THE ARCHITECTS' JOURNAL

THE ARCHITECTS' JOURNAL
WITH WHICH IS INCORPORATED THE BUILDERS' JOURNAL AND THE ARCHITECTURAL ENGINEER, IS PUBLISHED EVERY THURSDAY BY THE ARCHITECTURAL PRESS (PUBLISHERS OF THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, SPECIFICATION, AND WHO'S WHO IN ARCHITECTURE) FROM 9 QUEEN ANNE'S GATE, WESTMINSTER, S.W.1

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THE ANNUAL SUBSCRIPTION RATES ARE AS FOLLOWS :
BY POST IN THE UNITED KINGDOM £1 3 10
BY POST TO CANADA £1 3 10
BY POST ELSEWHERE ABROAD £1 8 6
SPECIAL COMBINED RATE FOR SUBSCRIBERS TAKING BOTH THE ARCHITECTURAL REVIEW AND THE ARCHITECTS' JOURNAL : INLAND £2 6s. ; ABROAD £2 10s.
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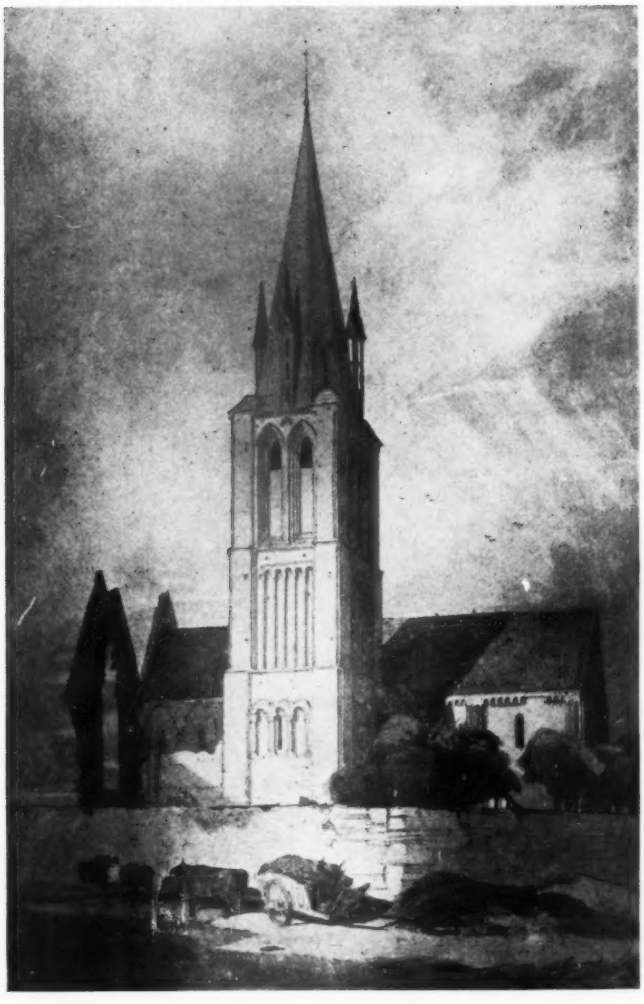
9-11 *Queen Anne's Gate, Westminster, London, S.W.1.*
TELEPHONE : WHITEHALL 9212-7 (OWN EXCHANGE)
TELEGRAPHIC ADDRESS : BUILDABLE, PARL., LONDON

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 29, 1939 NUMBER 2319 : VOLUME 89

PRINCIPAL CONTENTS

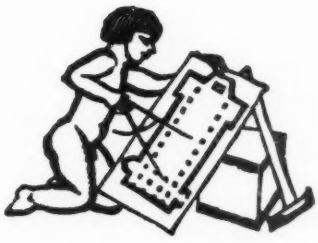
JOHN SELL COTMAN



An exhibition of the collection of Architectural Drawings and Water-colours by John Sell Cotman, bequeathed to the R.I.B.A. by the late Mr. Sidney Kitson, has been held at the R.I.B.A. during the past month. Above, Salle House, Norfolk, the seat of Sir Richard Jodderill, Bt.
Right, Douvrer Church.

TEMPLE OF AMUN, KARNAK

The obelisk of Hatshepsut is on the extreme right; that of Thutmosis I in the centre. The Great Hypostyle is on the left.



ELECTIONS

NOMINATIONS		SUCCESSFUL CANDIDATES
FELLOWS		
Nominated by Council		
J. R. Adamson	A. H. Moberley	C. L. Gill
C. L. Gill	T. E. Scott	L. H. Keay
F. R. Hiorns	M. T. Waterhouse	
L. H. Keay	G. C. Wilson	
Otherwise Nominated		
C. H. Aslin	G. H. Jenkins	Victor Bain
Victor Bain ●	S. D. Meadows ✱	P. J. Bartlett
P. J. Bartlett ✱	J. N. Meredith ✱	J. N. Meredith
J. Bennett ✱	R. G. Roberts ✱	C. H. Stillman
H. R. Collins	C. H. Stillman ✱	John Swarbrick
F. J. Horth ●	J. B. Surman ●	
J. D. Hossack	John Swarbrick ●	
E. A. Verger ✱		
ASSOCIATES		
Nominated by Council		
D. L. Bridgwater	W. G. Holford	W. G. Holford
W. A. Daft	C. A. Minoprio	C. A. Minoprio
Otherwise Nominated		
J. T. Castle ✱	R. A. H. Livett	R. G. Manning
C. E. Culpin	R. G. Manning ✱	
D. E. E. Gibson	J. A. Pinckheard ✱	
R. O. Harris	Winston Walker	
W. H. Wingate		
LICENTIATES		
Nominated by Council		
F. A. Broad	Sir W. F. V. M. Milner	C. B. Parkes
C. B. Parkes ✱		
Otherwise Nominated		
Malcolm McTaggart		

✱The *Official Architect* in a special section of its May issue asked all official and staff architects to vote for the candidates marked thus. Five such candidates were successful.

● In a letter circulated to most members of the R.I.B.A. just before the elections a "Representation Committee" asked members to vote for the candidates thus marked in order to counterbalance the *Official Architect's* canvass. Two such candidates were successful.

IN the R.I.B.A. elections which have just taken place 11 vacancies on the Council for the Session 1939–40 had to be filled by the votes of members. Of these vacancies 7 had to be filled by Fellows, 3 by Associates and 1 by a Licentiate. The full list of nominees, published late in May, contained 40 names—23 Fellows, 13 Associates and 4 Licentiates (including at least 18 candidates in official or commercial architects' departments.)

From these 40 R.I.B.A. members had to choose 11. Approximately 7,000 members were entitled to vote, 2,616 did so and 69 voting papers were invalid : thus leaving a net total vote of 2,547. In the final result principals or assistants in public and commercial departments secured 6 of the 11 vacancies. Private architect principals secured 5.

There are several points in this election of significance to all members of the R.I.B.A. The first affects the whole purpose of the R.I.B.A. Most architects now realize that this purpose is a double one. The R.I.B.A. protects and helps its members in narrower professional matters—that is its first duty. But it also is the headquarters for architects of what are called Public Relations.

Like other influential organizations the R.I.B.A. has extended its work to cover this new responsibility and has also made it far easier for members to show their interest in elections by reforming the electoral system. Members now vote for the Council only instead of for a maze of committees as well.

The present results show that this simplification has had little effect. About 4,500 members (64 per cent.) did not bother to vote.

The second point of significance about this year's elections was the canvassing on behalf of two sections of Institute membership.

The ordinary member is probably more interested in who does the best work for the R.I.B.A. than the exact proportional representation on the Council of each source of income in the membership.

The *Official Architect* thinks otherwise, and, maintaining that private architects were grossly overrepresented on the Council, asked all members in public or commercial departments to vote in the recent elections for 11 candidates of whom 8 were principals in such departments. Of these 11, 5 were successful. The natural consequence of the *Official Architects'* canvass was not long in appearing. A "Representation Committee," pledged to try to secure the just representation of all sections of membership on the Council, circularized members and asked them to vote for four candidates. Of these 4, 2 were successful.

The issue before members of the R.I.B.A. is of great importance. The work of the R.I.B.A. and its Allied Societies must in future affect the fortunes of individual architects more and more. Those members who do not vote can be disregarded, but those who do vote are likely to find backing winners increasingly difficult.

The new canvassing is not for a policy—it is merely official *v.* private or private *v.* official. Consider where this leads : obviously to proportional representation on the Council according to source of income. Carried to its logical conclusion this would probably result in a Council in the following proportions : Official and commercial principals, 1 ; private principals, 3 ; private assistants, 7 ; official assistants, 9. If official principals want this reform to be carried out, they have not said so.

The ordinary member should think carefully about this matter. For narrower duties of the R.I.B.A. he wants all sections of membership to be adequately represented on the Council. For wider and more important work he wants the best men in the Institute irrespective of source of income. What he must decide now is how the best men can most easily be recognized at election time.

The Architects' Journal
Westminster, S.W.1
Telephones: Whitehall
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Telegrams
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NOTES & TOPICS

R.I.B.A. CONFERENCE

NOT having been to the Conference at Dublin my participation in it consisted in reading first the text of Mr. Goodhart-Rendel's presidential address (in his most neatly phrased exhortatory style) and, secondly, an immense Architectural Supplement produced by the *Irish Times:* a wonderfully comprehensive affair forty pages long, containing articles on every conceivable aspect of Irish architecture—historical, professional and technical.

*

It is interesting to see what a large place ecclesiastical architecture still seems to have in Irish practice, but I missed any reference, in this supplement or in the conference agenda, to the proposal to build a cathedral in the middle of Merrion Square. To me it is an outrageous proposal—apart from the fact that it is an unbuilt-on open space.

*

The *Irish Times* politely gives one of the back pages of its supplement to Northern Ireland, and on it we read a pronouncement by the President of the Royal Society of Ulster Architects: "One is pleased, in studying the recently erected buildings, to find that the extreme architectural style called 'Modern' has not found its way here."

ELECTIONS

The analysis of candidates and results in the recent R.I.B.A. elections which the JOURNAL publishes on the previous page is of great interest. In spite of the much simpler methods of voting which were introduced last year, only 2,616 members voted out of about 7,000 who were eligible.

*

Even more important than this apathy is the apparent influence of the canvassing by the *Official Architect* and the "Representation Committee." Of the 11 candidates nominated by the former, 5 were successful: of the 4 nominated by the latter, 2 were successful.

*

Members of the R.I.B.A. will notice that *Official Architect's* canvass was not for a policy, but in order to increase the representation of official and salaried architects on the Council, and more particularly (to judge from the nominations) to increase the number of official *principals* on the Council.

*

There is something to be said for a Council more proportionately representative of the main divisions of work on which members are engaged. There is nothing to be said for a battle for control between partners in private firms and heads of official or commercial departments.

*

The JOURNAL suggests that a Council perfectly representative of Institute membership would be divided in the following proportions: Official and commercial principals, 1; private principals, 3; private assistants, 7; official assistants, 9. I believe this to be roughly true. And I think most members will feel that reforms, if made, should be real and comprehensive and not mere concessions to a small and vociferous sectional interest.

VIGILANCE ELEVEN

A couple of weeks ago Lord Derwent picked an eleven to serve as a vigilance committee. He chose Mr. James Bone, Mrs. Dalton, Lord Esher, Dr. Julian Huxley, Mr. Osbert Lancaster, Mr. James Lees-Milne, Mr. Charles Marriott, Mr. Frank Pick, Mr. Henry Strauss and Miss Rebecca West.

*

Before suggesting my own team I have done a little more mathematics, in order to discover what sort of team would choose itself on the basis of success in voting the same way as the majority. All the candidates, it will be remembered, were asked to name six buildings, and the following ten people came nearest to naming the most popular six in their own lists: Dr. Vevers, Sir Hector Hetherington (each with five out of six popular choices), Miss Rebecca West, Mr. Lees-Milne, Mr. Charles Marriott, Mr. John Piper, Mr. Henry Morris, Mr. Henry Moore, Lord Berners, Dr. Julian Huxley.

*

And now for my own team, which I nominate quite frankly as a personal choice, without reflecting on Lord Derwent's views or on the outcome of the above rather dubious statistical method. Even more frankly, I do not admire all the buildings my own team plumped for. Nevertheless, I have faith in them. My selection of ten members to complete the eleven (Lord Derwent himself coming in *ex officio* as Chairman) is:

*

Lord Esher, Chairman of the Society for the Protection of Ancient Buildings, who answers once and for all the accusation that preservation societies are never interested in anything but antiques by showing himself both knowledgeable and discriminating about modern buildings.

*

Mr. Charles Marriott, critic of *The Times*, who was the only person to notice that Chelsea Bridge is a good piece

of architecture (until Mr. Henry Strauss had an afterthought).

*

Mrs. Hugh Dalton, Chairman of the L.C.C. Park Committee, chosen for knowing that milk-kiosks in public gardens do not have to be rustic and for being an exception to the rule that local authority committee-members always play safe.

*

Professor J. D. Bernal, of London University, formerly a Cambridge Scientist, who is coupled with *Dr. Julian Huxley*, Secretary of the Zoo. Scientists make the best committeemen, as they can always provide statistics to back up their prejudices, and both these scientists know a modern building when they see one. Dr. Huxley must be in, in any case, as he is responsible (together with his predecessor, Sir Peter Chalmers Mitchell) for commissioning the Zoo buildings. (I wish he would have them re-painted.) For the same reason *Mr. Frank Pick*, as the representative—the only one we can trust—of BIG BUSINESS, must not be left out. He brought Charles Holden into the Underground, so we have to thank him for Arnos Grove, as well as for the quiet revolution which has been going on in the industrio-business world's attitude to "Art" for the last quarter of a century.

*

Mr. Henry Moore. We must also have an artist in the team, and as he will have to estimate the value of buildings in the round from drawings on the flat, preferably a sculptor. Mr. Moore is our most sensitive living sculptor, he has worked with architects, and he is tolerant, but as tenacious as most Yorkshiremen.

*

Mr. William Hickey, the only columnist who has views about architecture and takes the trouble to criticize what the rest of the Press swallows whole. The gossip column is, of course, today's organ of culture, and Hickey would be the Committee's minister of propaganda.

*

Mr. Henry Morris, Cambridgeshire Education Officer, because the village college is tomorrow's organ of culture.

*

Miss Rebecca West, as a student of human behaviour. She has no visible connection with architecture at all, either as art critic, employer of architects, controller of parks, protector of buildings, or producer of sculpture, so her evident taste in architecture must be due to sheer intelligence.

*

Finally, I may point out that only three names occur in *all* of the teams listed above. They are Mr. Charles Marriott, Miss Rebecca West, and Dr. Julian Huxley. These I shall constitute the inner cabinet—to change the metaphor for a moment. They form in themselves an exceptionally well-balanced team. Of their vigilance I would have no doubt.

PITHEAD FAME

Mr. J. H. Forshaw, famous for the pithead baths and his organization of that admirable architectural department instituted by the Miners' Welfare Committee, has just been recommended to the newly-created position of Deputy Architect to the L.C.C.

*

Mr. Forshaw turned what might have become a typically stale official department into one of the most lively and influential architectural groups in the country. We can only hope that the L.C.C., realizing as they obviously do his rare ability, will give him every opportunity to bring to their council the architectural leadership which every county council *should* have but certainly has not got at the moment. Not until the county posts are the jobs most sought after by the most competent architects shall we bring about the large-scale reforms we are clamouring for.

*

Too bad for the Miners' Welfare Committee. But not *too good*, I hope, for the L.C.C.

THE INSTITUTE AND REFUGEES

The Institute's Refugees Committee, set up in January this year, has just produced its first report. It is a model of what R.I.B.A. Reports should be—clear, exact and well written. When the influx of refugees first started in 1933, some of the cases were referred to the Practice Standing Committee, but the problem has now been very thoroughly reviewed: the R.I.B.A. has consulted the appropriate bodies, has made recommendations about 18 out of 52 applicants, and has suggested that the R.I.B.A. should be consulted much earlier in the proceedings—before applications to work go to the Home Office.

*

In 1933 I thought that a few architects protested rather too vigorously against giving labour permits to refugees, and the official figure of only 25 with permits in February this year seems to suggest that not very many of us will suffer. In future the R.I.B.A. will have quite a large say in who comes in and who doesn't, and this Committee seems to have done a real job of work in a short time. In the meantime, the Architects' Refugee Fund (9 Gower Street, W.C.1) can still make good use of money, offers of work, or guarantees.

MR. ELLIOT MAKES GOOD

The Ministry of Health has just published (via the Stationery Office) a most admirable shilling booklet called *Houses We Live In.* It has been produced largely by Mr. Elliot's Housing Advisory Committee, which was asked "to give, in simple terms, examples of good houses . . . and architectural good manners." The result is a collection of horrors on one page facing the same idea, seemly in execution, on the other. And the speculative builder, even to the dumbest reader, emerges in rather a bad state.

*

Quite a number of architects will think that this book does not go far enough in its condemnations. Even Mr. Elliot seems a little shy in his introduction—"while there may be some differences in the degree of severity with which the houses and features which (my committee) do not favour are regarded by others, there will, I think, be general agreement, etc. . . ." It is probably too much to expect Mr. Elliot to get right down off the fence, but this, it must be remembered, is *Government* propaganda.

SALVATION FOR MODERNISTS

My remarks, made a fortnight ago, about the need for repainting some of the new Zoo buildings have aroused the interest, not, as I hoped, of the Zoo authorities, but rather, as I might have anticipated, of the faience manufacturers, one of whom has asked me to draw attention to the wearing qualities in general of faience as a facing material, and of his patent faience in particular.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

In the R.I.B.A. Council Elections principals or assistants in public and commercial departments secured 6 of the 11 vacancies. Private architect principals secured 5 .. *1099*

"The title 'Royal Institute of the Architects of Ireland' is used from the very first meeting, though there is no record of any permission to use this title" *1111*

"It is difficult to say what volume of work is carried out by official architects, but in the provinces it certainly exceeds that executed by private practitioners" .. *1111*

THE ARCHITECTS' DIARY

Thursday, June 29

HOUSING CENTRE, 13 *Suffolk Street, S.W.1. An Exhibition specially designed to be of interest to School Children visiting the Centre. Until July 29.*

LONDON SOCIETY. *Visit to the Royal Scottish Corporation, Fleur-de-lis Court, Fetter Lane, E.C.4. 3.30 p.m.*

Friday, June 30

ARCHITECTS' BENEVOLENT SOCIETY. *Dance. At 66 Portland Place, W.1. 9 p.m.*

TOWN PLANNING INSTITUTE. *At Carton Hall, S.W.1. "The Location and Design of Residential Flats." By J. F. Adburgham. 6 p.m.*

LIVERPOOL SCHOOL OF ARCHITECTURE. *Annual Exhibition. Until July 22.*

Monday, July 3

HOUSING CENTRE. *Fourth Annual General Meeting. Speaker: Sir Charles Bressey. 5 p.m.*

ROYAL SANITARY INSTITUTE. *Health Congress at Scarborough. Until July 8.*

Tuesday, July 4

INSTITUTION OF ELECTRICAL ENGINEERS. *Annual Conversazione. At the National History Museum, South Kensington, S.W.7.*

HOUSING CENTRE. *Luncheon: "Commonsense in the Kitchen." By Darcy Braddell. 1 p.m.*

SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS. *Annual General Meeting. At Fishmongers' Hall, E.C.4. 3.30 p.m.*

L.C.C. DEPUTY CHIEF ARCHITECT

At Tuesday's meeting of the L.C.C., the General Purposes Committee, in its report, stated that 94 applications were received for the newly-created position of deputy architect to the Council. Three candidates were placed on the "short list"; they were Messrs. E. G. G. Bax, J. H. Forshaw, and E. Williams. The following recommendation of the committee was carried: "That Mr. John Henry Forshaw, M.A., B.ARCH., F.R.I.B.A., M.C., be appointed deputy architect to the Council from and including a date to be arranged, at the commencing salary of £1,800 a year, rising by annual increments of £100 to £2,000 a year."

It was also stated that the Council had previously approved certain emergency precautions against air raids for its existing block-dwelling estates; schemes have since been prepared for the provision of permanent shelter accommodation at an estimated cost of £725,000.

INTERNATIONAL EXHIBITION OF THE ART OF GREATER INDIA

The Royal Academy, in collaboration with a number of connoisseurs of Indian art, is arranging to hold in January-March, 1940, an International Exhibition of the Art of the Indian Empire, French Indo-China, Netherlands India, Burma, Malaya, Siam, Afghanistan, Tibet and Nepal. For some years past the Royal Academy has enquired into the possibility of obtaining an exhibition of Indian art from India itself, but has been informed that there are at present no signs of any public enthusiasm in India for such a project and, therefore, no grounds upon which official support could be expected. No single exhibition could ever adequately represent the vast achievements of Indian art; but it is hoped that in time conditions may exist in which it will be possible for the various authorities in India to co-operate in a scheme which would be rich in information and interest for the western world.

Nor could any single exhibition adequately represent the art of Greater India as seen in the various countries covered by the present scheme. But it is believed that the museums and private collections of those European Powers most closely connected with the regions of Indian influence can furnish an exhibition of surprising interest and value, which would serve as a prelude to an exhibition of Indian art, drawn mainly from collections in Asia, to be held when more settled conditions give a reasonable prospect of successful organization.

The Royal Academy and the committee are convinced that the exhibition will be of a range and quality that will make it an inspiring revelation of the varied forms of art whereby the Indian genius has manifested itself in many different countries and communities. They are confident that it will create a keen desire in the public mind for a further representation of the art of India at some future time.

A.A.S.T.A. AND MILITIA MEMBERS

At the June meeting of the Council of the Association it was resolved to remit the subscription of members while serving their period of training under the Military Training Act.

It will be remembered that the Council opposed the introduction of conscription for a number of reasons, including the removal at the time of architects from the schedule of reserved occupations, the inadequacy of official air-raid precautions measures and the failure to make proper use of the services of architects in this connection, and the possible curtailment of the democratic rights of trade unions.

But conscription, with important safeguards, has now become a part of British law and the Council of the Association accepts it. It proposes no further action than that the Association should exercise its vigilance as a professional body to see that the best use is made of the abilities of its members, and to protect the interests of its junior members who are, or will be, most directly affected.

The Council believes that all members of the Association are anxious to defend our democracy to the best of their ability, and they must be supported in this desire. The young men of the militia must not feel that they are cut off from the profession, or that the Association has lost interest in them. By continuing their membership, without subscription; by sending them *Keystone*; by keeping open to them the activities and the benefits of membership, the Council will show that it sympathizes with the ideals which they are training to defend.

PORT GLASGOW PLANNING SCHEME

The Department of Health has approved a resolution by the Town Council of Port Glasgow for the planning of the whole burgh under the 1932 Town and Country Planning (Scotland) Act. This will enable the burgh not only to draw up a planning scheme to control the future development on the virgin fringe of its burgh, but also to prepare schemes for the planning and reconstruction work which will have to take place from time to time in the heart of the older parts of the town.

It will enable Port Glasgow burgh to collaborate with the County of Renfrew, which is preparing a planning scheme for the adjoining county area, and also to fit in its planning proposals with the neighbouring burgh of Greenock.

There has for some time been a suggestion that a new by-pass road should be designed to conduct traffic around Port Glasgow and Greenock, and this projected road, so far as it may lie within the burgh, will form part of the burgh's planning proposals.

The burghs of Port Glasgow, Greenock and Gourock have within recent years so developed that they have become joined to each other and now form a large town-like region of over 100,000 population. Planning, therefore, is very important if this region is to grow along properly preconceived lines and enjoy the advantages which are made possible under the Planning Act.

SLUM CLEARANCE AND REHOUSING

The most recent figures showing the position of slum clearance and rehousing are summarized below.

Clearance Areas and Orders.—During May local authorities declared areas comprising 1,336 houses representing the displacement of 6,854 persons, as compared with 2,421 houses and a displacement of 9,991 persons in April.

The Orders submitted during May covered 1,887 houses and the displacement of 9,913 persons, as compared with 4,655 houses and the displacement of 16,811 persons in April.

The Orders confirmed during May covered 1,944 houses and 7,392 persons, as compared with 2,984 houses and 10,973 persons in April.

The total number of houses in confirmed Orders since April 1, 1933, is now 241,031, involving the displacement of 1,003,083 persons.

The figures in the preceding paragraphs do not include houses which are the subject of individual demolition orders.

Rehousing Progress.—The latest available figures are those for April. At the end of that month there were 50,309 houses under construction, as compared with 51,221 at the end of March and 71,854 at the end of April, 1938. 5,480 houses were completed during April, as compared with 6,335 during March and 7,352 during April, 1938.

The majority of these houses are being provided for rehousing persons displaced in connection with slum clearance schemes.

New houses approved during May numbered 7,384, as compared with 3,617 in April and 7,014 in May of last year.

HOUSES FOR FARM WORKERS

The Ministry of Health is exhibiting a full-size farm worker's cottage at the Windsor Royal Show from July 4 to 8 next. This is the first time that the Ministry has been an exhibitor at an agricultural show.

The exhibition cottage has been designed by the Ministry's own architects to illustrate a cottage that can be provided at low cost and let at a rent within the means of agricultural workers with the aid of the new subsidy available to local authorities and, in suitable circumstances, to private landlords, under the Housing (Financial Provisions) Act, 1938. The Act is intended to meet the special difficulties in the way of providing accommodation of this kind.

The exhibition cottage is appropriately furnished and decorated and is surrounded by a

Two views of the new Prestatyn Holiday Camp, which was officially opened last week. The architect is Mr. William H. Hamlyn.

typical cottage garden. Representatives of the Ministry will be in attendance throughout the show to give detailed information about the provisions of the 1938 Act and other aspects of rural housing.

PRESTATYN HOLIDAY CAMP

On Thursday last Lord Stamp officially opened the new holiday camp at Prestatyn which has been built for the L.M.S. and Thomas Cook and Son from the designs of Mr. William H. Hamlyn. The camp was originally planned for 3,000 guests, and although the initial occupation will be nearer 2,000 people the essential services were designed for the ultimate usage with the minimum amount of alteration.

The site of the camp is situated on the north side of Victoria Road, slightly to the west of Prestatyn and about 2 miles from Rhyl.

This camp will be fully illustrated and described in our issue for July 13.

OBITUARY

The death took place on June 26 at 20 Abinger Road, Bedford Park, of Mr. John Brown Thorp, the model maker. He was 77 years of age. We are informed that the model part of the late Mr. Thorp's business is to be carried on by Mr. J. L. Thorp.

