118
Basis steel joints	0	11	0	0	16	0	45
Render, float and set	0	1	4	0	2	3	69
Milled lead in gutters	1	7	6	2	18	10	114
Three coats of oil colour	0	1	4	0	1	10	37½

Q 724

ENGINEER, COVENTRY.—I wish to lay a waterproof concrete screed to a flat roof, and I have specified a 2 in. screed to be laid, on pre-cast concrete beams. Will you be so good as to let me have the necessary information, and full specifications of the various satisfactory methods of waterproofing the screed, together with names of the best waterproof manufacturers.

We assume from your enquiry that you want to incorporate a water-proofer in the screed and do not want to apply a separate roof covering.

The firms mentioned* below make suitable waterproofer for this purpose. We regret that we cannot give a full specification, but this would not be the same for each product.

The manufacturers concerned will let you have their recommendations, which should be followed carefully.

* Geo. Lillingston & Co., Ltd., 30, Denman Street, London Bridge, S.E.1; Sealocrete Products Ltd., Atlantic Works, Macbeth Street, London, W.6; Sika Francois Ltd., 39, Victoria Street, London, S.W.1; Joseph Freeman, Sons & Co. Ltd., 96, Garratt Lane, London, S.W.18; The Adamite Co. Ltd., Mansfield House, Strand, London, W.C.2; Messrs. Kerner-Greenwood & Co. Ltd., Ann's Place, King's Lynn, Norfolk.

Q 725

ARCHITECT, SURREY.—I should be grateful if you would advise me on the following points :—

1. WHAT ARE the basic REASONS FOR WETTING BRICKS when bricklaying is in progress—to what extent should they be wetted—what results are to be expected if this wetting is omitted?

2. What is the minimum temperature at which it is safe for bricklaying to proceed?

1. The set of mortar depends upon the action of the water upon the ingredients composing the mortar, and the chief reason for wetting bricks is to ensure that sufficient water is retained in the mortar long enough for the setting to take place

satisfactorily. A secondary consideration is that wetting the bricks removes dust and loose particles so that the mortar will adhere more readily.

It is impossible to say the exact extent to which bricks should be wetted as this varies with the type of brick used and with weather conditions. In hot weather bricks should be thoroughly wetted, but in winter months it is not so important as the atmosphere generally contains a good deal of moisture which is absorbed by a porous type of brick. If there is any likelihood of frost, wetting will probably do more harm than good.

2. As far as we are aware, no minimum temperature for the laying of bricks has been specifically laid down, but the effect will obviously be harmful if the temperature is sufficiently low to freeze even small particles of water. For this reason, it is usual in specifications to instruct the builder to stop bricklaying during

frosty weather and to cover up brickwork newly laid, overnight. If a minimum temperature is quoted—it is usual, to be on the safe side, and to quote one a few degrees above freezing.

Q 726

ARCHITECT, BERKS.—*The surface of a yard in some farm buildings, which I am having repaired, is in a very bad condition. I advised that it should be concrete-paved all over and I obtained an estimate of £249 for this work. This is more than my client is prepared to spend, and I have been asked if the yard cannot be laid with chalk, well rammed in. I have had no experience of finishing farmyards in this way, neither have two country builders with whom I have discussed the matter. I understand, however, that this method is used in the north and that after the chalk is laid a certain*

amount of coarse gravel is well rolled into the surface.

I shall be obliged if you will let me know if this is a practical and satisfactory way of SURFACING A FARMYARD, which is used by cattle. If so, would you kindly let me know the best method of doing the work?

A local somewhat soft chalk from the South Oxfordshire hills is available.

In our opinion local chalk, if it is somewhat soft, would be unsuitable for this purpose; only hard chalk should be used.

If you do decide upon chalk, we think the efficiency would be increased if the gravel were mixed with a cement grout and rolled in.

Q 727

ARCHITECT, DURHAM.—*I specified anti-shatter fabric netting to be affixed*

PRICES

BY DAVIS AND BELFIELD, CHARTERED QUANTITY SURVEYORS

MATERIALS

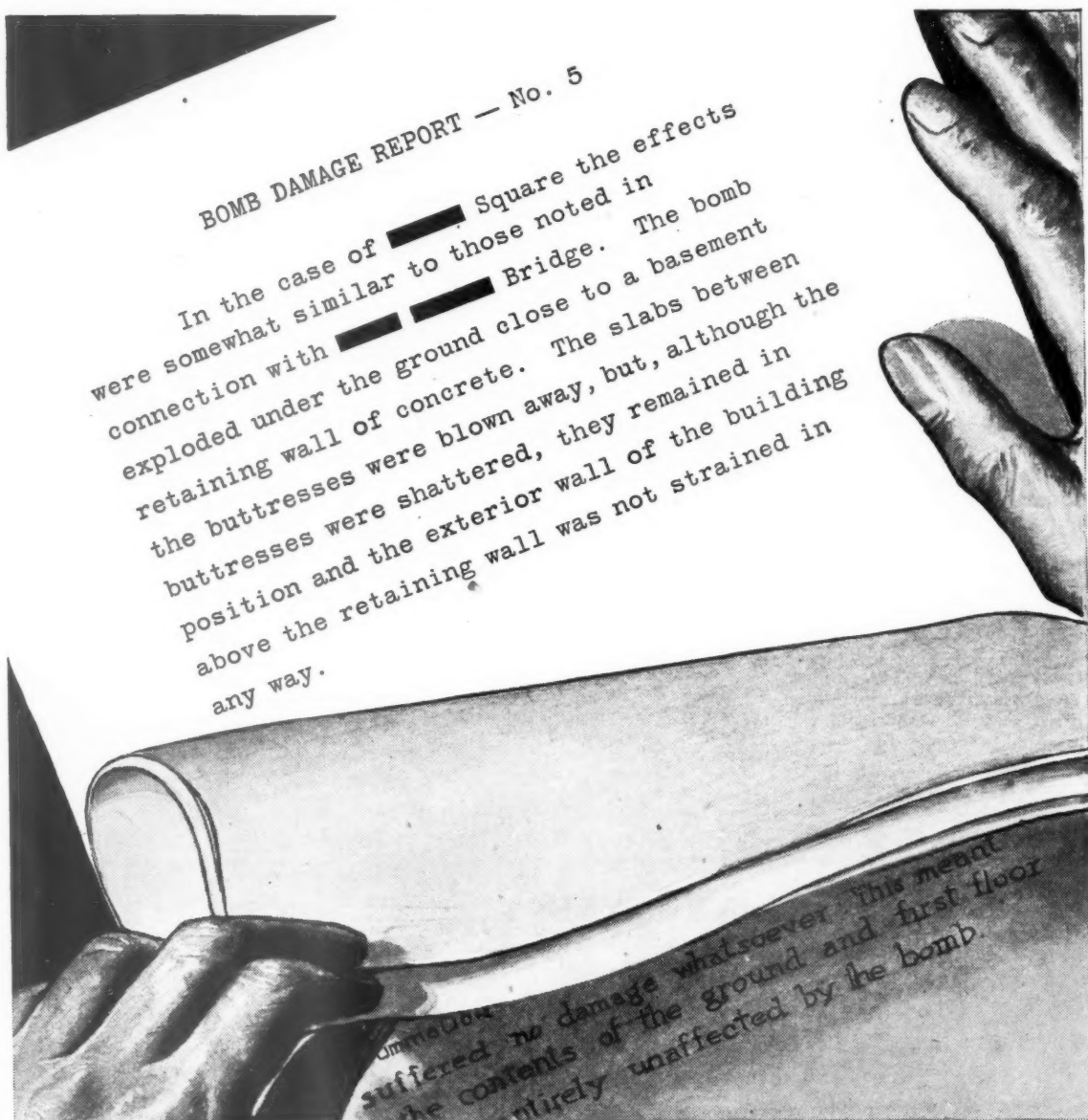
The price of Greystone Lime has risen slightly as will be seen in the accompanying Schedule. The other "basic" materials given in the Schedule, remain the same.

LABOUR

Rates of Wages remained unchanged during May but rise by 1d. per hour for both Craftsmen and Labourers on the 1st June. The rates for the Central London Area during June will be 2s. 0d. and 1s. 6½d. per hour, for Craftsmen and Labourers respectively. This is equivalent to an increase over pre-war rates of 14.29% for Craftsmen and 19.05% for labourers.

BASIC MATERIALS	Increases over pre-war prices at end of				
	Jan., 1941	Feb., 1941	Mar., 1941	April, 1941	May, 1941
Portland cement	per cent. +35.37	per cent. +35.37	per cent. +35.37	per cent. +35.37	per cent. +35.37
2-in. unscreened ballast	+47.8	+47.8	+47.8	+60.9	+60.9
Fletton bricks (at station)	+11.89	+11.89	+11.89	+11.89	+11.89
Stoneware drain-pipes (British Standard) 2 tons and over	+18½	+18½	+18½	+18½	+18½
Roofing tiles	+20	+20	+20	+20	+20
Steel joists (basic sections) ex mills	+47.5	+47.5	+47.5	+47.5	+47.5
Lime greystone	+29.76	+29.76	+29.76	+29.76	+33.33
Sheet lead	+50	+50	+50	+50	+50
Iron rainwater goods and soil pipes	+18	+18	+18	+21	+21
Copper tubes	+27.66	+27.66	+27.66	+27.66	+27.66
White lead paint	+26½	+26½	+26½	+26½	+26½
RATES OF WAGES. (Central London Area)					
Labourers	+12.70	+15.87	+15.87	+15.87	+15.87
Craftsmen	+9.52	+11.90	+11.90	+11.90	+11.90

P. A. Davis.
F.S.I.



Despite the war, building must go on. Urgent Government contracts, workers' housing, hostels and factories make their demands on men and materials. There are now ample stocks of cement. There are scores of contractors, architects and specialist firms who can secure the maximum advantages from reinforced concrete design. In

the hands of such men, reinforced concrete construction proceeds without delay—building goes on through every hour of the 24, in every kind of weather. You make certain of the greatest economy when the specialist is employed, and buildings essential to the war effort can be occupied in the minimum of time.