NEWS IN BRIEF

● The Rt. Hon. Lord Sempill will open the annual exhibition of work by students of the Architectural Association at 36 Bedford Square, W.C.1, on July 21 at 8.30 p.m.

● Mr. H. M. Jeffries, Chief Architectural Assistant in the Borough Engineer's Department of East Ham Council, has resigned consequent upon his appointment to the position of Deputy City Architect to Bristol Corporation. His resignation was accepted by the Council last week, and he will be released from service on July 2.

● The Glasgow Corporation agreed last week unanimously to proceed with amended plans for the construction of a bridge over the River Clyde at Finnieston. The recommendation of the Streets Committee, which was adopted, was that a revised scheme, as favoured by the Ministry of Transport, should be proceeded with. The scheme involves a change from the original cantilever design and substitutes a bridge of the tied arch type, similar to the Sydney Harbour Bridge. The approaches to the bridge as originally planned are to be retained.

● Bolton Civic Centre, comprising an extension to the Town Hall and a crescent of buildings in the rear, was opened last week by Lord Derby The estimated cost is £920,000.

Train Thoughts—Boston to New York

The clothes lines of New England, they flutter in the breeze,
Brave with the underclothes of Dad and Mother's old chemise ;
The stockings of the little ones are hung in holy pairs
Above the refuse dumps and grass that gird that home of theirs :
For Monday still is washing day, and in New England's air
The fruits of early morning work are to the world made bare.
The backyards of New England are proof of godly toil,
For cleanliness is next to that which blossoms in this soil ;
But though the clothes are clean and white and godliness is served,
Why should the rubbish of the years be carefully conserved ?
Why should the cans of yesterday invite to-morrow's rust,
And cars too old to take the road become dishonoured dust ?
Well, Hail Columbia ! You are free to make what mess you choose,
But, oh ! if you could only cure
New England Backyard Blues !

JOHN GLOAG

LETTERS

W. W. FISHER
J. C. TICKLE
ROBERT HURD
A. C. MANUEL

John Peel Memorial

SIR,—In your issue for June 8 you publish what purports to be a sketch of the Memorial to John Peel. This design was one submitted originally and abandoned.

Another architect has now designed a beautiful balanced building which is being built of local stone with Westmorland slate roof and ridge and which has been approved by the Cumberland Panel of Architects.

Work on the building is now actually in hand.

W. W. FISHER
(Chairman, John Peel
Oldham. Memorial Committee).

The Rating System

SIR,—Most people will agree that the present rating system is not perfect, but I am convinced that if the land taxers had their way, we should get many more anomalies and injustices than we do now. Let us take a few simple examples of what would happen if rates were levied on land alone instead of on the combined letting value of land and buildings as at present.

I happen to live in a road with 50 ft. building plots; most of the houses have been specially built for clients at a cost of £800 to £1,500 each. If land alone were rated, I suppose everyone would pay the same rates. This seems unfair, as it's reasonably certain that the larger

houses are occupied by people with larger incomes. Again, one or two people, wishing for big gardens, have taken two plots, so in these cases they would have to pay double rates. Actually, then, taxation of land values means you are taxed on the size of the garden instead of mainly on the size of the house.

What is the value of land? Is it the unimproved value or the value including improvement? I think the late Lord Snowden took the latter view.

When this road was constructed in 1925 the land would be worth about £200 per acre, or, say £50 for ¼-acre plot with 50 ft. frontage. The cost of road and sewers would be about £75—total £125 per plot, but this is not all. A land developer must maintain a selling organization, and as it will probably take at least ten years before all the plots are sold, the factor of compound interest has to be taken into consideration. The retail price must be about double the first cost. Are rates to be levied on £50, £125, or £250, which was about the final selling price?

Now a word about the rating of land that has a building value but is not built upon. We all know that outside any town there is agricultural land that *may* be building land in 10, 20 or 30 years' time, providing the population increases and the town grows. The agricultural value may be £25 an acre, but having regard to possible building value, it may be valued and taxed at double this figure. Who is to pay the tax? The owner may be a farmer or impoverished landowner. And in any case, how can anyone be taxed on profits, that may not materialise until after they are dead? Land does not always increase in value. In depressed areas it decreases, and who can say which area will be depressed or prosperous in 10 or 20 years' time?

If empty buildings (or rather the site of ditto) were rated, it would be as unfair as it would be to tax an unused car. If this tax were levied, building would stop, until such times as increased rents were obtainable, so that a fund might be formed to pay rates on empties. To put it another way, anything that increases costs will ultimately increase rents.

Letchworth. J. C. TICKLE

Princes Street

SIR,—In a recent issue you reported part of an address by Mr. W. Ross Young, M.T.P.I., of the Scottish Department of Health, in which he makes the astonishing statement that "Princes Street needs no flags to make it more beautiful. It is unique, complete and uplifting."

Edinburgh has the reputation (outside Edinburgh—and not only in Glasgow) of being complacent. This remark, I suggest, is a perfect example of what we politely call "blethers," calculated to induce an entirely false sense of values.

Princes Street has a magnificent situation. The buildings which make the street, however, are for the most part commonplace, ill-proportioned and (in one or two cases) downright vulgar. Further, they bear no relation one to another apart from the frontage line of the shops, and this scene of chaos and competition is yearly becoming more and more unsightly as multiple stores from the English Midlands entrench themselves.

One can only be thankful that there is such a magnificent spectacle as the castle and such an alluring smell from the wallflowers in the gardens to draw one's attention from the commercial parade on its North side.

Edinburgh. ROBERT HURD

Competitions

SIR,—A point about the competition system which I have not yet seen brought up is whether the various works which have been carried out under this system have proved satisfactory in use. Cannot it be arranged for brief reports to be made setting forth any major criticisms which might have been made by responsible people intimately connected with the buildings after they have been brought into use?

For instance, are there any improvements to be made on the Worthing Municipal Offices, on which several subsequent designs have been based, and which could have incorporated any remedial measures found advisable. Has Bexhill Pavilion been found completely satisfactory in use?

The above occurred to me when I noticed recently that very few of the houses erected some years ago in the Gidea Park Competition seem to have found purchasers. Some are let only, and there are some which do not seem ever to have been occupied at all. This competition, if I remember rightly, was supposed to give to architects a chance to show the people what the profession could accomplish for the average, but, presumably, discerning purchaser. What the profession seems to have provided, however, in a great many of these particular houses, is just what the prospective purchaser does not want—high maintenance expenses (witness the distempered concrete walls and the drooping unbraced gates), large areas of unwindowed brickwork on main elevations, and unsatisfactory plans.

Please can someone "in the know" let us have a report on Gidea Park in the interests of contemporary small house design and the competition system?

London. A. C. MANUEL

IN PARLIAMENT

SIR Ralph Glyn asked the First Commissioner of Works whether the Royal United Service Institution had accepted the proposals made by the Government in regard to the property in Whitehall at present under lease to them; and, if not, what steps he was taking to reach agreement as to terms, it being recognized that the members of the institution, with few exceptions, were anxious to conform to the scheme provided their interests were safeguarded, in view of the position of the institute as trustee for many interesting relics, etc.; if he could now state how far the negotiations had proceeded for the transfer to his department's charge of the banqueting hall in Whitehall, now on lease to the Royal United Service Institution as a museum; and if arrangements had been made to provide in the building to occupy the Montague House and Whitehall Gardens site suitable alternative accommodation, thus taking advantage of the present opportunity of restoring for public use a building of exceptional merit.

Mr. Ramsbotham said that the possibility of obtaining the use of the Banqueting House, Whitehall, and the adjacent property for Government purposes had certainly been under consideration in the past, but no concrete scheme had yet been prepared and no negotiations had taken place with the Royal United Service Institution, or were at the moment in prospect, as to the terms upon which they might give up possession of the premises in question. It would not be possible to accommodate the institution in the new building to occupy the Whitehall Gardens site as it would be wholly required for Government staffs.

Mr. D. Adams asked the Minister of Health what progress was being made towards securing a smokeless atmosphere, particularly in connection with new housing blocks, municipal housing schemes, and private building estates.

Mr. Elliot said that the hon. member would appreciate that a quantitative assessment of the progress made was impracticable, but research, propaganda and the co-operation of local authorities and other organizations are continually being directed to secure the hon. member's object. As regarded the latter part of the question, smokeless methods of cooking and heating were being adopted to an increasing extent in new houses provided, whether by local authorities or private enterprise.

Mr. D. Adams asked the Minister of Health how many local authorities in England and Wales had made application for the Exchequer contribution of £6 10s. per annum for 40 years available in special cases for the provision of working-class houses under Section 1 (3) and (4) of the Housing (Financial Provisions) Act, 1938; what was the total number of houses involved in the applications; and how the applications had been disposed of by him.

Mr. Elliot said that applications for the Exchequer contribution referred to had so far been received from twenty-eight local authorities. The number of houses concerned had not been stated in all cases, but specific applications had been received in respect of about seven hundred houses. Seven of the applications had been rejected as they did not satisfy the conditions laid down. The remainder were still under active consideration by his Department, and he hoped to be able to inform the local authorities of his decisions at an early date.

Sir R. Glyn asked the Minister of Health whether he would consider the difficulties that arose in the case of a well-built building, sometimes of artistic merit, which had been the subject of a clearance order, as distinct from a demolition order, passed by the inspector and approved by the Minister, when, subsequently, it had been found that the building could be put to good use for other purposes but it was impossible to raise money to demolish and then rebuild a structure not required as a dwelling; and if he would take powers to reconsider cases which the local authority and owner submit to the Ministry for the reconstruction of the place after the clearance order had been issued.

Mr. Elliot said that the existing law afforded to the owner of property included in a clearance order full opportunity for the making of representations that the property should be excluded from the order, and he gave careful consideration to such representations including any proposals submitted for reconditioning before arriving at his decision on the order. Special provision for the protection of buildings of artistic interest was contained in section 142 of the Housing Act, 1936. In the circumstances he was not satisfied of the need for the introduction of the amending legislation which the suggestion of his hon. friend would involve.

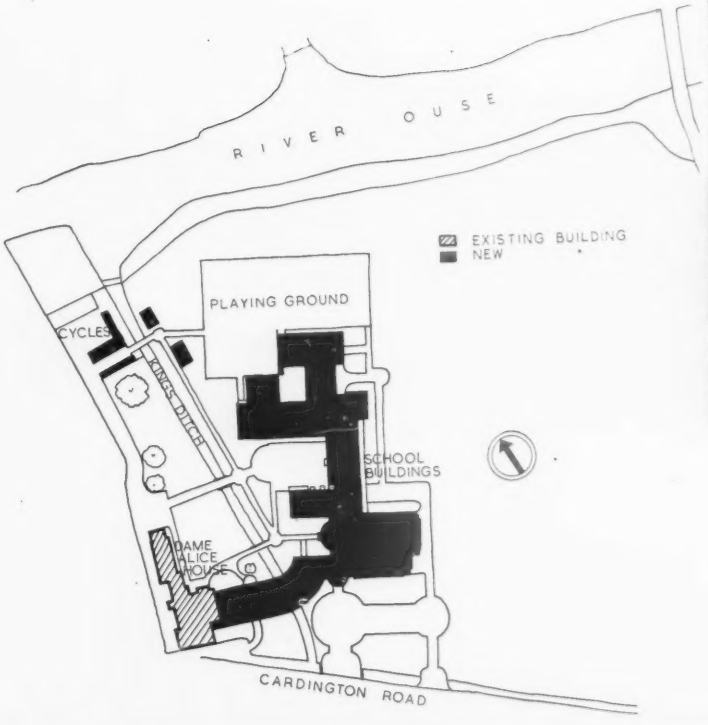
BEDFORD MODERN SCHOOL

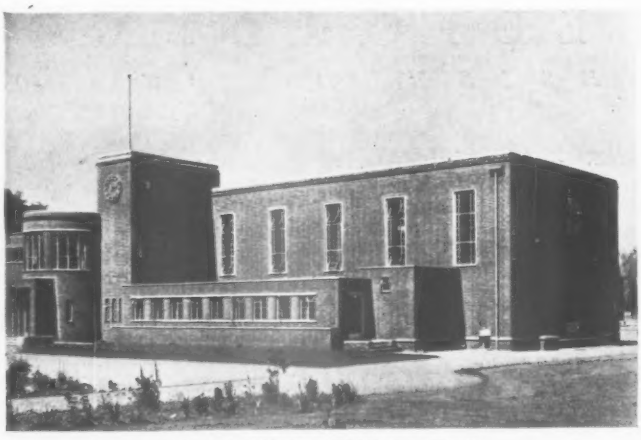
DESIGNED BY OSWALD P. MILNE

GENERAL—*A secondary day school to accommodate 360 girls and to provide for a possible future extension was required by the clients—the Harpur Trust at Bedford. A curved corridor, one storey high, containing cloakrooms, etc., connects the new buildings with an existing house, which will be utilized for a school dining-room, needlework and gymnasium changing-rooms, the entire scheme being planned to obtain a maximum of space for playing-fields.*

SITE—*Bounded on the northern side by the River Ouse, the new buildings were placed on an angular site to the east of a stream, known as "The King's Ditch," which runs obliquely through the site to join the river.*

THE WEST ENTRANCE.





THE ASSEMBLY HALL FROM THE SOUTH.

CONSTRUCTION AND EXTERNAL FINISHES — *External walls and internal partitions are solid brickwork. The floors and flat roofs are of hollow-tiles and concrete finished with a three-ply bituminous covering.*

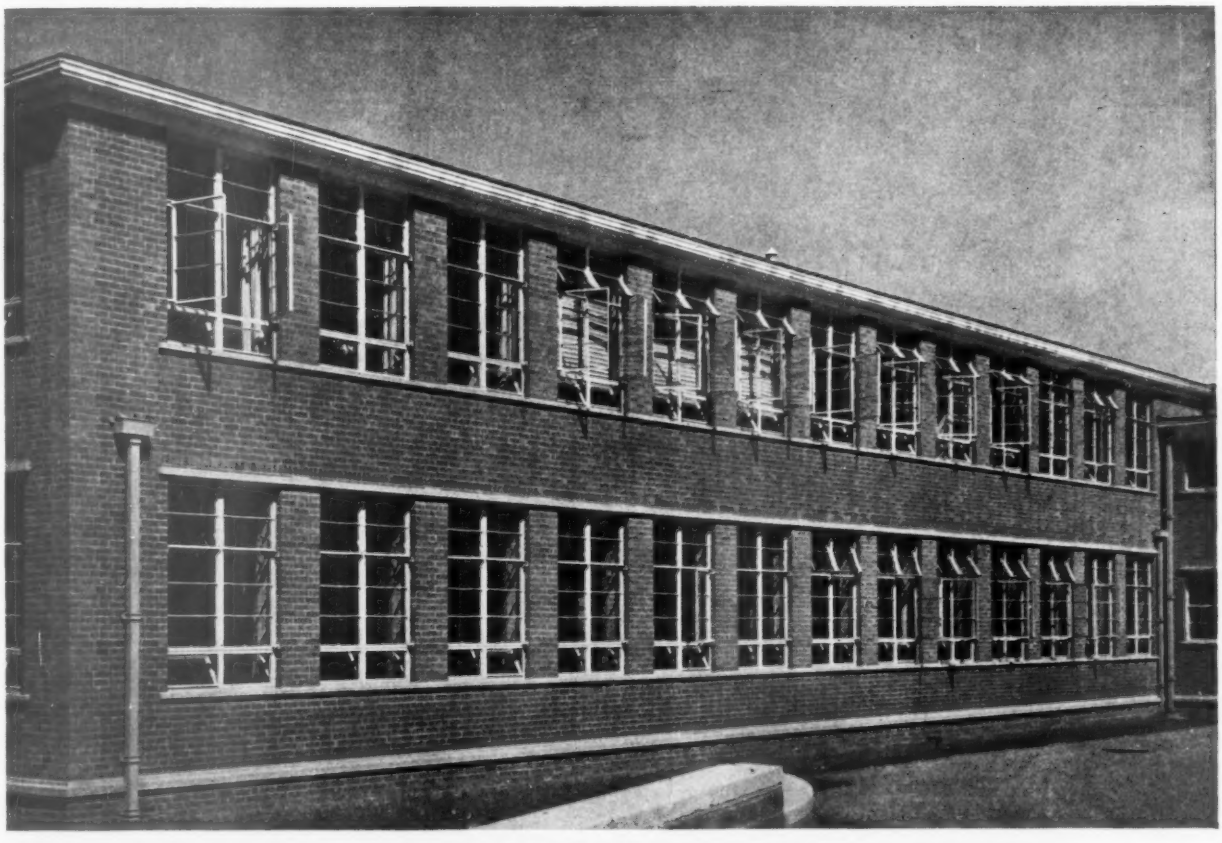
All external work is faced with local hand-made bricks of various colours, flush-pointed with lime-mortar. Occasional stone dressings are used, and the window frames are of steel.

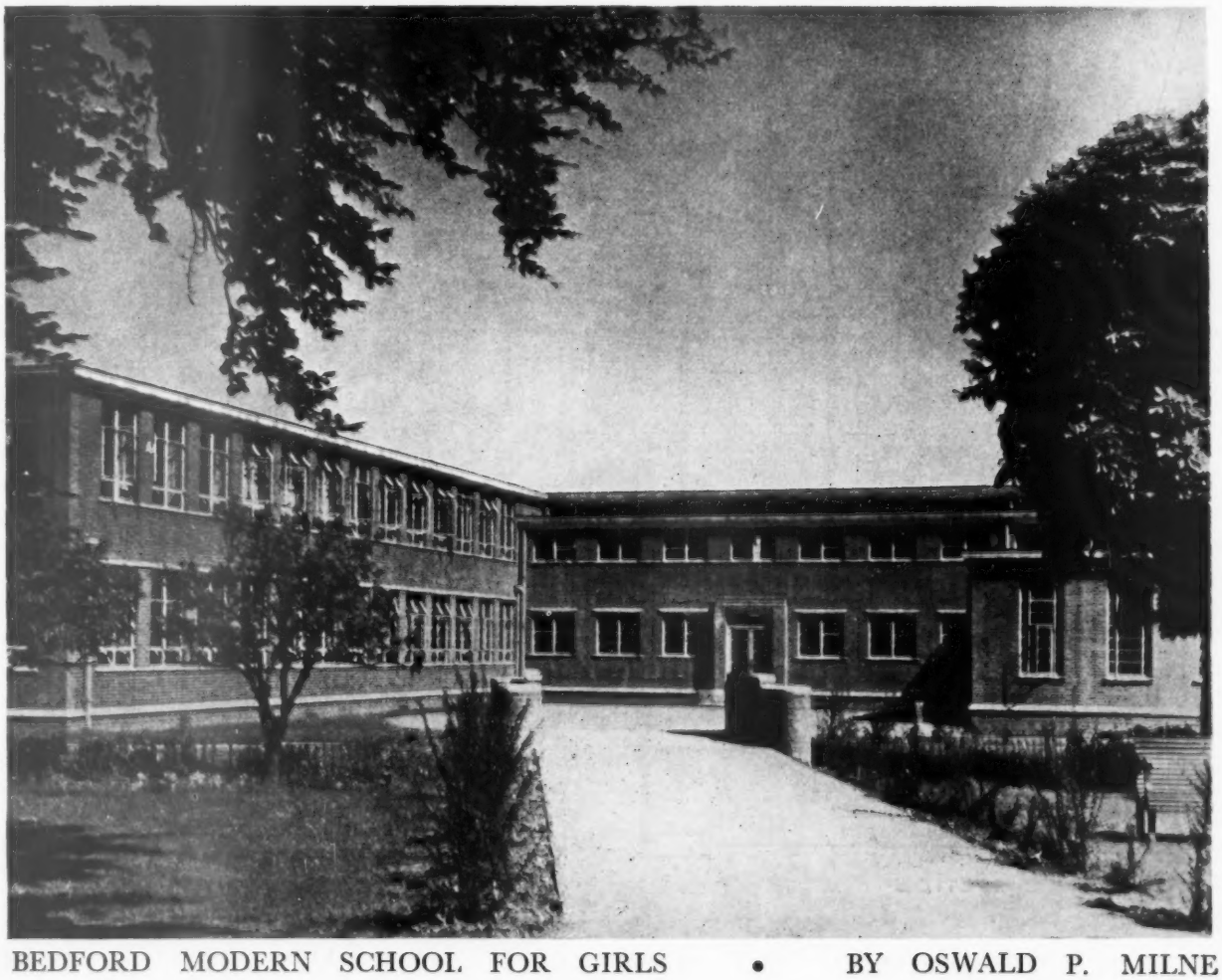
INTERNAL FINISHES—*All walls to corridors and classrooms are finished with sand-lime bricks, while the administrative offices, hall and library are plastered, and have oak-panelled dados. Floors to corridors and stairs are finished with pale yellow terrazzo, while at the foot of the main staircase an interesting compass motive is introduced in mosaic and colours. Class-rooms are floored with beech-blocks, and the hall and library with beech strips.*

Decorative maps of Bedford in medieval times and of John Bunyan's Bedford, painted by one of the mistresses, are placed on the walls of the upper corridor.

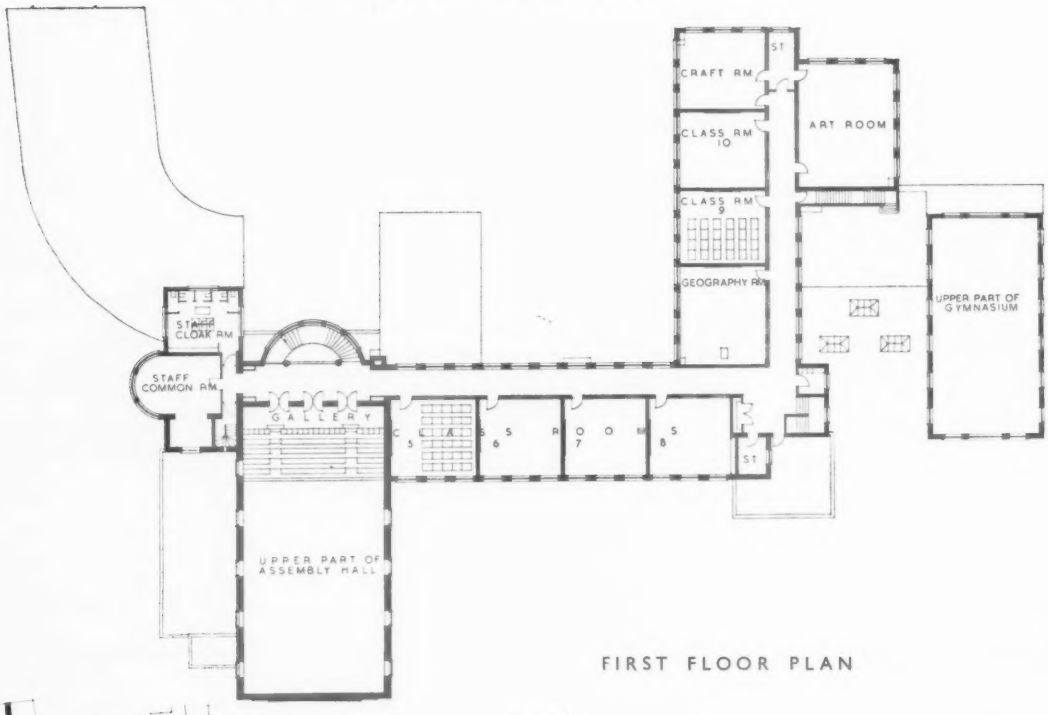
LEFT, THE MAIN ENTRANCE. FACING PAGE: TOP, LABORATORY BLOCK; BOTTOM, VIEW FROM WEST SHOWING ENTRANCE TO CLASSROOMS.

BEDFORD MODERN SCHOOL FOR GIRLS • BY OSWALD P. MILNE

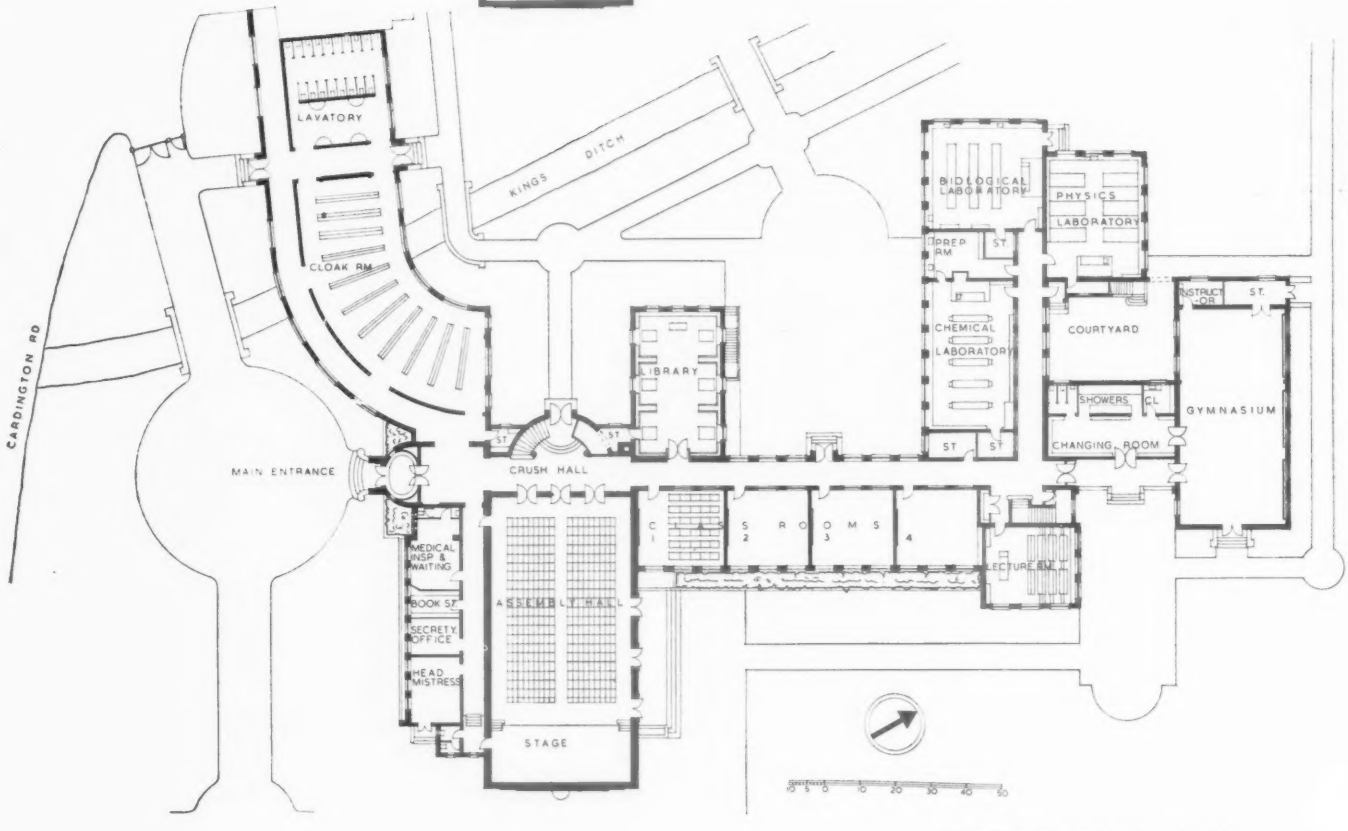




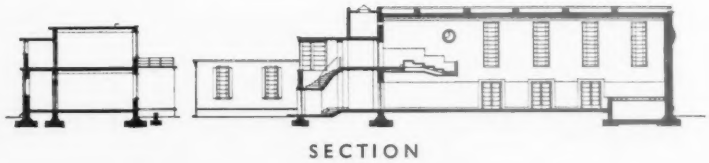
BEDFORD MODERN SCHOOL FOR GIRLS • BY OSWALD P. MILNE



FIRST FLOOR PLAN



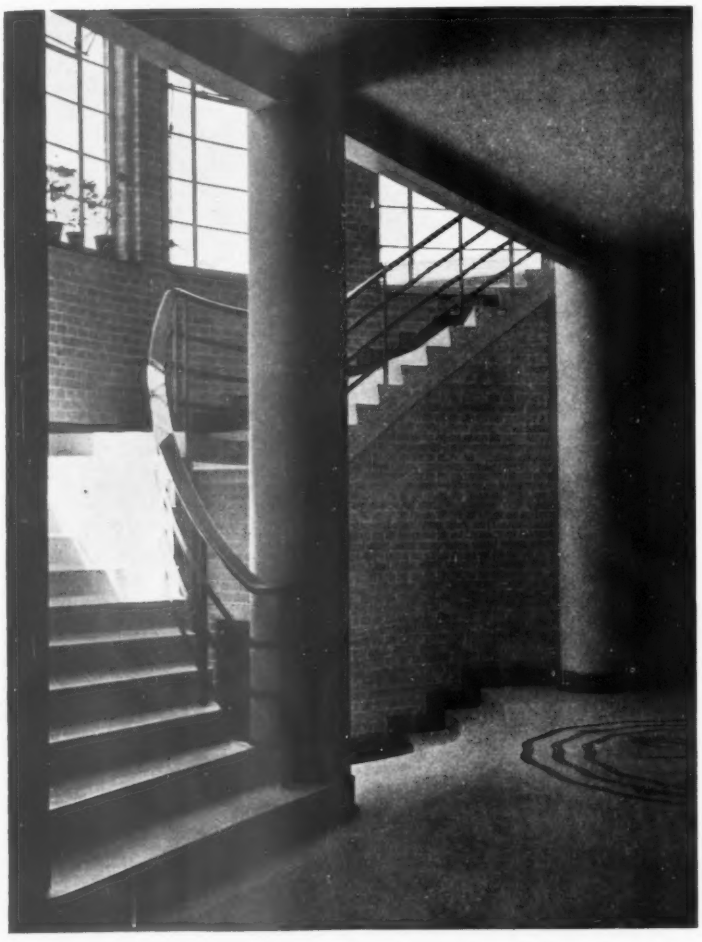
GROUND FLOOR PLAN

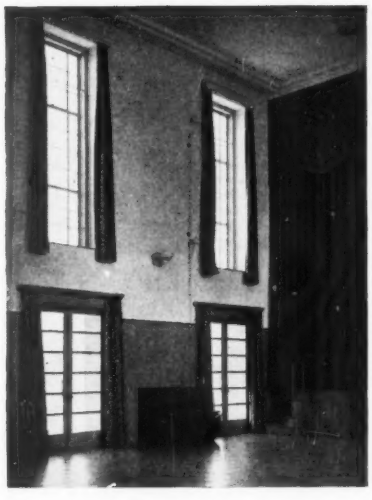


SECTION

PLAN—*The hall and administration offices are placed near the main entrance, while the classrooms, grouped on two floors near the hall, have a south-eastern aspect. Car and cycle sheds are provided behind the existing Dame Alice House.*

BEDFORD MODERN SCHOOL FOR GIRLS • BY





ABOVE, THE MAIN STAIRCASE ; RIGHT, ASSEMBLY HALL.

SERVICES — *Heating and hot water is by means of radiators and automatically controlled coke boilers, which are housed in a heating chamber under the main corridor.*

COST—*The contract price was approximately £43,000.*

The general contractor for the job was Samuel Foster. *For list of sub-contractors—see page 1131.*

OSWALD P. MILNE

R.I.B.A.

On this and the following three pages we publish extracts from the inaugural address by Mr. H. S. Goodhart-Rendel and the papers read by Messrs. J. J. Robinson and C. H. Aslin, and a report of the speeches made at the annual banquet.

INAUGURAL ADDRESS

By H. S. Goodhart-Rendel

Even if peace should be unbroken between nations I think it will be a long time before architects are allowed to enjoy any comfortable degree of quietness. However much we discount, and rightly discount, the exaggerations of those who speak of a social system in the melting pot, we are bound to admit that many cool certainties of the nineteenth century have lately become rather hot and sticky. Whether these certainties melt to evaporation or set again in a new form, it seems undeniable that the architect's function and scope are changing from what for some time they have been, and are unlikely ever to change back again. The requirements of life are becoming so complicated that more and more often an employer cannot tell an architect what to provide, but has to be told by his architect what ought to be provided. The architect is expected to plan not only houses or offices, but also to some extent the life that is to be lived or the work that is to be done in them.

The future welfare of our profession seems to me to depend very much upon how we interpret and define these new responsibilities.

At the present stage of western civilization the number of people who know how to think is small ; the many prefer to feel things strongly and to have their feelings led and supported by the thinking of the few. Furthermore, among those who claim to be thinkers a heated political atmosphere increases the human tendency to let thinking be twisted by moods and appetites. Probably never has the blessed quality of judiciousness been at a greater discount. The air of the market is rent with cries as poignant and as rationally incommunicative as the cries heard at the Zoo.

Architects cannot retire from this mêlée on to the mountains of calm thought. Yet thought is their proper responsibility and implement. The days are nearly over of the romantic architect waiting upon inspiration for an intermittent supply of whimsical fancies, and our students are now likely to be in closer touch with schools of economics than with schools of art handicraft. Planning, which is our new pet name for organization, is becoming accepted as one of the architect's cardinal functions, and the youngest architects naturally chafe at being set to plan anything smaller than the world.

Now the world has an ineradicable obstinacy in wishing to plan itself ; and until the day when it is composed entirely of architects I doubt if it will resign itself entirely to architectural direction. We must make full use of our widened and ever-widening opportunities, but we must not assume opportunities where they do not and cannot exist. We must never forget that our advice is properly directed to how ends should be met rather than to what the ends met should be. No doubt as part of the world we serve we have opinions as to its right guidance, but if we give those opinions unsought we are likely to be told quite reasonably that in such matters the recommendations of political experts will be preferred to ours. Nothing could be more disastrous to our

profession than for it to become known as a profession of busybodies.

This danger may not seem very real at first sight, since most of the obvious social propaganda attempted by means of architecture is plainly marked for what it is. It is plainly the work of eager and inexperienced men, for which nobody would regard the profession as generally responsible. Unfortunately, however, there is a tendency to propaganda lying deeper than this, which is often promoted by architects who themselves are guiltless of ambitions outside

Mr. De Valera and Mr. J. J. Robinson, President, R.I.A.I.

their proper province. An increasing amount of building is provided every year for the classes that are considered to be still too ignorant to be consulted as to what they shall live in and work in and play in. The local authority decides what is good for them, and they have to make the best of it.

I dare say that this is inevitable: I note the fact with regret without committing myself to any protest. Social improvement has never been achieved yet without some invasion of liberty, and the comparative valuation of games and candles is a matter for which I profess no especial competence. What I do regret, what I should protest against if any protest were likely to be effectual, is the divorce these conditions imply between the architect who plans and the people for whom his planning is ultimately done.

Here, I think, there lies both a pitfall and a great opportunity for the architect. The pitfall is that of thinking no further than he need think in order to earn his fees, of furnishing so many yards of approved housing whenever it is required from him. Or of approved anything else—it is not only housing that tends nowadays to become stereotyped. The opportunity lies in his power as an artist of being more human than his masters, of refusing to be a party to the levelling policy which aims at fitting men to measures rather than measures to men.

I am not denying that in many kinds of buildings standardization of design would be desirable. Things that supply universal and unvarying wants may be best and most cheaply made by the thousand to a universal and unvarying pattern. They will be made by machinery and in the future will probably be designed by machinery also. There is nothing tendentious in this, it is merely a rational application of means to ends. The levellers, however, go much further. "For what we supply," they say, "a want can be created by appropriate educational means: we will do what seems good in our eyes and then alter other people's eyes until it seems good to them also."

Architects as citizens may approve or disapprove this policy, and, if as architects it is no business of theirs to promote it, it must equally as architects be no business of theirs to oppose it. As architects, however, they must supply good architecture, and all good architecture is rooted deep in real rather than in ideal requirements, is made to the measure of something that already exists. Ready-made buildings must not be produced by ready-made thought; however general the instructions given to him the architect in interpreting them must supply an adaptation to particular conditions that his employers have probably been too busy to observe. Many public bodies employ human designers only because the robot designer has not yet been perfected. The human designer, the architect, must take care always to do what no robot could ever compass, and must teach his masters its value.

Before I let that ill-omened word *political* retire finally from this speech I must use it to describe another danger, this time not so much to architecture as to architectural societies. Until recently an architectural society has been regarded both from within and from without as a group of like-minded people associated together in pursuit of objects that all had in common. Persons who wished to pursue objects as to which the society as a whole could not be in agreement were considered both by the society and themselves to be better outside. But now things are not so simple. For various reasons the societies need all the members they can get, provided those members are honourable and accomplished in their profession. The necessary protection of that profession, also, has made it somewhat disadvantageous for its practitioners to remain what is called "unattached." New members, therefore, whose agreement with a society's policy may be only partial, have to be allowed to come and bring their hatchets on the strict understanding that those hatchets are buried beneath the council table. There the hatchets generally remain to the credit of all concerned, but in an imperfect world it is obvious that occasionally they will be scratched up and brandished. A combat follows which probably everybody rather enjoys, a

Messrs. Charles Soutar (facing camera) and (right) J. Griffith.

compromise is reached, and the work of the society is resumed after the interruption.

In parliaments and in some of the councils of local government the procedure is inevitably different from this. In those bodies each member is provided with a hatchet by those whom he represents and is given strict instructions never to let it out of his hands. It is not for him to listen to arguments with an open mind, it is for him to gloss over flaws in some, and to pounce upon flaws in others, as the agreed policy of his party may dictate. His approval of that policy in general is no doubt sincere, in particular matters it is not sincerity that is asked of him but obedience.

I am quite prepared to believe that experience has proved this cancelling out of rival interests, presented by delegates, to be the best way yet discovered of governing a country. I do not think it is a good way of governing a profession. Whether I and others think it a good way or not can probably have little effect upon events, which will be shaped by larger and blinder forces than personal opinions. I would, however, ask those who are pressing for the sectional representation of the architectural profession upon the Institute Council to ponder very seriously the questions following. Would a point of view acknowledged as that of a party ever receive the dispassionate consideration that the same point of view would meet with if presented by an individual? Would not organization for the redress of grievances, imaginary or real, produce a counter organization of resistance that might lead to almost continual deadlock? Would an institute hampered with all the machinery that party strife necessitates, with a division lobby, perhaps, and whips—would that institute ever get through any business? The Institute, with all its faults, now gets through quite a lot. Parliaments, as we know, get through very little indeed, except when they are thoroughly frightened. I sincerely hope the Institute is not going to remodel itself on the pattern of those most inferior and relatively ineffective assemblies. It began in a room above the "Cave of Harmony" in Covent Garden. I pray that it may never end in being itself a Cave of Discord.

And now good-bye to the word *political*, since I will not allow that it applies to what I next have to say. The upholding of a high professional standard both in conduct and in proficiency is the prime duty of our societies, and it is to our success in doing this that we owe the passing of the Architects' Registration Act. If architects had not proved generally worthy of public confidence they would not have been legally distinguished from imposters as that Act intends that they should be.

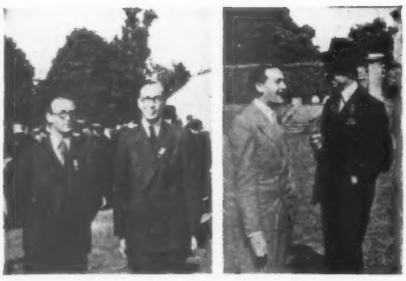
How can we ensure that this intention is carried out? Only by maintaining that high professional standard without any abatement whatever. Why should it be abated? Why, indeed! But unless we take care it may be. I am not speaking now of conduct, since I will not suppose that anybody could wish to lower the standard of that. I am speaking of proficiency, the standard of which would certainly fall if any qualifying examinations less rigorous than ours were to be accepted by the registration authorities. Unfortunately not everybody seems to see eye to eye with us in this matter, and we cannot count upon any external aid in our defence of the present standard. The Institute and its Allied Societies alone must hold the fort, and must man it as numerously as possible. In short, this issue, like many others that occur from time to time, forces upon us the obligation of comprehensiveness; circumstances have made us the guardians of our profession, and those we protect we must whenever possible enrol so that they can help to give the help they themselves require. We were very few in our first cave, we are now a mighty army, perpetually recruiting our strength. We have great causes now to fight for, and in our desire to be worthy of those causes we are all completely united.

THE R.I.A.I.

By J. J. Robinson

I have wondered how I should address you, and I think that perhaps a few words on the earlier years of our foundation might not be amiss. They were essentially years of transition. Victoria was not long on the throne, and the symptoms of the golden era of her reign were already beginning to manifest themselves.

The great railway building boom was in full swing, and new railway flotations and speculation in their shares were the order of the day. Consols stood at 95, and the Napoleonic wars had receded 25 years into the past, just as to-day, in point of time, we stand in almost identical position in regard to the Great War. The development of steam power had started a great industrial age, which was to transform



From left to right: Messrs. E. Buckley, M. J. McDermott, Michael Scott and W. J. Buchan.

the face of the countryside and make England richer and more powerful. In architecture, the Georgian age was over, and neo-Greek was yielding to neo-mediævalism.

The first meeting of the Institute was held at No. 10 Upper Gloucester Street, on October 1, 1839. On that occasion, Sir Richard Morrison addressed the meeting. He emphasised the benefits to be derived from association to the persons meeting together with a common interest and a common purpose, namely, to advance our profession by improving its study and vindicating its rights. The Institute was to be a centre of union and communication, where a friendly intercourse shall be kept up amongst its members, its object being to incorporate every individual in the country whose station and professional acquirements entitle him to be recognized as an architect. He stated that a most rigid discrimination in the selection

From left to right: One of the City Aldermen, the Lord Mayor of Dublin (Alfred T. Byrne), Messrs. J. O'Hanlon Hughes and T. P. Kennedy.

of members must be exercised, as there were numerous pretenders, by whose ignorance and presumption discredit had been in too many instances cast on our profession.

Subsequently, at a meeting held on October 8, 1839, Lord Fitzgerald and Vesci took the chair, and Sir Richard Morrison again addressed the meeting. On this occasion he said that our profession was not properly estimated in this country, because, from peculiar circumstances, it was not properly understood. "When its true character is made known, it must be valued; and to accomplish this object we feel no doubt will most depend upon ourselves." Public opinion was to be directed to our claims; the educated classes taught to consider our pretensions, and to feel that it was discreditable to their intelligence and to their station if they exhibited ignorance of our important duties by confounding the instructed professors of our art with grossly ignorant pretenders. His lordship was pleased to reply, giving a very luminous and most eloquent view of the importance of the science of architecture, its effects in civilising nations and contributing to their happiness and prosperity. He expressed a favourable opinion of the success of the Institute, and his desire to promote its interests and objects by his most earnest countenance and support.

From 1839 to January 1, 1842, our records are blank. That the work of the Institute went on there is no doubt, because reference is made to temporary minute books covering this period, which appear to have been lost.

Lord Fitzgerald and Vesci died in 1843, and subsequently until 1863 Lord Powerscourt and other noblemen became titular Presidents. It is not recorded that any one of them, with the exception of Lord Fitzgerald, ever attended a meeting of the Institute, and beyond graciously accepting, in flowery correspondence, the office of President, they appear to have done nothing more.

There is no note in the minutes of the demise of any of them, except that of Lord Fitzgerald and Vesci, and no notes of sympathy or condolence appear.

I have faithfully read the minutes of every meeting for the first thirty years of our existence, and it clearly emerges that the affairs of the Institute were always carried on by the faithful few, whose attendances were regular, and who gave much of their time and ability to the management of the affairs of the profession.

I may mention that the title "Royal Institute of the Architects of Ireland" is used from the very first meeting, though there is no record of any permission to use this title. That it must have been authorized in some manner is inferred from the fact that communications were frequently sent from the Institute to various Lord-Lieutenants, who, one feels sure, would have challenged the use of the word "Royal" had it not been authorized.

Mr. and Mrs. T. F. Inglis and friend (left).

THE WORK, DUTIES AND RESPONSIBILITIES OF THE OFFICIAL ARCHITECT

By C. H. Aslin

The official architect has of recent years been looked upon as something new, and perhaps strange, merely because he is in his present form a product of the age in which we live. In the last century, marked by individualism in trade and other enterprise, he would have been an anachronism. Today, in a world of government control and social services, of municipal enterprise and great combines, the official architect has grown naturally into this new shape of controlled undertakings so different from the individualistic world of the nineteenth century.

Though, as I have said, the idea is not new, it seems necessary to define the official architect, because in the past few years since we became conscious of him he has appeared to be, in some quarters, a person with a completely differing outlook and in a category apart from his brother practitioners. This seems to me an entirely erroneous conception, because in the actual purpose of his work, his ultimate aim and ideals, he in no sense differs either from the present-day practitioner or the long line of architects of the past. His professional training is precisely the same as any other member of the profession, and until he becomes qualified he is probably completely unaware of the inclinations and opportunities which will shape his career. When he becomes the servant of a local authority or Government department, his attitude to the great art of which he is a practitioner, and his attachment to the profession, differ in nothing from that of the private practitioner.

If he does not differ in his training and his general outlook, in what then does his work differ from that of others? I suggest that there can be only two possible differences. The first and obvious one is his method of payment, which is by way of salary instead of being remunerated by a commission on the cost of work which he carries out, and the second is that his method of employment may cause him to develop an outlook which ultimately affects the buildings he designs.

The official architect receives a salary for which he is expected by his employers to carry out a continuity of work of considerable variety and apparently ever-increasing volume. On the other hand, a private practitioner must build up a practice and depend for his livelihood on a variety of work from individual clients, for which he receives payment by way of a percentage on the cost. In the one case the work is forthcoming without effort on the part of the architect, and, in the other, considerable enterprise and business ability is needed to obtain it.

The profession of architecture on behalf of a corporate body has obviously many problems and difficulties. The first and most obvious, at least to the profession, is the practice—which I regret to say is prevalent in many quarters—of entrusting architectural problems to the care of a surveyor or engineer, who in turn employs architects to carry out work in his name. This method has no doubt been adopted on account of the reluctance to start up a new office through fear of additional costs, aided by the tenacity of some local government officials who are able to persuade their councils of their capability of carrying out work for which they have no training. Only constant efforts on the part of the leaders of the profession can remedy this condition. Councils cannot be driven, but I am satisfied that, when they awaken to a correct course, they are not slow to pursue it.

It is difficult to say what volume of work is carried out by official architects, but in the provinces it certainly exceeds that executed by private practitioners, and it is not an exaggeration to say that in some towns not less than 75 per cent. of the important works are carried out by the local authority. This means, of course, that the official architect is leaving his mark very strongly on local work, and his responsibility to the community is correspondingly very high. Some localities may have the unfortunate experience of awakening some day to the fact that their town has been covered by spots of mediocrity, but I suggest that, generally speaking, this is not happening; that as one goes about the country it is frequently the building carried out by the Office of Works or the local authority which is noticeable by possessing a quality superior to that of its neighbours.

I have said very little under the precise heads of this paper, but I now propose to do so, and take the word "Work" to mean the kind of work which is carried out; "Duties" the way in which it is carried out; and "Responsibility" the chief overriding duty which every architect owes to his client, his profession and to posterity.

The kind of work varies, of course, with the locality and type of authority, and, as I happen to have been engaged during the greater part of my career with the work of a county borough,

I propose to deal very shortly with the matter from that angle.

In a normal county borough the architect designs buildings for education purposes, including open-air schools, nursery schools, infants', juniors', senior and secondary schools, and this part of the work probably accounts for at least 50 per cent. of his output. The medical services provide a large quantity of work, including general, mental, T.B., and infectious diseases hospitals, and of recent years medical clinics for maternity and child welfare services.

Housing may also prove to be a considerable undertaking, and I think it can be said without doubt that a valuable contribution to the welfare of the population has been made by those architects of local authorities who have designed municipal houses not only fit to live in, on decently planned estates, but at a price which the less fortunate of our citizens can afford to pay.

The remaining services in a borough provide a large quantity of work, and these include market undertakings, transport services, public assistance buildings, electricity undertakings, including stations and showrooms, and also police buildings and courts, and other municipal buildings not covered by any of these heads.

It is sometimes suggested that this is too large a variety of work to be carried out by one architect. I maintain, however, that this is not so, and if the office is run in the way I have outlined, and for the larger works consultants in those spheres generally outside the designer's province are employed, there appears to be no reason why the variety of work should form a stumbling-block. There seems to me to be more danger of an architect carrying out stereotyped and uninteresting work if he is employed solely on one type of building than if he is undertaking a large variety of designs at the same time.

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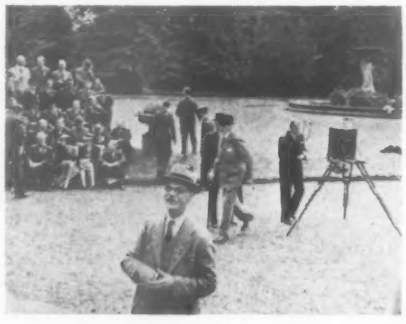
BANQUET

The speakers at the banquet were: Mr. Hubert Lidbetter, F.R.I.B.A.; Mr. T. Derrig, Minister for Education; Mr. H. S. Goodhart-Rendel, P.R.I.B.A.; Mr. J. J. Robinson, P.R.I.A.I.; Mr. Vincent Kelly, F.R.I.B.A.; Mr. C. G. Soutar, F.R.I.B.A.; and the Lord Mayor of Dublin.

Mr. T. Derrig congratulated the Institute on reaching its centenary and extended a welcome to the visitors from Great Britain. He hoped that the R.I.A.I. would continue to prosper in the future and do magnificent work, such as it had been doing for the people of this country. The members had been forming public opinion in matters of architecture and helping to develop standards of taste. They had given valuable assistance in town planning as a result of which the countryside should be made more beautiful, the capital city improved, and that they would get rid of some of the atrocities which had disfigured the landscape.

Mr. H. S. Goodhart-Rendel said that this was an historic occasion and they had come from England to do honour to the Irish Institute. The work of their first century had been most energetic and courageous. He said that he would like to mention one Dublin building which seemed frequently to be overlooked. He referred to the basilica in Stephen's Green, the University Church, which for ingenuity and invention had most of the buildings, dug up of the epoch-making, beaten hollow.

Mr. Vincent Kelly, F.R.I.B.A., said that there had been 100 years of unbroken peace between the R.I.B.A. and the Royal Institute of the Architects of Ireland. Between their two countries during that period there had been some slight disagreements. Perhaps both countries, looking at the past, might now say to one another: "If there is anything I have done for which I am sorry, I am willing to be forgiven." As the years went by feelings of goodwill and affection grew stronger between the British and Irish peoples. He referred to the presence of the president of the Royal Society of Ulster Architects, and said that they welcomed any gesture to dispel the unkindly fate which had brooded over the two parts of their country and frustrated their natural unity.



Mr. Frederick G. Hicks.

ELECTION OF MEMBERS

At a Council Meeting of the R.I.B.A. held on Monday, June 19, the following members were elected:—

As Fellows (26): Anderton, R. (Blackpool); Black, K. E. (Brighton); Brewill, Colonel L. C., T.D. (Nottingham); Cawkwell, R. (Sheffield); Edleston, E. H. (Nantwich, Cheshire); Green, C., M.A. OXON (London); Lloyd, W. A. S., M.A. (London); Luyken, H. M. (South Benfleet, Essex); Mobbs, S. W. (Norwich); Sadler, W. (London); Selby, R. B. J., A.A.DIP. (London); Skinner, C. G. (Bristol); Skinner, T. A. (Bristol); Somerford, T. R. (London); Soper, S. G. (London); Swan, T. A. (Edinburgh); Bennett, J. G. (Gravesend, Kent); Bond, C., A.M.T.P.I. (Chesterfield, Derbyshire); Griffiths, G. H., A.M.T.P.I. (Cardiff); Milner, Sir W. F. V. M., M.A. (OXON), F.S.A. (London); Ross, H. R. (London); Trower, T. F. (Spalding); and Wapshott, F. E., F.S.I. (Maidenhead, Berks.); (*Overseas*): Crickmay, G. H. (Springs, Transvaal); Temple, E. E. (Ottawa, Canada); and Jackson, L. G. (Nairobi, Kenya Colony).