FIRE! *In normal times fire does millions of pounds worth of damage a year — yet fire would be a negligible risk if all buildings were of reinforced concrete.*

CEMENT AND CONCRETE ASSOCIATION

52, GROSVENOR GARDENS, LONDON, S.W.1

to the windows of a hospital. The netting is of the type supplied ready treated with adhesive and is one of those given in the list of approved fabrics in the ARCHITECTS' JOURNAL dated October 24, 1940. The fixing contractor, after repeated trials, finds it impossible to make the fabric adhere satisfactorily for more than a day or so. He has also tried to fix it with flour paste, etc., with the same results.

I have suggested trying "Bostik" adhesive. Can you give me the name and address of the makers of this or of any other adhesive whose product you can recommend for this purpose.

In answer to your enquiry, "Bostik C" adhesive, which is the adhesive suitable for this purpose, is made by the B.B. Chemical Co., Ltd., Ulverscroft Road, Leicester. The adhesive should be applied to the glass with a moderately stiff brush, and brushed out so that one quart of Bostik C spreads over approximately 20 sq. ft. of the glass. The netting should be pressed firmly against it while the adhesive is still tacky. The window frames or glazing bars should be treated in the same manner and the netting should overlap on to the frame or glazing bar.

You will find that most manufacturers of fabrics supply suitable adhesives, but varnishes made by

the Herts Pharmaceuticals Ltd., Bessemer Road, Welwyn Garden City, and by Cellon Ltd., Kingston-on-Thames, are suitable for using in conjunction with approved netting.

TRADE NOTES

Speed up the Factories

I well remember my first introduction to one of the largest and most go-ahead factories in the country—my escort, with justifiable pride, led me through from section to section explaining how the installation of modern machinery, much of which was of his own design, had in the course of a few years increased their output by several hundred per cent. Many of the machines were quite fiendishly fascinating, performing in a matter of seconds five or six operations that could not possibly have been carried out by ten men in five times as many minutes. The human element had been reduced to a minimum, never were there more than three men to a machine, and the products in process of manufacture and assembly passed from machine to machine and from section to section throughout the factory on an endless travelling belt. Here at last, one felt, was perpetual motion.

I am reminded of this experience by a small brochure just to hand from Herbert Morris, Ltd., in which they describe the

function and performance of the Morris overhead chain conveyor which, described in simplest terms, is an overhead track with an endless chain, and a simple drive, moving trolleys bearing carriers for conveying goods from place to place or from man to man. In execution it is simplicity itself, but its greatest virtue would seem to be its adaptability and the illustration in the brochure shows how Morris designers have solved the conveyancing problems relating to such varying articles as bus tickets, bananas, boots, bottles, bricks and fine fabrics. For the architect concerned with factory design, construction and equipment—an instructive little brochure. (Herbert Morris, Ltd., Loughborough).

And Better Lighting

In the modern factory efficient lighting is a consideration of primary importance and the development of the scientific application of prismatic lenses to industrial lighting has helped considerably to improve lighting standards in this country.

With to-day's great need for output, and more output, factory workers must be given every facility for "Going to it" and only wise economy is the kind of economy that should be practised. Where factory lighting falls below a proper standard of efficiency it is a serious hindrance to 100 per cent. progress, and only 100 per cent. progress is good enough.

Holophane, Ltd., industrial lighting engineers for as many years as I can remember, deal in their most recent sales pamphlet with the application of prismatic lenses to industrial lighting. Their showrooms still are in Elverson Street, Vincent Square, London, S.W.1.

A.B.

● HEATING . . . AND THE FUTURE RECONSTRUCTION



Write for Brochure V.J.9. Healthy heating for ARP Shelters is provided by the specially designed Electric Vectair, details of which will be sent on request. The Univectair and Projectaire, which provide the right atmosphere for increased output in factories, etc., are described in Brochure U.H.9 and Folder P.J.9 respectively.

Planning for APPEARANCE

WHATEVER outward form the architecture of to-morrow assumes, the fine proportions of its interiors must not be marred by obtrusive heating equipment. Vectairs can be recessed into the structure with elements and piping concealed, and the two simple grilles forming an integral part of the decorative scheme. Great flexibility of planning is thus possible.

In the world of to-morrow Vectair Heating will take its rightful place—unobtrusive to the eye, yet providing an atmosphere of comfortable warmth with commendable efficiency.



BRITISH TRANE CO. LTD., VECTAIR HOUSE, 52 CLERKENWELL CLOSE, LONDON, E.C.1
TELEPHONE: Clerkenwell 6964 and 3826.

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