As Associates (25): Beardshaw, J. E. (School of Architecture, Victoria University, Manchester) (London); Beaton, J. R., DIP.ARCH. (ABDN.) (Aberdeen School of Architecture, Robert Gordon's Technical College), (Glasgow); Foyle, A. M. (Bartlett School of Architecture, University of London), (London); Hartnell-Beavis, F. J. (Architectural Association), (London); Hunter, A. McK., DIP.ARCH. (EDIN.) (School of Architecture, Edinburgh College of Art), (London); Lewis, P. H. (Architectural Association), (Woking); Mark, H. S. (Glasgow School of Architecture), (Ayr); Martin, J. E. (Aberdeen School of Architecture, Robert Gordon's Technical College), (Aberdeen); Owen, D. B., DIP.ARCH. (CARDIFF) (Welsh School of Architecture, The Technical College, Cardiff), (Newport, Mon.); Pickup, G., DIP.ARCH., DIP.T.P. (Mancr.) (School of Architecture, Victoria University, Manchester), (Sheffield); Scott, T. K., DIP.ARCH. (Manchester) School of Architecture, Victoria University, Manchester), (Oldham); Tew, E. F. (Glasgow School of Architecture), (Blackburn, Lancs.); Tomalin, R. R. (Architectural Association), (Sanderstead, Surrey); Tomlinson, J., DIP.ARCH. (Liverpool) (Liverpool School of Architecture, University of Liverpool), (Beckenham, Kent); and Williams, F. C. (School of Architecture, Victoria University, Manchester), (Southport). (*Overseas*): Darroll, W. W., DIP.ARCH. (Cape Town, S. Africa); Grant, Major H. H. (Durban); Horwood, R. F., B.ARCH. (Liverpool School of Architecture, University of Liverpool), (St. John's, Newfoundland); Linington, W. H. A. (Cape, S. Africa); McGowan, H. D. S. (School of Architecture, University College, Auckland, New Zealand), (Auckland); Mair, J. L., B.ARCH.N.Z. (School of Architecture, University College, Auckland, New Zealand), (Wellington, N.Z.); Maitra, M. M. (Calcutta, India); Rennie, G. W. (Cape Town, South Africa); Simpson, W. R. (School of Architecture, University College, Auckland, New Zealand), (Auckland, New Zealand); and Thornton, P. M. (Architectural Association), (Vancouver, British Columbia).

As Licentiates (5): Gray, A. S. (London); Harvey, D. (London); Henzell-Ascroft, F. N. W. (London); Hives, E. G. V. (Reading); Palmer, E. W. (Enfield).

EXHIBITIONS

[By D. COSENS]

A PAINTER may change and develop slowly, almost imperceptibly; or very rarely he may, like Picasso, be master of every idiom he touches and slave of none. He may, in his search for new means of expression and as an escape from a growing convention, pass through phases of violent experiment and research that are disappointing to everyone but himself; but he must not, under any circumstances, deliberately choose and stick to the most profitable formula he knows, for that is suicide. Braque's recent work at Rosenberg and Helft's is escape, transition. In time a painter of less vision might have become too absorbed in his very beautiful restrained palette to wish to change. Here, in some of his later paintings, he is not yet complete master of the greatly widened range of colour and the far more complex patterns he has been using for the last few years. A great deal seems confusing and unresolved, and at its finest, never equal to the concise design and lovely harmonies of his earlier work. Yet this exhibition is one of the most interesting, for it is the chrysalis in which the familiar Braque, one of the greatest painters of his generation, is being transformed into the master of tomorrow.

Tooth's "La Probité de l'Art" is an excellent exhibition but, like most mixed collections, difficult to define. For when almost all the work is well above the level of mediocrity, and some of it brilliant, individual reactions to this painting or that are bound to be a matter of temperament. While I, for instance, can see every virtue in the two Rouault portraits, another may, with equal justice prefer the little Cézanne or Picasso sketches, Degas' "Danseuses s'exerçant au foyer," either of the two Vuillards, or Sickert's early self-portrait; or with more academic interest others may like to study Renoir, Modigliani, Corot and Utrillo, without colour; get hot and furious over the recent Chiricos, shake their heads in sad disappointment over John, or wonder how it is that Stanley Spencer at his most photographic can often convey a great deal more than detail, and sometimes not. Whichever way you look at it this is an interesting collection.

The Wildenstein shows two distinct Vlamincks—The Fauve of the first decade of the century, and the rather theatrical landscape painter of recent years. Both have the more than probable insistence of a consciously sustained pose. And because in this artist's work there never has been any very obvious period of transition or experiment leading from one strongly stressed idiom to the other, the complete *volte-face* to his slick set piece bleak house in a snow- or thunderstorm would seem to have the evidence as well as the appearance of insincerity. Which is to be regretted, for, were he not so good an actor, Vlaminck might have been almost a great painter. Even as things are considerable pleasure is to be found from time to time, and in limited doses, in his windswept landscapes. But the Fauve experiment, had it been clearly realized and logically followed, would surely have led him further.

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Braque. Rosenberg and Helft, 31 Bruton Street. Until July 8.

"La Probité de l'Art." Tooth's, 155 New Bond Street. Until July 1.

Vlaminck. Wildenstein, 147 New Bond Street. Until June 30.

The Architects' Journal Library of Planned Information

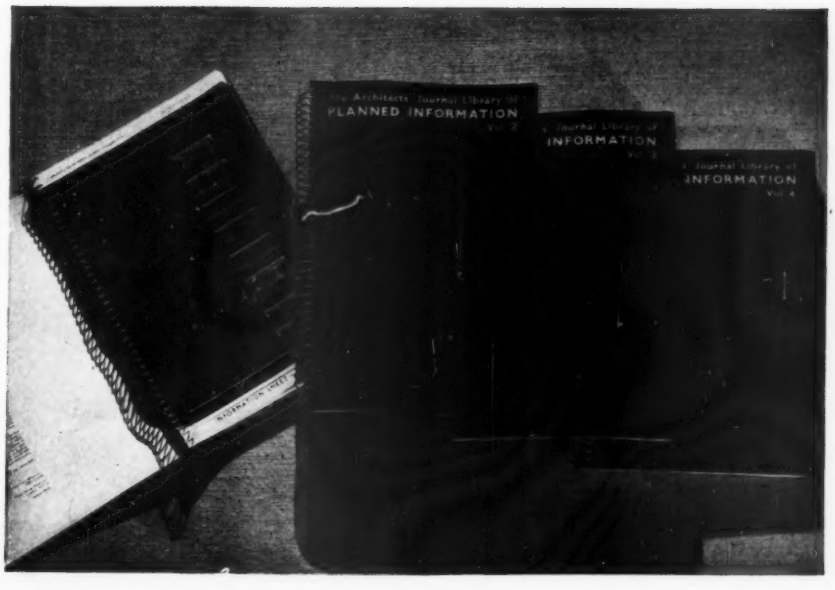
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

741 Structural Steelwork

742 Metalwork



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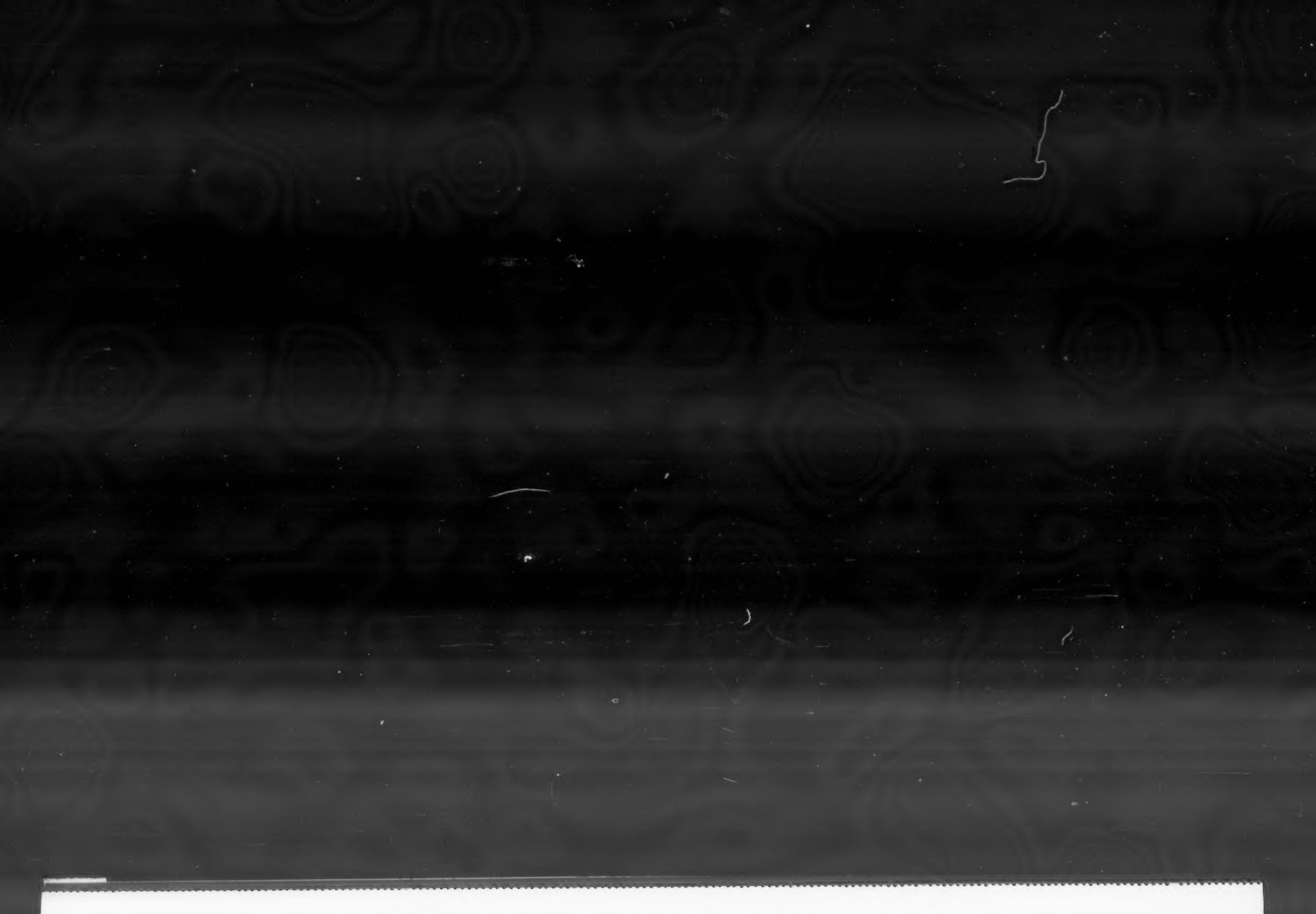
701 : Tile Hanging
702 (420 revised) : Fixing Insulating Board
703 : Sheet Metals
704 : Plan Elements
705 : Metal Work
706 : Plan Elements
707 : Furniture Layout
708 : Plan Elements
709 : Flue Construction
710 : Natural Lighting
711 : Glass and Glazing
712 (109 revised) : Quarry Tiles
713 : Glass and Glazing
714 : Metalwork
715 (106 revised) : Hot Water Radiators (Pressed Steel)
716 : Furniture Layout
717 : Metalwork
718 : Flooring Materials
719 : Plumbing
720 : Water Heating
721 : Wall Facing Materials and Wallboards
722 : Roofing
723 : Metalwork
724 : Timber Construction
725 : Sanitary Fittings
726 : Metalwork
727 : Waterproof Jointing and Bedding
728 : Timber Construction
729 : Steelwork
730 : Wall Facing Materials and Wallboards
731 : Metalwork
732 : Concrete Construction
733 : Structural Steelwork
734 : Metalwork
735 : Plumbing
736 : Structural Steelwork
737 : Structural Steelwork
738 : Metalwork
739 : Plan Elements
740 : Timber Construction

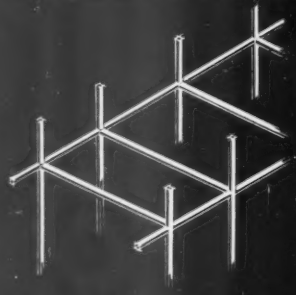


DIAGRAMS SHOWING ECONOMICAL LAYOUTS FOR STEEL SKELETON FRAMES:

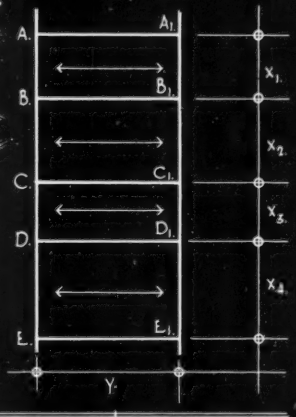
(5) SLABS SPANNING FROM FRONT TO BACK OF BUILDINGS.

(For suitable layouts when slabs span parallel to longitudinal axis of buildings, see Information Sheet N°4 of this series.)

(5) BUILDINGS WITH TWO ROWS OF COLUMNS.



ISOMETRIC SKETCH.



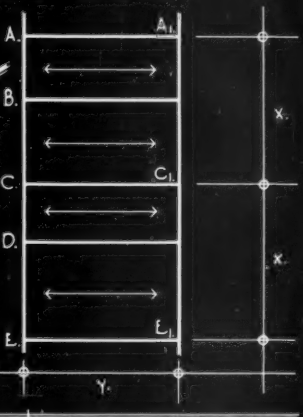
PLAN DIAGRAM 5.

BEAMS.	USE.	COLUMN SPACING.	REMARKS.
A-E, A_1-E_1	To carry walls and slabs.	Lengths of x_1 x_2 x_3 etc., may differ, but if x is less than 14' it is better to span slab in other direction. (Diag. 1. Sheet N°4. of this series.)	x_1 x_2 x_3 to be 14' min, 30' max. Economical value from 16' to 20'. y to be 8' min, 24' max. Economical value from 10' to 14'.
A-A_1, B-B_1, C-C_1 etc.	Stiffening purposes only.		

(5a) BUILDINGS WITH TWO ROWS OF COLUMNS.

(Alternate columns omitted in either wall.)

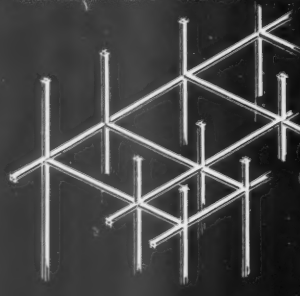
ISOMETRIC SKETCH.



PLAN DIAGRAM 5a.

BEAMS.	USE.	COL. SPACING	REMARKS.
A-E, A_1-E_1	To carry walls and slabs.	For dimensions of x & y see diag. 5.	Columns A-A, B-B, etc. need not be opposite each other, but if staggered the number of stiffening joints would be increased. The arrangement (diag. 5a.) is also possible provided A_1-C_1 & C_1-E_1 remain in limits given for x.
A-A_1, C-C_1 etc.	Stiffening purposes only.		

(6) BUILDINGS WITH THREE ROWS OF COLUMNS.



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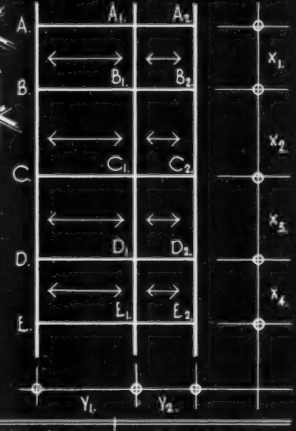
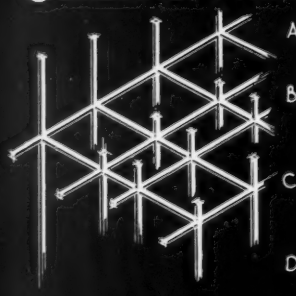


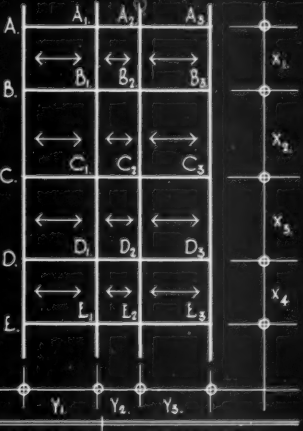
PLAN DIAGRAM 6.

BEAMS.	USE.	COLUMN SPACING.	REMARKS.
A-E, A_2-E_2	To carry walls and slabs.	For size of x see diagram 5. Y_1 & Y_2 to be 8' min. 24' max. Economical value of Y_1 & Y_2 from 10'-14'.	Y_1 & Y_2 may differ but not by more than 20% of the smaller. for staggering of columns and omissions from any row see diag. 5a. and remarks.
A_1-E_1	To carry slabs only.		
A-A_1, B-B_1 C-C_1 etc.	Stiffening purposes only.		

(7) BUILDINGS WITH FOUR ROWS OF COLUMNS.



ISOMETRIC SKETCH.



PLAN DIAGRAM 7.

BEAMS.	USE.	COLUMN SPACING.	REMARKS.
A-E A_3-E_3	To carry walls and slabs.	For size of x see diag. 5. Y_1 & Y_3 to be 10' min. 24' max. Y_2 6' min. & 24' max. Economical value of Y_1 & Y_3 from 12' to 16'. For Y_2 from 8' to 14'.	Economical combination:- $Y_2 = 0.125(Y_1+Y_3)$ to $0.6(Y_1+Y_3)$.
A_1-E_1, A_2-E_2	To carry slabs only.		
A-A_3 B-B_3 C-C_3 etc.	Stiffening purposes only.		

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THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 741 •

STRUCTURAL STEELWORK

Subject : Economical Framing, 2

General :

This series of Sheets on steel construction is not intended to cover the field of engineering design in steel, but to deal with those general principles governing economical design which affect or are affected by the general planning of the building. It also deals with a number of details of steel construction which have an important effect upon the design of the steelwork.

Both principles and details are considered in relation to the adjoining masonry or concrete construction, and are intended to serve as a guide in the preliminary design of a building so that maximum economy may be obtained in the design of the steel framing.

This is the fifth of the series, and sets out four systems of framing, the direction of the floor spans being parallel to the short axis of the plan, i.e. spanning from front to back of the building.

Systems with floor spans parallel to the long axis of the plan are dealt with in Sheet No. 737.

Economical framing :

While exact dimensions cannot be given for the most economical spans for all conditions, there are certain maxima and minima for different column arrangements which must be observed if economical construction is to be obtained. These maxima and minima apply to the construction of most multi-storey buildings, such as blocks of flats, offices, industrial housing, etc., where fire-resisting floors, medium weight panel walls and normal window spacing are used. Unusual or uneven loading conditions, the use of massive masonry or other special construction may affect the figures in special cases.

In the notes referring to the diagrams on this Sheet a distinction is made between the maximum and minimum spans and the economical spans. The maximum and minimum spans are intended to represent reasonable (not absolute) limits for normal building work ; the economical spans cover a much smaller range in which the amount of steel required in both beams and columns has been considered in relation to the labour-time involved in handling and erection.

The use of larger longitudinal beam spans will reduce the number of columns, but increase the size of beams. It will increase the difficulties of hoisting, but will decrease the number of beam-column connections. Correspondingly, the use of smaller beam spans will increase the number of columns but reduce the size of beams ; it will increase the amount but reduce the difficulty of hoisting and it will increase the number of beam-column connections.

Previous Sheets :

No. 729—Basic Steel Sections.
No. 733—Mechanics of Sections, 1.
No. 736—Mechanics of Sections, 2.
No. 737—Economical Framing, 1.

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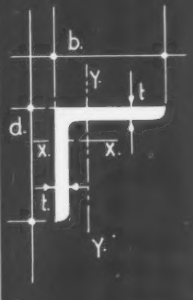
COMMERCIAL SIZES OF ALUMINIUM STRUCTURAL SECTIONS.
CONDENSED LISTS GIVING DIMENSIONS, PROPERTIES & LOADINGS OF L^s & T^s USED AS BEAMS.

FABRICATION : These sections are produced by extrusion, & sections falling entirely within a circle of 12" diameter can be produced. Almost all the alloys used develop their maximum physical properties after appropriate heat treatment.

MAX. LENGTHS : (a.) Heat treated sections : 70 ft. (b.) Other sections : any lengths—generally determined by transport difficulties.

TABLE 1 : GIVING LOAD IN lb. PER FT. RUN ON WHOLE SPAN FOR SIMPLY SUPPORTED BEAMS.

Equal angles, Alloy : NA. 13 SQA.

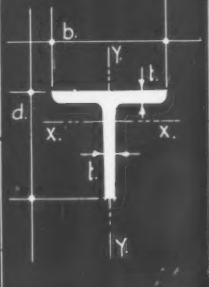


SIZE inches. d.	SIZE inches. b.	THICKNESS inches. t.	WEIGHT PER FT. lb.	MOMENT OF INERTIA. Ix.	SECTION MODULUS. Zx.	SPAN IN FEET * 2.	3.	4.	5.	6.	7.	8.	9.	10.
1½	1½	·1875	·64	·10	·10	170	·	·	·	·	·	·	·	·
1½	1½	·250	·83	·13	·13	230	·	·	·	·	·	·	·	·
1¾	1¾	·1875	·75	·17	·14	300	·	·	·	·	·	·	·	·
1¾	1¾	·250	·98	·22	·18	390	110	·	·	·	·	·	·	·
2	2	·1875	·87	·26	·18	400	130	·	·	·	·	·	·	·
2	2	·250	1·14	·34	·24	540	170	·	·	·	·	·	·	·
2	2	·3125	1·39	·40	·29	650	210	·	·	·	·	·	·	·
2¼	2¼	·1875	·98	·38	·23	510	200	·	·	·	·	·	·	·
2¼	2¼	·250	1·29	·49	·30	670	250	110	·	·	·	·	·	·
2¼	2¼	·3125	1·58	·59	·37	830	310	130	·	·	·	·	·	·
2½	2½	·250	1·44	·68	·38	850	350	150	·	·	·	·	·	·
2½	2½	·3125	1·77	·83	·47	1050	430	180	·	·	·	·	·	·
2½	2½	·375	2·10	·96	·55	1230	500	210	100	·	·	·	·	·
3	3	·250	1·74	1·20	·55	1230	550	260	130	·	·	·	·	·
3	3	·375	2·55	1·72	·81	1820	810	380	190	110	·	·	·	·
3	3	·500	3·33	2·18	1·05	2270	1050	480	240	140	·	·	·	·
3½	3½	·250	2·04	1·94	·76	1710	760	420	220	120	·	·	·	·
3½	3½	·375	3·01	2·80	1·12	2520	1120	620	310	180	110	·	·	·
3½	3½	·500	3·93	3·57	1·46	3280	1460	800	400	230	140	·	·	·
4	4	·375	3·47	4·26	1·48	3330	1480	830	480	280	170	110	·	·
4	4	·500	4·54	5·46	1·93	4340	1930	1080	620	360	220	150	100	·
4	4	·625	5·58	6·56	2·36	5310	2360	1320	740	430	270	180	120	·
4½	4½	·375	3·92	6·15	1·89	4250	1890	1060	680	400	250	170	120	·
4½	4½	·500	5·15	7·92	2·47	5560	2470	1380	890	520	320	220	150	110
4½	4½	·625	6·35	9·56	3·03	6810	3030	1700	1090	630	390	260	180	130
5	5"	·375	4·37	8·53	2·35	5300	2350	1320	840	560	350	230	160	120
5	5	·500	5·75	11·04	3·08	6910	3080	1730	1100	720	450	300	210	150
5	5	·625	7·10	13·37	3·78	8500	3780	2130	1360	880	550	370	260	180

UNEQUAL ANGLES for properties & loadings of unequal angles, see reverse side of this Sheet.

TABLE 2 : GIVING LOAD IN lb. PER FT. RUN ON WHOLE SPAN FOR SIMPLY SUPPORTED BEAMS.

Tee sections, Alloy : NA. 13 SQA.



SIZE inches. d.	SIZE inches. b.	THICKNESS inches. t.	WEIGHT PER FT. lb.	MOMENT OF INERTIA. Ix.	SECTION MODULUS. Zx.	SPAN IN FEET * 2.	3.	4.	5.	6.	7.	8.	9.	10.
1½	1½	·250	0·84	0·14	0·13	240	·	·	·	·	·	·	·	·
2	2	·250	1·14	0·34	0·24	540	180	·	·	·	·	·	·	·
2½	2½	·250	1·45	0·68	0·38	850	350	150	·	·	·	·	·	·
2½	2½	·375	2·11	0·96	0·55	1230	500	210	110	·	·	·	·	·
3	3	·375	2·56	1·71	0·80	1800	800	380	190	110	·	·	·	·
3	4	·375	3·02	1·86	0·83	1860	830	410	210	120	·	·	·	·
3	4	·500	3·95	2·37	1·08	2420	1080	530	270	150	·	·	·	·
4	4	·375	3·48	4·19	1·45	3250	1450	810	470	270	170	110	·	·
4	4	·500	4·55	5·40	1·90	4260	1900	1070	610	350	200	150	100	·
3	5	·375	3·48	1·97	0·85	1930	860	430	220	130	·	·	·	·
3	5	·500	4·56	2·51	1·11	2500	1110	560	280	160	100	·	·	·
4	5	·375	3·94	4·47	1·49	3350	1490	840	510	290	180	120	·	·
4	5	·500	5·16	5·77	1·96	4000	1960	1100	650	380	230	160	110	·
3	6	·375	3·95	2·06	0·87	1960	870	460	230	130	·	·	·	·
3	6	·500	5·17	2·63	1·14	2560	1140	580	300	170	100	·	·	·
4	6	·500	5·77	6·07	2·00	4500	2000	1120	690	400	250	160	110	·
4	6	·625	7·11	7·33	2·46	5540	2460	1380	830	480	300	200	140	100
6	6	·500	6·98	19·04	4·36	9800	4360	2450	1570	1090	790	530	370	270
6	6	·625	8·62	23·31	5·40	12100	5400	3040	1940	1360	960	640	450	330

* (A.) The values given in each of the above tables are for loads on the tops of the sections in the positions shown in the sketches. They do not apply to loads acting in any other direction on the members.

(B.) The values above & to the right of the zig-zag lines are governed by considerations of deflection, the criterion being 1/375 of the span. Those below and to the left are determined by considerations of stress.

Information from the Northern Aluminium Company Limited.

INFORMATION SHEET : ALUMINIUM : N° 18 STRUCTURAL SECTIONS, 2.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET
• 742 •
METALWORK

Subject : Aluminium Alloy Structural Sections, 2

General :

This is the second of four Sheets listing the dimensions and loading of the commercial sizes of aluminium alloy structural sections, and it deals with equal and unequal angles and tees of regular section, used as beams.

Loading :

The tabulated values are loads in lb. per foot run, and the total load of any given span will be the tabulated load multiplied by that span. These values are for simply supported beams. For cantilevers and continuous beams, etc., they would have to be modified accordingly. It will be noted that considerations of deflection have determined most of the loads, and that these considerations will not necessarily govern loads for other conditions of end fixing, etc. Care should be taken to ensure that the values are not applied to beams carrying point loads.

Section Types :

Many of the sizes enumerated are obtainable from stock dies in several different leg thicknesses. Other stock types are extruded with roots and toes square and not rounded, and others again have the heel, toe and other radii variously placed in relation to the front and back faces. In addition to the 90° angles of regular profile shown, a wide range of acute and obtuse angles of irregular profile and thickness are obtainable from extrusion dies held in stock. Tees with similar variations are also available, and other non-standard sections of almost any degree of complexity can be extruded at slight extra cost.

After extrusion, the shapes may be heat treated to develop their maximum mechanical properties. A full classification is given in the Noral Handbook, Section C.

Fabrication and Use :

For a description of the alloys used for structural sections, the uses of these, and the methods of insulation and fabrication, see Sheet No. 738, Aluminium Alloy Structural Sections, 1.

Mechanical Properties :

The comparative strengths of the alloys most widely used for structural purposes are given on Sheet 738. Clauses related to assembly, cutting, machining, riveting, and welding of wrought aluminium alloys are given on Sheet 501.

Resistance to Corrosion :

As a general rule, the stronger aluminium alloys are slightly more susceptible to corrosive attack than the weaker ones, whose special function is to resist corrosion. Unless they are used under dry conditions, therefore, they should be given a protective treatment, the nature of which will vary with the severity of the conditions and quality of the surface to be maintained (as, for example, polished). The choice of alloy for any given application will therefore depend directly on the degree of corrosion resistance demanded and the mechanical properties required.

Finishing :

For a brief description of surface finishes see Sheet No. 505.

Previous Sheets :

Previous Sheets of this series dealing with the architectural uses of aluminium are Nos. 492, 501, 504, 505, 510, 661, 669, 673, 680, 686, 714, 717, 723, 726, 731, 734 and 738.

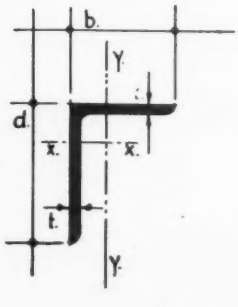
Issued by : The Northern Aluminium Company Limited

Address : Bush House, Aldwych, London, W.C.2

Telephone : Temple Bar 8844

TABLE 3 : GIVING LOAD IN LB. PER FOOT RUN ON WHOLE SPAN FOR SIMPLY SUPPORTED BEAMS

UNEQUAL ANGLES—ALLOY : NA. 13 SQA



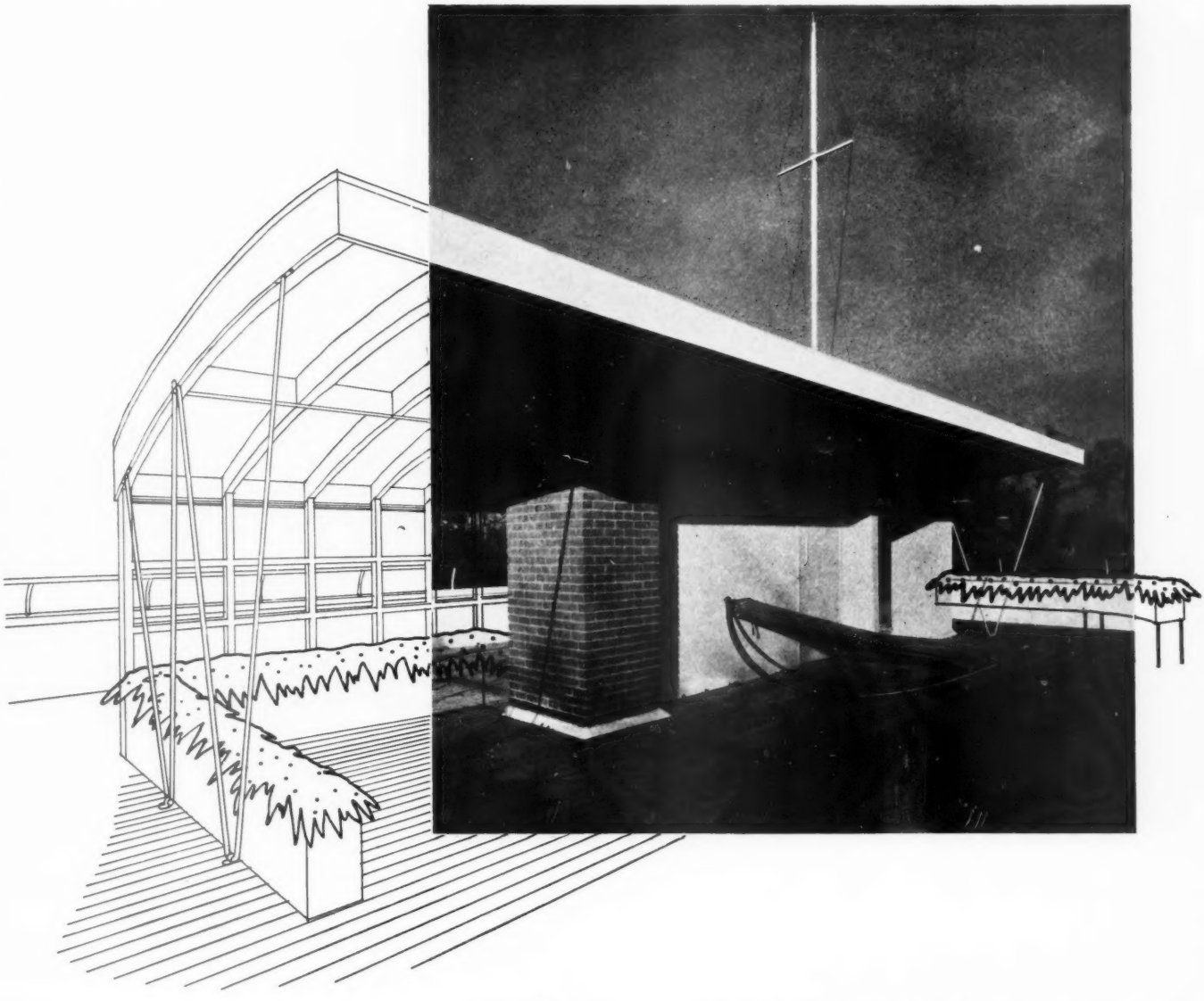
Size inches		Thickness inches	Wgt. per foot	Moment of Inertia	Section Modulus	SPAN IN FEET*						
d	b	t	LB	Ix	Zx	2	3	4	5	6	7	8
2	1½	·1875	·75	·24	·17	380	120	—	—	—	—	—
2	1½	·25	·98	·31	·23	510	160	—	—	—	—	—
2½	1½	·1875	·86	·45	·27	600	230	100	—	—	—	—
2½	1½	·25	1·14	·58	·35	780	300	120	—	—	—	—
2½	2	·1875	·98	·49	·28	630	250	100	—	—	—	—
2½	2	·25	1·29	·63	·37	830	330	140	—	—	—	—
2½	2	·3125	1·59	·77	·45	1010	400	170	—	—	—	—
3	2	·25	1·44	1·06	·52	1170	520	230	120	—	—	—
3	2	·3125	1·77	1·29	·65	1460	650	280	140	—	—	—
3	2	·375	2·10	1·50	·76	1710	760	330	170	—	—	—
3	2½	·25	1·59	1·14	·54	1210	540	250	130	—	—	—
3	2½	·3125	1·96	1·39	·67	1500	670	310	150	—	—	—
3	2½	·375	2·33	1·62	·79	1780	790	360	180	100	—	—
3½	2½	·25	1·74	1·75	·73	1640	730	390	200	110	—	—
3½	2½	·3125	2·15	2·14	·90	2020	900	470	240	140	—	—
3½	2½	·375	2·55	2·51	1·07	2400	1070	560	280	160	100	—
3½	3	·3125	2·34	2·27	·92	2070	920	500	250	150	—	—
3½	3	·375	2·78	2·67	1·10	2470	1100	590	300	170	110	—
3½	3	·50	3·63	3·40	1·43	3220	1430	760	380	220	140	—
4	2½	·25	1·89	2·54	·94	2110	940	520	280	160	100	—
4	2½	·3125	2·34	3·11	1·17	2630	1170	650	350	200	120	—
4	2½	·375	2·79	3·66	1·38	3100	1380	770	410	240	150	100
4	3	·3125	2·53	3·30	1·20	2700	1200	670	370	210	130	—
4	3	·375	3·01	3·89	1·42	3190	1420	790	440	250	160	100
4	3	·50	3·93	4·97	1·85	4160	1850	1040	560	320	200	130
4	3½	·3125	2·72	3·47	1·22	2750	1220	680	390	220	140	—
4	3½	·375	3·24	4·09	1·45	3260	1450	810	460	260	170	110
4	3½	·50	4·25	5·24	1·90	4260	1900	1060	590	340	210	140

* (*a*) The values given in the above table are for loads on the top of the section in the position shown in the sketch. They do not apply to loads acting in any other direction on the member.

(*b*) The values above and to the right of the zig-zag line are governed by considerations of deflection, the criterion being 1/375 of the span. Those below and to the left are determined by considerations of stress.

WORKING DETAILS : 759

ROOF SHELTER • HOUSE AT HADLEIGH, ESSEX • WELLS COATES

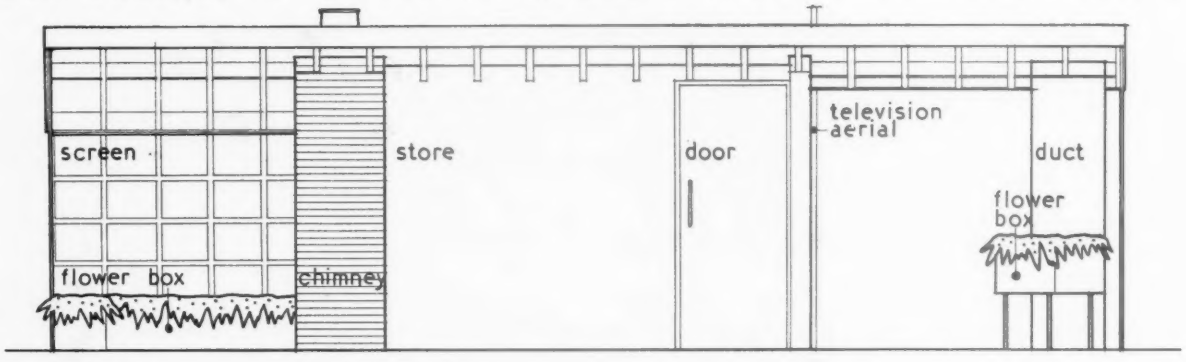


The roof shelter has a curved roof constructed of wooden joists with boarding and roofing felt over, the roof being supported on the brick walls of the chair store, chimney stack and duct, with additional steel tubular supports at either end. Flower boxes will be constructed and arranged as shown in the perspective above. The main roofing to the house consists of wooden slats over bitumastic felt roofing laid to falls on concrete. A glass and concrete roof-light gives light to the first-floor staircase landing below.

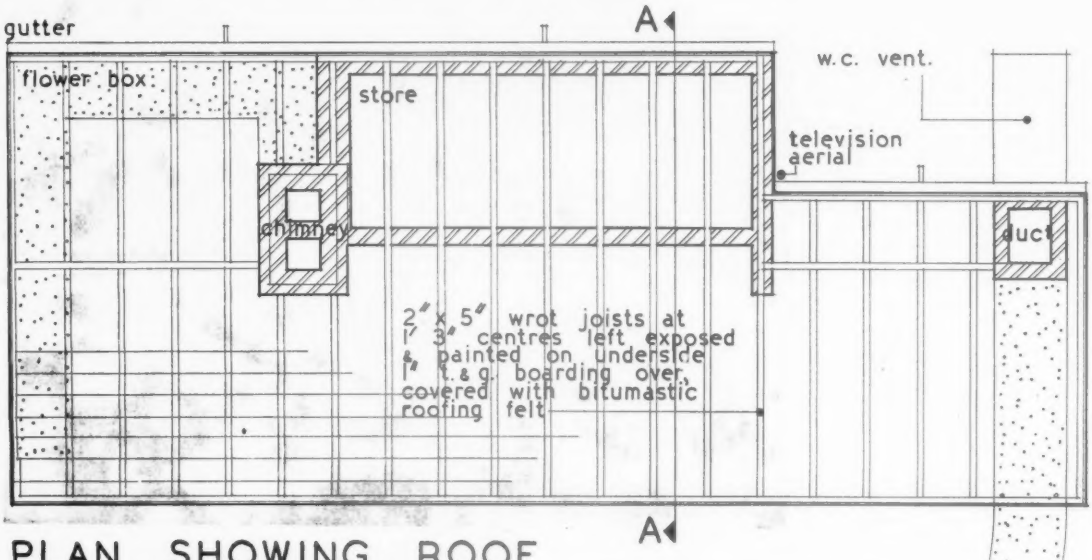
Details are shown overleaf.

WORKING DETAILS : 760

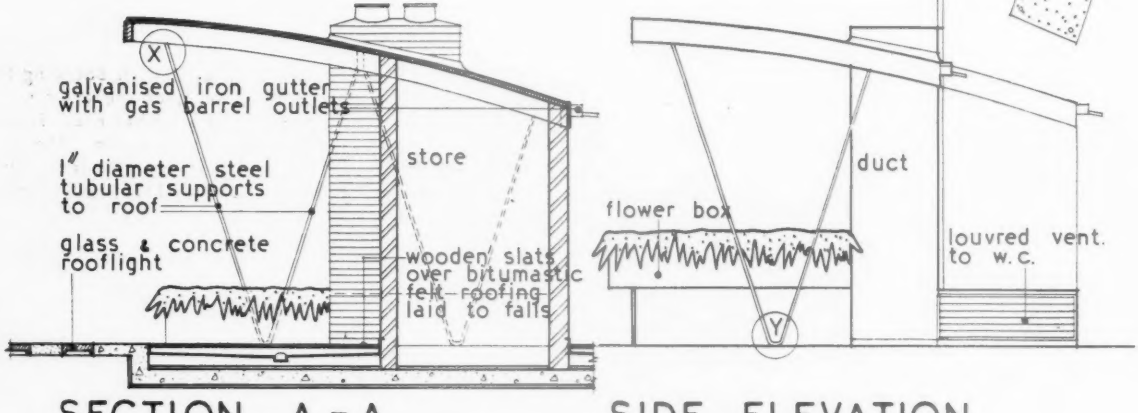
ROOF SHELTER • HOUSE AT HADLEIGH, ESSEX • WELLS COATES



FRONT ELEVATION

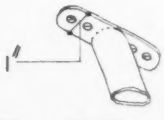


PLAN SHOWING ROOF

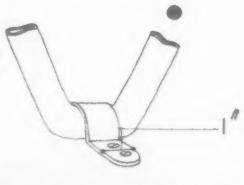


SECTION A-A SIDE ELEVATION

END FIXING AT (X)



BENT END FITTING AT (Y)

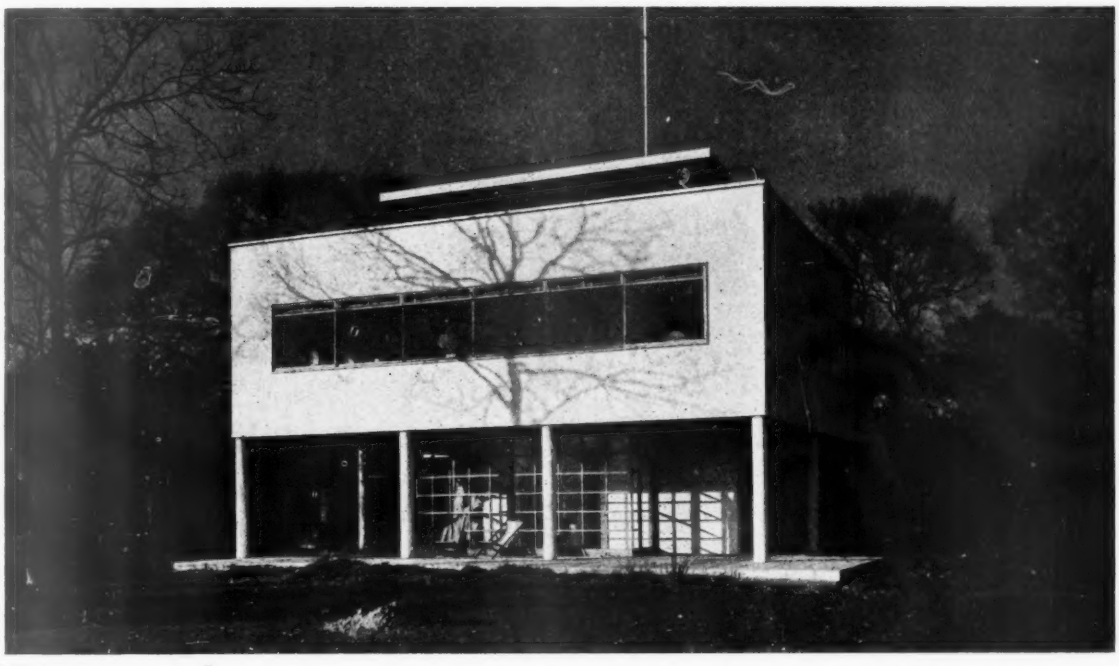


DETAILS OF TUBULAR SUPPORTS TO ROOF

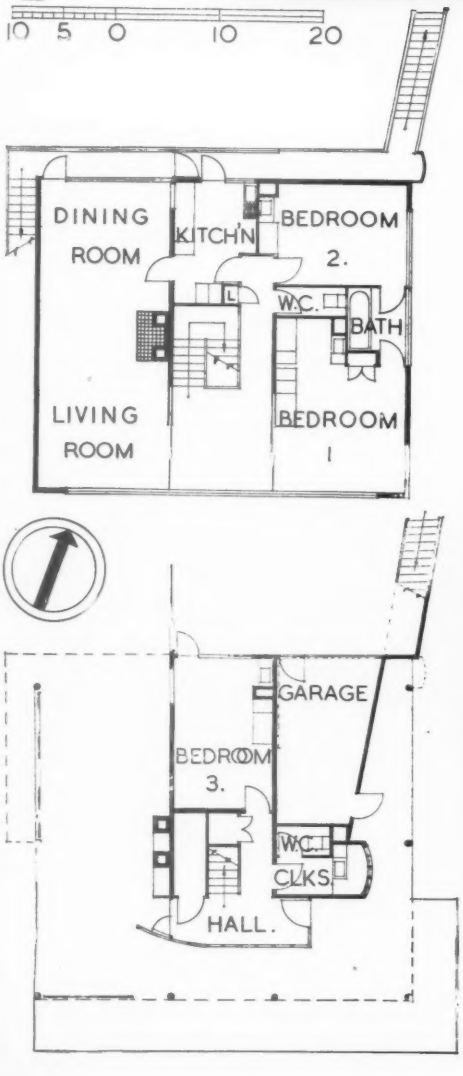
Details of the roof shelter illustrated overleaf.

HOUSE AT HADLEIGH, ESSEX

DESIGNED BY WELLS COATES



THE SOUTH ELEVATION OVERLOOKING THE GARDEN. THE TRELLIS SCREEN ON THE GROUND FLOOR LIGHTS THE ENTRANCE HALL.

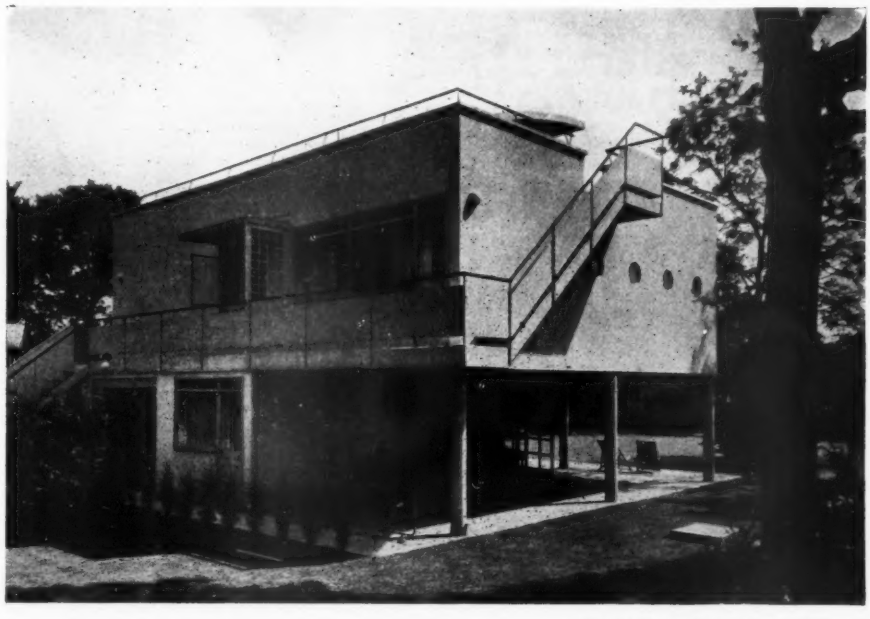


GROUND AND FIRST FLOOR PLANS

SITE—*Situated near Hadleigh, in Essex, the house stands on a fairly wooded site, sloping steeply towards the south, with views over the Thames estuary. It was built, primarily, as a week-end house.*

CONSTRUCTION—*Reinforced concrete external walls. Ground and first floors: reinforced concrete, with cork parquet and strip oak finishes. Roof: concrete slab, covered with 1-in. cork, roofing felt and cedar slats. Partitions: 2-in. pumice blocks, plastered. Staircase in reinforced concrete and cork tiles. Steel-framed windows. Flush doors. Supporting columns in reinforced concrete.*

FINISHES—*Walls and ceilings, mainly plastered. Floors: tiles in hall, cloaks and w.c.; cork tiles on first floor. Balcony, external stairs, garage and heating store finished with granolithic paving. The general contractor was E. R. Cockburn; for list of sub-contractors and suppliers,* *see page 1131*



THE HOUSE FROM THE NORTH-WEST.

THE LIVING-ROOM, LOOKING SOUTH. THE BUILT-IN BOOKCASE IN THE FOREGROUND AND THE OTHER FITTINGS ARE IN VENEERED BIRCH.

HOUSE AT HADLEIGH, ESSEX • BY WELLS COATES

Notes from the Building Research Station on*

CONCRETE IN SULPHATE-BEARING CLAYS AND GROUND WATERS

PART I

THE deterioration of concrete in sulphate-bearing soils and ground waters has in recent years received increasing attention from engineers, and numerous inquiries have been addressed to the Station as to suitable materials or methods of construction for use under such circumstances. It is not at the present time possible to give any precise answer as to what is the cheapest form of construction which, in any particular case, can be considered as possessing adequate durability. For this reason a large-scale programme of field and laboratory tests is being carried out in co-operation with the Institution of Civil Engineers, but inevitably results cannot be available from this work for some years at least, and indeed, the field tests are to extend over a period of ten years. Nevertheless, it is necessary at the present time to give some guidance, recognizing that any recommendations made are based on knowledge which is very incomplete and must later be subject to revision when more information is available. It follows that any recommendations made at present should err on the side of excessive rather than insufficient precautions.

In the present note a brief survey is given of the conditions under which concrete may suffer deterioration in sulphate-bearing grounds and of the measures which can be adopted to safeguard the concrete against serious attack by the sulphate salts. The recommendations made should only be regarded as a general guide, and not as an invariable set of rules.

Various sulphate salts are found in some clay sub-soils and in the ground waters contained in such soils. The most important of these salts are calcium sulphate (gypsum), magnesium sulphate and sodium sulphate. While no detailed information can be given as to the areas in which these salts may occur it is known that they are to be found in appreciable quantities in some parts, though not all, of the London clay and clays belonging to the Lower Lias, Oxford, Kimmeridge and Keuper Marl formations. The top few feet of a sulphate-bearing clay sub-soil are often, though not always, relatively free from sulphate salts, owing to gradual leaching by water, and considerable amounts are then only found at depths from three to six, or even more, feet below the surface.

Sulphate salts are not acidic and normally the ground waters in which they are found will be neutral or even slightly alkaline. Free acids will rarely be present in clay soils of the types mentioned above, but they may be found in conjunction with sulphate salts in marsh areas. The case where both free acids and sulphate salts are present is not considered in the present note.

Sulphate salts have a destructive action on Portland cement concrete and it is necessary when placing concrete in ground containing appreciable amounts of sulphate to take measures to ensure its durability.

The rate of attack of sulphate salts on concrete depends on the following factors :—

1. Amount and nature of the salts present.

2. The general level of the water table in the ground and its seasonal variation.

3. The type and quality of the concrete concerned, and the form of construction involved.

These points will now be considered in detail.

1. Amount and Nature of the Salts Present

The sulphate salts occur as crystals, sometimes too small to be visible to the eye, in the clay and become dissolved in the ground waters. Calcium sulphate (gypsum) has only a low solubility in water and the maximum amount which can be dissolved is 200 parts calcium sulphate per 100,000. In analyses of soils and waters, sulphates are usually recorded in terms of equivalent sulphur trioxide. The above-mentioned proportion of calcium sulphate corresponds to about 120 parts of sulphur trioxide (SO_3) per 100,000. In clays containing much gypsum the ground water may contain nearly this amount. Sodium and magnesium sulphates are very soluble in water and can give rise to considerably larger amounts of sulphur trioxide in the ground water.

Concrete is not directly attacked by the solid sulphate salts, but only by their solutions in water. The amount of sulphate salts present in the clay represents therefore the total reserve potentially available to attack concrete, but it is the amount dissolved in the ground water which determines the rate of attack. The amount in solution in the ground water will depend on various factors such as the drainage of the clay and the rate at which water passes through it and often varies much with weather conditions, and also between quite closely adjacent positions over a site.

At similar concentrations in terms of parts sulphur trioxide per 100,000 it is doubtful if there is any major difference in the rate of attack of the different sulphate salts on Portland cement concrete. Since sodium and magnesium sulphates are so much more soluble in water than calcium sulphate their concentrations in the ground water can, however, vary much more widely than that of the latter salt, and they must therefore be regarded as potentially more dangerous.

2. Water Level and its Variation

Concrete is not attacked in dry ground containing sulphate salts and the presence of water is essential to the action. Further as a sulphate salt in solution in the ground water attacks the concrete it is removed from the water. The rate of attack can therefore be considered

as dependent both on the amount of sulphate present in the water and the rate at which it is replenished. The latter is likely to be much increased by movement in the water caused either by drainage or by fluctuations in the level of the water table.

In the case of pipe lines laid at a gradient, some flow of ground water along the line tends to occur and sulphate-bearing waters can by this means be carried from a sulphate-bearing clay to a non-sulphate-bearing area at a lower level. In a more restricted manner the same may hold true for shorter excavations.

3. *Type and Quality of Concrete and Form of Construction*

The attack of sulphate-bearing waters on concrete proceeds inwards from the surface and the rate at which it occurs is dependent on the ease with which the water can penetrate into the concrete. The density and impermeability of the concrete is thus a very important factor. Concrete which is subjected to a one-sided water pressure is much more vulnerable since the sulphate-bearing water tends to be forced through the concrete. When water pressure on one side is combined with exposure to air, with free evaporation, on the other the conditions may become still more severe. If water percolates through the concrete to the exposed face and evaporates at that face, it leaves the sulphate salts behind thus increasing the concentration of those salts in the water in the concrete. The danger from this effect is obviously greater with the very soluble magnesium and sodium sulphates than with calcium sulphate.

A similar, but less severe, case is to be found in a partly buried concrete mass when water is drawn up by capillary forces from the portion below ground and evaporates at the exposed surface.

The risk of attack on concrete in sulphate-bearing grounds is thus dependent on the nature of the concrete structure, as well as the general ground conditions and the type and quality of the concrete.

The resistance of concrete to water penetration depends on all those factors which determine quality of concrete, i.e. richness of mix, water content, grading of aggregate, methods of mixing and placing, and also the age of the concrete. Cast-*in-situ* concrete is more vulnerable than precast units since it is exposed while in the green state to the destructive action of the sulphate salts.

Leaving out of consideration the type of concrete structure involved, concretes may be arranged in the following order of decreasing vulnerability :—

1. Lean ballast concretes (1 : 6 or leaner) cast-in-situ.

2. Normal concretes of about 1 : 2 : 4 cement : sand : coarse aggregate cast-*in-situ*.

3. Precast units not leaner than a 1 : 2 : 4 mix.

The resistance of concretes to sulphate attack varies widely with the type of cement used. Portland cements themselves vary considerably in their resistance to attack, but there is unfortunately no rapid method for testing this property. In general the lower the alumina content and the higher the iron oxide content of the Portland cement the greater is the resistance, but other factors involved in the burning of the cement also play an important part. A considerably greater resistance to attack, though not absolute immunity, is obtained by the use of pozzolanic materials mixed with the Portland cement. Materials of this type include various natural products imported from abroad, such as trass, and artificial materials which can be produced, for instance, by burning clays under suitable conditions. The use of concretes containing as cement a mixture of Portland cement and a pozzolana offers a very useful and not unduly expensive means of protection when the conditions of exposure to sulphate attack are not too severe.

The strength of a Portland cement concrete over the first few weeks is, under moist conditions, reduced by substitution of pozzolana for Portland cement by an amount roughly equivalent to the extent of the substitution. At long ages (e.g. six months to a year), however, the strength approaches or exceeds that of the Portland cement concrete. Under dry conditions, as for example thin concrete members above ground, the strength development of pozzolanic cements is much less satisfactory. Under cold weather conditions the rate of development of strength of pozzolanic cements is reduced more than that of Portland cements, while in hot weather conditions the reverse holds and the acceleration in strength development is greater than with Portland cements.

The resistance to attack by sulphate salts increases, within limits, as the proportion of pozzolana is increased, and it is necessary to strike some balance between the strength and sulphate resistance requirements. Mixes containing up to 50 per cent. pozzolana, 50 per cent. Portland cement are sometimes used, but, owing to the relatively low strength of this mix at early ages, a proportion of 30 to 40 per cent. pozzolana is more common. The proportions of concrete containing pozzolana should not be leaner than 1 part pozzolanic cement (i.e. Portland cement plus pozzolana) to 6 parts fine and coarse aggregate.

The most resistant type of cement at present available is high alumina cement. This cement must not be confused with Portland cements of high alumina content for it is an entirely different material. Well-made high alumina cement concrete can, from years of experience, be regarded as immune from attack, but it is more costly. It should normally be used in a mix of about 1 : 2 : 4 proportions. Lean mixes are not immune from attack, but no advantage is to be gained by the use of mixes richer than 1 : 2 : 4.

Other measures sometimes adopted have as their aim the prevention of contact between ground water and concrete. These include the use of bituminous paints and asphaltic treatments of the surface in the case of precast units. Some measure of protection can be obtained with bituminous paints (bituminous emulsions should not be used), but thin coatings of this type have a limited life in wet ground and it is very doubtful if they can be relied upon to last more than a very few years. Nevertheless they may be useful in postponing the commencement of attack until the concrete is very well matured. Thick asphalt coatings may be expected to have a very high durability, but they are costly. Cast-*in-situ* concretes have sometimes been placed on, and the sides protected with, bituminised paper or hessian with the object of restricting access of the ground waters to the concrete until it has had time to mature. It is doubtful, however, if measures of this type can be regarded as adequate except under relatively mild conditions of exposure to sulphate attack.

NOTE ON CONCRETE MIXES

The cement : sand : aggregate ratios given in Parts I and II of this Note refer to weight proportions with dry aggregates. The corresponding volume proportions for sand and gravel aggregates in mixes of one part cement to six parts combined aggregates by weight are approximately as shown below :—

Weight Proportions	Volume Proportions (1 cu. ft. cement = 90 lb.) Dry Sand (No bulking)	Damp Sand (30% bulking)
1 : 2 : 4	1 : 1¾ : 4	1 : 2¼ : 4
1 : 2¼ : 3¾	1 : 2 : 3⅔	1 : 2½ : 3¾
1 : 2½ : 3½	1 : 2¼ : 3½	1 : 2⅔ : 3½

Part II of the Note will deal with the precautionary measures that may be used where precast or *in situ* concrete have to be placed in the ground in districts where, from previous experience or examination of the soil, it is thought that some risk of attack exists. Details are given of the method of taking proper samples of soils and ground water for analysis.

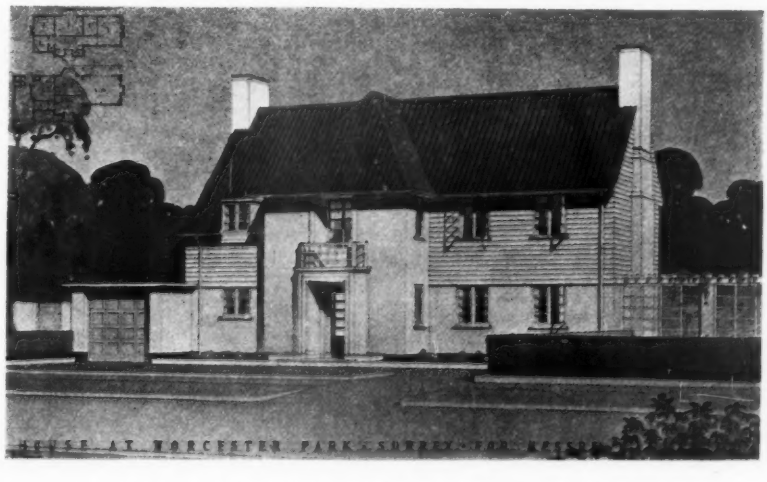
HOUSING : SCOTLAND

The sixth Order bringing into full operation the provisions of the Housing (Scotland) Act, 1935, for the control of overcrowding has just been issued by the Department of Health for Scotland. The Order applies to the Burghs of Castle Douglas, Dollar, Newburgh, Newport, the Royal Burgh of Sanquhar and the Burgh of Largs, and fixes, in the case of the first five mentioned burghs July 1, 1939, and in the case of the Burgh of Largs, October 1, 1939, as the "appointed day."

Before the appointed day can be fixed for any locality, the Department of Health have to be satisfied that the greater part of the additional housing accommodation, shown by the Overcrowding Survey to be required in the locality, has been provided. The town councils of the burghs mentioned have complied with the requirements.

After the appointed day, it will be a punishable offence under the Act for an occupier to overcrowd a house. The Act, however, contains certain safeguards to meet the difficulties of sitting tenants. Broadly speaking, the occupier of a house which is overcrowded on the appointed day, or which becomes overcrowded after that day merely by reason of the increasing age of children, is safeguarded from prosecution, unless he refuses alternative accommodation offered to him, or fails to secure the removal from the house of a person, not being a member of his family, whose removal is reasonably practicable.

The other places in Scotland so far to which these provisions for the control of overcrowding apply are the Dysart Ward of Kirkcaldy, the Burghs of Queensferry, Old Meldrum, Ellon and Bonnyrigg and Lasswade, the Royal Burgh of Cupar and the Special Scavenging District of Kennoway in the County of Fife.



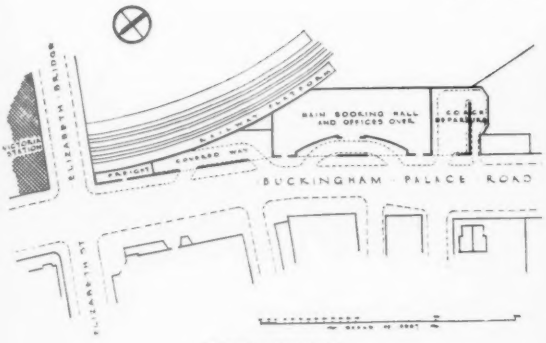
From the R.A. Exhibition. House at Worcester Park, Surrey. By Kenneth W. Bland.

IMPERIAL AIRWAYS HOUSE, VICTORIA

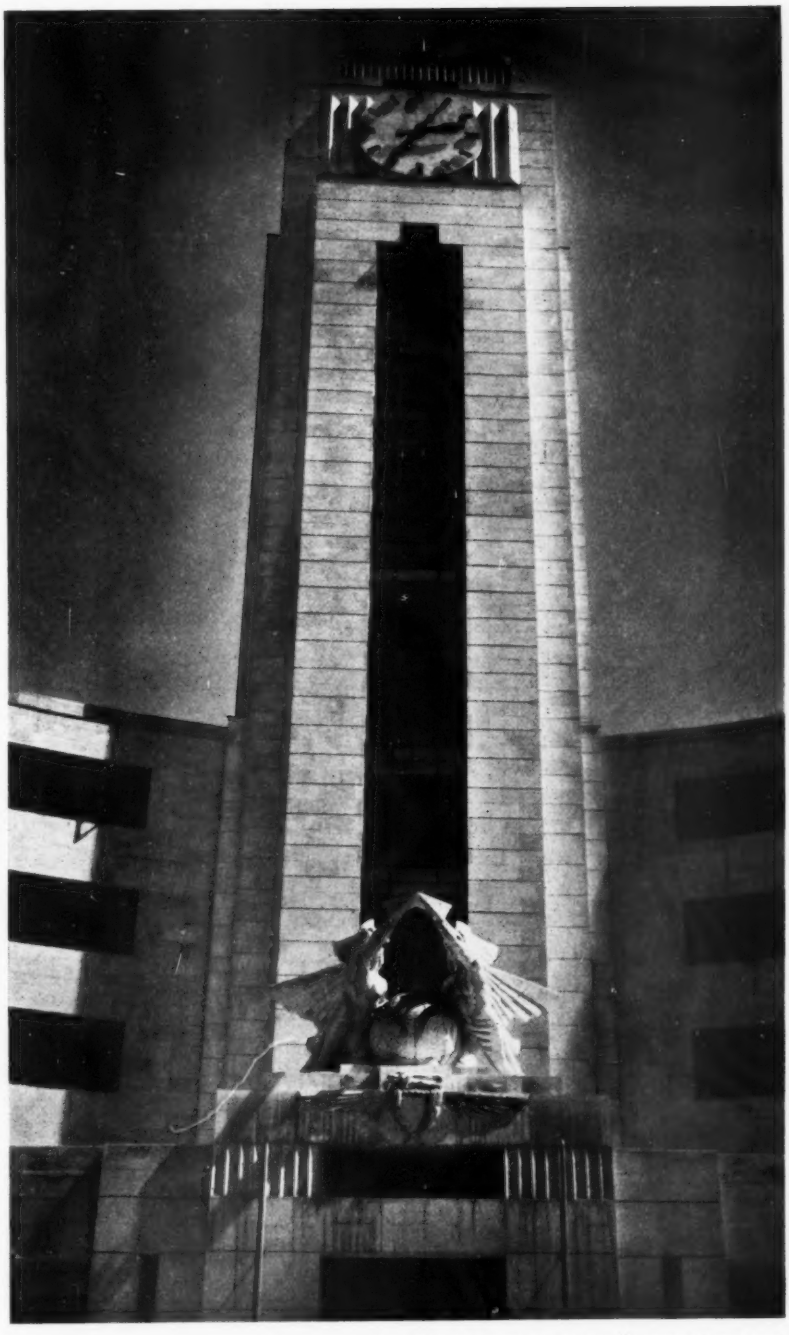
BY A. LAKEMAN: ASSISTANT, W. H. WILLIAMS

PROBLEM—*This new terminus and headquarters building, consisting of 12 floors and 100 general offices, is the outcome of the rapid expansion of air-transport during the past few years. The principal object of the new building was to concentrate administrative departments which have hitherto been scattered.*

ABOVE, THE FRONT TO BUCKINGHAM PALACE ROAD



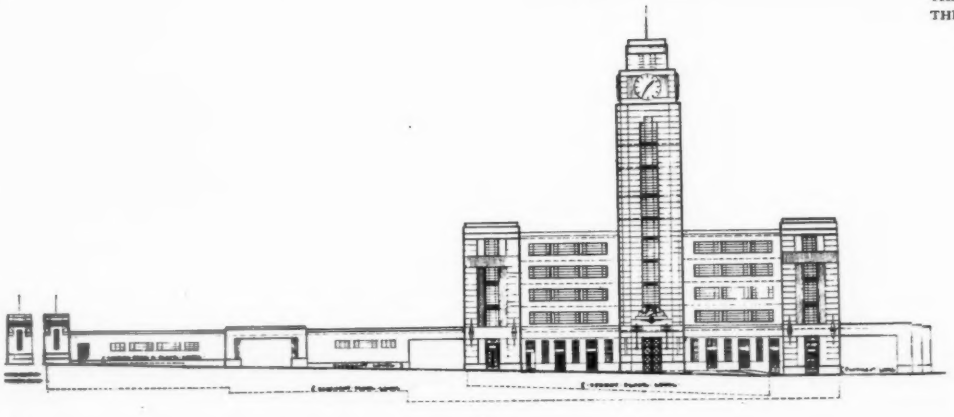
SITE PLAN



THE TOWER : THE STATUARY "SPEED-WINGS OVER THE WORLD" WAS EXECUTED BY E. R. BROADBENT

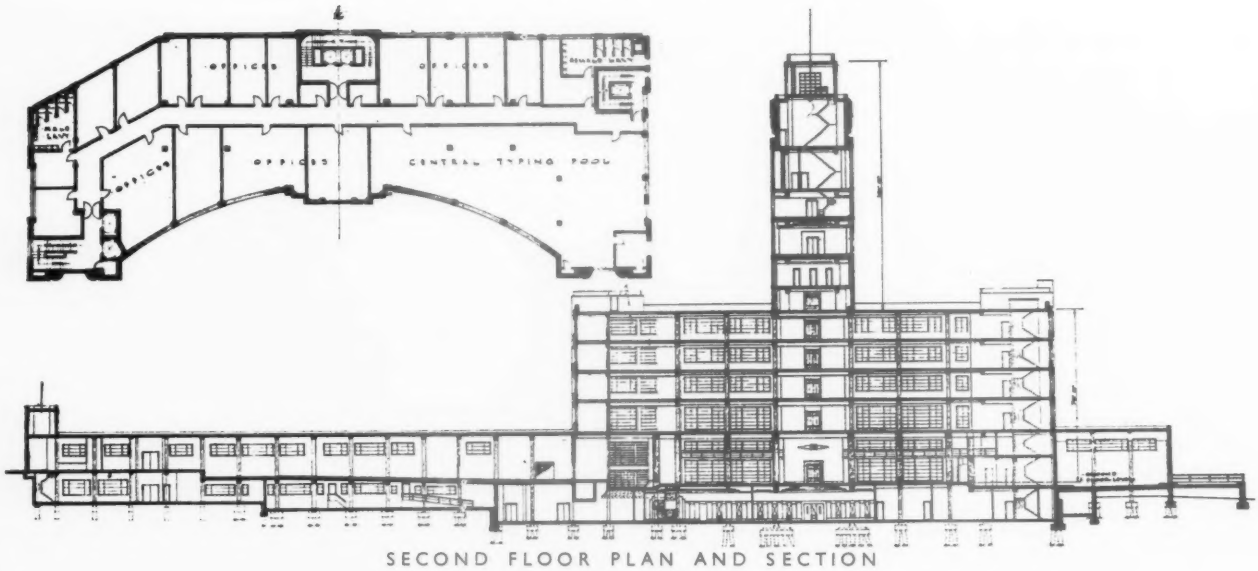
SITE—*On a wedge-shaped site fronting Elizabeth Bridge and Buckingham Palace Road. The rear of the building, having direct access to platform No. 17, Victoria Station, enables Empire passengers to board trains which run direct to Southampton—the flying-boat base. Passengers departing by coach for Croydon airport leave from the covered coach departure station at the south end of the site.*

CONSTRUCTION AND EXTERNAL FINISHES—*Steel-framed, with external walls of brick and internal partitions of hollow blocks. Floors are of hollow tiles with the exception of the first floor and all the staircases, which are constructed of reinforced concrete. The flat roofs also are hollow tile, insulated with two inches of cork and covered with patent roofing. Metal sashes are used throughout, and the external window cills are all lead-covered, whilst internally they are pressed steel. The main and subsidiary towers are built upon a reinforced concrete raft, 82 ft. by 63 ft. in extent, capable of withstanding a load of 5,000 tons. The rest of the building was carried on reinforced concrete foundations. The main façades to Buckingham Palace Road and Elizabeth Bridge are faced with Portland stone. The rear elevation and that facing Ebury Bridge are faced with selected stocks.* 2R9 10

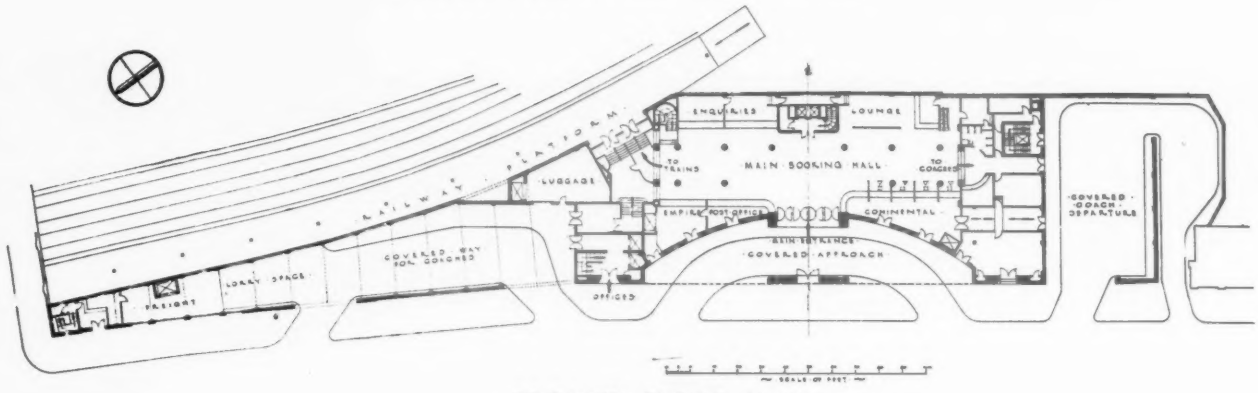


ELEVATION TO BUCKINGHAM PALACE ROAD

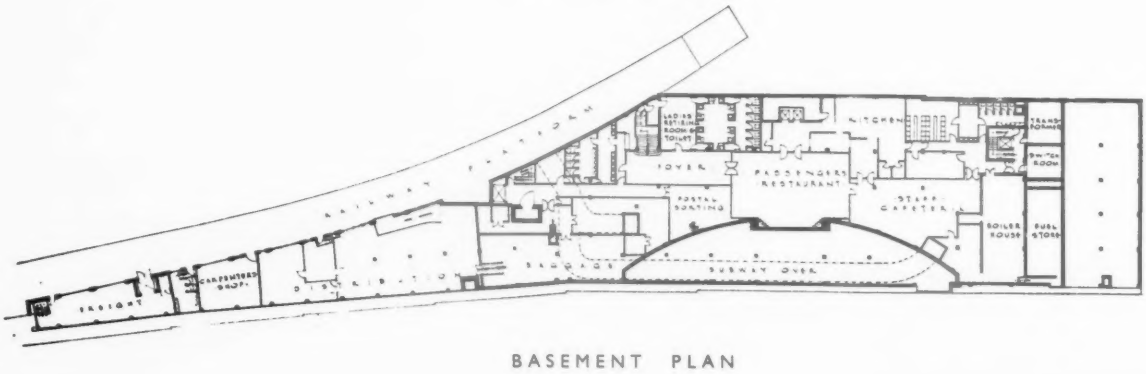
IMPERIAL AIRWAYS HOUSE, VICTORIA • BY A. LAKEMAN



SECOND FLOOR PLAN AND SECTION



GROUND FLOOR PLAN



BASEMENT PLAN

DRIVE IN, BUCKINGHAM PALACE ROAD

PLAN—*In planning the building, particular attention was paid to the need for keeping the vehicles using the premises—coaches, taxis and private cars—off the main thoroughfare. The curved covered approach to the main building enables vehicles to load and unload their occupants well within the frontage line of the terminal, and also provides cover in bad weather.*

IMPERIAL AIRWAYS HOUSE, VICTORIA • BY A. LAKEMAN

WATER GARDEN AT OSHAWA, ONTARIO

Awarded 1939 Bronze Medal of Royal Architectural Institute, Canada

John M. Lyle, F.R.I.B.A., R.C.A., F R.A.I.C. Archt. *Contractors: The Gay Construction Co.*

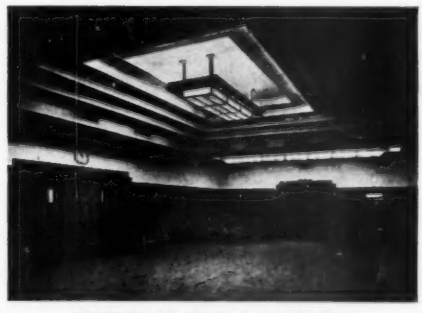
ON the main axis of the garden is a pool 161 ft. long by 21 ft. wide, leading to a larger central pool 61 ft. square. At the western end, as the central architectural feature, is placed the tea house. The pools have a water depth of 2 ft. and are constructed of reinforced concrete made impervious by the addition, to the cement, of 'PUDLO' Brand waterproofing powder. The work was done in August, 1936, and remains perfectly satisfactory despite the extremes of the Canadian climate. It required just 2,250 lbs. — approximately an English ton — of 'PUDLO' Brand waterproofer, and its cost was a very reasonable outlay to secure such a good and lasting result.

DOORS LEADING FROM BOOKING HALL TO NO. 17 PLATFORM

INTERNAL FINISHES—*The 20-ft. high main booking hall has a mezzanine gallery on the rear wall and is panelled throughout with Canadian figured birch, with horizontal bands at dado level of African zebrano. The architraves, surrounds to the doors, and central clock feature are in Burmese teak. The 3-ft. diameter fluted columns are of teak, each standing on an ebonized base, the counters being also constructed of similar material. The booking-hall floors and all the upper floors and staircases have been laid with rubber, and the public rooms in the basement, as well as the staff canteen, have been laid with wood blocks. The main and staff staircases have been panelled to dado height with Australian walnut, and are plastered above. Surrounds to lift openings are in walnut. Panelling 8 ft. high with Australian walnut interspaced with mirrors is used in the foyer and passenger lounge buffet in the basement, and the ladies' retiring room has a panelled sycamore and cherry mahogany scheme. A board-room on the seventh floor, about 30 ft. square, and the directors' luncheon room on the eighth floor are panelled with English curled walnut, while several other large rooms have English ash and unpolished mahogany as the prevailing scheme. All general offices are plastered throughout and finished with cream distemper and brown paint; the lavatories are tiled 7 ft. high, and plastered and painted above.*

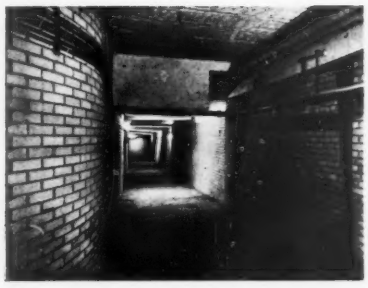
THE BOOKING HALL

ANOTHER VIEW OF THE BOOKING HALL



RESTAURANT, IN THE BASEMENT

IMPERIAL AIRWAYS HOUSE, VICTORIA • BY A. LAKEMAN



LUGGAGE TUNNEL

BOOKING ROOM

LADIES' RETIRING ROOM

SERVICES—*Panel heating is installed throughout, whilst in the foyer, buffet-lounge, kitchen, etc., a system of artificial ventilation has been introduced. Microphones connected to loud speakers are distributed in the public parts of the building to ensure instant notification to passengers of departure or arrival times of trains and coaches.*

The general contractors were Messrs. E. A. Roome & Co., Ltd. For list of sub-contractors and suppliers, see page 1131.

IMPERIAL AIRWAYS HOUSE • BY A. LAKEMAN

LAW REPORTS

PRIVATE STREET WORKS ACT : CLAIM AGAINST FRONTAGERS

East Barnet U.D.C. v. *Stacey and Others.—King's Bench Divisional Court. Before the Lord Chief Justice and Justices Humphreys and Lewis.*

THIS was an appeal by East Barnet Urban District Council from a decision of the local magistrates, in which the respondents were six frontagers to roads on an estate situated within the Council's area. The Abbey Road Building Society were also respondents in the appeal. The frontagers were Messrs H. G. Stacey, C. G. Kitchener, R. H. Pickworth, E. M. Riches, H. J. Turner, and S. Digby.

The case came before the Court on a special case stated by the magistrates, from which it appeared that the question in issue was as to whether the Council were entitled to include as part of the expense of private street works recoverable from the frontagers, the cost of additional road gullies or altering or connecting the gullies to sewers. The magistrates decided in favour of the respondents, holding that the cost of providing new gullies and altering others should be deleted from the provisional apportionment.

Mr. Erskine Simes, for the appellants, contended that the gullies were part of the carriageway, and not part of the sewers, and that the cost should be included in the apportionment to be borne by the frontagers. The alterations were necessary because the road levels had to be altered and he (counsel) submitted that the alterations were an integral part of the private street works. He further submitted that the work was part of the surface alterations, and that under the Private Street Works Act, 1892, and the Public Health Act, 1923, the cost could be recovered from the frontagers.

Mr. Robert Fortune, for the respondents, argued that the cost of providing new gullies, or altering the position of existing gullies or altering the levels, should be met by the public at large, as the work was part of the drainage system which had become vested in the Council. He contended that the system vested in the Council because they had approved the estate plans as complying with the by-laws and had maintained the system in use since its construction in 1929. He submitted that the gullies were part of the subterranean sewage system which was quite separate from the making-up of the road.

At the conclusion of the arguments the Lord Chief Justice, in giving judgment, said that the true differentia to be borne in mind was the differentia between the system of subterranean drainage on the one hand and the paving of the road, and matters immediately connected with it, on the other. As the matter stood, he was not prepared to say that the magistrates had arrived at a wrong conclusion, although much might be said on both sides.

He thought the words of Lord Alverstone, in the case of the Wandsworth Borough Council against Golds, heard in 1911, might well be cited in the present case. They were : " The second point relied upon was that the expense of providing the gullies which formed part of the subterranean drainage did not come under the head of paving or forming the road,- and consequently was not properly chargeable to the frontagers. . . I should have some difficulty in coming to the conclusion that the construction of a gully, that is to say, of the connection of the channel with the sewer, is either part of the paving or the formation of the road. The paving of a road is one thing and the making of improved drainage to take the water away that comes from that paving is another."

He therefore thought the appeal should be dismissed.

The other members of the Court concurred and the appeal was dismissed with costs.

ADVERTISEMENT SIGNS : AMENITIES OF PUBLIC PARKS

Mayor, etc., of Twickenham v. *Sosigns, Ltd.—King's Bench Divisional Court.—Before the Lord Chief Justice and Justices Humphreys and Lewis*

THIS was an appeal by the Twickenham Borough Council against a decision of the Brentford magistrates regarding advertisements exhibited near The Green, Twickenham, in which the respondents were Solosigns, Ltd.

The matter came before the court by way of a case stated by the magistrates.

The appeal raised important questions as to the validity of a by-law made by the Council under the Advertisements Regulation Acts. The statute enables a local authority to make by-laws in connection with advertisements exhibited in such a way as to affect injuriously the amenities of a public park.

An information preferred last year on the Twickenham Council's behalf against Solosigns, Ltd., was dismissed by the Brentford magistrates, who held that a particular by-law was *ultra vires* and inequitable and exceeded the powers conferred on the Council.

The Divisional Court now allowed the appeal and remitted the case to the magistrates with a direction to them to find that the offence charged was proved.

The Lord Chief Justice, giving judgment, said that an information was preferred by the Town Clerk of Twickenham under certain by-laws made by the local council under the Advertisements Regulation Acts, 1907 and 1925. The information was against Solosigns, Ltd., who were alleged to have exhibited an advertisement within a distance of 50 yards from a public park, known as The Green, Twickenham, so as to be visible from the park contrary to No. 9 of the by-laws.

The Brentford magistrates dismissed it and the question was whether they had come to a correct decision in point of law.

By-law No. 9 was to the effect that no person should exhibit any advertisement within a distance of 50 yards from any public park or pleasure promenade, specified in a schedule, so as to be visible from " such park or promenade." Another by-law, however, which had a limiting effect, concerned the " trade or business carried on in the building," upon which such advertisement was exhibited. In certain respects in relation to certain matters it cut down the provisions of by-law No. 9.

The magistrates had found that Solosigns,

Ltd., had exhibited an advertisement on the wall of premises known as 88 The Green, Twickenham.

Between certain dates three different posters had been fixed to the wall, the first relating to a national newspaper, the second to a cinema entertainment, and the third one to Oxo. The whole advertisement was within 50 yards of The Green and was visible from The Green.

Oxo was sold in a grocery business conducted on premises in the building where the advertisement was and the argument had been advanced on behalf of Solosigns, Ltd., that the advertisement came within the exceptions to by-law No. 9.

In his opinion, his lordship continued, the " trade or business carried on in the building " meant the particular trade or business there carried on. The words did not extend to cover an omnibus advertisement, the only relation of which to the building was that the commodity advertised was one of many various commodities which might be found for sale within the building.

Solosigns, Ltd., had also contended that by-law No. 9 was invalid because it failed to give effect to the Advertisements Regulation Act of 1907, and that it was inequitable in that the distance of 50 yards was arbitrary. Against that, however, it was argued that the by-law was *intra vires* and that the exceptions in the other by-law had no application to the circumstances of the case.

His lordship had come to the conclusion, not hastily, and not without careful consideration of this controversy, that this by-law, No. 9, was *intra vires* as the local council contended. He quite recognized that there was a good deal to be said the other way, but that was the conclusion to which he had quite deliberately come.

His lordship went on to say that the court was dealing with a by-law made by a local council with reference to a particular place with which that council was perfectly familiar. The by-law was made for the supposed benefit of the public making use of a public place within the council's jurisdiction.

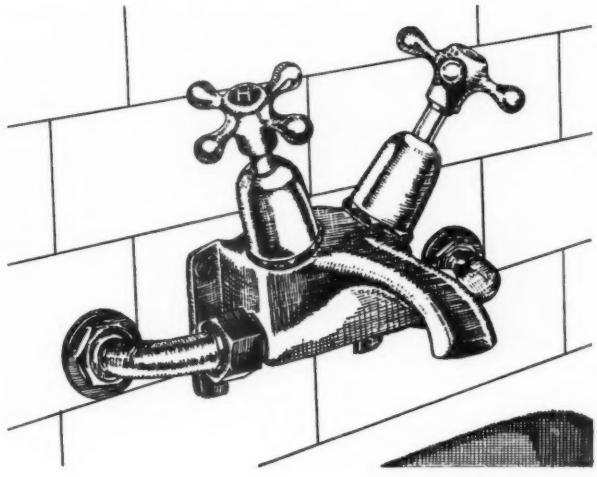
It had been argued that there could be no magic in the precise measurement of 50 yards, and that some advertisements exhibited might be harmless, but might offend some far-fetched notion of ascetic propriety and that other advertisements must be harmless. The by-law it was contended omitted to provide that in order that an offence should be committed there must be, in fact, injurious affectation of the amenities of the public park in question.

It seemed to his lordship that it would be putting an intolerable burden on the local authority if it were necessary to prove in every particular case that a particular advertisement did injuriously affect the amenities of a public park.

He did not think that the court ought to be astute to find possible difficulties to which administration of the by-law might give rise. He was far from suggesting that the present case was an obvious one, but regard being had to the powers of the local council and their special knowledge and to the limitation that the advertisement must be within a distance of 50 yards and visible from the park, he thought that the by-law was one which ought to be supported.

Mr. Justice Humphreys and Mr. Justice Lewis concurred.

Mr. Erskine Simes appeared for the council, and Mr. A. M. Lyons, K.C., and Mr. John Davidson represented Solosigns, Ltd.



TRADE NOTES

[*By PHILIP SCHOLBERG*]

A Duplex Tap Unit

THE above sketch shows a duplex tap unit which has recently been introduced by Peglers. During the last few years single delivery for both hot and cold supplies has become quite popular, and this fitting is intended mainly for use on sinks. It seems to me quite a neat unit, with the headwork set well forward for ease of control and a good large box to give a proper mix between the hot and cold. The nozzle comes forward far enough to be well clear of the back of the sink, and the back plate has screw holes to give a firm fixing to the wall. And here the question of the window at the back of the sink crops up once more. Quite often there is not enough height between the top of the sink and the cill for it to be possible to fix any sort of fitting, and the manufacturers might therefore find it worth while to produce a type which could be supported by the pipe leads only. The point is perhaps a small one, but all taps should be a reasonable height above the sink and the window cill itself may be really a little on the low side because the designer wanted it to line up with the other cills on the same elevation.

One other detail, nothing whatever to do with Peglers, is perhaps worth mentioning here. Luxury sinks occasionally have the taps arranged at the front of the sink with their heads projecting horizontally and pipe leads running to an outlet on the back wall. These are very nice in many ways : some months ago, however, I was introduced to one in a showroom and dutifully went through the motions of turning taps and passing imaginary dishes from sink to draining board. Excellent. But only some minutes afterwards did I discover that the heads of the taps are capable of unobtrusively doing the most astonishing things to one's trouser buttons. This is not intended as covert propaganda for zip fasteners, but as a timely warning to architects who may wish to introduce a client to the latest gadget.

I have almost forgotten to add that Peglers' unit is produced in two designs, one to M.O.H. requirements and one to J.C.S.W.R. Finish is chromium plate and plumbing may be arranged for lead or copper tube. Prices run from 19s. 3d. to 24s. 6d.—(*Peglers, Ltd., Belmont Works, Doncaster.*)

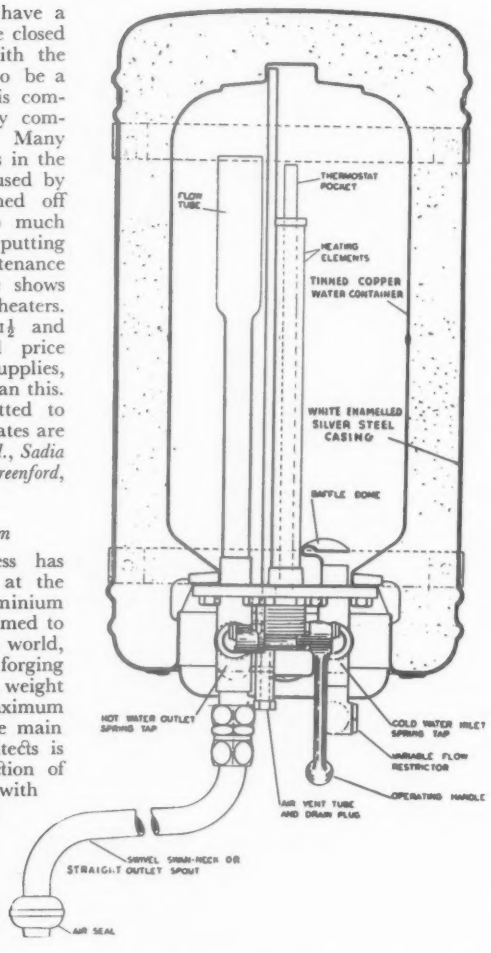
Electric Water Heaters

The ordinary type of electric water heater generally to be found over the sink is quite a satisfactory fitting, but it has one or two minor snags which have now been attacked by Aidas Electric in a sensible sort of way. It should be realized that the single control tap of the normal heater is placed in the cold supply pipe, and that when this tap is turned on the hot water in the heater is displaced by the incoming cold. As a result of this there is generally a slight pause of five or ten seconds between the tap being turned on and the appearance of the hot water at the spout, and a corresponding flow after the tap is turned off, not to mention the possibility of drips as the cold water in the heater becomes warm and expands. For these reasons the heater generally has to be placed so that the outlet pipe ends up over the sink. And the sink should, of course, have a window behind it, with the result that the heater has to be mounted to one side with a long and possibly inconvenient swivelling outlet pipe.

The new Star type Sadia heater overcomes these difficulties by having inlet and outlet valves operated by a single lever control so that flow and cut-off are immediate and there can be no drips. The valves are spring loaded, and for this reason the lever has to be held all the time a flow of water is needed. This may be thought to be a disadvantage, but it need not necessarily be so, for it should lead to a saving of hot water. Few of these little heaters have a very rapid recovery time and thus the comparative certainty that there will nearly always be a proper supply of hot water is probably more important than any possible financial savings.

This method of control with two valves also leads to certain other advantages, for the flow tube inside the heater is always covered with water, so that fur does not easily collect inside it. The springs close the valves as soon as the handle is released

and this means that the washers have a comparatively easy life, for they are closed always in the same place and with the same pressure. This may seem to be a small point, but I gather that it is comparatively important to the supply companies who hire these heaters. Many users appear to think that the drips in the more usual types of heater are caused by the tap not being properly turned off and they therefore apply far too much pressure, ruining the washers and putting up the supply company's maintenance costs. The section on this page shows the general arrangement of these heaters. They are made in two sizes, 1½ and 3 gallons capacity, at a retail price of £5 5s. and £6 15s. for A.C. supplies, D.C. models being 11s. 6d. more than this. The heating unit can also be fitted to existing Sadia heaters as the base plates are interchangeable.—(*Aidas Electric, Ltd., Sadia Works, Rowdell Road, Northolt, Greenford, Middlesex.*)



Extruding Aluminium

A new 5,000-ton extrusion press has recently been put into operation at the Banbury works of the Northern Aluminium Company. The press, which is claimed to be the biggest of its type in the world, is capable of extruding billets for forging or other purposes up to a maximum weight of nearly half a ton and of a maximum diameter of nearly 16 ins. The main interest of this new press to architects is that it makes possible the production of decorative mouldings in sections with a maximum dimension of anything up to 12 ins. This not only helps to overcome the problem of joints, but sections may in many instances be produced in medium strength alloys, thus giving added strength to the structure.

For the more intricate sections in pure aluminium and the commoner alloys finished pieces weighing something over 600 lb. may be produced in dimensions which fall within a 12-in. diameter circle and with a cross sectional area as great as 50 sq. ins., though in the stronger alloys this area may be reduced to about 14 sq. ins. Where large diameters are concerned the thickness of the section is an important factor, and it is not possible to produce anything thinner than about ⅜ in. when the overall dimensions are up to the limit of 12 ins. Smaller dimensions allow thinner sections to be produced.—(*The Northern Aluminium Company, Ltd., Bush House, Aldwych, London, W.C.2.*)

Waterproof Basements

In the middle of last month I described in these notes a sump valve for use in basements, waterproof or otherwise. I now find that one or two asphalt firms think that I thereby implied that all asphalted basements leak like sieves. My apologies to them, even though I never meant to imply anything of the kind. I do not believe that the sump valve in question is an absolutely essential fitting, but it is probably quite a useful thing to have, especially from an A.R.P. point of view if it should be necessary to find out the effects of any structural damage. So far as asphalt is concerned I cannot do better than quote an instance of a building on an exceptionally waterlogged site. The building was heated by oil-fired boilers, and before the job was completed the oil tank (in an asphalt-lined chamber of its own) was accidentally overfilled. The oil on the floor dissolved the asphalt, which had to be scraped off. While the new lot of asphalt was being applied the water pressure outside the building was high enough to produce a fine but continuous spray through the wall, but none the less the asphalt did its job. More than this one cannot very well ask of any waterproofing material.

Sound-proofing Windows

Messrs. C. E. Welstead of Croydon have just introduced a provisionally patented sound-resisting window. This consists of an inner and outer vertically pivoted casement with bronze connecting links coupling the two casements so that they are opened and shut together. The coupling members are bedded on absorbent packing to avoid the transmission of vibrations and are also adjustable so that the casements can be made to fit closely on their frames. Glass sizes in the inner and outer casements are different, thus avoiding the danger of resonance to a single tone. Double glazing can produce quite considerable reductions in sound transmission, two sheets of ¼-in. glass spaced 5¾ in. apart giving 68 decibels reduction at a frequency of 1,000 as opposed to 36 decibels for a single ¼-in. sheet. Double windows, therefore, can show almost as high a sound reduction factor as a 4½-in. brick wall, and their installation has apparently been thought worth while by the proprietors of several London hotels. As a secondary factor, heat loss is reduced by approximately one half, and condensation is also minimized, though, as one or two railway companies have discovered, it is necessary to make the space between the double windows completely air-tight if condensation is to be avoided altogether. Messrs. Welstead have published quite an informative little booklet on the general question of reducing sound transmission through windows, giving information not only on such practical points as suitable furniture, glass thicknesses and appropriate bedding materials, but also quoting N.P.L. test figures for experiments on sound reduction in relation to the distance apart of the sashes. These latter figures, since they show the importance of the distance between the sashes, seem worth quoting in full :—

Distance	Average reduction (decibels)
Sashes in contact	42
1½ in.	47
4½ in.	49
7½ in.	53
9½ in.	55
13½ in.	57
16 in.	58

These figures are for ¼-in. plate glass.—(*C. E. Welstead, Ltd., St. Andrews Works, Croydon, Surrey.*)

Equipment for A.R.P.

The two JOURNALS at the beginning of this month surveyed the current methods of structural protection, but there was not, of course, enough space to describe all the apparatus (air-conditioning plants, doors and other general equipment) available for installation in shelters. Two more items have been brought to my notice, both of them sold by Mortimer Gall in Cannon Street. The first is the Bell water sterilizing equipment, which consists, essentially, of a tank to contain the sterilized water, and a filter to remove any suspended solids. The sterilizing process is the perfectly simple one of chlorination, ampoules of the necessary solution being added to the suspect water, which is then poured into the tank and is almost immediately afterwards available at the filter outlet. It should be realized that the filter unit is not absolutely necessary, for the water, once the chlorine has been added, is perfectly safe to drink, though it may be extremely unattractive in appearance. In the demonstration which I attended a bucket of water was produced, and to this seemed to have been added a handful of cigarette ends, mud, and a shovel or so of road sweepings. The mixture was chlorinated, but I do not for one moment believe that the average office staff would have had the slightest faith in its sterility. Hence the filter, which may be merely *pour encourager*, but which none the less seems to me an essential part of the apparatus.

If, as seems more than possible, water mains and sewers are likely to be fractured by bombs, some fitting of this kind will be the very first thing needed. Price is £13 10s.; quite enough, but the whole unit is well and solidly made, and it is no use making a light job which may be rusted through before the war starts.

The same firm is also selling hand lamps and stand-by lighting plants, all of which are equipped with Ni-Fe alkaline accumulators. These accumulators are far more robust than the normal lead plate type, and they have the even greater advantage that they will hold their original charge for a year or more without any attention.—(*Mortimer Gall & Co., Ltd., 115–117 Cannon Street, London, E.C.4.*)

THE BUILDINGS ILLUSTRATED

BEDFORD MODERN SCHOOL FOR GIRLS (pages 1105-1109). Architect: Oswald P. Milne. The general contractors were Samuel Foster, Ltd., who were also responsible for the excavation, plumbing and plaster. Sub-contractors and suppliers included: British Reinforced Concrete Engineering Co., B.R.C. fabric to foundation concrete; G. M. Callender & Co., Ltd., Ledkore dampcourses; Wm. Briggs & Co., Aqualite sheeting for tanking to boiler house, Lavacrete to flat roof and insulation board; Liversedge Reinforced Concrete Co., reinforced concrete for boiler house; Charles Franklin, multi-coloured facings; Herberts supplied Groveburys sand and lime for internal work; Croft Granite Co., artificial stone; Aston Construction Co., Ltd., structural steel; A. J. Tatham, wall tiling; Haywards, dome lights; Hollis Bros. & Co., Ltd., beech blocks; Kleine Co., hollow tiles; Henry Bacchus, Ltd., central heating and boilers; Ascot Gas Water Heaters, Ltd., gas fixtures; Bedford Gas Co., gasfitting; Tyler and Freeman, electric wiring, electric light fixtures and electric heating; Adamsez, Ltd., and William Farrer, sanitary fittings; W. W. Jenkins & Co., Ltd., terrazzo, corridor flooring and staircases; Comyn Ching & Co. (London), Ltd., door furniture; Williams and Williams, Ltd., casements; William Pickford, Ltd., external gates and metalwork; Gascoignes of Bedford, iron balustrading and metal work; Potter Rax Gate Co., Ltd., cloak room fittings; Plaster Decorations Co., Ltd., decorative plaster; J. P. White and Son, joinery in library and hall, and furniture; Wells of Bedford, textiles; Kingfisher, Ltd., furniture; Tucker and Edgar and Everett Edgcumbe & Co., Ltd., clocks; J. W. Gray and Son, Ltd., lightning conductor.

HOUSE AT HADLEIGH (pages 1121-1122). Architect: Wells Coates. General contractor was E. R. Cockburn and the sub-contractors and suppliers included: Joseph Jackson Sons & Co., Ltd., structural steel; Slate Slab Products, Ltd., slates; Lenscrete, Ltd., patent glazing; G. Stephenson & Co., Ltd., patent flooring; Watkin Heating Co., Ltd., central heating; Greenwood Ventilating Co., Ltd., ventilation; Matthew Hall & Co., Ltd., plumbing; John Bolding and Sons, Ltd., sanitary fittings; Henry Hope and Sons, Ltd., casements; Sissons Bros. & Co., Ltd., plaster; Stic B. Paint Sales, Ltd., plaster; Hilmor, Ltd., metalwork; D. Burkle and Son, Ltd., furniture.

IMPERIAL AIRWAYS LTD., BUCKINGHAM PALACE ROAD (pages 1124-1128). Architect: A. Lakeman. The general contractors were E. A. Roome & Co., Ltd., and the sub-contractors and suppliers included: Piling and Construction Co., Ltd., foundation work; Horseley Bridge and Thomas Piggott, Ltd., steelwork; Bath and Portland Stone Firms, Ltd., stonework; Helical Bar and Engineering Co., Ltd., fireproof floors; James Gibbons & Co., steel windows; Richard Crittall & Co., Ltd., heating; William Briggs & Co., Ltd., waterproofing; J. and E. Hall, Ltd., lifts; Higgins and Cattle, Ltd., electrical work; W. J. Furse & Co., Ltd., lightning conductors; Dunlop Rubber Co., Ltd., rubber flooring; E. R. Broadbent, sculpture; Matthew Hall & Co., Ltd., internal plumbing and drains; Shutter Contractors, Ltd., fire-resisting rolling shutters; Hughes and Lancaster, Ltd., sewer ejectors; Plastona, Ltd., dustless grano. floors; Cork Insulation Co., Ltd., cork roof insulation; W. N. Froy and Sons, Ltd., sanitary fittings; Tile Decorations, Ltd., wall tiling; Stevens and Adams, Ltd., wood-block floors; J. P. White and Sons, Ltd., wall panelling, etc., to main booking hall; Gillett and Johnston, Ltd., external and internal clocks; Semtex, Ltd., Sextex flooring to lavatories; G.V.D. Illuminators, Ltd., electric light fittings for booking hall; Fredk. Tibbenham, Ltd., panelling to directors' room, conference room, luncheon room, ladies' toilet and retiring room, etc.; Colliers (Wholesale), Ltd., special electric light fittings; Lenscrete, Ltd., patent roof lights; Harrods, Ltd., decorative scheme in chairman's office; Trollope and Colls, Ltd., decoration, deputy-chairman's office; C. Harvey & Co., electric light fittings to board room, etc.; Caston & Co., Ltd., metalwork; W. A. Telling, Ltd., solid and fibrous plastering external facings to rear; Aygee, Ltd., glazing.

MANUFACTURERS' ITEMS

There is a definite demand for a type of door for air-raid shelters that is not unreasonably expensive, yet which is to a certain extent blast-proof if not splinter-proof, and which is fire- and gas-proof and also will function as an ordinary door.

A door on these lines has been produced by Messrs. Joseph Sandell & Co., Ltd., of 101, Waterloo Road, S.E.1. The manufacturers do not claim that the door is completely blast- or spinter-proof, but they maintain that it will withstand any reasonable pressure, and that at any rate it offers more protection per shilling than any other A.R.P. door on the market. If the dictum of "the more you spend the safer you are" holds good, this seems to be a very reasonable argument, particularly as the door complete with two heavy type strap hinges, two refrigerator type handles, rubber gasket and frame is marketed at 87s. 6d. in any size up to and including 2 ft. 6 in. by 6 ft. 6 in.

By an ingenous use of iron L straps which can be fitted to the frame before it leaves the works, it is possible to tie the complete unit into a concrete opening in certain proprietary types of precast concrete shelters.

The manufacturers point out that as the door is of wood it is possible to have it made in any size with the least amount of delay. Full particulars and detailed prices can be had from Joseph Sandell & Co., Ltd., 101, Waterloo Road, London, S.E.1.

●

An interesting case of the durability of galvanized steel has been brought to light during repairs to the roof of a building exposed to somewhat unusual atmospheric conditions.

The photograph on this page illustrates a galvanized steel glazing bar of "Helliwell" manufacture used in the construction of roof

lights for the Grass house of the Carrongrove paper mills at Denny in 1907. Operations in the mills produce steam with a slimy residue which is constantly emitted through ventilators and actually plays on the bars of these roof lights.

The condition of these bars is noteworthy, inasmuch as, after thirty years of this treatment they were found, after a few minor replacements had been made, to be still good for many years of useful service.

A B.6 model is the latest addition to the Eagle Range & Grate Co., Ltd., Bijou series. The oven is built of cast-iron sections, an economical construction giving long life and easy replacement. The firebox also is all cast-iron and is easily removable; it has a bow front, permitting a good body of fuel without necessitating a large brickwork opening. The whole front of the ashpit is removable so that there is plenty of room for ash clearance.

Flue cleaning also is very simple; there is only one flue door on the front of the grate, and this is sunk flush. A door in the oven back gives easy access to the back flue, and a separate door is provided for chimney cleaning.

●

Banister, Walton & Co., Ltd., the constructional steel engineers, of Trafford Park, Manchester, announce a final dividend of 15 per cent. (less tax) on the ordinary shares, making, with the interim dividend of 10 per cent., a total of 25 per cent. (less tax) for the year ending March 31, 1939. The total dividend is unchanged from last year.

The directors state that the plant is working to full capacity and future prospects are good.

Dividends will be paid on transfers received up to 2 p.m. June 13, and will be posted on July 5.

The annual general meeting will be held on July 4. The issued capital is £116,500 in 5s. ordinary shares.

●

The price of cement has been reduced by 1s. per ton. This reduction covers "Blue Circle" Portland cement, "Ferrocrete" Rapid Hardening Portland cement, "Aquacrete" Water Repellent Portland cement and Rapid Hardening "Colorcrete," but does *not* affect "Snowcrete" white Portland cement.

●

A new booklet on road safety just published, under the title of "Roadway Reason," consists of numerous hints on how to avoid accidents, particularly of the type which are often called unavoidable or unexpected. Although it is addressed principally to motorists this booklet is of equal interest to cyclists, motor cyclists, and pedestrians, and is notable for its complete absence of partisanship towards any one section of road users. It succeeds admirably in its object, which is defined in the brief introduction as—"Things which may affect the comfort or convenience of others . . . a reminder of some of the less frequent situations which may arise, and of some which are possibly outside the scope of the Highway Code." The pages of hints are illustrated with boldly drawn pictures of traffic incidents.

The sponsors of "Roadway Reason" are British Insulated Cables, Ltd., Prescot, Lancashire, who have published the booklet as their contribution to "Safety First" propaganda.

●

We have received a copy of No. 6 of the informative series of booklets dealing with problems which have been solved by the use of asbestos-cement. These are being published at fortnightly intervals by Messrs. Turners Asbestos Cement Co. Branch of Turner and Newall, Ltd., and the issue in question deals with the problem of safeguarding buildings against the threat of incendiary bombs. This little booklet gives full details of how "Turnall" asbestos wood can be applied as a fire-resisting agent in any building and it also shows by means of photographs how a series of tests with incendiary bombs established the value of the material for this class of work. Copies of this booklet are obtainable from Turners, free of charge.

●

Messrs. Isteg Steel Products, Ltd., manufacturers of Isteg concrete reinforcing steel, have moved their head offices to 19, Grosvenor Place, S.W.1. Telephone: Sloane 9821-2.

Copies of the loose supplement containing the labour rates for the principal towns and districts throughout the country can be obtained from the JOURNAL, price 2d. to cover postage.

PRICES

ON the following pages appears Prices of Materials —Part I, with the prices, last published on May 11, brought up to date.

Immediately below, Messrs. Davis and Belfield mention the principal changes which have occurred in the last month. Similar notes will be published on this page each month.

NOTES ON PRICE CHANGES

Timber prices are particularly unstable. The prices given are the latest obtainable before going to press, but they should be verified by actual quotation.

O. A. DAVIS, F.S.I.

★ ***ANSWERS TO QUESTIONS***

While the JOURNAL, naturally, cannot presume to undertake the responsibilities of a quantity surveyor, it has arranged with the authors of this Supplement to answer readers' questions regarding any matter that arises over their use of the Prices Supplement in regard to their work, without any fee. Questions should be addressed to the Editor of the JOURNAL, and will be answered personally by Messrs. Davis and Belfield. As is the normal custom, publication in the JOURNAL will omit the name and address of the enquirer so that it is unnecessary to write under a pseudonym.

• *Items marked thus have risen in price since last quotation on May 11.*

* *Items marked thus have fallen in price since last quotation on May 11.*

The complete series of prices will consist of four sections, one section being published each week in the following order:—

1. Current Market Prices of Materials, Part I.
2. Current Market Prices of Materials, Part II.
3. Current Prices for Measured Work, Part I.
4. A.—Current Prices for Measured Work, Part II.
   B.—Prices for Approximate Estimates.

★ *The previous complete Supplement is contained in the issues of the* JOURNAL *for May 11, May 18, May 25 and June 22.*

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.

PART 1

CURRENT MARKET PRICES OF MATERIALS—I

BY DAVIS AND BELFIELD

CONCRETOR

Cements

All delivered in paper bags (20 to the ton) free and non-returnable.

		4 Tons and over	In 80-ton freights F.A.S. Safe Wharf in River Thames, London Area.
Portland	per ton	42/–	39/6
Rapid hardening	per ton	48/–	45/6
Water repellent	per ton	72/–	—
Atlas White (1 barrel 376 lbs.)			per barrel 44/–

	1 ton upwards	10 tons and over
Colorcrete rapid hardening, Buff and red per ton	69/–	—
Colorcrete Rapid hardening khaki per ton	90/–	70/–
Colorcrete Rapid hardening blue per ton	113/–	103/–
Colorcrete non rapid hardening	per ton from 139/–	to 309/–
Snowcrete	per ton 175/–	

	1–10 cwts.	11–15 cwts.	16–20 cwts.	1 ton and upwards
Ciment Fondu, delivered Central London area per cwt.	7/9	7/3	6/–	6/–

Aggregate and Sands (Full Loads)

2″ Unscreened ballast	per yard cube	5/9
¾″ (Down) Washed, crushed and graded shingle	per yard cube	6/–
¼″ (Down) Ditto	per yard cube	7/3
2″ Broken brick	per yard cube	10/6
¾″ Ditto	per yard cube	11/9
Washed pan breeze	per yard cube	5/3
Coke breeze 1″ to dust	per yard cube	12/6
1/16″ Sharp washed sand	per yard cube	8/–
White Silver Sand for white cement (one ton lots)	per ton	25/–

(For Sands for Bricklaying and Plastering see respective trades)

Pavings

Brick hardcore	per yard cube	2/9
Concrete ditto	per yard cube	3/9
Clean furnace clinker and boiler ashes	per yard cube	3/3
Coarse gravel for paths	per yard cube	6/9
Fine ditto	per yard cube	9/6
Clean granite chippings	per ton	18/6
Red quarry tiles, 6″ × 6″ × ¼″	per yard super	6/–
Ditto 6″ × 6″ × ⅜″	per yard super	5/–
Buff ditto, 6″ × 6″ × ¼″	per yard super	6/6
Ditto 6″ × 6″ × ⅜″	per yard super	5/6
Hard red paving bricks	per 1,000	150/–

Reinforcement

*Basis price for mild steel rods, ½″ diameter and upwards, from London stocks	per ton	£12 15 0
Extras for :—		
9/16″ and ⅝″ diameter	per ton	10/–
11/16″ diameter	per ton	15/–
¾″ diameter	per ton	20/–
13/16″ diameter	per ton	30/–
⅞″ diameter	per ton	40/–

CONCRETOR—(*reinforcement continued*)

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	20/–	Ex Warehouse, Southwark Bridge. Drums chargeable and credited, if returned.
Ditto. (for obtaining a bond) per gallon	12/6	

BRICKLAYER

Common Bricks

Rough stocks	per 1,000	67/6
Third stocks	per 1,000	52/6
Mild stocks	per 1,000	69/6
Sand limes	per 1,000	50/–
* Phorpres pressed Flettons	per 1,000	46/3
* Phorpres keyed Flettons	per 1,000	48/3
Blue Staffordshire wirecuts	per 1,000	160/–
Lingfield engineering wirecuts	per 1,000	95/–
Breeze fixing bricks	per 1,000	57/6
Firebricks, best Stourbridge 2½″	per 1,000	155/–
Firebricks, best Stourbridge 3″	per 1,000	190/–

* At King's Cross. For delivery in W.C. district add 4/3 per 1,000.

Facing and Engineering Bricks

Sand Limes, No. 1	per 1,000	85/–
Sand Limes, No. 2	per 1,000	70/–
* Phorpres rustic Flettons	per 1,000	66/3
Midhurst Whites	per 1,000	75/–
Hard stocks, firsts	per 1,000	93/–
Hard stocks, seconds	per 1,000	86/–
Sand-faced, hand-made reds	per 1,000 from	115/–
Sand-faced, machine-made reds	per 1,000 from	110/–
Red rubbers (9½-in.)	per 1,000	300/–
Hunziker (white)	per 1,000	67/6
Hunziker (creams, light greys etc.) per 1,000	from 85/–	to 100/–
Dunbricks (concrete), multi reds, ex works	per 1,000	72/–
Dunbricks (concrete), multi lavender, ex works	per 1,000	75/–
Southwater engineering No. 1 (first quality red pressed)	per 1,000	145/–
Southwater engineering No. 2 (second quality red pressed)	per 1,000	125/–
Blue pressed	per 1,000	180/–

* At King's Cross. For delivery in W.C. district add 4/3 per 1,000.
Discount if accompanied by order for pressed 2/– per 1,000.

* Items marked thus have fallen since May 11

CURRENT PRICES

BY DAVIS AND BELFIELD

BRICKLAYER AND DRAINLAYER

BRICKLAYER—(*continued*)

White, Salt and Coloured Glazed Bricks (9″ × 4½″ × 2⅝″)

The following prices are subject to 2½ per cent. trade discount and 2½ per cent. cash discount, and include delivery to any railway station (minimum 4-ton loads). Add 10/– per 1,000 for delivery in London area.

Prices per 1,000	White, Ivory and Salt Glazed		Buff, Cream and Bronze	Other Colours	All Colours
	Best	Seconds	Best	Best	Seconds
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Stretcher, glazed one side ..	24 0 0	22 0 0	26 0 0	29 10 0	23 0 0
Header, glazed one end	23 10 0	21 10 0	25 10 0	29 0 0	22 10 0
Double stretcher, glazed two sides	32 10 0	30 10 0	34 10 0	38 0 0	31 10 0
Double header, glazed two ends	29 10 0	27 10 0	31 10 0	35 0 0	28 10 0
Quoin, glazed one side and one end	30 10 0	28 10 0	32 10 0	36 0 0	29 10 0

Limes and Sand

		1-ton lots	6-ton lots
Lime, greystone	per ton	42/–	37/6
Lime, chalk	per ton	42/–	37/6
Lime, blue Lias (including paper bags)	per ton	47/6	42/6
Lime, hydrated (including paper bags)	per ton	47/–	42/6
Washed pit sand	per yard cube		7/6

(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.	19/–
Wall ties, galvanized	per cwt.	24/6
Hoop iron, black	per cwt.	25/–
D.P.C. slates, size 18″ × 9″	per 1,000	150/–
D.P.C. slates, size 14″ × 9″	per 1,000	117/6
D.P.C. slates, size 14″ × 4½″	per 1,000	59/–
*Ledkore D.P.C. Grade A	per foot super	5d.
*Ledkore D.P.C. Grade B	per foot super	6¼d.
*Ledkore D.P.C. Grade C	per foot super	8d.

* Trade discount 5 per cent. and cash discount 5 per cent. Prices include delivery on minimum of £4 orders.

		9″×3″	9″×6″	9″×9″	12″×9″	14″×9″
Earthenware airbricks: red, blue, vitrified and buff terra cotta	each	–/8	1/4	2/4	4/–	6/8
		9″×3″	9″×6″	9″×9″	12″×6″	12″×9″
Black cast iron, School Board pattern airbricks	per doz.	3/–	5/6	11/–	11/–	20/–
Galvanized ditto	per doz.	5/6	11/–	22/–	22/–	40/–
Black hit and miss cast iron ventilators	per doz.	12/–	15/–	21/–	21/–	36/–
Galvanized ditto	per doz.	24/–	30/–	42/–	42/–	72/–
		1′ 0″	1′ 6″	2′ 0″	2′ 6″	3′ 6″	5′ 0″
Buff terra cotta chimney pots	each	2/6	3/–	4/4	5/9	13/4	22/6
Fireclay ..	per ton	45/–					

Wall reinforcement supplied in standard rolls containing 25 yards lin.
2″ wide black japanned — per roll 2/1
2″ wide galvanized .. — per roll 3/2
2½″ wide black japanned — per roll 2/7½
2½″ wide galvanized .. — per roll 3/10½
} Greater widths pro rata 2½″ price carriage paid on orders of £5. Discounts for quantities.

Partitions

		2″	2½″	3″	4″
Breeze ..	per yard super	1/3½	1/5½	1/8	2/3
Clay tiles ..	per yard super	2/3	2/6	2/9	3/1
Pumice ..	per yard super	2/8	3/–	3/6	4/–
Plaster ..	per yard super	2/3	2/9	3/3	4/–

BRICKLAYER—(*continued*)

Shepwood Partition Bricks size 9″ × 2⅞″ and 2½″ on bed. Terms, as for Glazed Bricks

Prices per 1,000 except where stated per brick	White, Ivory and Salt Glazed		Buff, Cream and Bronze	Other Colours	All Colours
	Best	Seconds	Best	Best	Seconds
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Double stretcher, glazed two sides	32 10 0	30 10 0	34 10 0	38 0 0	31 10 0
Single stretcher, glazed one side	24 0 0	22 0 0	26 0 0	29 10 0	23 0 0
	Each	Each	Each	Each	Each
Round end glazed two sides and one end ..	–/10½	–/10	1/0½	1/0½	–/10½

Gas Flue Blocks

		Single Flues	Double Flues
Straight blocks	each	1/1	1/11
Building in set	per set of 3	2/8	4/10
Cover blocks	each	1/5	3/–
Raking blocks 45°	each	2/9	3/11
Raking blocks 60°	each	1/11	2/10
Offset blocks	each	3/4	4/10
Closer blocks	each	1/1	1/11
Closer flashing blocks	each	1/–	1/8
Straight flashing blocks ..	each	1/–	1/8
Terminal and cap	per set	6/9	11/6
Middle terminal and cap ..	per set	6/3	10/9
End terminal and cap	per set	6/6	11/3
Corbel block	each	4/10	3/2
Gathering block	each	—	9/8

DRAINLAYER

Agricultural Pipes

		2″	3″	4″	6″
Pipes in 12″ lengths ..	per 1,000	67/6	92/6	120/–	210/–

(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 20%	Plus 5%
Orders under 2 tons, 100 pieces upwards	Less 2½%	Plus 22½%
Orders under 2 tons, less than 100 pieces	Plus 7½%	Plus 32½%

	Best	Seconds
Orders for 2 tons and over	Less 27½%	Subject to 15% off the price of best quality for all sizes
Orders under 2 tons, 100 pieces upwards	Less 10%	
Orders under 2 tons, less than 100 pieces	Nett	

CURRENT PRICES

BY DAVIS AND BELFIELD

DRAINLAYER AND MASON

DRAINLAYER—(*continued*)

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	..	6/2	6/11	11/–	8/4
1 . 1 . 20	4″ per yard	..	6/5	7/1	11/3	8/7
2 . 0 . 6	6″ per yard	..	9/6	11/4	18/3	14/7
4 . 0 . 2	9″ per yard	..	17/3	22/7	39/2	29/10

Socket and Spigot Pipes :—

Weight (per 9 ft.)	Size		2 fts.	18 ins.	12 ins.	9 ins.
1 . 1 . 8	4″ each	.. ..	6/11	6/2	5/5	4/11
1 . 1 . 20	4″ each	.. ..	7/–	—	—	—
2 . 0 . 6	6″ each	.. ..	10/11	—	—	—
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	✱6/1	●12/8	✱39/–
Single junctions	each	10/9	✱21/11	✱67/3
Intercepting traps	each	✱36/7	✱46/10	✱121/11
Gulleys ordinary trapped ..	each	✱14/2	—	—
Extra for inlet 4″	each	✱3/8	—	—
Grease Gulley trap	each	●117/6	—	—
H.M.O.W. large socket gulley trap with 9″ gulley top and heavy grating and one back inlet ..	each	✱18/7	●44/10	—

Cast Iron Inspection Chambers

The larger figures below refer to the main pipes and the smaller figures to the branches

	4″×4″	6″×4″	6″×6″	9″×6″	9″×9″
	each	each	each	each	each
Straight chambers with one branch one side ..	✱36/1	✱46/10	✱51/8	✱109/8	✱124/4
Straight chambers with two branches one side ..	●55/7	✱65/4	✱77/–	✱148/8	✱185/3
Straight chambers with three branches in all ..	●65/4	✱75/1	✱89/2	✱162/10	—
Straight chambers with four branches in all ..	●75/1	✱84/10	✱101/4	✱173/5	—
Straight chambers with three branches one side	✱69/3	✱84/10	✱98/6	—	—
Straight chambers with four branches in all ..	✱79/–	✱94/7	✱110/8	—	—
Straight chambers with five branches in all ..	✱88/9	✱104/4	✱122/10	—	—
Straight chambers with six branches in all ..	✱98/6	✱114/1	✱135/–	—	—
Straight chambers with four branches one side	●92/8	✱108/9	✱131/2	—	—
Straight chambers with five branches in all ..	●102/4	✱118/3	143/4	—	—
Straight chambers with six branches in all ..	●112/2	✱128/–	✱155/6	—	—
Straight chambers with seven branches in all ..	●121/10	✱137/9	✱167/8	—	—
Straight chambers with eight branches in all ..	✱131/8	✱147/6	✱179/10	—	—

The branches to the above are at 135°

		4″	6″
Extra for branches between 135° and 180°	each	7/4	7/4
✱Extra for branches between 90° and 135° other than standard angles	each	5/10½	5/10½

	4″×4″	6″×4″	6″×6″
Curved chambers, no branch 90°–112½°	each ●26/10	—	✱37/1
Curved chambers, no branch 135°	each ●26/10	—	✱37/1
Curved chambers, one branch 135°	each ●33/2	✱46/9	✱52/8
Curved chambers, two branches 135°	each ✱39/–	✱63/5	✱74/1

Channels in White Glazed Ware (Unselected Quality)

		4″	6″	9″
Half round straight channels, 6″ long ..	each	2/4	3/2	5/3
Half round straight channels, 12″ long ..	each	3/3	4/5	6/11
Half round straight channels, 18″ long ..	each	4/–	5/3	8/5
Half round straight channels, 24″ long ..	each	4/8	6/4	10/6
Half round straight channels, 30″ long ..	each	5/10	7/11	13/2
Half round straight channels, 36″ long ..	each	7/–	9/6	15/9
Half round ordinary or long channel bends	each	8/5	12/11	21/–
Half round ordinary or short channel bends	each	6/–	8/5	—
Three-quarter round ordinary branch bends	each	8/1	11/8	—
Three-quarter round ordinary branch bends, midgets	each	7/3	—	—

		6″×4″	9″×6″
Half round taper channels 24″ long ..	each	7/10	11/3
Half round taper channel bends	each	10/3	17/9

These prices are subject to 20% discount.

● Items marked thus have risen since May 11.

DRAINLAYER—(*continued*)

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 ..	each	1/10½	2/9½	5/0½
Ditto, short	each	1/10½	2/9½	—
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	4/8½	8/5½

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

Manhole Covers

		Black	Galvanised
24″ × 18″ single seal for foot traffic. (Weight 0.3.0 in lots of 24)	each	14/6	25/9
24″ × 18″ single seal for light car traffic. (Weight 2 cwt. in lots of 24)	each	38/9	65/3
24″ × 18″ Wood Block pattern. For road traffic. (Weight 3 cwts.)	each	Coated 63/–	

		Fine Cast	Galv.
Cast step irons, 13½″ long, 6″ wide, 9″ in wall, approximate weight 5½ lbs. each	per dozen	14/9	25/6

		4″	6″
Galvanized fresh air inlets with cast brass fronts (L.C.C. pattern)	each	5/6	20/8

MASON

Yorkstone

Building quality Robin Hood and Woodkirk Blue Stone.

Blocks scrappled, random sizes ..	per foot cube	4/6
Add for blocks to dimension sizes ..	per foot cube	6d. (each dimension)
Templates with sawn beds, edges rough (up to 4 ft. super and not over 2′ 6″ long)	per foot cube	5/–
Templates with sawn beds, sawn one edge	per foot cube	6/–
Templates with sawn beds, sawn two edges	per foot cube	7/–
Prices f.o.r. Yorkshire, railway rate to London Station per ton. (Minimum 6-ton loads.)		18/3

Ancaster Stone

Freestone, random blocks	per foot cube	3/6
Brown weather bed stone selected for polishing all brown blocks	per foot cube	8/–
Brown and blue weather bed stone selected for polishing	per foot cube	7/–

Prices f.o.r. Ancaster, railway rate to London Station approximately 11½d. per foot cube (minimum 6-ton loads).

White Mansfield Stone

Random blocks (yellow bed) for dressings	per foot cube	4/–
Random blocks (hard middle bed) for steps, pads, pavings and copings	per foot cube	3/6
Prices f.o.r. Mansfield, railway rate to London station, 6 ton lots	per foot cube	1/2

Bath Stone

Random blocks, delivered railway trucks, Paddington or South Lambeth	per foot cube	2/10½

Portland Stone

Whitbed, in random blocks of 20 feet cube average, delivered railway trucks Nine Elms, South Lambeth or Paddington	per foot cube	4/5
Basebed—add to the above	per foot cube	–/3
For every foot over 20 ft. cube average —add per foot cube		–/1
For every foot over 30 ft. cube average—add per foot cube		–/0½

¾″ Thick Plain Marble Wall Linings

Roman Travertine	per foot super	5/–
Golden Travertine	per foot super	6/3
Roman stone	per foot super	4/6
Hopton-wood stone	per foot super	5/–
Second statuary	per foot super	4/6
Sicilian	per foot super	4/–

Artificial Stone

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

✱ Items marked thus have fallen since May 11.

CURRENT PRICES

BY DAVIS AND BELFIELD

MASON, SLATER, TILER AND ROOFER, AND CARPENTER

MASON—(*continued*)

Reconstructed Stone to match Natural Stone

Sills, lintols, coping, cornices, ashlar, etc., average size per foot cube	11/–
Window sills, 9″ × 3″ section .. .. per foot run	2/1
„ „ 7″ × 3″ section .. .. per foot run	2/–

Slate Slabs, cut to size and Planed

	1″	1½″	1¾″
Not exceeding 4′ 6″ long or 2′ 3″ wide per foot super	3/1	3/4	3/11
„ „ 6′ 6″ long or 3′ 3″ wide per foot super	3/9	4/1	4/10
Exceeding 6′ 6″ long or 3′ 3″ wide per foot super	4/1	4/6	5/2
Rubbed faces .. .. .. per foot super	–/5	–/5	–/6
„ edges .. .. .. per foot run	–/4	–/4	–/5

Combined Slate Cills and Window Boards for Metal Windows

Window Width	Straight Cills Wall thickness 9″	11″	13½″	Circular Cills for C.O.P. Frames Radius	External reveals 2″	4½″
1′ 8″ ..	4/–	4/8	5/8	2′ 4½″ ..	21/–	24/–
3′ 8½″ ..	7/4	8/7	10/4	2′ 7½″ ..	25/6	28/6
4′ 10½″ ..	10/6	12/3	14/10	2′ 10½″ ..	30/–	33/3

SLATER, TILER AND ROOFER

Best Bangor Slates

	£	s.	d.
24″ × 12″ .. .. per 1,000 actual	38	10	0
22″ × 12″ .. .. per 1,000 actual	27	19	0
22″ × 11″ .. .. per 1,000 actual	25	4	9
20″ × 12″ .. .. per 1,000 actual	24	14	6
20″ × 10″ .. .. per 1,000 actual	21	15	5
18″ × 12″ .. .. per 1,000 actual	20	19	3
18″ × 10″ .. .. per 1,000 actual	17	7	6
18″ × 9″ .. .. per 1,000 actual	15	11	9
16″ × 12″ .. .. per 1,000 actual	17	14	9
16″ × 10″ .. .. per 1,000 actual	15	11	9
16″ × 9″ .. .. per 1,000 actual	13	19	6
16″ × 8″ .. .. per 1,000 actual	12	1	11

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

Old Delabole Slates (f.o.r.)

Standard sizes.

Prices and computed weights per 1,200.

		20″ × 10″	16″ × 10″
Grey medium gradings	per 1,200 cwts.	558/– 38	366/– 30
Unselected greens (V.M.S.) ..	per 1,200 cwts.	628/– 44	413/– 36

Random sizes.

Prices per ton and computed covering capacities in squares per ton.

		No. 1 Grading 24″/22″ to 12″/10″
Grey	per ton	128/–
Covering cap. :	per ton (3″ lap)	2·37 squares
	per ton (4″ lap)	2·19 squares

		No. 2 Grading 24″/22″ to 12″/10″
Weathering grey greens (V.M.S.)	per ton	139/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares

		No. 2 Grading 24″/22″ to 12″/10″
Weathering greens (V.M.S.) ..	per ton	149/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares

		No. 2 Grading 24″/22″ to 12″/10″
Rustic reds (25%) and weathering greens (V.M.S.)	per ton	174/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares

Railway rate to Nine Elms, London, minimum 4 tons, 21/9, minimum 6 tons per truck, 18/1 per ton.

Tiles

	£	s.	d.
Hand-made sandfaced 10½″ × 6½″ red roofing tiles per 1,000	4	15	0
Machine-made sandfaced 10½″ × 6½″ red roofing tiles per 1,000	4	0	0
Berkshire rustic pantiles .. .. .. per 1,000	18	10	0

● **Items marked thus have risen since May 11.**

SLATER, TILER AND ROOFER—(*continued*)

Westmorland Green Slates

	Price per ton	Bests, 24″ to 12″ long. Proportionate widths Computed cover in sq. yds. per ton
Random sizes.		
No. 1 Buttermere fine light green ..	240/–	30
No. 2 „ light green (coarse grained)	215/–	27–28
No. 5 „ olive green (coarse grained)	197/–	25–27
No. 3 Medium green	197/–	25–26
No. 7 Elterwater fine light green ..	216/–	27–28
No. 15 Tilberthwaite fine light green ..	214/–	26–28
No. 16 „ light green (coarse grained) ..	202/–	25–27
● Broughton Moor, light sea green, olive green, silver grey green, and mixed shades	237/–	27

Prices include for delivery to any station, minimum 6-ton truck loads.

Asbestos-cement

● 6″ corrugated sheets, grey .. .. per yard super	3/0¾
● Standard 3″ corrugated sheets, grey .. .. per yard super	2/9½

Slates :—

		£	s.	d.
✱ 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 5% trade discount.

Cedar Wood Tiles

Canadian cedar wood shingles .. per square 32/– (normal quantity).

Prices include for delivery to nearest railway station in England but vary with quantity.

CARPENTER

Carcassing Timber

Prices are for Standards in one delivery; when less than a standard is required, or special lengths, add £1 per standard.

	Per standard £ s. d.	Per foot cube
● 4″ × 11″ Scantling	25 5 0	3/0¾
● 4″ × 9″ „	24 15 0	3/–
● 3″ × 11″ „	23 10 0	2/10½
● 2″ × 11″ „	24 0 0	2/11
● 3″ × 9″ „	23 0 0	2/9½
● 2″ × 9″ „	23 10 0	2/10½
● 3″ × 8″ „	22 0 0	2/8
● 2″ × 8″ „	22 0 0	2/8
● 3″ × 7″ „	21 0 0	2/6½
● 2″ × 7″ „	21 0 0	2/6½
● 4″ × 6″ „	25 0 0	3/0½
● 3″ × 6″ „	22 0 0	2/8
● 2″ × 6″ „	21 0 0	2/6½
● 3″ × 5″ „	22 10 0	2/8¾
● 3″ × 4″ „	22 0 0	2/8
● 2″ × 5″ „	20 0 0	2/5¼
● 2″ × 4″ „	20 10 0	2/6
1½″ × 11″ „ (20 ft. lengths and over)	per ft. run	–/4½
1½″ × 9″ „ (20 ft. lengths and over)	per ft. run	–/3¾
1½″ × 7″ „ (20 ft. lengths and over)	per ft. run	–/2¾

Yellow Deal Battens

● ¾″ × 1″	per 100 feet run 1/5
● ¾″ × 1½″	per 100 feet run 2/6
● ¾″ × 2″	per 100 feet run 3/–
● 1″ × 2″	per 100 feet run 4/9
● 1½″ × 2″	per 100 feet run 6/–

Deal :— *Weather Boarding*

● ¾″ × ¼″ × 6″ Feather edge	per square 12/–
¾″ × ¼″ × 4″ Feather edge	per square 9/6

Western red cedar :—

● 1″ × 6″ Drop sidings	per square 38/–
● 11/16″ × 3/16″ × 6″ Feather edge	per square 13/–
¾″ × ¼″ × 4″ Feather edge	per square 13/6

Deal :— *Roof Boarding*

● ¾″ × 6″	per square 16/6
● 1″ × 6″	per square 21/–

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TO BE CONTINUED IN NEXT ISSUE